



3rd Ad Hoc Working Group meeting

Revision of the EU Ecolabel criteria for the Textile product group

JRC- IPTS, Brussels

23rd April 2013

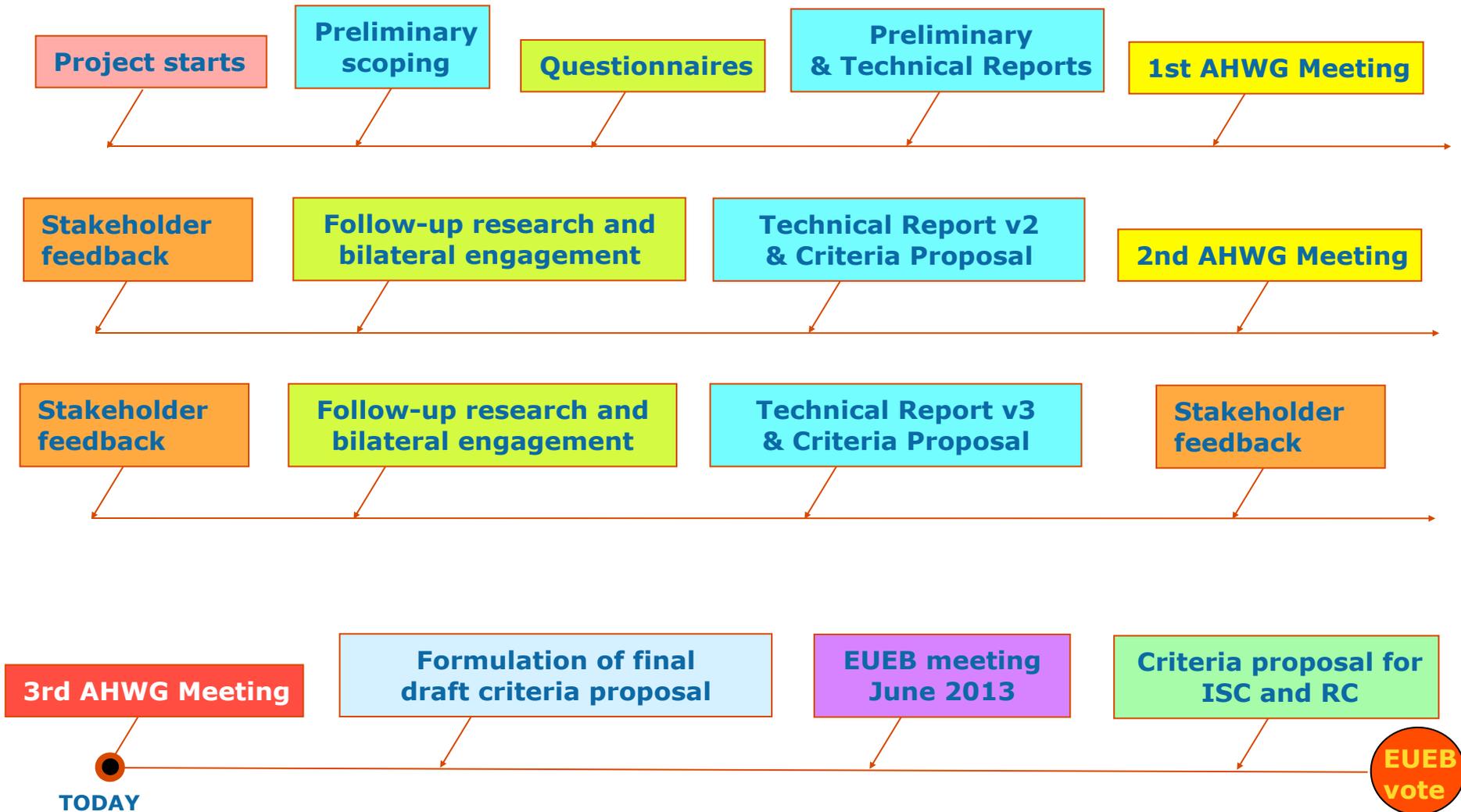


Ecolabel Regulation (EC) 66/2010

What is the EU Ecolabel?

- The EU Ecolabel is a voluntary market instrument
- Product criteria should be designed to reflect and to recognise the best 10-20% products in the market.
- The focus shall be on the most significant environmental impacts and the proposed criteria shall be science based and based on a whole life cycle approach.
- Article 6 `General requirements for criteria'
 - Substitution of hazardous substances and health aspects
 - Durability and re-usability of products
 - Social and ethical aspects
 - Criteria established by other environmental labels

Criteria development process





3rd AHWG for the textile criteria revision

Aims and objectives

Aim: To focus attention on critical and still open criteria areas, the outcome from which will be used to inform the final criteria proposal

- Ensure that all views are understood
- Find a broad consensus on final proposed ambition levels
- Refine the technical focus where appropriate
- Seek specific proposals to move forward
- Ensure that verification is understandable and workable



3rd AHWG for the textile criteria revision

Next steps

1. Continuation of bilateral discussions (Apr-Jun)
2. Agreement of AHWG3 minutes and follow-up of actions (Apr-May)
3. Publish revised Technical Report and Draft Criteria (3rd wk May)
4. Consultation period (4 wks until 3rd wk June)



3rd AHWG for the textile criteria revision

Structure for the day

Session one: Fibre criteria

- Focus on cotton, wool, polyamide and polyester
- Time-limited forum for fibre comments

→ Coffee break

Session two: Chemicals and process criteria

- Focus on RSL, hazard classes, process efficiency, air emissions
- Time-limited forum for fibre comments

→ Lunch break

Session three: Fitness for use criteria

- Focus on durable function and pilling
- Time-limited forum for fitness for use comments

→ Coffee break

Session four: Corporate Social Responsibility criteria



3rd Ad Hoc Working Group meeting

Revision of the EU Ecolabel criteria for the Textile product group

Background to the revision

JRC- IPTS, Brussels

23rd April 2013

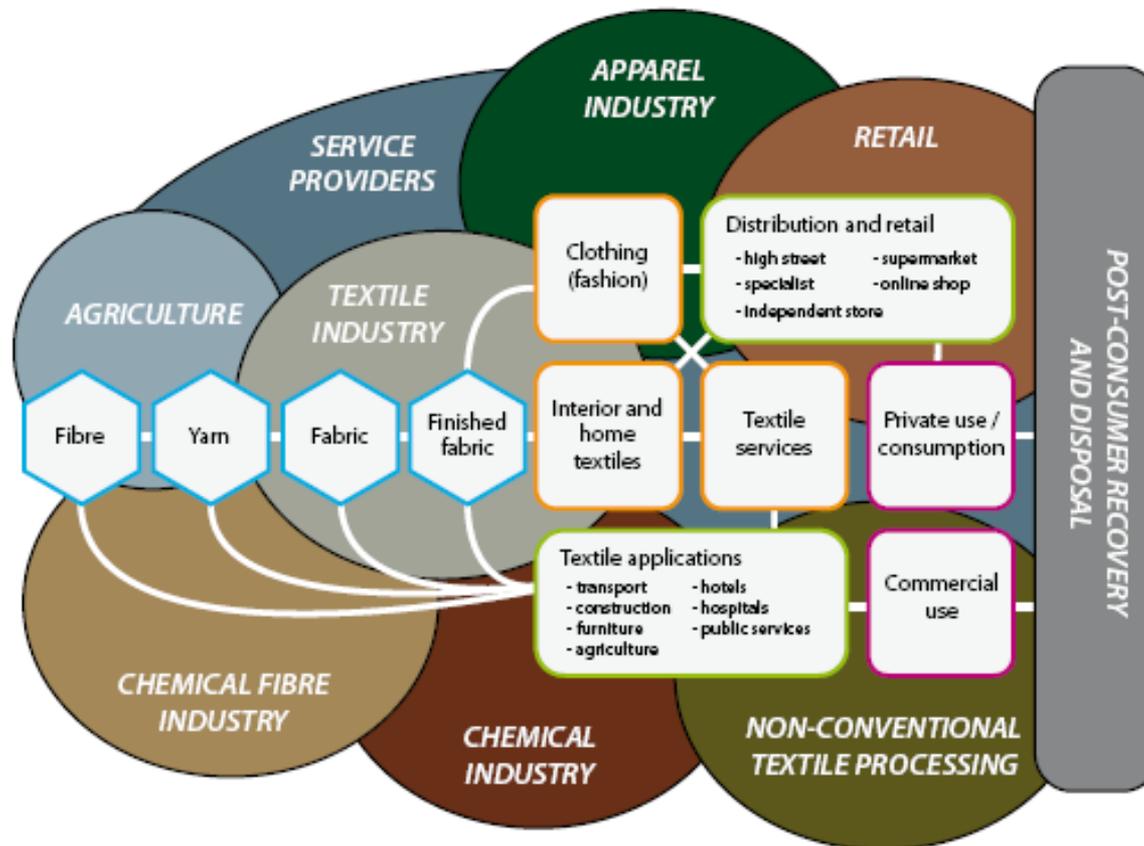
Structure of the existing criteria **EU Ecolabel Textiles Decision (2009/567/EC)**

'[the promotion of] the reduction of water pollution related to the key processes throughout the textile manufacturing chain, including fibre production, spinning, weaving, knitting, bleaching, dyeing and finishing.'

- Textile fibre criteria (9 criteria)
- Processes and chemicals criteria (24 criteria)
- Fitness for use criteria (7 criteria)

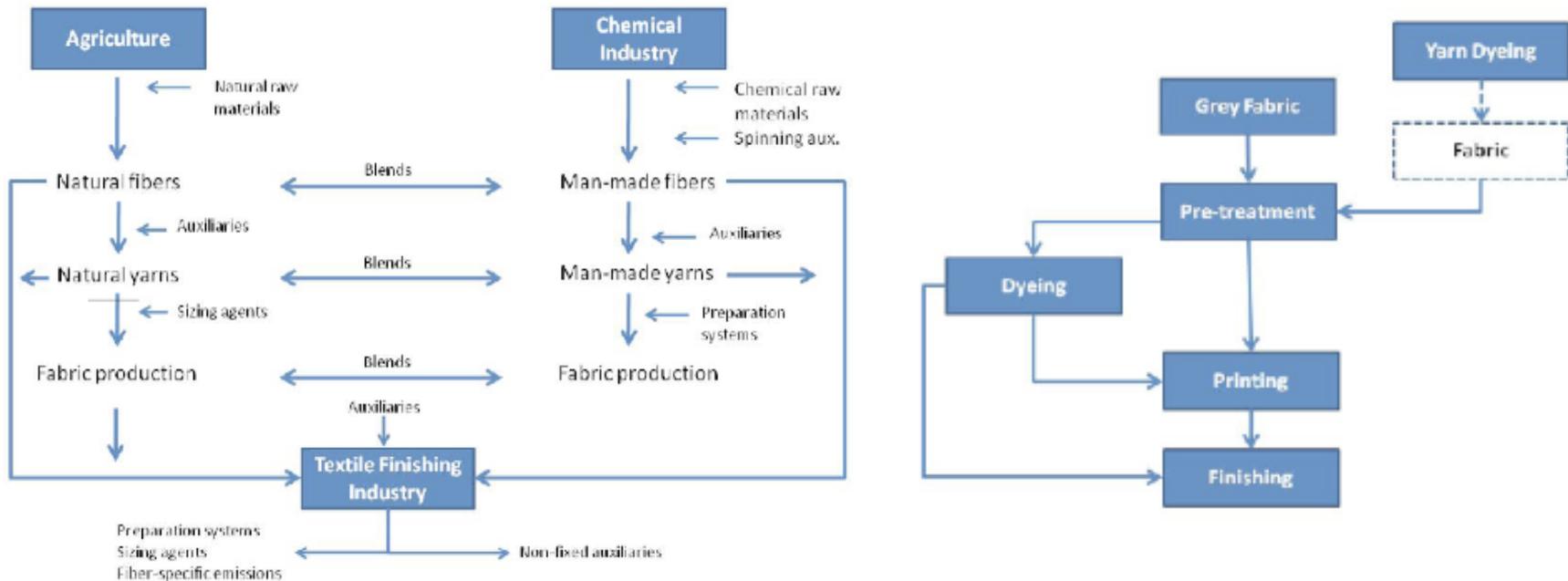
Whole life cycle approach

Textiles is a complex product system



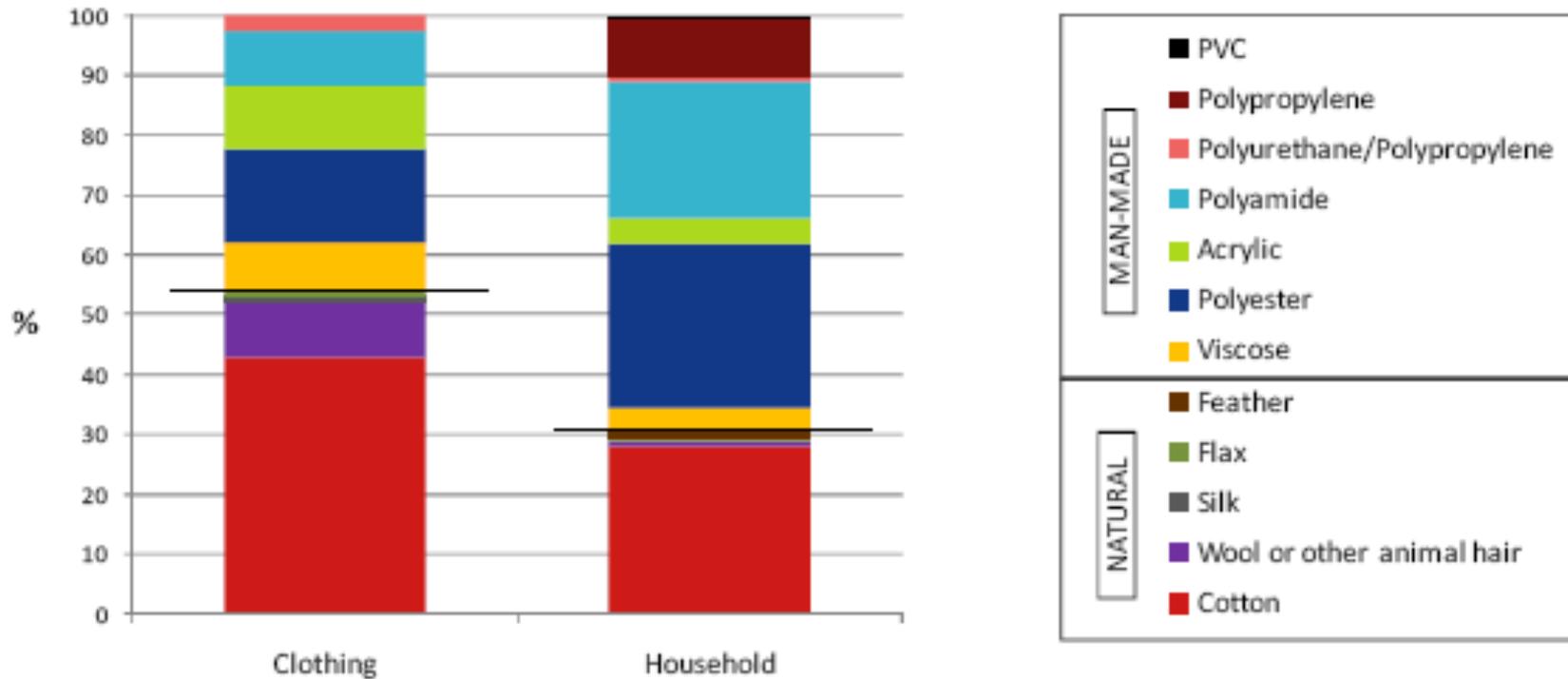
Whole life cycle approach

Multiple and varying process steps



Three main product market segments

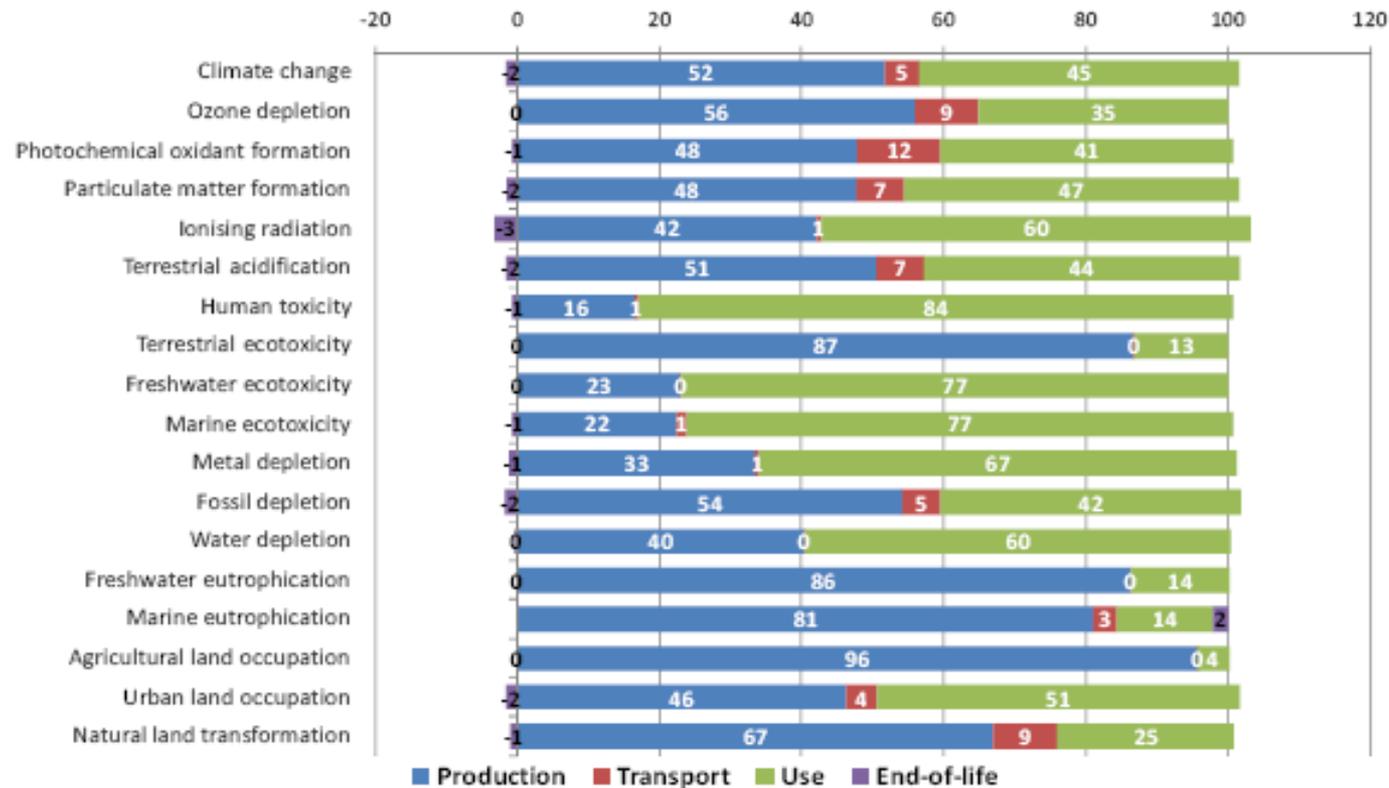
Fibres, yarns and fabrics



Consumption share for textile fibres [%], [IMPRO, 2009]

EU Ecolabel criteria development

LCA highlighted specific areas of focus (1)

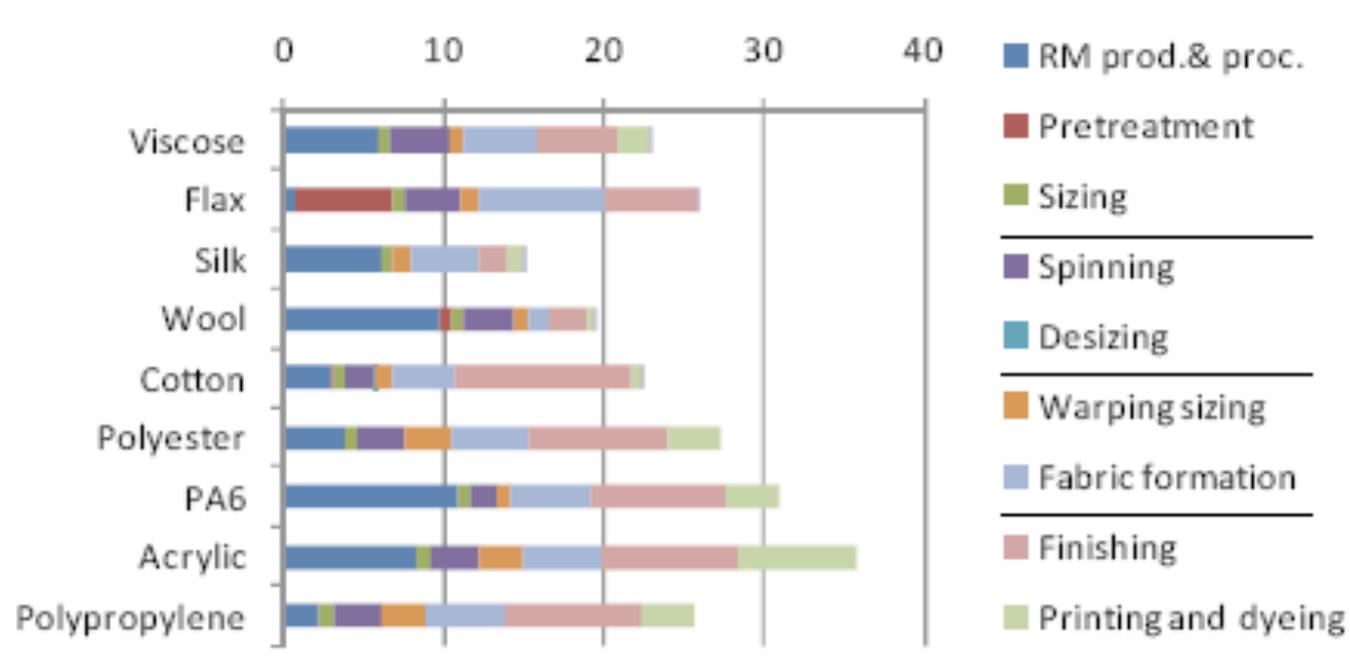


EU textile LCA midpoint categories

Source: JRC-IPTS 2012]

EU Ecolabel criteria development

LCA highlighted specific areas of focus (2)



Impacts on climate change of textile production according to fibre type and production phases in kg CO₂ eq/kg fabric Source: JRC-IPTS, 2012

EU Ecolabel criteria development

LCA highlighted specific areas of focus (3)

- The Environmental Improvement Potentials of Textiles (IMPRO Textiles), Author: JRC European Commission, BIO Consulting
- The Danish EDIPTEx, Environmental assessment of textiles study, Author: Danish EPA
- Supplementary LCA evidence:
 - *Sectoral overview: JRC, University of Cambridge*
 - *Fibre comparisons: Plastics Europe, Utrecht University*
 - *Blends: Tampere University*
 - *Use phase: Chalmers University*
 - *Closed loop recycling: Utrecht University*
 - *Industry: Patagonia, M&S, Natureworks, Levi*

JRC-IPTS preliminary report, February 2012

Framework for the criteria revision

- 1. Focussed technical updates:** based on BREF and technical evidence review
- 2. Improved life cycle perspective:** based on a fibre and product LCA review
- 3. Reflect product best practice:** based on eco-innovation by manufacturers, retailers and brands
- 4. Explore options for label and initiative harmonisation:** based on a review of state, NGO and private label scheme criteria
- 5. Improve focus on opportunities in target market segments:** based on textile labels, public procurement consumer and industry priorities

Draft criteria, February 2013

Proposed restructuring of the criteria

Textile fibres (9 criteria)

Components and accessories (3 criteria)

Chemicals and processes (7 criteria)

Corporate Social Responsibility (2 criteria)

Fitness for use (8 criteria)

Information appearing on the Ecolabel

Annexes

- RSL master list
- Product testing matrix

Draft criteria, February 2013

Key areas where open issues remain

Textile fibres (9 criteria)

- Cotton, wool, polyamide, polyester

Chemicals and processes (7 criteria)

- RSL, hazard derogation framework, process efficiency, emissions to air

Corporate Social Responsibility (2 criteria)

- Retain in the light of Social Task Force?

Fitness for use (8 criteria)

- Durability of function, pilling

Information appearing on the Ecolabel

Annexes

- RSL master list
- Product testing matrix



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Fibre criteria

JRC- IPTS, Brussels

23rd April 2013

C1-C9: Fibre criteria

Restructuring of the criteria

- Natural fibres: Cotton and other natural cellulosic seed fibres, flax and other bast fibres, greasy wool and other keratin fibres, silk;
- Synthetic fibres: Acrylic, elastane, polyamide, polyester and polypropylene;
- Man-made cellulose fibres: Cupro, lyocell, modal and viscose.

C2: Cotton and other natural cellulosic seed fibres

Major proposed revisions

- A minimum requirement for *either* Integrated Pest Management (IPM) techniques + pesticide testing *or* 50% organic cotton content
- A requirement for the certification of IPM cotton by specified certification schemes (or their equivalent)
- Updates to the pesticide safeguard list to better reflect hazardous and commonly used substances
- Exemption of IPM cotton from pesticide testing under specific conditions
- A requirement for traceability of IPM and organic cotton until at least the unfinished greige fabric stage.

C2: Cotton and other natural cellulosic seed fibres

Summary of post-AHWG2 feedback

Specific additional pesticides were proposed for addition to the testing list.

- Alachlor, glyphosate (1071-83-6), ammonium sulfamate
- Restrict pesticides classified by WHO as 1a and 1b.

Views on a minimum organic content standard were still split. Greater minimum requirements would restrict to a low market share

- False content claims were raised as a major concern
- High content (50-100%) is clear message to consumer

C2: Cotton and other natural cellulosic seed fibres **Summary of post-AHWG2 feedback (2)**

Introduction of IPM (Integrated Pest Management) techniques

- Manufacturers of commercial textiles want to see IPM as an alternative
- Organic and IPM cotton should not be considered together/as equal
- Currently only IPM guidelines and verification is not mature
- The improvement potential requires clarification

C2: Cotton and other natural cellulosic seed fibres

Screening and updating of pesticide list

- Further screening and updating of the existing listing
 - WHO pesticide hazard classifications
 - Rotterdam Convention PIC list
 - Stockholm Convention on Persistent Organic Pollutants (POP's)
- Literature listings of commonly used pesticides in cotton growing
- Pesticides in WHO toxicity class I (1a and 1b) for possible addition.

Proposal: Addition of alachlor, aldicarb, cypermethrin, endosulfan, methyl-o-dematon, thiofanex and triazophos

C2: Cotton and other natural cellulosic seed fibres

Screening of pesticides according to hazard status

Active Ingredient	WHO Class	China	India	USA	Pakistan	Brazil	Benin	Carmeroon	Mali	Turkey	Australia
Parathion	1a			x							
Cypermethrin	1b		x			x		x	X		
Methyl-o-demeton	1b		x								
Methamidophos	1b								X		
Monocrotophos	1b	x	x						X		
Thiofanex	1b								X		
Triazophos	1b				x						

Source: Mancini, F (2006)

C2: Cotton and other natural cellulosic seed fibres

Screening of IPM schemes for pesticide restrictions

Pesticide restrictions and hazard classes	Conformity of scheme criteria and systems			
	Better Cotton Initiative	Cotton Made in Africa	Fair Trade	BMP (Australia)
WHO Class I (1a and 1b) substances	Phase out plans are required for producing countries and/or regions	Complete restriction of listed substances	Complete restriction of listed substances	No restrictions other than those of the APVMA at national level
Rotterdam Convention on Prior Informed Consent Procedure (PIC)		Complete restriction of listed substances	Complete restriction of listed substances	No restrictions
Stockholm Convention on Persistent Organic Pollutants (POP's)	Complete restriction of listed substances	Complete restriction of listed substances	Complete restriction of listed substances	No restrictions
Additional specific substances	Endosulfan	<i>None specified</i>	<i>See 'amber' list of substances</i>	<i>See above</i>

C2: Cotton and other natural cellulosic seed fibres

Verification and traceability of content claims

Traceability from ginning/baling to final product is main area of concern

- Decline in organic cotton production (2011) despite estimated market growth 19.4%
- Review of traceability requirements within existing organic and IPM certification schemes
 - Textile Exchange's 100% and 5% blended standards, GOTS and Fair Trade
 - Requirements based on invoices and transaction certificates, from farm until, as a minimum, greige fabric production.

Proposal: Traceability from farm until greige fabric, allowing existing certifications where they provide an equivalent level of assurance.

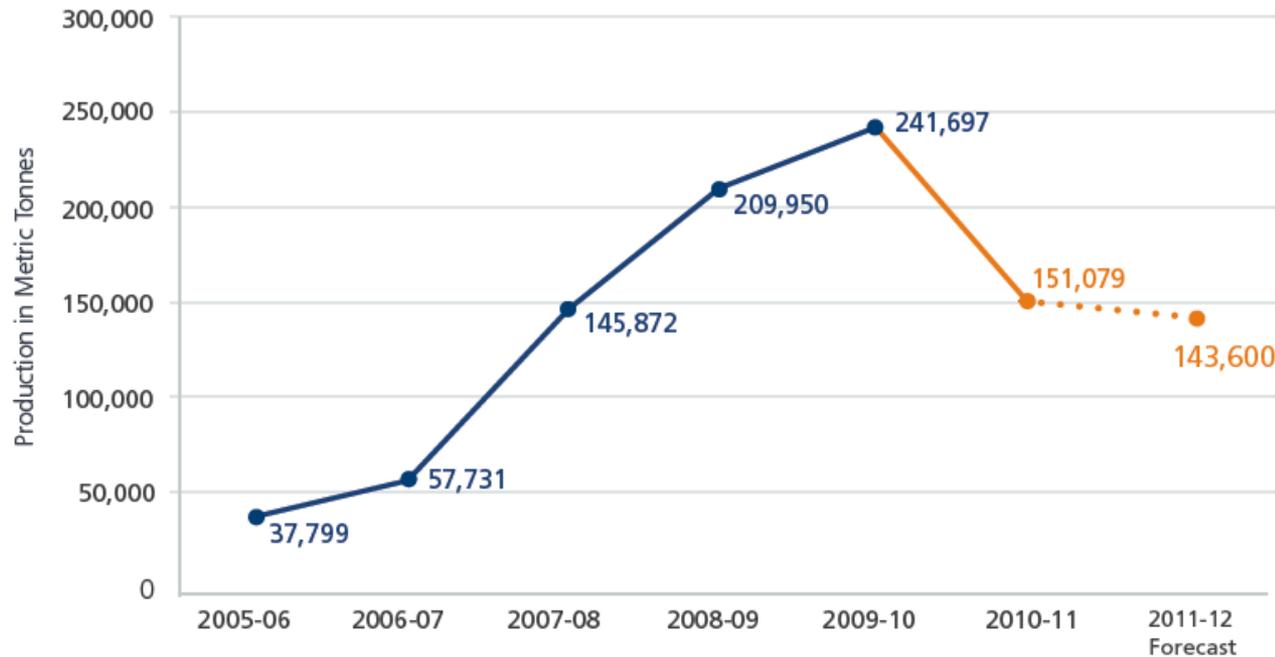
C2: Cotton and other natural cellulosic seed fibres **Raising the minimum organic content (1)**

Understanding the market

- Consumers respond to high content
- For high street retailers 25% is a possible upper cost/value limit
- Demand drives supply, evidenced by the rapid growth 2006-2010
- Recent data (2010-12) highlights a dramatic dip in production

Without the continued sustained growth in availability it would therefore be difficult to justify a more ambitious requirement for organic cotton.

C2: Cotton and other natural cellulosic seed fibres **Raising the minimum organic content (2)**



Organic cotton production trend – 2010-2011 (Textile Exchange 2012)

C2: Cotton and other natural cellulosic seed fibres **Raising the minimum organic content (3)**

But, the criteria should in some way reflect the content strategies of organic textile retailers.

Proposal: To make organic cotton optional, without reference to product segments, but with a requirement for between 25% and 50% content in order to drive demand and reflect consumer expectations.

C2: Cotton and other natural cellulosic seed fibres **Evidence base for IPM environmental improvements (1)**

Summary derived from the evidence base:

- Reduction in pesticide use by between 30% and 90%
- Highest yield for cotton crops, +11% to +47% compared to conventional cultivation
- Lowest proportional impacts associated with fertiliser use (whether artificial or organic)

Additional benefits:

- Reduced exposure of workers
- Learning by neighbouring farmers
- Reductions in soil erosion.

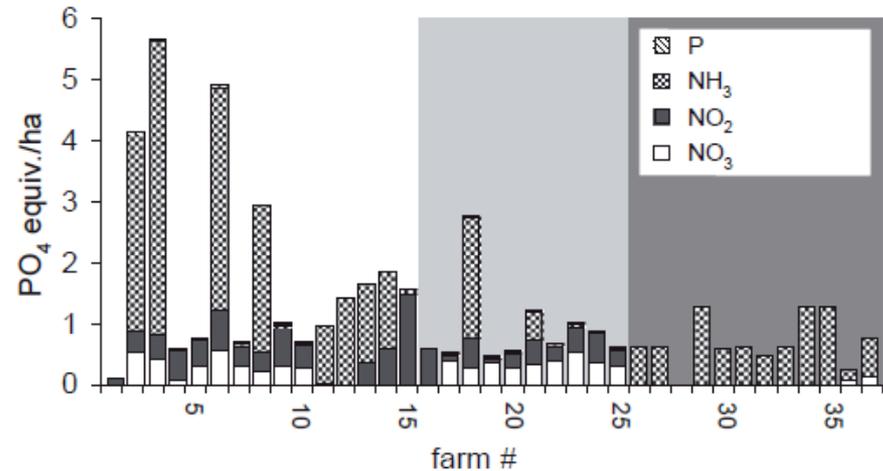
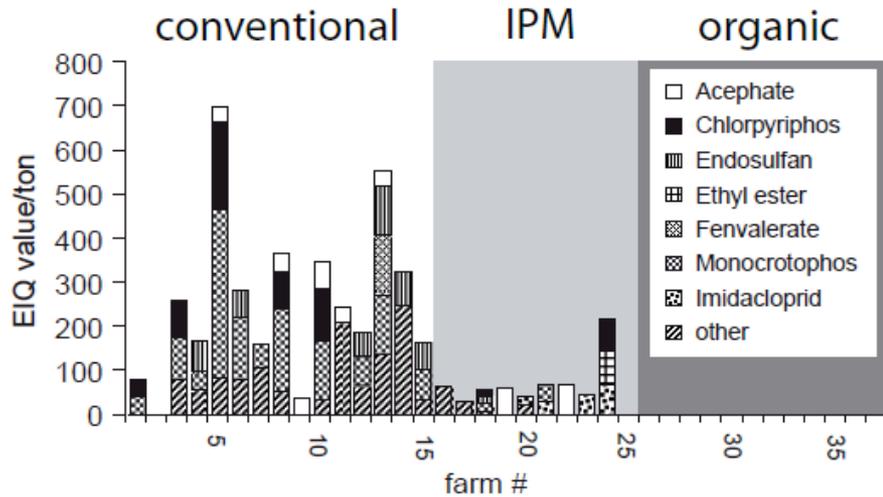
C2: Cotton and other natural cellulosic seed fibres **Evidence base for IPM environmental improvements (2)**

Review of scientific evidence drawing upon UN FAO, EU, US and Australian monitoring reports

- IPM farmer training programmes supported by the UN FAO and the EU in Bangladesh, China, Egypt, India, Pakistan, Syria, Vietnam.
- USDA and Australian governments have supported IPM programmes for over a decade.
- Monitoring of these various programmes means there is an evidence base for the environmental improvement potential of IPM.

C2: Cotton and other natural cellulosic seed fibres

Evidence base for IPM environmental improvements (3)



a) Environmental Index Quotient (EIQ)

b) Eutrophication potential

Comparison of and for conventional, IPM and organic cotton cultivation on selected farms in India

Source: Karst J. Kooistra, Francesca Mancini and Aad J. Termorshuizen (2006)

C2: Cotton and other natural cellulosic seed fibres

Selecting IPM schemes for recognition

Assessment of scheme criteria against UN FAO definition:

- BCI and BMP appear to provide good coverage
- CMiA had fair coverage
- Fair Trade had poor coverage

Verifications takes place at cotton company, producer group and farmer level

Government programmes follow the UN FAO definition in order to obtain funding

Proposal: BCI, BMP and CMiA are accepted as providing third party verification for IPM cotton. Producer groups covered by Government programmes following the UN FAO definition to be permitted.



C2: Cotton and other natural cellulosic seed fibres

Draft criteria proposal

C2: Cotton and other natural cellulosic seed fibres

Key open issues as of 15/03/13

- Can a high % organic requirement be justified?
- Would supporting IPM prevent the growth of organic?
- How are combinations of organic and IPM to be handled?
- Can the balance % be tested for pesticides?
- How shall the transition of existing ecolabelled lines be achieved?

JRC-IPTS view:

- Pesticide testing must have a sound scientific basis
- Introduction of IPM is a critical step

C2: Cotton and other natural cellulosic seed fibres

Options for finalising the criteria?

Three options for applicants?

- 1) x% pesticide tested 2) x% IPM 3) x% organic
- But pesticide testing sound scientific basis? (as for organic)

Simplified traceability requirements?

- Transaction certificates accompany greige fabric (where fully certified)

Calculation method for mixed content?

- Weighting of cotton specifications e.g. 1 unit IPM = 2 units organic

C5: Greasy wool and other keratin fibres

Major proposed revisions

- Ectoparasiticide testing is to be required on randomly selected composite farm lots of wool
- Compliance can now be documented using organic certifications, with the exception of pyrethryn ectoparasiticides that are permitted by certain systems
- Wool scouring operations shall meet revised COD limit values for effluent prior to any treatment and for final discharge to the environment.
- Value shall be recovered from grease, waste fibre and/or sludge

C5: Greasy wool and other keratin fibres

Summary of post-AHWG2 feedback (1)

- The proposal to introduce a minimum requirement for organic wool was not supported by a number of stakeholders.
- there are varying international definitions and allowable practices with, for example, EU Regulation (EC) 834/2007 cited as permitting the use of certain synthetic pesticides.
- Feedback on testing focused on the methodology and frequency of the testing, which was still felt to need improvement.
- preferred practice of applying residue tests to all farm consignments of wool (sales lots) in order to provide a higher level of assurance.

C5: Greasy wool and other keratin fibres

Summary of post-AHWG2 feedback (2)

- The option of being able to avoid testing where the farmer identity can be established
- should only be kept if it was to be supported by third party verification by an independent body.
- There were differing views about the gearing of COD limits to grease recovery and advanced wastewater treatment.
- The final COD achieved for the 180 g/kg starting value (= 45 g/kg wool) was felt by a number of stakeholders.
- With regards to the recovery of value from waste streams there was concern about applicability of different measures

C5: Greasy wool and other keratin fibres

Ectoparasiticides permitted in wool production

- Wool grown according to the production standards in Regulation (EC) No 837/2007 can contain restricted pesticides.
- Article 14 of the Regulation covers livestock production rules and clause 1(e)(ii) states that:

chemically synthesised allopathic veterinary medicinal products including antibiotics may be used where necessary and under strict conditions, when the use of phytotherapeutic, homeopathic and other products is inappropriate.
- it would still be necessary for the criteria to stipulate testing for insecticides which are permitted by Regulation (EC) No 837/2007.

Proposal: To retain the clause allowing verification if an organic certification is held, but with a requirement for the testing of pyrethroids, or any other substances permitted by a specific organic certification.

C5: Greasy wool and other keratin fibres

Improving the wool sampling frequency

- Buyers compiling an Ecolabelled wool lot need to be confident that lots will pass testing. This implies the pre-selection of farm lots of wool.
- Random testing may also pose commercial problems because it could take place at any time during the year.

Proposals:

- Requirement for composite testing of at least 10 randomly selected of sales lots from within each processing lot.
- Where at least 75% is from an identified farmer then declarations shall be independently verified.

C5: Greasy wool and other keratin fibres

Wastewater COD limit to encourage resource efficiency (1)

The main concern raised was in relation to the gearing of the COD limit to grease recovery levels.

- Evidence of higher levels of wool cleaning and grease recovery was therefore investigated further.
- that using a three stage grease recovery system 76-78% grease recovery can be achieved (approximately 74 - 104 g/kg) and that all of this grease can currently be sold on the world market
- the raw wool is opened and machined in order to achieve a high level of organic waste removal.
- The benefit to COD levels will, however, vary depending on the type of wool.

C5: Greasy wool and other keratin fibres

Wastewater COD limit to encourage resource efficiency (2)

mg/g greasy wool	1. Discharge to sewer	2. Dirt/grease recovery loop		3. Flocculation plant	4. Dirt/grease recovery (35%) + flocculation	5. Evaporation	6. Dirt/grease recovery + evaporation
		2a. 35% recovery	2b. 89% recovery				
Coarse wool							
COD discharged from mill	299	203	93	93	81	3.2	2.7
COD discharged to environment	75	51	23	23	16	20	0.7
Fine wool							
COD discharged from mill	529	352	170	118	97.4	4.8	3.7
COD discharged to environment	132	88	43	30	24	1.2	0.9

C5: Greasy wool and other keratin fibres

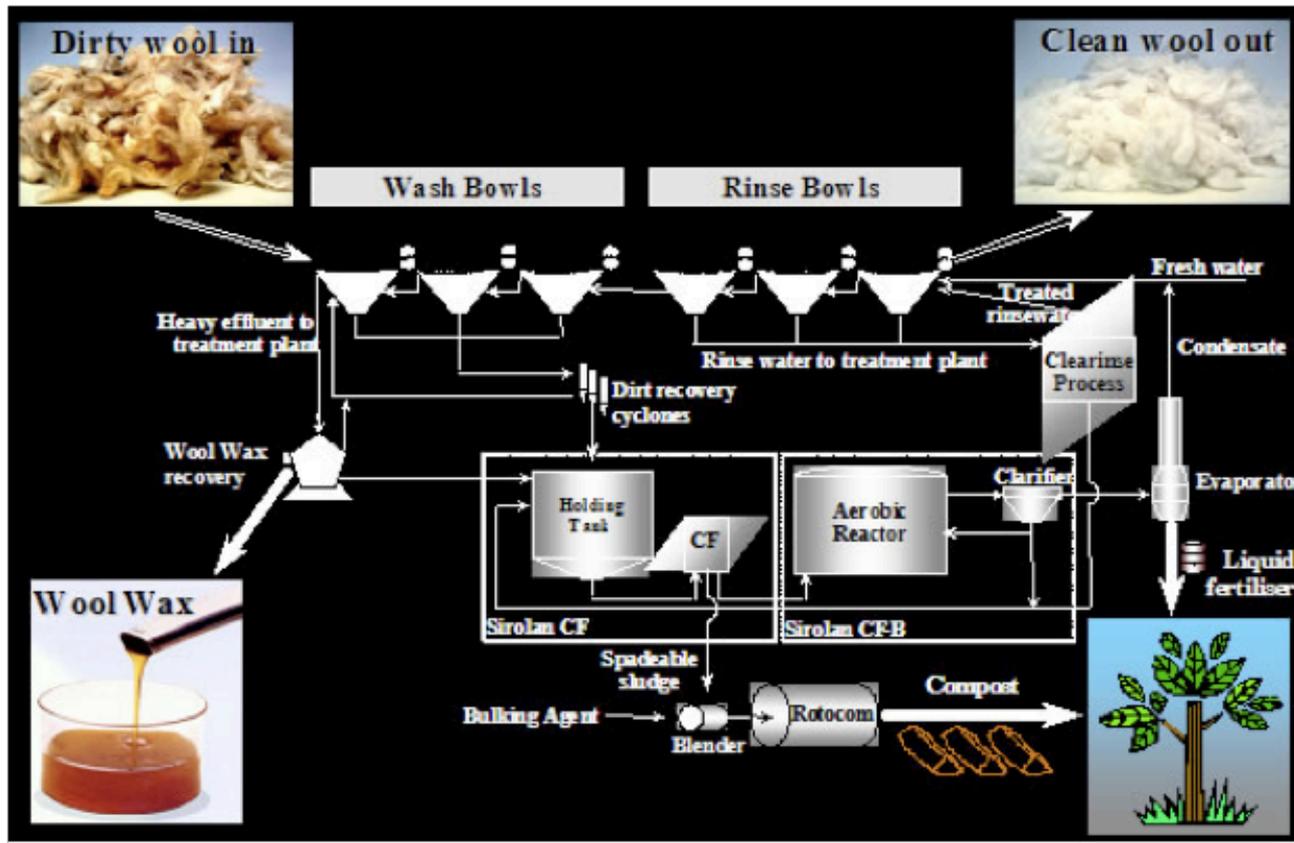
Wastewater COD limit to encourage resource efficiency (2)

It is proposed that two COD limits must be met, with differentiation based on wool grade, reflecting the approach taken by the textile BREF:

1. COD prior to any on-site treatment, set at a level that requires high levels of wool pre-cleaning and grease recovery.
2. Final effluent COD before discharge to the environment, requiring either on-site or off-site treatment to reduce COD by at least 75% to be defined by specific COD values.

C5: Greasy wool and other keratin fibres

Encouraging resource efficient scouring



Source: Australian Wool Innovation Ltd (2012)

C5: Greasy wool and other keratin fibres

Encouraging resource efficient scouring

The criteria proposal from September 2012 highlighted wool grease, suint and sludge for value recovery.

- Capital cost and complexity of suint (potassium-rich fatty acid salts) recovery.
- Some scours inject evaporated effluents into soils.
- Composting is implemented by scours in New Zealand and Australia
- Some scours choose high temperature incineration
- Scours in the EU and New Zealand use anaerobic digestion.

Proposal: Recovery of value from fibre, suint or sludge by at least one resource efficiency measure. Value recovery in form of composting, liquid fertiliser, anaerobic digestion or incineration.



C5: Greasy wool and other keratin fibres

Draft criteria proposal

C5: Greasy wool and other keratin fibres

Key open issues as of 15/03/13

- Does the additional organic requirement provide sufficient assurance?
- Does the composite sampling proposal balance assurance v. burden?
- Is the pre-treatment COD limit justifiable and achievable?
- Is the approach to resource efficiency sufficiently flexible?

C5: Greasy wool and other keratin fibres

Options for finalising the criteria?

Preferred options

1. Introduce option for scours that cannot meet pre-treatment requirement – two resource efficiency options to be achieved
2. Remove pre-treatment requirement, retain differentiation between coarse and fine wool COD discharges
3. Single wastewater discharge limit of 25 g/kg COD, derogation of 45 g/kg COD for scourers achieving dirt/grease recovery of >xx%

JRC-IPTS view:

- Resource efficiency is critical life cycle sub-criteria
- Derogation from COD limit for high levels of cleaning at source

C7: Polyamide and C9: Polyester

Minimum recycled content proposal

Polyamide

Minimum 'post-consumer' and/or 'pre-consumer' waste recycled content of 20% for PA6 and PA6,6 fibre

Polyester

Minimum 'post-consumer' waste recycled content of 20% for filament fibres and 50% for staple fibres.

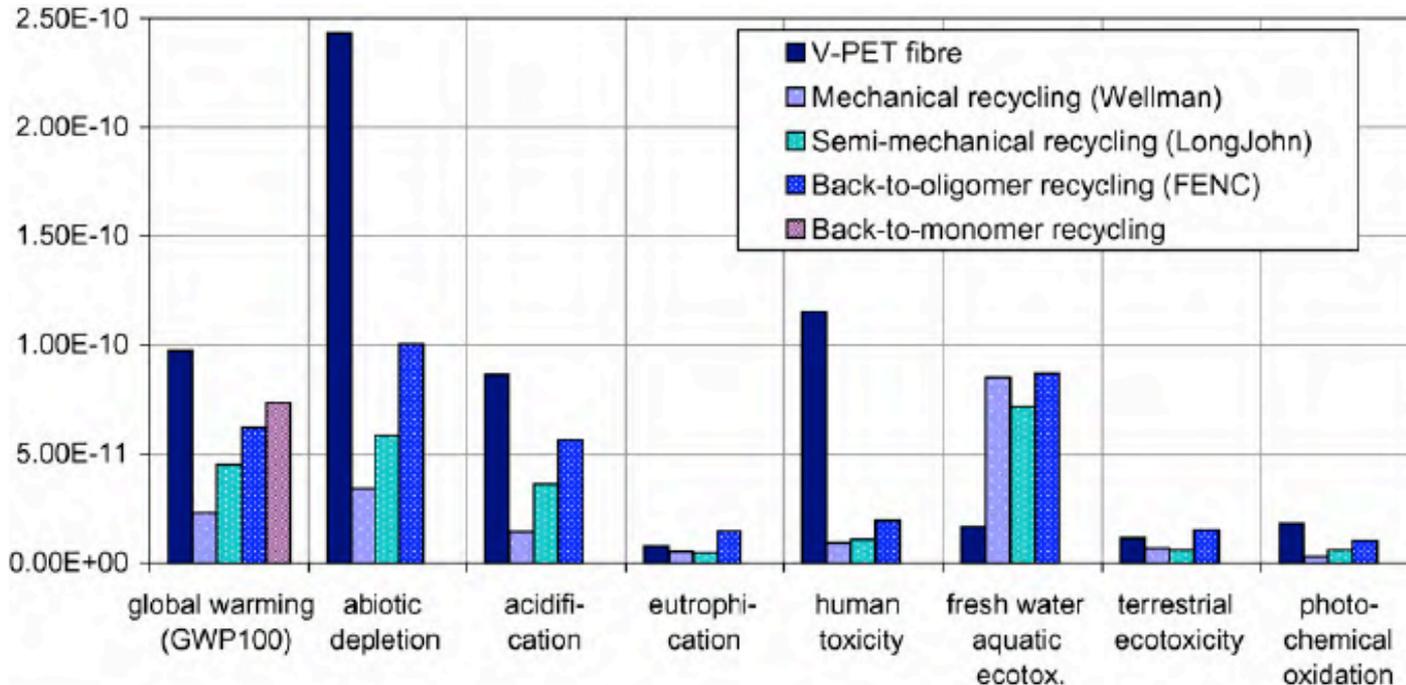
Alternative 'post-industrial' (pre-consumer) waste recycled content of 50% for filament fibres and 70% for staple fibres

Derogation framework

- Micro-fibres, medical applications, light colours and shades
- Products that must meet pre-defined legislative/international standards
- Existing Ecolabelled product lines with pre-defined quality requirements

C7: Polyamide and C9: Polyester

LCA evidence for environmental improvement



Normalised results for 1 ton of PET fibre using a "cut-off" approach with cradle-to-factory gate for second life. Source: Shen et al (2010)

C7: Polyamide

Summary of post-AHWG2 stakeholder feedback

- Proposed 3% recycled content minimum is not workable
 - A very low % would not justify the modification of production lines
 - 20% recycled raw material content was proposed for PA6 for PA66
- Recycled content was felt to be only one possible environmental improvement and others should be considered
- The recyclability of fibre should also be addressed by the criteria.
- Compared to PA6, chemical recycling is technically not viable, and mechanical recycling is very difficult.

C9: Polyester

Summary of post-AHWG2 stakeholder feedback

On balance the proposal was supported, but with technical reservations:

- Recycled content was felt to be only one possible environmental improvement and others should be considered
- The market diffusion of recycled content was queried e.g. fleece, outdoor clothing
- Exemptions proposals were welcomed, must be more specific and differentiated:
 - Existing commercial licenseholders raised concerns about technical feasibility
 - Commercial fabrics have much higher quality requirements than consumer fabrics.
 - Examples were also cited from public procurement e.g. military contracts
 - Controls on the quality of feedstock outside EU cited as a problem

C9: Polyester

Recycled content and product quality requirements (1)

- Consumer licenseholders had not encountered major barriers to 100% recycled content filament and staple fibre in a wide range of product lines.
- Commercial licenseholders raised concerns about transition of existing product lines and meeting specific quality requirements

General observations:

- Limited literature in relation to quality issues and dyeability.
- Gap in publicly available knowledge and research by industry
- Non-woven fleece and consumer products more tolerant

C9: Polyester

Recycled content and product quality requirements (2)

Consultation in order obtain a better understanding of quality issues

- Two major clothing retailers,
- Specialist commercial clothing manufacturer,
- Commercial textile manufacturer
- Textile innovation consultant

C9: Polyester

Recycled content and product quality requirements (3)

Common constraints identified:

- Lower abrasion/piling resistance and tensile strength;
- Difficulties achieving light colours, particularly white;
- Difficulties in colour matching, for example with uniforms;
- Difficulties achieving fabric finishes with a high degree of luster;
- Fluorescent whitening agents may be needed to mask colour variations

Measures to address quality constraints:

- Improved sorting and cleaning processes for PET bottles
- Use of solution dyeing to provide colour uniformity
- Use of pre-consumer recycled polyester to meet abrasion resistance requirements

C9: Polyester

Recycled content and product quality requirements (4)

Specific examples:

- Consumer fabrics: 15-25,000 Martendale cycles (a test method defined in ISO 12947-1:1998)
- Commercial fabric: At least 50,000 Martendale cycles, with customers tending to require greater.
- Military clothing with special camouflage patterns, uniforms where colour matching is required for each item

C7: Polyamide

Raising the minimum content to 20%

- Fibre products available in the market are manufactured from a blend of post consumer and post consumer waste
- This strategy reflects the limited current availability of post consumer sources of nylon
- Recycled nylon is available in a wider range of deniers than recycled polyester and dyeability is comparable
- Information on comparative mechanical strength and abrasion resistance could not be obtained

C7: Polyamide and C9: Polyester

Is a transition of existing commercial lines feasible?

- Existing licenseholders would need to retest new feedstock from new suppliers against pre-defined quality and colour shades
- The cost per product line could be in region of 5-10,000 euro, although each Ecolabel license tends to contain multiple lines
- Pre-consumer waste may need to be used to meet higher quality requirements e.g. abrasion resistance

Proposal: General derogation for where pre-existing quality specifications cannot be met, with flexibility to use pre-consumer content where necessary.

C7: Polyamide and C9: Polyester **Alternatives options to recycled content (1)**

JRC-IPTS view: Alternative options would need to be able to deliver comparable whole lifecycle improvements.

Option 1: ISO 50001 energy management standard

- Case studies indicate that savings in range of 2-30% may be achievable,
- Improvement potential will depend on the process stage energy efficiency measures already adopted

C7: Polyamide and C9: Polyester **Alternatives options to recycled content (2)**

Option 2: Feedstock BAT

Polyamide

- Caprolactam, adipic acid and cyclohexanone production account for 89.4% - 92.4% of primary energy and abiotic resource inputs
- Production sites within international JI scheme show a reduction in CO₂ emissions of 20-31% . N₂O abatement seen to rise from 90% to 97%, residual emissions reduced to 6-18 g N₂O /kg adipic acid

Polyester

- Para-xylene, terephthalic acid and ethylene glycol production account for 89% of primary energy and abiotic resource inputs
- Abiotic depletion is influenced by the feedstock extracted to manufacture polyester.

C7: Polyamide and C9: Polyester **Alternatives options to recycled content (3)**

Option 3: End-of-life consideration

- An existing licenseholder highlighted work to obtain the Cradle to Cradle certification for polyester
- A take-back service is being developed for commercial fabrics in conjunction with a manufacturer e.g. Patagonia and Henry Lloyd
- Textile services are common in the commercial and public contracts, offering the potential to take-back for polyester recycling



C7: Polyamide and C9: Polyester **Draft criteria proposal**

C7: Polyamide and C9: Polyester **Key open issues as of 15/03/13**

- How can the burden be minimised for existing licenseholders?
- Should alternative improvement options be provided and, if so, which?
- To what extent should the cycling of hazardous substances be considered?

'It is nevertheless accepted that recycled fibres may contain some of the dyes or other substances excluded by these criteria, but only if they were applied in the previous life-cycle of the fibres.'

C7: Polyamide and C9: Polyester **Proposed revision of definitions**

'Recycled fibres can originate from pre-consumer waste (including polymer and fibre production waste, cuttings from textile and clothing manufacturers) and post-consumer waste (textile and all kind of fibre and textile products, including non-textiles like plastic drinking bottles, fishing nets).'

'The required recycled content may be derogated only for textiles that have to meet specific conditions, e.g. which are set by legislation or internationally recognised standards and if there is proved evidence that quality specifications (such as abrasion or piling resistance, tensile strength, colour matching, flammability requirements....), that are arising from specific conditions of use, cannot be met, otherwise than by using 100% of virgin raw material'

C7: Polyamide and C9: Polyester

Options for finalising the criteria?

1. Require transition for a proportion of their licensed product lines, allowing 'recycled content' to be displayed on ecolabel
2. Provide alternative improvement options for where recycled content cannot be used
3. Derogate existing commercial ecolabel licenseholders

JRC-IPTS view:

- Existing licenseholders should be retained
- Derogating all existing (commercial) ecolabelled polyester would send wrong market signal
- Alternative improvement options would need to be equivalent in lifecycle improvement potential



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Revision of the EU Ecolabel criteria for the Textile product group

Chemicals and process criteria

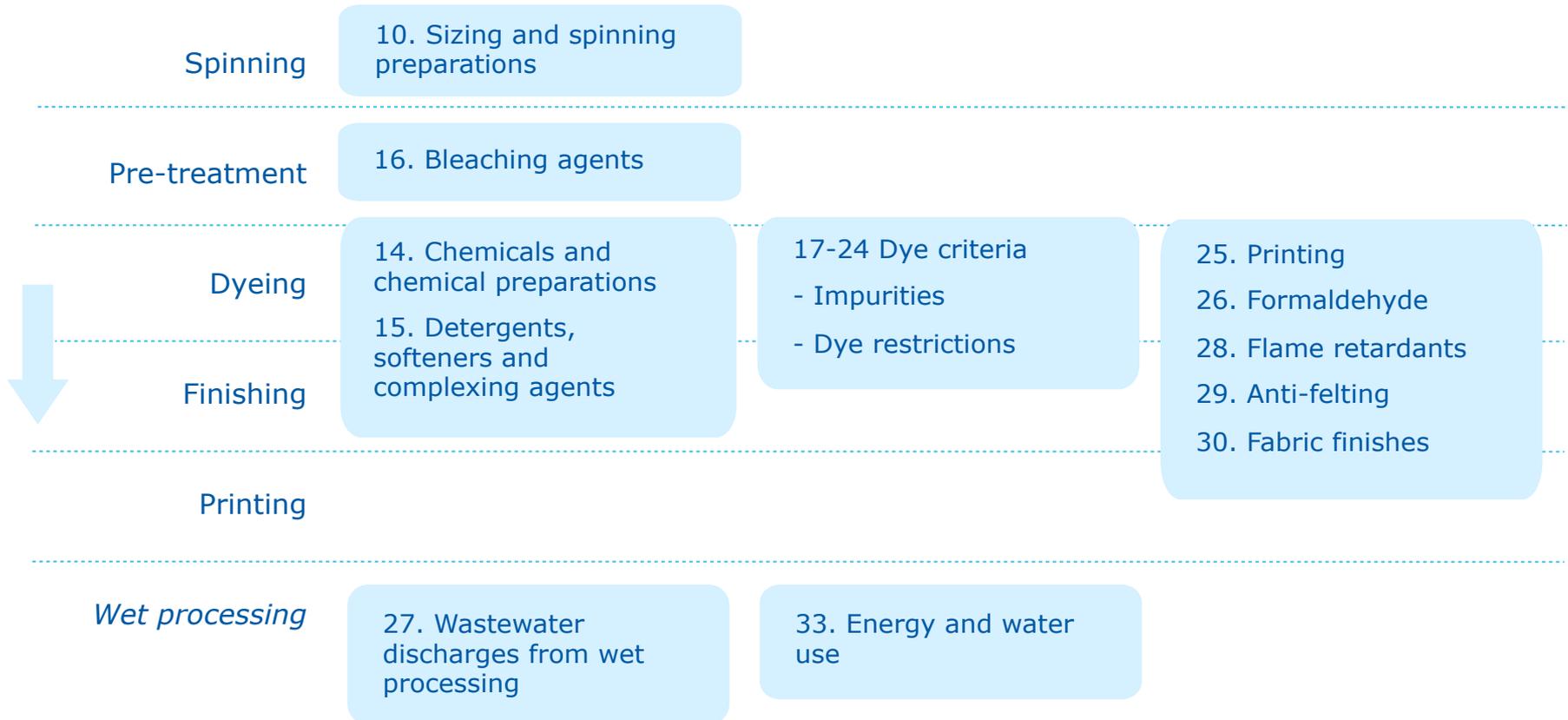
JRC- IPTS, Brussels

23rd April 2013



Chemicals and process criteria

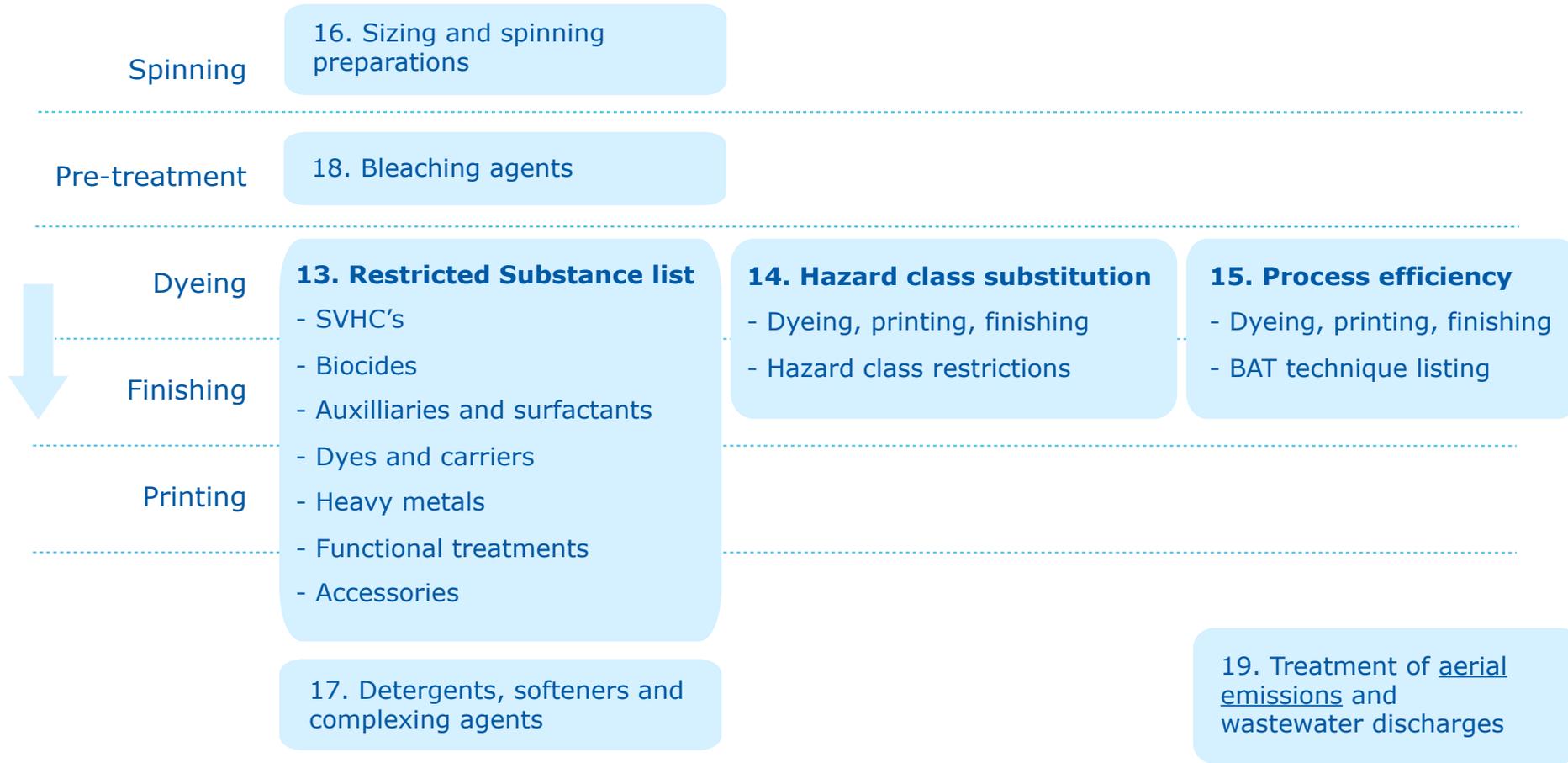
Structure of the existing criteria





Chemicals and process criteria

Proposed restructuring of the criteria



C13: Restricted Substance List (RSL)

RSL as an increasingly common format

AG
AFIRM GROUP

CHEMICAL GUIDANCE DOCUMENT

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Restricted Chemical Substances

HSH

Version 01.2011

VERSION 1.0 MARKS & SPENCER MAY 2011

YOUR M&S

ECP
Module 1: RSL
Restricted Substance List

VERSION 1.0
MAY 2011

ENVIRONMENTAL & CHEMICAL POLICY FOR TEXTILE PROCESSING

C13: Restricted Substance List (RSL)

Structure and source criteria

Criteria containing specific substance restrictions	Criteria containing hazard statement restrictions
<ul style="list-style-type: none"> 11. Biocidal and biostatic products (together with a clause in the Decision pre-amble) 14. All chemicals and chemical preparations 15. Detergents, fabric, softeners and complexing agents Dye criteria 17 - 23 24. Halogenated carriers for polyester 26. Formaldehyde 27. Flame retardants 28. Anti-felting finishes 	<ul style="list-style-type: none"> 10. Auxilliaries and finishing agents for fibres and yarns 15. Detergents, fabric softeners and complexing agents 22. Dyes that are carcinogenic, mutagenic or toxic to reproduction 28. Flame retardants 30. Fabric finishes 32. Coatings, laminates and membranes

C13: Restricted Substance List (RSL)

Grouping of restrictions

- Dyeing
 - Azo, CMR, sensitising, chrome mordant, metal complex
 - Dye and pigment impurities
- Printing
 - Print paste VOC content, reference to dyes/pigments
 - Plastisols
- Finishing
 - Biocides, easycare, anti-felting, water repellency, flame retardancy
 - Coatings, laminates and membranes
- Accessories
 - Plastic, metal and rubber composition

C13: Restricted Substance List (RSL) **Summary of post-AHWG2 stakeholder feedback (1)**

The RSL approach outlined was for the most part supported.

- Proposals for testing raised concerns in relation to the potential costs for applicants.
- Clarification was required in terms of how it could be designed to minimise costs.
 - It does not make sense to test for everything, a targeted approach was proposed.
 - Proposal for pre-screening of products to determine which tests to specify
 - Testing and declarations could be used in combination
 - Declarations based on compliant SDS should be allowed

C13: Restricted Substance List (RSL) **Summary of post-AHWG2 stakeholder feedback (2)**

Substance group restrictions

- Differentiation was requested to reflect exposure risks and skin contact e.g. baby clothes and bed linen.
- The test methods should be better specified

Views on Oeko-tex 100 and industry testing

- It is a recognised and increasingly popular certification
- Does not have the same philosophy as EU ecolabel to restrict usage of dangerous substances in the supply chain
- Should only be accepted where there is equivalence of substances, limit values and testing
- A read across or conversion table would be required.

C13: Restricted Substance List (RSL) **Summary of post-AHWG2 stakeholder feedback (3)**

Sampling frequency for testing

- Industry stakeholders questioned how representative one test could be.
- Proposal to test per lot of raw material or per production run.
- What would happen if a test was failed?

Specific comments were received in relation to the substance groups included within the RSL.

C13: Restricted Substance List (RSL)

How is the RSL proposed to work?

SVHC/Candidate List

Biocides

Auxiliaries and surfactants

Dyes and carriers

Heavy metals

Printing

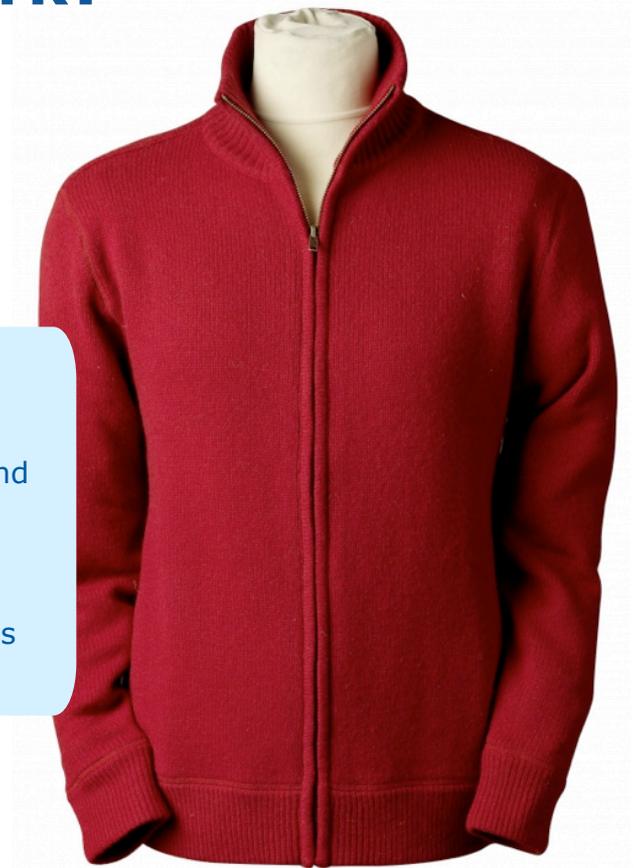
Functional treatments

Accessories

Cardigan

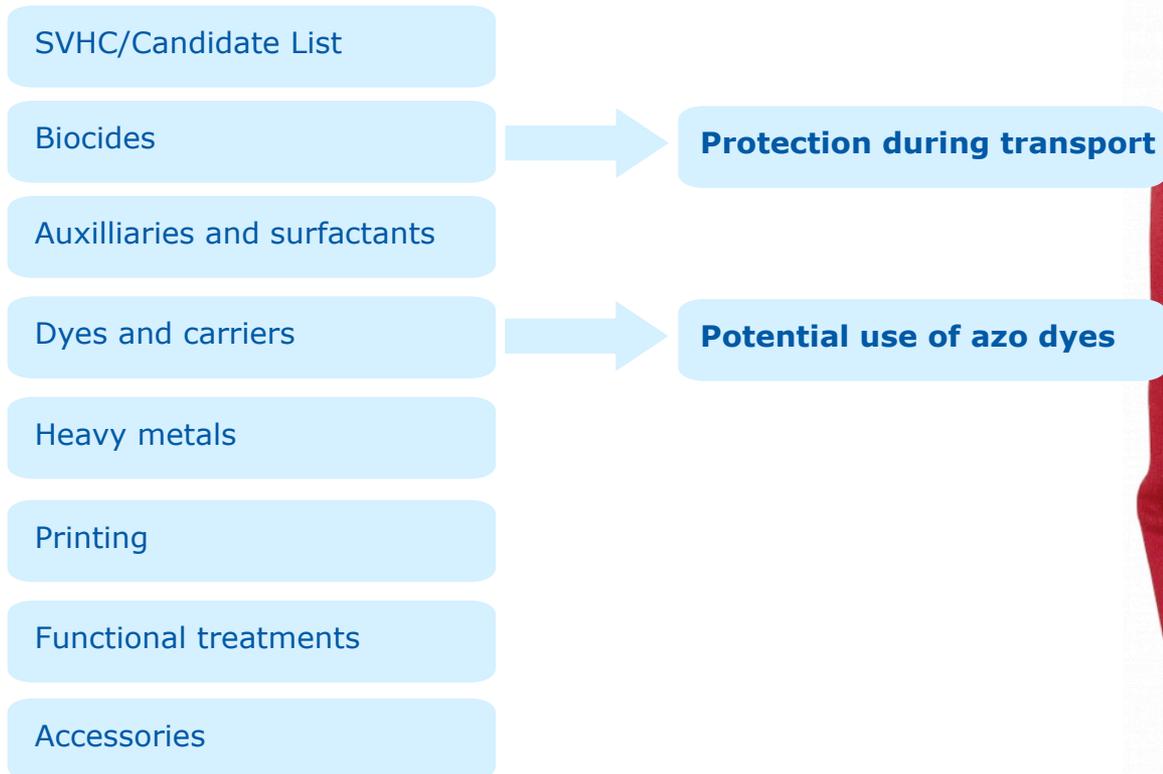
- Knitted
- Wool and acrylic blend
- Dyed red
- Metal zip

SDS for formulations is not available



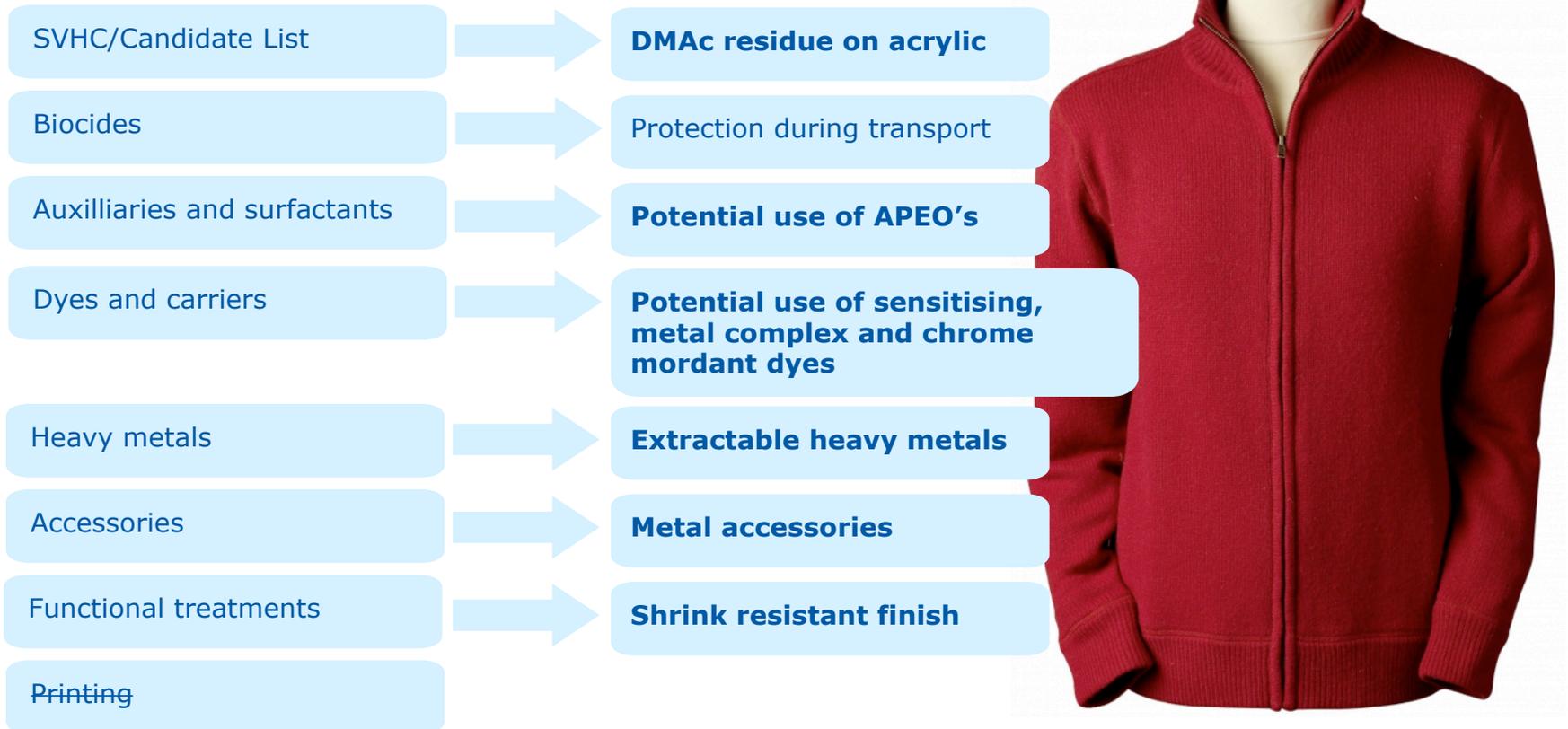
C13: Restricted Substance List (RSL)

Step 1: Is risk-based testing required?



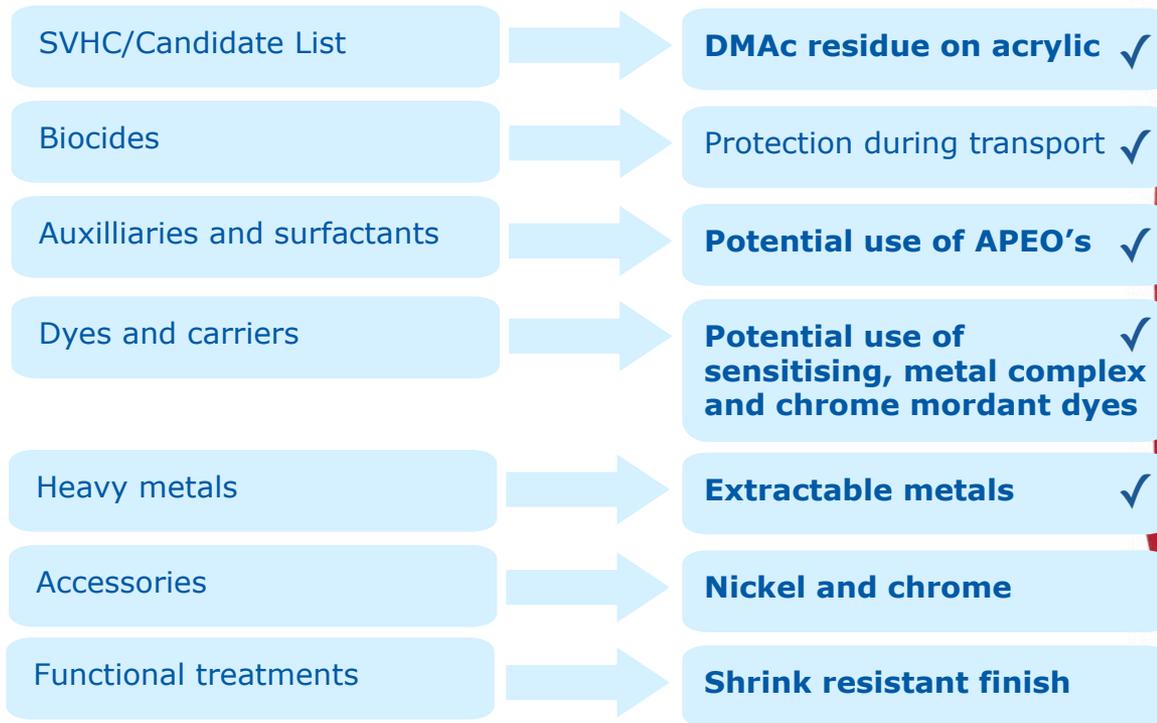
C13: Restricted Substance List (RSL)

Step 2: Relevance RSL substances?



C13: Restricted Substance List (RSL)

Step 3: Existing Oeko-tex 100 testing?



C13: Restricted Substance List (RSL)

Step 4: Check/agree with Competent Body

Proposed assessment and
verification



Oeko-tex 100 test results
(1 yr old) + declarations
from suppliers

DMAC residue test

Declaration of non-use

Alkylphenol testing

Sensitising dye testing
Declaration on non-use:
metal complex and chrome
mordant dyes

Extractable metal testing

Metal migration testing

Declaration of finish applied



C13: Restricted Substance List (RSL)

Step 5: Collation of available evidence

DMAc residue test

Biocide declaration of non-use

Alkylphenol testing

Sensitising dye testing
Declaration on non-use:
metal complex and chrome
mordant dyes

Extractable metal testing

Metal migration testing

Declaration of finish applied

Oeko-tex 100 test results

- Biocides
- APEO (breakdown)
- Sensitising dyes
- Extractable metals

Declarations

- Dyeing and finishing stages
- Transportation



C13: Restricted Substance List (RSL)

Step 6: Carry out required testing

DMAc residue test

Biocide declaration of non-use

Alkylphenol testing

Sensitising dye testing
Declaration on non-use:
metal complex and chrome
mordant dyes

Extractable metal testing

Metal migration testing

Declaration of finish applied

Oeko-tex 100 test results

- Biocides ✓
- APEO (breakdown)
- Sensitising dyes
- Extractable metals

Declarations ✓

- Dyeing and finishing stages
- Transportation

New accredited testing ✓

- DMAc
- Extractable metals
- Metal migration



C13: Restricted Substance List (RSL) **Key open issues as of 15/03/13**

- How would Competent Bodies verify that applicants have selected the right verification?
- Is the risk matrix for testing workable and/or desirable?
- Is additional testing/verification during the license period desirable and, if so, what would be the best balance of assurance v. burden?
- Should supplier declarations be accepted in place of SDS for ingredients?

C13: Restricted Substance List (RSL)

Options for finalising the criteria?

1. Clarify that the burden of checking through RSL is on the applicant
2. Introduce pre-amble to criteria requiring declaration of composition and formulation of product chemistry (*as in Rinse off products*)
3. Change verification text to clarify that equivalent testing shall be accepted subject to equivalence, remove Oeko-tex 100 read across to User Manual
4. Testing frequency linked to suppliers, every **x** years if consistent supplier, change in supplier requiring new testing?

C13: Restricted Substance List (RSL)

Review of substance groups and restrictions (1)

Industry

- AFFA (American Footwear and Apparel Association)
- AFIRM (Apparel and Footwear International RSL Management Group)
- Bluesign BSSL v3.1
- Hugo Boss (as advised by their stakeholder group representative)
- Marks & Spencers

Independent and/or NGO

- NICE (Nordic Initiative, Clean and Ethical)
- Oeko-Tex 100 (01/2011)
- C&A



C13: Restricted Substance List (RSL)

Review of substance groups and restrictions (2)



C13: Restricted Substance List (RSL)

Questions and discussion

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Interpretation of Ecolabel Regulation (EC) No 66/2010

H300 Fatal if swallowed R28

H301 Toxic if swallowed R25

H304 May be fatal if swallowed and enters airways R65

H310 Fatal in contact with skin R27

H311 Toxic in contact with skin R24

H330 Fatal if inhaled R23/26

H331 Toxic if inhaled R23

H340 May cause genetic defects R46

H341 Suspected of causing genetic defects R68

H350 May cause cancer R45

H350i May cause cancer by inhalation R49

H351 Suspected of causing cancer R40

H360F May damage fertility R60

H360D May damage the unborn child R61

H360FD May damage fertility. May damage the unborn child
R60/61/60-61

H360Fd May damage fertility. Suspected of damaging the unborn
child R60/63

H360Df May damage the unborn child. Suspected of damaging
fertility R61/62

H361f Suspected of damaging fertility R62

H361d Suspected of damaging the unborn child R63

H361fd Suspected of damaging fertility. Suspected of damaging the
unborn child. R62-63

H362 May cause harm to breast fed children R64

H370 Causes damage to organs R39/23/24/25/26/27/28

H371 May cause damage to organs R68/20/21/22

H372 Causes damage to organs R48/25/24/23

H373 May cause damage to organs R48/20/21/22

H400 Very toxic to aquatic life R50

H410 Very toxic to aquatic life with long-lasting effects R50-53

H411 Toxic to aquatic life with long-lasting effects R51-53

H412 Harmful to aquatic life with long-lasting effects R52-53

H413 May cause long-lasting effects to aquatic life R53

EUH059 Hazardous to the ozone layer R59

EUH029 Contact with water liberates toxic gas R29

EUH031 Contact with acids liberates toxic gas R31

EUH032 Contact with acids liberates very toxic gas R32

EUH070 Toxic by eye contact R39-41

Sensitising substances

*H334: May cause allergy or asthma symptoms or breathing
difficulties if inhaled R42*

H317: May cause allergic skin reaction R43

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Summary of overall proposal (1)**

Dyeing, printing or finishing process chemistry shall be screened for hazardous substances that may remain on the final product

- Distinguishment shall be made between functional substances, residual substances and contaminants
- Concentration limits shall be set in order to reflect the concentrations required to impart required functions to the final product
- Hazard classes will be related to their relevance along the life cycle of the product and the most significant hazards will be completely restricted

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Summary of overall proposal (2)**

Hazard statements prioritised by hazard category:

- Category A (Category 1 and 2 hazards under CLP): Complete restriction at concentrations of $>0.1\%$ and/or CLP specific concentration if lower
- Category B (Category 3 and 4 hazards under CLP): Derogation of specific hazard classes to be permitted subject to evidence and life cycle conditions

Specification of life cycle derogation conditions:

Process efficiency: BAT techniques should be used to minimise workforce and environmental exposure, and to minimise residues and ensure fastness

Durability of surface finishes: Easy-care, softeners, water repellency, flame retardancy should achieve a high level of durability

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Basis for criteria and derogation framework (1)**

Focus of the criteria: Dyeing, printing and finishing stages

- Dyes: A range of CMR, carcinogenic or allergenic dyes already form part of the proposed RSL
 - *H334, 317 : Dyes carry these classifications because of their characteristics in dust form*
 - *H412,413: The Blue Angel has derogated dyes from these classifications because it would exclude most common dyes*
- Carriers and levelling agents: They can be classified with a significant number of H Statements, including H Statements H300-362.

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Basis for criteria and derogation framework (2)**

- Finishes: *Some easycare, softeners, water repellents and flame retardants are classified with acutely toxic, CMR and aquatic environment hazards. Possible exposure routes:*
 - *workers from VOC emissions in the factory,*
 - *the environment from the rinsing off of fabrics*
 - *consumers due to migration from a fabric during use.*
- Coatings, laminates and membranes: Some of these additional elements of a fabric or product may, depending on their content, contain phthalates and perfluorocarbons.
- EUH 029, 031, 032: Industry stakeholders stated that use of substances carrying these classifications would not permit the operation of textile processes.

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Basis for criteria and derogation framework (3)**

- Critical to interpretation of Hazard classifications are:
 - *the hazard class categorisation which indicates the degree of hazard and supports hazard differentiation*
 - *the generic concentration levels that trigger classification, as well as specific concentration limits and M factors that may be listed in Annex 1 of the CLP Regulation (EC) No 790/2009.*

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Step 1: Prioritisation of hazard classes

Annex 4

Criteria 12 Hazard Statement categorisation

REACH Article 57
CMR Category 1A and 1B

CLP Categories
Category 1A and 1B

Acute toxicity

Category A (CLP Category 1 and 2 acute toxicity)	Category B (CLP Category 3 acute toxicity)
H350i May cause cancer by inhalation (R49)	
H300 Fatal if swallowed (R28)	H301 Toxic if swallowed (R25)
H310 Fatal in contact with skin (R27)	H311 Toxic in contact with skin (R24)
H330 Fatal if inhaled (R23/26)	H331 Toxic if inhaled (R23)
H304 May be fatal if swallowed and	EUH070 Toxic by eye contact

Organ toxicity

Category A (CLP Category 1 organ toxicity)	Category B (CLP Category 2 organ toxicity)
H370 Causes damage to organs (R39/23/24/25/26/27/28)	H371 May cause damage to organs (R68/20/21/22)
H372 Causes damage to organs (R48/25/24/23)	H373 May cause damage to organs (R48/20/21/22)

CMR substances

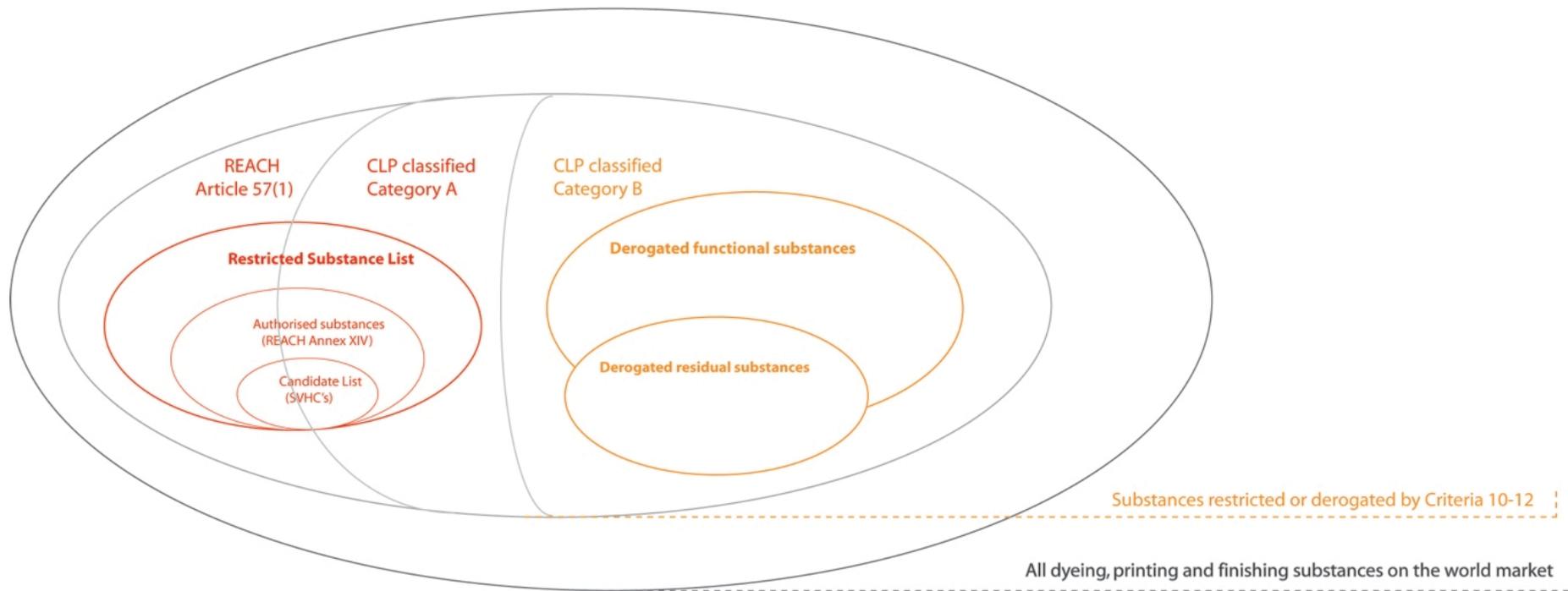
Category A (CLP Category 1 CMR substances)	Category B (CLP Category 2 CMR substances)
H340 May cause genetic defects (R48)	H341 Suspected of causing genetic defects (R68)
H350 May cause cancer (R45)	H351 Suspected of causing cancer (R49)
H360F May damage fertility (R60)	H361f Suspected of damaging fertility (R62)
H360D May damage the unborn child (R61)	H361d Suspected of damaging the unborn child (R63)
H360FD May damage fertility. May damage the unborn child	H361fd Suspected of damaging fertility. Suspected of damaging the

Sensitisers

Category A	Category B (CLP Category 1 sensitisation)
	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled (R42)
	H317: May cause allergic skin reaction (R43)

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Substances restricted or derogated



C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Step 2: Screening of existing restrictions

- 10. Auxilliaries and finishing agents for fibres and yarns
- 15. Detergents, fabric softeners and complexing agents
- 22. Dyes that are carcinogenic, mutagenic or toxic to reproduction
- 28. Flame retardants
- 30. Fabric finishes
- 32. Coatings, laminates and membranes

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Step 3: Identification of substance group derogations

Functional substances		
Function group	Derogated classifications	Derogation conditions ¹
Dyes	H411, H412, H413, H300-331, H317 and H334	<ul style="list-style-type: none"> o EU BAT measures to be used minimise worker exposure in powder form; o Wastewater shall be treated according to the additional requirements in Criteria 27
Optical brighteners	H411, H412, H413	<ul style="list-style-type: none"> o No specific additional requirements
Softeners	H317, H334	<ul style="list-style-type: none"> o Finish must be durable (see proposed new criteria)
Easy care	Category B	<ul style="list-style-type: none"> o Finish must be durable (see proposed new criteria)
Flame retardants	Category B	<ul style="list-style-type: none"> o Required by fire legislation and/or ISO, EN or Member State standards. o Finish must be durable (see proposed new criteria)
Water and stain repellents	H411, 412, 413	<ul style="list-style-type: none"> o Finish must be durable (see proposed new criteria)
Membranes and laminates	H411, 412, 413	<ul style="list-style-type: none"> o No specific additional requirements

Other residual substances		
All residual substances	Category B	
		<ul style="list-style-type: none"> o EU BAT measures shall be used to: <ul style="list-style-type: none"> - optimise the dosing and use of chemical ingredients - minimise the exposure of workers during the handling of substances; o Wastewater shall be treated according to the additional requirements in Criteria 27

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Step 4: Develop derogation conditions

- BAT measures that minimise exposure of the workforce and/or the environment
 - *e.g. handling of dyes in powder form, aerial VOC emissions*
- BAT measures that minimise the concentration of residues on the final product
 - *e.g. optimised dosing of auxiliaries*
- Statutory need for a final product function
 - *e.g. in order to meet regulatory requirements*
- Achievement of more durable final product finishes
 - *e.g. as defined by EN or ISO standards*

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Step 4: Develop derogation conditions

Functional substances		
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C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Summary of post-AHWG2 stakeholder feedback (1)**

The overall approach was seen as being workable

- Clarification was requested on rationale behind Category A and B
- An informal survey of SDS for process formulations from Chinese mills suggested that the majority fell into Category B
- Concern was expressed that Category B contains:
 - H311 toxic in contact with skin (R24)
 - H317 may cause allergic skin reaction (R43)
 - H351 suspected of causing cancer (R49)
 - H361f suspected of damaging fertility (R62)
 - H361d suspected of damaging the unborn child (R63)

C14: Substitution of hazardous substances in dyeing, printing and finishing processes **Summary of post-AHWG2 stakeholder feedback (2)**

- What happens if Hazard Class is updated, how will this affect the eco-label, and how would Competent Bodies ensure we get this information? e.g. new classifications for allergens
- Preparations containing a substance classified as H412 should be classified H412 as a preparation if the concentration of the substance (or sum of substances) exceeds 25%.
- Greater flexibility should be introduced into how the Hazard Statements are considered so as to ensure that their overall environmental profile is taken into account e.g. responsible producer ensures that waste water is suitably treated
- Derogation conditions relating to BAT techniques will require more detailed specification of verification (User Manual)



C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Review of substance groups and derogation framework

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Options for finalising the criteria

XXXXX

- XXXXX

C14: Substitution of hazardous substances in dyeing, printing and finishing processes

Key open issues as of 15/04/13

- Does the derogation framework, in conjunction with the RSL, permit textile chemistry?
- Are the derogation conditions workable and verifiable?
- Does the auxiliaries threshold and derogation allow for sufficient flexibility?

C15: Dyeing, printing and finishing process efficiency

Strengthening the focus on BAT techniques



C15: Dyeing, printing and finishing process efficiency

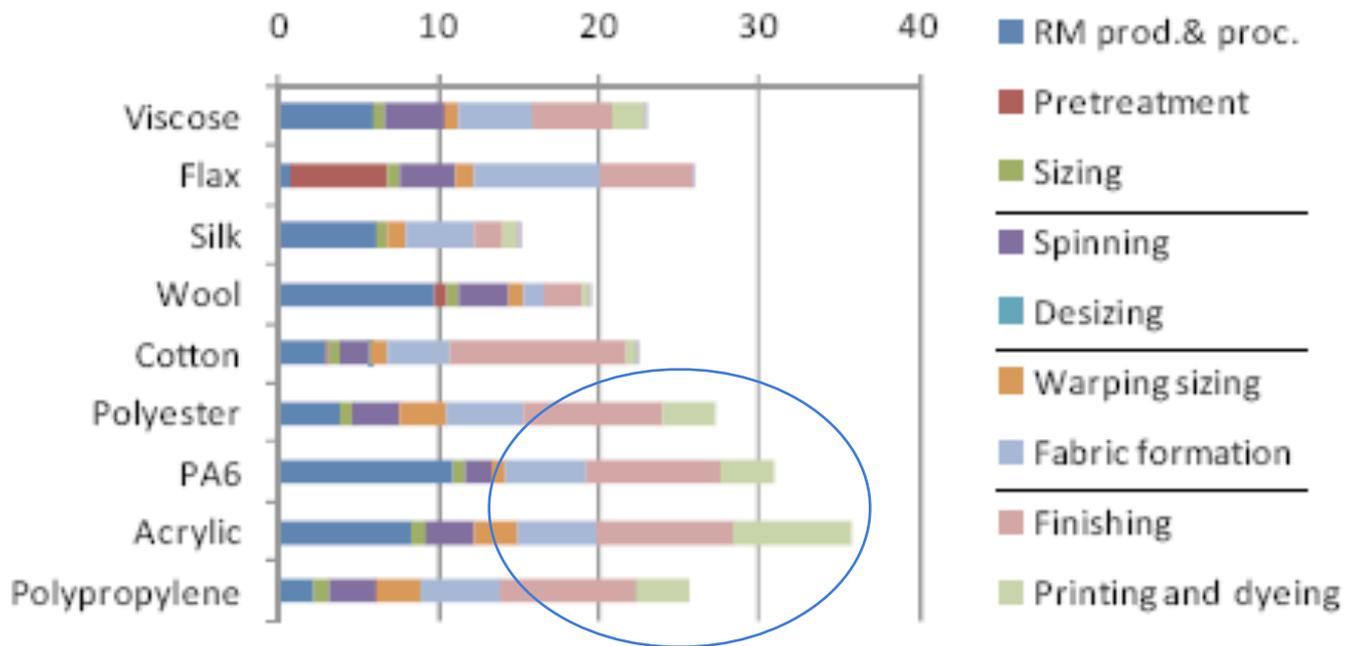
Summary of criteria proposal

Aim: To encourage the implementation of BAT process efficiency measures identified as having significant environmental improvement potential along the supply chain

- Introduction of a requirement for applicants dyeing, printing and finishing suppliers to implement a minimum number of BAT techniques selected from the list provided.
- New techniques may be accepted subject to verification that they deliver improvements compared to BAT and conventional techniques.

C15: Dyeing, printing and finishing process efficiency

LCA significance of the criteria proposal



Impacts on climate change of textile production according to fibre type and production phases in kg CO₂ eq/kg fabric [IMPRO, 2009]

C15: Dyeing, printing and finishing process efficiency **Summary of post-AHWG2 stakeholder feedback (1)**

In general the rationale behind the criteria proposal was supported

- Textile BREF revision and Sustainable Apparel Coalition's HIGG index means this criterion will become more relevant
- Application of BAT Techniques under the IED Directive is limited to certain production capacity thresholds
- Verifiability requires further attention in order to make it workable

C15: Dyeing, printing and finishing process efficiency **Summary of post-AHWG2 stakeholder feedback (2)**

Industry perspective on how to position the criteria:

- Many companies have already reacted to economic signals and have taken steps to operate as efficiently as possible
- Further examples of improvements were given e.g. bleaching/dyeing in a continuous process, maximising dye machine loads, digital colour matching
- Requirements for a continuous energy and water use improvement plan should be put in place
- Important that criterion does not set specific improvement targets that will disadvantage the mills operating efficiently.

C15: Dyeing, printing and finishing process efficiency **Summary of post-AHWG2 stakeholder feedback (3)**

- An increasing number of checklists for manufacturers covering energy and water use e.g. CPI2 carbon footprinting training tool.
- These tools tend not only to suggest technologies but also to quantify possible advantages e.g. energy and financial savings
- Checklists difficult to obtain from suppliers if no clear advantage or obligation to provide the data
- Use as a vendor management tool could be a good option.

C15: Dyeing, printing and finishing process efficiency

Evaluation of options for improving the criteria (1)

Option	Strength	Weakness
<p>Option 1: Self audit questionnaire. Applicants shall evidence that their suppliers have completed a BAT self-audit questionnaire.</p> <p>Case studies: 1</p>	<p>Successfully used by at least one leading EU retailer.</p> <p>Encourages dialogue and greater awareness amongst suppliers.</p>	<p>It requires backing up with a requirement for periodic follow-up to evaluate progress and site visits to verify implementation. Does not ensure implementation of BAT measures.</p>
<p>Option 2: Minimum implementation. Applicants shall demonstrate that suppliers have implemented at least one BAT technique from each theme.</p> <p>Case studies: 7</p>	<p>Forms the basis for best practice programmes promoting mill energy and water efficiency. Promotes achievement of the minimum by all mills, whilst providing options for innovators to go further.</p>	<p>Improvement potential of each BAT measure may vary depending on how they implemented.</p>

C15: Dyeing, printing and finishing process efficiency

Evaluation of options for improving the criteria (2)

<p>Option 3: Audit and action plan. Applicants shall demonstrate that suppliers have audited the opportunities for BAT implementation and have put an action plan in place.</p> <p>Case studies: 2,4</p>	<p>Used by major self-audit schemes to identify areas for improvement. External audit schemes incorporate BAT benchmarking. Supports continuous improvement.</p>	<p>Relies on expert judgement to identify site-specific options for improvement. Does not ensure implementation of BAT measures.</p>
<p>Option 4: Vendor selection criteria. Applicants shall demonstrate that they have used a BAT checklist as part of the selection criteria for new suppliers.</p> <p>Case studies: 1</p>	<p>Enhances the prospect of suppliers that have implemented BAT measures being pro-actively selected.</p>	<p>Successful selection of BAT compliant suppliers depends on the weighting of environmental issues alongside other factors, as well as the response of the market.</p>

C15: Dyeing, printing and finishing process efficiency **Evaluation of options for improving the criteria (3)**

<p>Option 5: Recognition of breakthrough techniques. Applicants shall demonstrate the savings potential of new techniques benchmarked against other options. Case studies: 6</p>	<p>Encourages and recognises process innovation. Requires that applicants monitor/quantify the improvement potential.</p>	<p>Benchmarking may be difficult if the BREF does not provide specific data for other techniques. Benchmarking may be reliant on a comparison of manufacturers claims.</p>
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C15: Dyeing, printing and finishing process efficiency

Proposed criteria text and BAT list

C15: Dyeing, printing and finishing process efficiency

Key open issues as of 15/04/13

- Is the BAT list comprehensive enough?
- Should the final stages of laundries (denim) and cutting/finishing be added?
- Should the differentiation by scale of production be retained?
- Should all dyeing, printing and finishing suppliers be verified?
- How should the transition for existing applicants be handled?

Major point: Reference to specific schemes and open ended equivalence needs to be removed



C15: Dyeing, printing and finishing process efficiency **Ensuring the BAT list is comprehensive**

C15: Dyeing, printing and finishing process efficiency

Options for finalising the criteria (1)

- Expansion of BAT list to ensure it is representative and flexible
- Remove clause allowing for equivalent new techniques to be accepted
- Remove reference to specific schemes (see next point)
- Introduce more specific verification options that could be accepted (see next slide)

Competent Body perspective:

- 1) Specific items of evidence for BAT implementation supported by
- 2) some form of third party technical verification (in the case they are not able to arrange this themselves or don't have technical expertise available).

C15: Dyeing, printing and finishing process efficiency

Options for finalising the criteria (2)

Minimum evidence requirements:

- Technical diagrams/manuals for equipment, performance data outputs from digital monitoring systems and site photographs.

Possible forms of verification:

- Site visits arranged by CB's
- Site visits verified according to ISO standard (Suzanna to confirm?) or equivalent certifications
- Site audits/action plans that form part of/contributed to ISO 50001 (energy management) certification
- Site audits/action plans that form part of/contributed to EMAS/ISO 14000
- Conditions within an EU IPPC/IED or country-specific industrial permitting
- Site visits/supporting evidence that formed part of the verification for a type I Ecolabel or private label (e.g. Bluesign)



C19.2: Aerial emissions from finishing

Criteria proposal

C19.2: Aerial emissions from finishing

Rationale for new sub-criteria proposal

Target processes: Heat-setting, thermosol processes, impregnation and fixation of finishing agents

Overall aim: Prevention of emissions at source, enabling the emissions from alternative process recipes to be compared.

- Reframing of existing criteria 32.4 (Coatings, laminates and membranes)
- Complementary to sub-criteria 19.1: Wastewater discharges from wet processing
- Potential for significant airborne emissions of VOC's and hazardous substances
- Would minimise exposure of both the workforce and the environment
- Linked to derogation conditions for hazardous substance criteria

C19.2: Aerial emissions from finishing **'Emissions factor' BAT method (1)**

Methodology listed as a BAT in the textile BREF and used by Bluesign

- Aim is to predict and manage overall emissions of VOC's and hazardous substances
- Calculates cumulative emissions under specific process conditions from both the process itself and from carry over on the textile from prior processes
- The latter can include a significant range of different volatile softeners, carriers, leveling agents, cross linking compounds and wetting agents.
- The methodology also includes weightings for hazardous substances.



C19.2: Aerial emissions from finishing **'Emissions factor' BAT method (2)**

C19.2: Aerial emissions from finishing

Is the proposal workable?

- The textile BREF states that a 0.8 g C/kg emissions limit is achievable by most modern finishing processes
- Methodology is understood to be widely implemented by the textile industry in Germany
- Feedback from the Bluesign scheme is that suppliers in the far east have been able to implement it.

Stakeholder feedback to date:

- Further clarification required on the methodology
- Industry is familiar with methodologies under the VOC Directive

C19.2: Aerial emissions from finishing

Key open issues as of 15/04/13

- Is the criteria workable?
- Is the methodology suitable, are there alternatives?
- Should it only be implemented in relation to hazardous substances?



3rd Ad Hoc Working Group meeting

Revision of the EU Ecolabel criteria for the Textile product group

Fitness for use criteria

JRC- IPTS, Brussels

23rd April 2013

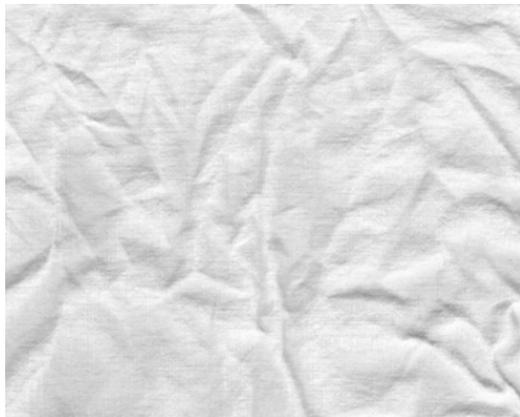
Fitness for use

Criteria areas

- 22. Dimensional changes during washing and drying
- 23. Colour fastness to washing
- 24. Colour fastness to perspiration (acid, alkaline)
- 25. Colour fastness to wet rubbing
- 26. Colour fastness to dry rubbing
- 27. Colour fastness to light
- 28. Fabric resistance to pilling**
- 29. durability of function**

C29: Durability of function

Focus on a number of common functions



C29: Durability of function

Rationale behind criteria proposal

Target functions: Water/stain repellency, flame retardancy, crease proofing

Overall aim: To extend the life of products which require specific functions

- Identified as a cause of early discard or renovation of products
- Finish application can expose workforce and consumers
- Migration of finishes as a proxy for ecotoxicological exposure
- Linkage of criteria proposal to hazardous substance derogation conditions
- Potential to promote incorporated or inherent function as alternatives

C29: Durability of function

Summary of post-AHWG2 stakeholder feedback (1)

- Fibre additives are incorporated into fibres which have been tested to last more than 50 wash cycles.
- Not all finishes are intended to remain on the fibre e.g. those applied to enable efficient spinning.
- The current wording should distinguish between functions incorporated into a fibre and those added to the surface.
- If the durability of a textile product is high then it will improve its life cycle performance and increase its value and potential for re-use.

C29: Durability of function

Summary of post-AHWG2 stakeholder feedback (2)

Specific technical comments:

- A quantitative test for softness cannot be specified, it is based on a subjective panel, and the consumer accepts low durability
- 'Semi-durable' flame retardants were not accepted by some industry stakeholders e.g. soak test
- For workwear wear/tear is a much more significant cause of product failure than loss of function through washing
- The industrial laundry cycle temperature of 75°C should be lowered to 60°C for technical fabrics with taped seams

C29: Durability of function

Key open issues as of 15/04/13

- What level of functionality should be retained after testing?
- How should industrial drying conditions be set?
- Is there an EN/ISO test for flame retardant durability on non-washable fabrics?
- Is SA4 grading for smoothness of appearance suitable?
- Should the durability test for softness be retained?

JRC-IPTS notes:

- Alternative non-fluorinated water repellents will not pass the tests
- Waterproof technical garments may only be washed up to 10 times in their lifetime

C29: Durability of function

Options for finalising the criteria? (1)

For water repellent or stain repellent function:

- In addition to the washing condition it should be specified the drying conditions (e.g. including ironing) to reactivate the function;
- Commercial products will not maintain their functionality after 50 wash cycles at 75°C.
- Waterproof technical garments may only be washed up to 10 times in their lifetime
- A residual performance level after washing should be not below 60% of original
- To extend the durability a re-proofing process may be needed

C29: Durability of function

Options for finalising the criteria? (2)

For flame retardant function:

- The function of flame retardant fabrics should be fully retained up to 50 wash cycles at 75°C

For Easycare (crease proof) function:

- A performance level of SA-3 would be more appropriate for garments with a high content of natural fibers



C29: Durability of function

Questions and discussion



NC28: Fabric resistance to pilling

Summary of criteria proposal

Non-woven fabrics made of polyester (including fleece), cotton fabrics and knitted fabric made of wool and/or acrylic shall resist pilling to a standard of 4.

Assessment and verification: The applicant shall provide test reports using the following test method: ISO 12945-2

NC28: Fabric resistance to pilling

Rationale for new criteria proposal

Target fabrics: Fleece, cotton and wool blends

Overall aim: To extend the life of the listed fabrics

- Identified as a major cause of early discard of consumer garments
- Can quickly make the garment look aged and poor in appearance
- Complementary to new recycled content fibre criteria





NC28: Fabric resistance to pilling

Is the proposal workable and the scope adequate?



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Revision of the EU Ecolabel criteria for the Textile product group

Corporate Social Responsibility

JRC- IPTS, Brussels

23rd April 2013



C30: Observation of ILO core labour standards

Criteria proposal



EU Ecolabel Social Task Force

Observations from March 2013 meeting



3rd Ad Hoc Working Group meeting

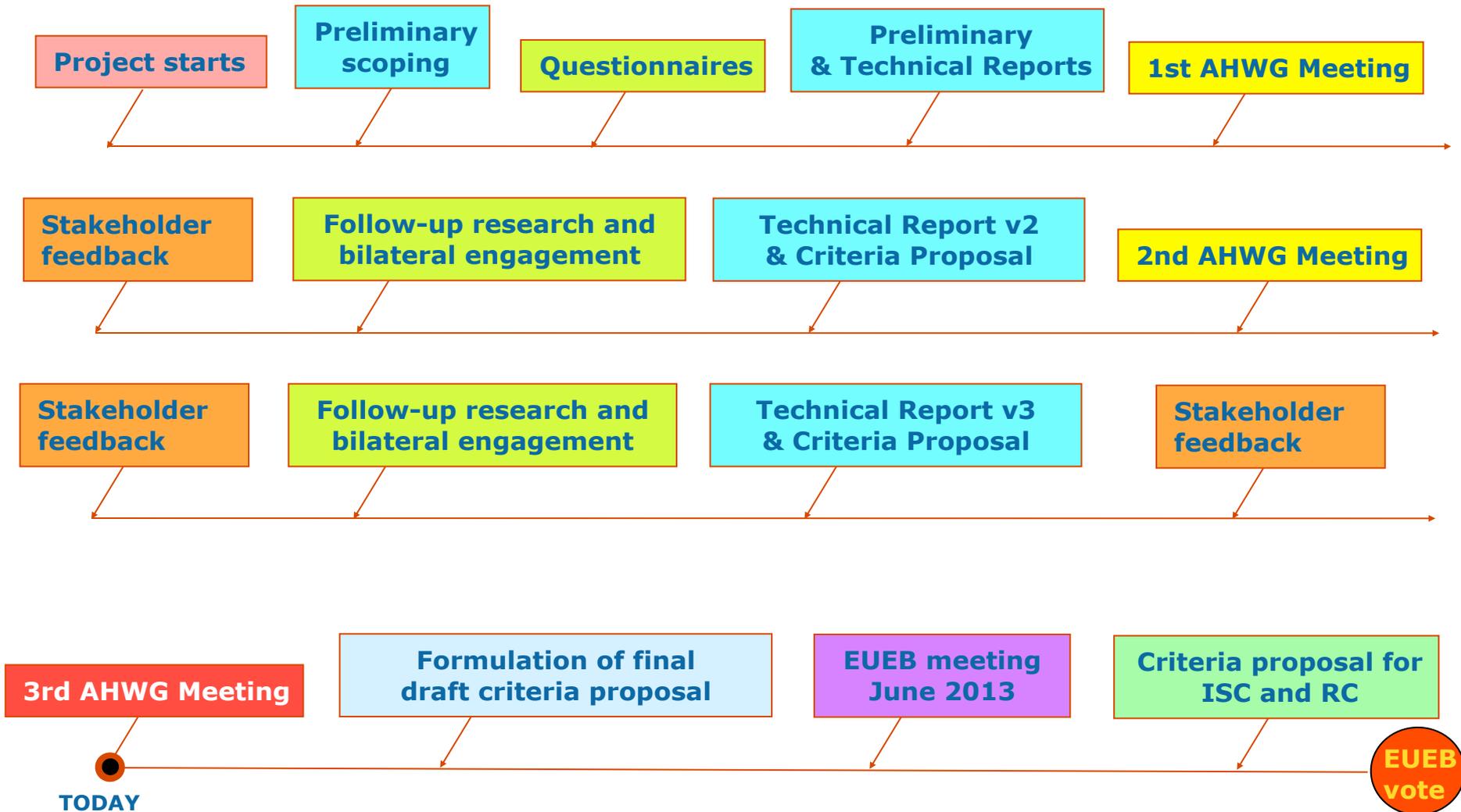
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Next steps?

JRC- IPTS, Brussels

23rd April 2013

Criteria development process





3rd AHWG for the textile criteria revision

Next steps

1. Continuation of bilateral discussions (Apr-Jun)
2. Agreement of AHWG3 minutes and follow-up of actions (Apr-May)
3. Publish revised Technical Report and Draft Criteria (3rd wk May)
4. Consultation period (4 wks until 3rd wk June)

Outlook on GPP criteria development

Adoption is proposed in parallel with the Ecolabel criteria (Nov 2013)

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1. 1st draft criteria document (May)
 2. Consultation with stakeholders/procurers (June - July)
 3. Presentation of 2nd draft criteria to GPP AG (Oct)
 4. Interservices consultation on GPP criteria (Nov - Dec)



Thank you for your attention

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