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Cilotex



CIRCULAR LOGISTICS

A NEED FOR MORE TRACEABILITY? - JAN MERCKX

Agenda

Is there a need to have more transparency
in the fashion and textile supply chain?

Can GS1 support?

Photographs are courtesy of
Fabrice Monteiro
The Prophecy

“Fabrice Monteiro travelled to
the most polluted places in
Africa and created terrifying
characters who roamed their
midst dressed in eerie debris.
They are spirits, he says, on a
mission to make humans
change their ways”

(The Guardian, June 16th, 2017)



We face increasingly higher risk of destabilizing the state of the planet, which would result in sudden and irreversible environmental changes with potentially large damaging impact on the world economy.

- Planetary boundary
- Distance from planetary boundary
- ⚡ Energy emissions
- 🌍 Land use
- 💧 Water consumption
- 🧴 Chemicals usage
- ♻️ Waste creation

Exhibit 1 The Planetary Boundaries 2015

The Planetary Boundaries Have Already Been Breached



Exhibit 2 The Planetary Boundaries 2030

In 2030, the Planetary Boundaries Will Be Even Further Exceeded

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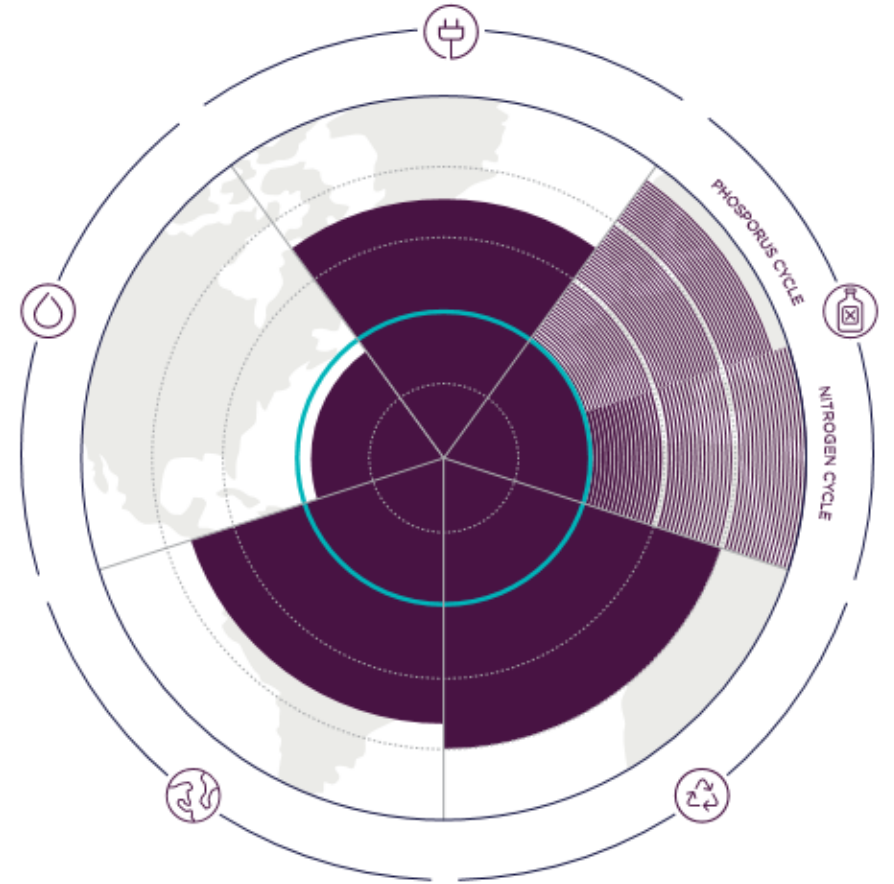
Note: Illustration adapted from UN Environment Programme, Rockström et al. and Steffen et al., representing today's status
Source: BCG analysts; UN Environment Programme (2012); Rockström et al. (2009); Steffen et al. (2015)

Although the harm is, of course, not all due to the fashion industry, the industry's present linear business model is an obvious contributor to stress on natural resources.

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Brussels, 26.1.2017
COM(2017) 33 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE
COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE
COMMITTEE OF THE REGIONS**

on the implementation of the Circular Economy Action Plan

The economics of recycled materials are unappealing at present, as for example recycled PE is 10% more expensive compared to virgin materials. Even though, as outdoor brand Patagonia estimates, recycling saves 75% of the energy needed and 40% of the CO2 compared to using virgin PE, companies will make little headway until those numbers change.



To truly close the loop of the fashion value chain, both the technology and economics of recycling need to **improve dramatically**, ideally **with a single standard** to help with scaling up to commercialization. Getting there will require **technological disruption, industry-wide collaboration and, hence, willingness to invest** to truly move the needle.

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ENCOURAGING MOVES

BCI Cotton: The Better Cotton Initiative (BCI) aims to reduce the environmental impact of cotton production and improve the conditions under which it is produced. It claims a current share of 8% in global cotton production, targeting 30% by 2020—a first step in the right direction.
www.bettercotton.org/about-bci/

Lindex: The mid-sized Swedish brand focuses on materials with reduced impact. In 2016, 63% of its cotton use was organic. Overall, it could triple its use of 'more sustainable materials' from 17% in 2013 to over 50% today, including materials such as recycled polyester or Tencel®.
www.about.lindex.com/en/blend/

Worn Again: This start-up builds on a collaboration with large fashion brands. The venture's chemical-recycling technology addresses major barriers in textile-to-textile recycling, namely how to separate blended fibers and how to separate dyes and other contaminants from polyester and cellulose. Worn Again aims to provide an alternative to the use of virgin polyester.
www.wornagain.info/

Nike: Its materials sustainability index allows design teams to compare the environmental impacts of 57,000 different materials.
www.about.nike.com/pages/sustainable-innovation/



Here lies the largest driver of this stage: preventing products from ending up as pure waste.

The Pulse Score here is 9, the lowest of all the stages. As with consumer use, this low achievement level likely reflects little industry attention or a lack of technologically and economically viable solutions.

Across the EU27 nations, only 18% of clothing is reused or recycled.

ENCOURAGING MOVES

H&M: The brand has partnered with I:CO, a solutions provider for clothing and footwear reuse and recycling. Its facility in Germany receives 25 to 30 truckloads a day from collection bins at H&M stores. The brand has similar facilities in the US and India. In 2016 it collected nearly 16,000 tons, a 29% increase from the year before.

End-of-Use



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End-of-Use

Exhibit 22 Environmental Impact Driven by Waste During End-of-Use Phase

Impact area	Magnitude of impact	Biggest drivers
 Water	Medium	Premature disposal leading to unnecessary resource waste
 Energy	Medium	Premature disposal leading to unnecessary resource waste
 Chemicals	Very low	
 Waste	Very high	Disposing end-of-use products generating waste and connected negative externalities (e.g., leachate emissions from landfills)
 Labor practices	Very low	
 Health & safety	Very low	
 Community & ext. eng.	Very low	
 Ethical practices	Medium	Premature disposal leading to unnecessary resource waste



**Earlier this year, H&M
announced its aim to be 100
percent circular and renewable
by 2030.**

Traceability



European Commission
DG Enterprise and Industry

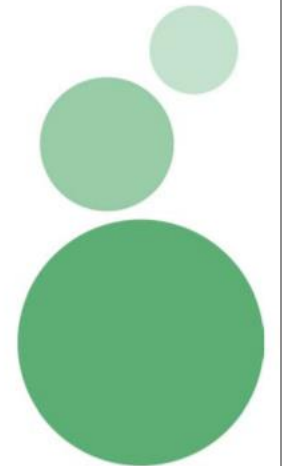
Study of the need and options for the
harmonisation of the labelling of textile and
clothing products

24 January 2013

Final Report

Disclaimer: the views expressed in this report do not
necessarily reflect the opinion of the European
Commission

Matrix Insight Ltd



Traceability

Generally, traceability and identification of the manufacturer are not a textile-specific labelling requirement in any of the case study Member States, nor are any actions taken at national level in that area.

Neither public authorities nor industry stakeholders consider traceability to be a priority (in 2012).



European Commission
DG Enterprise and Industry

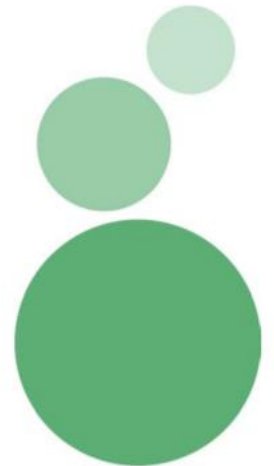
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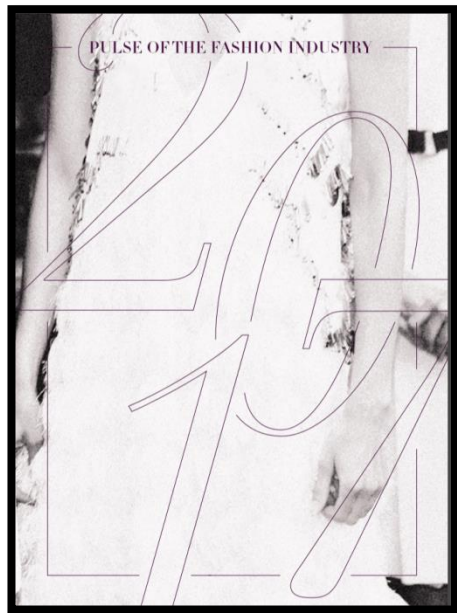
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Traceability

Neither public authorities nor industry stakeholders considered **red** traceability to be a priority (in 2012).



INTRODUCING THE LANDSCAPE FOR CHANGE

The Landscape for Change will have the following change levers and goals. (See Exhibit 27.)

Environmental:

- **Closed loop recycling** – No value leakage, e.g., one garment recycled for every new garment produced
- **Sustainable material mix** – 100% sustainable fibers with low footprint, e.g., replacing conventional cotton
- **Reduced energy footprint** – Minimized energy consumption and 100% carbon neutrality
- **Chemical and water optimization** – No hazardous chemicals and no water pollution
- **Production-to-demand** – No overproduction

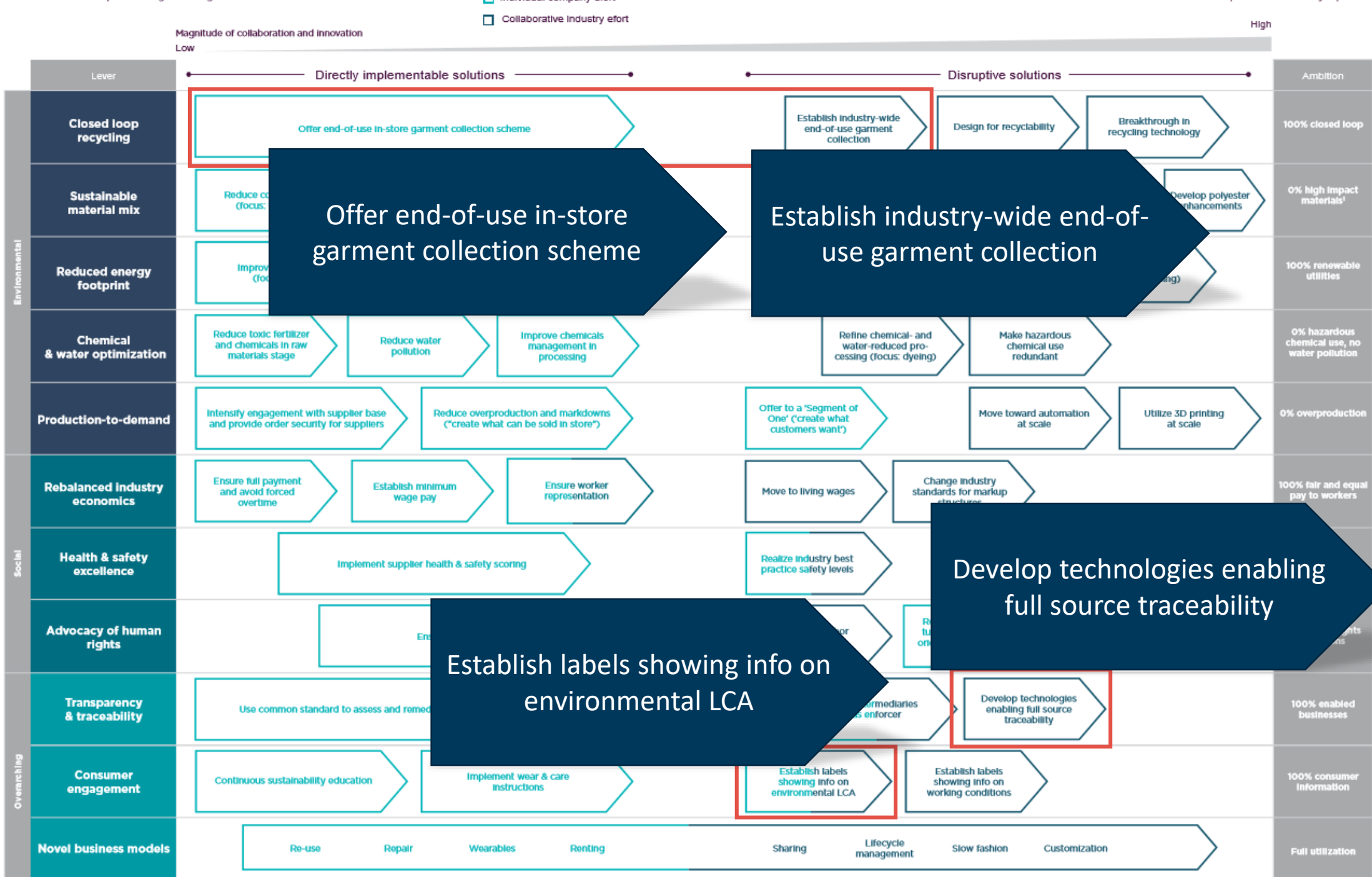
Social:

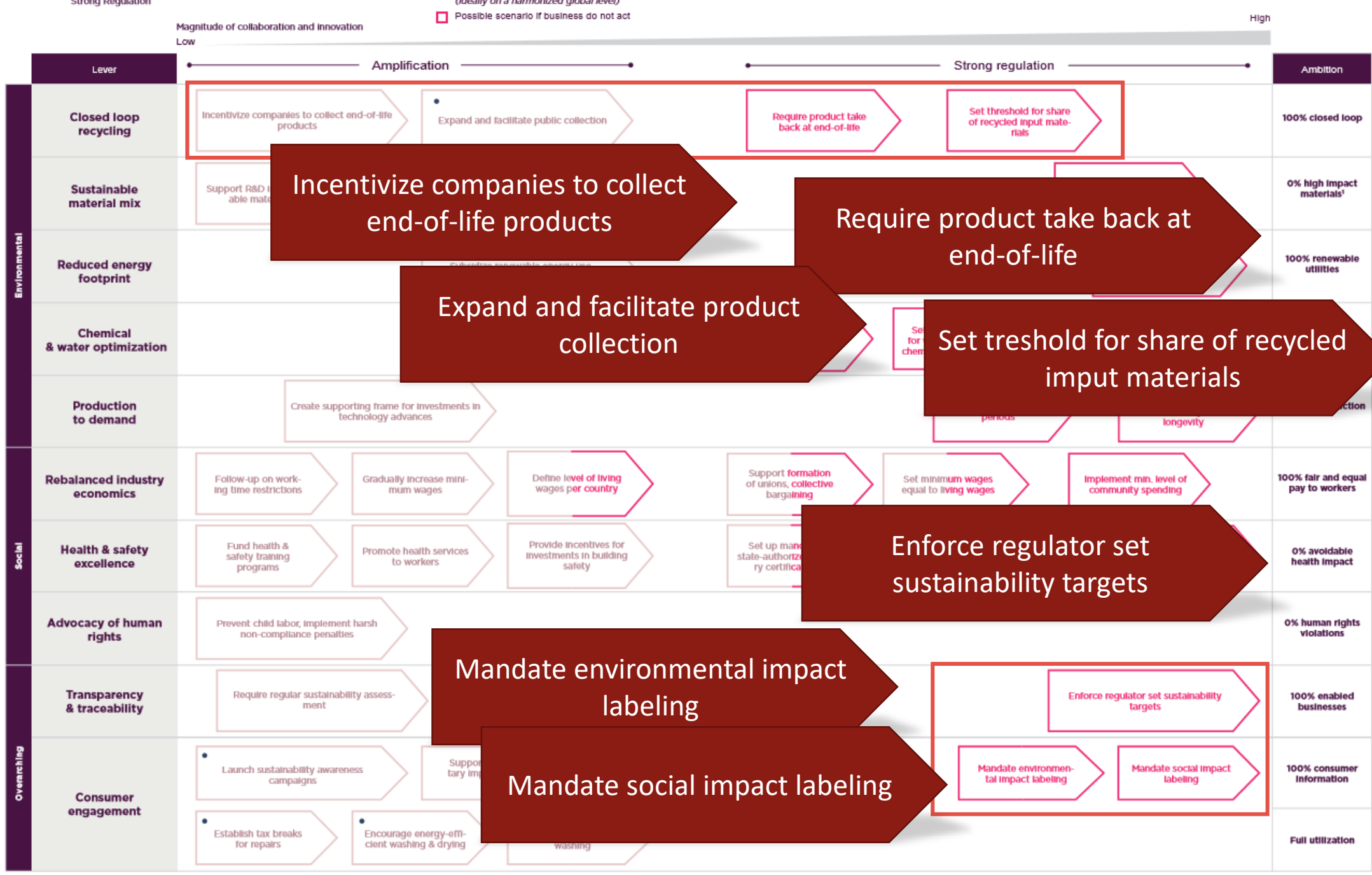
- **Rebalanced industry economics** – Fair and equal pay to worker and skill development for all workers
- **Health and safety excellence** – 100% safe working places fostering well-being and morale
- **Advocacy of human rights** – No human rights abuses and full rights advocacy

Overarching:

- **Transparency and traceability** – Full visibility on all tiers' supplier performance and conditions
- **Consumer engagement** – Complete customer information on a garment's life-cycle impact, environmentally and socially
- **Novel business models** – Full utilization of purchased fashion products







Role of regulators

With fashion lagging behind other industries on recycling, policymakers should make it easier to handle clothing waste. They can help make consumers aware of the end-of-life stage and existing collection options as well as simplify the collection process.

Regulators can also awaken consumers to environmental impacts by requiring labels on water and energy use for washing machines and dryers, and **by establishing standards for sustainability labels on garments...**

These are not hypothetical possibilities. There is a growing political will at least within the European Union to regulate the fashion industry. Initiatives in Germany, The Netherlands and elsewhere have gained momentum among policymakers in response to what they see as the industry's lack of self-governance of supply chains. Such national initiatives could potentially undermine the all-important efforts at global consolidation and harmonization. To head these off, it is imperative for the industry to develop and showcase large-scale improvements.

COLLABORATION AND INNOVATION NEEDED ON AN UNPRECEDENTED SCALE

Up to now, individual brands and retailers and selected multi-stakeholder initiatives have shown impressive commitment and have already achieved great progress.

Best practices are available across all segments of the industry, and substantial innovations are emerging. Applying and implementing these will do much to improve the industry's impact. **But these will not be enough to capture the full potential. A collective effort with critical mass would enable the industry to make progress on the major pre-competitive goals, *such as a network of collection points to promote recycling.***

“Good Citizen Principles”

	Step in value chain	Minimum Requirements	Industry Best Practice
	Communication of	<ul style="list-style-type: none"> General communication in most PoS advocat- 	<ul style="list-style-type: none"> More detailed communication included in most
End of Use	Preparation of items for recycling	<ul style="list-style-type: none"> At least on core items, materials which can be recycled are labeled explicitly on the item to allow easier recycling process 	<ul style="list-style-type: none"> Extended optimization of materials (~50% of volume), e.g., no materials mixes obstructing recycling and explicit labeling to enable later separation of materials
	Communication of recycling opportunities	<ul style="list-style-type: none"> High level education of customer on recycling potential (e.g., donation boxes) 	<ul style="list-style-type: none"> Specific education of customer on recycling options, e.g., existing infrastructure (internal and external to brand), where to send items for recycling and which items can be recycled
	Support and setup of dedicated recycling infrastructure for clothing	<ul style="list-style-type: none"> Specific communication of recycling offerings by other providers external to brand Taking part in collaborations to push setup of recycling infrastructure in public spaces 	<ul style="list-style-type: none"> Offering recycling channels to customers—take-back models in store, pick up services, feed back into second-hand, material processing for new items Offering recycling infrastructure in public spaces to clothes of other brands, engaging in cooperation with competitors to push cross-industry initiatives Piloting new business models (e.g., rental fashion) to reduce waste-culture and invest in new recycling technology

Explicit labeling to enable later separation of materials

Specific education of customer on recycling options



“Good Practices”



REDRESS

The R Cert is a consumer-facing educational standard for recycled textile clothing that guarantees that brands recycled their own 'factory fresh' textile waste into their own recycled textile clothing. The R Cert ensures that brands used a minimum of 20% recycled fibres to produce more environmentally-sustainable recycled textile clothing in a fully traceable supply chain. We have united these three unique sustainability elements, textile recycling, environmental savings and supply chain transparency, to provide consumers with a trusted and more complete sustainable fashion picture.

The R Cert guarantees that brands recycled their own 'factory fresh' textile waste into their own recycled textile clothing and it allows you to TRACK your recycled clothing's journey from factory to retail.



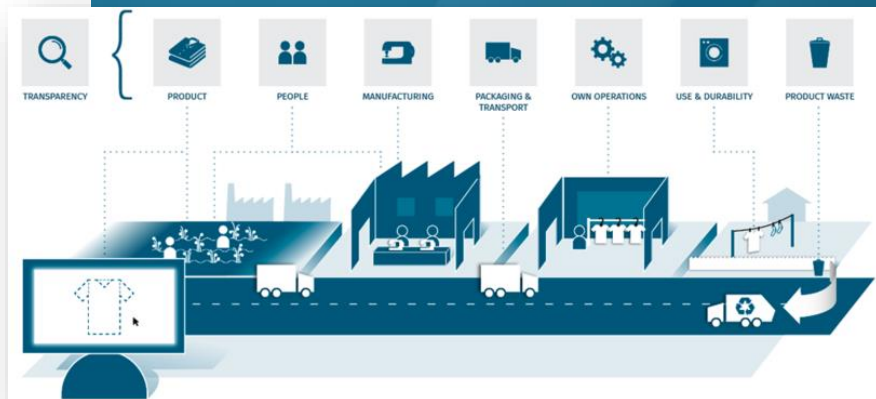




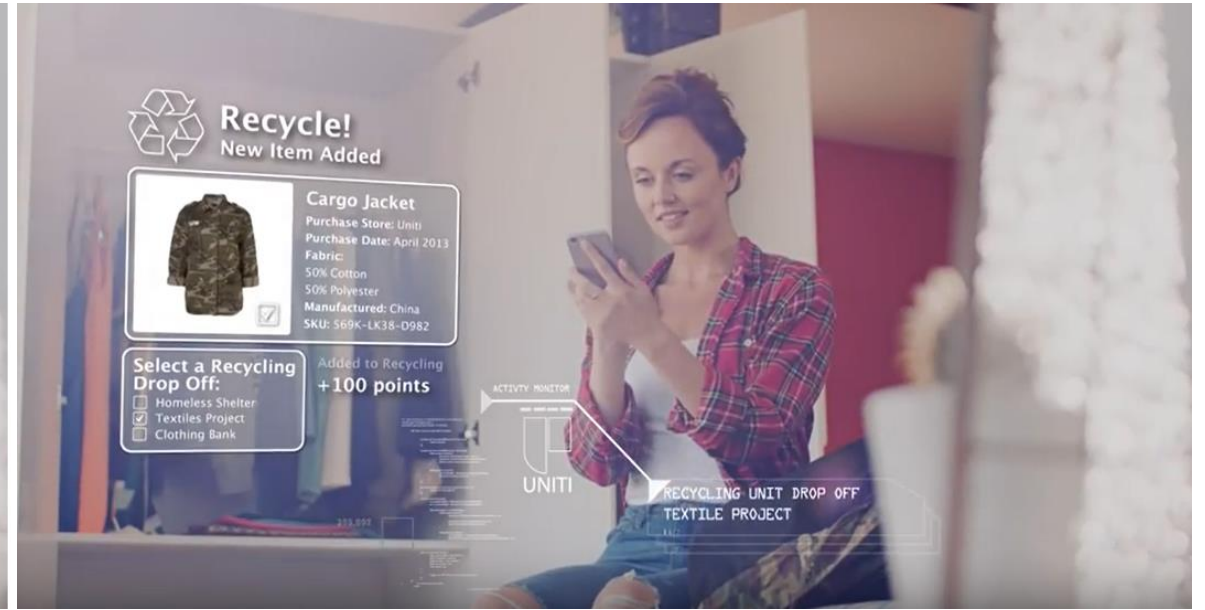
MODE TRACKER

Making **Clear** Progress

MODE Tracker is a holistic, transparent and verified progress tracking tool to support fashion brands and retailers in improving their sustainability performance through measuring and communicating year-on-year progress. Six brands – [G-Star](#), [Haikure](#), [Just Brands](#), [Ted Baker](#), [VIVOBAREFOOT](#) and [WE Fashion](#) have published their MODE Tracker results.



Janella



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'As humans we used to know the importance of respecting and preserving nature. But our endless consumerism has got us lost.'
Fabrice Montero

