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BRIEF REPORT

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Traceability and transparency: enhancing sustainability and circularity in garment and footwear

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ABSTRACT

This Brief Report on the sustainability and circularity of global fashion-value chains discusses the content and potential impact of Recommendation No. 46, "Enhancing Traceability and Transparency of Sustainable Value Chains in Garment and Footwear" developed under the auspices and approved by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) in April 2021. It is a key output from a project undertaken by the United Nations Economic Commission for Europe (UNECE) and currently being implemented by UN/CEFACT in collaboration with the International Trade Centre (ITC) and financed by the European Union. The COVID-19 pandemic has highlighted the weakness of opaque garment- and footwear-value chains that lack traceability or transparency for brands, suppliers, and consumers. The public health crisis also increased consumer awareness of sustainability and the need for sustainability information. Recommendation No. 46 starts to set global standards for traceability and transparency and this Brief Report highlights its potential benefits on garment- and footwear-value chains that include nudging single consumer behaviors, supporting broader societal inclusiveness, helping manufacturers to implement circularity, and offering governmental bodies new tools for guiding the sustainable transition and verifying its effectiveness.

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Garment and footwear sector; traceability; transparency; sustainability; circularity; consumer protection and awareness; small and medium enterprises; vulnerable groups; women

Introduction

This Brief Report on the sustainability of global fashion-value chains discusses the content and potential impact of Recommendation No. 46 developed by the United Nations Economic Commission for Europe (UNECE). Known as "Enhancing Traceability and Transparency of Sustainable Value Chains in Garment and Footwear," the document was approved by the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) in April 2021 (UNECE 2021a). This Recommendation is a key output from a UNECE project of the same title being implemented with UN/CEFACT, in collaboration with the International Trade Centre (ITC) which is financed by the European Union.

UNECE Recommendation No. 46 highlights the importance of traceability and transparency to sustainability and circularity.

Improving traceability and transparency has become a priority for the garment and footwear industry. Consumers, governments, and civil society

are demanding responsible business conduct and are calling upon the industry to identify and address actual and potential negative impacts in the areas of human rights, the environment, and human health.

By creating enhanced visibility in value chains, companies are better equipped to manage such impacts, and address financial, operational, and reputational risks. Also, traceability in value chains allows companies to respond more effectively to unforeseen disruptions, conform with applicable laws and regulations, ensure product quality and safety, combat counterfeits, and protect cultural and industrial heritage.

On the other hand, greater transparency empowers consumers to make better-informed consumption choices, as they have more reliable information about the sustainability and circularity claims about products and processes. As a result, traceability and transparency have great potential to build trust among all industry actors... effectively addressing risks to responsible business conduct depends on all the links in the value chain and requires the active and effective engagement of both upstream and downstream actors.

The latter, who make the final decisions about which materials are used and which products are placed on the market, also are expected – and at times, legally required – to identify and mitigate risks that might result in harm to humans or the environment throughout their entire value chain. (UNECE 2021a)

The following sections discuss the role of the COVID-19 pandemic in framing the contents of Recommendation No. 46 with a focus on traceability and transparency; the societal implications of traceability and transparency on customers' behaviors and societal inclusion, in particular with respect to women, informal actors, and other vulnerable groups; and the possible impacts of traceability and transparency on the transition of supply chains toward a circular model, with a specific focus on measures taken by small- and medium-sized enterprises (SMEs).

In addition to explaining how Recommendation No. 46 can contribute to facilitating a sustainability transition by the global garment and footwear system, this Brief Report introduces the set of tools developed by UNECE to enhance traceability and transparency toward a circular and sustainable economy in these value chains.

Role of the COVID-19 pandemic: challenges and opportunities for advancing traceability and transparency in garment- and footwear-value chains

The garment and footwear sector is part of the apparel industry which has one of the highest environmental footprints and also contributes to increased risks for human health and the environment (UNECE 2020). During the last decade, supplier relationships have been especially affected by local and global events. For example, the 2013 Rana Plaza disaster in Bangladesh, among the world's largest garment manufacturing hubs, awakened the industry to the need for safer working conditions.

COVID-19 has been an even broader source of disruption to supply chains with global impact. The public health crisis has widened existing cracks in an industry already challenged by excessive inventories and charged with fostering a culture of consumerism and contributing heavily to the amount of waste going to landfills. The Ellen MacArthur Foundation (EMF 2017) has observed that the number of times a garment is worn before being discarded has decreased 36% compared to fifteen years ago, starting globally from an average of 200 times to the current average of 126 times.

The pandemic has increased consumers' demand for sustainable products and sustainability information. It has also generated new opportunities for

companies to communicate the sustainability impacts of their products and processes (McKinsey and Company 2020a, 2020b). In fact, the pandemic has accelerated a process already in place as "key actors in the [garment and footwear] industry have identified traceability and transparency as crucial enablers of more responsible production and consumption patterns, and a core priority for immediate action" (UNECE 2020).

The implications of the public health crisis have amplified the need to invest in traceability and transparency, and particularly Recommendation No. 46 underlines a number of key benefits that can accrue to all actors (UNECE 2021a):

- For consumers by giving access to transparent and authoritative information that enables them to make more responsible purchasing and consumption decisions.
- For garment and footwear companies, both upstream and downstream, by allowing them to verify their sustainability claims, to better manage their value chains, and to leverage sustainability as a stronger source of competitive advantage.
- For manufacturers by protecting them from false claims of provenance and in turn by exposing companies that exploit workers.
- For governments by gathering the information needed to regulate markets, to support companies, and to target incentives for sustainable production and consumption.

To ensure achievement of these multilevel impacts, traceability and transparency policies need to be based on new alliances between industry and civil society, with particular attention devoted to customer engagement and societal inclusiveness.

Participation of consumers and enterprises in achieving sustainable consumption and production

A recent survey by management consultants McKinsey & Company (2020a, 2020b) confirms a strong desire on the part of consumers to reduce the social and environmental impacts of the clothing that they purchase. Enterprises that want to increase their sustainability performance need to rethink the role of consumers who want to be activated in creating a circular economy, for example by bringing products back to retailers for recycling or simply repairing products to extend their life (Rinaldi 2019). For consumers to play an active role in enhancing sustainable consumption, they need to be empowered via consumers' rights and have access to

harmonized and reliable information (EC 2020a, 2020b).

With regard to garment- and footwear-value chains, consumers need information concerning the environmental and human-rights dimensions of products expressed in a clear, trustworthy, easy-to-understand, and verifiable way. Furthermore, the information needs to be in alignment with Target 12.8 of Sustainable Development Goal (SDG) 12 (Responsible Consumption and Production) which calls for consumers to “have the relevant information and awareness for sustainable development and lifestyles in harmony with nature” (United Nations 2016). In particular, according to several European policy recommendations and initiatives, relevant information regarding all actors along the supply chain should be publicly available to consumers (see European Parliament (2017) for details on a flagship initiative for the garment sector).

The establishment of legislative frameworks on traceability that look to ensure accurate, accountable, and transparent information could increase consumer awareness about the sustainability of products and encourage companies to invest in sustainable production. In fact, as pointed out by the European Parliament in its resolution “Towards a More Sustainable Single Market for Business and Consumers” (European Parliament 2020a), sustainable consumption and sustainable production are very closely interconnected, and supporting companies in traceability and transparency will help to raise consumer awareness on the impacts of their purchasing choices.

The introduction of mandatory labeling requirements could also support the objective of traceability and transparency along the entire value chain, as underlined by the European Union “Circular Economy Action Plan” and by the European Parliament in its resolution on the impact of international trade and the European Union’s trade policies on global value chains (EC 2020a; European Parliament 2020b). Considering that consumer awareness about sustainability in the production of garment and footwear products is key to making a sustainable industry competitive, the European Union is highlighting the need to introduce Union-wide labeling standards for responsibly produced clothing, accessible to both large companies and SMEs. In this way, when consumers purchase products they can be informed about the degree to which producing companies demonstrate respect for environmental and human rights. Various policies of the European Union aim to shift consumers’ preferences to more sustainable choices since a green transition requires the participation of consumers. For this reason, the European Circular

Economy Action Plan also focuses on legislative initiatives that empower consumers.

Another important step in this direction is provided by the new Consumer Agenda launched by the European Commission in November 2020 to respond to the recent crisis caused by the COVID-19 pandemic (EC 2020b). This strategy aims to tackle the increasing importance of environmental issues and the need to protect vulnerable consumers in the context of new economic realities created by the public health crisis. It enumerates as a priority and key action point the introduction or revision of European legislation to provide more effective information on sustainability to consumers. Consumer protection and awareness could be further strengthened by strong traceability and transparency frameworks which, on one hand, tackle misleading claims that are especially crucial for vulnerable categories of consumers and, on the other hand, encourage sustainable consumption and production (European Parliament 2020a).

The need to include women, informal actors, and other vulnerable groups to enhance traceability and transparency

From a societal perspective, sustainability goals do not only require a more active role on the part of customers, but new inclusive and equitable approaches for workers and especially to women, informal actors, and other vulnerable groups which are still highly exploited within the global fashion system. The inclusion and representation of these stakeholders in the garment and footwear sector are crucial for sustainable development and economic growth and they have to be considered when policies are developed and organizations implement traceability and transparency systems, as confirmed by the European Parliament in its resolution on gender equality and women’s empowerment (European Parliament 2018).

In particular, women account for a majority of the workforce in garment- and footwear-supply chains (ILO 2018). At the same time, many producing countries perform poorly on gender equality and women’s economic empowerment. Therefore, measuring progress on global priorities for women as reflected in the United Nations SDGs is fundamental to enabling complete traceability and transparency.

The European Union through several policy documents has already shown its commitment to putting gender equality and women’s economic empowerment forward as focal points and priorities of its legislation. In fact, several directives on gender equity have been adopted and there is now a European strategy and an action plan that aims to eliminate inequalities and promote parity in all its

activities (European Parliament 2010, 2012, 2017; CEC 1992, 2004; EC 2020d, 2020e). The development of policies and other measures tailored to women's needs can, in fact, play a fundamental role in strengthening their rights and supporting gender equity. To achieve this objective, traceability and transparency systems are needed.

In this regard, the Organization for Economic Co-operation and Development's (OECD) Due Diligence Guidance for Responsible Supply Chains in the Garment and Footwear Sector and the OECD Due Diligence Guidance for Responsible Business Conduct both encourage all actors to systematically consider the position of women at all stages when implementing traceability and transparency systems (OECD 2017, 2018).

Gender issues in the garment and footwear sector start in the fields and on the manufacturing floor and include the "glass ceiling" for woman's promotional opportunities (Campopiano et al. 2017). As pointed out by the Federal Glass Ceiling Commission convened in the United States in 1995 (which remains extremely relevant today), gender issues constitute the invisible barrier that keeps "women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements" (FGCC 1995).

The European Parliament highlights the importance of encouraging women's access to leadership positions by teaching female workers about their rights, labor legislation, safety and health issues, as well as by providing training and awareness information for male managers regarding gender equity and discrimination (European Parliament 2020a). The European Parliament has also asked the European Commission to develop policies and legislation to support women entrepreneurs via micro-loans to enable them to gain from private sector-led growth.

Vulnerable workers such as women, as well as minorities and informal workers, in developing countries are not properly and sufficiently protected under current policy and regulatory frameworks established at the national and international levels (ILO 2018). In particular, it is important to consider the informal sector given that, according to the International Labour Organization (ILO), more than half of the global workforce and more than 90 percent of micro and small enterprises (MSEs) worldwide are part of the informal economy (ILO 2018). However, given the high level of fragmentation of production across different countries in the garment and footwear sector, undeclared informal work is a critical challenge. There is often a lack of compliance with international labor standards and this leads to deficits in decent work and a lack of transparency (EC 2017). Implementing traceability and

transparency systems could play a crucial role in reducing informality while guaranteeing protection of vulnerable groups, thereby contributing to a more sustainable economy.

How traceability and transparency can support the transition toward a circular economy and sustainable growth

The positive impacts of traceability and transparency on social sustainability cannot be detached from their effects on environmental sustainability, which rely significantly on the transformation of the fashion-manufacturing system into a circular model. The circular economy constitutes a necessary step toward economic growth and development that respects the environment through the efficient use of natural resources, as well as sustainable production and consumption models. These factors will also be crucial in building a resilient economy in the post-COVID-19 era because the pandemic has demonstrated that current garment and footwear global value chains have critical gaps with regard to protection of the environment, human health, and the economy. To enable a circular economy, the European Union has adopted various policies and documents many of which highlight garment- and footwear-value chains as key areas where changes are needed to accomplish policy objectives (EC 2020a).

Traceability and transparency in support of circularity could significantly benefit the garment and footwear sector. First, as highlighted by the European Circular Economy Action Plan and the European Chemical Strategy for Sustainability, to build a strong circular economy traceability and transparency systems for the use and management of chemicals are powerful tools to support more sustainable practices (EC 2020a, 2020c). Second, the implementation of traceability and transparency frameworks is relevant for waste prevention and waste management (particularly with regard to hazardous waste for which data on treatment are missing) and should be the center of efficient sustainable production and consumption (EC 2020a, 2020c). In fact, traceability is key for reducing risks to human health and the environment by allowing companies to gather information on the production and use of chemicals and the disposal of waste. It is also essential to share this feedback with relevant actors in the value chain, consequently enabling them to take needed action. In addition, traceability can support transparency for consumers at the point of sale, informing them about a product's entire lifecycle, thus contributing to their participation in the transition toward a circular economy.

UNECE Recommendation No. 46 and other outputs from the same project identify powerful strategies and tools to accelerate traceability and transparency for circularity and sustainability in the garment and footwear sector. These tools are outlined in [Table 1](#) along with the relevant actors for their implementation.

More specifically the tools listed in [Table 1](#) should be implemented by three categories of actors with specific goals.

Policymakers who need to adopt norms on traceability and transparency and international standards for data collection and exchange, with the support of international organizations; set financial and non-financial incentives, including sustainable procurement and rapid customs clearance; invest in advanced technologies; define extended producer responsibility (EPR) schemes; and support training and education for sustainable production and consumption.

Companies and industry associations that need to formulate industry commitments and company-action plans with targets for traceability and transparency; invest in advanced technologies; and develop programs on training for sustainable production and support consumer education about sustainable consumption.

Civil society organizations that need to develop information campaigns and collaborative initiatives to achieve industry-wide change and support consumer and citizen education on sustainability.

The effectiveness of traceability and transparency policies for the transformation of the global fashion-manufacturing system also depends on their capacity for properly adapting to the specificities of this particular context. Among these requirements, the prevalence of SMEs compared to large companies is massive and calls for ad hoc policies as outlined in the following section.

Tailored measures to support SMEs

Fostering traceability and transparency requires a multi-level approach with a strong focus on SMEs.

The fundamental importance of SMEs for the European economy has long been recognized by the European Commission and it is committed to putting promotion of the creation, growth, and internationalization of SMEs at the core of the Union's integrated industrial policy ([EC 2010](#)).

Indeed, over the last fifteen years, the European Union has launched several policy initiatives for supporting SMEs ([EC 2005, 2008](#)). One of the more notable undertakings has been the establishment of the Executive Agency for Small and Medium-sized Enterprises (EASME) which was launched in 2014 to manage several European Union research and innovation programs in the fields of SME support and innovation, environment, climate action, energy, and maritime affairs. In the garment and footwear sector, SMEs have specific needs when implementing sustainability and circularity. The main challenges identified in the literature are summarized in [Table 2](#) (see also Centre for Sustainable Fashion et al. 2019).

An extensive literature review highlights some specific challenges regarding circularity affecting all enterprises such as:

- Barriers related to design for recyclability and access to resources ([Sandvik and Stubbs 2019](#)).
- Issues related to consumer perception of circular offerings ([Camacho-Otero, Boks, and Pettersen 2019](#)).

With reference to implementation of circularity some additional challenges that are especially relevant for SMEs include:

- Lack of management support for 4.0 technologies ([Kumar, Singh, and Dwivedi 2020](#)).
- Issues related to waste recycling ([Patrício et al. 2018](#)).
- Lack of tailored regulations and incentives, insufficient data and indicators to measure and communicate impacts, cost of product/waste take-back, inadequate awareness and market demand,

Table 1. Most relevant tools to enhance traceability and transparency toward a circular and sustainable economy in garment- and footwear-value chains (adapted from UNECE [2022](#)).

Tools to enhance traceability and transparency toward a circular and sustainable economy in garment- and footwear-value chains	Relevant actors
1. Regulation supporting traceability and transparency	Policymakers
2. International standards for traceability and transparency of data	Policymakers and international organizations
3. Financial and non-financial incentives for companies and especially SMEs	Policymakers
4. Industry commitments and collaborative initiatives	Companies and industry associations, civil society organizations
5. Product passports and other advanced technologies	Policymakers, companies and industry associations
6. Extended producer responsibility schemes ³	Policymakers
7. Action plans with quantitative targets for traceability and transparency	Companies and industry associations
8. Training and capacity building	Policymakers, companies and industry associations, civil society organizations
9. Consumer awareness and education	Policymakers, companies, industry associations, and civil society organizations

Table 2. Most relevant challenges to implement sustainability in garment and footwear value chains (adapted from Centre for Sustainable Fashion et al. 2019).

Topic	Challenge/Obstacle	Illustrative literature
Competition and scale	Competition from high volume/low price corporations Finding own voice in a market geared to large-scale operations Affordability and availability of materials linked to minimum volumes for orders Aligning values across a supply-chain and encouraging sharing of knowledge and resources which is likely to require value-chain coordination	MISTRA Future Fashion (2017); Cipola, de Roy van Zuidewijn, and Thureau (2017); HCEAC (2019) Cipola, de Roy van Zuidewijn, and Thureau (2017) Aakko and Niinimäki (2018); Cipola, de Roy van Zuidewijn, and Thureau (2017) Todeschini et al. (2017); Fischer and Pascucci, (2017)
Consumer awareness	Attitude-behavior gap – awareness not yet matched with action Visibility of sustainable options – lack of consumer awareness/knowledge of alternative models Managing the high expectations of niche consumers	MISTRA Future Fashion (2015); Todeschini et al. (2017); Boiten, Li-Chou Han, and Tyler (n.d.)
Lack of finance	High startup costs Lack of growth and income generation, uneasy cash flow management Lack of funding and sufficient support from banks Risk aversion and lack of business knowledge and awareness of available funding options Increased working capital needed for product-service systems	MISTRA Future Fashion (2017) Centre for Fashion Enterprise (2008) Centre for Fashion Enterprise (2008); Thureau (2017); MISTRA Future Fashion (2015); Accenture and Global Challenge Awards (2018) Accenture and Global Challenge Awards (2018)
Technical challenges	Technical challenges related to rethinking the design phase of products and access to design tools Low quality/durability of textiles on market Commercially viable recycling options for low-grade textiles Scaling up and commercialization of new recycling technologies such as fiber to fiber processing High demands on human resources in sorting Collection infrastructure for reuse and recycling – local, national, regional and global Lack of harmonization of requirements and regulation related to textile waste management and reuse across the EU and globally Lack of clarity in classification of textile waste – end of waste criteria Insufficient incentivizing through policy tools	Cipola, de Roy van Zuidewijn, and Thureau (2017); Todeschini et al. (2017) MISTRA Future Fashion (2017) Boiten, Li-Chou Han, and Tyler (n.d.); Euratex (2017) WRAP (2019); ESBF (2019)
Infrastructure and regulation for reuse and recycling	 Current status of knowledge on variables linked to microfiber shedding (e.g., industrial and domestic conditions) – more research needed Lack of harmonization and coordination of test methodology	MISTRA Future Fashion (2017) Euratex (2017) Euratex (2017) Euratex (2017) MISTRA Future Fashion (2017), HCEAC (2019); Reuse (2017); ESBF (2019); Euratex et al. (2019) HCEAC (2019); ESBF (2019)
Microfiber release		Euratex (2017)

complex product or packaging design that prevents proper reuse/recycling (Veleva and Bodkin 2018).

- High startup costs, complex supply chains, challenging business-to-business (B2B) cooperation, lack of information on product design and production (Jaeger and Upadhyay 2020);
- Low price of virgin materials compared to recycled materials and difficulties establishing cross-organizational collaborations (Guldmann and Huulgaard 2020).

All of these insights emerged from both scientific studies and surveys carried out by private and public institutions and political bodies and this work has contributed to the growing relevance of SME-oriented policies on the agenda of the European Union. However, there is still a strong need to develop legislative and non-legislative measures to

support SMEs with financial and non-financial incentives, information and training, and research and development that allow these actors to access markets and start implementing traceability and transparency systems and to ensure a level playing field in the market (UNECE 2022).

The UNECE project suggests that when implementing traceability and transparency systems, tools and guidelines can be adapted for these actors through special training and action plans. In the language of the report, “[A]wareness campaigns and training programs are necessary to explain, particularly to SMEs, why traceability is a competitive key and can provide organizations with marketing benefits” (UNECE 2022). The participation of representatives of SMEs during the consultation phases for the development of traceability and transparency systems could also have an important role in their acceptance and implantation.

Moving forward and creating impact

Together with Recommendation No. 46, which contains specific proposals for actions, an extensive toolbox for implementation has been developed by UNECE.¹ This assemblage includes several components that range from guidelines on how to implement recommendations to reports on the current state of the art in sustainability and circularity. In particular, it includes:

Guidelines for Recommendation No. 46 (starting on page 10 of the Recommendation document) (UNECE 2021a).

A Call to Action entitled “The Sustainability Pledge” (UNECE 2021b) that provides a mechanism for governments and value-chain actors to declare their intention to implement all or part of Recommendation No. 46 and in due course to report on their progress.

- A report on business process analysis for sustainability and circularity in the textile-value chain.
- A report on business-process analysis for sustainability and circularity in the leather-value chain.
- A framework for a high-level process and data model for traceability and transparency in the textile and leather sector.
- Cases and data structures for traceability and transparency in the textile and leather sector.
- A mapping of the garment- and footwear-sector ecosystem.
- A mapping of policies, regulations, and guidelines related to traceability and transparency.
- A policy brief on harnessing the potential of blockchain technology for due diligence and sustainability in cotton-value chains.

In addition, UN/CEFACT has created a team of specialists to work on environmental, social, and governance traceability of sustainable value chains in the circular economy that is open to subject experts from around the world to contribute to moving forward traceability standards and implementation efforts in sectors that are critical to the circular economy (UNECE 2021c).

Impact requires action. The above recommendation and their accompanying toolbox need to be adopted and implemented by governments, industries, and all other stakeholders in order to address the environmental and social impacts of the garment and footwear industry.

Conclusions and policy recommendations

Traceability and transparency in the garment and footwear industry require harmonized regulatory frameworks and commonly defined standards, with

the participation of all relevant stakeholders (UNECE 2022). With this aim, the UNECE project on “Enhancing Traceability and Transparency of Sustainable Value Chains in Garment and Footwear” has produced several outputs (Recommendation 46, Call to Action, toolbox) which need to be promoted and implemented by governments and relevant value-chain actors. Among them consumers, vulnerable groups, and SMEs will play especially critical roles in pursuing sustainability in the sector and they need specific measures addressed to them.

It is time to develop a smart policy mix that fosters coherence at the international, regional, and national levels, providing incentives to support the uptake of responsible business conduct, promoting innovation through the adoption of new technologies, raising businesses and consumer awareness and education, and incentivizing public and private partnerships to move toward the transition to a circular economy.

[Appendix 1](#) provides the text of Recommendation No. 46 of UN/CEFACT (UNECE 2021a) on which the authors of this brief report have been working with the goal of disseminating it to the scientific community and the wider public as a contribution to expand global commitment toward a sustainable transition.

Notes

1. For further information refer to <https://unece.org/trade/traceability-sustainable-garment-and-footwear>.
2. See <https://unece.org/trade/uncefact/brs> for the list of business-requirement specifications (BRSs).
3. Extended producer responsibility (EPR) is a policy approach under which producers have significant responsibility – financial and/or logistical – for the treatment or disposal of post-consumer products (<https://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm>).

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Appendix 1

United Nations Economic Commission for Europe, Recommendation No. 46, *Enhancing Traceability and Transparency of Sustainable Value Chains in Garment and Footwear*

The United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) of the United Nations Economic Commission for Europe (UNECE), at its twenty-seventh session, agreed to recommend that governments take the actions listed under the areas shown below.

Policy actions, norms and standards

- Establish harmonized policies and regulations that support the implementation of traceability and

transparency, in order to achieve higher environmental and social standards, economic viability and circularity in garment and footwear value chains by:

- i. Encouraging responsible business conduct, which addresses actual and potential adverse impacts resulting from companies' decisions;
 - ii. Ensuring the reliability of non-financial reporting and sustainability claims about materials, products, processes and facilities;
 - iii. Contributing to international policy coherence, thereby addressing the challenges for producers and consumers that are created by a proliferation of similar, but different, policies and regulations, while also establishing a more level playing field for companies operating in this industry.
- (b) Define minimum levels of traceability across garment and footwear value chains (from raw materials sourcing to consumption and post-consumption activities) and the minimum data that need to be collected in order to show due diligence and transparency in support of claims regarding the origin, composition and other characteristics, including the sustainability performance of products, processes and facilities.
- (c) Encourage companies' efforts to embrace higher transparency in value chain operations, for example by disclosing the names and addresses of suppliers' factories and sharing relevant information on their sustainability performance with stakeholders who are impacted, or potentially impacted, by enterprise decisions. This should be done in a timely, culturally sensitive, open and accessible manner, in line with international data protection norms and standards.
- (d) Reduce the implementation burden on businesses and support SMEs by promoting the use of international standards, such as the UN/CEFACT standards for traceability and transparency of sustainable value chains in garment and footwear² or the equivalent, and by encouraging the use of existing data.

Incentives

- (e) Provide economic and fiscal incentives (positive and negative) for establishing and implementing value chain traceability and transparency systems, especially in support of SMEs, small farmers and producers, and other vulnerable groups such as women, young workers, home-based workers and migrant workers.
- (f) Provide non-financial incentives, including measures to facilitate access to markets; fast-track processes; public procurement criteria that are green and socially responsible; specialized managerial and workforce training; public visibility; peer-learning and non-financial reporting requirements.

Research and development

- (g) Support research and development, and identify and scale-up innovative solutions for:
- i. Advancing the sustainability and circularity of production and consumption processes;

- ii. Tracing and verifying products' authenticity and provenance;
- iii. Increasing the lifespan of products;
- iv. Creating more sustainable materials;
- v. Recycling, reusing and redesigning garments and footwear.

Awareness and education

- (h) Provide education in order to:

- i. Allow consumers to make informed choices;
- ii. Create awareness of the shared responsibility of all stakeholders, including both business and consumers, to take an active role in preserving our planet;
- iii. Increase the demand for materials, products and processes that are more responsible and sustainable.

Multi-stakeholder collaborative initiatives

- (i) Stimulate and support multi-stakeholder, collaborative initiatives that seek to achieve industry-wide change and create shared value for all industry actors. These should be inclusive, benefitting especially SMEs and vulnerable groups in developing and transition countries while, at the same time, addressing garment and footwear value chains' sustainability risks and impacts. Such initiatives could include:

- i. A global, open-source knowledge platform to make guidance available and ensure that industry actors receive appropriate training and information;
- ii. Multi-stakeholder policy dialogues for the sharing of good practices and lessons learned at the international, regional and national levels;
- iii. Pilot projects to experiment with innovative approaches and advanced technologies in traceability, including blockchain technology, artificial intelligence (AI), the internet of things (IoT), and biotechnology markers to ensure an effective connection between digital and physical assets.

When deciding upon specific actions to be taken, multi-stakeholder consultations are recommended in order to strike a balance between the different interests at stake, and to identify targeted implementation support for vulnerable groups. Special attention needs to be given to SMEs, smallholders, farmers, and other groups affected by unfair practices in this sector, including (as appropriate) women, young workers, home-based workers and migrant workers. To monitor and keep track of the implementation of this policy recommendation, stakeholders are requested to report on commitments to the recommended measures starting in 2022, and thereafter every two years. Such pledges are to be expressed in accordance with the Call to Action (ECE/TRADE/C/CEFACT/2020/6/Rev.1), which is open to all industry stakeholders and actors embracing transformational change for a responsible and sustainable garment and footwear industry of the future.