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Briefing Note on the United Nations Economic Commission for Europe – United Nations Centre for Trade Facilitation and Electronic Business Contribution to Advance Circular Economy Actions

Note by the Secretariat

Summary

By adopting the Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda for Sustainable Development, countries have committed to work towards economic prosperity while protecting our planet and ensuring that no one is left behind. This requires shifting from a linear to a circular economy—a new and inclusive economic paradigm that minimizes pollution and waste, extends product lifecycles, enables broad sharing of physical and natural assets and keeps resource consumption within planetary boundaries.

The United Nations Economic Commission for Europe (UNECE) and the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) recommendations, standards, tools and capacity building activities directly and indirectly contribute to circular economy actions in the UNECE region and beyond. This briefing note outlines key actions toward a circular economy, provides an overview of SDG linkages, and outlines the concrete contributions of UNECE / UN/CEFACT deliverables.

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I. Accelerating actions for a transition towards a circular economy

1. Current patterns of production and consumption, coupled with rapid economic growth among developing and emerging economies, have resulted in the depletion of natural resources; the degradation of ecosystems; and the generation of hazardous substances, waste and pollution—thereby undermining long-term sustainability.

2. By adopting the 2030 Sustainable Development Agenda [1] countries have committed to work towards economic prosperity, while protecting our planet and ensuring that no one is left behind. This requires the decoupling of economic growth from environmental degradation through the promotion of resource and energy efficiency, a shift towards more responsible production and consumption patterns, the prevention and reduction of waste along the supply chain, and the development of a sustainable infrastructure. This new pattern of economic growth should be achieved through decent work and should guarantee access to basic services for a better quality of life for all.

3. The circular economy is a new and inclusive economic paradigm, that minimizes pollution and waste, extends product lifecycles, enables broad sharing of physical and natural assets, and keeps resource consumption within planetary boundaries. This new economic paradigm strives for a competitive economy that creates green and decent jobs and keeps resource use within regeneration levels.

4. This new economic paradigm involves putting several key circular economy actions (CEAs) in place through the concerted efforts of policymakers, the private sector (e.g. entrepreneurs, investors), scientists and civil society. [2]

CEA1: ***Incentivize sustainable products and circular production processes*** to make them the norm through the development of supportive policy, legislation and standards. Such regulatory and policy frameworks would reinforce eco-design, circular value chains and the transformation of production patterns to avoid the generation of waste in the first place. This would require an increase in reusability, reparability, recyclability, and must address the presence of harmful chemicals. It would involve leveraging the potential of digitalization to trace product information (such as digital passports, tagging, watermarks and DNA markers). It would involve rewarding products based on their sustainable performance, and fostering high performance levels through incentives aimed at enlarging the market share for such products.

CEA2: ***Empower consumers and public buyers to make informed choices*** to provide them with reliable and trustworthy information to help them make responsible purchasing choices. This relates to information about a product's lifespan; its composition and characteristics, including its environmental performance and compliance with core labour standards; and the minimum criteria for its durability, reparability and recyclability. To these are added policy and regulatory frameworks for labelling, with checks and balances to avoid green-washing. It also involves advancing green and socially responsible, public and corporate procurement practices, which can serve as a powerful driver in increasing the demand for sustainable and

[1] Sustainable Development Goals Knowledge Platform (as of January 2020): https://sustainabledevelopment.un.org/

[2] UNECE Regional Forum for Sustainable Development Reports (Mar 2018, 2019, 2020) and European Commission, Circular Economy Action Plan (Mar 2020)

circular products (e.g. through setting targets, performance and evaluation criteria, and monitoring implementation).

CEA3: ***Reduce waste and create a market of high value secondary raw materials***. This would involve the modernization of legislation and the adoption of specific targets and supporting standards that prevent and minimize waste along value chains, increase recycled content, and ensure high-quality recycling. It would also require cooperation with industry actors to develop a system to effectively classify and track harmful substances, thus enhancing circularity in a toxic-free environment. Requirements for recycled content in products could help prevent a mismatch between supply and demand of secondary raw materials, thus fostering the expansion of markets for secondary raw materials. Rules and standards for the transboundary movement and shipment of waste could help prevent harmful environmental and health impacts.

CEA4: ***Advance circularity in production processes with a focus on priority sectors*** to transform sectors that are particularly resource intensive and where the potential for circularity is high: agri-food, textiles, construction and buildings, packaging, plastics, water and nutrients and IT and electronics. This would involve exploring how to introduce sustainability and circularity requirements along the entire value chain, and how to enhance access to reuse, repair and share services. To this end, it would be essential to propose standards for certification to verify compliance with circularity requirements and to harness the potential of advanced technologies for tracking and tracing of materials, including the use of harmful substances. Stakeholders in key value chains would need to be engaged to identify barriers to the expansion of markets for circular products and ways to address those barriers in priority sectors.

CEA5: ***Ensure that the circular economy contributes to social inclusion through skills and job creation, and economic instruments for cities and territories.*** Skills creation and enhancement are key to ensuring that a circular economy creates new and green jobs. Raising awareness, ensuring cooperation and capacity building are also central to ensuring that disadvantaged groups can benefit from a just transition. To get the economics right, the broad application of well-designed economic instruments that target final consumers, such as environmental taxation, including landfill and incineration taxes, should also be considered to promote circular economy activities, notably repair and sharing-economy services.

CEA6: ***Sustain policy, normative and capacity-building efforts to advance the circular economy at national, regional and global levels*** to support transformative change through coordinated efforts and sharing of experiences. Policymakers will face many novel choices on how to regulate newly emerging markets and how to balance public policy concerns (e.g. fair competition, consumer safety and labour standards). Moving towards a circular economy might involve considerable transition costs and requires the right mix of policies, regulations, standards, and fiscal measures to mobilize the necessary private, public and blended investment to make sure that harm created by economic activities is recognized and reflected in their cost. To enable this process of discovery, policymakers, entrepreneurs, investors, and civil society need to engage in continuous, multi-level dialogue to understand the opportunities, challenges, and bottlenecks.

5. The implementation of this set of key measures would involve harnessing the potential of research, innovation and digitalization for the circular economy. These are instrumental to the development and uptake of frontier technologies and processes (blockchain, artificial intelligence and Internet of things), which can help us to use renewable or better performing resources, dematerialize our economy, and make us less dependent on primary materials.

6. It would also require a sound monitoring framework to measure their impact on the relevant SDG targets of the 2030 Agenda.

II. Circular economy actions and the SDGs of the 2030 Agenda

7. Scaling up the circular economy, from frontrunners to mainstream economic players, will significantly contribute to achieving a sizeable number of targets under the 2030 Agenda for Sustainable Development.

8. Certain CEAs, as outlined above, directly and indirectly contribute to the following SDGs; and in turn, there are certain SDGs that positively contribute to the uptake of specific CEAs (table 1).

Table 1
Relationship between SDGs and CEAs

Direct contribution of CEAs to the SDGs	
SDG 6 Clean water and sanitation	CEA1 Sustainable products and circular production
	CEA4 Sectors with high circular economy potential
SDG 8 Decent work and economic growth	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG12 Responsible production and consumption	CEA1 Sustainable products and circular production
	CEA2 Informed consumption choices
	CEA3 Less waste
SDG15 Life on land	CEA1 Sustainable products and circular production
Indirect contribution of CEAs to the SDGs	
SDG1 No poverty	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG2 Zero hunger	CEA4 Sectors with high circular economy potential
SDG11 Sustainable cities and communities	CEA3 Less waste
	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG 14 Life below water	CEA1 Sustainable products and circular production
	CEA3 Less waste
Positive contribution of SDGs to the uptake of CEAs	
SDG 4 Quality education	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG 9 Industry, innovation and infrastructure	CEA1 Sustainable products and circular production

SDG 10 Reduced inequalities	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG 13 Climate action	CEA1 Sustainable products and circular production
	CEA2 Informed consumption choices
SDG 16 Peace, justice and strong institutions	CEA2 Informed consumption choices
	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
SDG 17 Partnerships for the goals	CEA5 Skills and jobs creation, and assistance facilities for territories and cities
	CEA6 Sustain efforts for the circular economy

Source: UNECE 2020

III. The contribution of UN/CEFACT deliverables to advance circular economy actions

9. In the UNECE region, the circular economy is at the heart of the policy action of many member States, both advanced economies and economies in transition. To support this commitment, UNECE has (1) fostered cross-sectoral linkages to further accelerate these processes by pooling its multisectoral expertise through an integrated "nexus" approach to 2030 Agenda delivery; and (2) has brought countries, civil society, and the private sector together to share knowledge, experiences and lessons learned, and provide recommendations toward the common goal of a systemic transition towards more sustainable production and consumption practices.

10. The UN/CEFACT Secretariat has been leading the organization of multi-stakeholder policy dialogues on measures and approaches to accelerate a transition to a circular economy. These policy dialogues have been conducted as part of the UN/CEFACT Forums (Hangzhou, October 2018; London, October 2019), the UNECE Regional Forums on Sustainable Development (Geneva, March 2018, 2019 and 2020) and the United Nations High Level Political Forum on Sustainable Development (New York, July 2019).

11. Furthermore, UNECE - UN/CEFACT Policy Recommendations, Standards, tools and capacity building activities are directly and indirectly supporting specific actions for the transition to a circular economy, from waste prevention and reduction, to advancing sustainable procurement practices, informing responsible consumers choices, and enhancing industry due diligence in specific sectors such as textiles and agri-food.

12. For example, the UNECE - UN/CEFACT Policy Recommendation No. 43 on Sustainable Procurement, adopted in 2019, recommends approaches and criteria for the purchase of sustainable and circular products and services in line with the World Trade Organization (WTO) Government Procurement Agreement and Trade Facilitation Agreement; regional normative frameworks such as the European Union Public Procurement Directives; and Guidelines and Criteria for Sustainable and Circular Procurement. The recommendation also offers criteria for a more holistic consideration of environmental and social impacts and waste-creation along the entire value chain of products and services for both public and private buyers. It thus helps identify measures to enhance the market share of sustainable and circular products

and services, helps incentivize supporting R&D and innovation for the transition to the circular economy, and fosters the international harmonization of purchasing practices with circular economy at their heart. This recommendation, already used by European Union member States (e.g. Italy), is highly relevant to CEA2, promoting informed consumption choices, and directly contributes to the achievement SDG 12 for responsible production and consumption.

13. When it comes to Standards, the UNECE - UN/CEFACT Standards for control of food quality, safety and soil contamination, such as eLab (adopted in 2014), eCrop (adopted in 2017), eCERT (adopted in 2018), and eQuality (adopted in 2019), help identify chemicals and contaminants—significantly reducing their presence in agri-food supplies and their release in soil. These also help to reduce waste of agri-food supplies and to enhance the quality and productivity of soil, which is key for improving impacts on human health and the environment, and waste prevention and resource efficiency in a circular economy. This information can be used by both public authorities and industry actors to identify, for example, which fertilizer should be used, in what quantities, for which crop and during which season. Pilots have shown that the exchange of standardized messages reduces sample analysis turnaround time by 90 min per analysis and provides a 15 min time savings per sample at the laboratory. These Standards are extensively used in both the UNECE region and beyond (e.g. European Union member States, Australia, Brazil, Canada, Japan, Malaysia, Namibia and South Korea). They are highly relevant for CEA1 on sustainable products and circular production; CEA2 on informed consumption choices; and CEA4 on sectors with high circular economy potential. They also contribute to SDG12 for responsible production and consumption, and indirectly contribute to SDG2 on zero hunger.

14. The UN/CEFACT white papers on blockchain technology for trade and the SDGs, published in 2019, are tools that flag the contribution of blockchain technology to promote sustainable products and enable responsible choices in a circular economy. In fact, the papers argue that the repetition of data among multiple ledgers in a network, as well as the immutability of information after it has been integrated into the blockchain, can increase levels of confidence for supply chain actors, regulators and consumers. Blockchain technology can be used to advance the implementation and monitoring of many of the Sustainable Development Goals (SDGs) targets, such as those related to the reduction of food waste, sustainable production, or the provision of legal identities and financial services in a cost efficient manner. They have been used by the recently established UN/CEFACT Advisory Group on Advanced Technologies. The papers are of moderate relevance to CEA6 on sustaining efforts for the circular economy, supported by SDG 9 on industry, innovation and infrastructure.

15. As another example, the UNECE Project on Blockchain for Sustainable and Circular Value Chains in Cotton Value Chains, currently in its implementation phase, defines the value chain and data model for the traceability of cotton value chains, and the technology model for the traceability of physical assets. The project will provide an analysis of the legal aspects of the blockchain pilot implementation (data security and privacy); parallel testing of blockchain modules developed, with an integration test for partner certification and necessary key performance indicators (KPIs) stored on blockchain; and training and rolling-out with pilot partners. The project is implemented with industry partners (brands, manufacturers, farmers, certification entities, blockchain solution providers) and targets both advanced and developing economies: Egypt, Germany, Italy, Switzerland and the United Kingdom. It is highly relevant to CEA4 on sectors with high circular economy potential, which directly contributes to SDG12 for responsible production and consumption.

16. The matrix in Annex provides a detailed overview of UN/CEFACT deliverables, including their status and current use and their contribution to the circular economy, with cross-linkages to specific CEAs and SDGs[3]. It also highlights the relevance (high, medium, low) of these deliverables to identified CEAs and related SDGs.

17. The UNECE secretariat is committed to continuing its joint work with member States in pursuing the transition to a circular economy and to achieving the SDGs of the 2030 Agenda for Sustainable Development.

[3] Document ECE/TRADE/C/CEFACT/2020/26 provides a detailed overview of the UN/CEFACT work that supports the implementation of the United Nations 2030 Agenda on Sustainable Development.

Annex
Mapping of UNECE-UN/CEFACT Deliverables to Circular Economy Actions (CEAs) and the SDGs

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs*
				● High ● Medium ○ Low
Policy Recommendations				
UNECE UN/CEFACT Policy Recommendation on Transparency and Traceability for Sustainable and Circular Value Chains in Garment and Footwear (under development and for submission to the 27th UN/CEFACT Plenary in 2021)	Policy Recommendation promoting a harmonized framework to advance transparency and traceability of sustainable and circular value chains, with a focus on the garment and footwear industry. Includes a model regulation and call for action.	Intended to support policymakers and decision makers in the public and private sectors in the adoption of laws, regulations and business models to identify, collect and exchange data and information about products and process characteristics; to enable them to make risk-informed decisions; and to operate using a set of internationally-agreed standards for sustainable and circular value chains, and in sectors with a strong CE dimension.	A drafting process, supported by a large group of industry stakeholders (governments, IGOs, NGOs, industry associations, businesses, academia and think tanks) from the UNECE and other regions of the world.	● CEA1: *Sustainable products and circular production* ● CEA4: *Sectors with high CE potential* ● SDG12: *Responsible production and consumption*
UNECE UN/CEFACT Policy Recommendation No. 43 on Sustainable Procurement (adopted 2019)	Policy Recommendation outlining approaches to move towards a sustainable procurement process. It proposes a checklist to evaluate vendors and procurement propositions and includes considerations for a supplier code of conduct.	Recommends approaches and criteria for the purchase of sustainable and circular products and services. Aligns with the WTO Government Procurement and Trade Facilitation Agreements; and regional normative frameworks such as the European Union Public Procurement Directives and Guidelines and Criteria for Sustainable and Circular Procurement. Offers criteria for a holistic view of environmental and social impacts and waste creation along the entire value chain of products and services (for both public and private buyers). It helps identify measures to enhance the market share of sustainable and circular products and services, and incentives supporting R&D and innovation for the transition to the CE. Can foster the international harmonization of purchasing practices with the CE at its heart.	Implemented by private companies (e.g. in European Union member States like Italy.	● CEA2: *Informed consumption choices* ● SDG12: *Responsible production and consumption*

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs*
				● High ◐ Medium ○ Low
UNECE UN/CEFACT Policy Recommendation No. 41 on PPPs in Trade Facilitation (adopted 2017)	Policy Recommendation providing detailed guidance on governance; supporting information technology and infrastructure; and potential risks to consider in the design and implementation of PPPs for trade facilitation.	Although they do not address CE per se, PPPs are frequently used in sectors with a strong CE dimension such as waste management and treatment and building and construction. This recommendation contributes to promoting effective public, public-private and civil society partnerships, which are often useful when exploring new regulatory models and coordinating economic approaches for CE transition. The recommendation aims to foster potential benefits in terms of enhancing open and transparent markets, bringing in cost-effective processes, accessing private-sector know-how, increasing competition and attracting necessary foreign investments.	Used as a basis for the development of the UNECE People First PPP approach, implemented globally.	◐ CEA4 *Sectors with high CE potential* ◐ *SDG17: Partnerships for the goals*
Standards				
The UN/CEFACT Library of Semantic Data • Core Component Library • Reference Data Models • Code Lists • UN/EDIFACT (all updated semi-annually and adopted annually)	E-business Standards setting out electronic communication methods in a standardized and harmonized manner. These standards take a comprehensive approach to the entire supply chain, ensuring that all data is interoperable and thus not losing any information between processes.	Electronic communications help to tackle value chain disruptions, contribute to reducing the carbon footprint of cross-border transactions, and advance sustainable trade facilitation for the CE. For example, the BAPLIE UN/EDIFACT message announces the place of a container on a vessel and all the merchandise that it contains - this message alone replaces about 1500 sheets of paper per vessel.	Extensively used globally by both public authorities and private companies in the logistics and transportation sector. In retail, UN/EDIFACT is used by 100,000 traders; in the maritime industry one shipping company alone, sends over 250 million messages per year using the UN/EDIFACT standard. The use of the UN/EDIFACT VERMAS messages is compulsory in all European Union member States.	○ CEA1: *Sustainable products and circular production* ● SDG17: *Partnership for the Goals*

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs*
				● High ◐ Medium ○ Low
UN/CEFACT Standards for control of food quality and safety and soil contamination: 1. eLab (adopted in 2014) 2. eCrop (adopted in 2017) 3. eCERT (adopted in 2018) 4. eQuality (adopted in 2019)	E-business Standard to detect and declare presence of chemicals and contaminants in agri-food products and in soil samples.	Identifying chemicals and contaminants allows a for a significant reduction in their presence in agri-food supplies and their release in soil. This helps to reduce waste of agri-food supplies and to enhance the quality and productivity of soil, which is key for improving human health and the environment and waste prevention and resource efficiency in a CE. For example, the information can be used by both public authorities and industry actors to identify which fertilizer should be used, in what quantities, for which crop and during which season. Pilots have shown that the exchange of standardized messages reduces sample analysis turnaround time by 90 min per analysis and provide a 15 min time saving per sample at the laboratory.	Extensively used in the UNECE region (e.g. European Union member States, the Russian Federation and USA). Other countries that have adopted these standards include Australia, Chile, China, Kenya, the Republic of Korea, Japan, Malaysia, New Zealand, the Philippines, and Sri Lanka.	● CEA4: *Sectors with high CE potential* ● SDG12: *Responsible production and consumption* ◐ SDG15: *Life on land*
UN/CEFACT Standards for traceability of value chains 1. Standards for animal and animal products (adopted 2017) 2. Standards for primary natural products from plant and animal origin (adopted 2017) 3. Standards for sustainable and circular garment and footwear products and processes (under development)	E-business Standards for the tracking and tracing of animals, products, and commodities of animal and plant origin (e.g. food, cotton, wool, cashmere, synthetic fibres, leather).	The Standards support public authorities, industry actors and consumers in the identification and collection of relevant data and information about the composition and attributes of products, compliance with sustainability and circularity, legal requirements and standards, including on the use of hazardous substances. This is key for eco-design, planning and managing reuse and recycling processes, and effective and efficient waste prevention and management in central sectors for the CE. The Standards help harmonize information exchange in compliance with global and regional policies, regulations and standards for sustainable and circular value chains (e.g. European Union Directives and Regulations, European Union Circular Economy Action Plan, OECD Due Diligence Guidelines, United Nations Global Compact).	Extensively used in both the UNECE region and beyond (e.g. European Union member States, Australia, Brazil, Canada, Japan, Malaysia, Namibia, South Korea)	● CEA1: *Sustainable products and circular production* ● CEA2: *Informed consumption choices* ● CEA4: *Sectors with high CE potential* ◐ SDG2: Zero hunger ● SDG12: *Responsible production and consumption* ◐ SDG15: *Life on land*

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs* ● High ◐ Medium ○ Low
UN/CEFACT Standard on Rapid Alert System for Food and Feed (adopted 2015)	E-business Standard to recall contaminated goods from the market.	Helps public authorities centrally classify and communicate information about contaminated food and feed for recall and withdrawal from the market. Helps avoid waste of non-contaminated goods in the agri-food sector, which is a priority sector for the CE. It also helps reduce health risks and value chain disruption while supporting more efficient and effective value chain control.	Extensively used by European Union member States in recent years to recall meats, eggs and other products.	● CEA2: *Informed consumption choices* ● CEA4: *Sectors with high CE potential* ● SDG12: *Responsible production and consumption*
UN/CEFACT Standards for improved control of trade in endangered species (eCITES) (adopted 2015)	E-business Standards which support the electronic exchange of the Convention for the Illegal Trade of Endangered Species (CITES) permits and certificates and reduces incidents of illegal trade in wildlife.	Illegal trade in wildlife has become the 4th biggest trans-border crime. It prevents sustainable wildlife management and carries a high risk of spreading diseases. The implementation of electronic control methods reduces the risk of document fraud and allows for the use of risk management and targeted inspections.	Used by European Union member States. There is high interest by developing countries to exchange electronic CITES permits with European Union member States. European Union member States use UN/CEFCAT standards for the European Union TRACES Single Window exchanges.	◐ CEA2: *Informed consumption choices* ● SDG15: *Life on land*
The UN/CEFACT Fisheries Language for Universal Exchange (UN/FLUX) (adopted 2014)	E-business Standard allowing fisheries management organizations to automatically access electronic data from fishing vessels needed for stock management (vessel and trip identification, fishing operations or fishing data such as catch area, species and quantity, date and time).	Helps public authorities to reduce the challenges of overfishing and illegal, unregulated and unreported (IUU) fishing activities, supporting efforts to safeguard fish stocks and reduce the threat to biodiversity, thus contributing to the conservation and more efficient management of resources.	Implemented by twenty-three European Union member States, representing 85,000 fishing vessels with an annual volume of 5 million tonnes of fish. Emerging economies, such as Brazil and Thailand are also developing systems for the implementation of the UN/FLUX Standard.	○ CEA2: *Informed consumption choices* ◐ SDG14: *Life on land*

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs*
				● High ● Medium ○ Low
UN/CEFACT Standards s for the Transboundary Movement of Waste (adopted 2008)	E-business Standards for the purpose tracking and tracing of transboundary movements of waste and their disposal/exchange in compliance with the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal.	Can foster effectiveness and efficiency in waste analysis/classification and subsequently, waste management. Classifying waste is also essential for appropriate treatment processes and installation, in a sector key to the CE. Classification is done through the definition of standardized electronic data formats for waste-management-related data (e.g. waste analysis results, physical and chemical properties and hazardousness).	Used by UNECE member States (e.g. Austria and Switzerland).	● CEA3: *Less waste* ● SDG12: *Responsible production and consumption* ● SDG11: *Sustainable cities and communities*
Tools				
UN/CEFACT White Papers on Blockchain for Trade and the SDGs (published 2019)	White Papers discussing the role of blockchain technology in the reliability and security of data exchange for trade facilitation, and effective and efficient management of sustainable value chains.	The White Paper argues that the repetition of data among multiple ledgers in a network, as well as the immutability of information after it has been integrated into the blockchain, can increase levels of confidence for supply chain actors, regulators and consumers. This is key to promoting sustainable products and enabling responsible choices in a CE. Blockchain technology can be used to advance the implementation and monitoring of many of the Sustainable Development Goals (SDGs) such as reducing food waste, supporting sustainable production or providing legal identities and financial services in a cost efficient manner.	Used by the recently established UNECE UN/CEFACT Advisory Group on Advanced Technologies.	● CEA6: *Sustain efforts for the CE* ○ *SG9*: *Industry, innovation and infrastructure*
UN/CEFACT Policy Paper on Accelerating Action for a Sustainable and Circular Garment and Footwear Industry (published 2019)	Policy Paper providing a detailed analysis of sustainability impacts and risks in the garment and footwear industry and recommendations on measures and approaches to address them.	Shows that transparency and traceability are a key driver of sustainability and circularity and must be a collaborative effort. Looks into key requirements for and components of a robust transparency and traceability framework, and provides a series of recommendations on possible measures and approaches that public authorities could devise to create a conducive environment and to sustain the implementation of such a framework at the industry level in a priority sector for the CE.	Drafted through a wide consultation of industry actors, the findings of this paper have been used to scope out a large technical assistance project, funded by the European Union DG DEVCO to develop a global United Nations framework for transparency and traceability of sustainable and circular value chains in garment and footwear (2019-2022).	● CEA4: *Sectors with high CE potential* ● SDG12: *Responsible production and consumption*

Deliverable	*Description*	*Contribution to the circular economy (CE)*	*Use*	*Relevance to specific CEAs and SDGs*
				● High ◐ Medium ○ Low
UN/CEFACT Framework on Traceability for Sustainable Trade (published 2016)	A Framework identifying the key components of a traceability system, such as the regulatory objectives, the expectations and needs of stakeholders, the goods or services that need to be traced, and the rules under which information is to be exchanged between parties.	The Framework supports policy and decision makers in developing traceability approaches for the international trade of sustainable products in line with policy objectives and societal values, to create trust among consumers around the credibility of products claims, including on compliance with circular products requirements. Empowering consumers and buyers is a key driver for the CE. Provides guidance for developing a high-level plan for the traceability of sustainable and circular products traded across borders.	Used as a key reference for the development of the UNECE UN/CEFACT Policy Recommendation for Transparency and Traceability of Sustainable and Circular Value Chains in Garment & Footwear.	● CEA6: *Sustain efforts for the CE* ● SDG12: *Responsible production and consumption*
Capacity Building				
UNECE Project on Blockchain for Sustainable and Circular Value Chains in Cotton Value Chains (project in implementation phase)	Capacity Building Project that pilots the use of Blockchain technology to support transparency and traceability of value chains in the cotton industry in a CE.	Defines the value chain and data model and technology model for the traceability of cotton value chains. Provides an analysis of the legal aspects of blockchain implementation (data security and privacy); parallel testing of blockchain modules developed; an integration test for partner certification and necessary KPI's stored on blockchains; and training rolled-out with pilot partners.	Jointly implemented with industry partners (brands, manufacturers, farmers, certification entities, blockchain solution providers), targets both advanced and developing economies: Egypt, Germany, Italy, Switzerland, UK.	● CEA4: *Sectors with high CE potential* ● SDG12: *Responsible production and consumption*