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Page: 1/13

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TRADE AND ENVIRONMENTAL SUSTAINABILITY STRUCTURED DISCUSSIONS (TESSD)

STATEMENT BY THE TESSD CO-CONVENORS

Addendum

This addendum includes the outcome document of the TESSD Informal Working Group on Circular Economy – Circularity, accompanying the Statement by the TESSD Co-convenors circulated in document WT/MIN(24)/11.

INFORMAL WORKING GROUP ON CIRCULAR ECONOMY – CIRCULARITY

Mapping Exercise: Trade and trade policy aspects along the lifecycle of products

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Table of Contents

1 INTRODUCTION

1.1. The role of trade in contributing to a circular economy has been a priority in Members' discussions in TESSD. In the 2021 TESSD Ministerial Statement, Members agreed to identify and compile best practices, as well as explore opportunities for voluntary actions and partnerships to ensure that trade and trade policies are supportive of and contribute to achieving a more resource-efficient circular economy.[1] As foreseen by the TESSD Work Plan of February 2022, Members pursued more in-depth discussions in four informal Working Groups, including in the Working Group on Circular Economy – Circularity.

1.2. In 2022, the Working Group held two meetings on 18 May and 4 October. At the May meeting[2], Members heard business perspectives on the challenges and opportunities related to circular economy approaches as well as those to improve e-waste recycling, and shared their national experiences on how a circular economy approach was supporting sustainable development and climate change goals. At the October meeting[3], Members discussed trade-related policy issues pertaining to waste, end of life, and reverse supply chains. In addition, Members also shared national experiences and discussed their priorities for the Working Group at plenary meetings on 31 March and 19 July. The 2022 annual report summarises the Working Group activities.[4]

1.3. At the High-Level Stocktaking event on 2 December 2022, Members agreed to pursue sector-specific discussions and welcomed the proposition to pursue a mapping exercise to build a broader understanding of the trade aspects of circular economy which are relevant to each part of the lifecycle.[5] In 2023, on 17 March, 11 May, 19 September and 21 November[6], Members discussed the specific trade issues associated respectively, with circularity in batteries, renewable energy (solar and wind), electronics and textiles sectors, as well as considered presentations by the Secretariat on the mapping of circular economy-related measures in the WTO and further advanced the mapping exercise. The 2023 annual report summarises the Working Group activities.[7]

1.4. The objective of this document is to provide an overview of the trade and trade policy aspects of circular economy based on the work of the TESSD Working Group on Circular Economy – Circularity since 2022. In particular, the following mapping will cover: (i) initiatives and experiences shared by Members; (ii) measures relating to circular economy in notifications and trade policy reviews (TPRs) from the WTO Environmental Database (EDB); and (iii) trade aspects of circular economy based on presentations, analytical work and discussions in the Working Group.

2 INITIATIVES AND EXPERIENCES SHARED BY MEMBERS

2.1. During 2022 and 2023, Members shared initiatives and national experiences aimed at advancing circular economy, including how circular economy approaches were supporting sustainable development and goals to address climate change, pollution and biodiversity loss.

Table 1. Circular economy initiatives and experiences shared by Members

Experience sharing
Canada – Right to Repair, Food Waste Reduction Challenge, and regional efforts • The Right to Repair aims to extend the lifetime of products such as home appliances and electric appliances rather than purchasing new ones. • The Food Waste Reduction Challenge aims to reduce food waste and increased food availability, lower costs for consumers and businesses and reduced emissions, and strengthen our food systems. • Regional efforts with the United States already in recovered paper materials and other recovered materials will be critical to building circular supply chains in North America. It is worth noting that there is currently work underway under the Canada-Mexico-United States Commission for Environmental Cooperation to study recycling infrastructure and circular trade.

[1] TESSD Ministerial Statement on Trade and Environmental Sustainability, WT/MIN(21)/6/Rev.2.
[2] Summary report, INF/TE/SSD/R/10.
[3] Aide-mémoire, INF/TE/SSD/R/13.
[4] TESSD Summary Report 2022, INF/TE/SSD/R/14.
[5] Informal Summary by the Co-convenors, INF/TE/SSD/R/15; and Statement by the TESSD Co-convenors, INF/TE/SSD/W/21.
[6] Summary of discussions in Working Group meetings held: 16-17 March – INF/TE/SSD/R/16; 11-12 May – INF/TE/SSD/R/17; 19-20 September – INF/TE/SSD/R/19; 20-21 November – INF/TE/SSD/R/20.
[7] TESSD Summary Report 2023, INF/TE/SSD/R/21.

Experience sharing
Chile – Producer Responsibility Law • In force since 2016, it makes producers of priority products responsible for financing the management of waste generated by products that are sold on the domestic market for seven priority products: technical and electronic equipment, batteries, packaging, newspapers and magazines, tyres, batteries, oils and lubricants.
China – Legal framework to support the circular economy • From 2008, China raised developing the circular economy as a significant strategic pillar for its economic and social development. In 2021, China further listed the circular economy as one of the ten key actions to achieve carbon peaking. China has established a relatively comprehensive legal framework to support the circular economy and has achieved significant progress in the circular economy, making a positive contribution to achieving sustainable development goals. • The 2009 "Regulations for the Administration of the Recovery and Disposal of Waste Electric and Electronic Products", laid the foundation for a regulated management system of collection and disposal of waste electric and electronic products: manufacturers of products listed in the catalogue contribute funds, which are then used to fund qualified companies engaged in the disposal of waste products. By end of 2022, there were 109 qualified disposal companies in China, with an annual processing capacity of 160 million units of e-waste.
Colombia – National Circular Economy Plan • The strategy prioritises action on six material or resource flows: industrial materials and consumer goods; packaging materials; biomass; energy; water and building materials. The objective of the framework is to increase the recycling rate from 8% to 12.5% by 2022. Through Extended Product Responsibility programmes, more than 500,000 tonnes of special waste have been recovered.
Costa Rica – National Bioeconomy Strategy • The strategy aims to build a knowledge-based, green and resilient competitive decarbonized economy based on the principles of a circular bioeconomy and decarbonization of production and consumption processes.
European Union – Circular Economy Action Plans, Eco-design for Sustainable Products Regulation, and Waste Legislation (including Packaging and Packaging Waste Regulation; Directive on end-of-life vehicles), Batteries Regulation. • The measures aim, *inter alia*, to improve product design, to avoid the use of hazardous chemicals or materials, reducing the environmental impact of a product from conception. • The newly agreed Eco-design for Sustainable Products Regulation expands the scope of former Ecodesign Directive to cover most end-use and intermediary products and introduces provisions designed to prolong product lifecycles such as product repairability, durability, and availability of spare parts, among others. • Regarding waste, the EU aims to reduce waste generation and to bring back into the economic cycle secondary raw materials and recycle waste while promoting the uptake of extended producer responsibility (EPR) schemes. • The Batteries Regulation will make batteries in the EU market more sustainable and circular, replacing the Batteries Directive. It aims to ensure sustainability throughout the lifecycle of batteries, from sourcing to recycling. The law introduces gradual sustainability requirements, higher collection targets, and mandatory recycling. Further detailed rules will be adopted from 2024 to 2028.
Japan – Japan Partnership for Circular Economy (J4CE) • A domestic circular economy partnership was launched in 2021 to deepen the understanding about the circular economy, promote collaborative efforts and strengthen public-private alliances among a wide range of companies and stakeholders. A summary of 160 good practices was published by Japanese companies with regard to the circular economy in September 2021.
Korea, Republic of – K-Circular Economy Implementation Plan • This plan was formulated with the participation of stakeholders and experts from academia, civil society, and industry. It incorporates promotion of biodegradable plastics and renewable materials, and eco-friendly designs which facilitate reuse and re-production. Further, the plan also includes eco-friendly designs.
Maldives – Ocean Preservation • Preserving the oceans is a national priority due to is economic importance, as the source of 60% of its GDP. Banning eight varieties of single use plastics since 1 June 2022 aims to reduce energy use and waste, while leading to value creation for plastic product collection through partnerships with industry.
Saudi Arabia, Kingdom of – Circular Carbon Economy Programme • The programme promotes circularity through circular approaches aiming to address both material wastes and emissions flows and could contribute to sustainable global trade by promoting solutions adapted to country's individual needs, circumstances, and priorities. Carbon removal could be an additional step in the circular cycle beyond the cycle of reduction, reusing, and recycling and could have positive effects on the extraction of natural resources by reducing emissions.

Experience sharing
Switzerland – Plastic (on PET beverage bottles) and Electronic Recycling Rules (e.g. Environmental Protection Act, Ordinance On Beverage Containers); Chemicals Risk Reduction Ordinance • National system to recycle PET, beverage containers made from aluminium and glass bottles through a federal regulation and minimum threshold of recycling (a deposit will be introduced only if the recycling threshold is not met). Waste bottles that cannot be recycled are incinerated to produce electricity and heat. For electric and electronic equipment, an advance recycling contribution is included in the purchase price. • The Chemicals Risk Reduction Ordinance (ChemRRV) in Switzerland governs the regulations for batteries. Within its Annex, there are specific provisions concerning the recycling of traction batteries. Additionally, the annex includes regulations on battery labelling, requirements for the return and collection of batteries, mandatory fee payments, and reporting obligations.
United States – Sustainable Materials Management and National Recycling Strategy • The concept of sustainable materials management (SMM) aims at the systemic and productive use and reuse of materials over their life cycles, with limited impacts on the environment. • The National Recycling Strategy aims to create a more resilient and cost-effective national recycling system. And create more equitable access to recycling services reduce waste while promoting recycling and trade in recycled materials.

Note: This table includes initiatives and experiences shared in meetings in 2022 (based on TESSD Summary Report 2022, INF/TE/SSD/R/14), as well as those mentioned in meetings in 2023.

3 MAPPING OF MEASURES IN THE WTO

3.1. To inform the mapping exercise of the Working Group, the WTO Secretariat carried out a mapping of measures that relate to circular economy at the WTO, helping Members build a broader understanding of the aspects of trade and trade policy which are relevant to each part of the lifecycle. In particular, the mapping identified measures related to circular economy contained in notifications and trade policy reviews (TPRs) from the WTO Environmental Database (EDB).

3.2. This analysis by the Secretariat identified measures by circular economy activity/objective, which cover reducing resource consumption and waste generation, promoting the use of biocycles and sustainable materials, encouraging the substitution of non-renewable resources, supporting repair and remanufacturing practices, promoting reuse and recycling, facilitating waste-to-energy conversion, managing hazardous substances and waste in an environmentally sound manner, fostering technology and research development related to circularity, and enhancing transparency relating to material composition.

3.3. For the purposes of this mapping, the above-mentioned activities are referred to in the following manner: reduce, reuse, repair, remanufacture and refurbishment, recycle, biological cycles, substitutes, hazardous substances and waste management, waste-to-energy, technology/research and transparency. Table 2 below presents illustrative examples of trade aspects of circular economy, organized by activities.[8]

Table 2. Illustrative examples of measures at WTO, addressing different circular economy activities

Activity/objective	Illustrative example	Reference
Reduce	Measure supporting the installation of new equipment that delivers reduction in raw materials, water, or waste with the aim to enhance material efficiency	G/SCM/N/372/GBR
Reuse	Measure that provides discounts on levy apply for certain activities which include repurposing for reuse of e-waste	G/SCM/N/372/AUS
Repair	Measure aimed at promoting repair for parts of manufacturing machinery	G/SCM/N/372/USA
Remanufacturing and refurbishment	Measures that set out standards that apply to remanufactured products Measure that requires minimum level of energy efficiency in manufactured, imported, marketed and refurbished for sale squirrel cage induction motor	G/TBT/N/MEX/311 G/TBT/N/BRA/1044
Recycling	Measures that promote recycling of waste from lead and copper extraction	G/SCM/N/186/EEC/Add.22

[8] These examples do not constitute definitions, but an illustration of measures by some Members included in notifications and TPRs from the EDB for the period 2009 to 2021. The dataset with all measures used in the analysis is available to Members and stakeholders.

Activity/objective	Illustrative example	Reference
Waste-to-energy	Measure that promote waste-to-energy production facilities	G/SCM/N/343/USA
Technology/Research	Measure that supports research for material recycling in electric vehicles	G/SCM/N/372/EU/ADD.27
Transparency on material composition	Measures that set out requirements for the end-of-life management of batteries	G/TBT/N/EU/775
Biological cycles	Promotion of degradable raw materials, such as biomaterials in production processes	WT/TPR/G/400 – Thailand
Substitute	Measures which prohibits the knowing release of ozone – depleting and substitute refrigerants during the course of maintaining, servicing, repairing, or disposing of appliances or industrial process refrigeration	G/TBT/N/USA/1049
Hazardous substances and environmentally sound management of waste	Measure to impose an import and/or export licensing for import and/or export of hazardous wastes from lead-acid batteries	G/MA/QR/N/KAZ/1

3.4. In addition to assigning measures to circular economy activities and objectives, the mapping also assigned measures to six lifecycle stages (raw material extraction; design; production; packaging and distribution; product use; end of life and waste disposal) and nine sectors (agriculture/food; batteries; construction & buildings; electronics; manufacturing or multiple sectors; plastics & packaging; renewables; textiles; and vehicles). It should be noted that one measure can be assigned to more than one activity/objective, lifecycle stage or sector.

3.5. The analysis finds a total of 520 measures in notifications made by Members to the WTO between 2009 and 2021 that relate to circular economy (Table 3). Measures were notified by some 85 Members, with the top 20 Members accounting for close to 77% of the 520 measures. More than three quarters of measures related to circular economy are found in notifications under two agreements, namely, the Agreement on Subsidies and Countervailing Measures (SCM) (214 measures or 41%) and the Agreement on Technical Barriers to Trade (TBT) (180 measures or 35%). A good number of measures are also found in notifications on import licensing procedures (IL) (62 measures or 12%) and quantitative restrictions (QR) (30 measures or 6%).

Table 3. Measures by notifying Member and Agreement

Member	SCM	TBT	IL	QR	SPS	GP	Other	Total
United States	103	12	0	0	0	0	0	**115**
China	30	17	1	0	0	0	0	**48**
Korea, Republic of	9	9	11	0	2	0	0	**31**
European Union	0	21	0	0	1	0	1	**23**
Hong Kong, China	3	1	11	7	1	0	0	**23**
Philippines	0	1	17	0	0	0	5	**23**
Australia	14	1	2	3	0	0	1	**21**
France	0	17	0	0	0	0	0	**17**
Japan	0	4	0	0	0	7	1	**12**
Mauritius	0	2	5	4	0	0	0	**11**
Finland	9	0	0	0	0	0	0	**9**
Romania	9	0	0	0	0	0	0	**9**
Thailand	2	7	0	0	0	0	0	**9**
Seychelles	0	1	2	5	0	0	0	**8**
United Kingdom	5	3	0	0	0	0	0	8
Canada	3	3	0	1	0	0	0	**7**
Uganda	0	7	0	0	0	0	0	**7**
Estonia	6	0	0	0	0	0	0	**6**
Türkiye	0	3	0	0	1	0	2	**6**
Viet Nam	3	3	0	0	0	0	0	**6**
Other Members	18	68	13	10	9	0	3	**121**
Total	**214**	**180**	**62**	**30**	**14**	**7**	**13**	**520**

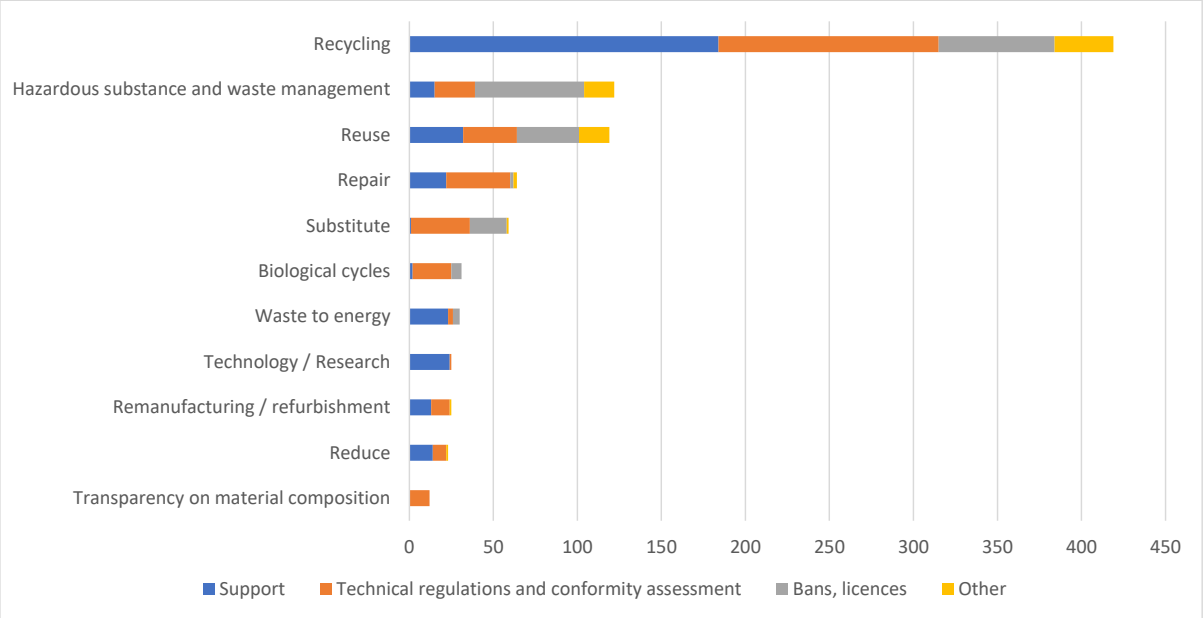
Source: WTO Environmental Database.

Note: 520 measures related to circular economy were found in notifications of 85 Members under 12 agreements.

3.6. Figure 1 provides the mapping of measures by circular economy activity/objective and type of measure. The large majority of measures relate to downstream stages of the lifecycle, with recycling being the most frequent activity followed by hazardous substance and waste management. A good number of measures also relate to reuse and repair, which are found in the middle stages of the lifecycle, while measures that relate to substitutes tend to be more upstream. The analysis of measures by circular economy activity shows that, while there are a good number of measures that have circular economy aspects or elements, only few measures notified to the WTO have a specific focus on circular economy.

3.7. The large majority of measures related to circular economy take the type of either support measures or technical regulations and conformity assessment procedures and appear relevant across most activities along the lifecycle. Another relatively frequent type of measures are bans or licences which tend to be found at the end of life of products, and some other activities such as reuse and substitute.

Figure 1. Measures by circular economy activity /objective and type in notifications

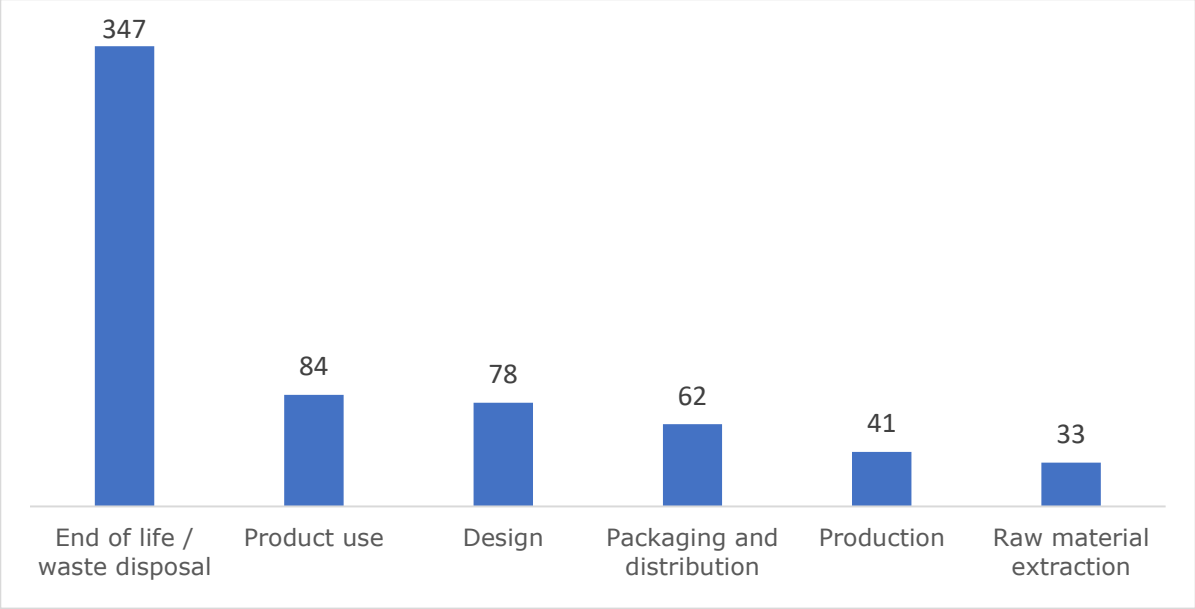


Source: WTO Environmental Database.

Note: The number of measures by activity/objective and type sum to more than 520, since one measure can be assigned to more than one activity/objective, and can consist of more than one type of measure. In particular, 520 measures were assigned to 740 circular economy activities/objectives and covered 633 types of measures.

3.8. In line with the analysis by circular economy activity/objective, Figure 2 shows that the large majority of measures relate to a product's end of life or waste disposal, while a relatively similar number of measures relate to the different stages further upstream in the lifecycle.

Figure 2. Number of measures by lifecycle stage



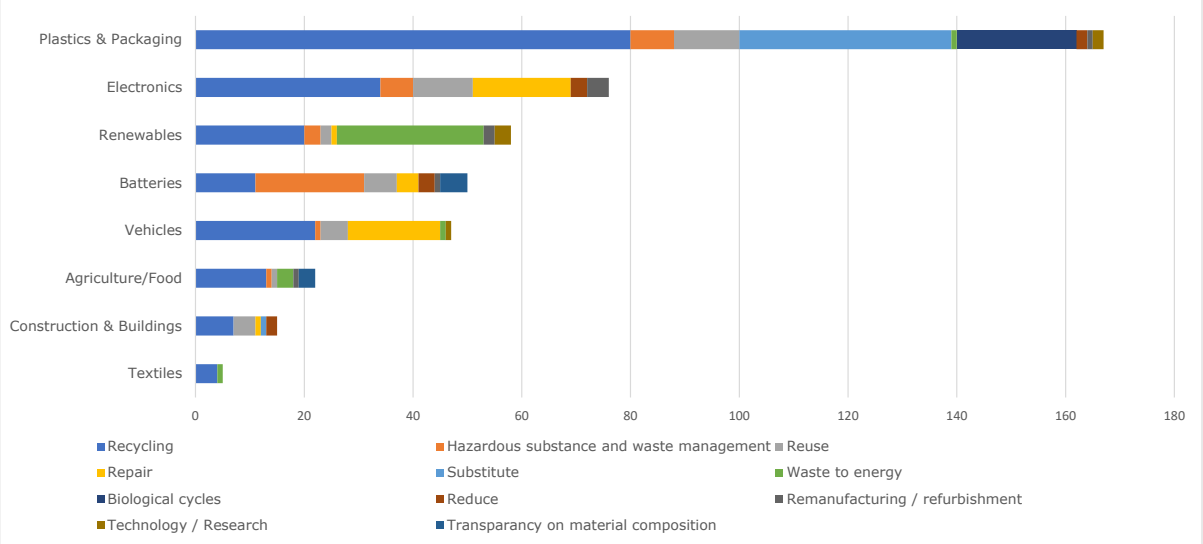
Source: WTO Environmental Database.

Note: The 520 measures related to circular economy are assigned to 645 lifecycle stages.

3.9. The 520 measures apply to 580 sectors, the majority of which are specific sectors (58%) while a good number of measures apply to manufacturing horizontally or multiple sectors (42%). Figure 3 shows the number of measures assigned to specific sectors and their composition in terms of economy activity/objective. The highest number of circular economy-related measures are found for the plastics and packaging sector, to be followed at some distance by the electronics, renewables, batteries and vehicles.

3.10. While measures relating to recycling appear prominent across all sectors, Figure 3 also illustrates sector differences and distinctive linkages with circular economy activities. For instance, repair measures are most prominent in the sectors of vehicles and electronics, likely indicating a focus on extending product lifespans and promoting maintenance practices. Similarly, the battery sector has a relatively high number of measures relating to hazardous waste management, highlighting the requirement for proper disposal and handling of battery waste. The plastics and packaging sector is characterized by a relatively high number of substitute measures, indicating efforts to explore sustainable alternatives. The relatively high number of waste-to-energy measures in the renewable sector can be explained by measures applying to biofuels.

Figure 3. Number of measures by sector and circular economy activity/objective

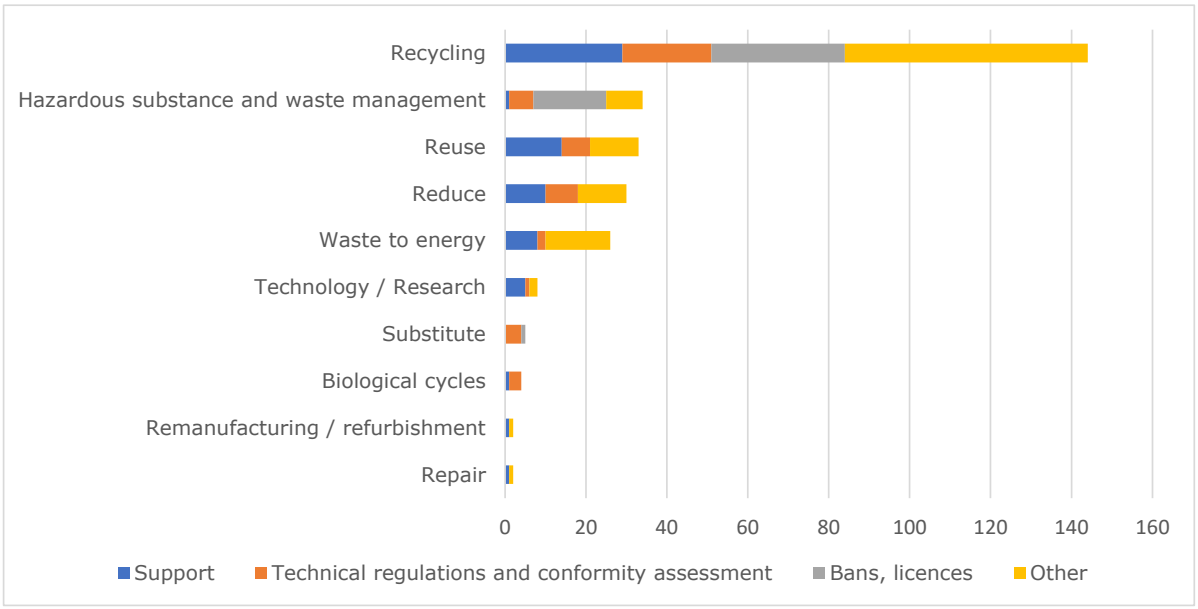


Source: WTO Environmental Database.

Note: Around 242 measures are related to manufacturing horizontally or multiple sectors, which is not shown. The figure only shows the number of measures for specific sectors.

3.11. Besides notifications, the WTO EDB also includes measures contained in TPRs. The analysis finds that between 1999 and 2021, a total of 199 measures in TPRs relate to circular economy. These 199 measures correspond to 259 activities and objectives. The majority of the measures relate to recycling. A good number of measures also relate to hazardous substances and waste management, reuse, reduce and waste-to-energy (Figure 4).

Figure 4. Measures by circular economy activity/objective in TPRs



Source: WTO Environmental Database.

4 TRADE ASPECTS OF CIRCULAR ECONOMY

4.1. This section provides a mapping of the trade aspects of circular economy that were covered in the discussions in the Working Group in 2022 and 2023. This is an illustrative mapping of trade-related issues, rather than an exclusive list, recognizing that trade policies for a circular economy need to respond flexibly to emerging and evolving business trends. Table 4 provides an overview of the trade aspects that are further mapped out below.

Table 4. Overview of trade aspects of circular economy

Transparency	Definitions and classifications
	Data and statistics
	Traceability
Standards and regulations	Standards
	Product design
	Extended producer responsibility
Trade facilitation	Trade facilitation
	Implementation and digitalization of Basel Convention's Prior Informed Consent procedure
Waste Management	Waste management
Capacity building and technical assistance	Trade facilitation and customs capacities
	Standards infrastructure
Technology and other trade-related aspects for cooperation	Support measures for a circular economy
	Goods and services relevant to circular economy
	Knowledge and technology

4.1 Transparency

4.2. Transparency can support the development and implementation of policies and activities towards a circular economy. Transparency can be enhanced through addressing classifications, data and statistics, and traceability, among various means. Common understanding regarding the definitions and classifications could contribute to greater clarity regarding different types of products and their relation to circular activities. Similarly, data and statistics, including on the composition of materials and products along the lifecycle, as well as on circular trade, could be enablers for circular economy. Traceability also contributes to enhancing transparency, through relevant information-sharing that supports activities and objectives towards circular economy.

4.1.1 Definitions and classifications

4.3. Lack of common understanding on product definitions and classifications present challenges to different actors' efforts related to circular economy and circular trade. Existing Harmonized System (HS) codes do not generally distinguish between new or used goods, second-hand goods for re-use, and goods intended for refurbishment, remanufacturing, recycling and, in some cases, repair. HS codes also do not distinguish between products made from virgin or recycled materials. Challenges exist in differentiating and verifying different types of products at customs according to their intended use in a circular economy context. For example, products / components that could be destined for remanufacturing might be classified as waste. Discussions regarding definitions and classifications of different types of products relevant to circular economy and circularity could contribute to efforts in this regard, including by considering their intended use.

4.1.2 Data and statistics

4.4. Accurate data and statistics are the basis for better understanding and monitoring of the cross-border circular economy. Current data gaps with regards to circular trade make it difficult to

comprehend trade-related challenges and opportunities in a circular transition. Improving the inter-operability of classification systems, including HS codes, could also contribute to this purpose.

4.1.3 Traceability

4.5. Traceability along the value chain can contribute to a safe circular economy, stimulate market development and support circular trade in diverse sectors. Information on material composition provided in labelling or other instruments or tools such as digital product passports can facilitate the product's management along its lifecycle, including in secondary markets, by providing information on how a product can be safely managed, recycled or disposed of.

4.2 Standards and regulations

4.2.1 Standards

4.6. Standards, regulations and conformity assessment procedures are relevant to circular economy and circularity. Common understandings, harmonization or mutual recognition of standards regarding circularity can contribute to trade-enhancing circular economy. The principles in the WTO TBT Agreement can guide the development of standards and regulations in support of a circular economy, which are non-discriminatory and do not create unnecessary obstacles to trade, while recognizing Members' right to implement measures to achieve legitimate policy objectives, such as the protection of human health and safety, or protection of the environment. The WTO can also play a role in enhancing transparency and cooperation in this area. Support measures might be needed to help trading partners meet standards and regulations on raw materials, second-hand product reuse or product labels and participate in circular trade.

4.2.2 Product design

4.7. Product design can be an enabler of circularity by making products with reduced quantities of materials, more durable, safe and more environmentally sound, effective, easier to repair, refurbish, remanufacture, recycle etc. Practice exchanges, cooperation and exploration of harmonization of circular design policies could contribute to promote the dissemination of products designed for circularity. Standards can support design for circularity. Aligning eco-design standards across countries could promote the entry of environmentally friendly products into multiple markets, which in turn can support scaling of circular economy business models.

4.2.3 Extended Producer Responsibility (EPR)

4.8. EPR schemes extend producer responsibility for a product to the post-consumer / waste stage of the lifecycle, thereby possibly motivating producers to create more eco-friendly products and supporting activities related to circular economy such as improved collection, pre-treatment, reuse and recovery. Current EPR schemes typically apply domestically. International collaboration could contribute to a better understanding of the links between different EPR schemes and international trade, including its application to on-line sales.

4.3 Trade facilitation

4.3.1 Trade facilitation

4.9. Trade facilitation can contribute to promoting circular economy, expediting the movement of goods relevant to circular economy and circularity. Provisions in the WTO Trade Facilitation Agreement (TFA) could play a positive role in the development of circular economy, including those related to transparency, the opportunity to comment on proposed changes in regulations, possibility of advanced rulings on customs issues like HS classification and rules of origin, customs cooperation, digitalization and single windows, authorized economic operators and pre-consented facilities, among others. Developing effective verification processes to classify goods depending on their circular purpose (e.g. reuse, repair, refurbish, remanufacture, recycle) with greater accuracy can help prevent misclassification of goods, reduce revenue fraud, and maintain regulatory compliance while supporting circular economy approaches. More broadly, trade facilitative approaches could support reverse supply chains for end-of-life parts and components.

4.3.2 Implementation and digitalization of Basel Convention's Prior Informed Consent procedures

4.10. Waste and trade rules apply to circular trade. The Basel Convention aims to control the transboundary movement of hazardous waste. Trade in controlled waste, which includes hazardous waste, is either banned or subject to Basel Convention's Prior Informed Consent (PIC) procedure. Better coordination, digitalization and automation of PIC notification procedures could expedite regulatory processes, promote efficiency by complementing customs procedures, and enhance transparency at the border. Work on improving the functioning of the PIC procedure is ongoing at the Basel Convention.

4.11. In recent years, the Parties of the Basel Convention adopted plastic waste and e-waste amendments to enhance the traceability and control of the transboundary movements of such wastes considering the waste treatment capacity of each country. These amendments mean that most plastic waste and all e-waste are now subject to PIC, and were introduced to support the prevention of illegal shipment as well as of non-environmentally sound management of waste. In addition to better controlling waste, a facilitated PIC procedure on shipments destined for countries where national recovery and recycling capacity comply with strong environmental standards and safe recovery aimed at protecting human health and the environment, can also contribute to a global circular economy. For example, such facilitated procedure on critical mineral recovery could contribute to increasing circularity, addressing climate change, reducing pollution and preserving biodiversity.

4.4 Waste management

4.12. Waste management was referenced as an essential foundation for trade-related aspects of circular economy and circularity. Enablers for environmentally sound management of waste include: product design (including minimizing hazardous chemicals content, minimizing the complexity and layers of materials used); and transparency and traceability (to ensure operators of waste management systems have information to safely manage waste, and avoid contamination of non-hazardous waste, thereby keeping the value of materials which may be reinjected in a circular economy, through circular trade).

4.13. Environmentally sound disposal of waste in the country of origin may prevent possible negative environment and public health impacts from trade in third countries. If waste are traded, it is important to ensure that they are exported to markets with appropriate waste management infrastructure, including collection and sorting systems, recycling facilities, and treatment plants. Possible challenges faced by importing countries include mixed composition of waste making it difficult to separate and recycle different materials effectively; unwanted or illegal waste imports; and disincentives created by imports for local collection and treatment of waste. Furthermore, waste treatment challenges may arise from imported second-hand goods with insufficient quality and lifespan.

4.14. Border measures for waste management on different types of products, such as waste, scrap and used goods, were referenced as necessary for addressing environmental and human health concerns as well as illegal waste trade. Any efforts to enhance circular economy should fully recognize the necessity of such appropriate border measures for waste management, in particular for hazardous waste management. Common understandings on definitions and classifications as well as design and implementation of these measures can be relevant to advancing towards a circular economy.

4.5 Capacity building and technical assistance

4.5.1 Trade facilitation and customs capacities

4.15. A number of developing and least developed countries (LDCs) face challenges in implementing international frameworks relevant to circular economy, such as the Basel Convention and the WTO TFA due to various constraints, amongst which capacities of customs is often highlighted.

4.5.2 Standards infrastructure

4.16. Strengthening national and regional standards infrastructures — including the capacity for conducting internationally recognized inspection, testing and certification — helps to build trust along supply chains by allowing domestic companies to demonstrate compliance with the transparency, traceability and other requirements that are needed for a circular economy to operate safely and efficiently at a global scale.

4.6 Technology and other trade-related aspects for cooperation

4.6.1 Support measures for circular economy

4.17. Support measures can foster the uptake of circular economy models and technologies. For example, financial incentives and other support measures can encourage the adoption of circular economy practices, traceability and accountability along the lifecycle, the use of recycled materials, investment in technologies for circularity, including recycling, trade of sustainable products, and foster entrepreneurship in the sector. Transparency and practice exchanges on Members' policies for promoting a circular economy can strengthen further trade-related international cooperation for enhancing a cross-border circular economy.

4.6.2 Goods and services relevant to circular economy

4.18. Trade in goods and services relevant to circular economy, including relevant technologies, can support the transition to circular economy. A broad range of goods and services are needed to improve energy and resource efficiency, as well as conservation.

4.6.3 Knowledge and technology

4.19. Dissemination of knowledge and technology is an accelerator of circular economy at the international and domestic levels. For instance, innovative technologies, together with the exploitation of scale economies, are important for effective and viable recycling and remanufacturing processes as well as for promoting innovation and increase research and development efforts among partners, including relevant international organisations to develop more sustainable technologies and practices. Promoting technology and knowledge transfer, along with fostering cooperation, could support circular management of material flows and the extension of material lifetimes.

5 REFLECTIONS ON WAY FORWARD

5.1. Based on this mapping exercise and discussions in the Working Group, Table 5 lays out an illustrative and non-exhaustive list of areas for possible trade-related actions on circular economy. The table may be used as a basis for identifying priorities for further work that could be pursued in the WTO[9] as well as in collaboration with other International Organisations and stakeholders.

[9] Plastics-related areas are not included in this possible way forward considering there is another initiative in the WTO dealing with plastics, the Dialogue on Plastics Pollution (DPP).

Table 5. Illustrative and non-exhaustive list of areas for trade-related action on circular economy, and possible further work in the WTO and with partners

Trade aspect	Area for trade-related action	Possible further work
Transparency	**Classifications to better reflect circularity**	Map and analyse priority needs for classification systems to match the type and intended purpose of a product, especially when it comes to existing Harmonised System (HS) codes.
	Labelling and product passports for transparency and traceability	Exchange of practices on establishment and use of labelling and product passports (including information on material composition, information on recycling)
Standards and regulations	**Standards for circular economy**	Mapping of existing standards related to CE in a sector, analyse common principles for inter-operable standards on CE, consider principles set out under the WTO Agreement on TBT when developing standards or mutual recognition in the context of circular economy.
	Product design for circularity	Exchange practices on policies and standards of product eco-design and propose areas for harmonisation / interoperability.
	Extended Producer Responsibility (EPR)	Exchange on EPR schemes to support CE.
Trade Facilitation	**Efficient and Simplified procedures**	Explore opportunities for simplified procedures and effective verification processes related to the implementation of the Trade Facilitation Agreement, as well as for trade-facilitative approaches for reverse supply chain.
	Implementation and digitalization of Basel Convention's Prior Informed Consent procedures	Explore how activities under the WTO Trade Facilitation Agreement such as single windows and national trade facilitation committees could contribute to more coherent and transparent PIC procedures.
Waste management	**Waste management and circular trade**	Exchange on Members' challenges with environmentally sound management of waste and trade flows linked to circular economy, and how to address them.
Capacity building and technical assistance	**Capacity building and technical assistance for a safe and inclusive circular economy**	Explore needs and opportunities for strengthening capacities of regulators, customs, and standards infrastructure to build trust along the supply chain, as well as for supporting SMEs to integrate circularity in their business models.
Technology and other trade-related aspects for cooperation	**Support measures for a circular economy**	Transparency and experience sharing on Members' support measures for the transition to a circular economy.
	Goods and services relevant to circular economy	Identify goods and services that could promote circularity, including through technological solutions for circular business models.
	Knowledge and technology	Collect examples of technologies in support of CE, share experiences on technology access and explore opportunities for enhanced cooperation for technology acquisition and utilization.