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**Economic Commission for Europe****Steering Committee on Trade Capacity and Standards****Eighth session**

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**Integrating circular economy considerations into Studies on  
Regulatory and Procedural Barriers to Trade****Integrating circular economy considerations into Studies on  
Regulatory and Procedural Barriers to Trade\*****Note by the secretariat***Summary*

Following decisions at the sixty-ninth session of the Economic Commission for Europe (ECE) in April, the ECE secretariat has been integrating a circular economy (CE) approach in its relevant activity streams, including under Trade Subprogramme.<sup>1</sup> The Steering Committee on Trade Capacity and Standards recognized the important role of trade and economic cooperation in the circular economy transition and requested the secretariat to explore the possibility of integrating the circular economy dimension into Studies on Regulatory and Procedural Barriers to Trade (RPBT studies) (ECE/CTCS/2022/2 Decision 2022-11). This note is prepared to address this request. Its objective is to explore and suggest solutions how the circular economy dimension could be integrated RPBT studies, if requested by a member State.

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\* This document has not been formally edited by ECE.

<sup>1</sup> Progress report on the work of the Commission on the promotion of a circular economy and the sustainable use of natural resources (2023), Economic Commission for Europe, Seventieth session, Geneva, 18 and 19 April 2023, para. 10. Available at: [https://unece.org/sites/default/files/2023-03/E\\_ECE\\_1507\\_ENG\\_0.pdf](https://unece.org/sites/default/files/2023-03/E_ECE_1507_ENG_0.pdf).



## I. Introduction

1. The circular economy (CE) model, in which value and resources are maintained in the economy for as long as possible and waste generation is minimised, can make a decisive contribution to the sustainable development goals (SDGs), including for global decarbonisation efforts. However, the global economy is now only 7.2 per cent circular.<sup>2</sup> This means that more should be done to achieve circularity. Trade could help facilitate this transition.
2. Trade has a great potential to contribute to a circular economy by achieving economies of scale and creating opportunities for new economic activities. Circular trade helps to reduce dependence on raw materials and increase the resilience and adaptability of supply chains. Furthermore, through trading in products for repair, reuse, refurbishment and remanufacturing, it can extend the life cycle of products. Finally, trade in services linked to waste management, recycling, refurbishment and remanufacturing, reuse, and repair can make a contribution to the new business models that are crucial for success.<sup>3</sup>
3. The ever-increasing role of circular trade is supported by numbers. For instance, while the global export value of trade in goods rose by around 195 per cent between 2000 and 2019, the value in circular products trade, such as second-hand goods, secondary raw materials and waste for recovery<sup>4</sup> rose by more than 230 per cent over the same period. However, circular trade flows are unevenly distributed between the developed (99 per cent) and developing economies (1 per cent).<sup>5</sup> Thus, circular trade policies need to take into account countries' different transition capabilities, including with respect to existing regulatory and procedural barriers to trade.
4. Regulatory and procedural barriers to trade are also relevant for economic operators who seek to implement circular solutions, which often rely on cross-border trade to achieve economies of scale. Complex patchwork of different CE-related standards, regulations and policies on national and international levels may pose challenges when aiming to implement circular approaches throughout value-chains. Economic operators struggle to navigate national laws that do not effectively differentiate between circular products or materials versus those that should be recycled or disposed. Furthermore, they might not always be aware of existing circular models of doing business and their benefits. This is particularly relevant to transition economies, including in the ECE region, which are in the process of active integration into global and regional value chains.
5. By integrating a circular economy dimension into their scope, RPBT studies could help (i) identify regulatory and procedural barriers to circular trade flows in countries under study (such as issues at the border control, insufficient institutional capacity, the lack of public-private dialogue, and dissemination of good practices as well as ambiguous or inefficient standards etc.), and (ii) offer targeted and country-specific recommendations to minimise the negative impact of such barriers on implementing circular models of doing business.
6. This note suggests how this could be done by complementing ECE's existing methodology to conduct RPBT studies and proposes novel approaches to addressing this issue. It also identifies areas where capacity building support might be required, including in the context of necessary actions listed in the assessment matrix in Annex I.

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<sup>2</sup> See: <https://www.circularity-gap.world/2023#download>.

<sup>3</sup> See: <https://ellenmacarthurfoundation.org/articles/building-resilience>. See also: <https://www.oecd.org/environment/waste/policy-highlights-international-trade-and-the-transition-to-a-circular-economy.pdf>.

<sup>4</sup> For example, material recovery of waste and scrap for the production secondary steel or processing of waste for energy generation. See: <https://www.oecd.org/environment/waste/policy-highlights-international-trade-and-the-transition-to-a-circular-economy.pdf>.

<sup>5</sup> The statistics is as of 2020 and does not cover: (i) informal trade in circular products, such as second-hand goods, secondary raw materials and waste for recovery; (ii) the value of trade in circular economy-enabling goods and services. See: Chatham House circular economy earth (2022), 'Trade flows'. The data specifically focusing on transition economies is not available.

7. Following the discussions and taking stock of related activities at its seventh session,<sup>6</sup> the Steering Committee recognized the important role of trade and economic cooperation in the circular economy transition and the possibility of integrating the circular economy analysis into studies on regulatory and procedural barriers to trade (ECE/CTCS/2022/2 Decision 2022-11). This note is prepared to address this request. Its objective is to explore and suggest options for integrating the circular economy dimension into RPBT studies if requested by a member State.

8. To this effect, in Sections II-IV this note suggests a general framework for assessing the regulatory and procedural barriers to trade in products from sectors with high CE potential. The titles of respective sections correspond to the way they are referred to in RPBT studies and cover trade and trade facilitation conditions (Section II), regulatory and standardisation policies (Section III), the role of regulatory cooperation in CE transition (Section IV). The note also gives options how to integrate CE dimensions which go beyond issues covered by RPBT studies. In this regard, it contains two annexes covering additional elements that RPBT studies might incorporate (Annex I), as well as a pilot case study, which provides for a comprehensive product-based approach for determining the CE potential of a particular product (Annex II).

## II. Trade and Trade Facilitation Conditions

### A. Issues at the border control

9. Issues at the border (customs) control has been identified as one of the key obstacles to trade by all RPBT studies. Poor inter-agency coordination, risk management systems, and inadequate customs valuation procedures and practices were identified as key bottlenecks in countries studied and are likely to also hamper circular transitions. By identifying such barriers and how they might be overcome, RPBT studies can make a significant contribution towards enhancing circular trade flows.

10. One of the major challenges for developing a robust CE is the ability to monitor, assess and quantify the emerging trends of circular trade flows. The World Customs Organization's (WCO) Harmonised System (HS) rarely distinguishes between new or used goods; nor does it differentiate whether products are made from virgin or recycled materials. This is due two factors: (i) a general lack of global standards, definitions or tests to identify virgin or recycled status for many materials;<sup>7</sup> (ii) the absence of a reliable instrument to verify whether goods are, indeed, destined for recycling, refurbishment, remanufacturing or repair (e.g. instead of dumping).

11. RPBT studies could assess how border agencies in countries under study conduct conformity assessments to test whether goods are suitable for reuse or should be marked for disposal. Given that many countries in the region share borders, the studies might also suggest ways to ensure that conformity assessments conducted by importing countries do not result in duplicate testing procedures and ultimately in additional costs and barriers to circular trade flows.

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<sup>6</sup> The seventh session of the ECE Steering Committee on Trade Capacity Standards in 2022 held a high-level side event on "Accelerating the Circular Economy Transition: Policy Options for Harnessing the Power of Trade and Economic Cooperation", which showed high relevance of the topic of the circular economy for the international community in Geneva and for ECE member States. See: [https://unece.org/sites/default/files/2023-01/ECE\\_CTCS\\_2022\\_2E.pdf](https://unece.org/sites/default/files/2023-01/ECE_CTCS_2022_2E.pdf).

<sup>7</sup> In this respect, see the Exploratory Study on a Possible Strategic Review of the Harmonized System (HS) launched by the WCO in September 2022. This two-year study allows looking closely at, inter alia, whether the HS could be better adapted to provide further support to trade policy, including in relation to the environment and the circular economy. See: <https://mag.wcoomd.org/magazine/wco-news-99-issue-3-2022/exploratory-study-project-on-a-possible-strategic-review-of-the-hs/>. See also Jack Barrie, Carolyn Deere-Birkbeck/Christophe Bellman, Jan Raes, FES/UNECE/WCO, Circular Economy and Trade Facilitation: The role of the Harmonized System of Codes (2023). *Forthcoming*.

12. Another challenge that may arise is that goods in CE model are often leased rather than purchased. Therefore, the customs value of the imported CE goods cannot be determined using their transaction value.<sup>8</sup> RPBT studies might assess whether countries adhere to the WTO Customs Valuation Agreement (CVA) principles and whether they have special procedures applicable to customs clearance of CE products.

13. Assessing post-border compliance and enforcement could place an unsustainable drain on the resources of customs administrations. In this respect, the authorised economic operator (AEO)<sup>9</sup> programme may provide opportunities to scale up the circular economy through incentives for speeding up shipments of the circular economy (e.g., components for material recovery). Alternative possibilities, like prior informed consent, certifications, permits, statistical codes, post-border concessions and some mixtures thereof could likewise be explored.<sup>10</sup> Establishing a Single Window (SW) environment to co-ordinate and harmonise procedures with other agencies at the border can also help facilitate circular trade.<sup>11</sup> RPBT studies' contribution in this respect could be through analysing whether these programmes are available in countries under study and, if necessary, providing tailored-made recommendations of how they might be implemented.

14. Circular trade also implies the need to elaborate on a coordinated and well-resourced approach to genuinely tackle illegal cross border waste trade. RPBT studies could assess whether policing and enforcement strategies to fight illicit trade in waste exist in countries under study and offer potential solutions for improvement of their current practices. In this context, the Self-Assessment Tool - Basel Convention developed by the WCO secretariat<sup>12</sup> as well as the Green Customs Initiative, the Regional Enforcement Network for Chemicals and Waste (Project REN), and the United Nations Office on Drugs and Crime (UNODC) and the United Nations Environment Programme (UNEP) "Unwaste: tackling waste trafficking to support a circular economy" initiative are particularly relevant. These tools could serve as a blueprint for RPBT studies' assessment of whether Customs Administrations in countries under study integrate the best practices in their strategies, including in waste management.

15. These tools can likewise be relevant in the context of risk management for circular trade. This is because by opening up to trading circular products, countries can inadvertently encourage the import of low-quality or polluting second-hand goods. Therefore, countries should have elaborated risk management systems and educate the customs officials to ensure that these risks are prevented.

16. RPBT studies could help identify whether the barriers exist to the trade of circular products and provide recommendations on how these barriers might be turned into opportunities. This could be done by seeking answers to the following list of non-exhaustive questions:

- i. Does the country have necessary supporting legal framework and administrative capacity to facilitate customs clearance of circular products?

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<sup>8</sup> The first and preferred method of customs valuation. Transaction value means the price actually paid or payable is the total payment made or to be made by the buyer to or for the benefit of the seller for the imported goods, and includes all payments made as a condition of sale of the imported goods by the buyer to the seller, or by the buyer to a third party to satisfy an obligation of the seller.

<sup>9</sup> An Authorized Economic Operator (AEO) is defined by the WCO SAFE Framework of Standards as a party involved in the international movement of goods, in whatever function, that has been approved by, or on behalf of, a national Customs administration as complying with WCO or equivalent supply chain security standards. AEOs include inter alia manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses and distributors. See: <https://tfig.unece.org/contents/authorized-economic-operators.htm>.

<sup>10</sup> OECD (2020) Workshop on International Trade and Circular Economy – Summary Report, OECD 2020. COM/TAD/ENV/JWPTE(2020)10/FINAL.

<sup>11</sup> Best practice for establishing SWs includes reference to available international standards, such as UN/CEFACT and the WCO Customs Data Model.

<sup>12</sup> See: [https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/appw/self-assessment-tool-basel-convention\\_en.pdf?db=web](https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/appw/self-assessment-tool-basel-convention_en.pdf?db=web).

- ii. Does the customs administration cooperate with the national authority/authorities responsible for development of national policy regarding CE trade?
- iii. Are there any incentives for compliant traders in CE-related industries to become an AEO?
- iv. Does the current customs legislation allow for the use of simplified procedures to facilitate circular economy trade flows?
- v. Is a SW environment already implemented/undergoing the implementation process? If so, is the environmental authority participating in it?
- vi. Is there adequate information technology and computerized processes, including for the management of valuation risk in the country?
- vii. Does the Customs administration have a designated Risk Management Division?
- viii. Does the Customs administration have any Customs Mutual Administrative Assistance Agreements for circular pro-risk management purposes?
- ix. Does Customs carry out random/targeted examinations for circular products?
  - x. Are there HS codes in place to be used in the declarations to classify circular products?
  - xi. Is there a national labelling or coding system for circular trade streams? Are authorities aware of existing international labels or codes for circular products?
- xii. Does the Customs Administration deploy any of the modern control technologies and techniques (e.g., inward processing; non-intrusive inspection equipment; surveillance technologies) to support the Customs control process?
- xiii. Does the Customs collect import duties and taxes on circular products?
- xiv. Does the Customs have any team(s) and/or staff that have specialized knowledge of or focus on circular products?
- xv. Is there any dialogue/cooperation with stakeholders to consider business practices on CE trade? Does the country have CE focal points?

## **B. Public-private dialogue, institutional capacity and dissemination of good practices**

17. RPBT studies recognise the potential of inclusive multi-stakeholder dialogues, adequate institutional capacity and dissemination of good practices for building momentum to eliminate regulatory and procedural barriers to trade. They underscore a range of potential impacts of these practices on facilitating trade, accelerating reform process (including on the removal or simplification of regulations and controls, standardization of procedures, and establishment of new institutions) and retaining competitive positions by staying abreast with the latest market trends and demands.

18. In the context of circular trade these practices are indispensable. This is because CE in many countries is in its nascent stage and the transition to circular ways of doing business could only be done by capitalising on the achievements made to date, while taking into account challenges voiced by all interested stakeholders and being supported by strong institutions. RPBT studies could assess which barriers preclude maintaining or launching a sustained public-private dialogue, building or boosting requisite institutional capacity or ensuring dissemination of good practices on circular trade flows.

19. The barriers to systematic and constructive public-private dialogue include the lack of awareness among relevant economic operators and governmental agencies on CE as a concept, as well as the associated commercial and economic opportunities, notably: (i) potential savings from resource efficient production processes, (ii) increased security of supply chains resulting from the procurement of recycled/sustainably produced raw

materials; (iii) premium prices, and (iv) improved reputation. For some economic operators, such as micro, small, and medium-sized enterprises (MSMEs) and start-ups, the limiting factor could also be linked to their lack of financing and capacity to embrace the CE and collaborate effectively with larger companies, governments, academia and research institutes in research and innovation partnerships.

20. Apart from barriers to facilitate public-private dialogue, countries might not have a national system (open source, reliable centralized reporting system) for data collection and reporting on circular trade flows. Another important constraint is institutional capacity at the respective ministry/agency to implement CE strategies and policies and facilities that could deliver training on CE and circular trade flows.<sup>13</sup> RPBT studies' contribution in this respect could be in assessing whether such good practices (i.e., cooperation, knowledge sharing and dissemination, improved data collection and institutional capacity) exist and helping to identify relevant stakeholders responsible for dealing with CE-related issues. The studies might also help identify means by which these practices might be implemented or improved, taking into account the peculiarities of the particular country.

### III. Regulatory and Standardization Policies

21. Technical regulations and standards are at the centre of all RPBT studies. This is due to their critical role in, inter alia, streamlining processes, ensuring that markets operate smoothly and ensuring interoperability of components made by different companies possible. RPBT studies, by identifying areas for improvement and proving tailor-made recommendations, help ensure that CE-related technical regulations and standards do, indeed, yield these benefits and do not create procedural or regulatory barriers to trade.

22. In the context of circular trade, standards are particularly relevant due to their potential to support circular business models by making them more predictable, less complicated, and bearing lower business risks for companies. RPBT studies might help assess where countries stand with the standardisation of circular activities. More specifically, studies could examine whether standards enabling a domestic circular economy system exist in countries under study. This includes both voluntary and mandatory instruments such as sustainability standards, standards for supply-chain traceability and transparency,<sup>14</sup> policies like extended producer responsibility (EPR),<sup>15</sup> labelling and information schemes<sup>16</sup> and conformity assessment procedures.

23. Despite the undeniable potential of standards to support circular business models and circular trade flows, they might have an unintended effect of dissuading economic operators from upholding the CE principles or production methods prescribed thereby. This might be the case if a standard, for example, provides for a general method for assessing the proportion of reused components in products, without any concrete guidance on how this could be done. Another example is a product-based standard which might include requirements to ensure circular design of products placed on the market without specifying any modalities on measuring material content, recycled content, hazardous content, recyclability and reparability potential of the product. In other words, insufficient guidance of standards may result in their *de facto* non-usage.

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<sup>13</sup> See: <https://www.consilium.europa.eu/media/45027/joint-declaration-with-india-on-resource-efficiency-and-circular-economy.pdf>

<sup>14</sup> Examples include the GS1 Global Traceability Standard (GTS2) See: <https://www.gs1.org/standards/gs1-global-traceability-standard/current-standard>, PR3's standard for reusable packaging, See: <https://www.resolve.ngo/site-pr3standards.htm>, UNECE's traceability standards for sustainable garments and footwear, See: <https://unece.org/trade/traceability-sustainable-garment-and-footwear>.

<sup>15</sup> OECD defines Extended Producer Responsibility (EPR) as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. See: [https://www.oecd-ilibrary.org/environment/extended-producer-responsibility\\_9789264256385-en](https://www.oecd-ilibrary.org/environment/extended-producer-responsibility_9789264256385-en).

<sup>16</sup> Some examples of information schemes and labels include Oeko-Tex Standard 100, Global Organic Textile Standard (GOTS), IMDS (International Material Data Systems) etc.



24. A further important tool in facilitating and promoting circular trade flows are environmental labels and information schemes. The basic concept behind any environmental label and information scheme is to enable a distinction on the market of companies that manufacture products or deliver services with less environmental impacts. In the context of circular trade, they may help companies to compete on product characteristics related to resource productivity and waste and enables them to realise an advantage in the market.<sup>17</sup> Labels and information schemes can cover different phases of the value chain (such as primary material extraction;<sup>18</sup> design, production;<sup>19</sup> use, consumption;<sup>20</sup> reuse, recycling<sup>21</sup> etc.) or the whole lifecycle<sup>22</sup> in their assessment criteria.<sup>23</sup>

25. The side effect of labels and information schemes is that their diversity and multiplicity might diminish the credibility of “green” claims. The multiplicity of standards is highly challenging for economic operators implementing CE models. This is especially the case for MSMEs, who might find it particularly onerous to navigate the myriad of regulatory requirements. RPBT studies could help elaborate on a set of policy recommendations to ensure that labels and information schemes do, indeed, have the desired effect, which is to provide more transparency in value chains, support due diligence efforts and disclose environmental performance and resource footprints.<sup>24</sup>

26. By incorporating a comprehensive approach based on the detailed assessment of countries’ economic and trade profiles, RPBT studies might help identify priority sectors for which the preparation of CE-related standards might be the most relevant. In addition, studies might help detect barriers hampering (a) the standard-making process, such as the absence of a sufficient level of awareness of the best practices and lack of recourses, as well as (b) the adherence to standards, including incomplete or uncomprehensive rules and procedures prescribed thereby. RPBT studies might also help identify gaps preventing the implementation of other relevant tools such as labelling or information schemes. This assessment could be done by addressing questions provided below, such as:

- i. Do CE related standards (public/private) exist in the country concerned?
- ii. Can these standards be classified as principle based (or horizontal) or product based?
- iii. Which products/processes do they cover? Are these standards based on international/regional standards or are independently elaborated on the national level?
- iv. Are other standards for supply-chain traceability and transparency (e.g., the GS1 Global Traceability Standard (GTS2),<sup>25</sup> PR3’s standard for reusable

<sup>17</sup> The OECD has a long history of influencing the development of environmental labels. Since 1976, it has produced three reports. Second report, more specifically, investigates the implications of the growth of schemes around the world, notably in the context of environmental effectiveness and international trade. See: Prag, A., T. Lyon and A. Russillo (2016), “Multiplication of Environmental Labelling and Information Schemes (ELIS): Implications for Environment and Trade”, OECD Environment Working Papers, No. 106, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5jm0p33z27wf-en>.

<sup>18</sup> Examples include: Fairtrade, Organic food labels, Global Organic Textile Standard.

<sup>19</sup> Examples include: LEED certification, BREEAM certification etc.

<sup>20</sup> Such as LEED@-EB: O&M.

<sup>21</sup> Such as TerraCycle, Global Recycled Standard.

<sup>22</sup> Such as C2C certified, BASF Eco-efficiency label, TRUE zero waste certification.

<sup>23</sup> While labels and information schemes that focus on one specific part of the value chain are the most predominant category,<sup>23</sup> a lifecycle approach is desirable if one wants to assess the overall ‘circularity’ performance of products, services and materials and ensure the attractiveness of the product on the market. EC JRC (2011), Analysis of Existing Environmental Footprint Methodologies for Products and Organizations: Recommendations, Rationale, and Alignment Institute for Environment and Sustainability (IES), <http://ec.europa.eu/environment/eussd/pdf/Deliverable.pdf>.

<sup>24</sup> See: United Nations Forum on Sustainability Standards (UNFSS) (2022), Voluntary Sustainability Standards Sustainability Agenda and Developing Countries: Opportunities and Challenges. 5th Flagship Report of the UNFSS. UNFSS/5/2022. Available here: [https://unfss.org/wp-content/uploads/2022/10/UNFSS-5th-Report\\_14Oct2022\\_rev.pdf](https://unfss.org/wp-content/uploads/2022/10/UNFSS-5th-Report_14Oct2022_rev.pdf).

<sup>25</sup> See: <https://www.gs1.org/standards/gsl-global-traceability-standard/current-standard>

packaging,<sup>26</sup> ECE's traceability standards for sustainable garments and footwear)<sup>27</sup> used by economic operators in a country under study?

- v. Do labels and information schemes exist in a country under study? Are those businesses (B2B) or consumer-oriented (i.e. B2C and G2C)? Which sectors/processes/products do they cover?
- vi. Does the country have sufficient institutional capacity and resources to develop/implement circular standards?
- vii. Does the standard making process in a country under study contemplate stakeholders' participation?

#### IV. The role of international cooperation in the CE transition

27. RPBT studies recognise and endorse the role of international cooperation in creating conducive trading conditions for economic operators in countries under study. Regulatory cooperation is also necessary to achieve a mutually supportive trade and circular economy agenda. The studies might help countries identify where regulatory cooperation and regional integration dynamics are not yet optimal and suggest recommendations on the way forward.

28. Currently, regulatory cooperation on CE-related issues takes place internationally and regionally through various initiatives. These include: (i) continued dialogue and co-ordination at the WTO (e.g. Committees on Trade and Environment, Technical Barriers to Trade, and Trade and Development encompassing Aid for Trade initiatives on the multilateral level); as well as other relevant plurilateral initiatives (e.g., the WTO Trade and Environmental Sustainability Structured Discussions, Informal dialogue on plastics pollution and environmentally sustainable plastics); (ii) relevant initiatives at the WCO, such as review of the HS system;<sup>28</sup> (iii) the Basel Convention and continued dialogue through established partnerships; (iv) the UN Environment Assembly and resolution on mineral resource governance;<sup>29</sup> (v) the work of the Organisation for Economic Co-operation and Development (OECD) on trade and circular economy (e.g. Joint Working Party on Trade and Environment, Trade Committee and the Environment Policy Committee); (vi) International standardization activities in the circular economy (and more specifically, ISO Technical Committee 323 to promote circular economy); (vii) cooperation with regional partners including the frameworks established under regional trade agreements (RTA) (e.g., CE provisions in environmental/sustainable development chapters); and (viii) development aid and technical assistance projects.

29. Despite its unequivocal relevance and importance, international regulatory cooperation on CE, including on circular trade flows, faces many obstacles. Many countries develop their own rules and approaches to circularity. For example, labelling schemes and standards have traditionally been developed in isolation, which affects the building of global value chains in companies operating transnationally. RPBT studies might suggest various means how regulatory cooperation efforts on circular value chains could be elevated (e.g., greater mutual recognition or harmonization of standards).

30. Another area of international regulatory cooperation encompasses development aid and technical assistance projects, which might help establish appropriate structures within government institutions of the recipient countries, including by contributing to the

<sup>26</sup> See: <https://www.resolve.ngo/site-pr3standards.htm>.

<sup>27</sup> See: <https://unece.org/trade/traceability-sustainable-garment-and-footwear>.

<sup>28</sup> To overcome limitations in HS codes, including in the context of trade in circular products, WCO has launched an exploratory Study Project on a possible strategic review of the HS. See: <https://mag.wcoomd.org/magazine/wco-news-99-issue-3-2022/exploratory-study-project-on-a-possible-strategic-review-of-the-hs/>. Similar discussions also take place outside WCO, including FES and ECE.

<sup>29</sup> UNEP/EA.5/Res/11: Circular Economy; UNEP/EAS.5/Res/12: Minerals and Metals Management; UNEP/EA.5/Res/14: Plastic pollution.



implementation of relevant CE strategies.<sup>30</sup> These projects might capture various areas of action, such as the modernisation of waste management systems,<sup>31</sup> or support in implementing national regulatory policies and drafting secondary legislation related to CE,<sup>32</sup> including on trade in circular economy products.

31. Furthermore, RTAs could serve as an appropriate regulatory cooperation avenue towards promoting and facilitating circular trade flows.<sup>33</sup>

32. RPBT studies could help explore whether a country under study benefits from regulatory cooperation by analysing, inter alia:

- i. Whether a country under study participates in relevant ongoing international and/or regional CE dialogues by exchanging views, policies, regulatory and standardisation approaches, management systems and policy tools, governance, best practices, business solutions, market access;
- ii. Whether a country under study cooperates on research and innovation related projects related to the CE;
- iii. Whether a country under study benefits from technical assistance or capacity building programmes conducted therein or in a neighbouring country;
- iv. Whether a country under study have (or is currently negotiating) RTAs with CE related provision.

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<sup>30</sup> Among the organisations supporting activities related to CE and providing technical assistance in the region, including in Central Asia (i.e., Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), are the EU, UNDP, UNEP, UNIDO, UN ESCAP, ADB and the World Bank. See: <https://www.switch-asia.eu>.

<sup>31</sup> The joint project of the European Bank for Reconstruction and Development (EBRD), the Swiss State Secretariat for Economic Affairs (SECO), Swedish International Development Cooperation Agency (SIDA) and the Western Balkans Investment Framework (WBIF) in North Macedonia, See: <https://www.ebrd.com/news/2023/ebd-supports-north-macedonias-first-countrywide-investment-in-solid-waste-infrastructure.html>.

<sup>32</sup> Technical capacity building project in Turkmenistan. See: <https://www.switch-asia.eu/resource/turkmenistan-country-profile/>

<sup>33</sup> The EU-Mexico Global Agreement, for example, explicitly recognises the importance of green growth and circular economy. The commitments in the EU-New Zealand Free Trade Agreement and EU-Australia Free Trade Agreement provide for the strengthened cooperation on trade related aspects on environmental policies and measures, including those promoting a circular economy. Some RTAs take a more specific approach to regulate CE-related issues. For example, RTAs of the US with Costa Rica, Morocco, Peru and South Korea as well as EU-Vietnam Free Trade Agreement include a formal definition of what constitutes a core or remanufactured good.

Another example is the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) which explicitly distinguishes between remanufactured and second-hand goods and makes clear that the former should not be subject to import prohibitions or restrictions. See: See: Kojima, M. (2017), 'Remanufacturing and Trade Regulation', *Procedia CIRP*, 61, pp. 641–44. See also: Pham, D. M. et al. (2020), Vietnam: Deepening International Integration and Implementing The EVFTA, report, Washington, DC: World Bank.

## Annex I

1. This section identifies further approaches to integrating circular economy dimension into RPBT studies, which could likewise be undertaken through a modular approach if requested by ECE member States.

### A. Extension of the scope of analysis to intermediate products

2. Circular economy, by its very definition, includes the full product life cycle and is focused on the interfaces between different steps of the value chain. This is the reason why the current methodology to conduct RPBT studies, the “Buy-Ship-Pay” model, which is intrinsically a linear one, might not fully reflect a broad range of CE processes and corresponding barriers preventing its full uptake. To fully capture the complex nature of the CE model, the methodology for the purpose of RPBT studies might, therefore, be expanded to include additional stages of the products life cycle along the entire value chain as well as associated factors hindering the CE transition in the country concerned, more specifically:

- Extraction-production stage and the analysis of existing barriers that lead to the ongoing focus on virgin raw materials due to, inter alia, the lack of pricing in of externalities;
- Production, internal loops stage and barriers that make waste generation preferable compared to industrial symbiosis, internal loops or resource efficient production;
- Production-use stage and barriers that hinder closer links between production/use phase beyond linear models (e.g. with regard to product-service-systems);
- Collection stage and barriers that fail to feed waste streams into appropriate, high-quality treatment facilities and cause leakages like export, disposal or incineration, e.g. legislation of reliable access to specific waste streams;
- Production-circular waste management activities stage and barriers, such as legislations that: (i) make products less suitable for reuse or recycling; (ii) miss to maintain the economic value and imbedded resources of products or at least to achieve technically feasible recovery rates; and (iii) hinder the uptake of recycled markets or the development of markets for secondary raw materials.

3. Extension of the scope of processes and associated barriers also implies the necessary extension of the range of interviewed stakeholders (i.e. to include extractive industries, recycling and waste-processing companies, among others).

4. Facilitating a paradigm shift toward CE models requires a holistic approach looking beyond single material loops or industrial sectors. However, building or enhancing circularity in multiple sectors can be a burdensome exercise, especially for transition economies. Therefore, akin to the product specific approach undertaken by RPBT studies (in particular, in the context of BPA), CE related analysis of relevant regulatory and procedural barriers to circular trade could be made sector specific (see Annex II) with a focus on sectors with the highest circularity potential (e.g., food production, chemicals, electronics and textiles). RPBT studies could also aim at up-scaling and spreading their analytical toolkit to other sectors: (i) based on the economic importance of sectors locally; (ii) focusing on material flows and pollution (i.e. circularity potential)<sup>1</sup> or (iii) chosen according to the most politically pressing topics.

5. Another suggestion that involves expanding the scope of RPBT studies is to cover other policy instruments that could likewise have an impact on the CE transition. One example is public procurement. Integrating circularity principles into public procurement

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<sup>1</sup> Ellen MacArthur Foundation, Danish Business Authority and Danish Environmental Protection Agency (2015) Delivering the circular economy - A toolkit for policymakers. Ellen MacArthur Foundation. Available at: <https://www.ellenmacarthurfoundation.org/programmes/government/toolkit-for-policymakers>

criteria could create demand for circular products and services and set an example for consumers.<sup>2</sup> By analysing public procurement legal and policy frameworks, RPBT studies might help countries find a balanced approach to the use of procurement as a smart governance tool towards circular trade flows.

## **B. Inclusion of customers' perspective**

6. The transition toward CE also needs to be demand driven, but consumer behaviour in many countries—including in some ECE member States—is currently not oriented toward circular products or activities.<sup>3</sup> The low demand for circular products can partially be explained by the fact that these products are usually more expensive than conventional ones.<sup>4</sup> The lack of awareness on benefits of adopting sustainable consumption practices is another explanation of low demand for CE products. However, unless this consumption pattern changes, businesses will not have sufficient stimuli for CE transformation.

7. To educate consumers on low-carbon and recyclable products and services and to show the linkage between environmental degradation and consumption behaviour, consumer information tools could be an essential mechanism to increase understanding of circularity. These tools might take many forms, including certifications, voluntary standards, product declarations, ratings, marketing claims, footprinting, life-cycle assessments, product campaigns, and other ways of communicating with consumers on environmental and social issues connected to products (e.g., through product design).

8. RPBT studies might help determine the factors behind consumers continued “throw away economy” attitude, identify instruments (such as life-cycle assessments, eco-labels, and communication campaigns) and analyze their pros and cons to make consumers more receptive to CE products.

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<sup>2</sup> Available at: <https://unece.org/economic-cooperation-and-integration/events/regional-policy-dialogue-sustainable-and-innovation>

<sup>3</sup> World Bank. 2023. Diagnostic Analysis for Circular Economy Interventions in Romania.

<sup>4</sup> Gaia Pretner, Nicole Darnall, Francesco Testa, Fabio Iraldo, Are consumers willing to pay for circular products? The role of recycled and second-hand attributes, messaging, and third-party certification, *Resources, Conservation and Recycling*, Volume 175, 2021, 105888, ISSN 0921-3449, <https://doi.org/10.1016/j.resconrec.2021.105888>.

## Annex II

### CE potential analysis: the case for organic cotton underwear<sup>1</sup>

1. The peculiarities of the production process of every textile product<sup>2</sup> contemplate a unique set of production activities, or steps of a products' life cycle. This explains why there could not be a single model for assessing the regulatory and procedural barriers to unleashing CE potential of all textile products based on one assessment matrix. Therefore, the illustrative assessment matrix that follows provides a detailed and comprehensive analytical framework for determining the CE potential of a particular textile product, namely, cotton underwear (made of 100 per cent organic cotton). This illustrative matrix<sup>3</sup> could be used as a blueprint (as adjusted) for other textile products and could be integrated as part of UN/CEFACT BPA of RPBT studies.<sup>4</sup>

2. The assessment matrix identifies: (i) key lifecycle stages and corresponding intermediary products of the production process of the product concerned; (ii) a range of strategies that support the reduction of material consumption and waste production (i.e., material efficiency); and (iii) instruments and necessary actions to accommodate the CE transition.

3. Additional pillar to the analysis under the matrix could be a cross-check with other policies and initiatives in a country under RPBT study, in the context of existing: (i) policy synergies (when CE promotion policies are well aligned with the general objectives of other policies and initiatives, in a way that the application of one complements the objectives of the other, e.g., waste management frameworks) or (ii) policies and initiatives that could put a practical limit to CE promotion policies (e.g., for example safety policies regulating safety or technical performance of bags made from recycled plastic).

4. Policies mentioned in column "Key trade-related instruments and necessary actions" could also be seen through the prism of corresponding constraints their adoption might entail for economic operators responsible for their adherence. This is, on the one hand, due to the complexity of such instruments and, on the other hand, due to the lack of knowledge, institutional capacity or resources constraints these operators might face. These actions could also be considered as potential areas where donors support and capacity building activities might be required.

5. The below matrix is a first draft prepared for illustrative purposes only. A more precise assessment matrix vis-à-vis which to assess a circular potential and the level of preparedness to uptake circular business model can be developed by ECE in relation to particular product in question, in a demand-driven manner. Specific tools to be used will be developed in close consultation with the government taking into consideration peculiarities of the country under study. Following the results of the review based on the respective assessment matrix, ECE would be able to identify existing gaps precluding the adoption or harnessing of circular business models and provide tailor-made recommendations. When further developing and using the matrix, every effort will be made to maximize synergies with the value chain

<sup>1</sup> The case study is based on the findings of the paper by Cordella, M., Alfieri, F., Sanfelix, J. et al. Improving material efficiency in the life cycle of products: a review of EU Ecolabel criteria. *Int J Life Cycle Assess* 25, 921–935 (2020). <https://doi.org/10.1007/s11367-019-01608-8> and the EU strategy for sustainable and circular textiles, see: [https://environment.ec.europa.eu/publications/textiles-strategy\\_en](https://environment.ec.europa.eu/publications/textiles-strategy_en).

<sup>2</sup> Textile products encompass a broad range of different products which may cover, inter alia: (a) textile clothing and accessories; (b) interior textiles; (c) fibres, yarn, fabric and knitted panels; (d) non-fibre elements: zips, buttons and other accessories that are incorporated into the product. Membranes, coatings and laminates. (e) Cleaning products: woven or non-woven fabric products intended for the wet or dry cleaning of surfaces and the drying of kitchenware.

<sup>3</sup> Sustainable stockpiling and transport practices as well as the utilisation of the product by the end user is not covered by the matrix.

<sup>4</sup> See ECE, ESCAP (Economic and Social Commission for Asia and the Pacific), UNNEXt (UN network of Experts for Paperless Trade in Asia and in the Pacific) (2009) 'Business Process Analysis Guide to Simplify Procedures'. Bangkok: United Nations Publications.

analysis undertaken in the context of the ECE project on “Transparency and traceability of value chains”, which focusses on the flow of ESG-related information along value chains (including in the textiles (e.g. cotton) and footwear sectors).

## Illustrative assessment matrix

Stage of the textile life cycle	Product and by-product (if applicable)	Best available techniques for the material efficiency			Economic operator(s)	Key trade-related instruments and necessary actions	Additional instruments and actions
		<i>Reduction</i>	<i>Reuse</i>	<i>Recyclability/Recovery</i>			
Cotton harvesting	Cotton	Selection and sourcing of sustainable raw materials (e.g., cottonseeds); Minimisation of waste.		Recyclability: Restrictions on substances hampering recycling (e.g., pesticides). Information on the presence of specific substances in the product (e.g., hazardous substances).	Farmers/agricultural cooperative/producer Suppliers of cottonseeds Producers and suppliers of pesticides Testing laboratories; Purchaser (if different than producer).	Extended producer responsibility rules Mandatory or voluntary international/national standards (e.g., The Global Organic Textile Standards (GOTS))	Integrated pest management (IPM) programme/ Integrated Crop Management (ICM) system. Policies on soil fertility management Policies on crop nutrition Policies on soil cultivation and weed management Policies on water management
Spinning	Workable yarn	Manufacturing process: Efficiency in the use of materials/resources (energy) Minimisation of waste			Producer Suppliers of raw materials and resources (e.g., energy)	Extended producer responsibility rules Mandatory or voluntary international/national standards (e.g., YESS <sup>5</sup> standards: YESS Standard for Fabric Mills (v1.0) and	Development of necessary by –acts, guidelines, regulations (e.g., caretaking and washing guidelines; regulations on the end-of-life textile

<sup>5</sup> Yarn Ethically and Sustainably Sourced. See: <https://www.sourcingnetwork.org/yess-standard>.



Stage of the textile life cycle	Product and by-product (if applicable)	Best available techniques for the material efficiency			Economic operator(s)	Key trade-related instruments and necessary actions	Additional instruments and actions
		<i>Reduction</i>	<i>Reuse</i>	<i>Recyclability/Recovery</i>			
						YESS Standard for Spinning Mills (v2.0))	waste treatment; regulations for improved wastewater and sewage sludge treatment).  Substitution of hazardous substances used in dyeing, printing and finishing.
				Recyclability:  Recyclability thresholds  Restrictions on substances/materials hampering recycling.  Information on the presence of specific substances in the product (e.g. hazardous substances)  Recycled content:  Minimum content of recycled materials	Producer	Mandatory eco design requirements  Extended producer responsibility rules.  Public-private partnership (PPP) to facilitate the scaling up of resource-efficient manufacturing processes  Mandatory or voluntary international/national standards (e.g., ASTM's	

Stage of the textile life cycle	Product and by-product (if applicable)	Best available techniques for the material efficiency			Economic operator(s)	Key trade-related instruments and necessary actions	Additional instruments and actions
		<i>Reduction</i>	<i>Reuse</i>	<i>Recyclability/Recovery</i>			
			Durability: Durability of function Fabric resistance to pilling and abrasion Wash resistance and absorbency of cleaning products			textile standards, <sup>6</sup> ISO Standards)	
Bleaching, pre-treatment (washing, drying and curing), dyeing, printing	Product: Fabric By-products: Waste water discharges from wet processing (e.g. detergents, fabric softeners) Dye stuff for dyeing and non-pigment printing	Manufacturing process: Efficiency in the use of materials/resources (energy) Minimisation of waste	Colour fastness to washing Dimensional changes during washing and drying		Producer Suppliers of raw materials and resources (e.g., energy) as well as producers of detergents and dyeing/bleaching agents).	Mandatory ecodesign requirements Extended producer responsibility rules. PPP to facilitate the scaling up of resource-efficient manufacturing processes	Development of necessary by –acts, guidelines, regulations (e.g., caretaking and washing guidelines; regulations on the end-of-life textile waste treatment; regulations for

<sup>6</sup> ASTM International, formerly known as American Society for Testing and Materials, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.

Stage of the textile life cycle	Product and by-product (if applicable)	Best available techniques for the material efficiency			Economic operator(s)	Key trade-related instruments and necessary actions	Additional instruments and actions
		<i>Reduction</i>	<i>Reuse</i>	<i>Recyclability/Recovery</i>			
	Emissions to air from printing and finishing processes					Mandatory or voluntary international/national standards (e.g., ASTM's textile standards, ISO Standards)	improved wastewater and sewage sludge treatment.  Substitution of hazardous substances used in dyeing, printing and finishing.
Finishing: Cut/make/ trim	Final product	Use of material resources in products:  Design optimisation  Manufacturing process:  Efficiency in the use of materials/resources (energy)  Minimisation of waste		Recyclability:  Recyclability thresholds  Restrictions on substances/materials hampering recycling  Information on the presence of specific substances in the product (e.g. hazardous substances)  Recycled content:  Minimum content of recycled materials	Producer  Suppliers of raw materials and resources (e.g., energy) as well as producers of detergents and dyeing/bleaching agents).  Conformity assessment bodies	Textile labelling schemes (e.g., made with organic cotton; cotton grown with reduced pesticides; less polluting production processes; restrictions on hazardous substances; tested for durability).  Information requirements and a Digital Product Passport  Extended producer responsibility rules  PPP to facilitate the scaling up of resource-efficient manufacturing processes.  Mandatory or voluntary international/national standards (e.g., ASTM's textile standards, ISO standards)	

Stage of the textile life cycle	Product and by-product (if applicable)	Best available techniques for the material efficiency			Economic operator(s)	Key trade-related instruments and necessary actions	Additional instruments and actions
		<i>Reduction</i>	<i>Reuse</i>	<i>Recyclability/Recovery</i>			
Reuse/recycling (mechanical or chemical) <sup>7</sup>	Second hand product/ waste	Manufacturing process: Efficiency in the use of materials/resources (energy) Minimisation of waste			Recycling facility of a producer or a third party	Mandatory Ecodesign requirements Extended producer responsibility rules PPP to facilitate the scaling up of resource-efficient manufacturing processes	Textile waste management Mandatory targets for preparing for re-use and recycling of textile waste

<sup>7</sup> Mechanical recycling of cotton is the most established recycling process, but still represents only a small percentage in volume. It consists of separating the waste by colour and then shredding it before it is re-spun into new yarns. Chemical recycling of cotton is currently still at lab level but shows promising innovative development where for example the cotton is retrieved from postconsumer waste garments and dissolved to a molecular level. From there, it becomes a dissolving pulp to make viscose and lyocell products. See: <https://www.sciencedirect.com/science/article/pii/S0959652621035101>.