

DRAFT UNECE/OECD GUIDELINES FOR MEASURING CIRCULAR ECONOMY

PART A: CONCEPTUAL FRAMEWORK, STATISTICAL FRAMEWORK AND INDICATORS

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UNECE



In 2021 OECD and UNECE joined forces to draft Joint Guidelines for Measuring Circular Economy



OECD
Expert Group on information for a Resource Efficient and Circular Economy (RECE-XG)
Continuation of WPEI and WPRPW work initiated in 2018-19

Harmonised framework for monitoring progress and supporting policy development and evaluation

Guidance on how to produce, use and communicate CE information

Co-ordination and joint work

Envisaged goal:
Joint guidelines on measuring circular economy

UNECE
Task Force on measuring circular economy

Practical guidelines for measuring circular economy

Coordination and collaboration with other international organisations / expert groups

Platforms for exchange of experience and knowledge (e.g. joint OECD/UNECE SEEA Seminar)

- UNCEEA
- Eurostat: EU-Monitoring FW
- Bellagio Process
- UNEP: EW-MFA
- PACE
- ISO

Joint UNECE/OECD Guidelines for measuring Circular Economy

Structure

Part A: Conceptual Framework, Statistical Framework and Indicators (draft submitted to CES Bureau)

- Headline definition
- Measurement scope, terms and definitions
- Relationships with existing statistical standards (e.g. SEEA, classifications)
- National and regional examples

Part B: Guide on measuring progress towards a circular economy (to be drafted this year)

- Data sources
- Institutional collaboration
- Guidance on using indicators

Status of work and acknowledgements

- **In February, the CES Bureau approved draft of Part A for wide electronic consultation (end March)**
- Jointly by OECD RECE-XG and UNECE TF on Measuring CE
- Experts from Austria, Belgium, Canada, Colombia, Denmark, Eurostat, Finland, India, Italy, Netherlands; EEA, Eurostat, IMF, OECD, PACE, UNECE, UNEP, UNITAR, UNSD, WRI

Part A – Conceptual and measurement framework (presentation to CES in 02.2023):

1. Introduction
2. Policy background
3. The circular economy concept and the headline definition of a circular economy
4. The statistical framework
5. Indicators for measuring CE
6. List of issues for further work
7. Glossary of terms
8. References

Annex: 10 case examples: Belgium (Flanders), Canada, China, Colombia, Denmark, European Union, Finland, France, Japan, Netherlands

Circular Economy: A working definition to guide the monitoring of progress



- Agreed principles - A hierarchy of definitions
 - A simple headline “definition” that, while pointing at the key purposes of a CE, is general enough to serve both policy needs and measurement needs
 - To be complemented with explanations on underlying mechanisms and strategies
 - To be expanded with details needed to guide statistical measurement
 - To be adapted as appropriate to specific needs: country needs, specific sectors or materials
 - To be complemented with glossary of terms and definitions

A headline working definition



*“**Materials**” are understood to include natural resources and the materials and products derived therefrom (i.e. materials at all points throughout their life-cycles).”*

A circular economy is an economy where:

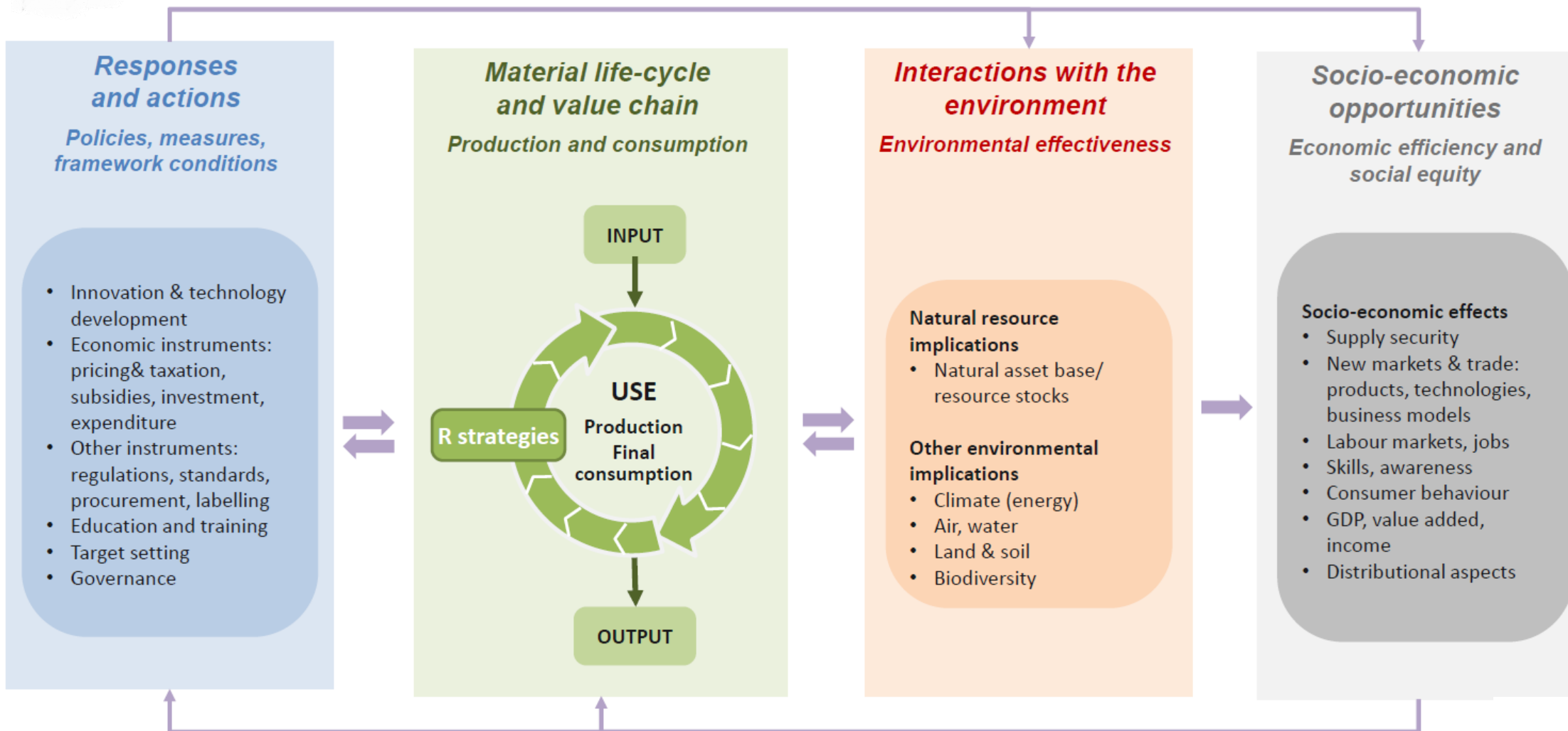
- the value of materials in the economy is maximised and maintained for as long as possible;*
- the input of materials and their consumption is minimised; and*
- the generation of waste is prevented and negative environmental impacts reduced throughout the life-cycle of materials.*

*The “**value of materials in the economy**” is understood to encompass the value for society as a whole taking into account economic efficiency, environmental effectiveness and social equity. Maintaining the value for as long as possible links to circularity mechanisms.*

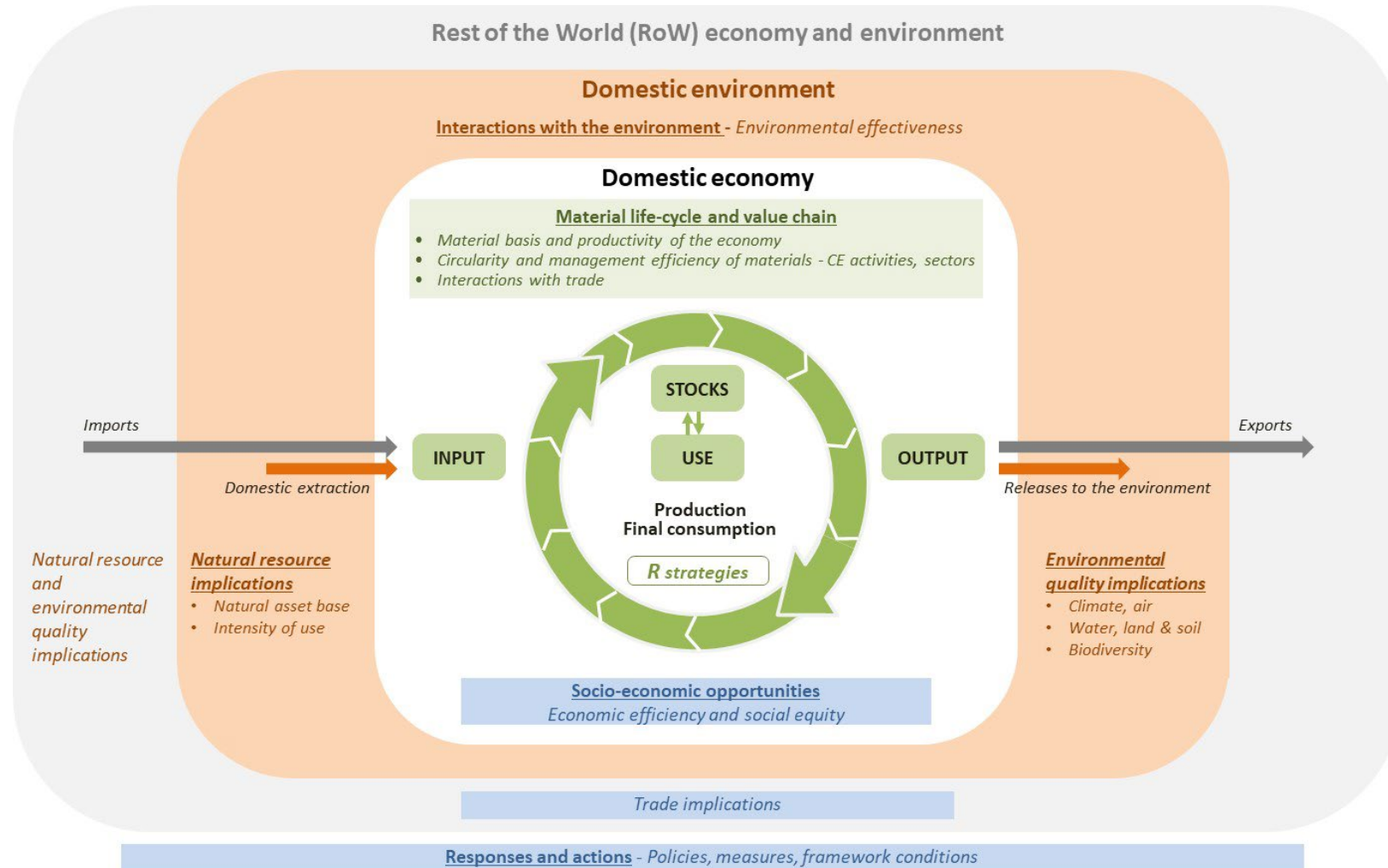
***Minimising the input of materials and their consumption** contains a quantitative and a qualitative dimension. Links to the preservation of natural assets, to resource efficiency, to environmental quality*

*The “**life-cycle of materials**” is understood to include all phases of the material cycle e.g. extraction, transportation, product design, manufacture, final consumption/use, reuse, end-of-life, recovery and final disposal, as well as the associated waste management activities and R strategies. Reference to the “life-cycle” reflects waste prevention at all stages (importance of higher level Rs) and all associated environmental impacts*

Conceptual monitoring framework – Building blocks



Statistical Framework - grounded in the SEEA



The indicator list



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- **Characteristics**
 - Balanced coverage of main CE features
 - Reflect major trends and structural changes related to the transition towards a CE
 - Fit into an overall narrative framework while supporting more granular analysis
 - Lend themselves to being interconnected to inform about policy outcomes
- **Selection criteria to guide and validate the choice**
 - Policy relevance; analytical soundness; measurability
- **Indicator set of manageable size**
 - Builds on existing sets complemented with new/improved indicators to fill gaps
 - Distinguishes between core, complementary & contextual indicators
- **Indicator list close to final**
 - Consensus on core & complementary indicators and level of detail
 - Balance between operational and aspirational indicators
 - Challenge: identify core indicators that (i) reflect the main characteristics of CE going beyond linear waste and materials management; (ii) are measurable in the short to medium term; (iii) provide a common vision of the measurement agenda

Core indicators:

- address main policy questions; provide big picture;
- point at developments that require further analysis & possible action;
- limited number;
- provide minimum reference list for international work.

Complementary indicators:

- complement the message conveyed by core indicators;
- provide additional detail (sectoral, products/materials);
- cover additional aspects, incl. country-specific.

Contextual indicators:

- inform about “drivers”, socio-economic & environmental background variables;
- facilitate interpretation in context.

What can be measured with SEEA? (examples)



Responses and actions

- Subsidies/taxes
- Investments

Material life-cycle and value chain

- Waste, material flows
- Several R strategies, e.g., 3 Re-use, R4 Repair, R5 Refurbish, R6 Remanufacture, R7 Repurpose, R8 Recycling, R9 Energy recovery
- Substitution

Interactions with the environment

- Natural resource implications
- Other environmental implications
 - Climate change: emissions, energy
 - Pollution: water
 - Biodiversity, ecosystems
 - Land use/cover

Socio-economic opportunities (macro/meso)

- Employment
- GDP, value added
- Supply security

- SEEA provides a standard framework for measuring the interactions between the environment and the economy: well suited for environmental-economic analyses at the macro- and meso- levels.
- Enables the **combination of data from different SEEA accounts** and the integration of environmental and economic data (e.g., from National Accounts)
- Provides a basis for harmonised indicators
- Provides CE relevant insights that are not available when individual statistics are considered.

Some limitations of SEEA for CE measurement



- Less suitable for measuring specific aspects and actions of a CE transition
 - Consumer behavior, innovative economic activities or product design, product lifespan, material composition of products, etc.
- Less suitable for data on specific products or production processes.
 - Level of detail of classifications used in SEEA is limited. Relevant distinctions for e.g., second-hand or bio-based commodities do not exist.
 - Transactions between households, e.g., supply and use of secondary goods, are not considered, because these transactions take place within a single economic entity.
 - Recycling and circularity within industrial plants is not recorded. Also, the sale and purchase (as a secondary good) of capital goods within an industrial sector is not recorded
- Timeliness may be an issue
- Other data sources and methods need to be exploited, including new and innovative sources and methods



- Draft “Joint OECD/UNECE Guidelines on Measuring Circular Economy” (part A) will be sent for e-consultation end of March.
 - Feedback on pre-selected core indicators and complementary indicators will be taken into account for final list of indicators
- Revised draft submitted to CES for endorsement at its meeting in June
- Part B Implementation guidelines to be developed in 2023/2024