

# Joint UNECE/OECD Guidelines for Measuring Circular Economy

#### PART A: CONCEPTUAL FRAMEWORK, STATISTICAL FRAMEWORK AND INDICATORS

Johanna Pakarinen (Statistics Finland) Myriam Linster (OECD) Michael Nagy (UNECE)











### **CES Task Force on Measuring Circular Economy**



#### The Task Force

- Established by CES Bureau in February 2021
- Experts from Finland (Chair), Austria, Belgium, Canada, Colombia, Denmark, India, Italy, Netherlands
  Sweden; EEA, Eurostat, IMF, OECD, PACE, UNECE/FAO, UNEP, UNITAR, UNSD, WRI

#### Main Objective according to ToR

#### Draft practical guidelines for measuring circular economy, including

- a) Definition of the measurement scope;
- b) Clarification of key terms and definitions;
- c) Identifying key statistics and indicators needed from the policy point of view;
- d) Identifying data sources for measuring circular economy, with particular attention on SEEA and FDES;
- e) Describing the required institutional collaboration.







## 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

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

Draft 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







### What are you endorsing today?



The Guidelines consist of 2 Parts. Agreement on Part A is needed to continue with Part B

## Part A: Conceptual Framework, Statistical Framework and Indicators (for endorsement by CES)

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

#### Part B: Guide on measuring progress towards a circular economy

- Data sources
- Institutional collaboration
- Guidance on using indicators
- Other issues as identified during the e-consultation





### **Headline Definition of a Circular Economy**



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.

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

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 such as 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



### Responses and actions

Policies, measures, framework conditions

- Innovation & technology development
- Economic instruments: pricing& taxation, subsidies, investment, expenditure
- Other instruments: regulations, standards, procurement, labelling
- · Education and training
- Target setting
- Governance

### Material life-cycle and value chain **Production and consumption INPUT USE** Production R strategies Final consumption OUTPUT

### Interactions with the environment

Environmental effectiveness

### Natural resource implications

 Natural asset base/ resource stocks

### Other environmental implications

- Climate (energy)
- Air, water
- · Land & soil
- Biodiversity

### Socio-economic opportunities

Economic efficiency and social equity

#### Socio-economic effects

- Supply security
- New markets & trade: products, technologies, business models
- Labour markets, jobs
- Skills, awareness
- · Consumer behaviour
- GDP, value added, income
- Distributional aspects

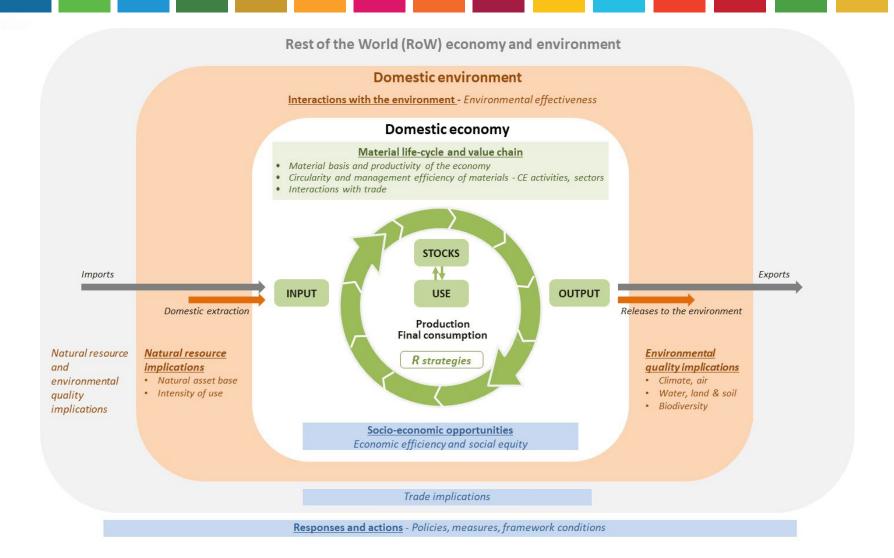






# Measurement considerations: Grounded on SEEA-CF









### **Proposed indicator list**



#### 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.





### Selected feedback

### 41 countries replied

### UNECE

**Canada:** The document is comprehensive and includes important information that will help guide organizations in the measurement of the circular economy.

Estonia: Good, in depth and well elaborated material.

**Germany:** We appreciate that the guidelines provide a broad conceptual framework on measuring the circular economy that substantially builds on relevant existing standards such as the SEEA and at the same time allows for for flexibility to take into account different national circumstances and priorities.

**Slovenia:** A very well-structured document that provides a lot of additional information regarding the circular economy and its monitoring. It will certainly help in the further development of this area in our office.

**Switzerland:** The Guidelines are well structured and balanced, concise, clear and understandable. We consider the Guidelines an excellent foundation for the implementation of the statistical measurement of the circular economy.





### Some issues and proposed action points



### Selected issues mentioned by some respondents

- ☐ Further clarification of target audience and relationship with Part B is needed
- ☐ The technical precision needed for a statistical framework is missing
- □ Some terms and their definitions need more clarity
- □ Proposed indicators are helpful, but refinement needed once more experience is available

### **Action taken by the Task Force (selected)**

- □ Explanation of purpose of the document, its target audience and relationship with Part B will be strengthened
- ☐ Indicators chapter will be moved right after chapter defining the CE concept
- ☐ Current chapter 4 "Statistical framework" will be renamed to "Measurement issues and links to other frameworks"
- □ Refinement of the document and the list of indicators is needed after a certain period, once more practical experience is available.







### **Proposed decision**



#### **Proposed decision**

- The Conference endorses the Joint UNECE/OECD Guidelines for Measuring Circular Economy (Part A) (ECE/CES/2023/3), subject to amendments presented ECE/CES/2023/4/Add.1
- The Conference supports the continuation of work to develop Part B of the material, including guidance on data sources and on using indicators, the required institutional collaboration, and more case examples.





### **Guiding question for our discussion**



# Which identified areas of follow-up work should be addressed with priority UNDER THE UMBRELLA OF CES?

Examples of important areas of follow-up work include:

- Further clarification of important terms and definitions used in different ways in different frameworks and contexts (e.g. biomaterials)
- Further development of the statistical framework for measuring Circular Economy
- Addressing major measurement issues and data gaps for calculation of proposed indicators
- Indicators research agenda
- Development of practical guidelines on various issues (e.g. measuring informal or illegal flows of materials
- Etc.