

REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

SESSION 2: WASTE STATISTICS FOR MEASURING CIRCULAR ECONOMY
AND SUSTAINABLE USE OF NATURAL RESOURCES

MEASUREMENT CHALLENGES FROM MOVING FROM A LINEAR ECONOMY
TO A CIRCULAR ECONOMY

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Changing policies and informations needs

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CHANGING POLICIES AND INFORMATION NEEDS

- **Initially, waste-related policies have been focusing on**
 - Human health and environmental impacts of waste (household waste, hazardous waste)
 - End-of-pipe solutions: collection, disposal
- **In recent decades, waste-related policies have been moving towards preventive and integrated approaches**
 - Expanded scope in line with the waste hierarchy considering waste as a resource
 - Greater attention to specific waste streams: food waste, plastic waste, WEEE, C&D...
 - Greater attention to the life-cycle of materials and the circularity of material flows
 - Reflected in the principle of the 3Rs and in circular economy initiatives
 - Yet, basic waste management remains a concern in many countries
- **Stronger demands for reliable data to inform policy making and track progress**
 - Raises questions as to the adequacy of current waste statistics and indicators
 - What needs to be measured? How can waste statistics contribute?

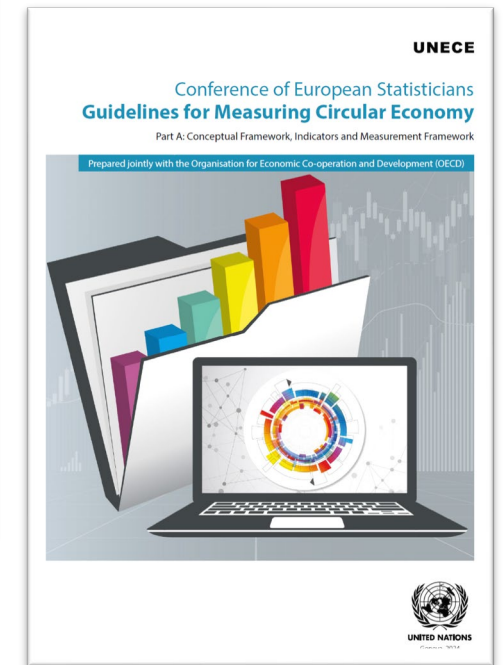
WHAT NEEDS TO BE MEASURED?

- **Measuring CE requires high quality waste statistics that can be combined with other statistics**
 - Material flows; primary & secondary raw materials; emissions; products; trade
→ role of accounting frameworks
- **Measuring CE requires data on specific features that go beyond waste statistics and that are not always available from official statistics**
 - Integrated, life-cycle oriented management approaches in the business sector: use of secondary raw materials in production processes; higher R-strategies, circularity of material flows, upstream materials management and waste prevention, remanufacturing, innovation, life-cycle wide impacts and costs
 - Repair activities; second-hand goods and markets; sharing economy
 - Policy instruments
 - Socio-economic aspects of a CE: employment; household and firm behaviour, skills, ...
- **Measuring CE requires data from many different sources that are scattered**

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WHAT IS THE ROLE OF WASTE STATISTICS?

- **Waste statistics provide important elements for measuring CE**
 - Measuring waste, waste management and material flows is in reach for any country given dedicated investments
 - existing data can be used as a starting point and be progressively improved and expanded
- **The CES Waste Statistics Framework and Guidelines for Measuring Circular Economy provide practical guidance for countries**



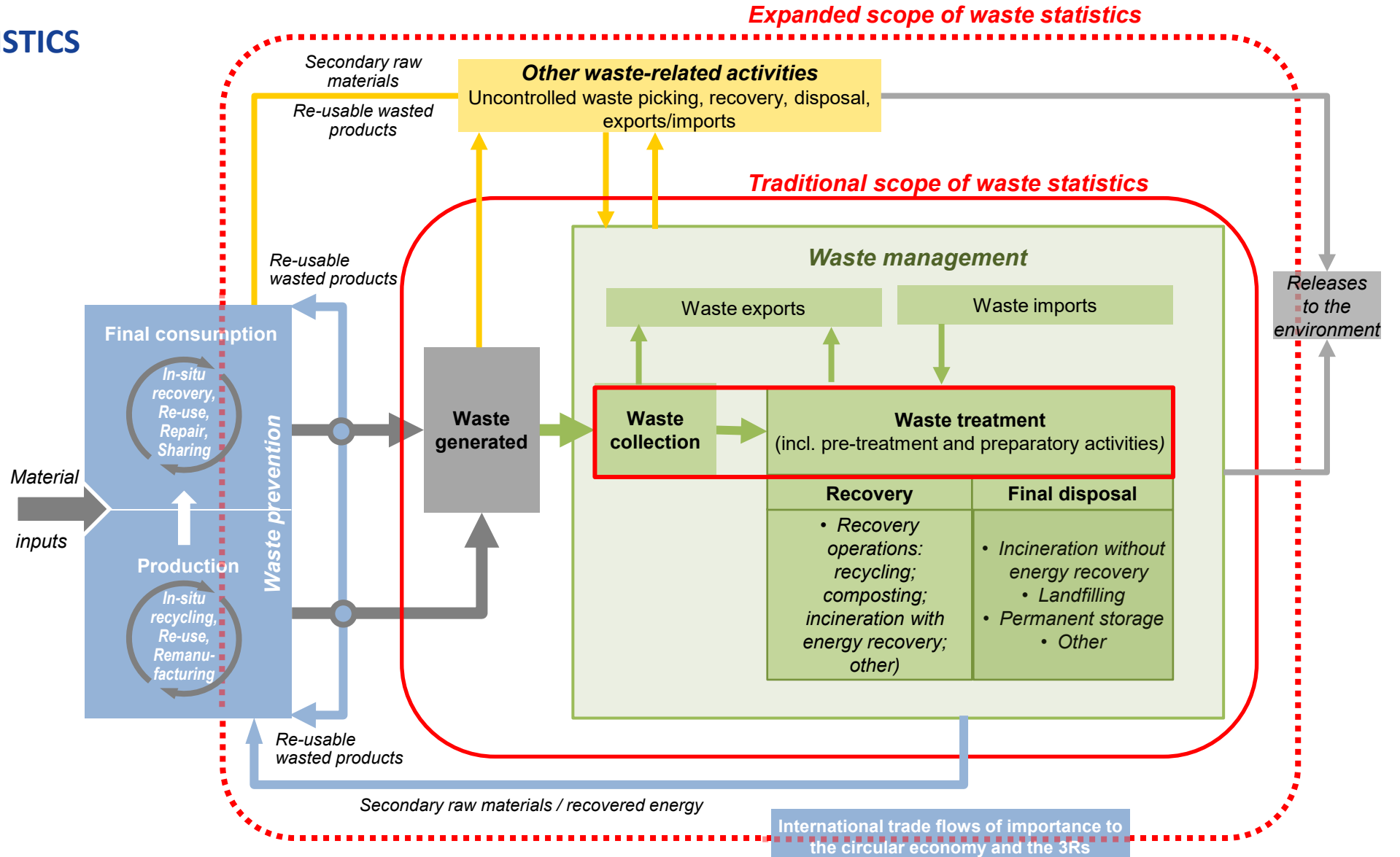
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SCOPE OF WASTE STATISTICS

Scope of waste statistics depends on the waste issues and management practices in a country



CES Framework on Waste Statistics (with OECD, UNEP, Eurostat, UNSD)



Main challenges and areas for progress

ARE CURRENT WASTE STATISTICS ADEQUATE TO INFORM WASTE AND CIRCULAR ECONOMY POLICIES?

- **40 years of statistical advances and harmonisation efforts**
 - Data on waste available in most countries at varying degrees of completeness and granularity
- **... but many data gaps remain**
 - Waste from economic activities: waste from agriculture and forestry and from mining activities are not regularly monitored in all countries; data on hazardous waste have gaps;
 - Specific materials and products: not monitored on a regular basis (plastics, food, e-waste, C&D waste, ...)
- **... and data quality is still an issue**
 - Many waste data are estimated and more or less accurate
 - Coherent time series over longer periods are often missing making it difficult to monitor the effects or earlier policies
 - Definitions, measurement boundaries and estimation methods differ and change over time (depend on national waste management laws, policies and practices)
 - Available data cannot easily be combined and interconnected to inform the assessment of policy outcomes and of progress made

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EXPANDING THE SCOPE OF WASTE STATISTICS - THE INFORMAL SECTOR

- **Particular issues arise for waste that is not monitored through official channels**
 - Waste collected, managed outside the formal sector: informal waste pickers and recyclers (important for metals, plastics); illegal activities
 - Little information available; non-official sources to be used
 - No harmonised measurement boundaries
- **The informal sector**
 - Active in almost all waste activities (collection, sorting, recovery, disposal); is often the backbone of collection for recycling
 - Characteristics are country specific; no internationally agreed definition
 - Has often insufficient knowledge, equipment, no quality control/monitoring; no reporting obligations;
- **Importance of integrating informal activities into formal waste management systems**

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HOW CAN WASTE STATISTICS CONTRIBUTE TO MEASURING PROGRESS? - PROGRESS TO BE MADE

- **Improve the quality of existing waste statistics**
 - Reconcile time series, ensure proper documentation, improve timeliness
 - Ensure compatibility with other statistics: materials, products, production, emissions, ...
 - Improve international coherence
 - Further harmonise the definitions used: national; international
 - Consolidate and further improve waste data through the regular international data collections
 - Use international fora to share experience and good practices
- **Fill data gaps and expand the scope of the statistics produced**
 - Cover all types of waste and all sources
 - Ensure a regular tracking of waste flows and of the different management stages: production, collection, recovery, disposal,
 - Keep track of primary and secondary waste, of secondary raw materials
 - Account for informal waste-related activities, for transboundary movements
 - Monitor waste and materials management in the business sector
 - Complement official statistics with data on waste management infrastructure, management costs, recycling markets

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HOW CAN WASTE STATISTICS CONTRIBUTE TO MEASURING PROGRESS? - WHAT IS KEY?

Cost effectiveness of the information system

Proper institutional arrangements and coordination – Co-ordination and coherence

Horizontal

Environment ministries

Government agencies

National Statistical Offices

Vertical

National and sub-national levels

Stakeholders

Private sector, NGOs

Effective collection processes

Transparent data collection & validation methods

- Proper documentation of the data
- Coherence with international work
→ harmonised data on key aspects

Continuity and coherence over time

- Proper and continued funding
- Continuous training and capacity building
→ monitor the effects of policies

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HOW CAN WASTE STATISTICS CONTRIBUTE TO MEASURING PROGRESS?- WHAT IS NEEDED?

- **A framework for an integrated national waste information system**
 - Considering all important aspects and the full information chain
 - Considering data on waste and material flows (physical data)
 - Complemented with information on policy instruments, expenditure and revenue, cost-recovery, jobs
- **A pragmatic step-by step approach to monitoring**
 - Consider the country's starting position (can start modestly with data most needed and available)
 - Plan for a progressive expansion of the scope from the outset; consider CE needs from the outset
 - Identify data needed for policy development/implementation/evaluation
 - Identify data sources, data holders, data gaps
 - Complement regular data collection with ad-hoc studies (informal sector; specific materials)
- **Monitoring to evolve with advances in waste and materials management policies**
 - Waste management plans and practices, standards, targets
 - Circular economy strategies and policies
 - Keep national data needs under review
- **Proper dissemination and communication**

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Thank you !

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