



International standardization activities in the circular economy

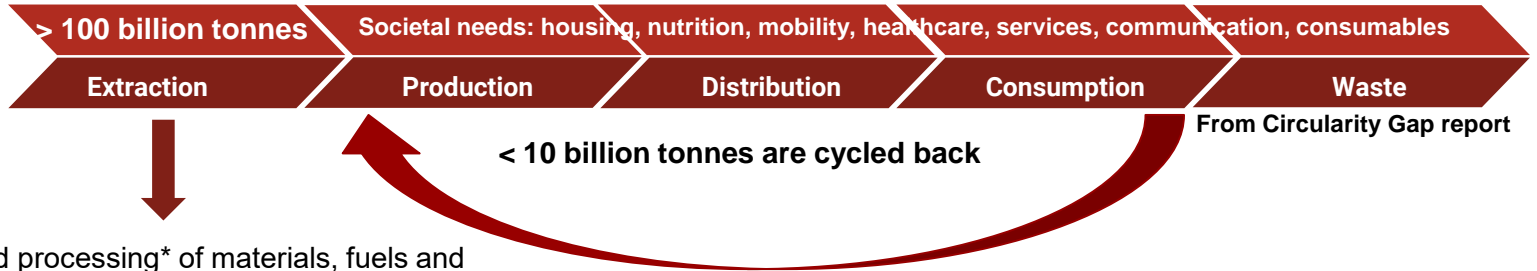
ISO TC 323

**8th November 2022 - Brussels
World Customs Organization**



Change our production and consumption modes

**Fossil Fuels,
Minerals, Ores,
Biomass**



“The extraction and processing* of materials, fuels and food make up about **half of total global greenhouse gas emissions** and more than **90% of biodiversity loss and water stress**”.

Source: *Global Resource Outlook, UN Environment - 2019*

We face to

- **Environmental emergency:** planetary boundaries reached and/or exceeded - Climate change, resource and biodiversity depletion
- **Social emergency:** climate migration, people wealth gap, behavior change

We need to

- Switch to **alternative models** to decouple the global economy from the consumption of limited resources
- Provide a **long-term vision** and be more **collaborative**

* The focus is on resource extraction and processing up to “ready-to use” materials and fuels (including waste disposal processes in the extraction and processing phase). This is also termed ‘cradle-to-gate’.

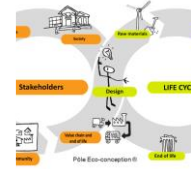


A new Technical Committee to promote CE

ISO Technical Committee 323, the scope

Standardization in the field of **Circular Economy** to develop frameworks, guidance, supporting tools and requirements **for the implementation of activities of all involved organizations**, to maximize the contribution to **Sustainable Development**.

Created in 2019, **TC323 produces some transversal standards** related to Circular Economy. These standards could be a basis for specific activities.



Integrate life cycle thinking in process

Design out waste and pollution



Cooperate along the value chain, involve all stakeholders, promote value networks

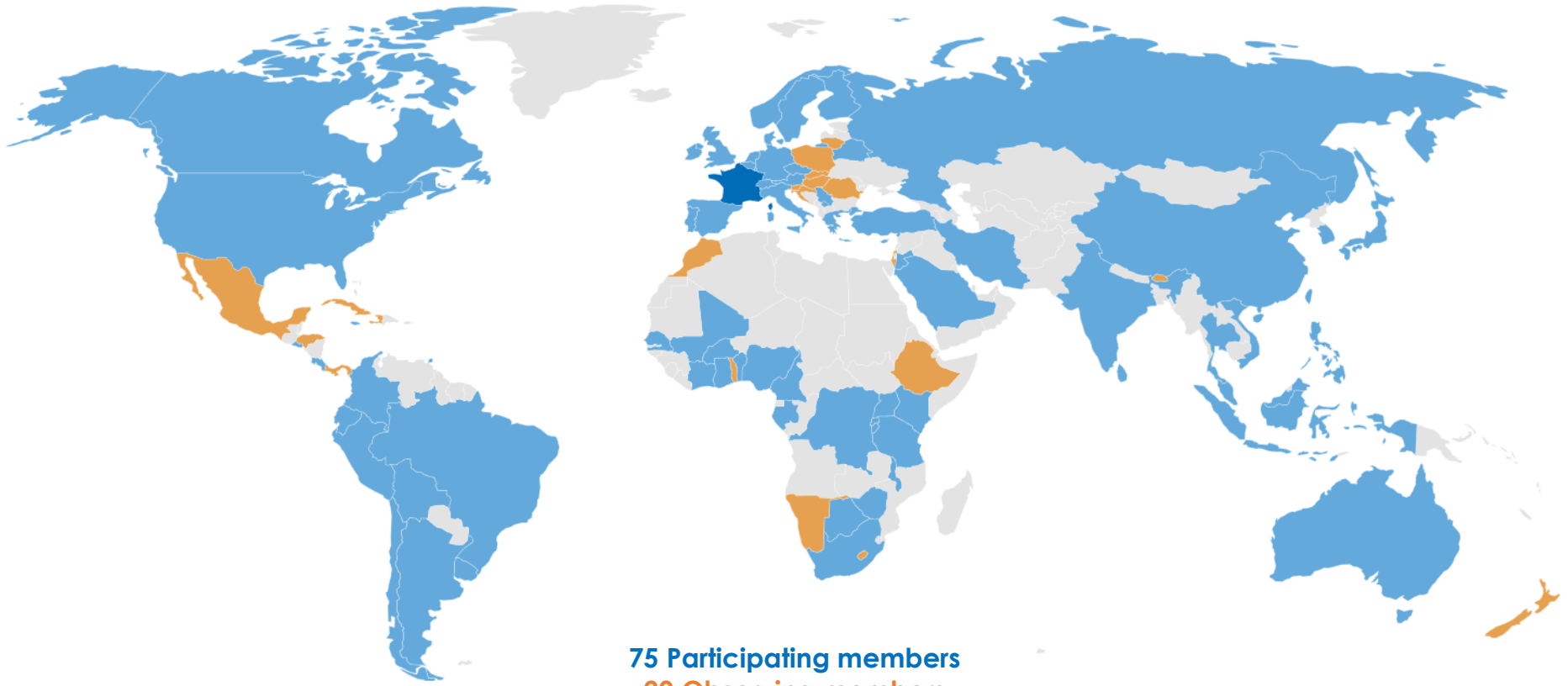


Integrate long term vision





Worldwide participation to Circular Economy works





75 Participating members
20 Observing members

And organizations in liaison such as: ECOS, EMF, WBCSB, GRI, WRI-PACE, UNIDO, WCO, ...



A PACKAGE TO FACILITATE CE IMPLEMENTATION

ISO 59000 series

ISO 59 004 – Circular Economy – Terminology, Principles and Guidance for implementation   

ISO 59 010
Circular Economy –
Guidance on business models
and value networks



ISO 59 020
Circular Economy –
Measuring and assessing
circularity



ISO 59 040
Circular Economy – Product
Circularity Data Sheet



ISO 59 014
Secondary materials –
Principles, sustainability and
traceability requirements



ISO TR 59 031 – Circular Economy – Performance based approaches
ISO TR 59 032 – Circular Economy – Review of business model implementation



Focus: ISO 59004 - Terminology, principles and guidance for implementation

Work in progress

Circular economy definition

economic system that uses a **systemic approach** to maintain a circular flow of resources, by **recovering, retaining or adding** to their value, while contributing to **sustainable development**.



Focus: ISO 59004 - Terminology, principles and guidance for implementation

Work in progress

Circular economy principles

- **Systems thinking**
 - long-term systems perspective
 - considering the impacts of interactions among environmental, social, and economic systems,
 - life-cycle perspective of solutions
- **Value creation**
 - recover, retain, or add value
 - minimize extraction of non-renewable resources
 - manage renewable resources to recover, retain or add value over time.
- **Value sharing**
 - collaborate along the value chain or value network in an inclusive and equitable way
- **Resource availability focus**
 - manage stocks and flows of resources to contribute to their availability for present and future generations
 - secure the quality and resilience of ecosystems.
- **Resource traceability**
 - manage and track stocks and flows of resources in a transparent and accountable way
- **Ecosystem resilience**
 - Implement practices that protect and contribute to the regeneration of ecosystems and their biodiversity
 - take into account planetary boundaries



Focus: ISO 59004 - Terminology, principles and guidance for implementation

Work in progress

Actions to implement circular economy

• **Actions that create added value**

- Circular Design
- Circular Sourcing
- Circular Procurement
- Optimize Processes
- Industrial Symbiosis

• **Actions that contribute to value retention**

- Reuse and redistribution
- Maintenance and servicing
- Performance-based approaches
- Sharing to intensify use

• **Actions that contribute to value recovery**

- Refurbishment
- Remanufacturing
- Reverse logistics
- Cascading of materials
- Recycling
- Waste management

• **Actions that regenerate lost values**

- Regeneration of ecosystems

Enablers -> Action to support circular transformation

Education and research / Innovation / Collaboration and networks / Helping users change their behaviour /
Policy and legal system / Investments

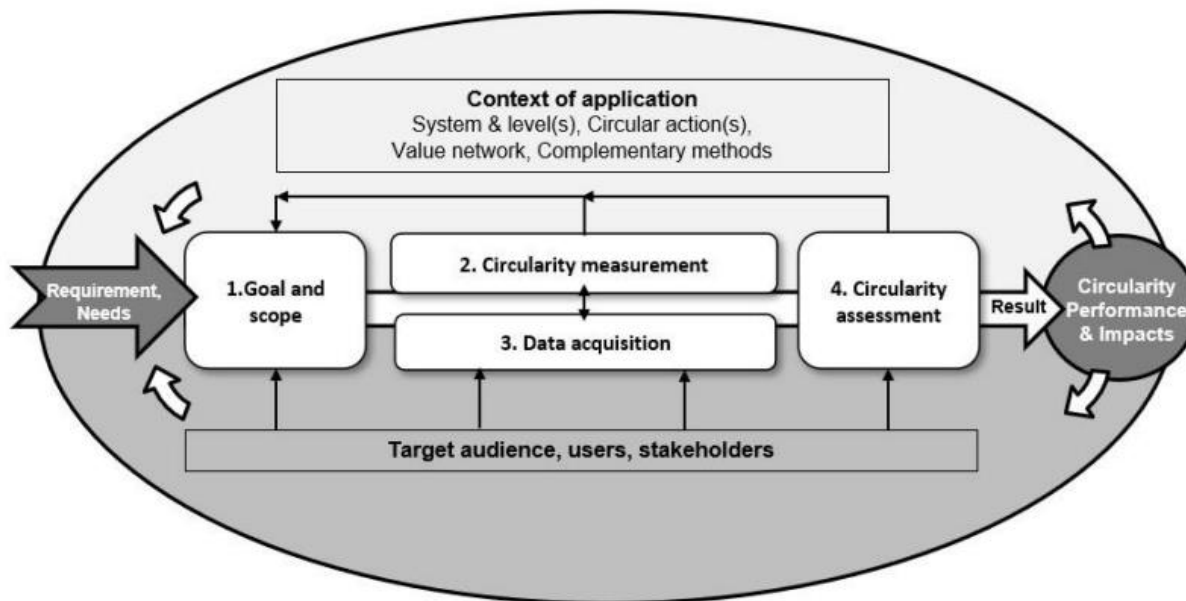
=> Which impact on business models and value chains especially for the textile industry?

Focus: ISO 59020 - Measuring and assessing circularity

In progress

Scope: the standard specifies a framework for organizations to measure and assess circularity, enabling those organizations to contribute to sustainable development.

=> Applicable to multiple levels of an economic system from **regional to product level** including **organizations and inter-organizations levels**.



Based on a circularity measurement taxonomy

- To monitor circular actions
=> Reuse, Reduce, Repair, Recycle, Remanufacture, etc...
- To measure flows
=> Retain, regenerate, create, etc...
- To assess sustainability impacts
=> Social, environmental and economic impacts



Focus: ISO 59040 - Product Circularity Data Sheet

In progress

- Provides a **general methodology** for defining, implementing, operating, monitoring, reviewing, maintaining and improving Product Circularity Data Sheets when acquiring or supplying products;
- **Facilitates mutual understanding** of the other party's approach to Product Circularity Data Sheets and associated needs and expectations;
- Reflects the complexity of managing Product Circularity Data Sheets that can have organizational and technical impacts in supplier and acquirer relationships;
- **Contains a requirement process and guidance** for how to provide and exchange product information that support circular economy use of products;
- Is intended to be used by any **organization willing to adopt circular economy aspects in supplier or acquirer relationships**;
- Is intended for **certification purposes**; and
- Is intended to be used **to set a number of defined circular economy objectives applicable to a supplier and acquirer relationship** that is a basis for assurance purposes



PUBLICATION DATES

Standards	Publication
ISO 59 004 – Circular Economy – Terminology, Principles and Guidance for implementation	Beginning 2024
ISO 59 010 - Circular Economy – Guidance on business models and value networks	
ISO 59 020 - Circular Economy – Measuring and assessing circularity	
ISO 59 040 - Circular Economy – Product Circularity Data Sheet	
ISO 59 014 - Secondary materials – Principles, sustainability and traceability requirements	
ISO TR 59 031 – Circular Economy – Performance based approaches	2023
ISO TR 59 032 – Circular Economy – Review of business model implementation	



THANK YOU!

Switch to alternative models to decouple the global economy from the consumption of limited resources...

...Let's implement Circular Economy within our organizations!

For additional information

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To join the ISO TC323 Circular Economy

Contact your national standardization body

List on <https://www.iso.org/committee/7203984.htm>