Circular Transition Indicators

Presentation to H-AIST CE Lab
23 April 2024



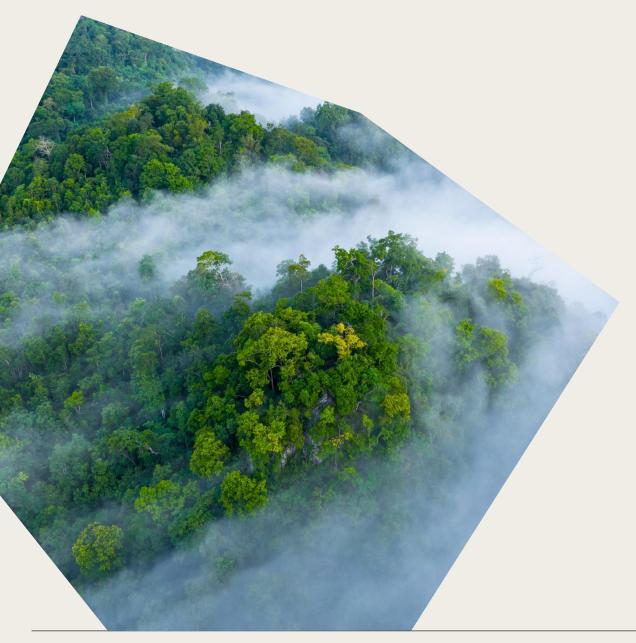


Who's with you today



Irene
Martinetti
Lead, Circular Transition Indicators
(CTI)
World Business Council for Sustainable
Development (WBCSD)





Who we are

WBCSD is a global community of leading businesses driving systems transformation for a better world in which 9+ billion people can live well, within planetary boundaries, by mid-century.

Together, we accelerate the required transformation of businesses, their value chains and the systems in which they operate, to limit the impact of the climate crisis, restore nature & tackle inequality.

Our community of business leaders is empowered to raise ambition for a better world, deliver action at speed and scale in their operations & value chains, and sharpen the accountability of their performance.

Our 200+ members span across all geographies and sectors





Introducing the Circular Transition Indicators





CTI is a cross-sector framework for measuring circularity

CTI provides insights on the circularity of a company, facility or product level to **drive the transition towards a circular economy** by encouraging businesses to **adopt innovative circular business approaches** that improve company longevity and resilience.

Key principles:

- Simple
- Consistent
- Complete
- Complementary
- Neutral

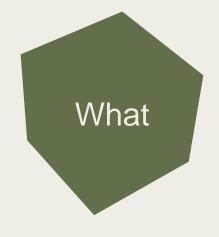


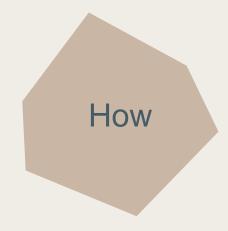




Built for business by business, CTI aims to support companies operationalize circularity, build performance and accountability systems, and create value.







Companies need to understand the level of circularity of their company, assets and products to act toward improving their performance.

CTI is a **standardized methodology** and **terminology** that
supports decision-making
and collaboration.

CTI measures material,
water flows and design for
circularity and their
impact on Climate and
Nature



CTI is used widely around the globe



The CTI methodology is available in 8 languages: English | Japanese | Traditional Chinese | Spanish | French | Italian | Portuguese | Turkish

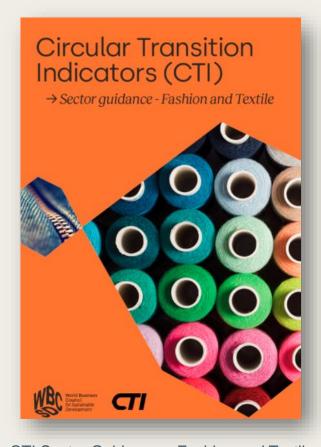
The Circular Transition Indicators v1.0, v2.0, v3.0 and v4.0, by the World Business Council for Sustainable Development are licensed under CC BY-ND 4.0 (Creative Commons Attribution-NoDerivatives 4.0 International).



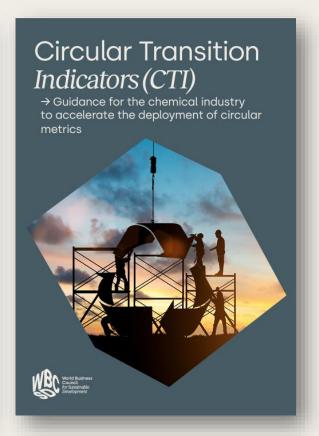


CTI supports diverse industries with its range of sector guidance

Fashion and Textile

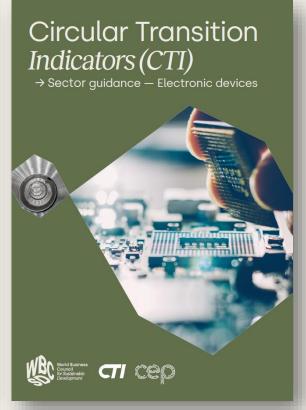


Chemicals



CTI Sector Guidance – Chemicals
Published March 2024

Electronics

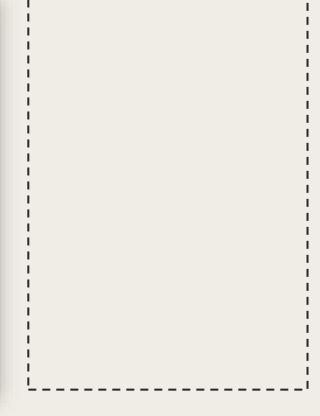


CTI Sector Guidance - Electronics

Published at WCEF2024

Launch event

Buildings

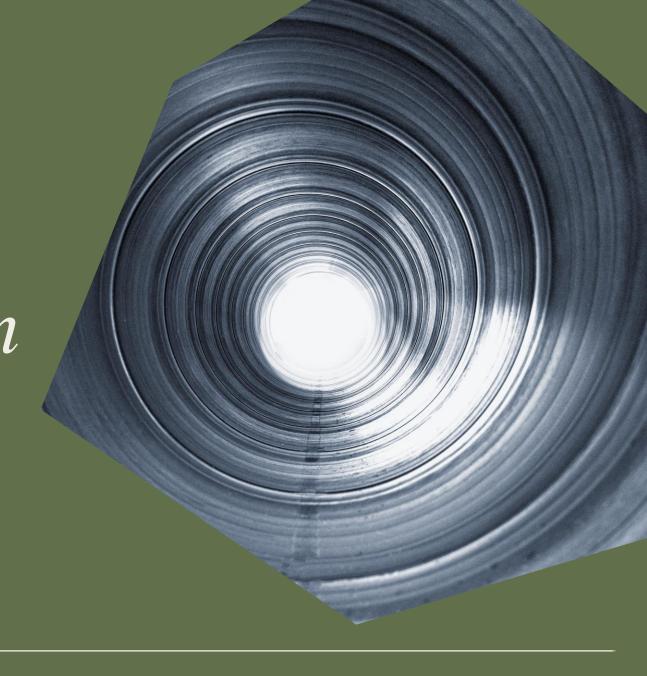


Under development





Circular Transition Indicators Methodological approach

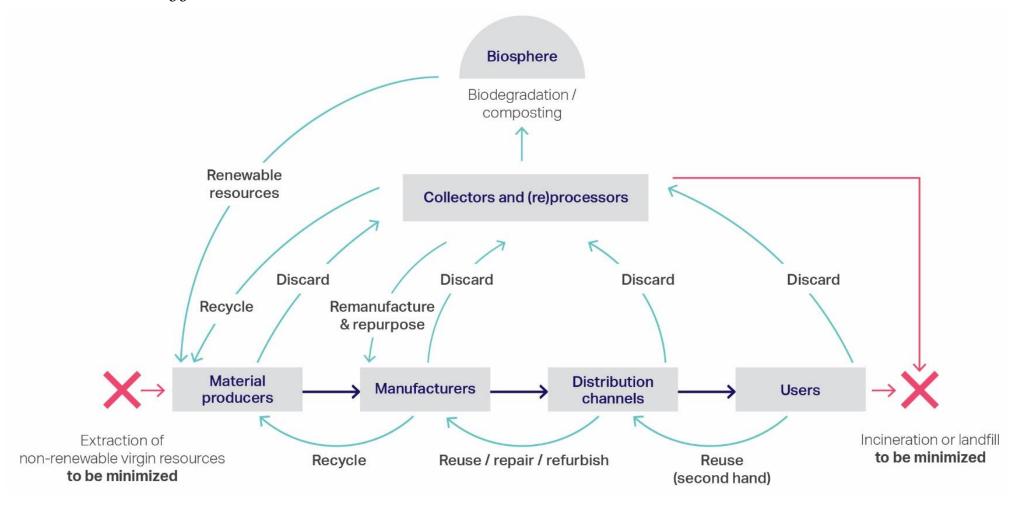






The Circular Transition Indicators

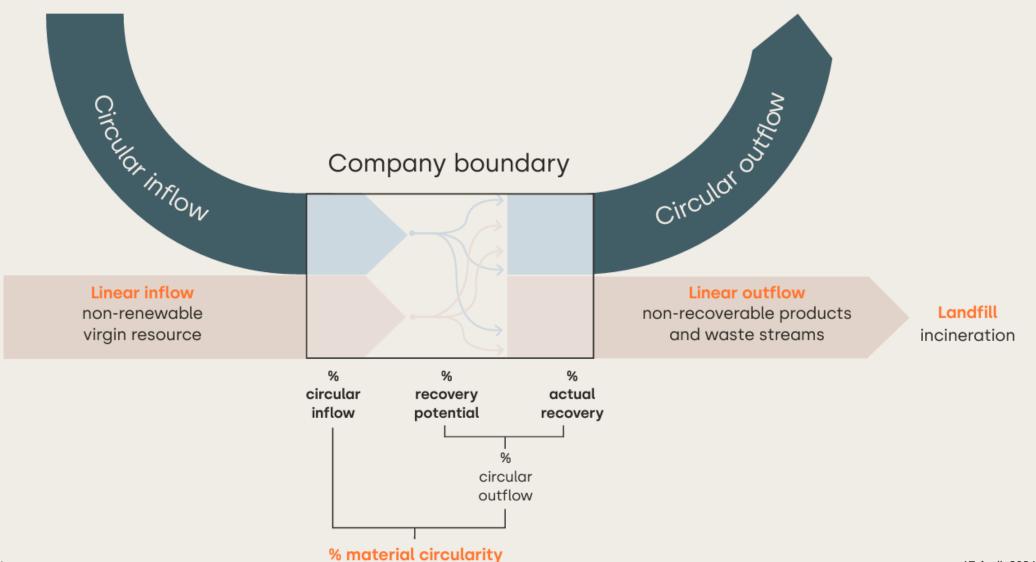
A value chain effort







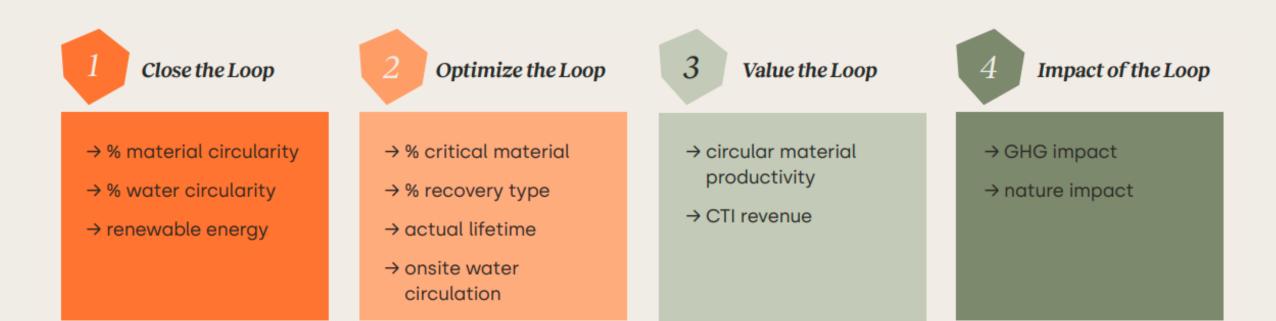
CTI measures the circularity of a business by assessing physical flows







The methodology allows for different granularity levels in the assessment thanks to its four modules

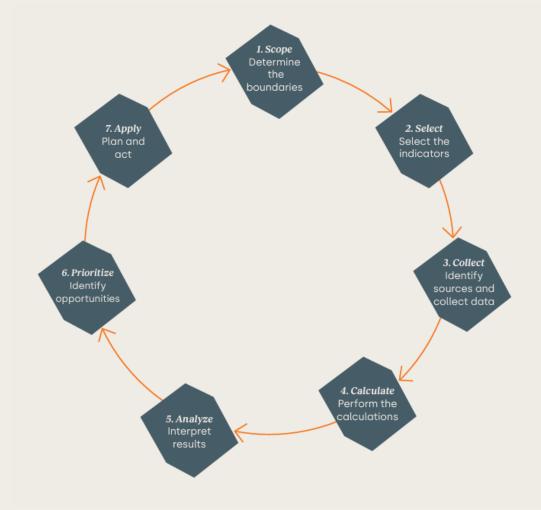






Circular Transition Indicators – Measuring progress

Supporting decision making and monitoring progress







Circular Transition Indicators (CTI) Methodology and performance indicators



- → % material circularity
- → % water circularity
- → renewable energy

2

Optimize the Loop

- → % critical material
- → % recovery type
- → actual lifetime
- → onsite water circulation

3

Value the Loop

- → circular material productivity
- → CTI revenue



Impact of the Loop

- → GHG impact
- → nature impact

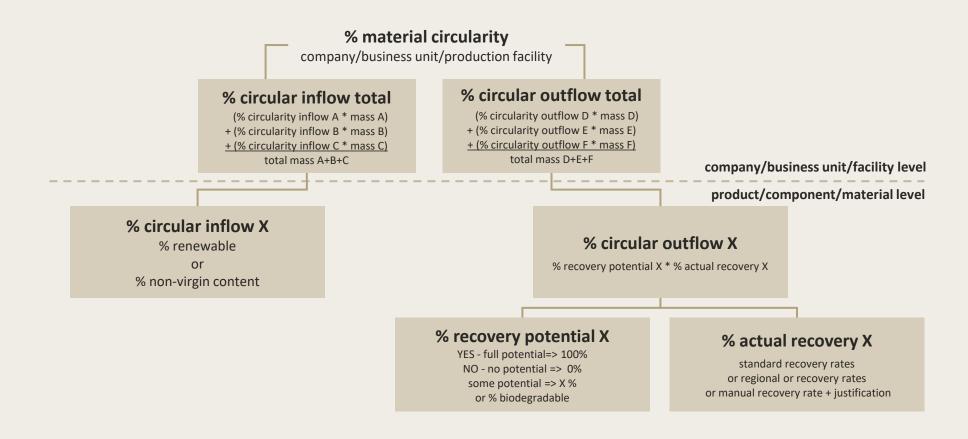
 $Formulas \ and \ definitions \ for \ all \ indicators \ are \ available \ in \ the \ report: \ \underline{Circular \ Transition \ Indicators \ (CTI) \ v4.0}$





Circular Transition Indicators - Close the Loop

CTI headline indicator: % material circularity





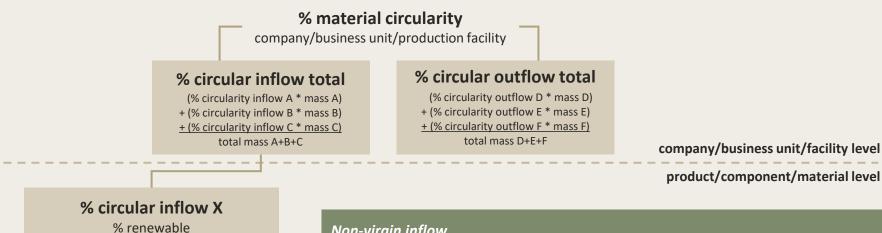


Circular Transition Indicators – Close the Loop

CTI headline indicator: % material circularity

or

% non-virgin content



Non-virgin inflow

Inflow previously used or consumed (secondary) e.g. recycled materials, second-hand products or refurbished parts.

Renewable inflow

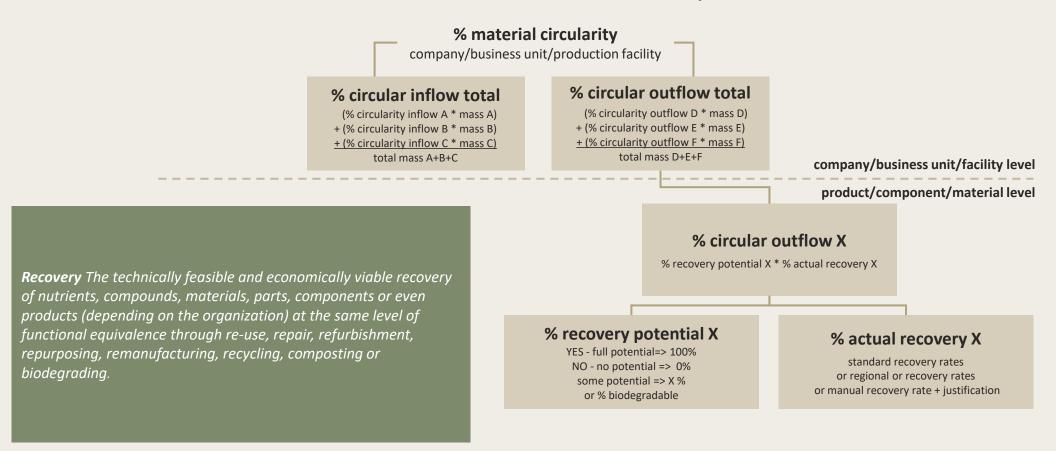
Sustainably managed resources, most often demonstrated by internationally recognized certification schemes like the Forest Stewardship Council (FSC), Programme for the Endorsement of Forest Certification (PEFC), Roundtable on Sustainable Palm Oil (RSPO), etc. that, after extraction, return to their previous stock levels by natural growth or replenishment processes at a rate in line with use cycles.





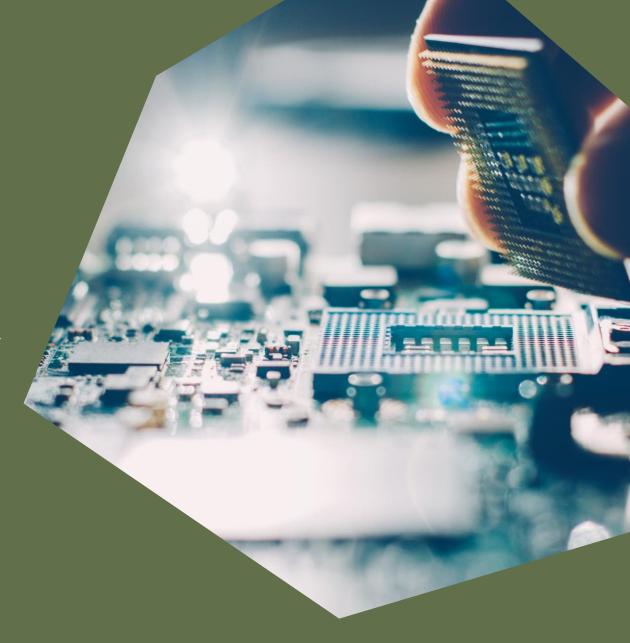
Circular Transition Indicators – Close the Loop

CTI headline indicator: % material circularity





Circular Transition Indicators for Electronic devices





Circular Transition Indicators Sector guidance – Electronic devices

Developed through close consultation with leading companies in the sector and facilitated by the <u>Circular Electronics Partnership (CEP)</u>. It empowers value chain stakeholders to:

- Define circularity roadmaps and measure progress based on credible quantitative baselines;
- Drive strategic decision-making based on the benefits and trade-offs of different circularity strategies;
- Provide a clear view of sustainability impacts whether on climate or nature – and underscoring the tangible outcomes of circularity initiatives;
- Promote accountability and transparency with a foundation in quantitative measures.







Transition



















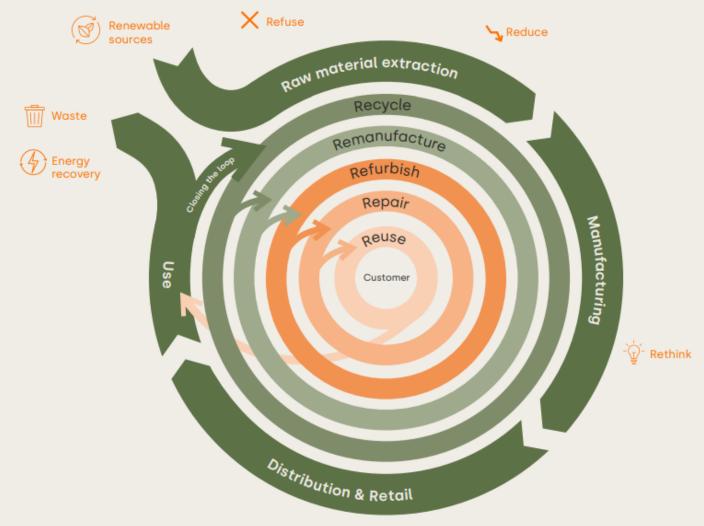


See: Circular Transition Indicators for Electronic Devices





Transitioning towards a circular electronics value chain



Source: Circular Transition Indicators for Electronic Devices





CTI assessment levels – Electronics value chain

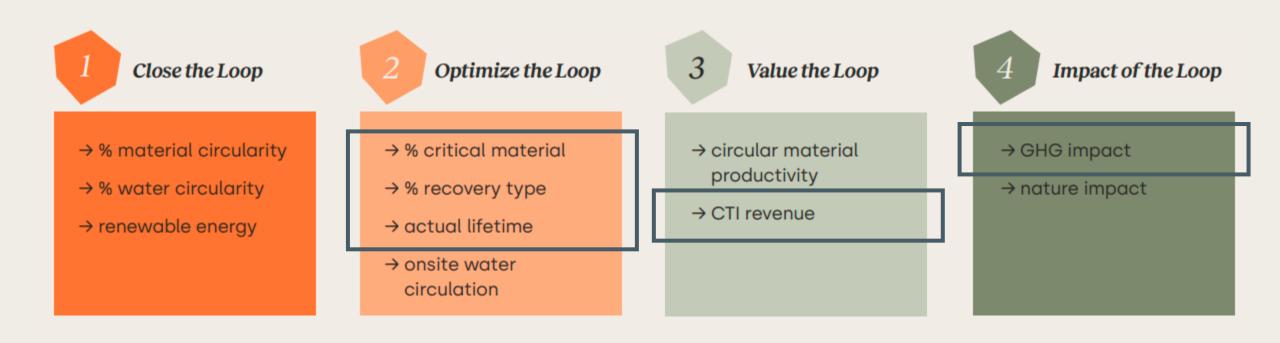
Material	Component	Product	Business unit	Company
 → Metals such as lithium, cobalt, nickel, copper, aluminum and gold → Plastics → Glass → Silicon 	 → Semiconductors → Circuit boards → Cables and wires → Other product parts, such as screens, keyboards, mice 	 → Batteries → Laptops → Tablets → Phones → Routers → Cameras → Smart home devices → Chargers → Printers → Other consumer electronics or IT equipment 	 → B2B → B2C → Technology → Manufacturing and production → After-sales services and repair → Take back operations → Closing the loop: preparation for reuse → Single subsidiary → Single business unit producing one product category 	 → Aggregated company level covering all business units → Aggregated group level covering all subsidiaries

Source: Circular Transition Indicators for Electronic Devices





Circular Transition Indicators (CTI) Sector guidance – Electronic devices



Formulas and definitions for all indicators are available in the report: Circular Transition Indicators (CTI) v4.0 and Circular Transition Indicators for Electronic Devices



Thank You

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