

FACTSHEET

INDICATORS FOR MEASURING AND REPORTING CIRCULAR ECONOMY

This factsheet summarises the conclusions from Business in the Community's (BITC) research evaluating indicators for effective measurement and reporting of circular economy in business.

Introduction

While ESG (Environment, Social, Governance) reporting is becoming mainstream practice, there is not yet a clear approach for business to measure and report circular economy practices. Most businesses report circular economy in terms of waste and recycling rates, which can be counter productive as it does not reflect actions taken higher up the waste hierarchy. There are a selection of circular economy metric frameworks, but businesses tend to either be unaware of these, or are overwhelmed by their complexity.ⁱ The lack of common indicators ultimately disadvantages businesses as ethical and sustainability issues remain a key driver for consumers.

BITC has undertaken researchⁱⁱ with its members in reviewing circular economy measurement and reporting frameworks. The overarching aim is to begin conversations on what 'good' looks like for circular economy reporting and to provide a set of indicators, derived from the frameworks, that we recommend members adopt.

Existing Frameworks – what do they cover?

- [CIRCtelligence](#) by Boston Consulting Group – outlines how organisations make circular economy an integral part of corporate strategy

by assessing circularity through qualitative and quantitative scores.

- [Circle Assessment](#) by Circle Economy – is an online tool for businesses to measure circularity and identify opportunities for circular strategies.
- [Carbon Waste and Resource Metric](#) by WRAP – monitors and evaluates waste management impacts on Greenhouse Gas emissions impact upstream and downstream in comparison to landfill.
- [GRI 306: Waste 2020](#) by Global Reporting Initiative – provides a standardised framework to report information about their waste-related impacts and how to manage these.
- [Circulytics](#) by Ellen MacArthur Foundation – measures the circular economy performance of a company's entire operations, using a comprehensive set of indicators including enablers and outcomes.
- [Circular Transition Indicators v3.0](#) by WBCSD – CTI framework assesses material flows within company boundaries, combined with indicators on resource efficiency and efficacy and value-added by the circular business.



KPIs for Business to Adopt at Scale

BITC identified 9 key indicators across the themes of material flows, governance strategy and processes, and carbon equivalence that are either starting point indicators or for those businesses

with higher maturity. We recommend that businesses adopt at least one of the indicators from across each thematic area to measure and report on circular economy:

	Material Flows	Governance, Strategy, Processes	Carbon Impact
STARTING POINT	Material / product inflow (tonnes) Circulytics Circular Transition Indicators The amount of raw materials and products that come into your business, measured in tonnes	Governance, strategy, and process enabler indicator Circulytics The extent to which businesses have embedded circular economy in how they work	GHG impact of waste management (kg CO2e per tonne of material relative to landfill) Carbon Waste and Resource Metric The amount by which greenhouse gasses are reduced by recycling, composting, or recovering energy from waste rather than sending it to landfill and creating new material in its place
HIGHER MATURITY	% circular inflow Circulytics , Circular Transition Indicators The proportion of material / product inflow that is renewable, or that has been reused or recycled	% (by mass) of physical products designed along circular principles Circulytics The proportion of the business's products which are designed to be durable, repairable, recyclable	GHG savings through use of recycled material input (CO2e per kg of material, or % reduction form virgin material) Circular Transition Indicators The percentage by which carbon savings can be reduced by using recycled materials rather than virgin materials
	% circular outflow Circular Transition Indicators The proportion of materials leaving the business – either as products being sold or as waste – that are likely to be recycled or reused	% of revenue from circular services Circulytics The proportion of business revenue which comes from selling services that grow the circular economy, e.g. consultancy support to circular businesses	Product related Scope 3 emissions (tonnes CO2e) N/A The amount of greenhouse gas emissions released during the creation and use of products which the business makes or sells

Description of Material Flow Indicators

- 1) **Material/Product Inflow** (Circulytics) – allows businesses to understand the flow of products and materials into their business. This indicator measures the amount of materials that are bought into the business in the form of raw materials or the form of products that the business will use. This should be measured in terms of material mass e.g. tonnes over a given time.
- 2) **% Circular Inflow** (CIT v3.0 & Circulytics) – using circular materials and products creates a demand-pull for a circular economy and is a fundamental part of closing the loop. The indicator summarises the circularity of key materials and products that flow into the business. For each material stream identified, this is calculated based on: the mass of each inflow type and % of renewable content (such as sustainably farmed wood) or % non-virgin content per inflow type.

% Circular Outflow (CIT v3.0) – the indicator goes beyond recycling and includes the circularity of products put onto the market as well as encompasses repair, refurbishment, and remanufacturing. The indicator summarises the circularity of the product, by-product, and waste outflows. For each of the outflows identified, the % circular outflows are based on a combination of the % of recovery potential (technically possible to be recovered) and % of actual recovery (proportion of material stream which is processed for recovery).

Description of Governance, Strategy, Process Indicators

- 3) **Governance, Strategy, and Process Enabler Indicator** (Circulytics and CIRctelligence) – ensuring circularity is embedded within business strategy and processes is an essential first step. This indicator outlines five themes that evaluate how businesses have embedded circular economy approaches in organisational processes. The themes are: strategy and planning; innovation; people and skills; operations; and external engagement.

- 4) **% (by mass) of physical product designing along with circular principles** (Circulytics) – products need to be designed along circular principles to ensure end-of-life options are high on 10 R's waste hierarchy. Circulytics sets out circular principle categories applicable to products: Category one - during use (designed for: longevity, reusability, repairability), Category two - end of functional life (designed to enable: disassembly, remanufacturing, recycling, nutrient recirculation) and Category three - enabling circular economy (designed to prevent customer waste, increased longevity of other products etc.) Businesses are asked to set out % of their product portfolio which meets both Category one and two, only Category one, only Category two, and only Category three.
- 5) **% of revenue from circular services** (Circulytics) – Service-based businesses can support the transition to the circular economy through the services they provide. Product-based businesses can also use service-based models to supply products. Circulytics sets out a list of circular services across the following categories – consultancy and business support, software, service using products, recirculation, and others. The indicator asks for the % of their service revenue that is from each of these circular services.

Description of Carbon Equivalence Indicators

- 6) **GHG impact of waste management** (Carbon WARM) – understanding greenhouse gas impacts of moving waste

management up the hierarchy can be a driver for businesses to prioritise circular options. The indicator reports on the GHG impact of the items business discards, relative to the GHG impact if they were to be disposed of using landfill. Carbon WARM provides figures for recycling/composting as an alternative to landfill.

- 7) **GHG savings through the use of recycled material input** (CIT v3.0) – businesses can use the information on the GHG reduction potential from using recycled materials rather than virgin to better understand carbon footprint benefits. This indicator provides companies with a high-level indication of the GHG savings they may obtain by applying circular strategies.
- 8) **Product related scope 3 emissions** – By taking a subset of scope 3 emissions data companies can show whole lifecycle product-related emissions (including activities such as raw material sourcing, manufacturing, transportation, storage, use and disposal). This can be used to target circular interventions to reduce product lifecycle emissions. The Product Lifecycle Accounting and Reporting Standard provides a methodology which can be used.

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Talk to one of our expert team today to learn how membership of BITC can help you take your responsible business journey further and drive lasting global change.

ENDNOTES

ⁱ Measuring and Reporting Circular Economy in Business (2022), report available here: <https://www.bitc.org.uk/report/measuring-and-reporting-circular-economy-in-business/>

ⁱⁱ Measuring and Reporting Circular Economy in Business (2022), report available here: <https://www.bitc.org.uk/report/measuring-and-reporting-circular-economy-in-business/>