Corporate target-setting for the circular economy: Mobilizing measurable progress

November 2022
Purpose of this document
This discussion document introduces research and consultation findings on the current challenges in setting corporate circular economy targets, and presents solutions needed to help mobilize more businesses in setting targets and to help companies better navigate the existing circular target-setting landscape.

“We invite companies to join the ongoing consultation and share their experiences, to better guide more impactful circular target-setting and help support a global circular transformation.”
Ramona Liberoff, PACE Executive Director

Background and context
PACE is a global collaboration platform for key public and private decision makers to share a vision and best practices and scale the circular economy together. PACE was created in 2018 by the World Economic Forum and is now hosted by the World Resources Institute. Visit us at www.pacecircular.org.

Our vision is a global, circular economic system that enables human and environmental well-being, and our goal is to help double global circularity in the next 10 years, working towards climate-neutral and inclusive economies.

The Circular Economy Indicators Coalition (CEIC), co-hosted by PACE and Circle Economy, aims to build on the current metrics landscape to:

1. Increase the use of meaningful circular indicators to measure the progress and impact of the circular economy

2. Connect key initiatives and stakeholders, including both developers and different user groups of circular economy metrics, to facilitate exchange, improve alignment, and bridge critical gaps

This report is part of a new CEIC initiative, the Circular Economy Target-Setting Initiative, in collaboration with Accenture. Its aim is to advance circular economy transitions through harmonization of the circular metrics landscape related to key performance indicators (KPIs) being set by corporates. With a shared understanding and common language, organizations are in a stronger position to support circular target-setting.
Navigating the Guidance

CEIC’s Target-Setting Guidance will build on the perspective shared in this document, to help business leaders set practical targets that will contribute to the transition towards a more circular economy.

**Target-Setting Discussion Document**

A discussion document to lay out the importance of moving away from a linear growth model, the critical role that circular economy can play in achieving this, and the importance of corporate target-setting in driving meaningful circular change.

Business leaders can learn more about the challenges facing corporate target-setting, and the current and future solutions in development to overcome these challenges.

**Target-Setting Guidance**

Guidance comprising best practice circular KPIs across each stage of the value chain, mapped against existing standards, measurement tools, disclosure requirements and leader examples to aid application. The core guidance will consist of a broader sector-agnostic view, supplemented with sector-specific lenses as per PACE’s ‘Action Agenda’ sectors.1

Business leaders at all stages of circular maturity can select KPIs from this publication to define, measure and drive their circular progress.

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1 The ‘Action Agenda’ sectors comprise Food, Textiles, Plastics, Electronics and Capital Equipment.
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1 The circular measurement imperative

1.1 The world needs progress on circularity now

With less than a decade to deliver on the UN’s Sustainable Development Goals (SDGs), ‘cascading and interlinked global crises and conflicts’ are derailing progress. As we face some of the most daunting environmental, health and socio-economic challenges seen in a century, we have an enormous opportunity—and obligation—to reconsider the way we live, work, produce and consume. Today’s take-make-waste linear model is exacerbating these crises, but the principles of the circular economy offer a route to positive change: to decouple growth from the consumption of materials, creating new value chains that are regenerative by design.

The current linear economy is steering us towards a precipice: without decoupling growth from resource use, we will more than exceed the nine planetary boundaries established by the Stockholm Resilience Centre (SRC) by 2060. Currently, there is a 50% chance that global warming could surpass 1.5 degrees in one of the next five years. Over 90% of biodiversity loss is due to the extraction and processing of natural resources. And every year, more than 8 million tons of plastics leak into the oceans. These are just some of the warning signs of a planet in dire trouble. There is a social impact, too, often disproportionately affecting those from lower socio-economic backgrounds. Global food prices are at a 46-year high and our reliance on linear system-derived fossil fuels has contributed to today’s energy crisis, for example with 6.5 million households in the UK in fuel poverty in April 2022. The linear system is failing us, and we are suffering the consequences.

A step-change is needed to put the world on track for sustainable production and consumption. Here, the circular economy can play a critical role. In the fight against climate change, it is estimated that the energy transition alone can only address 55% of global greenhouse gas (GHG) emissions, but changing how we design, produce, and consume resources could contribute significantly to reducing the remaining 45% of GHG emissions. According to Sitra, the Finnish Innovation Fund, the circular economy could halt biodiversity loss, offering the potential to recover to 2000 levels by 2035, and realize an 80% reduction in plastic leakage into oceans by 2040. The circular economy also plays an essential role in addressing human rights issues and re-circulating value through society. It does so by helping to advance a more inclusive growth path for the global economy, improving income and wealth distribution. For example, the green economy—defined as low-carbon, resource-efficient and socially inclusive—could generate potential net employment gains of 6 million jobs globally by 2030.

Although the circular economy presents a framework for tackling our global challenges, the world is getting more wasteful, not less - the circularity gap is widening. Of the 100 billion tons of resources extracted per year, only 8.6% of materials are cycled back into production, compared to 9.1% in 2018. The world needs measurable progress on circularity now.

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2 UN, The Sustainable Development Goals Report (2022)
3 International Resource Panel, Global Resources Outlook 2019; Natural Resources for the Future We Want – Summary for Policymakers (2019)
4 WEF, Global warming: Earth has 50% chance of exceeding 1.5 degrees Celsius in next 5 years (2022)
6 Jambeck et al., Plastic waste inputs from land into ocean (2015)
7 FAO, Food Price Index (2022), adjusted for inflation
8 NEA, Energy Crises (2022)
9 Ellen MacArthur Foundation, Completing the Picture: How the Circular Economy Tackles Climate Change (2021)
10 Sitra, Circular solutions can halt biodiversity loss – The food and agriculture sector can make the largest contribution (2022)
12 UNEP, Green economy
13 ILO, 24 million jobs to open in the green economy (2018)
14 Circle Economy, Circularity Gap Report 2022
1.2 Corporate ambition and targeted action is critical for progress

Both the private and public sectors have critical roles to play in accelerating the circular transition. Public policy and regulation protections are necessary to enable circular supply chains by incentivising system- and individual-level circular investment and behaviour. The private sector’s influence over capital allocation, value chain operation and consumer behaviour is equally important. Currently, the capital required to underpin the shift to new circular business models (e.g. to support start-ups that are pioneering new circular technologies or developing large-scale recycling infrastructure) far outweighs what is readily available and accessible. Therefore, corporates across the value chain (including producers, recyclers and refiners) can and must play a pivotal role in directing investments towards new and necessary circular capabilities. Moreover, whilst business decisions and activity steer the operation and development of value chains, the circular transition requires a full-scale, systemic and pan-value chain transformation. Ultimately, business models need to change, with investment in product and service innovation being a key catalyst for evolution in consumer behaviour, to support more ‘circular consumption’ of goods and services.

In addition to the critical role that businesses play in circular adoption, circularity represents a strategic and financial ‘win’, with the potential to unlock $4.5 trillion in value by 2030 by reducing waste, stimulating innovation, and creating employment.

To accelerate the circular transition, companies need to embrace quantitative, measurable ambition – targets are an effective way to drive this. Consider the Science-Based Targets Initiative (SBTi), where companies committed to a science-based target achieved greater reductions than the global benchmark and collectively reduced emissions by 29% from 2015-2020, suggesting that targets can indeed drive significant progress (Figure 1).

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Annual change of emissions (%)

![Graph showing annual change of emissions](image)

**Figure 1:** Gross scope 1 and 2 emissions’ change from companies with approved targets v. the global economy (2015-2020)

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Circular targets are therefore a critical tool to drive quantification of and accountability for circular outcomes and hence full-scale circular transformation, by catalysing private sector action and collaboration. For the purpose of this guidance, we consider metrics as the full set of indicators related to circularity, whilst KPIs represent key metrics with focused, strategic applications that companies should utilize for target-setting (see right):

**Metrics:** We refer to metrics in terms of general measurement of circularity, via collection, calculation and compilation of information and/or data to determine circularity.

**Indicators:** Qualitative, quantitative or descriptive metrics used to measure circularity. **Key Performance Indicators (KPIs)** refer to strategically important indicators used to set measurable benchmarks against defined targets.
2 Current State: Challenges in Circular Target-Setting

2.1 Circular target-setting today may be well-intentioned but lacks comparability and accountability due to its self-defined nature

Today, a number of leading companies are independently defining ambitious and quantitative circular goals. For example, multinational clothing company H&M, recognising that circularity has a vital role in achieving net zero and having a net positive impact on biodiversity, aims to become a fully circular business with quantitative targets across its value chain. Meanwhile, to promote circularity across its business, Philips has set a target of 25% circular revenue by 2025. This kind of leadership demonstrates how businesses can move forward, matching intention with action.

"For each company pursuing circular strategies, the vocabulary differs [...] The result? Conflicting and incomparable data about measurable circularity progress. With companies largely determining their own metrics and successes, achieving circularity becomes a self-serving effort."

GreenBiz17, 2022

However, even targets that, for instance, strive to be quantitative or link to circular revenue can be hard to compare and may lack a clear connection to global progress. With the current lack of a well-tested metrics framework to implement, companies have frequently needed to decide for themselves the parameters of a circular business. This has often resulted in predominantly qualitative targets which are specific to an organization’s own assessment of its contribution to circularity, and difficult to measure.

When targets are defined internally, they lack comparability with peers and interconnectivity with the ecosystem, which can hamper the collective transition to global circularity. It also means that for companies further along in their circular journeys, the goals they’re steering toward remain unclear, with progress difficult to measure.

Whilst the targets many companies are setting today are a step in the right direction, a lack of clear and consistent circular definitions risks broader creation of ‘illusions of progress’ towards global circularity, rather than genuine change. This lack of alignment on circular definitions and measurement also leaves the target-setting space vulnerable to greenwashing, undermining the circular economy's credibility. For example, global fashion brands have come under scrutiny for self-defined sustainability claims, accused of being “unsubstantiated” or “misleading” for consumers, in some cases marketing products as ‘eco-friendly’ which may contain as little as 20% recycled fabric18. As a result, businesses are facing intense pressure from all stakeholders to create trust through transparency. Establishing clear, quantifiable circularity targets can help facilitate accountability, and mitigate poorly supported claims of sustainability.

Objective 1: Mobilization for quantitative, targeted goals which drive measurable progress towards circularity

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17 Greenbiz.com, "The missing 45%: The role of circularity within climate disclosure"

18 Competition Markets Authority, Misleading Environmental Claims (2022)
2.2 It is difficult for businesses to choose the right KPIs, because there is no singular ‘gold standard’ for circularity

Circularity is context-specific, as the high-impact areas (e.g. those that are more virgin material-intensive) can vary by sector and company, therefore there is not yet an all-encompassing standard. This complexity makes the process of setting measurable, ambitious KPIs unclear for businesses. Whilst initiatives such as the SBTi have proven how target setting could drive circular action, defining and measuring progress against benchmarks for the circular economy is a very different challenge than for carbon emissions. Emissions are quantifiable via a single variable, CO2e (defined by the Greenhouse Gas Protocol as the unit of global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon) whereas the circular economy is by nature more conceptual and open to interpretation.

“A key challenge we have encountered in setting targets is which indicators to choose, as they are so different across business lines.”

Energy company executive, 2022

The relevance and potential benefits of circular action (e.g. as measured by quantity of virgin material flows) will vary across the value chain and between companies. Consequently, targets should reflect and adjust for this variation. The first step to achieving this will be establishing a set of widely accepted high-impact areas (i.e. those that would benefit from most circular intervention) that are applicable by sector. Importance of determining widely accepted circular definitions.

Developments in standards and disclosure requirements are also making circular action increasingly achievable for businesses; however, these standards have different requirements for measuring circular economy impacts. For example, the Global Reporting Initiative (GRI) 306 is a standard for waste that looks at how companies define and substantiate resource outflows. Yet the International Organization for Standardization (ISO) 14001, which sets out the criteria for environmental management systems, ostensibly serves a similar purpose. This fragmented landscape means that businesses struggle to define circular ambition and set meaningful targets, and need help to navigate these resources for clarity. The upcoming CSRD work will mandate disclosures specific to circularity and resource use, a welcome development. But it will no doubt compound the complexity of the target-setting exercise, as businesses must set up quantitative measurement processes to comply with this new framework.

Assessment Frameworks (see Figure 3)

To help companies realize their circular ambitions, there are several valuable and informative measurement tools already available (Figure 2). Though these tools are aligned with each other, corporates may be unclear as to which is the best to use for a particular business, and how they relate to other circular information resources.

Reporting Standards & Disclosures (see Figure 3)

Today, several standards organisations are leading important work to help define circular processes and impacts. For example, the upcoming Corporate Reporting Sustainability Directive (CSRD)19, which will mandate many European Union (EU) businesses to report more extensively on environmental, social and governance information, underscores the importance of determining widely accepted circular definitions.

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19 European Commission, CSRD
To help companies overcome this complexity and implement circular targets, businesses need to speak the same language on the circular economy. Harmonizing definitions, equipping businesses with tools to define, set and track meaningful circular targets, and providing guidance to support circular transformation in line with environmental goals, will go a long way in simplifying the target-setting process.

**Objective 2: Navigation of the existing landscape and definitions by mapping suggested KPIs to measurement frameworks, standards and disclosure requirements (Figure 3)**

**Circular Transition Indicators (CTI):** Developed by WBCSD, CTI is a simple, objective, and quantitative framework to measure circularity that can be applied to businesses of all industries, sizes, value chain positions and geographies. CTI is designed to be comprehensive, flexible, and complementary to a company’s existing sustainability efforts and agnostic as to material, sector, or technology.

**Circulytics:** Through measuring business circularity, Circulytics supports a company’s transition towards the circular economy, regardless of industry, complexity, and size. Going beyond assessing products and material flows, this free company-level measuring tool reveals the extent to which a company has achieved circularity across its entire operations.

In the near term, the CEIC seeks to support this comparability and target-setting initiative (further explored in Section 3: ‘The solution today’), before pivoting to a longer-term focus towards helping companies build environmental impact into their circular targets (further explored in Section 4: ‘The solution tomorrow’).
3 The solution today

3.1 Our two key objectives: Mobilization and Navigation

As per Section 2, the Circular Economy Target-Setting Initiative has two key short-term objectives:

1. **Mobilization**: To catalyze adoption of quantitative, targeted goals which have a clear connection to global circularity progress.

2. **Navigation**: To help companies to navigate the existing circular landscape and definitions by mapping suggested KPIs to standards, measurement tools and disclosure requirements.

The initiative seeks to achieve this by:

- Providing a collection of best practice KPIs categorised by area of transformation across the value chain, providing both an intuitive and widely applicable basis for companies to set circular targets.
- Mapping these KPIs against the current landscape of circular resources and information to show where supporting standards and measurement frameworks can help in establishing these targets (see Figure 4).

The value chain therefore provides a useful structure with which companies can assess their end-to-end circularity and set relevant targets accordingly.

![Figure 4: Value chain structure for circular target-setting](image)

3.2 The value chain supports focused and quantitative targets to better drive circular transformation

Whilst there is currently no shared definition of what makes a 'circular business', there is wide consensus that we need companies to target full-business transformation. This needs to be supported by quantitative targets that lead to meaningful change, rather than high-level, qualitative targets which make accountability more elusive, and are therefore less effective at driving focused action.

The value chain structure supports this, by guiding companies to set targets that drive practical transformation at different stages of the value chain, contributing to greater overall momentum and progress.
Many leading companies are already setting more quantitative targets across specific steps of their value chain, e.g. major tech firm Cisco’s target against circular design for all new hardware products and packaging, or H&M’s target for end-of-life packaging (Figure 5). The focused and quantitative nature of these targets enables these companies to be held to account and incentivises targeted action to reach their goals.

<table>
<thead>
<tr>
<th>Design</th>
<th>Inputs</th>
<th>Operations</th>
<th>Product use</th>
<th>End-of-use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>patagonia</td>
<td>GSK</td>
<td>PHILIPS</td>
<td>H&amp;M</td>
</tr>
<tr>
<td>Use only recycled and renewable materials in our products and packaging</td>
<td>100% recycled, reclaimed or renewable resources in apparel by 2025</td>
<td>All waste is repurposed for beneficial use by 2030</td>
<td>Generate 25% of revenues from circular products, services &amp; solutions by 2025</td>
<td>Reuse or recycle 100% of packaging waste from our own sites by 2025</td>
</tr>
<tr>
<td>All new products and packaging to incorporate circular design principles by 2025</td>
<td>Reduce resources use in proportion to energy produced by 92%, vs 2015</td>
<td>Reduce food loss and waste by 50% by 2030 across operations</td>
<td>Apply the principles of circularity and extend the life of at least 50m fashion products by 2023</td>
<td>Recycle or reuse at least 97% of end-of-life product waste by weight</td>
</tr>
</tbody>
</table>

Moreover, such target-setting incentivises companies and ecosystems to adopt further circular transformation to optimally achieve these targets - for example, targeting a higher percentage of recycled material sourcing increases overall demand for secondary resources. This drives greater long-term investment in recycled material production and procurement, sparking the kind of change that underpins greater circular progress.

3.3 This guidance will provide additional value to the existing landscape

The Circular Economy Target-Setting initiative seeks to provide harmonisation within the circular metrics landscape, rather than duplicate or replace existing circular tools or support, the best practice KPIs structured across the value chain enable us to do that.

The guidance will bring together different standards to enable companies to use credible and recognised circular definitions. This is arranged across an intuitive and practical value chain structure that supports companies’ ability to make the targets both relevant and effective.

And while existing measurement tools and guidance can collectively provide a full circular picture in isolation, the way in which they relate or interact is not always clear. Our guidance will help companies to see the full circular landscape beyond a specific tool. By anchoring to the value chain view, they can level-set between tools, and layer in other key considerations to support target-setting, e.g. standards and leader examples.

Companies will increasingly need to ensure that target-setting is connected to reporting requirements. With this in mind, the guidance will also map KPIs to upcoming CSRD disclosure, helping companies to future-proof their circular transformations.
3.4 Our guidance approach and example

The CEIC is initially developing a ‘sector-agnostic’ approach to target-setting (Figure 6). This builds on the value chain approach, incorporating best practice KPIs across each value chain “pillar” and outlining their alignment with current standards, measurement tools and disclosure requirements.

Cross-pillar KPIs are intended to illustrate the connections between value chain pillars to give an indicative overview of a company’s circularity. Whilst the long-term goal is to have quantitative cross-pillar KPIs, this is subject to further work as the initiative continues to develop.

As part of the target-setting approach, the final guidance will provide a collection of best practice KPIs which companies can adopt to set impactful circular targets in any sector. Once companies have adopted specific KPIs, they can gather the necessary data and information. For example, Figure 7 illustrates an example deep-dive into the ‘Circular inputs’ KPI, detailing the range of useful information that this guidance will consolidate to help companies navigate the circular landscape. As per Figure 7, companies can use ISO and GRI standards to guide their own definition of ‘Circular inputs’ and have a clear mapping of how different tools fit this KPI into their structures to support measurement. Further, companies are given the relevant CSRD section to support research and ensure longer-term alignment with upcoming disclosures. Finally, as a benchmark to set their own ambition, companies can peruse examples of targets that a cross-sectoral variety of circular
leaders are already setting, to show what’s possible and encourage circular progress.

This sector-agnostic guidance will be supplemented by sector-specific best practice KPIs across PACE’s Action Agendas to provide more tailored recommendations. These sector-specific lenses will draw upon a “hub and spoke” model to incorporate leading organizations’ existing research and analysis into circular target-setting by focus sector, to make the KPIs as robust and relevant as possible.
4 The solution tomorrow

4.1 Further work is needed to enable companies to set more rigorous, environment-linked circular targets

In the long-term, companies should strive to set circular targets across the value chain quantified by science-based impacts on environmental outcomes. However, whilst more and more companies are defining a science-based environmental ambition, they primarily lack the data and methodologies to better understand the relationship between their circular performance and environmental outcomes. Therefore, achieving this will be a function of both corporate mobilization and action and circular ecosystem-wide collaboration.

To close this gap, work is needed to improve data transparency and formalise clear, robust and widely-agreed links between circular performance and environmental outcomes. The broader circular ecosystem needs to work on strategies to pool existing data sources as well as gather new data at scale. This will improve data transparency across the value chain, to help build an understanding of how circular activities impact different environmental outcome categories. Further, a standardized and unified way to quantify the link between environmental outcomes and circular performance, based on the available data, needs to be developed and agreed on, to enable a stronger scientific basis for circular target setting.

“Industry has made meaningful progress in the ‘arcs’ – individual elements – of Circular Economy. Much more work and collaboration is needed to achieve true Circularity – it requires a broader view to connect these arcs into a complete value chain”

John Pflueger, Principal Environmental Strategist, Dell Technologies, 2022

As part of this, the CEIC will act as a facilitator and seek to bring together the necessary partners, helping to expand on existing initiatives and frameworks, such as this guidance on circular target-setting. The scale of the challenge demands an inclusive and thorough process, with collaboration from a broad group of stakeholders. By bringing these diverse views together, united in a shared desire to advance the circular economy, the CEIC hopes to bring clarity to circular target setting and help organizations deliver meaningful impact.
5 The way forward

The boundaries of our planet are increasingly being pushed to their limits by our current linear economic model. The transition to a circular economy provides both a potential pathway to mitigate these negative impacts and a huge opportunity for business. Although system-level factors such as data transparency must be considered, businesses’ significant presence and influence means that corporate circular target-setting has a vital role in catalysing the circular transition. However, companies currently set very disparate targets, as there is neither a common language for what it means to be circular, nor guidance on what a meaningful circular target is. No wonder, then, that overall circular traction falls short of what is required.

To fill this gap, the CEIC is pioneering solutions to support circular target-setting for corporates in both the short- and long-term. The guidance framework introduced in Section 3 presents the first intuitive and widely applicable framework for corporates to define their circular ambition. In the future, as per Section 4, CEIC and partners aspire to build on existing and upcoming initiatives and frameworks to explore and define the relationship between circularity and environmental outcomes.

To this end, the CEIC invites companies, particularly those across the Action Agenda sectors, to share their circular expertise and experiences to ultimately build better target-setting solutions and support the circular transition.

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