

BENCHMARK

GENDER BALANCE AT ALL LEVELS OF MANAGEMENT



SDG IMPACT

1, 4, 8, 10, 16

TIMELINE 2030

SCOPE

☒ Operations
 ☐ Products & Services
 ☐ Value Chain

Benchmark Information

The gender balance at all levels of management benchmark helps organizations assess and achieve gender equity at all levels of leadership. Achieving this benchmark calls for a range of actions to create inclusive workplaces. It requires business to address key barriers to women's participation in the labour force and create an inclusive workplace where all employees are respected and empowered. In addition to recruitment targets, establishing gender balance goals for managerial positions greatly enhances overall gender balance metrics. While SDG 5.5 calls for women's full and effective participation and equal opportunities for leadership, including in economic life, by 2030, companies are encouraged to set more ambitious timelines to achieve gender balance in management.

Business leaders increasingly report that gender equality is a priority, yet less than 30 per cent of companies have set time-bound, measurable goals and targets.¹ By setting ambitious targets and taking action to achieve gender balance in business leadership, companies directly contribute to the achievement of Global Goal 5: Gender Equality.

Further, a growing body of evidence supports the link between greater gender diversity and improved environmental, social and governance (ESG) performance. For example, one study found that having more women in business leadership is associated with reduced greenhouse gas emissions, stronger worker relations and reduced incidence of fraud.²

Among other things, in order to attract and retain top female talent, businesses must focus on pipeline development, hiring and promotion, adoption of inclusive workplace policies and performance reward structures, elimination of sexual harassment, and offering equal pay for work of equal value.

BUSINESS IMPACT ON GENDER BALANCE IN LEADERSHIP

Despite progress, women remain critically under-represented in decision-making roles. Target Gender Equality, a UN Global Compact Impact Initiative, calls on and supports companies to set and meet ambitious targets for women's representation and leadership in business. Additionally, the Women's Empowerment Principles (WEPs), outline business policies and practices to level the playing field through gender-sensitive recruitment and retention, equal pay, equal access to training, networking and mentorship opportunities, support for working parents and caregivers and establishing a zero-tolerance policy against violence and harassment at the workplace. Thousands of companies have signaled their support for the WEPs by signing the CEO Statement of Support.

7% of Fortune 500 companies are led by women³

17% of board seats globally are held by women in 2020⁴

22% women are 22 per cent less likely to reach manager level or above, compared to men⁵

Illustrative Industry Impact

Industrial Goods & Services: According to the World Economic Forum (WEF), women's representation in this sector is just 16 per cent.⁶ However, there has been a steady increase in the share of female talent — women now make up the majority of the college-educated workforce. Industry leaders must continue to work to make STEM careers more attractive to female talent and adopt more inclusive workforce cultures.

Technology: Today, just 26 per cent of the computing workforce and 11 per cent of global tech industry leadership is female.⁷ Adopting flexible work times, maintaining robust employee networks, and investing in personal development programs can create inclusive pathways to achieve gender balance in the technology sector.⁸

COMPANIES TAKING ACTION

UNILEVER

achieved their target of 50 per cent of women at management and leadership levels globally. A dedicated Diversity & Inclusion team has implemented a Global Diversity Board and a network of nearly 100 “Diversity & Inclusion Champions”, who have set the benchmark for how a community can power an inclusive culture across markets.⁹

ACCENTURE

set bold goals to accelerate gender equality. It is on track to achieve a gender-balanced workforce by 2025 — one that is equally 50 per cent women and 50 per cent men for those whose gender is binary — and to grow percentage of women managing directors to 25 per cent by the end of 2020.¹⁰

PVH

has set 2030 targets for women's empowerment and inclusion and diversity that include gender parity in leadership positions, professional development opportunities for 500,000 women in their supply chain, and universal unconscious bias training.¹¹

Assessing Against the Benchmark

Performance on the benchmark — achieving gender balance at all levels of management by 2030 — can be assessed in line with the objectives of UN Women, Women's Empowerment Principles and the Target Gender Equality Initiative. Research by the WEF indicates that at the current pace, it will take 257 years to address the economic gender gap.¹² However, establishing clear goals for achieving gender balance at leadership positions can have a profound impact: having at least one woman in senior leadership increases the proportion of women rapidly advancing¹³ in organizations by 23 per cent.¹⁴ Business that have not established time-bound, measurable goals and targets for achieving gender balance at all levels of management would fall below the SDG Ambition Benchmark.

Business Value

Companies that strive towards gender balance report higher profitability. For example, achieving 30 per cent female representation in leadership has shown to increase profitability by 15 per cent.¹⁵ But other business value drivers make a compelling case for adopting this target as well. Visibly diverse workforces signal attractive workplace environments, which can translate to increased retention and leadership aspirations. Accenture research found that creating a culture of equality would help women feel that they are a key member of their team, increase their retention and inspire ambition in women to reach a leadership position.¹⁶ As consumers have clamored for better representation of women in leadership roles, brands face a high reputational risk and possible legal action if they do not prioritize gender balance and ensure non-discrimination. In the United States in 2019 alone, more than 25,000 gender discrimination complaints were lodged.¹⁷

PRELIMINARY ACTIONS

Secure top level support for gender equality:

For example, signing the CEO Statement of Support for the Women's Empowerment Principles sends an important signal to your employees and other stakeholders that gender equality is a priority and can help establish buy-in from leaders across the organization to take action.

Performance analysis: Assess your company's gender equality performance on a regular basis to take stock of progress towards women's equal representation and leadership and identify potential barriers and opportunities to accelerate the pace of change. The WEPs Gender Gap Analysis Tool is a free, confidential, online and user-friendly diagnostic tool available at <https://weeps-gapanalysis.org/>

KEY RESOURCES

- » **UNGC: Target Gender Equality**
- » **WEP Gender Gap Analysis Tool**
- » **World Economic Forum Gender Parity**

INTEGRATION COMPLEXITY***Understanding Integration**

Business integration of this benchmark means addressing the barriers and challenges to gender balance in management positions of the organization. Companies must create wholesale transparency over direct indicators of gender imbalance such as headcount, compensation and the recruitment pipeline. To drive meaningful action, businesses must design systems to track harder-to-measure barriers to balance, such as unconscious bias and structural inequality. It is important to acknowledge that AI and other technologies can unintentionally reinforce biases, making strategic decision-making with regards to integration essential.

Illustrations of Integration**FLEXIBLE WORKING ARRANGEMENTS**

Going beyond policy creation and offering benefits, companies need to measure uptake of flexible work plans and the culture change around them, such as existing stigmas against men taking parental leave. Research highlights that only 34 per cent of organizations train managers to support employees to utilize flexible work arrangements, meaning many still lack the confidence to use them.¹⁸ Companies can use systems to track uptake and perception of these policies to drive increased adoption and usage of these offerings in light of the significant impact they can have on gender balance for a business.

INTERVIEW PANELS

Efforts to recruit more women can be impaired by existing structures of bias such as majority male interview panels. Systems have the capacity to diversify interviewers through automated selection and analysis of the employees selected by those individuals, which can have a large impact on recruitment balance. At Cisco, for example, diverse interview panels increased the odds of making it through the interview process by 50 per cent for Hispanic women and 70 per cent for African-American women.¹⁹

C-SUITE OWNERSHIP

Chief Human Resources Officer

Journey towards Integration

Leading Human Resources (HR) systems and tools on the market today have the capabilities to integrate this benchmark into core business. By pairing new processes with specific functional design and activation (e.g. learning and recruiting) companies can enhance their monitoring of challenge areas and drive action towards gender balance. Business leaders should engage their technology partners to pursue integration goals, such as:

Real-time transparency

Creating a full and accessible view of gender diversity and equality based on real-time data.

Prediction and management of biases

Ensuring that data science and analytics identify sources of bias and track indicators, enabling real-time adjustments.

Impact measurement and continuous improvement

Tracking success of initiatives and identifying opportunity areas to further drive workforce gender balance.

58%

Only 58 per cent of organizations in the U.S. track hires, promotions and exits by gender²⁰

42%

Only 42 per cent of workers in Europe make use of flexible working offerings

*See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration.

» VIEW THE
INTEGRATION GUIDE



* All KPIs and metrics listed are directional, drawing on existing reporting standards. Each organization should adopt goal-setting measures aligned to their reporting methodologies and business context.

BUSINESS SYSTEMS DESIGN

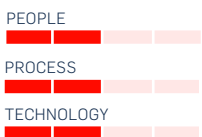
How might you create a holistic and real-time view of employee compensation?

Tracking gender balance requires multiple metrics, with the necessary data points often found across different business systems. Headcount data (turnover; promotion) is likely to be held on central HR systems, whilst compensation data (salaries; bonuses; benefits) can be siloed on payroll or time and expense platforms.

Enterprise software tools embedded with analytics capabilities can enable companies to intelligently combine data sets to gain a more real-time, granular view of employee data and visualize them in accessible dashboards.

KDD1

INTEGRATION COMPLEXITY



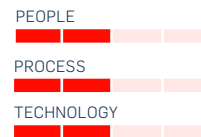
How might you optimize recruitment efforts to increase pipeline diversity?

Pursuing gender balance demands investments in recruitment and pipeline development, ranging from skill development (e.g. women's initiatives) to targeting specific applicant pools (e.g. on-campus associations). Just like any business initiative, the impact of these activities can be measured. Blizzard Entertainment, the video game publisher behind World of Warcraft, was able to increase its number of female interns by 166 per cent by reaching out to on-campus women-led groups such as the "Women in Computer Science" club.²²

Businesses can leverage recruiting modules in their core HR systems to focus outreach in these ways and track impact, as well as additional key indicators such as the gender balance of employee representatives at career events. Companies should work with their technology partners to design intelligent systems that can identify opportunities such as women-led groups and assess their potential return on investment through driving greater gender balance.

KDD3

INTEGRATION COMPLEXITY



How might you automate the assessment and management of bias across the business?

Many barriers to gender balance in an organization are cultural and structural, and therefore won't be highlighted by traditional HR indicators. These include unconscious bias in talent management and job descriptions, differing standards and expectations in work patterns and parental leave, and alienating workplace cultures.

Companies and platform providers can identify and address such barriers through machine learning. AI powered tools can identify biases in language of job postings and performance management and suggest alternatives.²¹

Intermediary process steps can be taken among smaller businesses such tracking interviewer diversity and employee engagement in unconscious bias training.

KDD2

INTEGRATION COMPLEXITY



- 1 The Women's Empowerment Gender Gap Analysis Tool, UN Global Compact et al
- 2 IFC
- 3 "The Fortune 500 has more female CEOs than ever before," Fortune, 2019
- 4 Women on Corporate Boards: Quick Take, Catalyst, 2020
- 5 Global Gender Gap Report 2020, World Economic Forum
- 6 The Future of Jobs, World Economic Forum, 2016
- 7 Closing the tech gender gap through philanthropy and corporate social responsibility, McKinsey & Company, 2018
- 8 Creating a culture of equality in the workplace, Accenture
- 9 Advancing diversity and inclusion, Unilever
- 10 Accenture
- 11 PVH Announces Forward Fashion, PVH, 2019
- 12 The Global Gender Gap Report, 2020,

- World Economic Forum
- 13 "Fast-track" rapid advancement is considered if typically reaching manager level within five years in terms of advancement in the workplace
- 14 When She Rises, We All Rise: Getting to Equal 2018: Creating a culture where everyone thrives, Accenture
- 15 Study: Firms with More Women in the C-Suite are More Profitable, Harvard Business Review, 2016
- 16 The Hidden Value of Culture Makers, Accenture, 2020
- 17 Sex-Based Charges, 1997-2019, U.S. Equal Employment Opportunity Commission
- 18 When Women Thrive 2020, Mercer
- 19 Diverse Representation Framework & Diverse Interview Panels, CEO Action
- 20 When Women Thrive 2020, Mercer
- 21 Textio Hire
- 22 Harvard Business Review

BENCHMARK

NET-POSITIVE WATER IMPACT IN WATER-STRESSED BASINS

**SDG IMPACT**

11, 12, 13, 14, 17

TIMELINE

50% by 2030

100% by 2050

SCOPE☒ Operations☒ Products & Services☒ Value Chain

Benchmark Information

Adopting this benchmark helps business assess their water use and deliver net-positive water impact, especially in high water-stressed areas, defined by WRI as an area where 40 per cent or more available supply of water is withdrawn each year. This SDG Ambition Benchmark provides business with the strategic insights and technical know-how to assess their freshwater impact across its availability, quality and accessibility. It advocates for businesses to move beyond operational to measurable improvements of watersheds in proportion to their local water use and economic impact in support of Goal 6: Clean Water and Sanitation. Companies must set targets for direct operations water use in the short term, supporting a pathway to 50 per cent fulfillment by 2030 and 100 per cent fulfillment of net-positive water by 2050.

Assessing Against the Benchmark

Performance on the benchmark — sustainable withdrawals and supply of freshwater by 2030 — can be assessed in line with the United Nations SDG 6, “Clean Water & Sanitation”. The UN Global Compact CEO Mandate and the Water Resilience Coalition further advocates for business to achieve net-positive water impact and water resilient value chains by 2050.¹ As nearly two thirds of global freshwater consumption is associated with ingredient production for corporate supply chains, companies must extend responsibility for water consumption across the value chain.² Businesses that have not established goals in line with achieving net-positive water operations in water-stressed basins by 2050 as outlined above would fall below the SDG Ambition Benchmark.

BUSINESS IMPACT ON WATER

Business is the largest user of water as nearly all operations and supply chains rely on access to water. 45 per cent of companies report exposure to risks from water insecurity estimated at over US\$ 425 billion.³ More than 175 companies endorse the CEO Water Mandate to address global water challenges through corporate water stewardship, in partnership with the UN, governments, civil society organizations and other stakeholders. The Mandate’s Water Resilience Coalition is an industry-led initiative focused on ambitious commitments and collective action.

59% of water is for industrial use in high-income countries

70% of global freshwater use is agricultural

25% of CDP respondents experienced detrimental impact of water stress in 2016

ILLUSTRATIVE INDUSTRY IMPACT

Agriculture: 70 per cent of global water use is attributed to agriculture.⁴ The agricultural inputs required to produce beverages and food can add up to hundreds of gallons of water for each unit of food or beverage produced.⁵ Improving agricultural efficiency in water-stressed regions is key to ensuring a continued water supply.

Oil & Gas: 19 per cent of global water use is industrial.⁶ In the oil and gas industry, water is used during extraction and hydraulic fracturing. Concerningly, some of the most water-stressed regions in the world are also major producers of oil and gas. Industry leaders must actively manage their water risks to ensure continued production.

COMPANIES TAKING ACTION

NOVARTIS

set a 50 per cent water reduction goal by 2025 vs. 2016 levels, moving towards water neutrality in all operations by 2030. They have also pledged to enhance water quality in all areas where they operate.⁷

LEVI STRAUSS & CO

committed to reducing water use in manufacturing by 50 per cent by 2025 in areas of water stress against a 2018 baseline. Their "Water<Less" supplier targets will be applied to all suppliers, responsible for 80 per cent of LS&Co.'s production, via facility-level targets that address local water stress.⁸

INTEL

is moving beyond their 2025 target of 100 per cent water restoration, setting a new 2030 goal to increase their water conservation and achieve net-positive water use. This plan includes funding external water restoration projects.⁹

Business Value

Companies can reduce costs by conducting water-risk assessments and subsequently reducing water usage. One global beverage company saw savings of USD \$300M over five years following a risk assessment.¹⁰ Additionally, companies can further save costs and reduce risks by investing in wastewater treatment and re-using water in direct operations or within their ecosystem. These risks can also be mitigated by creating regional partnerships and investing in basin health initiatives. One consumer goods company implemented an intelligent water management plan in Colombia, which led to the construction of 10 water re-use systems, enabled 160 sites for reforestation and initiated 27 local community participation groups that train farmers on climate resilience across 25 river basins.¹¹

PRELIMINARY ACTIONS

Adopt standardized measurements

and definitions: Companies use various definitions and scoping boundaries to report water use and wastewater information, making comparison and benchmarking data difficult.

Incorporate water stewardship into materiality assessments:

Assessing the risks, opportunities and impacts associated with water across your facilities and suppliers to inform strategies.

KEY RESOURCES

» **CEO Water Mandate**

» **AQUASTAT**

» **Aqueduct Alliance**

» **Pacific Institute**

» **International Institute for Sustainable Development**

INTEGRATION COMPLEXITY***Understanding Integration**

Progress towards a net-positive water impact demands advanced monitoring and management of water as a resource for the business, partners and communities. Pursuing operational efficiencies to abstract less, but also identifying opportunities to protect access and quality wherever the business impacts water sources, relies on data-driven insights. Advancements in technologies that enable real-time data flows, such as the internet of things (IoT), artificial intelligence (AI) and geospatial mapping, can help businesses address their water impact, whilst increasing profitability. Streamlining water quality monitoring through smart water technologies can save a standard utility company up to US \$600 million annually, or 70 per cent of quality monitoring costs.¹²

Illustrations of Integration**LEAKS**

Pairing sensors in water pipelines with real-time management tools such as variable speed drives (to control pressure), businesses can automate pressure reduction and drive down water loss from leakages dramatically. A reduction in pressure of just 20 per cent can reduce leakage by 30 per cent.¹³

WATER-STRESS & RISK

Mapping areas of water-risk and local water challenges supports effective prioritization of water stewardship and access initiatives. Tyson Foods uses Aqueduct, an open source tool from The World Resources Institute. The company uses this tool to input data into their facility prioritization process, which determines the level of need for site water stewardship plans and targets. This data also lays the foundation for engaging outside the company's walls as they respond to shared water challenges in the watersheds where Tyson Foods operates and sources.¹⁴

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

C-SUITE OWNERSHIP

Chief Operations Officer

Journey towards Integration

Companies should assess their ability to integrate digital technologies and smart solutions into water management strategies and systems. Engaging with technology partners and third-party service providers, businesses can achieve:

Automation of measurement and predictive action

Leveraging digital tools for automatic monitoring of water usage and impacts, moving towards real-time adjustments and action, such as changing pipe pressure or alerting repair teams to prevent leaks.

Optimization of water-efficiency and maintenance of quality

Keeping water in use, either in operations, or through restoring quality after use for return to local water sources.

Forecasting for targeted action

Collection of accurate operational and geographical water data to inform risk assessments and modelling regarding prioritization and capital allocation.

\$14B

The World Bank estimates the cost to utilities of water lost before reaching the consumer at approximately \$14 billion per annum

\$25.6B

The smart water management market is expected to reach \$25.6 billion by 2025

SDG AMBITION APPROACH

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BUSINESS SYSTEMS DESIGN

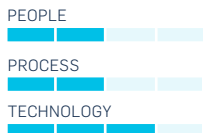
How might smart management technology be best integrated into water management systems?

Smart water management solutions can be used to monitor conditions and detect anomalies across water abstraction and consumption, such as a drop in pipeline pressure due to a leak or the detection of contaminants or bacteria in the water. Designing systems to monitor this data and react in real time can significantly help reduce water loss or prevent discharge of contaminated water into the environment.

These solutions rely on digital technologies such as sensors and IoT. For business to capitalize on them, they must design core systems for new processes of data collection and storage for the increased volumes of data. Analytics and artificial intelligence-enabled tools can then be used to maximize impact by producing actionable insights and ultimately moving towards prediction and automated action.

KDD1

INTEGRATION COMPLEXITY



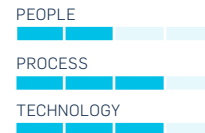
How might you streamline data flows between service providers and core systems of water management?

Companies may rely on service providers for the management of activities such as water recycling and treatment. Creating data flows between internal processes and service providers is important for both reporting and decision making.

Integrating water data with these external water management partners provides insights into the volume of water being treated, contaminants present prior to treatment, as well as water volume and quality post treatment. This information can help identify opportunities for water reuse across operations, but also highlight opportunities to change production processes or product design to reduce or eliminate contaminant byproducts.

KDD3

INTEGRATION COMPLEXITY



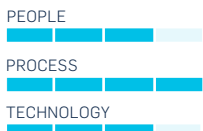
How might you facilitate supplier assessment and encourage improvement in supplier water practices?

New supply chain management tools enable more agile interaction with suppliers to ease the burden of assessment, as well as enabling companies to share best practices with their suppliers.

For example, Nestle worked with Institute of Water Informatics at LUMS University, Pakistan, to develop a cost-effective smart sensor for farmers in their supply chain. To complement the device, they created a free shareable software program which provides farmers with real-time irrigation updates, straight to their smart devices.

KDD2

INTEGRATION COMPLEXITY



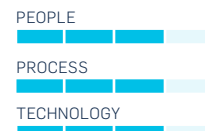
How might you build an aggregate picture of local water challenges and opportunities?

The use of mapping technologies, paired with your own water use data, can help identify areas in which operations have an outsized impact on local water availability (e.g. in water-stressed basins) and allow you to prioritize targeted reduction and replenishment efforts.

Similarly, understanding where your suppliers operate can drive your supplier management strategy, such as having an increased audit frequency for suppliers operating in water-stressed regions.

KDD4

INTEGRATION COMPLEXITY



- 1 Global Business Leaders Unite for Water Resilience, UN Global Compact, 2020
- 2 Corporate water use, The Nature Conservancy
- 3 CDP Global Water Report 2019
- 4 AQUASTAT - FAO's Global Information System on Water and Agriculture, UN Food and Agriculture Organisation

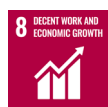
- 5 Water Footprint Network
- 6 AQUASTAT, UN FAO
- 7 Water, Novartis
- 8 2025 Water Action Strategy, Levi Strauss & Co.
- 9 "Intel pledges ambitious water-use goal by 2030: To go 'net-positive,'" Fortune, 2020

- 10 Sustainable Investing: Revolutions in Theory and Practice, Cary Krosinsky, Sophie Purdom, 2016
- 11 CEO Water Mandate
- 12 Water 20/20: Bringing Smart Water Meter Networks Into Focus, Sensus, 2012

- 13 Digital technologies ready to impact water industry efficiency, Waste and Water Treatment, 2019
- 14 How Tyson Foods Uses Aqueduct, World Resources Institute

BENCHMARK

100% OF EMPLOYEES ACROSS THE ORGANIZATION EARN A LIVING WAGE



SDG IMPACT

1, 2, 3, 4, 5,
10, 13

TIMELINE

2030

SCOPE

☒ Operations
 ☐ Products & Services
 ☒ Value Chain

Benchmark Information

This benchmark calls businesses to pay all their employees — regardless of their employment status — a living wage. This is defined as: “the remuneration received for a standard workweek by a worker in a particular place sufficient to afford a decent standard of living for the worker and her or his dependents. Elements of a decent standard of living include food, water, housing, education, health care, transportation, clothing, and other essential needs including provision for unexpected events”.¹

Achieving this target requires that companies develop and incorporate different elements of a fair compensation policy. All departments in the company should get involved to ensure consistency in the implementation of the strategy.

Living wage underpins several of the Sustainable Development Goals (SDGs), in particular Goal 1 “End poverty in all its forms everywhere” and Goal 8 “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”. Wages are among the most important conditions of work and a major subject of collective bargaining.

Governments have an important role to play in wage fixing and supporting wage-fixing mechanisms at a sectoral level. More than 170 countries have one or more minimum wages set through legislation or binding collective agreements. In many countries however, companies must go beyond existing legislation on wages because minimum wages do not always allow for a decent living. Businesses can ensure that all their employees, regardless of their contractual arrangements, have the income to support their needs and those of their dependents, raising standards of health and well-being. Companies should strive to achieve this benchmark by 2030 in line with the 2030 Agenda.

The scope of this ambition comprises employees and contractors in direct employ of the business. However, the ambition should be progressively extended to a fair compensation commitment for all workers in the entire supply chain of a company. This will require companies to adopt or improve their procurement practices, and engage with relevant stakeholders, including industry peers, suppliers, governments, workers' organizations, international organizations, investors, and civil society organizations. Anchoring the work at the local level will be crucial for success.

BUSINESS IMPACT ON LIVING WAGE

More than 6,000 employers in the UK have been accredited and certified by the Living Wage Foundation for paying a living wage. These leading employers and service providers publicly join the independent movement of organizations, businesses and people campaigning for a wage that is sufficient to live on and also offers accreditation for the same.

ACT (Action, Collaboration, Transformation)

is a ground-breaking agreement between global brands, retailers and trade unions to transform the garment, textile and footwear industry and achieve living wages for workers through collective bargaining at the industry level linked to purchasing practices. ACT is a collaboration of 20 global companies representing a broad range of brands and labels and IndustriALL Global Union representing garment, textile and footwear workers from around the globe.

19% of all workers worldwide do not earn enough to escape poverty²

-3.7% decrease in normal weekly wages in the US among workers in the lowest earnings decile since 2000³

19% of UN Global Compact respondents are working towards living wages across their operations⁴

COMPANIES TAKING ACTION

INDITEX

is committed to facilitating the provision of a living wage to factory workers in its supply chain. In 2019, the company launched its "Workers at the Center 2019–2022" Strategy. It is based on the premise of understanding and responding to the needs of supply chain workers, their families and the communities where they live to promote decent work and sustainable productive environments.

Living wage is one of the priority impact areas identified within this strategy and it is developed across four lines of work:

- Promoting and facilitating collective bargaining
- Effectively implementing responsible purchasing practices
- Enhancing the production of organization systems and methods
- Improving management systems and wage digitization

Inditex is an active member of ACT (Action, Collaboration, Transformation) on Living Wages.

L'ORÉAL

In 2020, L'ORÉAL Group made two commitments regarding living wages:

- 1) In its Employee Human Rights Policy, L'ORÉAL commits to pay all its employees at least a living wage covering their basic needs and calculated in line with best practices, as soon as possible.
- 2) In the L'ORÉAL for the Future program, L'ORÉAL commits to having 100 per cent of its strategic suppliers' employees being paid at least a living wage covering their basic needs and those of their dependents, calculated in line with best practices, by 2030.

L'ORÉAL developed partnerships with experts, including the Fair Wage Network,

an independent organization that provides a comprehensive and updated database that is used to define, build and deploy a living wage strategy.

L'ORÉAL takes into consideration various factors such as the local fertility rate and the average number of incomes per household to calculate the living wage.

The living wage strategy complements the L'ORÉAL "Share & Care" existing programs that provide employees worldwide with a set of social benefits, including maternity and paternity leave, access to reimbursed medical treatments, disability insurance.

L'ORÉAL plans to engage their strategic suppliers as part of their "extended company" to implement a living wage for their employees as for other pillars of their sustainable sourcing strategy (social audits, environment, inclusive sourcing).

The implementation of a living wage strategy worldwide is a challenge, and L'ORÉAL is using its leverage to embark other companies and stakeholders in this journey, including through collaborative platforms such as the Business For Inclusive Growth (B4IG).

SCHNEIDER ELECTRIC

In line with its Human Rights Policy and Principles of Responsibility, Schneider Electric believes earning a decent wage is a basic human right. Schneider is committed to paying employees in the lower salary ranges at or above the living wage to meet their families' basic needs. By basic needs, the Group considers food, housing, sanitation, education, healthcare plus discretionary income for a given local standard of living.

In 2018, Schneider started working with an independent advisor — Business for Social Responsibility (BSR) — to implement a living wage commitment. Schneider Electric has

initiated a global process to analyze wage levels and employment practices against local living wage standards set by BSR. To date the analysis has covered 63 countries, reaching 99 per cent of the Schneider footprint. This partnership and process will continue and will progressively extend its scope to the Schneider supplier network.

UNILEVER

set the target in 2014 of creating a structured way to define and assess how the elements of their compensation packages deliver compensation to all employees which is open, fair, consistent and explainable. By the end of 2019, Unilever was paying at or above the living wage in most places and actively working through a small number of remaining issues in areas with complex pay arrangements.

The result was a Framework for Fair Compensation and a commitment to paying a living wage that gives their employees enough to "provide for their dependents' basic needs, for food, housing, education and healthcare as well as some discretionary income".

Since 2015, Unilever has worked closely with the Fair Wage Network as an objective external source of the living wage value for each of the countries with employees. Unilever uses these thresholds to assess whether the fixed compensation paid to all full-time direct employees (including factory and non-factory employees) in each country is meeting the living wage standard.

Unilever also promotes fair wages through the value chain by embedding fair wage assessments into their Responsible Sourcing Policy, identifying incidents where fair wages are not paid. Reaching a Living Wage is currently a good practice benchmark of the Responsible Sourcing Policy which suppliers are expected to work towards.

COLLECTIVE BARGAINING

Wage scales are often set by collective agreements. They are determined in consultation with workers or workers' representatives through collective bargaining. Sound collective bargaining practices ensure that employers and workers have an equal voice in negotiations and that the outcome is fair and equitable. It allows both sides to negotiate a fair employment relationship, including a fair wage. Collective bargaining can take place at an enterprise-level or a sectoral level.

In principle, wage levels set by collective agreements are at the level of a living wage or above, which enables the covered employees to afford at least the basic needs. But it is possible that collective bargaining is too weak, for example, because workers are not organized enough to represent their voice at the bargaining table. This can result in wage levels set by collective agreements that are too low to be considered as a living wage.

Assessing Against the Benchmark

Performance on the benchmark — implementing a living wage for employees across the organization by 2030 — should be assessed by calculating the gap between current wages and living wages for every region in which you have business operations. Estimated values of a living wage, or living wage thresholds, are published per region by various organizations using their own methodologies.⁵ In many regions, these living wage thresholds are higher than the legal minimum wage or poverty-line wage. The achievement of the benchmark will be part of the responsibility of companies to respect workers' rights and contribute to decent work priorities in compliance with international labour standards of the ILO.⁶

Being employed does not preclude living in poverty. In 2019, more than 630 million workers worldwide — almost one in five of all those employed — did not earn enough to lift themselves and their families out of extreme or moderate poverty.⁷ Businesses that have not established time-bound, measurable goals and targets for paying a living wage to all employees by 2030 would fall below the SDG Ambition Benchmark.

For additional detail on determining a living wage, consult the [Living Wage Supplement](#).

Business Value

Committing to being a living wage employer supports a happier, healthier and more productive workforce, reduces turnover costs and addresses consumer, customer, investor, and shareholder concerns about a company's respect for workers' rights.

One company found that during the first year of ensuring a living wage for their sub-contracting staff, turnover in their cleaning staff dropped from 44 per cent to 27 per cent. Absenteeism also dropped by 10 per cent.⁸ According to a study of 800 accredited living wage businesses in the UK conducted by Living Wage Foundation and Cardiff Business School, living wages can produce a more productive workforce: 57 per cent of companies said it increased the commitment and motivation of their employees; 86 per cent felt it enhanced the company's reputation; 64 per cent said it differentiated their organization from others in the industry.⁹

KEY RESOURCES

» International Labour Organization

» The Anker Methodology

» IDH

» The Global Living Wage Coalition

» Oxfam

» The Fair Wage Network

» BSR

» Ethical Trading Initiative

» ACT

» Ergon Associates

» Wage indicator Foundation

ILLUSTRATIVE INDUSTRY IMPACT

Retail: According to IndustriALL, more than 90 per cent of workers in the textile industry have no possibility of negotiating their salaries or working conditions.¹⁰ The garment industry is traditionally a low paying industry with poor working conditions. A fundamental change based on an industry wide collaborative effort by all stakeholders will be needed to provide relief to workers from poverty wages and crippling working hours.

Hospitality: Hospitality and tourism account for 330 million jobs, one in 10 in the world.¹¹ The industry has the highest proportion of jobs paying the minimum wage of any sector, at around 30 per cent of the total.¹² Given that minimum wage does not always allow for decent standards of living, implementing living wage, benefits and other worker protections in hospitality would have a significant impact.

PRELIMINARY ACTIONS

Develop an overall fair wage strategy: The Living Wage benchmark is part of a company's compensation policy. A fair compensation policy encompasses typical sustainability dimensions like living wage and equal salary but is far more comprehensive and includes other wage practices and pay systems indicators. For example, wages should be adjusted to economic and social indicators, paid regularly and formally in full, workers are fully informed about their wage, wage progresses proportionally along with enterprise sales and profit growth and wages progress along with changes in intensity at work, technological contents and the evolving skills and tasks of the labour force.¹³

Conduct due diligence across your direct and indirect operations: As part of the business responsibility to protect and respect human rights outlined in the UN Guiding Principles on Business and Human Rights, working poverty caused by low wages in the workplace and supply chains should be reflected in business human rights due diligence approaches.¹⁴

Engage in Social Dialogue Process: Achieving this target requires a systematic assessment and a strong social dialogue on the level of the wages paid across all locations where a business operates, mandating salaries are set at or above the Living Wage benchmark.

Understand the impact of supply chain management on wages: It might be challenging for a company to ensure the payment of living wages in global supply chains for a number of reasons. In many cases it is not the legal employer; the first or second tier supplier is. Purchasing practices between the buyers and the suppliers however influence wages and working conditions.¹⁵ Buyers can put pressure on suppliers in terms of timeline, prices, technical specifications, and delivery, which have direct effects on suppliers' capacity to provide living wages and decent working conditions. It is important to better understand how buying prices relate to wages. Collaborative action at the industry-level and the engagement and collaboration of key stakeholders is crucial to building leverage at the national level to ensure a living wage for all workers.

INTEGRATION COMPLEXITY***Understanding Integration**

This section provides directional guidance on how you can design your technology systems to support the integration of a living wage methodology and calculation into your corporate wage strategy. A company must take a number of crucial steps to achieve this, from identifying a definition and calculation methodology to building leadership support and budget approval. Alongside these, companies must seek to hardwire the new threshold, based on a defined calculation methodology, into core Human Resources and resource planning software to ensure employee wage decisions in all functions and markets are informed by a consideration for a living wage.

By using technologies such as analytics and machine learning, companies can not only build the living wage benchmark into wage strategies but can also automate the calculation based on changing macroeconomic data (e.g. cost of living) and assessments of compliance across the business. Streamlining these processes supports the implementation of the benchmark and drives accountability for adherence and progress.

Journey towards Integration

By engaging with technology partners, companies can design systems that make living wage part of the processes that underpin corporate wage structures. In doing so, you should strive for:

Dynamic compensation systems

overhaul of HR compensation systems that transition from static wage reviews to periodical, dynamic wage setters for the entire workforce.

Actionable insights

leveraging analytics tools to provide quick views of progress towards the living wage across functions and geographies to inform decision making.

Employee engagement and sensitization

developing processes for communication on living wage commitment with staff and external stakeholders to reach global coverage and no new hires below living wage.

C-SUITE OWNERSHIP

Chief Human Resources Officer

Illustrations of Integration**STREAMLINING ASSESSMENT**

Once a calculation methodology is selected to define the Living Wage benchmark for the business' different areas of operation, an assessment of all wage levels globally for all direct employees is required to identify how many of your staff are paid a living wage or above. This means identifying all of your employees and their current pay levels for all types of contracts (current salary levels of full-time employees, part-time and temporary workers, contractors' employees that work on the company's premises, etc.). This will include consultation with different units at the country level and can be initiated via a survey. A decision will need to be taken on how wage levels are defined and calculated such as if the calculation takes into account non-mandatory benefits, such as extended health benefits that the employer may provide, bonuses, or in kind payments.

Businesses can leverage intelligent functionality in Human Resources systems. Hardwiring the living wage calculation and threshold into these tools enable efficient assessments that inform more impactful decision making as a business seeks to transition any employers currently not earning a living wage.

AUTOMATE REVIEW AND UPDATES

As the living wage calculation is based on changing indicators in different markets — such as regional cost of living, taxes, cost and availability of public services — it is crucial for companies to establish processes for monitoring and updating the living wage levels to reflect these changes. Companies should design systems to leverage digital tools such as machine learning, which can automate the data flows for these indicators, in order to conduct these updates regularly and reliably.

8%

of 200 brands reviewed by the Fashion Revolution's Fashion Transparency Index report on any annual progress towards living wages¹⁸

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration.

» VIEW THE
INTEGRATION GUIDE



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BUSINESS SYSTEMS DESIGN

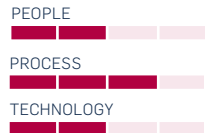
How might you embed the living wage calculation into core HR systems and automate updates based on real-time macroeconomic data?

Once a living wage methodology is adopted and metrics for calculation defined, companies can leverage tools enabled by analytics and machine learning to automate the calculation of the benchmark, provide alerts in instances of non-compliance, and pull in real-time data on indicators such as regional cost of living to ensure the living wage calculation remains up-to-date in all areas of operation.

Embedding the threshold in core HR systems is essential to build awareness of living wage and salary requirements for recruiting teams as well as employees. Making living wage information available alongside hiring bands and other relevant recruiting details is an initial step that helps decision-makers compare their hiring requirements against a living wage goal and adjust accordingly, ensuring all new hires are employed on a living wage or above.

KDD1

INTEGRATION COMPLEXITY



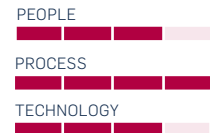
How might you evaluate your supplier network's compensation policies and encourage supplier improvement?

This benchmark is focused on direct employees and does not cover the extension of the living wage to business partners or suppliers. However, companies do have the opportunity to design business systems for the encouragement of better compensation policies among their partners and peers and should do so when possible. For example, by leveraging digital-enabled risk assessment tools to create supplier risk profiles, companies can map partners with higher human rights risks to inform sourcing decisions as well as preventative and mitigating action.¹⁷

In addition, companies can use learning management systems to engage procurement staff on purchasing practices focused on encouraging more progressive compensation structures in suppliers. The ACT Accountability and Monitoring framework provides ACT member brands with an agreed set of indicators and monitoring instruments to implement their purchasing practice commitments, which can be embedded in procurement systems and training processes.¹⁸

KDD2

INTEGRATION COMPLEXITY



1 There is no universally agreed definition of a living wage as a concept and there is no universally accepted amount that defines such remuneration. The definition used in this document is based on the definition of the Global Living Wage Coalition and incorporates the main ideas found in over 60 living wage descriptions and definitions from human rights declarations; national constitutions; NGO, multinational, and corporate codes of conduct; International Labour Organization (ILO) documents; and statements of major historical figures (Anker 2011).

2 ILO

3 Pew Research Center

4 UN Global Compact, DNV GL (2020) Anniversary Report - Calculation: 22 per cent of companies report to priorities SDG 1, of these, 85 per cent implement and promote a living wage.

5 The Sustainable Trade Initiative (IDH) has developed a set of objective criteria for the minimum elements a Living Wage benchmark methodology should include to be reliable.

6 See also "Decent Work Toolkit for Sustainable Procurement", developed by the UN Global Compact Decent Work in Global Supply Chains Action Platform.

7 International Labour Organization (ILO)

8 Livingwage.org

9 Living Wage Foundation

10 IndustriALL

11 World Travel and Tourism Council

12 Deutsche Bank Market Research

13 Fair Wage Network — 12 Fair Wage Dimensions

14 Earning a living wage is a basic human right as included in the Universal Declaration of Human Rights: "Everyone who works has the right to just and favourable remuneration ensuring for

himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection" (Article 23:1,3).

15 Purchasing practices and working conditions in global supply chains: Global Survey results, ILO, 2017 — http://ilo.org/travail/info/fs/WCMS_556336/lang--en/index.htm

16 Fashion Revolution
17 OECD

18 ACT

BENCHMARK

100% SUSTAINABLE MATERIAL INPUTS THAT ARE RENEWABLE, RECYCLABLE OR REUSABLE

**SDG IMPACT**

6, 9, 11, 13, 14, 15, 17

TIMELINE 2030**SCOPE**
☒ Operations
 ☒ Products & Services
 ☐ Value Chain

Benchmark Information

This benchmark helps embed circular economy practices into material selection and product design. This benchmark specifically applies to product and packaging design — ensuring those materials and feedstocks are 100 per cent sustainable to the highest possible environmental and social standards — within the scope of business operations and products and services. The objective is to design for continued material use so that economic activity is decoupled from resource extraction. This benchmark follows the timeline of 2030 set by SDG 12: Responsible Consumption and Production.

Assessing Against the Benchmark

Performance against the benchmark — percentage of sustainable inputs by the year 2030 — can be assessed in line with the targets identified in SDG 12 and guidance from the UN Global Compact's Advisory Group on Supply Chain Sustainability. Companies should strive to make advances in their product design via channels including resource efficiency, materials recycling, identifying and selecting the most renewable inputs possible, and when possible certifying these outcomes with leading third-party certification programs. Businesses that have not established goals in line with achieving 100 per cent sustainable inputs by 2030 in line with Agenda 2030 would fall below the SDG Ambition Benchmark.

Business Value

Circular models are particularly attractive for the value at stake for business: for instance, shifting to circular inputs in the fashion industry offers an opportunity of \$30 to 90 billion (3 to 8 per cent of EBITDA) by 2030.¹ In some instances, companies can reduce acquisition costs by replacing traditional materials with renewable alternatives. One global furniture company uses rice straw, a production byproduct, as a material input, which reduces burning of this fiber that would otherwise be considered waste and reduces air pollution and production costs.² Designing for sustainable inputs can also spur product innovation that drives growth: one plant-based meat company was recently valued at \$4 billion, a reflection of growing market interest in alternative proteins.³

BUSINESS IMPACT ON SUSTAINABLE INPUTS

The trajectory of annual global resource use is on track to exceed the planet's available resources by over three times each year by 2050.⁴ Product design is often biased towards single-use materials: 40 per cent of all plastics globally are used for single use packaging.⁵ However, working towards this benchmark offers a transformative opportunity to shift towards a circular economy (CE) that benefits consumers, investors, and the planet. Accenture has assessed circular business models could unlock \$4.5 trillion in value by 2030.⁶ The Ellen MacArthur Foundation (EMF) brings together business, innovators, cities and governments, universities, and thought leaders on circular economy topics. It counts over 130 companies as members.

9%

only 9 per cent of the 92.8 billion tons of minerals, fossil fuels, metals and biomass that enter the economy annually are re-used in some way⁷

90%

of the environmental impact of the average product sits in extracting and refining material inputs⁸

€600B

could be saved on primary resources by EU businesses by 2030 by transitioning to a circular economy⁹

COMPANIES TAKING ACTION

IKEA

is on a mission to become a 100 per cent circular company by 2030, committing to designing all of their products using only renewable or recycled materials. They are also aiming to eradicate single-use plastics by the end of 2020.¹⁰

SCHNEIDER ELECTRIC

has set a goal of all new products being "eco-designed": created to be easily repaired, upgraded and dismantled at end-of-life. They provide product profiles so that customers can understand the product's carbon footprint, which also include end-of-life instructions.¹¹

MATTEL

recently announced a new goal of 100 per cent recycled, recyclable or bio-based plastics in products and packaging by 2030. They work with the Forest Stewardship Council to source paper and wood inputs; currently 93 per cent of their products and packaging are FSC certified and will debut their first 100 per cent sustainably sourced product made of sugarcane plastic in 2020.¹²

Illustrative Industry Impact

Electronics: 53.6 million metric tonnes of e-waste is generated worldwide, up 21 per cent in the past 5 years.¹³ This is harmful to the environment and human health: a total of 50t of mercury and 71kt of brominated flame retardant (BFR) plastic are found in globally undocumented flows of e-waste annually, which are released into the environment and exposed to workers. Designing to limit waste in the electronics industry, combined with closed material loop supply chains and virgin material reduction are some ways to achieve this benchmark for the industry.

Retail and Fashion: 87 per cent of material used in clothing production is sent to landfill or incinerated after final use; less than 1 per cent is recycled to make new clothing.¹⁴ Current industry practices favor material blends and chemicals which make it difficult to retain the value of the material. Products designed with sustainable inputs, choosing fiber inputs with lower environmental impact, and taking back used clothing are some of the ways fashion can integrate CE practices into their business.

Consumer Goods: Single-use plastic packaging accounts for about half of the plastic waste in the world.¹⁵ Packaging is a major opportunity area for consumer goods companies to introduce circularity; packaging should be designed to be recoverable and recyclable. 63 per cent of CDP respondents reported investing in circular technologies such as depolymerization, which can break down finished fibers in raw materials for re-use.¹⁶

PRELIMINARY ACTIONS

Evaluate design processes: Product design methodologies must be re-examined to incorporate circular material input. Material specification can be adapted to more sustainable inputs for existing and new product categories.

Life cycle assessment to determine environmental impact: Conduct a life cycle assessment to evaluate the environmental impact of material inputs

through their entire life cycle, including climate impact, ease of recycling and the material's potential for renewal. Identify potential alternatives for material inputs without the potential for reuse or recycling.

Determine the scope: Evaluate your supply chain for opportunities to create material loops to recycle and reuse virgin material. The resulting materials could be sold externally or re-integrated into the existing business.

KEY RESOURCES

- » [The Circular Economy Handbook](#)
- » [Ellen MacArthur Foundation](#)
- » [Platform for Accelerating the Circular Economy](#)
- » [World Resources Institute](#)
- » [Circular Design Guide](#)

INTEGRATION COMPLEXITY***Understanding Integration**

To decouple economic growth from resource use, and transition to a circular economy, companies must embed sustainability at the heart of product design. For most, the central considerations in product and packaging development remain productivity and cost-efficiency. However, faced by mounting consumer and policy pressures on topics such as single-use plastics, and as more businesses recognize the opportunity in circular business models, there has been a drive to understand the impacts across a product's lifecycle, from raw material extraction to end-of-use. As these considerations are integrated into core product design and material management systems, leveraging tools built on life cycle assessment (LCA) methodologies, businesses can set product and packaging guidelines, encourage innovation, and influence suppliers.

Journey towards Integration

Driving progress towards 100 per cent sustainable inputs, companies should work to design systems focused on:

Embedding circular principles in product assessment process

Integrating tools to understand the circularity and sustainability of products.

Defining guidelines and targets for individual products and the full portfolio

Updating sourcing strategy and guidelines for materials used in products and packaging.

Gaining visibility over suppliers and feedstocks

Developing methods for assessing and monitoring compliance with suppliers with sustainable materials sourcing policies.

C-SUITE OWNERSHIP

Chief Design Officer

Illustrations of Integration**PRODUCT ASSESSMENT**

There are multiple solutions in the market that aim to support circular product design, including free LCA software.¹⁷ Assessing recyclability of products for some industries can be particularly challenging due to complications of attributes such as material blends. Designing core systems to integrate sophisticated tools in product assessment will drive more impactful decisions for sustainable product portfolios. Circular economy experts at The Ellen MacArthur Foundation developed a Material Circularity Indicator (MCI) tool in collaboration with Granta Design, which measures how restorative the material flows of a product are and can be aggregated up to product portfolio, and even further up to company level.¹⁸

MATERIAL SELECTION

Moving away from virgin and unsustainable feedstocks requires integration of circular principles into the procurement and supplier management processes. Google is building a tool, in partnership with fashion brand Stella McCartney and World Wildlife Fund (WWF), that uses data analytics and machine learning on Google Cloud to give brands a more comprehensive view into their supply chain, particularly at the level of raw material production. Combining Google's digital tools with their partners' respective industry and sustainability expertise, the ambition is to create a data-enriched decision-making platform, bringing visibility to supply chains.¹⁹

39%

companies believe they take any action to develop products and services that contribute to the SDGs²⁰

\$2–3B

value opportunity of best practices in packaging design with sustainable end-use objectives across OECD companies

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

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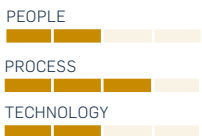
100% SUSTAINABLE MATERIAL INPUTS THAT ARE RENEWABLE,
RECYCLABLE OR REUSABLE

BUSINESS SYSTEM DESIGN

How might you promote sustainable inputs in material mapping and product design?

KDD1

INTEGRATION COMPLEXITY



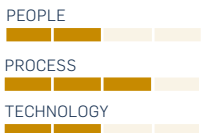
Several methods for ensuring a supply chain inclusive of sustainable inputs are well-known. LCAs, supply risk analysis and assessment of environmental impact by product are processes that use foundational data to help understand and select product materials and assist in product design planning.

Companies can begin by assessing the extent to which their current material mapping and product design processes allow for the inclusion of sustainable inputs, then making those inputs visible alongside conventional alternatives.

How might PLM tools be used to define and maintain guidelines for sustainable inputs?

KDD2

INTEGRATION COMPLEXITY



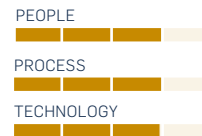
Product guidelines are the foundation for many decisions relevant to sustainable inputs. By incorporating sustainable inputs into product design and development, companies can identify opportunities to transition to alternative materials. Systems used to manage these criteria are key to this approach and can enable tracking of adherence to newly sustainable guidelines.

As a first step, assess your Product Lifecycle Management, or PLM, tools for capability to incorporate sustainable input criteria with an interim goal of including sustainable inputs alongside other factors such as cost and production time.

How might you drive visibility over suppliers to identify and promote the use of renewable or recycled materials?

KDD3

INTEGRATION COMPLEXITY



To deliver on a sustainable sourcing strategy, companies must encourage greater visibility over their suppliers and the materials they procure. This is critical to validate material origins, sustainability certifications, as well as circular credentials regarding recyclable and renewable content.

Digital technologies offer new opportunities for tracking materials in complex supply chains. A blockchain enabled ledger, for example, enables a chain of custody for materials enabling reliable validation of material attributes. GreenToken by SAP is a supply chain solution that offers companies a new level of transparency in their complex raw material supply chain. The cloud platform supported by blockchain technology can track the origin of plastic waste and the percent content of recycled plastic in new circular polymers as well as provide chain of custody information in the agriculture industry from origin to customer.

- 1 The Circular Economy Handbook, Accenture, 2020
- 2 Clean air is good for business, World Economic Foundation, 2019
- 3 Bloomberg
- 4 With resource use expected to double by 2050, better natural resource use essential for pollution-free planet, UN Environment Programme, 2017
- 5 "The world's plastic crisis explained," National Geographic, 2019
- 6 The Circular Economy Handbook, Accenture, 2020
- 7 The Circularity Gap Report 2019, European Union
- 8 Environmental benefit, Terracycle
- 9 Circular Economy: Closing the loop, European Commission
- 10 IKEA, 2020
- 11 Schneider Electric wins global award for contribution to the circular economy, PRNewswire, 2019
- 12 Mattel announces goal to achieve 100 per cent recycled, recyclable or bio-based plastic materials in all products and packaging by 2030, Businesswire, 2019
- 13 UN Global E-Waste Monitor
- 14 Make fashion circular, Ellen MacArthur Foundation
- 15 Single-use plastics: A roadmap to sustainability, UN Environment, 2018
- 16 Fast moving consumers, CDP, 2019
- 17 The open source Life cycle and assessment software, OpenLCA
- 18 Material circularity indicator, Ellen MacArthur Foundation
- 19 WWF and Google Partner on Fashion Sustainability Platform, Google, 2020
- 20 UNGC 2019 Progress Report

BENCHMARK

ZERO DISCHARGE OF HAZARDOUS POLLUTANTS AND CHEMICALS



SDG IMPACT

3, 6, 9, 11, 13,
14, 15, 17

TIMELINE 2030

SCOPE

☒ Operations ☐ Products & Services ☐ Value Chain

Benchmark Information

This benchmark aims to eliminate hazardous industrial pollution including chemicals, materials and wastewater. The benchmark also includes pollutants released into the air (such as soot or particulate matter), water (such as groundwater contaminated with waste or fertilizer) and soil (such as hazardous mining byproducts). Globally, pollution has far-reaching consequences: for instance, ambient and household air pollution causes seven million deaths per year,¹ agriculture runoff of fertilizers and pesticides contaminates waterways,² and industrial activity degrades soil health, reducing plant metabolism and agricultural output.³ The scope of this benchmark covers industrial pollution generated in direct operations and across the supply chain. The timeline for this benchmark is set by the Agenda for Sustainable Development as 2030.

BUSINESS IMPACT ON HAZARDOUS POLLUTANTS

Commitment to this benchmark will have an interlinked impact across Agenda 2030, in particular on SDG 12, "Responsible Consumption and Production". RoadMap to Zero is a forum that works with industries to help them reduce their chemical footprint. They have 70 contributors consisting of 23 signatory brands, 33 value chain affiliates and 14 associates.

\$225B annual cost to the global economy in lost labour income can be attributed to air pollution⁶

59% of water in high-income countries is used for industrial purposes compared with 8 per cent in low-income countries⁷

80% of global wastewater goes untreated⁸

Assessing Against the Benchmark

Performance on the benchmark — achieving zero discharge of hazardous pollutants and chemicals — can be assessed in line with guidance provided by the relevant UN bodies, such as the United Nations Environmental Programme (UNEP)'s Global Environment Outlook⁴ and initiatives including the Global Programme of Action for the protection of the Marine Environment from Land-based Pollution.⁵ Businesses that have not established targets charting a pathway to eliminating pollutants released into the air, water and soil by 2030 would fall below the SDG Ambition Benchmark.

ILLUSTRATIVE INDUSTRY IMPACT

Chemicals: Production capacity of chemicals is projected to grow to 4.6B tons by 2030.⁹ Chemical manufacturing businesses produce waste that can have a harmful impact on the environment, such as process residues, spent catalysts or solvents, effluent treatment sludges and contaminated chemical containers. Businesses can invest in anti-pollution R&D, manage waste using zero-discharge processes and innovate to reduce or repurpose byproducts of chemical manufacturing processes.

Textiles/Apparel: Textile mills account for 20 per cent of global water pollution and use 20,000 chemicals in manufacturing processes.¹⁰ Reducing dye runs, re-using process water, and selecting non-toxic chemical inputs are some methods the industry can employ to reduce their contribution to global pollution.

COMPANIES TAKING ACTION

FAST RETAILING

committed to achieving zero discharge of hazardous chemicals associated with supply chains and the lifecycles of products. They work with other brands & companies in the apparel sector, material suppliers, the broader chemical industry, NGOs and other stakeholders to achieve this goal.¹¹

LEVI STRAUSS & CO

is committed to zero discharge of hazardous chemicals for all its products and supply chain by 2020 through their Screened Chemistry initiative. In 2019, they announced they will become Eco Passport certified via third party, OKO-TEX.¹²

ADIDAS

aims to achieve zero discharge of hazardous chemicals (ZDHC) across their supply chain by 2020, defining an end-to-end-approach managing chemical inputs, monitoring supplier progress and controlling the finished end product.¹³

Business Value

Companies can lower costs by proactively installing pollution controls across their plants and equipment; one study found that cereal makers could realize \$12M in savings through reducing fertilizer runoff.¹⁴ Companies with a good pollution control record are less likely to be in conflict with community groups and government environmental agencies, reducing risk of fines and penalties. For example, automakers operating in the European Union are at risk of paying billions in fines if they do not meet new emission standards being enacted in 2020.¹⁵

KEY RESOURCES

- » **UN Environment**
- » **Environmental Defense Fund**
- » **Natural Resources Defense Council**
- » **FAO Global Symposium on Soil Pollution**
- » **European Environment Agency**
- » **Roadmap to Zero**

PRELIMINARY ACTIONS

Determine the sources of

pollutants: Determine the sources of hazardous discharge across the supply chain and evaluate the impact on water, land, and habitat.

Identify and classify the chemicals and audit the processes:

Identify all chemicals used, the quantity of usage and discharge and classify the chemicals as per local government guidelines or other standards, such as the 11 classes of hazardous chemicals identified by Greenpeace. Companies can align the audit protocol with standardized processes and benchmark existing standards and existing data at facilities.

INTEGRATION COMPLEXITY***Understanding Integration**

In order to make progress towards achieving zero discharge, companies must understand the chemicals they use in products and manufacturing and the impact their discharge has. New systems and technologies can enable better recognition and management of hazardous waste across the organization such as product design tools that embed ZDHC principles to eliminate hazardous waste. Additionally, service platforms that map vendors and identify safe treatment and disposal techniques further help business streamline the monitoring and management hazardous waste streams.

Illustrations of Integration**PRODUCT DESIGN**

Assessing the product portfolio to understand the source and impact of hazardous chemicals can reveal targeted intervention strategies. GreenScreen is a platform used by businesses to track their chemical inventories and compare the hazardous characteristics of chemicals, materials and products.¹⁶ Apple has integrated zero discharge of chemicals into their core business, leveraging the GreenScreen tool to map their chemicals, restrict their use through a Regulated Substances Specification list, and innovate product alternatives in their Environmental Testing Lab.¹⁷

DISCHARGE TRANSPARENCY & TREATMENT

Digital cross-organizational systems for tracking hazardous waste, such as Laboratory Information Management Systems (LIMS) and Treatment, Storage and Disposal Facilities (TSDF) vendor mapping, enable businesses to locate sources of chemical waste or the appropriate treatment technology to prevent the discharge of hazardous chemicals. Establishing systems that identify transactions across TSDF such as invoices, can provide granular details of discharged substances. Additionally, categorizing total discharge of hazardous chemicals by product, region, and end-disposal location can help institute effective interventions and control measures.

C-SUITE OWNERSHIP**Chief Operations Officer****Journey towards Integration**

Companies must assess their maturity regarding the organization's understanding of existing chemicals and pollutants. From there, they can engage their technology partners on how to design systems to achieve:

Comprehensive list of chemical inputs in products and their environmental impacts

Mapping chemical substances that are inputs across the product portfolio as well as part of waste streams to track areas of intervention.

Increased visibility of discharge and associated costs

Drawing data across the organization including transactions across TSDF such as invoices, discharge of hazardous chemicals by product, region and end-disposal locations in one dataset.

Optimized management of hazardous waste streams

Digital solutions can help define locations, processes and equipment required for controlling and treating hazardous chemicals.

47

certification standards and testing
labs around the world have been approved by
ZDHC as MRSL Conformance Indicators¹⁸

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

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BUSINESS SYSTEM DESIGN

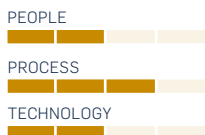
How might you integrate chemical or pollutant assessment into the product design and manufacturing processes to eliminate negative impact?

As environmental pollution control technologies have become more sophisticated and expensive, there is growing interest in designing products and manufacturing processes that eliminate hazardous waste at the outset. Assessment of known pollutants allows companies to evaluate potential hazards, providing information necessary to make an accurate waste determination and consider appropriate strategies for management, minimization, and disposal.

A comprehensive survey of chemical and potentially toxic inputs across all areas of the business is a foundational step that will allow your company to understand the extent of pollution risk.

KDD1

INTEGRATION COMPLEXITY



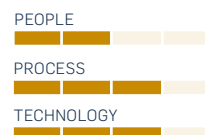
How might you automate the data flows from treatment providers to understand current state?

Companies enlisting waste management providers for the treatment of their hazardous waste can gain a comprehensive view of the chemicals and pollutants they discharge by integrating these service providers onto central systems.

By automating the data flows with such suppliers, organizations can gain insights into not just the chemicals and pollutants present, but also total cost of treatment including storage and/or disposal. Understanding the full cost of treatment can then help drive the business case for using alternative materials or moving to solutions such as on-site treatment. Additionally, enabling data flows with treatment providers can significantly reduce manual data entry of analysis reports.

KDD2

INTEGRATION COMPLEXITY



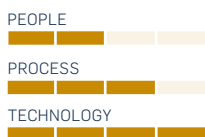
How might you leverage smart technologies to automate the prevention of discharge?

Pairing internal data on use of pollutants with technology products such as leakage protection systems, companies can identify discharge occurrences with a high degree of accuracy and take immediate action to ensure that damage is mitigated.

If such technologies are inaccessible or cost-prohibitive, commonly collected data such as point in time water quality samples or pressure readings taken manually can be used to identify anomalies. Risk assessments can be used to evaluate potential release or discharge points and inform your strategy for implementing meters and sensors at points identified as highest risk.

KDD3

INTEGRATION COMPLEXITY



- 1 Air pollution, World Health Organisation
- 2 Water pollution: everything you need to know, NRDC, 2018
- 3 Soil Pollution: A Hidden Reality, UN Food and Agriculture Organisation, 2018
- 4 Global Environment Outlook 6, UN Environment Programme
- 5 Governing the global programme of action, UN Environment Programme
- 6 Air pollution deaths cost global economy US\$225 billion, The World Bank, 2016
- 7 Industrial water, Centers for Disease Control and Prevention
- 8 Water quality and wastewater, UN Water
- 9 Global Chemicals Outlook II, UN Environment Programme, 2019
- 10 Encourage textile manufacturers to reduce pollution, NRDC
- 11 Fast Retailing Greenpeace Detox Solution Commitment, Fast Retailing
- 12 Levi-Strauss & Co. and Hohenstein collaborate to bring safer chemicals to the apparel industry using ECO PASSPORT by OEKO-TEX, Levi Strauss & Co., 2019
- 13 Adidas Annual Report 2019
- 14 Champions of Breakfast, Union of Concerned Scientists, 2019
- 15 "Europe's Tough Emissions Rules Come with \$39 billion Threat," Bloomberg, 2019
- 16 Use of GreenScreen in Corporate Chemicals Management, GreenScreen
- 17 A planet-sized plan, Apple
- 18 ZDHC Impact Report 2019

BENCHMARK

ZERO WASTE TO LANDFILL AND INCINERATION



SDG IMPACT

6, 9, 11, 13,
14, 15

TIMELINE 2030

SCOPE

☒ Operations
 ☐ Products & Services
 ☐ Value Chain

Benchmark Information

The zero waste to landfill and incineration benchmark helps organizations evaluate and optimize material flows and eliminate all solid waste from operations. While often most relevant in the context of manufacturing where material use runs high, this benchmark is equally applicable to any business with physical facilities and operations. According to the US Environmental Protection Agency (EPA), 2.2 billion tons of landfill waste is projected to be produced annually by 2025.¹ The scale of solid waste makes clear the need for business to systematically avoid generating or discharging waste into the environment. In addition to industrial waste, organic material such as food scraps also have a significant impact on the environment which are addressed by the benchmark: the decomposition of waste from landfill sites accounts for 12 per cent of global methane emissions, which is a greenhouse gas 21 times more potent than carbon dioxide. The timeline to achieve this benchmark is set by the Agenda for Sustainable Development at 2030.

BUSINESS IMPACT ON WASTE

The private sector is a major contributor to global solid waste streams. It is estimated that 7.6 billion tons of industrial solid waste is produced each year in the United States alone.² Business can also find best practices through the Zero Waste International Alliance, which is an internationally recognized source for waste standards.

35% of waste streams consist of recyclables³

1.3B tons or approximately \$750B — of food is lost or wasted annually⁴

5.7B kg of waste is generated globally per day⁵

22% of waste in high-income countries is incinerated⁶

Illustrative Industry Impact

Construction: 30 per cent of construction and demolition project materials end up in landfills.⁷ Constructing flexible structures which can be readjusted without major demolition, as well as shifting to low-waste or biodegradable building materials would substantially reduce the industry's contribution to global waste.

Food & Beverage: Food accounts for a third of global landfill waste.⁸ This figure is made all the more shocking by the fact that recouping this loss would provide enough food to feed 2 billion people. Hunger prevention coalitions can capture the value of these resource by helping organizations divert food from waste streams at harvest and point of sale.

Retail: 2.2 billion kilos of returned goods enter US landfills each year — half of all returned retail items.⁹ Minimizing returns and reducing their impact through sharing more product detail and technologies like virtual try-on could lessen the environmental impact.

COMPANIES TAKING ACTION

MARKS & SPENCER

aims to become a zero-waste business by 2025, reporting zero operational waste and partnering with Oxfam and Woodland Trust to help customers divert all purchased products from landfill.¹⁰

OLAM

committed to zero waste to landfill and 100 per cent utilization of by-products in its operations by 2024. It uses waste by-products such as cocoa husks to power boilers, valorizes by-products through post-harvest crop loss reduction, and reviews product packaging. By 2019, 19 per cent of their power was generated by renewables or biomass.¹¹

NATURA

is working towards zero waste in their plants and distribution system, where waste generated is reused in production or becomes an input for other industrial/natural cycles. Their strategy also includes a reverse logistics system that by 2050 will collect and recycle more post-consumer waste material than is generated by their product packaging.¹²

Assessing Against the Benchmark

Performance on the benchmark, achieving zero waste to landfill and incineration, can be assessed in line with guidance provided by the United Nations Environment Program (UNEP), the World Bank and the US EPA. Industries have a range of waste reduction targets in line with various baselines specific to their waste outputs. Businesses which are not in line with achieving zero waste diverted to landfill or to incineration in the context of their industry by a 2030 horizon would fall under the benchmark.

Business Value

Achieving zero waste can have a significant impact on Greenhouse Gas (GHG) emissions and help companies save on disposal and treatment costs. Some industries, like construction, have seen cost savings of up to 40 per cent as a result of reducing their waste.¹³ Similarly, one automaker's waste initiative at a single plant resulted in \$1–2 million savings annually.¹⁴ Redirecting waste into recycling markets can also offer a potential revenue opportunity. In one example, a global apparel manufacturer repurposed scrap into flooring material now used in more than 10,000 real estate projects globally.¹⁵ Diverting waste from landfill and incineration is a proven means for business to enhance its sustainability credentials while equally observing direct business benefits.

PRELIMINARY ACTIONS

Assess current waste streams:

Determine the source, type, and amounts of waste generated to establish a baseline and identify areas of improvement. Sort waste streams by material type such as liquid, solid, organic, recyclable, or hazardous waste to determine the nature of their treatment and disposal.

Partnership Ecosystem Identification:

Identify key partners such as waste management and waste disposal companies that can serve as partners to achieve zero waste targets.

KEY RESOURCES

» **World Bank: What a Waste**

» **FAO State of Food & Agriculture**

» **Zero Waste International Alliance**

» **WHO**

» **WRAP**

INTEGRATION COMPLEXITY***Understanding Integration**

Stronger understanding of waste produced by business operations — what it is, where it comes from, where it ends up — leads to better elimination strategies. However, this level of visibility remains a significant challenge for many companies due to a lack of reliable, standardized data on waste flows. New digital technologies such as smart bins or live waste mapping can capture real-time, detailed data which can unlock opportunities for businesses to reduce, re-use and recycle previously discarded materials.

Illustrations of Integration**WASTE ANALYSIS**

Integrating digital tools enabled by technologies such as artificial intelligence (AI) and the internet of things (IoT) into core systems can accelerate waste reduction and cost-savings. IKEA UK, for example, employed an AI-enabled waste analysis tool from Winnow Solutions to monitor food waste in its store kitchens. This enabled IKEA to achieve a 50 per cent food waste reduction and save £1.4m in costs across IKEA's 23 UK stores.¹⁶

PARTNERSHIP INTEGRATION

Once a company understands their waste streams, the next step is identifying solutions for diversion. Cloud and AI enabled software can support this endeavor, automating the selection of recycling providers for specific materials and regions. Rubicon is a software company with a mission to use its cloud-based big data platform to end waste by helping companies realize the economic value in waste streams. The platform connects businesses of all sizes with waste management and recycling companies, resulting in higher landfill diversion rates, creative reuse of waste material, and enhanced insights from waste data.¹⁷

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

C-SUITE OWNERSHIP

Chief Operations Officer

Journey towards Integration

Companies should assess their existing processes for collecting waste data, as well as their ability to leverage digital technologies for advanced waste management. Engaging with technology partners on waste elimination, businesses can strive to achieve:

Advanced materials master data

Complete visibility of waste generation points, material attributes and existing waste-disposal processes to develop a zero waste strategy and action.

Zero-waste driven product innovation

Identification of opportunities to both design out waste in products as well as unlock new revenue streams through by-product innovation.

Streamlined ecosystem engagement

Integration of intelligent systems and shared platforms to interact seamlessly with waste management providers and the secondary materials marketplace.

18X

Globally, industrial waste generation is almost 18x higher than municipal waste produced¹⁸

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration.

» VIEW THE
INTEGRATION GUIDE

RAISING AMBITION



BUSINESS INTEGRATION

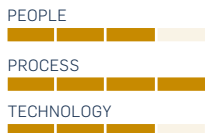
* All KPIs and metrics listed are directional, drawing on existing reporting standards. Each organization should adopt goal-setting measures aligned to their reporting methodologies and business context.

BUSINESS SYSTEMS DESIGN

How might you define specific waste attributes to support more granular measurement of waste streams?

KDD1

INTEGRATION COMPLEXITY



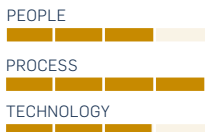
Tracking the volume of recyclables and waste hauled gives an understanding of how well a waste management program is performing, providing metrics on the amount of waste produced and the recycling rate. However, to gain insights on how to improve, a waste assessment is critical to develop a more robust understanding of your waste profile. A waste assessment will provide key data points, for example polymer type in plastic waste, to discover opportunities for waste reduction.

Using a waste assessment as the foundation, each type of waste can undergo a review of the attributes already tracked versus what is possible to capture via available tools. In this way, waste profiles can be improved upon to help leaders understand how to divert each waste type from landfill and incineration.

How might you automate data collection and manage digital chain of custody for waste recycling?

KDD2

INTEGRATION COMPLEXITY



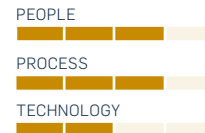
The monitoring of waste collection and disposal is a complex task. To simplify it, the use of certain technologies like Reverse Vending Machine (RVM), smart bins, or barcodes can be used to automate the process. It's crucial to integrate the data collected by partner waste management and recycling service providers into business systems. This allows you to understand material flows, costs and opportunities for resource recovery / diversion which can inform production and product design decisions.

Understanding some initial parameters like number of collection or disposal centers and the daily volumes and types of waste collected and disposed can give a better view to evaluate disposal options and to improve the process of waste management.

How might you facilitate the introduction of generated waste as a consumable or marketable product in your technology system(s)?

KDD3

INTEGRATION COMPLEXITY



Daily operations lead to generation of waste, but there are opportunities for these by-products to be put to use internally (e.g. recycled fibers as an input to a product line) or marketed and sold externally (e.g. organic waste sold as value-added compost). To accomplish this, systems must be designed with flexibility in order to allow for this reintroduction of products and by-products. In this way, after initial material consumption or use, the scrap product can be made available in the system for reuse elsewhere or to be sold.

Technologies such as remote monitoring sensors help to automate this data collection and guide decision-making on the pathway of a given material through a waste stream. Examining the feasibility of remote monitoring by product and waste stream will assist in prioritization of piloting a digital chain of custody solution.

- 1 National Overview: Materials, Wastes and Recycling, US Environmental Protection Agency
- 2 Guide for Industrial Waste Management, USEPA
- 3 What a Waste 2.0, World Bank, 2018
- 4 The Guardian
- 5 What a Waste 2.0, The World Bank, 2018
- 6 Ibid.
- 7 Waste: A Handbook for Management, 2011
- 8 Technical Platform on the Measurement and Reduction of Food Loss and Waste, UN Food and Agriculture Organisation
- 9 "Free returns come with an environmental cost," The Verge, 2019
- 10 Waste & Circular Economy, Marks & Spencer's
- 11 Olam Annual Report 2019, Olam
- 12 Natura
- 13 Assessing the costs and benefits of reducing waste in construction, WRAP
- 14 "The Zero Waste Factory," Scientific American, 2017
- 15 25 Years of Nike Grind, Nike
- 16 IKEA and Winnow are building the kitchen of the future, Winnow
- 17 The smartest way to manage waste, Rubicon
- 18 What a Waste 2.0, The World Bank, 2018

BENCHMARK

SCIENCE BASED EMISSIONS REDUCTION IN LINE WITH A 1.5°C PATHWAY



SDG IMPACT

3, 9, 12, 14, 15

TIMELINE

5–15 Years

SCOPE

☒ Operations☒ Products & Services☒ Value Chain

Benchmark Information

Adopting this benchmark helps business assess their operations against the latest climate science, the study of structures and dynamics of the Earth's climate systems, as outlined by the goals of the UNFCCC Paris Agreement¹ and validated by the Science Based Targets initiative (SBTi).² The SDG Ambition Benchmark on science-based emissions reduction in line with a 1.5°C pathway provides business critical strategic knowledge in setting a climate specific science-based target and the technical know-how in understanding the role systems play in measuring progress and performance. The SBTi has established a range of criteria to ensure alignment with scientific consensus on what is needed to halt global warming at 1.5°C. A science-based target is inclusive of Scope 1 and Scope 2 GHG emissions, with Scope 3 included dependent on industry and business model. Medium-term (5–15) year timelines are required and longer-term targets up to 2050 help to manage long-term risks and opportunities.³

Assessing Against the Benchmark

Performance on the benchmark — achieving an emissions reduction in line with a 1.5°C pathway — can be assessed in line with the United Nations Environment Programme assessment of reducing global emissions by 7.6 per cent annually until 2030. However, most companies today establish their own baseline reduction goals consistent with their strategy and operations. Targets will vary by company and must be validated by the SBTi for complying with a 1.5°C pathway. Businesses that have not established emissions reductions targets in line with 1.5°C pathway would fall below the SDG Ambition Benchmark.

BUSINESS IMPACT ON CLIMATE CHANGE

The private sector plays a key role in reducing emissions in line with climate science as 73 per cent of GHGs are produced by the energy sector alone, inclusive of manufacturing, transportation, generation and fugitive emissions.⁴ According to the 2020 UNGC Anniversary Report fewer than half (44 per cent) of companies presently report GHG emissions and other strategic climate change data.⁵

35% of cumulative global emissions come from just 20 companies⁶

90% of these emissions are attributed to use of fossil fuels⁷

20% increase in renewables for top multinationals would save 1 billion metric tons of GHG emissions⁸

5.5x emissions are from supply chain operations versus direct emissions⁹

ILLUSTRATIVE INDUSTRY IMPACT

Energy: Decarbonization of the energy sector is essential to reducing energy-related carbon emissions.¹⁰ One study found that 71% of global emissions can be linked to 100 energy companies.¹¹ Increased efficiency, adoption of renewables, carbon pricing, and carbon capture are among the many ways in which companies can contribute to the low-carbon energy transition.¹²

Industrial Goods: GHG emissions related to industrial processes account for about 5.5 per cent of global emissions, growing by 174 per cent between 1990–2020, primarily due to increased refrigeration and production of Hydrofluorocarbons (HFCs).¹³ Switching to low-carbon alternatives for use in industrial application could slow this growth trend.

COMPANIES TAKING ACTION

The Science Based Targets initiative (CDP, UN Global Compact, WRI and WWF) has been driving ambitious corporate climate action since 2015. As of September 2020, close to 1,000 companies are taking climate action aligned with the Paris Agreement, of which over 400 companies have approved science-based targets. The Business Ambition for 1.5°C campaign invites the most visionary leaders to commit their companies to set science-based targets aligned with a 1.5°C pathway in the lead up to COP 26. To date, close to 300 companies have committed and over 100 companies have 1.5°C approved targets.

ØRSTED

set a science-based target to reduce its GHG emission intensity from energy production by 96 per cent by 2023. Their approach focuses on building offshore windfarms and converting their power plants to biomass. They have reduced their coal consumption by 82 per cent since 2006 and their power plants will be coal-free by 2023.¹⁴

SALESFORCE

set a science-based target to reduce Scope 1, 2, and 3 emissions by 50 per cent by 2030 from a 2018 base year. Their environmental policy is focused on sourcing 100 per cent renewable energy for operations and working with vendors to set their own science-based targets, in support of becoming a net-zero GHG company.¹⁵

Business Value

By cutting emissions, switching to renewable energy, and enhancing energy management, companies can lower operational costs, as prices for fossil fuel alternatives continue to decline.¹⁶ 29 per cent of CEOs who report to have set science-based targets say it has enhanced bottom-line savings.¹⁷ Moreover, by investing in low-carbon products and services, companies can spur growth within their operations and help identify new product categories: 63 per cent of CEOs who report to have set science-based targets say it is driving innovation in their companies.¹⁸

KEY RESOURCES

» IPCC

» Business Ambition for 1.5°C

» Science Based Target initiative

» GHG Protocol

» The Climate Group

PRELIMINARY ACTIONS

Understand your GHG inventory:

Undertaking a GHG inventory will help identify the emissions caused by a given business process. The most commonly used international tool for quantifying emissions is the GHG Protocol.

Disclose your emissions: Disclosure in annual reporting or to cross-industry disclosure organizations like CDP holds companies and industries accountable to climate science.

Support low-carbon policy: Policies that advance low-carbon technology and the cessation of fossil fuel subsidies will be essential in moving the needle towards zero carbon. Making these efforts part of your advocacy work underscores commitment to science-based targets and can support implementation.

INTEGRATION COMPLEXITY***Understanding Integration**

Pursuing visibility over greenhouse gas (GHG) emissions across the value chain is key to informing low-carbon business models and product innovation. By leveraging digital technologies, such as the internet of things (IoT) and artificial intelligence (AI), companies can move from manual data entry to real-time monitoring and management of emissions sources. The World Economic Forum estimates that, when combined with other technologies such as 5G and AI, IoT could help cut global emissions by 15 per cent.

SBTi provides guidance and criteria for setting targets aligned with a 1.5°C pathway, as well as support for businesses to implement their target and report against it. SDG Ambition seeks to complement this guidance with a focus on designing business systems to advance the measurement and management of progress against a 1.5°C pathway.

Illustrations of Integration**MANUFACTURING**

Monitoring the energy consumption of equipment using IoT and sensors pinpoints inefficiencies to reduce the energy intensity of the production process. Smart manufacturing, for example, is estimated to enable \$11.9 billion in cost savings in 2030.¹⁹

PRODUCT USE

A deeper understanding of GHG emissions during the use phase enables product innovation to reduce lifecycle emissions. Unilever, after identifying 60 per cent of laundry detergent's emissions occur in use phase, launched new products which enable people to wash their clothes at lower temperatures reducing associated GHG emissions by up to 50 per cent per load.²⁰

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

** This technology is presented as an example and is not endorsed by SBTi.

C-SUITE OWNERSHIP

Chief Executive Officer

Journey towards Integration

The advancement of digital technologies has encouraged a growing market of solutions to support richer insights on a company's GHG emissions. Companies can work together with their technology partners to achieve outcomes such as:

Automated carbon accounting and real-time action

Leveraging digital tools to measure energy consumption across production in real-time and feeding that into carbon accounting calculations using advanced tools and algorithms. SAP Product Carbon Footprint Analytics, the first solution in their Climate 21 program, helps customers understand their carbon footprint and provides a foundation for analyzing and optimizing greenhouse gas emissions.**

Engagement and influence over suppliers and customers

Hardwiring GHG emissions reduction into material management and product innovation.

Real-time carbon pathway analysis

Creating analytics tools to intelligently and efficiently measure the business' carbon pathway to identify changing investment requirements and possible carbon reduction opportunities.

<25%

of companies report incorporating climate policy into overall company strategy²¹

67%

of companies reporting to CDP as having an emissions reduction target disclosed sufficient data²²

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration. It does not present criteria for setting an SBT.

» VIEW THE
INTEGRATION GUIDE



★ All KPIs and metrics listed are directional, drawing on existing reporting standards. Each organization should adopt goal-setting measures aligned to their reporting methodologies and business context. Note: Approach under consultation with Science Based Targets initiative to ensure alignment

BUSINESS SYSTEMS DESIGN

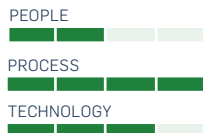
How might you automate data collection for emissions calculations?

Technologies such as IoT and sensors can be used to monitor GHG emissions in more efficient and impactful ways, from office energy use to smart manufacturing. Ericsson, in an effort to boost production efficiency at their Tallinn manufacturing site, implemented IoT, 5G and augmented reality to monitor the work environment and equipment. Not only did this enable a detailed sustainability impact analysis of the site, but also opened opportunities to increase efficiency by 25 per cent.²³

Intermediary steps can be taken to streamline emissions tracking, such as designing financial system to track energy consumption invoices and moving to smart energy meters.

KDD1

INTEGRATION COMPLEXITY



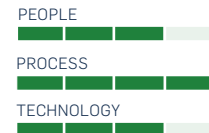
How might you accurately measure scope 3 emissions?

Calculating non-direct carbon emissions, such as product use and treatment at end of life, remains a complex task for companies. A first step involves defining the calculation method to estimate emissions, such as by leveraging sales records and survey data on consumer behaviors.

Companies should strive for more intelligent data collection and calculation by increasing data flows between businesses, products and customers. For example, one technology company uses IoT-connected printers to monitor customer consumption and automatically send ink when they are running low, illustrating the opportunities for deeper customer interaction.

KDD3

INTEGRATION COMPLEXITY



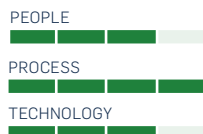
How might you integrate with suppliers to improve visibility and emissions performance?

Leading supplier management software tools support supplier emissions compliance and are able to integrate with third-party tools to collect, analyze and manage supplier sustainability data. Walmart, working to reduce one gigaton of greenhouse gases from their supply chain by 2030, encourages suppliers to participate in THESIS, a third-party program that benchmarks suppliers, tracks performance and identifies opportunities for improvement.²⁴

Companies of all sizes can embed requirements in the procurement process, striving for a chain of custody over carbon emissions where supplies you buy come with carbon data associated that can then be provided to customers. In the long-term, large organizations can strive to leverage blockchain or cloud technologies to automate this process.

KDD2

INTEGRATION COMPLEXITY



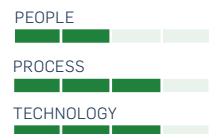
How might you effectively forecast emissions to optimize removal investment?

Companies can calculate their GHG emissions pathway to 2030 today using excel-based modelling tools provided by the SBTi (e.g. target-setting tool). Understanding the level of reductions needed to 2030 to align with a 1.5°C pathway is critical to strategic planning to achieve the benchmark. Scenario analysis, for example, enables companies to understand the risks associated with various GHG reduction scenarios, and test its investment opportunities against these scenarios to support capital allocation prioritization.²⁵

These tools often rely on manual data entry. Companies should engage their technology partners on the optimization and automation of scenario analysis, leveraging advanced analytics tools to provide real-time forecasts and opportunity identification.

KDD4

INTEGRATION COMPLEXITY



1 The United Nations Framework Convention on Climate Change, Paris Agreement (2016)

2 Science Based Targets, SBTi

3 Science-Based Target Setting Manual, SBTi

4 Global Emissions, Center for Climate and Energy Solutions

5 2020 UNGC Anniversary Report

6 Carbon majors, Climate Accountability Institute, 2019

7 Global Carbon Budget 2019, Global Carbon Project

8 Supply chains hold the key to one gigaton of emissions savings, finds new report, CDP, 2019

9 Ibid.

10 WRI

11 CDP Carbon Majors Report 2017

12 Energy transition, IRENA

13 Ibid.

14 Case study: Orsted, SBTi

15 Global Environmental Policy, Salesforce

16 Renewable Power Generation Costs in 2018, International Renewable Power Agency (IRENA)

17 SBTi

18 Six benefits of setting science-based targets, SBTi

19 ICT solutions for 21st Century Challenges, Global e-Sustainability Initiative

20 Our greenhouse gas footprint, Unilever

21 UN Global Compact 2019 Progress Report

22 Global Climate Analysis 2018, CDP

23 Future Smart Mining, AngloAmerican

24 Walmart Sustainability Index, The Sustainability Consortium

25 The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities, The Task Force on Climate-Related Financial Disclosures (TCFD)

BENCHMARK

100% RESOURCE RECOVERY, WITH ALL MATERIALS AND PRODUCTS RECOVERED AND RECYCLED OR REUSED AT END OF USE



SDG IMPACT

6, 9, 11, 12, 13, 15, 17

TIMELINE 2030

SCOPE

☐ Operations ☒ Products & Services ☒ Value Chain

Benchmark Information

This benchmark calls for extending responsibility over materials and products downstream in the value chain to ensure they are recovered and recycled or reused in practice. Companies can drive product and material recovery by introducing new circular business models and customer incentives (including product-as-a-service and takeback), building industry ecosystems for reverse logistics and secondary markets, and investing in new capabilities, such as asset tracking or material recycling. This benchmark applies to company products and services as well as the value chain. The timeline to achieve 100 per cent resource recovery is set by the Agenda for Sustainable Development as 2030.

Assessing Against the Benchmark

Performance against the benchmark — percentage of sustainable inputs by the year 2030 — can be assessed in line with the targets identified in SDGs 12 and 14, the Ocean Conservancy's Plastics Policy Playbook,¹ and the global Plastics Pact initiative.² Committing to this benchmark will support many SDGs, including Goal 14: Life Below Water. Businesses that have not established goals in line with achieving 100 per cent sustainable inputs by 2030 in line with Agenda 2030 would fall below the SDG Ambition Benchmark.

Illustrative Industry Impact

Technology & Telecommunications

50M tons of E-waste are created each year, valued at more than \$60B.³ A significant value opportunity can be captured from industry initiatives with the establishment of an efficient reverse-logistics infrastructure to enable takeback, reuse, refurbishment, and recycling.

Mining

More than 50 per cent of steel in the United States is recycled.⁴ Recovery, reprocessing and reuse of metals will have an impact in addition to the metals value chain as recovered materials increasingly become standard. Mining companies can use their smelting capacity to take on secondary materials and build better market and downstream collaboration.

BUSINESS IMPACT ON RESOURCE RECOVERY

Today, the majority of materials and products are not recovered, reused or recycled; instead, they are discarded. Globally, for example, 14 per cent of plastics are collected for recycling and only 2 per cent enter closed loop recycling streams. Large quantities of this packaging end up in the ocean; unless urgent action is taken, more than 250 million tons of plastic will be found in marine systems by 2025.

Models for extended material use and recovery also offer opportunities for business improvement. By some estimates, reuse as a pathway for raw material recovery could lead to savings as high as 25 to 50 per cent. The Ellen Macarthur Foundation (EMF) brings together business, innovators, cities and governments, universities, and thought leaders on circular economy topics. It counts over 130 companies as members.

20% of e-waste is reused or recycled appropriately⁵

1% of clothing is recycled back into clothing, 73 per cent goes to landfill⁶

\$600B projected size of reverse logistics market⁷

COMPANIES TAKING ACTION

VEOLIA

helps clients manage waste and recover value. 60 per cent of the company's circular economy revenue is attributed to recycling and material recovery. In partnership with Selfridges, a British department store, Veolia recycled fibers from used coffee cups into shopping bags, tripling recycle rates from 15 per cent to 55 per cent and reaching 100 per cent diversion from landfill.⁸

PHILIPS

is committed to fully close the loop on all large medical equipment systems, pledging to take back and re-purpose all the large medical systems that its customers are prepared to return to it. In 2019 Philips made 13% of all revenue from circular products and services.⁹

ARCELORMITTAL

runs a steel sheet pile rental service for their customers. The product retains its intrinsic properties for multiple uses and a single sheet pile can be re-used up to 10 times before being recycled.¹⁰

Business Value

Product as a service business models present an opportunity for increased revenue from new business models, accessing new customers and new markets. Resource recovery allows companies to reduce supplier costs over time. One global industrial company has preserved 170M pounds of materials through their component return and remanufacture initiative.¹¹ Many governments across the globe, including China and the European Union, are beginning to implement extended producer responsibility regulation; adopters of these practices will benefit from reduced risk of escalating costs in an evolving regulatory environment.

KEY RESOURCES

- » **Ocean Conservancy Plastics Policy Playbook**
- » **The Circular Economy Handbook**
- » **Ellen MacArthur Foundation**
- » **Platform for Accelerating the Circular Economy**
- » **World Resources Institute**

PRELIMINARY ACTIONS

Identify relevant methods of recovery:

Conduct a life cycle assessment to determine how materials and products can be recovered and whether reuse or recycling is most appropriate.

Data management and secondary

markets: Develop capabilities to collate the right data throughout the lifecycle of the product to introduce targeted interventions, understand additional materials and identify secondary markets.

Employee and consumer engagement:

Enhance awareness and knowledge about the value of "take-back" programs among consumers to increase effectiveness and among employees to structure within their performance metrics.

INTEGRATION COMPLEXITY*

Understanding Integration

In the linear economic model there has been limited pressure for companies in most industries to measure and track product and packaging after the point of sale. As companies embed the circular economy into core business strategy and culture, they must assess their material flows and how they can recover products to recapture value. In order to recover 100 per cent of the materials produced, leaders must innovate fundamentally new ways of doing business, leveraging technologies to enable new relationships with customers, partners and their products. New and promising applications of digital technologies, such as RFID, blockchain and digital twinning are enabling businesses to track materials after sale in ways previously not possible in business to consumer models. Matching raised ambition on resource recovery with increased innovation for new processes built on core business systems is key for providing the data flows that enable these new models and customer propositions.

Illustrations of Integration

CLOSED LOOP SUPPLY CHAINS

By designing systems that can support collection programs and reverse logistics processes companies can unlock opportunities to re-input materials from their products into their own supply chain, saving on both materials and costs. Apple uses its international Trade-In program to give new life to iPhones. Pursuing higher rates of resource recovery, Apple developed recycling robots Liam, Daisy and now Dave, to disassemble devices in order to recover precious metals that can then be used to manufacture new devices.¹²

DIGITAL TRACKING

Certain industries are seeing innovative applications of tracking technologies in order to trace materials following use. Start-up EON, for example, is working with leading brands in the fashion industry on The CircularID Protocol which gives every product a unique digital profile making it possible for companies to scale the reuse and recovery of products and materials.¹³

C-SUITE OWNERSHIP

Chief Innovation Officer

Journey towards Integration

Companies can engage with technology partners to design business systems that support data flows for materials after sale. In doing so, companies can achieve:

Designs for recyclability

Understanding specific requirements for recycling materials in products to inform product design decisions and increase resource recovery.

New customer propositions

Product-as-a-service and product-life-extension models rely on new interactions with the customer, underpinned by innovative systems of measuring and managing product use.

Reverse logistics

Building systems to underpin sophisticated networks of partners to collect products at end of life and return to facilities for resource recovery.

80-90%

reduction in raw materials can be achieved by extending the life of products across three industrial sectors in USA, China, Brazil and Germany¹⁴

2%

the current re-manufacturing share of production in the United States; just 1.9 per cent in Europe¹⁵

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration.

» VIEW THE
INTEGRATION GUIDE



* All KPIs and metrics listed are directional, drawing on existing reporting standards. Each organization should adopt goal-setting measures aligned to their reporting methodologies and business context.

100% RESOURCE RECOVERY, WITH ALL MATERIALS AND PRODUCTS RECOVERED AND RECYCLED OR REUSED AT END OF USE

BUSINESS SYSTEM DESIGN

How might you prioritize recyclability in product and packaging design and material selection?

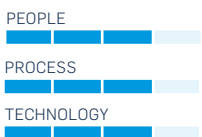
A number of factors impact the recoverability of a product such as material inputs, ease of disassembly, and existing recycling infrastructure.

To assess products and packaging for impact in view of resource recovery requires combinations of proprietary materials data and external data sources to be integrated into your internal corporate materials database. There are new, evolving tools which can support this, such as the Materials Circularity Indicator (MCI) tool developed by Ellen MacArthur Foundation and Granta Design.

Businesses should design core business systems — such as material management and product lifecycle management software — to integrate this data, tagging material and product attributes according to circularity. This enables the prioritization of certain materials and designs, as well as the ability to set targets and criteria for resource recovery.

KDD1

INTEGRATION COMPLEXITY



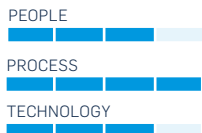
How might resource recovery be embedded into customer propositions?

Resource recovery depends on business models that allow for outputs to return to the company for reuse. Companies can strive for innovation in their product and service offerings by incorporating technologies focused on visibility of material use after the point of sale. New opportunities to enable data flows between supplier and customer, through innovations such as connected devices, can support companies as they strive to recover materials or prolong product lifecycles.

Caterpillar, for example, has developed maintenance technology which enables their customers to monitor equipment health and performance. The technology automatically identifies potential problems and can connect customers with local dealers for servicing. This, in partnership with other offerings around repair and remanufacture, enables the extension of product life-cycles, while cutting costs for the customer and opening revenue streams.¹⁶

KDD2

INTEGRATION COMPLEXITY



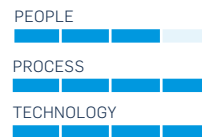
How might you enable the highest value re-capture from material recovery and recycling?

To make resource recovery possible for many materials, companies need to build a network across the value chain that can support reverse material flows as well as sorting and processing for recycling. Some companies may be able to call on their current software solutions to support this. For example, returns management company ZigZag added "TakeBack" functionality to their platform enabling fashion retailers to offer recycling and resale options for returns.¹⁷

Beyond customer returns, crucial barriers to resource recovery exist in systems to sort and process materials for recycling. Jaguar Land Rover is investing in the circular economy through its "REALITY" project, partnering with Axiom to integrate advanced sensor technology into a closed loop process that enables aluminium from scrap vehicles to be re-introduced into the production line.¹⁸ Companies should aspire to design systems that can manage these partnerships and new processes for material recovery, gaining a greater understanding of the resources they recover from products and how they can optimize their re-introduction into the value chain.

KDD3

INTEGRATION COMPLEXITY



1 Plastics Policy Playbook, Ocean Conservancy, 2019

2 Plastics Pact, Ellen MacArthur Foundation

3 No Time to E-Waste, Accenture, 2020

4 Why Scrap Metal Recyclers Need to Know Their Steels, ThermoFisher Scientific, 2016

5 New Plastics Economy, Ellen MacArthur Foundation, 2016

6 The Future of Circular Fashion, Accenture and Fashion for Good, 2019

7 Reverse Logistics: Reverse Logistics Market, Allied Market Research, 2017

8 Helping Selfridges realise their ambition to treat waste as a resource, Veolia

9 <https://www.philips.com/a-w/about/sustainability/sustainable-planet/circular-economy.html>

10 Circular Economy, ArcelorMittal

11 "Moving mountains for Earth's sake at Caterpillar," Greenbiz, 2013

12 A planet-size plan, Apple

13 CircularID Protocol, Eon

14 Re-defining Value - The Manufacturing Revolution, UNEP International Resource Panel

15 Ibid

16 <https://www.macallister.com/technology-and-equipment-maintenance/>

17 <https://www.zigzag.global/about-us/sustainability/>

18 <https://media.jaguarlandrover.com/news/2020/08/jaguar-land-rover-upcycles-aluminium-cut-carbon-emissions-quarter>

BENCHMARK

LAND DEGRADATION NEUTRALITY INCLUDING ZERO DEFORESTATION

**SDG IMPACT**

3, 6, 9, 12, 13

TIMELINE 2030**SCOPE**☒ Operations☒ Products & Services☒ Value Chain

Benchmark Information

This benchmark — land degradation neutrality including zero deforestation — promotes land preservation practices to counter the impact of their business activities. Land degradation neutrality (LDN) is defined as “a state whereby the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems.”¹ Zero deforestation principles allow for conversion of forests at an equal area of replantation. The benchmark helps businesses maintain or enhance their land-based natural capital and its associated ecosystem services.

Deforestation threatens the survival of over 80 per cent of all terrestrial species of flora and fauna in forests while also contributing as much as 15 per cent of global CO₂ emissions.² The benchmark encourages business to map their land impact and leverage innovative practices to curb land and habitat loss as a direct result of business activity in operations, products and services, and along the value chain. The timeline to achieve land degradation neutrality including zero deforestation is set by the Agenda for Sustainable Development as 2030.

BUSINESS IMPACT ON DEFORESTATION

While natural causes such as wildfires and small-scale firewood collection play a part in the overall loss, business activity is the top contributor to deforestation and associated land and habitat loss. In fact, deforestation is accelerating in many regions. Multiple initiatives are working in partnership with the private sector to combat land degradation. The Roundtable on Sustainable Palm Oil has more than 4,000 members working to develop global standards for palm oil cultivation; which led to the loss of 31 million hectares of forests in 2016 in Indonesia alone.³ Similarly, 12 forestry-centric companies, together with the World Business Council for Sustainable Development (WBCSD), launched Forest Solutions Group, a global platform for the forest sector value chain.

7K M² of tree cover are lost each second, nearly 25M hectares each year⁴

8% of global emissions currently come from tree cover loss in tropical forests; these same forests can provide 23 per cent of climate mitigation needed before 2030⁵

75B tons of soil are lost from arable land each year and an estimated \$400 billion in agricultural production is lost⁶

Illustrative Industry Impact

Agriculture: Agricultural production accounts for 80 per cent of tropical and subtropical deforestation.⁷ To safeguard existing forests, companies need to develop alternative means of agricultural production, increase efficiency and run compliance programs across their supply chains that involve small producers, local communities, and other stakeholders.

Mining: Mining-related forest loss caused roughly 10 per cent of all Amazon deforestation between 2005 and 2015, with deforestation often occurring off-site to enable construction of related infrastructure.⁸ Mining companies operating in forested regions should commit to eliminating deforestation and adapting techniques such as forest landscape restoration to lessen the impact of their operations.

COMPANIES TAKING ACTION

NATURA

plans to source 30 per cent of all their raw materials sustainably from the Amazon rainforest by 2020. It also seeks to generate R\$1 billion of revenue in the region by the end of 2020. Natura developed an inclusive business model for a range of its products that leverages traditional community knowledge to put into practice the valorisation of biodiversity assets whilst preserving natural capital.⁹

L'ORÉAL

set a zero-deforestation target in 2014 with the goal of 100 per cent of soy and palm oil supply free of deforestation by the end of 2020. L'Oreal publishes regular progress reports with relevant milestones and developed a proprietary tool to evaluate refineries and crushers.¹⁰

TESCO

committed to net-zero deforestation sourcing of agricultural raw materials by 2025. They implemented a zero deforestation Soy Transition Plan to ensure that soy used as animal feed in the UK supply chain meets verified zero deforestation criteria.¹¹

Assessing Against the Benchmark

Performance on the benchmark — achieving land degradation neutrality including zero deforestation by 2030 — can be assessed in line with guidance provided by the United Nations Convention to Combat Desertification (UNCCD), the sole legally binding international agreement linking environment and development to sustainable land management.¹² Few businesses today — just 21 per cent — have prioritized SDG 15, “Life on Land” in their sustainability strategy¹³ despite sustainable forestry management and soil health or regenerative management practices being critical to business. Businesses that are not currently on track to achieve land degradation neutrality including zero deforestation by 2030 would fall under the SDG Ambition Benchmark.

Business Value

Participation in initiatives such as Zero Deforestation Zones could reduce monitoring costs and enable premium pricing for companies along the supply chain.¹⁴ Working towards zero deforestation can also reduce the risk of penalties and fines. In 2018, one South American country levied \$29 million in fines for various deforestation offences.¹⁵ Additionally, according to CDP, up to \$906 billion in annual corporate turnover is at risk because of deforestation.¹⁶

PRELIMINARY ACTIONS

Mapping business activities and monitoring forest deforestation and land degradation: Identify the commodities used in your operations and the extent of their impact on deforestation for the entire supply chain. Identify and classify the areas in which the deforestation is occurring, for example as high or low-risk regions.

Use certifications as frameworks: Determine the various legal and other certifications such as FSC and PEFC that the company would benefit from and use the metrics of those certifications as frameworks to develop your target. Companies can connect the goals of zero deforestation with the overall climate goals of the company.

KEY RESOURCES

- » **WWF**
- » **WRI Global Forest Watch**
- » **Forest Stewardship Council**
- » **FAO**

INTEGRATION COMPLEXITY***Understanding Integration**

Despite increased attention from leading companies to land and forest impacts, there has been limited integration of these commitments into systems and decision making due to two key factors.¹⁷ Firstly, complex and opaque global supply chains means companies have not been able to extend impact to suppliers. The OECD found that 63 per cent of suppliers do not have a deforestation policy, with this rising to 83 per cent amongst companies who control land. The result is a lack of visibility of land impacts in the value chain as organizations do not know the farmers they source from, much less the impact they have on land. This creates the second challenge: that businesses are not incorporating the financial risks associated with land degradation into core decision-making. Land degradation is not typically considered a commercial priority, yet among respondents to CDP's forest disclosure in 2018, 15 per cent of company revenue is dependent on forest risk commodities such as cattle, palm oil and soy.¹⁸

Companies must therefore pursue a better understanding of their land impact to account for the risks and opportunities it presents. Technologies including remote sensing tools offer new opportunities to better monitor and manage land impact. Business can design their core systems to integrate these tools to factor land impact into decision-making.

Illustrations of Integration**SUPPLY CHAIN TRACEABILITY**

Satellite and geospatial mapping, paired with machine learning and analytics, are increasingly used to trace suppliers and areas of activity, enabling the collection of land data in remote areas. Publicly available platforms such as Trends.Earth; Farm-trace; and Global Forest Watch leverage these technologies to provide companies, NGOs and governments with data on land impact to inform supplier engagement strategies. Partnerships such as the SUSTAIN consortium use distributed ledger technologies to address commodity-level supply chain challenges.¹⁹

C-SUITE OWNERSHIP

Chief Operations Officer / Chief Procurement Officer

Journey towards Integration

Engaging with technology partners, businesses can integrate these technologies to accurately measure land impact, enabling:

Supplier improvement

Pinpointing supplier risks through geospatial tools highlights areas of risk and targets improvement decision-making.

Long-term cost analysis

Land impact data enables integration of risk and cost analysis into product decisions.

Measurement of positive impact

Enhanced ability to assess current state of business land impact and then changes through avoidance, prevention or restoration initiatives.

77%

of 1,500 companies active in commodities such as timber, palm oil, cattle and soy do not disclose their impact on global forest loss.²¹

MEASURING RESTORATION

Effective restoration strategies require accurate and up-to-date information regarding land health and progress over long periods of time. Mining company Anglo American partnered with Emapper, a technology company that uses drones to photograph land and artificial intelligence to analyze the environmental conditions. This has enabled them to undertake landscape scale assessments of erosion, weed invasion and plant cover more safely, cheaply and quickly, resulting in the development of detailed rehabilitation plans for their mine sites.²⁰

* See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

SDG AMBITION APPROACH

Example detail below follows the approach outlined in the SDG Ambition Integration Guide and supports ideation for benchmark integration.

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INTEGRATION GUIDE



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BUSINESS SYSTEM DESIGN

How might you integrate advanced technologies and third party data sets to understand and monitor land impacts?

Systems based on historical data and imagery, such as geographical information system (GIS) and remote sensing (RS), can help measure land degradation over time by tracking indicators such as soil health. This offers deep insight into the land properties and the change over time in areas of business activity.

By understanding what land data is available in the public sphere as well as private sector solutions, companies can make informed decisions about how to source and compile the outstanding data needs. Understanding these technologies is also useful when determining setup of data collection focused on the company's own land use; the ability to connect a public data set with internal information on operations will support subsequent efforts to understand the company's impact.

KDD1

INTEGRATION COMPLEXITY



How might you integrate with suppliers and third-parties to ensure traceability of land impacts in your supply chain?

Understanding and improving your suppliers land impacts is crucial to achieving this benchmark. Internal processes can be defined for the suppliers for the provision of the land impact data. While transitioning suppliers to sharing increased information may take time, publicly available data can be used as a starting point or proxy.

Digital tools from third-parties, such as the World Resources Institute (WRI) and World Wildlife Fund (WWF), can support companies in assessing risks for land impact in supply chains, enabling alerts for companies. Companies themselves can then employ and integrate GIS and RS to conduct digital audits, holding suppliers to account and creating as complete a picture of their land impacts as possible.

KDD3

INTEGRATION COMPLEXITY



How might you integrate land impact considerations into all aspects of the business?

Land impact assessments are a way for businesses to drive more sustainable decision-making. Life cycle assessments (LCAs) and Material Flow Analysis are two examples of a methodology for performing a land impact assessment, with the goal of eliminating negative impacts through land considerations being embedded in planning processes.

Analytics-enabled software tools streamline these assessments and enable them for large data sets. Integrating these into core systems enables the consideration of these attributes alongside other business measure of success. This allows leaders to understand the costs and benefits of shifting a process to be less land intensive, or to identify a previously unconsidered positive impact of a land-related decision.

KDD2

INTEGRATION COMPLEXITY



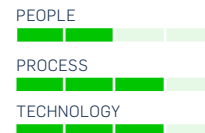
How might you evaluate opportunities for restoration and use advanced technologies to monitor progress?

Achieving land degradation neutrality requires maintenance or enhancement of land in use. However, opportunities for restoration of land already impacted by business activity is crucial for many industries including energy, agriculture and mining.

Creating a comprehensive picture of your current state allows companies to strategically plan for restoration, providing a platform to then monitor progress on key restoration programs. Capabilities in GIS or drone imaging for assessment and traceability can be utilized to monitor progress on an on-going basis.

KDD4

INTEGRATION COMPLEXITY



- 1 UN Convention to Combat Desertification
- 2 Deforestation and Forest Degradation, World Wildlife Fund
- 3 Cutting Deforestation Out of Palm Oil: Company Scorecard, Greenpeace, 2016
- 4 Tree Loss, Bloomberg, 2019
- 5 By the Numbers: The Value of Tropical

- 6 Forests in the Climate Change Equation, World Resources Institute, 2018
- 7 Global Soil Partnership, FAO
- 8 Yale University Global Forest Atlas
- 9 New Amazon threat? Deforestation from mining, Gund Institute for Environment,
- 10 Natura

- 10 Achieving zero deforestation, L'Oreal
- 11 Tesco announces its plan for zero deforestation soy, Consumer Goods Forum, 2018
- 12 UN Convention to Combat Desertification
- 13 Deforestation: A business-critical issue for the world's biggest buyers, CDP, 2017
- 14 Zero Deforestation Zones, Journal of Sustainable Forestry, 2015
- 15 "\$29 million deforestation fines: game changer for Brazilian soy trade?" Mongabay, 2018

- 16 Deforestation: A business-critical issue for the world's biggest buyers, CDP, 2017
- 17 Nearly 450 companies pledged to end deforestation by 2020.
- 18 The Money Trees: The role of corporate action in the fight against deforestation, CDP, 2019
- 19 Sustainability Assurance & Innovation Alliance
- 20 Anglo American Sustainability Report 2019
- 21 The Money Trees, CDP, 2019

BENCHMARK

ZERO INCIDENCES OF BRIBERY



SDG IMPACT

Cross-cutting

TIMELINE 2030

SCOPE

☐ Operations ☐ Products & Services ☐ Value Chain

Benchmark Information

The zero incidences of bribery benchmark helps organizations eradicate and prevent instances of corruption and bribery, including any behaviors that abuse entrusted power for private gain. The benchmark helps address practices that raise compliance and reputational risks, reduce overall consumer trust and impact the bottom line.¹ In addition to strict policies and procedures, management systems calibrated to identify and prevent corruption can greatly reduce overall incidents of bribery. At a minimum, companies must set targets to eradicate incidents of bribery within their direct operations as soon as possible with longer-term goals to target incidents of bribery across the value chain by 2030.

Corruption encompasses a wide range of activities that includes bribery as an important subset. In addition to impeding economic growth as well as distorting market competition, bribery has a disproportionate impact on individuals in poor communities who pay as high as 13 per cent of their income in bribes according to the World Bank.²

Illustrative Industry Impact

Infrastructure and Construction:

The infrastructure and real-estate industry could lose over \$6 trillion between 2020–2030 due to incidents of corruption, including bribery.³ Global construction output is expected to grow to approximately \$17.5 trillion annually by the year 2030, indicating corruption losses could total about 34 per cent of growth in that period.

Financial Services:

In the decade since the financial crisis, banks have paid more than \$300 billion in fines, regulatory settlements and associated legal costs: more than 40 per cent of their “pre loss” earnings. While many institutions have focused on building a tightly controlled compliance culture since, companies need to invest more in the drivers of ethical and responsible decision-making to prevent future ethical lapses.

BUSINESS IMPACT ON BRIBERY

The UN Global Compact has nearly a decade of experience in Anti-Corruption Collective Action. The 10th Principle of the UN Global Compact commits business to work against corruption in all its forms, including extortion and bribery. Companies must join Governments, the UN, civil society and other relevant stakeholders to realize a bribery-free and more transparent global economy through collective action. In 2019 with funding from the Siemens Integrity Initiative, the UN Global Compact launched the four-year project Scaling up Anti-Corruption Collective Action within Global Compact Local Networks to support collective actions from Global Compact Local Networks and promote public-private cooperation in fighting corruption.

\$3.6T lost to bribes and stolen money annually⁴

-12% in zero-tolerance corruption policies to 51 per cent among UNGC participants from 2018–2019⁵

43/100 the average country score across 180 nations on the Corruption Perceptions Index⁶

COMPANIES TAKING ACTION

Companies who wish to address bribery can do so through establishing, implementing, and enforcing robust policies. Putting policies in place helps companies to proactively address bribery.

MICROSOFT

Invested in on-premise and cloud-based data analytic solutions that use advanced statistics and artificial intelligence to create an early warning and monitoring system for corruption risks. Its goal is to identify and review sales transactions and third parties that create the highest bribery and corruption risk and provide additional oversight of these transactions and representatives.⁷

3M

Prohibits bribery and corruption across its operations. Their Anti-Bribery Principle complies with all global anti-bribery laws globally and is applicable to company employees as well as third party employees acting on their behalf. As a member of the UNGC Working Group on the 10th Principle⁸ 3M has voluntarily disclosed internal investigations of possible violations to enhance their anti-corruption compliance program.⁹

Assessing Against the Benchmark

Performance on the benchmark — achieving zero incidences of bribery — can be assessed in line with the objectives of the United Nations Convention against Corruption (2005), the UN Global Compact's 10th Principle and OECD's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. Research by the UN Global Compact indicates that only 25 per cent of companies conduct anti-corruption assessments today.¹⁰ Forensic data analytics can help improve the detection and investigation of bribery incidents, along with identifying gaps in internal controls. Businesses that have not established clear whistleblower protections, independent due diligence mechanisms, transparent contracting procedure or identified systems opportunities to combat bribery by 2030 would fall below the SDG Ambition Benchmark.

Business Value

In addition to exacerbating social inequalities, cases of bribery tarnish brand image. A study of 25,000 global consumers found that, of customers who switched companies in the past year, 46 per cent did so because they lost trust in the company.¹¹ Ethical conduct can also save expenditure on settlements and penalties: In 2019, a global retailer paid nearly \$300 million in fines in the United States for allegedly allowing subsidiaries to employ third-party intermediaries who paid bribes.¹²

PRELIMINARY ACTIONS

Demonstrate commitment by establishing strong policies: Set a zero-tolerance policy against the use of manipulation, illegal conduct (e.g. bribery, misrepresentation) and establish corrective procedures for such conduct to show employers, suppliers, and customers that you have a zero-tolerance policy. Employee and business partner training on policies is imperative.

Establish anti-bribery management systems: Develop robust systems based on a properly documented bribery risk assessment, reviewed on a regular basis and designed to prevent and detect bribery risk to the company.

Implement standardized and automatic procedures: Establish automated employee background clearance including immigration or visa status and past criminal records. Develop standardized models or guidelines (e.g. licenses and contract terms).

KEY RESOURCES

- » [UNGC Anti-corruption](#)
- » [UNGC Anti-corruption risk assessment](#)
- » [OECD Anti-corruption and Integrity Hub](#)

INTEGRATION COMPLEXITY***Understanding Integration**

To achieve the ambitious benchmark of zero bribery, companies must rigorously manage the risks and occurrences of bribery across employee and business partner activity. By transitioning to real-time monitoring and alerts of bribery risks, companies can advance management and prevention efforts in pursuit of the zero incidents goal. Technologies such as artificial intelligence, blockchain and analytics can help identify, predict and prevent these breaches by increasing the availability and analysis of large volumes of data connected to an organization's transactions, region, pricing patterns and supplier credentials.¹³ More companies are capitalizing on these technologies, with 84 per cent of respondents to AlixPartners 2019 Anticorruption Survey reporting that they monitor suspicious behavior in real time, up approximately 15 per cent over the prior year.¹⁴

Illustrations of Integration**REAL-TIME MONITORING**

Monitoring and tracking analytics tools can enable real-time management of bribery. These forensic tools go beyond flagging compliance breaches (such as building risk reports and collating audits trails) to actively identifying anomalies in historical and pending transactions. Third-party tools such as the Corruption Perception Index can assist this mapping by providing scores for regions with higher risks of bribery.¹⁵ Platform solutions such as SAP ARIBA can support businesses in prioritizing suppliers which practice ethical trading standards including anti-bribery regulations.¹⁶

ADAPTIVE LEARNING AND IMPROVED SENSITIZATION

When it comes to bribery, the costs of poor training are high. Forbes estimates that 10 per cent of all corporate learning is effective.¹⁷ Companies can improve learning among employees by leveraging intelligent learning systems that encourage engagement with training and which provide insights into existing levels of employee comprehension.

*See more in SDG Ambition Integration Guide chapter on **Preparing for Integration**

C-SUITE OWNERSHIP**Chief Compliance Officer****Journey towards Integration**

The development of technological solutions in curbing corruption and bribery has empowered companies to track instances predictively and in real-time rather than only identifying breaches retrospectively. In collaboration with technology partners, companies can strengthen:

Automation of risk monitoring and predictive action

Risk analytics can be automated to flag types of transactions such as payments to public officials, suppliers, and frequency in high-risk regions with pattern recognition and machine learning capabilities to bolster risk comprehension.

Employee engagement

Central learning systems can track and encourage employee engagement with anti-bribery training programs, while also deriving key insights from employee interaction to develop future modules.

Continuous learning

Ability to reframe anti-bribery and corruption policies, disciplinary procedures, and whistleblower protections based on data driven insights from digital monitoring and workforce ethics assessments.

90%

of matters alleging bribery in the United States are related to the use of third-party intermediaries.¹⁸

SDG AMBITION APPROACH

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» VIEW THE
INTEGRATION GUIDE



BUSINESS INTEGRATION

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BUSINESS SYSTEM DESIGN

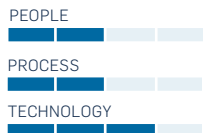
How might you leverage your compliance risk data to automate the flagging and escalation of potential instances of bribery?

Operating in a global environment and with a high volume of daily transactions, automation of compliance monitoring can help ease the burden of manual inquiries, which can enable your business to proactively perform due diligence on transactions, partnerships or agreements that are flagged as high risk. This automated monitoring can equip your anti-bribery team with relevant data elements to support their investigation into potential bribery cases. Continuous monitoring solutions can process large volumes of expenses and accounts payable, flagging transactions where a vendor may be on a sanctioned list or transactions in high risk countries.

In instances where an organization may not be equipped to build, manage and apply their own anti-bribery risk catalog, third-party solutions are available that can provide varying degrees of analysis and monitoring based on an organization's specific needs.

KDD1

INTEGRATION COMPLEXITY



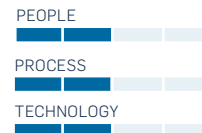
How might you automate your learning management system in assigning anti-bribery training and tracking completions?

A critical component to any anti-corruption program is proper communication and training of all members of an organization, including board members. These anti-bribery trainings should have completion deadlines and reporting solutions put in place to provide real-time visibility into training completion compliance.

When building and maintaining anti-bribery training internally is not an option, there are numerous third-party providers that provide up-to-date interactive training content, as well as self-assessment and self-declaration tools. Content from such providers can be accessed via software-as-a-service solutions or integrated with an organization's existing learning management system.

KDD2

INTEGRATION COMPLEXITY

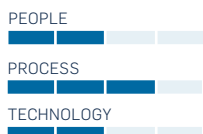


How might you leverage data related to recorded instances of bribery to better prevent future occurrences?

As an organization monitors and investigates potential instances of bribery, an informational feedback loop should be built into key systems. When instances of bribery or non-compliance are identified, machine learning can be used to identify trends and contributing factors, which then can be used to strengthen the risk catalog or identify additional needs regarding training and sensitization. In this way, an organization can design for continuous improvement and better enhance their monitoring capabilities to proactively identify and stop potential instances of bribery.

KDD3

INTEGRATION COMPLEXITY



- 1 The Bottom Line on Trust, Accenture, 2018
- 2 Combatting Corruption, World Bank, 2018
- 3 Corruption in construction, IGC, 2016
- 4 Corruption is costing the global economy \$3.6 trillion dollars every year, World Economic Forum, 2018
- 5 2019 UNGC Progress Report, UN Global Compact
- 6 Corruption Perceptions Index 2019, Transparency International
- 7 Our commitment to anti-corruption, Microsoft
- 8 Working together to prevent corruption, 3M, 2020
- 9 "3M Probes Potential FCPA Violations in China," The Wall Street Journal, 2019
- 10 UN Global Compact Anniversary Report, 2020
- 11 The Bottom Line on Trust, Accenture, 2018
- 12 "Walmart to pay \$283 mn fine in US over bribery charges in India, other countries," Mint, 2019
- 13 Four ways to use data analytics to identify corruption red flags, Tableau, 2019
- 14 2019 Global Anticorruption Survey, Alix Partners
- 15 2019 Corruption Perceptions Index, Transparency International
- 16 Supplier management: Made Simple with Software and Solutions, SAP
- 17 "Companies waste billions of dollars on ineffective corporate training," Forbes, 2016
- 18 Foreign Corrupt Practices Act Clearinghouse, Stanford Law School