



ESG Metrics for Mobile

Realising value for society through common industry KPIs

June 2022





The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

We invite you to find out more at [gsma.com](https://www.gsma.com).

Follow the GSMA on Twitter: [@GSMA](https://twitter.com/GSMA)



EY | Building a better working world

EY exists to build a better working world, helping create long-term value for clients, people and society and build trust in the capital markets.

Sustainability is one of the defining issues of our time and taking a lead on climate change is a vital element of building a better working world.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

[ey.com/en_uk/tmt](https://www.ey.com/en_uk/tmt)

[ey.com/en_uk/climate-change-sustainability-services](https://www.ey.com/en_uk/climate-change-sustainability-services)

Advisor:



EY authors:

Praveen Shankar, Barend van Bergen, Greg Sumner, Adrian Baschnonga, Matt Wilson, Vibh Bhatia, Rachel Fisch

Acknowledgements

We would like to thank the following organisations for the contributions they have made to the development of the industry KPIs and this publication:

Mobile operators:

- Airtel
- América Móvil
- Deutsche Telekom
- Globe
- Millicom
- MTN
- MTS
- Orange
- Safaricom
- Singtel
- STC
- Telefónica
- Telenor
- Tele2
- Telia
- Telstra
- TIM
- VEON
- Vodafone
- Zain

External experts:

- ESG Book
- FCLTGlobal
- International Telecommunication Union (ITU)
- Refinitiv
- Threefold Sustainability
- United Nations Development Programme (UNDP)
- Value Balancing Alliance
- World Benchmarking Alliance
- World Economic Forum

Contents

Foreword	5
Executive summary	6
Introduction	8
The value of the industry KPIs	12
The industry ESG framework	16
ESG KPIs for the mobile industry	18
Category 1: Environment	19
Category 2: Digital inclusion	24
Category 3: Digital integrity	27
Category 4: Supply chain	30
Next steps	32
Appendix: Detailed guidance on the industry KPIs	35

Foreword

As the mobile industry strives to ‘Connect Everyone and Everything to a Better Future’, mobile operators across the world are deploying the networks and connected solutions that help address the needs of society and the planet. Integrating purpose into core business requires the industry to consider its impact on stakeholders and society, and to understand which are the most pressing sustainability issues that should be prioritised.

The GSMA plays a critical role in driving forward these efforts by providing member CEOs and their teams with tools and guidance to raise responsible business practice and leadership in their organisations. This work took a critical step forward in early 2021, when the GSMA convened mobile operators and other industry stakeholders to map the environment, social and governance (ESG) reporting ecosystem and identify the related topics that are most material for the industry. This initiative had one ambitious aim: to build early consensus on how mobile operators can best measure and demonstrate their value to society and impact on the planet.

To demonstrate progress on efforts made, measurement is key. The GSMA and EY worked collaboratively with GSMA members to develop, for the first time, a harmonised set of ESG key performance indicators (KPIs) and metrics. A forum was created where operators from across the globe could share and discuss their perspectives on which ESG-related indicators were most impactful, decision-useful, and feasible to implement. In-depth interviews and consultations with mobile operators, intergovernmental organisations, standard setters, subject matter experts and investors were conducted to solicit advice.

These efforts have resulted in an initial proposal of 10 core industry-specific and actionable KPIs. We believe they offer an important starting point for driving consistency and comparability across the industry, providing stakeholders with the opportunity to better understand how the industry generates value for society. They will enable operators to take a more proactive position in providing relevant material disclosures, and provide the tools and setting for both data preparers and data users to have a more enhanced and constructive dialogue on ESG performance. By using them, mobile operators will generate insights that can support internal decision-making, fact-based stakeholder dialogue, communicate progress towards ESG goals and help build trust with customers. We hope these KPIs will have a positive impact for the industry and move the dial.

We would like to thank the mobile operator representatives who contributed to the development of the industry KPIs, and for the commitment and spirit of collaboration they and their talented teams have brought to this project. We also appreciate the perspectives shared by investors and subject matter experts, as well as global standard setters who have provided input and advice. In the coming months, we look forward to soliciting additional feedback from stakeholders, and are ready to support companies as they test the integration of the KPIs into their ESG reporting cycles.



John Giusti
Chief Regulatory Officer, GSMA



Praveen Shankar
EY Managing Partner & UKI Technology,
Media and Telco (TMT) Sector Leader

Executive summary

There is a critical need for more effective and consistent approaches to measuring and communicating ESG performance

Sustainability is one of the defining issues of our generation. Consumers, employees and regulators are increasingly vocal regarding their expectations for companies to act responsibly and to demonstrate how they create value to society. EY research has found that 90 per cent of investors attach greater importance to companies' ESG performance when it comes to their investment strategy and decision making than they did before the global pandemic.¹ Mobile operators recognise that, by placing greater focus on their ESG performance, they can build stronger relationships with stakeholders and create financial value.

As ESG is increasingly becoming a decision component of asset allocation there is a growing attention on reporting which is currently complex, fragmented and not necessarily aligned to the impact of the industry.

However, the existence of around 600 global ESG reporting standards and what has long been described as an “alphabet soup” of standard-setters, has contributed to fragmentation and an increasing reporting burden on companies.

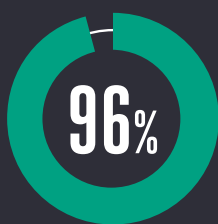
Many operators find it challenging to fully report the information deemed to be material by the sector and its stakeholders, and data collection and reporting processes can be cumbersome and labour-intensive. This is hindering meaningful action and transformation, as well as limiting the industry's ability to fully demonstrate its value to society.

Mobile operators currently report on most of the industry's key topics, but not always in a consistent way

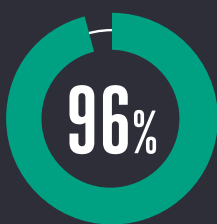
A review of the ESG data in 25 leading mobile operators' sustainability or integrated reports found that nearly all provide information on material topics such as greenhouse gas emissions, energy consumption, digital inclusion and waste management.

However, operators do not always report on these topics in a way that is consistent, limiting the industry's ability to fully demonstrate their value to society. The industry KPIs are designed to address this challenge.

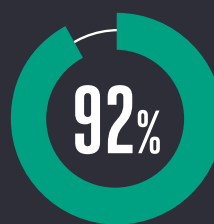
% of mobile operators reporting on the following topics²:



Scope 1 and 2 emissions



energy consumption



digital inclusion initiatives



waste management



Scope 3 emissions



renewable energy consumption



affordability of devices or data plans



e-waste management

1. 'Sixth global institutional investor survey', EY, 2021

2. Included in this analysis are the 25 GSMA Board Members elected for the 2021-2022 term, who reflect the largest operator groups as well as smaller independent operators with global representation.

Our proposed industry KPIs are designed to enhance consistency and impact

Through consultations and workshops with mobile operators, industry stakeholders and subject matter experts, a set of 10 core KPIs has been proposed for the mobile industry. They are designed to complement and build on the disclosures that many operators are already making through universal reporting frameworks, and they align to existing standards, guidance and methodologies where possible. This includes those established by the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB). Aligning the KPIs to established standards and guidance will streamline and improve consistency in reporting, and ease internal adoption.

The industry KPIs are organised into four categories:

1. Environment
2. Digital inclusion
3. Digital integrity
4. Supply chain

They have been selected on the basis that they are comparable, will be relatively easy to introduce now, are meaningful to external stakeholders, and are useful for internal decision-makers. The KPIs provide a lens through which companies can identify and manage emerging opportunities and risk, while demonstrating to stakeholders how their corporate purpose is brought to life. Furthermore, the framework creates an opportunity for the industry to amplify its environmental and social impact by aligning operators around the same ‘north star’ KPIs.

The mobile industry can use the proposed KPIs to measure and improve ESG performance

The progress made to date is an important step forward in establishing common KPIs that allow mobile operators to measure and improve their ESG performance. The proposed core set of KPIs will evolve as they are tested by mobile operators, as ESG strategies mature and as global reporting requirements evolve. Mobile operators and industry experts also agree that “aspirational” metrics with a sharper focus on impact can — and must — be incorporated into the reporting framework in the coming years to help drive even more significant outcomes for business, the economy, society and the planet.

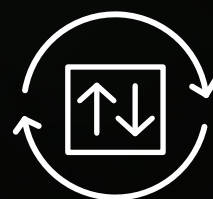
An open consultation period, ending September 2022, will provide an opportunity for operators, ESG and industry stakeholders, and subject matter experts to further assess and validate the KPIs and the reporting processes underpinning them.

In parallel, there are three critical steps that mobile operators and their stakeholders can take to raise awareness and ensure adoption of the industry ESG framework. First, align their leadership and organisation to the KPI framework. Second, engage in ongoing dialogues with the investment community and other external stakeholders. And third, adopt the KPIs in future reporting, measure your performance and deliver improvements.



To provide feedback in the open consultation, or for more information on this initiative, go to [gsma.com/betterfuture/esg](https://www.gsma.com/betterfuture/esg)

Introduction



Attitudes towards ESG are shifting

The global COVID-19 pandemic, climate crisis and ongoing disruptions to supply chains have brought into focus the critical role the private sector must play to mitigate global temperature rise, drive socio-economic inclusion, and accelerate rates of productivity and innovation. Consumers and employees are increasingly vocal about the need for companies to act responsibly, and are more interrogating of the measures they take to do so. The investor imperative is also clear: approximately

9 in 10 investors surveyed by EY in the wake of the pandemic said that they are now attaching greater importance to companies' ESG performance in their investment strategies, and that strong ESG performance now has a significant and direct impact on analyst recommendations.³ Companies, meanwhile, increasingly recognise that they can build resilience and drive long-term value creation by maintaining a focus on ESG and addressing global challenges such as climate change.



3. 'Sixth global institutional investor survey', EY, 2021
 4. 'Long-Term Value and Corporate Governance Survey', EY, February 2022

Mobile operators are uniquely placed to accelerate progress on a range of ESG issues

As with other sectors, the mobile industry is expected to respond to more demanding stakeholder expectations. This year, for the first time, poor management of the sustainability agenda appears in EY's report, *The top 10 risks in telecommunications*, ranking fifth, reflecting its growing prominence.⁵ High energy consumption acts as an impediment to many operators' net-zero ambitions, and future business growth will be linked to operators' ability to address challenges related to digital exclusion, data privacy and circularity.

However, there is evidence that mobile operators are a force for ESG improvements not only within their own industry but also across the entire economic ecosystem. A shift towards energy-efficient networks and sustainable business practices is taking place, and

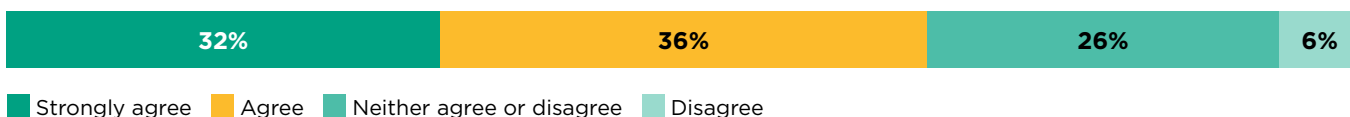
digital connectivity is transforming access to healthcare, education and financial services. Meanwhile, mobile is enabling carbon reductions across society of at least 10 times the industry's emissions.⁶ By first addressing and disclosing their own organisation's ESG impacts, risks and opportunities, mobile operators will be well positioned to enable ESG solutions for their customers.

With the advancement of 5G, enterprises are more receptive than ever to mobile-enabled use cases that can help them meet their sustainability needs. Ultimately, mobile operators' unparalleled touchpoints with billions of consumers puts them in a unique position to help drive greater levels of social inclusion, economic participation and environmental sustainability.

Almost 70% of executives cite growing interest in using 5G and IoT to meet sustainability goals

Source: Reimagining industry futures study, EY, 2022

Statement: "My organisation is more interested than before in 5G and IoT use cases that can help it meet its sustainability goals."

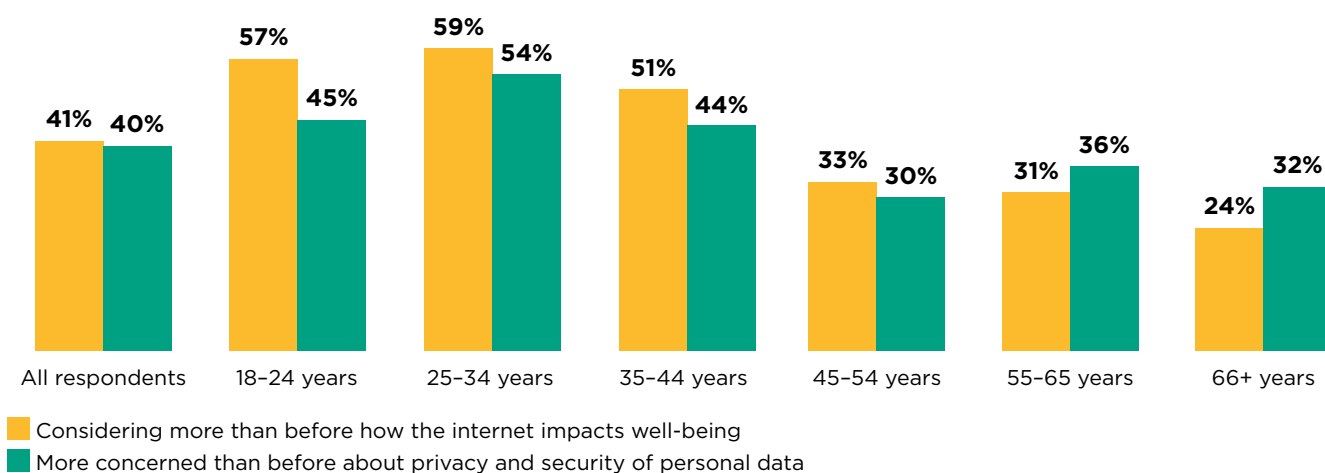


The global COVID-19 pandemic has seen mobile operators act as a lifeline during periods of national lockdown. Indeed, mobile operators' progress on social issues has been led by concerted efforts to bridge the digital divide. Yet the nature of the ESG challenge is changing. Greater reliance on online

services is partnered by greater levels of anxiety regarding digital safety and well-being. EY research, for example, shows four in 10 consumers are more worried than before about the privacy and security of their personal data, with concern highest among younger users.⁷

Consumer attitudes to online well-being and safety since the global COVID-19 pandemic

Source: Sixth global institutional investor survey, EY, 2021



5. 'TMT's dual role in building a sustainable future', EY, 2022
 6. 'The enablement effect', GSMA, 2019
 7. 'Sixth global institutional investor survey', EY, 2021



Measuring and communicating ESG performance is critical

These trends underline that digital inclusion, well-being and privacy are often interrelated issues. Even for consumers within range of high-speed networks, issues of affordability, digital skills and online trust can present significant obstacles to service adoption. Furthermore, supply chains require additional focus with electronic waste, human rights, labour practices and greenhouse gas (GHG) emissions in mind, underlining the importance of ESG strategies that consider supplier and partner ecosystems.

With these complex forces in play, the industry's ability to effectively measure and communicate progress is more important than ever before.

Of investors surveyed by EY, 89 per cent said they would like to see reporting of ESG performance measures against a set of globally consistent standards become a mandatory requirement.⁸

There is a clear opportunity for the industry to take a leadership position in this space by aligning behind a core set of KPIs that will maximise ESG performance and bring consistency and comparability to sustainability reporting.

8. 'Sixth global institutional investor survey', EY, 2021

The value of the industry KPIs



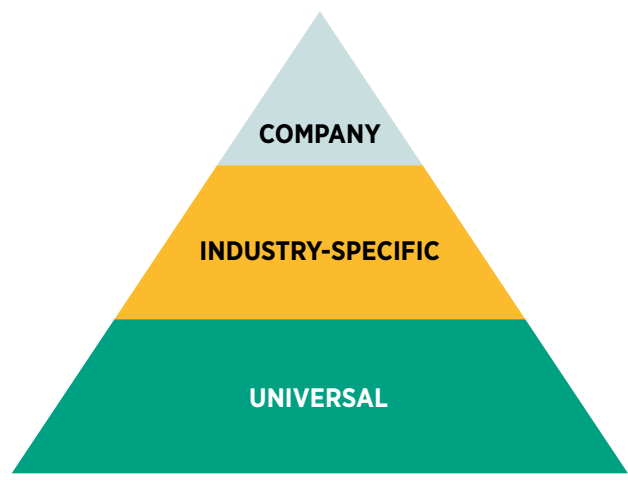
The value of aligned, industry-specific ESG KPIs

Investors and other stakeholders expect mobile operators to report ESG data that can be used to make informed decisions about material sustainability-related risks and opportunities. Meaningful disclosures will require operators to report against three “tiers” of ESG metrics: universal, industry-specific (which is the focus of this paper) and company-specific.

that allows for greater comparability and consistency of reporting across global standards.

This, in turn, will create an opportunity for companies across all sectors and geographies to benchmark their progress, improve decision making and accountability, and increase trust.

The three tiers of ESG reporting



In the last two years, momentum towards the harmonisation of universal standards has accelerated. The International Sustainability Standards Board (ISSB), launched in November 2021 at COP26, aims to provide a comprehensive, global sustainability reporting baseline

The ISSB will consolidate and build on existing frameworks, standards and guidance rather than create something new. In addition to the ISSB, the European Commission and the U.S. Securities and Exchange Commission (SEC) have taken steps to develop regional reporting solutions in recent months.

To start on the path towards meaningful disclosures, mobile operators can consider the universal metrics which were prioritised by the World Economic Forum. The Stakeholder Capitalism Metrics were developed in consultation with more than 200 companies, investors and other key players. They are organised under four pillars — Principles of Governance, Planet, People and Prosperity — and have been drawn wherever possible from existing standards and disclosures, with the aim of amplifying the rigorous work already done by standard setters. The metrics have been selected for their universality across industries and business models, but the intention is not to replace relevant sector- and company-specific indicators.



Building upon universal ESG reporting






The Stakeholder Capitalism Metrics are well positioned to form mobile operators' foundational tier of ESG reporting, as they encompass many of the topics operators have agreed are material to the industry. This includes, for instance, critical issues such as diversity and inclusion, business ethics, employee health and safety, social investments and tax transparency. Mobile operators can report material information through as many of the metrics as they find relevant and appropriate, based on a "disclose or explain" approach.

Industry-specific KPIs form the second tier of ESG reporting. The proposed set of 10 core KPIs is not intended to replace universal metrics; rather, it is designed to complement and build on them in ways that will allow stakeholders to better assess the extent to which the mobile industry is creating value for society. The KPIs are organised under four categories: environment, digital inclusion, digital integrity and supply chain. Where possible the metrics align to, or are adapted from, international reporting frameworks and existing standards. As with universal frameworks, companies are encouraged to report against as many of the core industry KPIs as they find material and appropriate.



KPI criteria and overview

During the consultation process, five criteria were used to define the minimum requirements that a sector KPI should meet:

<h1>1</h1>	<h1>2</h1>	<h1>3</h1>	<h1>4</h1>	<h1>5</h1>
Meaningful for stakeholders	Decision-useful	Comparable	Feasible	Best indicator
The KPI will influence the assessments and decisions of external stakeholders, including investors.	The KPI will influence internal decision making and convey information to the mobile operator that can substantively enhance the company's ability to create value.	The KPI will enable meaningful peer-to-peer comparisons across geographies, and the definitions and calculation methods are transferable to most companies.	The KPI can be implemented by the company. It is simple and short, aligns to existing standards where possible, and uses standardised measurements. The underlying methods and approaches are robust and follow accepted approaches.	For the given topic, the KPI represents the best indicator of the company's ability to create value in the short, medium and long term.
				

The proposed KPIs include those that are more established and focus on enterprise value, such as emissions and energy consumption. These types of metrics will be the focus of the global reporting baseline established by the ISSB. Alongside of these are broader stakeholder KPIs that, in many cases, are less mature and tested, and which focus on stakeholder value. This includes, for instance, device and subscription affordability and digital skills training. As operators begin to measure and improve their performance against the industry KPIs, they will help generate evidence that a company's future prospects and financial performance will increasingly be determined by the value it delivers to all of its stakeholders — including shareholders, employees, customers and society as a whole.

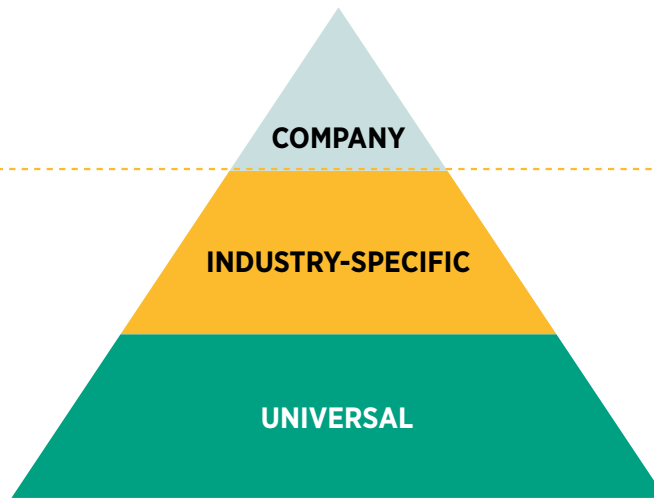
Where possible, the KPIs use a denominator such as “per 1GB of data” or ‘per million subscribers’ to make the data more comparable between operators. The denominators were chosen through consultation with mobile operators and may

change over time. It is recognised that global comparisons for some of the KPIs will be constrained by contextual factors such as electric grid reliability, GDP per capita, regulatory environments and infrastructure costs. Operators could enable more meaningful disclosures by reporting at the country or regional level. Supporting narrative can also be used to provide data users with the contextual information they need to understand why some markets will seem to outperform others against individual KPIs.

In addition to the core KPIs that are feasible and impactful to implement now, operators and industry experts suggest that additional “aspirational” metrics can — and must — be incorporated into the reporting framework in the coming years to help drive even more significant outcomes for business, the economy, society and the planet. Suggestions for aspirational metrics are therefore included for each KPI category, but are not yet included as part of the core KPIs.

The industry ESG framework

Two tiers of ESG reporting



The World Economic Forum's Stakeholder Capital Metrics cover many of the issues that are material to the mobile industry. The proposed set of 10 core KPIs are designed to complement these universal metrics and form the important, industry-specific layer of ESG reporting.

Mobile industry KPIs

	ENVIRONMENT	DIGITAL INCLUSION	DIGITAL INTEGRITY	SUPPLY CHAIN
INDUSTRY-SPECIFIC	Emissions ♦ Science-based targets » Scope 1, 2 and 3 emissions	Network coverage » Population covered by mobile network	Data protection » Customer data incidents	Sustainable supply chain ♦ Sustainable procurement policy » Supplier assessments
	Energy » Energy consumption	Affordability » Device and subscription affordability	Digital rights ♦ Digital rights policy	
	Waste reduction » Materials repaired/reused » Waste generated » Materials recycled	Digital skills » Digital skills programmes	Online safety ♦ Online safety measures	♦ Yes/no questions » KPIs

Stakeholder Capitalism Metrics Themes

	PLANET	PROSPERITY	PRINCIPLES OF GOVERNANCE	PEOPLE
UNIVERSAL	<ul style="list-style-type: none"> Climate change (GHG emissions and TCFD implementation) Nature loss Fresh water availability 	<ul style="list-style-type: none"> Employment and wealth generation Innovation of better products and services Community and social vitality 	<ul style="list-style-type: none"> Governing purpose Quality of governing body Stakeholder engagement Ethical behaviour Risk and opportunity oversight 	<ul style="list-style-type: none"> Dignity and equality Health and well-being Skills for the future

Benefits to the industry and stakeholders

The KPIs demonstrate the value that can be created when an industry comes together to collectively identify the ESG issues that are most material to their sector and align on a common set of indicators. They will allow investors to gain access to a much deeper level of comparability and understanding of the industry’s nuances and contexts, and will also create opportunities for the industry to demonstrate its environmental and social impact in a more consistent manner.

Taken together, the universal and industry-specific KPIs will help create less burdensome and more meaningful data collection and reporting processes, and provide greater consistency in the information disclosed about operators’ ESG performance. This will enable operators to take a proactive position in providing relevant material disclosures, and supply the tools and setting for data preparers and data users to have a more enhanced and constructive dialogue on ESG performance.

Operators involved in the development of the framework also indicated that the metrics would help them generate insights that can be applied to decision making, fact-based stakeholder dialogues and client development. The four most compelling use cases for the industry KPIs, according to operators are:

1. Inform decision making

Support strategic investment, inform capital allocation, identify new business opportunities and target efforts in the right areas to move the dial.

2. Support fact-based stakeholder dialogues

Support dialogue with external stakeholders, investors, analysts and policymakers on the industry’s impact and progress on ESG.

3. Underpin the sustainability/ESG narrative

Drive the sustainability and ESG narrative presented to investors and other key stakeholders (e.g., board members and employees) by articulating how the company’s purpose is integrated into core business.

4. Strengthened client and customer relationships

Build recognition and trust with clients and customers, improve brand loyalty and reduce churn.



ESG KPIs for the mobile industry



Category 1: Environment



Mobile operators' impact on the planet is primarily driven by energy-intensive network infrastructure and a growing volume of electronic waste, particularly from consumer devices. As the environmental impacts of mobile operations and services become more visible to investors, regulators and consumers, the business risk associated with failing to demonstrate a good understanding of, and response to, these challenges will be amplified.⁹

The mobile industry is already taking steps to decarbonise, including the accounting and granular reporting of GHG emissions, implementing energy-efficiency programmes and promoting circularity.¹⁰ The KPIs in this category aim to complement the disclosures found in universal frameworks and improve comparability across the industry through the reporting of intensity metrics. For consistency, all environment KPIs use "gigabyte (GB) of data" as a denominator. This follows guidance received from mobile operators as well as an analysis of 25 mobile operators' sustainability reports, which founds that data is the most common denominator when reporting emissions and energy intensity. Guidance on the calculation of the intensity metrics may evolve over time as the KPIs are tested.

Environment KPI use cases

Feedback from mobile operators suggests that reporting against the environment KPIs will help inform internal decision making, including how to set decarbonisation strategies or how to allocate capital to improve energy efficiency. Disclosures related to emissions and energy will also provide a foundation for strategic dialogues with external stakeholders such as investors, regulators and policymakers, which will ultimately create wider industry and societal change. Operators also concluded that the KPIs associated with waste reduction would be particularly helpful in underpinning their ESG narrative, reinforcing the organisation's stated mission and purpose to investors, employees and customers.



9. 'Measuring stakeholder capitalism: towards common metrics and consistent reporting of sustainable value creation', World Economic Forum, 2020
 10. 'Climate action handbook', GSMA, 2019

Environment topics

Emissions

In 2020, the ICT industry took an unprecedented step forward in tackling climate change, with the release of the first-ever science-based pathway to reduce GHG emissions across the telecoms sector. The new science-based target (SBT) includes emissions reductions trajectories designed to help operators meet the ambitious Paris Agreement goal of limiting global warming to 1.5°C by 2030.

Today, 48 operator groups representing 62 per cent of the global mobile industry by revenue connections are already committed to SBTs.

Many mobile operators prepare corporate-level GHG emissions inventories and are seeking to improve their ability to accurately measure and track GHG emissions across their entire operations.¹¹ The industry KPIs ask operators to disclose their total Scope 1, 2 and 3 emissions in line with universal standards, in addition to the change in emissions from the previous reporting period. The complementary emissions intensity KPI has been designed to build on this information by enhancing comparability across the sector.

Although challenges remain in the accurate and consistent quantification of Scope 3 emissions, operators should strive to report against as many categories as possible. This is particularly important given that a high proportion of operators' emissions sit within this category. An analysis of 25 operators' ESG reports found that more than half are currently reporting against nine or more of the 15 categories. The GSMA is working with operators to develop guidance on measuring Scope 3 emissions, with an aim to create an agreed approach across the mobile sector on how to measure each of the 15 Scope 3 emissions categories.

In time, there will be an opportunity to establish "enablement" KPIs that allow operators to measure the industry's positive impact on other sectors' decarbonisation efforts. Many of the mobile technologies that can enable a transition to a low-carbon economy already exist and can enable sectors to decarbonise in a faster, yet methodical and sustainable, manner.¹²



Energy

Energy usage has a measurable impact on both the environment and operators' balance sheets:

Energy costs currently account for between 15 per cent and 40 per cent of operators' annual operating expenditure (opex) and are subject to rising prices.¹³

Although network equipment and data centres are becoming more energy-efficient, mobile operators' overall energy consumption is set to increase as infrastructure expands, networks are upgraded to 4G and 5G, and data traffic increases.

Companies that improve the energy-efficiency of their operations are likely to see cost savings and higher profit margins. A focus on the amount of energy consumed across the network, and a breakdown of the network energy mix (renewable vs. non-renewable) by location (grid vs. off-grid), will allow operators to target where efficiencies can be made. The intensity measure will also provide comparability between operators, although geographical differences will have to be considered by data users.

For instance, many countries in low- and middle-income countries (LMICs) will not have enabling policies or regulatory frameworks in place that incentivise corporate power purchase agreements (PPAs), which often improve the economics of renewable energy usage for operators. In these locations, emissions from diesel generators used to power mobile towers may continue to account for a small but significant percentage of operators' energy mix.

11. 'Mobile Net Zero — State of the Industry on Climate Action', GSMA, 2021

12. 'The enablement effect', GSMA, 2019

13. 'Mobile Net Zero — State of the Industry on Climate Action', GSMA, 2021

Environment topics

Waste reduction

As networks continue to be upgraded, and as connected equipment and devices become more ubiquitous, the risks associated with mismanaged waste will grow.

Electronic waste (or e-waste) is one of the fastest-growing waste streams in the world.

In response, many jurisdictions have implemented e-waste recycling laws mandating that both electronics retailers and manufacturers create a system for the recycling, reuse or proper disposal of waste.

A deeper understanding of how equipment and devices move into and out of the organisation can help provide a holistic overview of waste generation and its causes, which in turn can support the organisation in identifying opportunities within its entire value chain for waste prevention and the adoption of circularity measures. The illustration below, created by the GSMA through consultation with its members, shows a hierarchy of waste management actions. The industry KPIs prioritise those that are towards the top of the hierarchy. These create the lowest environmental impact by avoiding the creation

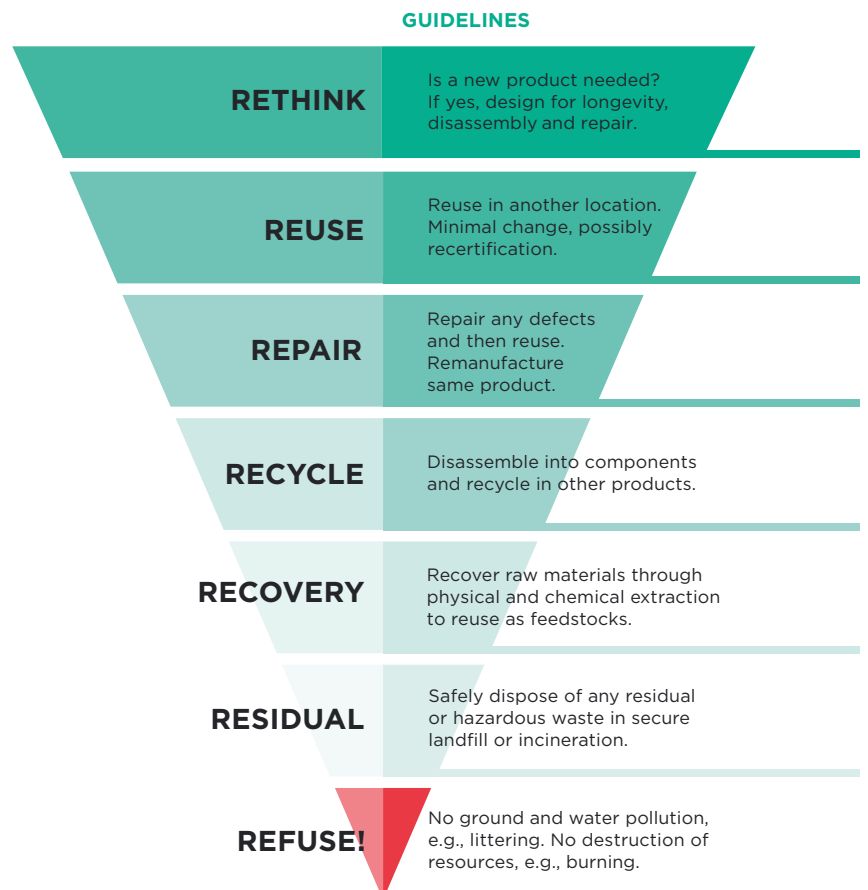
of new goods and repurposing existing goods and components so they can have new uses.

Actions towards the bottom require more energy and resource use, so should be used only as a last resort when options higher up have been explored.

Extending equipment lifetime could be preferable from a life cycle perspective for some products, as has been explored in the GSMA Strategy Paper for Circular Economy: Network Equipment.¹⁴ In the future, aspirational KPIs could be developed to measure the extent to which consumer devices are designed with repairability and recyclability in mind. The Ellen MacArthur Foundation has developed circularity indicators which disclose the extent to which products use recycled or reused materials, the durability of products, how much material goes to landfill, and the efficiency of recycling practices.¹⁵ Eco Rating can also be used to evaluate the environmental impact of the entire process of production, transportation, use and disposal of mobile phones.¹⁶ There are also opportunities to explore enablement metrics that help to measure the industry's impact on other sectors' waste reduction efforts.

Waste hierarchy

Source: Strategy Paper for Circular Economy — Network Equipment, GSMA, 2022



14. 'Strategy paper for circular economy: network equipment', GSMA, 2022

15. See: ellenmacarthurfoundation.org

16. See: ecoratingdevices.com

Environment KPIs

Topic	Core metrics	KPI code	Alignment
Emissions	<p><u>Science-based targets</u></p> <p>1.1 Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement – to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C – and to achieve net-zero emissions before 2050.</p>	GSMA-ENV-01	Stakeholder Capitalism Metrics; TCFD Recommendations; CDSB R01, R02, R03, R04 and R06; SASB 110; SBTs initiative
	<p><u>Scope 1, 2 and 3 emissions</u></p> <p>1.2a Scope 1 and 2 GHG emissions</p> <ul style="list-style-type: none"> i. Absolute Scope 1 and 2 emissions (tonnes CO₂e) ii. Absolute Scope 1 and 2 emissions (tonnes CO₂e) per 1GB data iii. Percentage change in absolute Scope 1 and 2 emissions since last reporting period <p>1.2b Scope 3 GHG emissions</p> <ul style="list-style-type: none"> i. Absolute Scope 3 emissions (tonnes CO₂e) ii. Absolute Scope 3 emissions (tonnes CO₂e) per 1GB data iii. Percentage change in absolute Scope 3 emissions since last reporting period 	GSMA-ENV-02	GRI 305:1-3, TCFD, GHG Protocol (modified)
Energy	<p><u>Energy consumption</u></p> <p>1.3a Total energy consumption</p> <ul style="list-style-type: none"> i. Total energy consumed (MWh) ii. Total energy consumed (MWh) per 1GB of data <p>1.3b Network energy consumption</p> <ul style="list-style-type: none"> i. Total network energy consumed (MWh) ii. Total network energy consumed (MWh) per 1GB of data <p>1.3c Network energy mix</p> <ul style="list-style-type: none"> i. Percentage grid renewable ii. Percentage grid non-renewable iii. Percentage off-grid renewable iv. Percentage off-grid non-renewable 	GSMA-ENV-03	GRI 302-1; SASB TC-TL-130a.1 (modified)

Environment KPIs

Topic	Core metrics	KPI code	Alignment
Waste reduction	<p><u>Materials repaired or reused</u></p> <p>1.4a Network equipment repaired or reused</p> <ul style="list-style-type: none"> i. Percentage of network equipment repaired or reused, by units ii. Percentage of network equipment repaired or reused, by purchase price <p>1.4b Handsets and other customer premises equipment (CPE) repaired or reused</p> <ul style="list-style-type: none"> i. Percentage of handsets and CPE repaired or reused, by units ii. Percentage of handsets and CPE repaired or reused, by purchase price 	GSMA-ENV-04	SASB TC-TL-440a.1 (modified)
	<p><u>Waste generated</u></p> <p>1.5a Total waste generated (tonnes) per 1GB of data</p> <p>1.5b Network waste (tonnes) per 1GB of data</p> <p>1.5c Handset and other CPE waste (tonnes) per 1GB of data</p> <p>1.5d All other waste (tonnes) per 1GB of data</p>		
	<p><u>Materials recycled</u></p> <p>1.6a Network waste recycled</p> <ul style="list-style-type: none"> i. Percentage of network waste (from 1.5b) recycled (units) ii. Percentage of purchase price of recycled network waste <p>1.6b Handset and CPE waste recycled</p> <ul style="list-style-type: none"> i. Percentage of handset and CPE waste (from 1.5c) recycled (units) ii. Percentage of purchase price of recycled handset and CPE waste <p>1.6c All other waste recycled</p> <ul style="list-style-type: none"> i. Percentage of all other waste (from 1.6d) recycled (units) ii. Percentage of purchase price of all other recycled waste 	GSMA-ENV-06	SASB TC-TL-440a.1 (modified)

Category 2: Digital inclusion



Digital inclusion is a key topic for the sector, and an area where mobile operators have the ability to make tangible impact and support in bridging the “digital divide”. Digital connectivity has never been more important — it is the lifeline by which we communicate with friends, family and colleagues. Its critical role has become even more apparent since the COVID-19 pandemic, enabling societal well-being and the continued functioning of our economy during a period characterised by physical isolation.¹⁷

Global network coverage continues to grow, with 94 per cent of the world’s population covered by mobile broadband networks.¹⁸ However, a lack of literacy and digital skills, as well as device and data affordability, remains a key barrier to mobile internet adoption for millions of underserved consumers. In line with the mobile industry’s purpose of connecting everyone and everything to a better future, targeted action must be taken to address barriers to digital inclusion and to ensure consumers are able to use the internet and gain access to life- and livelihood-enhancing services. A common set of digital inclusion KPIs will be critical to achieving this ambition.

Digital inclusion KPI use cases

Operators agreed that strategic dialogues with external stakeholders, such as investors, regulators and policymakers, could be further enhanced by providing a clear understanding of what “digital inclusion” means and the absence of an industry-wide value generation story. Reporting progress against the core KPIs will help operators demonstrate the effort being made to reach underserved and vulnerable segments of the population, while simultaneously building brand recognition and trust with clients and customers.



17. ‘Reset or level up. How can Gigabit Britain deliver for all? Digital connectivity to stimulate the UK’s recovery in 2021’, EY, 2020
 18. ‘The state of mobile internet connectivity report’, GSMA, 2021

Digital inclusion topics

Network coverage

Mobile connectivity requires continuous investment by operators to meet the growing demand for mobile services from businesses and consumers. Measuring population coverage provides a good approximation of the availability of mobile broadband (defined as 3G and above) in both urban and rural settings, and, over time, the breakdown of coverage between 3G, 4G and 5G will allow stakeholders to track operators' ability to roll out network upgrades.

Beyond this KPI, operators may consider reporting against more dynamic indicators, such as year-on-year improvements in network coverage. As most urban and peri-urban areas are now covered by mobile networks, this indicator would provide a good proxy for network expansion in less densely populated areas where underserved customers are typically located. Operators can also help measure progress in closing the internet usage gap by disclosing the percentage of their total customers who purchase data, and the amount of data used monthly by the average customer.

Affordability

Affordable internet-enabled handsets and data are critical to increase demand for mobile internet services, including in markets where pre-paid plans remain dominant.

Once users become comfortable with consuming data on smart phones and smart feature phones, their needs often shift towards more data-intensive services.¹⁹ While the cost of entry-level internet-enabled handsets has decreased in more than half of LMICs and the cost of data has continued to decline, affordability remains a significant barrier for the poorest individuals.²⁰

Disclosing the cost of data and the most affordable smartphone, as a percentage of monthly GDP per capita, will help internal decision makers and other stakeholders evaluate the extent to which affordability is limiting access to mobile broadband services. To ensure that the KPI is as transparent and comparable as possible, the KPIs use a "basket" approach to look at the cheapest way a consumer can access 1GB of data per month from the operator. This is in line with the GSMA's affordability methodology.²¹

Operators wishing to go beyond this metric might consider comparing their disclosure with the Broadband Commission's affordability target, which aims to make entry-level broadband services less than 2 per cent of monthly income per capita by 2025. In countries where the average income masks deep income inequality, operators could also look at affordability in each country for the poorest fifth of the population, using income distribution data sourced from the World Bank.²²

Digital skills training

Digital skills underpin nearly every aspect of modern work and life, particularly in the post-pandemic world.

Operators that implement comprehensive digital skills training strategies ensure their customers and communities have the skills they need to be more employable, productive, creative and successful while enabling them to be safe and secure when online.

The industry KPI asks operators to report against the number of people (external to the company) who have completed any form of basic, intermediate or advanced digital skills training, as defined in the ITU's Digital Skills Toolkit.²³ Dividing the total number of beneficiaries by the operator's total customer base will allow for more meaningful comparisons across the sector.

As this KPI is output-focused rather than impact-focused, in the future, operators engaging in digital skills training could also consider how to measure the outcomes the training programmes have produced. This could include, for example, higher usage of mobile internet or other digital services, demonstratable skills improvements or improved income generation.

19. 'Accelerating affordable smartphone ownership in emerging markets – RFI', GSMA, 2019

20. 'The state of mobile internet connectivity report', GSMA, 2021

21. *ibid*

22. *ibid*

23. 'Digital skills toolkit', ITU, 2018

Digital inclusion KPIs

Topic	Core metrics: prosperity	KPI code	Alignment
Network coverage	<p><u>Population covered by mobile network</u></p> <p>2.1 Percentage of population covered by operator's mobile network Breakdown by: 3G, 4G, 5G</p>	GSMA-INC-01	ITU Indicator 2.6
Affordability	<p><u>Device and subscription affordability</u></p> <p>2.2a Cost of the most affordable smartphone, as percentage of monthly GDP per capita</p> <p>2.2b Average cost of 1GB of data, as percentage of monthly GDP per capita</p>	GSMA-INC-02	GSMA Methodology
Digital skills	<p><u>Digital skills programmes</u></p> <p>2.3 Number of people (excluding employees) who have completed a basic, intermediate or advanced digital skills training programme (as per ITU definition), divided by total subscribers</p>	GSMA-INC-03	ITU Digital Skills Toolkit



Category 3: Digital integrity



As mobile services become increasingly ingrained in our social, economic and professional lives, there is a corresponding need to ensure that consumers can use these services safely and securely. The mobile sector has a key role to play in both support evolving digital needs and addressing anxiety around data protection and digital well-being. If consumers cannot trust the integrity of mobile services, or worry that their personal data or information may not be protected, they are much less likely to use them.

Digital integrity KPI use cases

Unsurprisingly, operator feedback suggests that the most compelling use case for KPIs related to data integrity will be building trust and brand recognition with clients and customers, and to support a data-driven sustainability/ESG narrative with investors and other key internal stakeholders. In addition to this, measuring data incidents — particularly the number of customers impacted — is seen as an opportunity to inform strategic decisions regarding how to enhance data protection measures.



Digital integrity topics

Data protection

Like all ICT industries, the mobile sector is often the target of data security threats.

Companies manage an increasing volume of their customers' personally identifiable information, as well as demographic, behavioural and location data.

Inadequate prevention, detection and remediation of data security threats can influence customer acquisition and retention, and is likely to affect reputation and brand value — this will have a long-term impact on market share and revenue growth potential.²⁴

The KPIs in this category are aligned to the industry standards developed by SASB, with a focus on the number of data breaches, the percentage of data breaches involving personally identifiable information (PII), the number of customers affected and the number of regulatory actions taken. Dividing each KPI by the number of subscribers (in millions) will improve comparability.

Digital rights

A mobile operator's digital rights policy should seek to demonstrate that it has considered how it should work to address a wide range of salient topics such as data privacy, transparency, freedom of expression, government mandates to shut down or restrict access, and government requests for data. Operators around the world are having to challenge specific interventions from governments that they assess as disproportionate, misaligned to international human rights frameworks or even potentially counter-productive to public safety goals.²⁵ Policies should outline how they respond to government and others' demands, but also in how they determine, communicate and enforce policies and commercial practices that affect users' fundamental right to privacy, freedom of expression and information.²⁶

While the existence of a policy is a good starting point, more aspirational metrics could include a strong public commitment to transparency and evidence of a due diligence process to identify, prevent, mitigate and account for how they address their impacts on digital rights. It might also include evidence of how the organisation has provided for or cooperated in their remediation of adverse impacts through legitimate processes.²⁷



Online safety

Controls or programmes that help to address consumers' concerns around online safety will drive digital inclusion, especially among vulnerable segments of the population.

Per the 2020 UN Roadmap for Digital Cooperation, vulnerable groups can include women, older people, young people, children, migrants, refugees, internally displaced people, people with disabilities, rural populations and Indigenous people. Helping consumers feel safer when using the mobile internet is also a commercial opportunity for mobile operators. According to a GSMA study focusing on in LMICs, improving online safety can support customer acquisition, improve average revenue per user (ARPU), reduce churn, and improve handset and data revenue.

Future aspirational metrics could include the public disclosure of policies related to online safety or consumers' rights in the digital environment. To promote child online safety in particular, operators might also report on the availability of parental control tools offered free of charge for the company's mobile and fixed internet services, or measures that are in place to restrict access, sharing and storing of child sexual abuse material (CSAM).²⁸

Finally, operators might disclose if and how they work with relevant partners to promote and provide free access to hotlines to report online abuse or helplines to enable children and other vulnerable groups to seek support.

24. From SASB metric TC-TL-230a.1

25. 'An introduction to human rights for the mobile sector', GSMA, 2019

26. See: 2020 Ranking Digital Rights Corporate Accountability Index

27. 'An introduction to human rights for the mobile sector', GSMA, 2019

28. 'A framework to understand women's mobile-related safety concerns in low-and middle-income countries', GSMA, 2018

Digital integrity KPIs

Topic	Core metrics: prosperity	KPI code	Alignment
Data protection	<p><u>Customer data incidents</u></p> <p>3.1a Number of data breaches, per million subscribers</p> <p>3.1b Percentage of data breaches involving PII</p> <p>3.1c Number of customers affected, per million subscribers</p> <p>3.1d Number of regulatory actions for data protection violations (e.g. marketing-related complaints, data breaches), per million subscribers</p>	GSMA-INT-01	SASB TC-TL-230a.1 (modified)
Digital rights	<p><u>Digital rights policy</u></p> <p>3.2 Is there a policy specifically covering digital rights protection and transparency, privacy, freedom of expression, government mandates to shut down or restrict access, and/or government requests for data? (yes/no)</p>	GSMA-INT-02	2020 Ranking Digital Rights Corporate Accountability Index
Online safety	<p><u>Online safety measures</u></p> <p>3.3 Do you have controls or programmes in place to improve online safety for children and other vulnerable groups? (yes/no)</p>	GSMA-INT-03	

Category 4: Supply chain



For the mobile industry, the supply chain is of significant importance to business operations; many levers which impact ESG are activated through the supply chain, such as suppliers' contribution to Scope 3 emissions, which form a significant portion of overall emissions, or compliance with sustainability policies. This reliance on a diverse supplier base can span infrastructure manufacturing, deployment and maintenance, handsets or technology software providers. Due to the wide geography and complex nature of operators' supply chains, collaboration with socially and environmentally conscious suppliers will help mitigate a significant proportion of operators' sustainability risks, while also providing a competitive advantage.²⁹

Supply chain KPI use cases

Operator feedback shows that the supply chain KPIs have two particularly compelling use cases. First, they will help inform internal decision making, including how to set sustainable procurement strategies or policies, and how to allocate capital to improve procurement spend. Secondly, the disclosures will also help underpin the ESG narrative, reinforcing the organisation's stated mission and purpose to investors, employees and customers — and possibly enabling operators to take a leading role in raising supply chain sustainability standards.



29. 'The Singtel reset: sustainability report 2021', Singtel, 2021

Supply chain topics

Sustainable procurement policy

Sustainable procurement is “the process of making purchasing decisions that meet an organisation’s needs for goods and services in a way that benefits not only the organisation but society as a whole while minimising its impact on the environment.”³⁰ This can be achieved by ensuring that suppliers exhibit good governance, respect human rights (including the rights of their employees), implement fair operating practices, and sell products and services that positively impact people and the planet. The KPI asks operators to disclose whether a sustainable procurement policy is in place and how many elements derived from ISO 20400 the policy covers.

Supplier assessment

The disclosure on supplier assessments asks operators to report the percentage of suppliers that have been selected or contracted following a due diligence process covering the environmental and social impacts outlined in the sustainable procurement policy. In line with GRI guidance, operators are expected to initiate due diligence as early as possible in the development of a new relationship with a supplier to prevent or mitigate negative impacts. Additionally, the operator should report the percentage of suppliers that have been assessed through a coordinated on-site audit within the last two years — for instance, through initiatives such as the Joint Audit Cooperation (JAC).³¹

Supply chain KPIs

Topic	Core metrics: prosperity	KPI code	Alignment
Sustainable supply chain	<p><u>Sustainable procurement policy</u></p> <p>4.1a Do you have a sustainable procurement policy in place? (yes/no)</p> <p>4.1b If yes, how many of the following elements does it cover?</p> <ul style="list-style-type: none"> a. Organisational governance b. Human rights c. Labour practices d. Environment e. Fair operating practices f. Consumer issues g. Community involvement and development 	GSMA-SUP-01	ISO 20400:2017
	<p><u>Supplier assessments</u></p> <p>4.2a Percentage of suppliers screened against the sustainable procurement policy using company-defined and documented assessment procedure, within the previous two years</p> <p>4.2b Percentage of suppliers assessed against the sustainable procurement policy through site visits, within the previous two years</p>	GSMA-SUP-02	GRI 308-1; GRI 414-1 (partially)

30. See: ISO 20400:2017. Sustainable procurement — Guidance

31. See: Joint Audit Cooperation

Next steps



Next steps for mobile operators and other stakeholders

Open consultation on the industry KPIs

The endeavour to align the industry behind a core set of ESG KPIs has made significant progress over the last 12 months. Iterative sessions with mobile operators, multi-stakeholder workshops, consultations with industry and subject matter experts and the incorporation of insights from other global standard-setting initiatives has led to a proposed set of 10 core KPIs that will help the industry better articulate how it creates value for all of its stakeholders.

The GSMA is now seeking feedback on the proposed KPIs through an open consultation period which closes on 30 September 2022.

During the open consultation period, the GSMA will provide operators, other ESG and industry stakeholders, and subject matter experts with the opportunity to assess and validate the KPIs and the reporting processes underpinning them, or to offer recommendations for further refinement. This will ensure that the KPI framework remains fit for purpose going forward.

Following the consultation period, the GSMA will consider all feedback with the intention of supporting a pilot initiative with its member operators.

To provide feedback in the open consultation, go to gsma.com/betterfuture/esg



In parallel, there are three critical steps that mobile operators and their stakeholders can take to ensure that the industry ESG framework accelerates performance across the mobile industry and beyond:

1. Align company’s leadership behind the ESG KPIs

ESG reporting should be owned by the Board, CEO and CFO – with relevant inputs from functional teams. There should be clarity around what ESG-related transformation means for corporate strategy, how investments in sustainability contribute to financial performance, and how the KPIs can help organisations measure success.

2. Raise awareness of the framework with the investment community and other external stakeholders

Open and ongoing conversations between operators and investors will also be a critical step to refining and validating the KPIs. Operators can help investors understand which ESG issues are most material to their organization and be able to frame ESG discussions in the context of financial performance. These dialogues should also ensure that the KPIs provide the information that investors need to make assessments of the company’s long-term value. At the same time, socializing the KPIs with policymakers, partners or customers in other industry verticals can also pave the way for better alignment on cross-sector enablement metrics in years to come.

3. Adopt the metrics in future reporting, measure your performance and deliver improvements

Operators can begin to test their ability to report against the KPIs and incorporating them into their ESG reporting cycles. This will generate the evidence, insights and experience needed to further refine the KPIs and draw better, more compelling links between ESG scores, stakeholder value and financial performance. At all stages, operators should ensure they take action where needed – whether that relates to improving KPIs themselves, or reorienting systems and processes to deliver more relevant and timely information that avoids duplication. Measuring sustainability performance is the critical step operators should take to move from ambition and strategy towards successful execution.

For more information, please go to:

GSMA ESG website
gsma.com/betterfuture/esg

Contact the team
betterfuture@gsma.com
 with subject header ‘ESG Consultation’

#BetterFuture #ESG

Appendix: Detailed guidance on the industry KPIs



Environment

Topic	KPI	Alignment
-------	-----	-----------

Science-based targets	1.1 Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement — to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C — and to achieve net-zero emissions before 2050.	TCFD Recommendations; CDSB R01, R02, R03, R04 and R06; SASB 110; SBTs initiative
------------------------------	--	---

Guidance (based on Stakeholder Capitalism Metrics):
 Disclose if the company has set, or committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement and to achieve net-zero emissions before 2050. Guidance for mobile networks operators on how to set SBTs can be found in the GSMA's [Guidance for ICT Companies Setting Science Based Targets](#) report.

Scope 1, 2 and 3 emissions	1.2a Scope 1 and 2 GHG emissions <ol style="list-style-type: none"> i. Absolute Scope 1 and 2 emissions (tonnes CO₂e) ii. Absolute Scope 1 and 2 emissions (tonnes CO₂e) per 1GB data iii. Percentage change in absolute Scope 1 and 2 emissions since last reporting period 1.2b Scope 3 GHG emissions <ol style="list-style-type: none"> i. Absolute Scope 3 emissions (tonnes CO₂e) ii. Absolute Scope 3 emissions (tonnes CO₂e) per 1GB data iii. Percentage change in absolute Scope 3 emissions since last reporting period 	GRI 305:1-3, TCFD, GHG Protocol (modified)
-----------------------------------	---	---

Guidance (based on Stakeholder Capitalism Metrics):

- 1.2a(i): Disclose all relevant Scope 1 and 2 GHG emissions (e.g. carbon dioxide, methane, nitrous oxide, F-gases, etc.).
- 1.2a(ii): The Scope 1 and 2 emissions intensity KPI is calculated as: (total metric tonnes of carbon dioxide equivalent (tCO₂e) GHG Protocol Scope 1 and Scope 2 emissions/total GB of data sold to all subscribers) x 1,000.
- 1.2a(iii): Percentage change in absolute Scope 1 and 2 emissions should be calculated as: [(total emissions in current reporting period — total emissions in previous reporting period)/total emissions in previous reporting period] x 100. A negative value indicates a reduction in emissions.
- 1.2b(i): Disclose all material categories of Scope 3 emissions and provide explanation for why any categories are not considered material.
- 1.2b(ii): The Scope 3 emissions intensity KPI is calculated as: (total estimated material upstream and downstream (GHG Protocol Scope 3) emissions/total GB of data sold to all subscribers) x 1,000.
- 1.2b(iii): Percentage change in absolute Scope 3 emissions should be calculated as: [(total emissions in current reporting period — total emissions in previous reporting period)/total emissions in previous reporting period] x 100. A negative value indicates a reduction in emissions.

Environment

Topic	KPI	Alignment
Energy consumption	1.3a Total energy consumption i. Total energy consumed (MWh) ii. Total energy consumed (MWh) per 1GB of data	GRI 302-1; SASB TC-TL-130a.1 (modified)
	1.3b Network energy consumption i. Total network energy consumed (MWh) ii. Total network energy consumed (MWh) per 1GB of data	
	1.3c Network energy mix i. Percentage grid renewable ii. Percentage grid non-renewable iii. Percentage off-grid renewable iv. Percentage off-grid non-renewable	

Guidance (based on SASB TC-TL-130a.1):

- 1.3a(i): Disclose the total amount of energy consumed in megawatt hours in the reporting period (MWh):
 - The scope of energy consumption includes energy from all sources, including energy purchased from sources external to the company and energy produced by the company itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling, and steam energy are all included within the scope of energy consumption;
 - The scope of energy consumption includes all operations (core, data centres, etc.).
 - The scope of energy consumption includes only energy directly consumed by the company during the reporting period.
 - In calculating energy consumption from fuels and biofuels, the company should follow guidance from the CDP, found here: **CDP Technical Note: Conversion of fuel data to MWh**
- 1.3a(ii): The energy intensity KPI is calculated as: (total energy consumed in megawatt hours (MWh) in the reporting period/GB of data sold to all subscribers) x 1,000.
- 1.3b(i): Disclose the total amount of network energy consumed in megawatt hours (MWh) in the reporting period. This value will be a subset of the total value reported in 1.3a(i).
- 1.3b(ii): The energy intensity KPI is calculated as: (total network energy consumed in megawatt hours (MWh) in the reporting period/GB of data sold to all subscribers) x 1,000.
- 1.3c: Disclose the percentage of network energy consumed falling into the following categories: grid renewable; grid non-renewable; off-grid renewable; off-grid non-renewable.
 - Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass.
 - The scope of renewable energy includes renewable fuel the company consumed, renewable energy the company directly produced, and renewable energy the company purchased, if purchased through a renewable PPA that explicitly includes renewable energy certificates (RECs) or guarantees of origin (GOs), a Green-e® certified utility or supplier programme, or other green power products that explicitly include RECs or GOs, or for which Green-e® certified RECs are paired with grid electricity.

Environment

Topic	KPI	Alignment
-------	-----	-----------

Materials repaired and reused	<p>1.4a Network equipment repaired or reused</p> <ul style="list-style-type: none"> i. Percentage of network equipment repaired or reused, by units ii. Percentage of network equipment repaired or reused, by purchase price <p>1.4b Handsets and other CPE repaired or reused</p> <ul style="list-style-type: none"> i. Percentage of handsets and CPE repaired or reused, by units ii. Percentage of handsets and CPE repaired or reused, by purchase price 	SASB TC-TL-440a.1 (modified)
--------------------------------------	--	-------------------------------------

Guidance (based on SASB TC-TL-440a.1):

- 1.4a(i): Disclose the percentage of total network equipment prevented from becoming waste through repair or reuse, **by units**. This is calculated as: [(number of units of network equipment repaired or reused in the reporting period)/(total units of equipment deployed)] x 100.
- 1.4a(ii): Disclose the percentage of total network equipment prevented from becoming waste through repair or reuse, **by purchase price**. This is calculated as: [(purchase price of network equipment repaired or reused in the reporting period)/(total price of network equipment purchased in the reporting period)] x 100.
- 1.4b(i): Disclose the percentage of handsets or CPE prevented from becoming waste through repair or reuse, **by units**. This is calculated as: [(number of units of handsets or CPE repaired or reused in the reporting period)/(total units of handsets or CPE sold or deployed in the reporting period)] x 100.
- 1.4b(ii): Disclose the percentage of handsets or CPE prevented from becoming waste through repair or reuse, **by purchase price**. This is calculated as: (purchase price of handsets and CPE repaired or reused in the reporting period)/(total price of handsets and CPE purchased in the reporting period) x 100].

Waste generated	<p>1.5a Total waste generated (tonnes) per 1GB of data</p> <p>1.5b Network waste (tonnes) per 1GB of data</p> <p>1.5c Handset and other CPE waste (tonnes) per 1GB of data</p> <p>1.5d All other waste (tonnes) per 1GB of data</p>	GRI 306-3 (modified)
------------------------	---	-----------------------------

Guidance:

- 1.5a: Disclose the total amount of waste produced by the company during the reporting period (in tonnes), divided by GB of data sold to all subscribers x 1,000. This value should be equal to the sum of the values reported in 1.5(b), 1.5(c) and 1.5(d).
- 1.5b: Disclose the total amount of network waste produced by the company during the reporting period (in tonnes), divided by GB of data sold to all subscribers x 1,000.
- 1.5c: Disclose the total amount of handset and CPE waste produced by the company during the reporting period (in tonnes), divided by GB of data sold to all subscribers x 1,000.
- Handset and CPE waste includes consumer devices or equipment that are returned to the operator through take-back schemes and not intended to be reused or repaired, as well as any unsold/unused inventory that has reached the end of its useful life and become waste.
- 1.5d: Disclose the total amount of all other waste produced by the company during the reporting period (in tonnes), divided by GB of data sold to all subscribers x 1,000.
- When reporting composition of all other waste, the organisation should describe the type of waste (such as hazardous waste or non-hazardous waste) or the waste streams relevant to its activities.

Environment

Topic	KPI	Alignment
Materials recycled	1.6a Network waste recycled <ul style="list-style-type: none"> i. Percentage of network waste recycled (units) ii. Percentage of purchase price of recycled Network waste 	SASB TC-TL-440a.1 (modified)
	1.6b Handset and CPE waste recycled <ul style="list-style-type: none"> i. Percentage of handset and CPE waste recycled (units) ii. Percentage of purchase price of recycled handset and CPE waste 	
	1.6c All other waste recycled <ul style="list-style-type: none"> i. Percentage of all other waste recycled (units) ii. Percentage of purchase price of all other recycled waste 	

Guidance (based on SASB TC-TL-440a.1):

- 1.6a(i): Disclose the percentage of network equipment waste recycled, **by units**. This is calculated as: $[(\text{total units of network equipment recycled}) / (\text{total units of network equipment identified as waste in KPI 1.5b})] \times 100$.
- 1.6a(ii): Disclose the percentage of network equipment waste recycled, **by purchase price**. This is calculated as: $[(\text{purchase price of units of network equipment recycled in the reporting period}) / (\text{total price of network equipment purchased in the reporting period})] \times 100$.
- 1.6b: The scope of this disclosure includes mobile devices and other consumer products, materials, and parts that are at the end of their useful life and would have otherwise been disposed of as waste but have instead been collected and recycled. The scope of disclosures includes both materials physically handled by the company or by contracted third parties.
- 1.6b(i): Disclose the percentage of handsets and CPE waste recycled, **by units**. This is calculated as: $[(\text{total units of handsets and CPE recycled}) / (\text{total units of handsets and CPE identified as waste in KPI 1.5c})] \times 100$.
- 1.6b(ii): Disclose the percentage of handset and CPE waste recycled, **by purchase price**. This is calculated as: $[(\text{purchase price of units of handsets and CPE recycled in the reporting period}) / (\text{total price of handsets and CPE purchased in the reporting period})] \times 100$.
- 1.6c: The scope of this disclosure includes any other materials that are at the end of their useful life and would have otherwise been disposed of as waste but have instead been collected and recycled. The scope of disclosures includes both materials physically handled by the company or by contracted third parties.
- 1.6c(i): Disclose the percentage of all other waste recycled, **by units**. This is calculated as: $[(\text{total units of other waste recycled}) / (\text{total units identified as other waste in KPI 1.5d})] \times 100$.
- 1.6c(ii): Disclose the percentage of other waste recycled, **by purchase price**. This is calculated as: $[(\text{purchase price of units of other waste recycled in the reporting period}) / (\text{total price of other materials purchased in the reporting period})] \times 100$.

Digital inclusion

Topic	KPI	Alignment
Population covered by mobile network	2.1 Percentage of population covered by operator's mobile network Breakdown by: 3G, 4G, 5G	ITU Indicator 2.6
<p>Guidance (based on ITU Indicator 2.6):</p> <ul style="list-style-type: none"> Disclose the percentage of inhabitants within range of a mobile cellular signal provided by the company, irrespective of whether or not they are subscribers or users. This is calculated as: $[(\text{total number of inhabitants covered by the company's mobile cellular signal}) / (\text{total population of country})] \times 100$. Coverage should only refer to 3G, 4G and 5G mobile cellular technologies. Each technology type should be disclosed separately. 		
Device and subscription affordability	2.2a Cost of the most affordable smartphone, as percentage of monthly GDP per capita 2.2b Average cost of 1GB of data, as percentage of monthly GDP per capita	GSMA Methodology
<p>Guidance (based on GSMA Methodology for calculating affordability):</p> <ul style="list-style-type: none"> These disclosures should be reported at the country level. 2.2a: Device affordability is calculated as: $[\text{price of the cheapest smartphone device} / (\text{GDP per capita in reporting country as reported by the IMF World Economic Outlook}/12)] \times 100$. 2.2b: Data affordability is calculated as: $[\text{price of 1Gb of data in reporting country} / (\text{GDP per capita in reporting country as reported by the IMF World Economic Outlook}/12)] \times 100$. 		
Digital skills programmes	2.3 Number of people (excluding employees) who have completed a basic, intermediate or advanced digital skills training programme (as per ITU definition), divided by total subscribers.	ITU Digital Skills Toolkit
<p>Guidance:</p> <ul style="list-style-type: none"> Disclose the total number of people (not including employees) who have completed a digital skills training programme run by the company, divided by the company's total subscribers. Break down by basic, intermediate or advanced skills training. If a course covers multiple levels for a participant, report the highest level of training. Digital skills training programs must focus on establishing or improving at least one of the basic, intermediate or advanced digital skills identified in the ITU Digital Skills Toolkit (2020), which is designed to improve digital literacy or competency. Individual beneficiaries may be counted multiple times if they have attended more than one training programme, but not in instances where they have attended the same programme more than once. 		

Digital integrity

Topic	KPI	Alignment
Customer data incidents	3.1a Number of data breaches, per million subscribers 3.1b Percentage of data breaches involving PII 3.1c Number of customers affected, per million subscribers 3.1d Number of regulatory actions for data protection violations (e.g. marketing related complaints, data breaches), per million subscribers	SASB TC-TL-230a.1 (modified)
Guidance (based on SASB TC-TL-230a.1): <ul style="list-style-type: none"> 3.1a: Disclose the total number of data breaches identified during the reporting period, divided by million subscribers.* 3.1b: Disclose the percentage of data breaches in which PII** was subject to the data breach. PII is defined as any information about an individual that is maintained by a company, including: <ul style="list-style-type: none"> Any information that can be used to distinguish or trace an individual's identity, such as name, identity number, date and place of birth, mother's maiden name or biometric records; and Any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information. 3.1c: Disclose the total number of unique customers who were affected by data breaches (which includes all those whose personal data was compromised in a data breach), divided by million subscribers. 3.1d: Disclose the number of instances in which a data protection violation resulted in regulatory action of any kind, divided by million subscribers. 		
Digital rights policy	3.2 Is there a policy specifically covering digital rights protection and transparency, privacy, freedom of expression, government mandates to shut down or restrict access, and/or government requests for data? (yes/no)	2020 Ranking Digital Rights Corporate Accountability Index
Guidance (based on the 2020 Ranking Digital Rights Corporate Accountability Index): <ul style="list-style-type: none"> Disclose if the company has a policy in place that specifically covers the protection of consumers' digital rights. Policies related to freedom of expression and information might cover: the terms of service enforcement; ad content and ad targeting rules and enforcement; algorithmic system use and curation policies; government and private demands; identity policies; and network management and shutdowns. Policies related to privacy might cover: the collection and handling of user information; internal measures they take to keep their products and services secure; and their process for responding to government and private demands to hand over user information. 		
Online safety measures	3.3 Do you have controls or programmes in place to improve online safety for children and other vulnerable groups? (yes/no)	
Guidance: Disclose if the company has any controls or programmes in place to improve online safety for children and other vulnerable groups. Other vulnerable groups might include women, girls, the LGBTQ+ community, those with physical disabilities or illnesses, care leavers, people with mental health difficulties, those with addictions, homeless people, abuse survivors, those in poverty, ex-offenders, ex-service personnel and minority groups.		

* We anticipate that our definition of 'data breach' will align to that used by SASB, which is currently under consideration.

** We are considering aligning our definition of personally identifiable information (PII) to the European Commission's definition of 'personal data'. See: What is personal data?

Supply chain

Topic	KPI	Alignment
-------	-----	-----------

Sustainable procurement policy	4.1a Do you have a sustainable procurement policy in place? (yes/no)	ISO 20400:2017
	4.1b If yes, how many of the following elements does it cover? <ul style="list-style-type: none"> a. Organisational governance b. Human rights c. Labour practices d. Environment e. Fair operating practices f. Consumer issues g. Community involvement and development 	

Guidance (based on ISO 20400:2017):

- 4.1a: Disclose if the company has a sustainable procurement policy in place.
- 4.1b: Disclose how many of the seven core subjects of sustainable procurement (as defined by ISO 20400) are covered:
 - a. Organisational governance:** decision making processes and structures;
 - b. Human rights:** due diligence, human rights risk situations, avoidance of complicity, resolving grievances, discrimination and vulnerable groups, civil and political rights, economic, social and cultural rights, fundamental principles and rights at work;
 - c. Labour practices:** employment and employment relationships, conditions of work and social protection, social dialogue, health and safety at work, human development and training in the workplace;
 - d. The environment:** prevention of pollution, sustainable resource use, climate change mitigation and adaptation, protection of the environment, biodiversity and restoration of natural habitats;
 - e. Fair operating practices:** anti-corruption, responsible political involvement, fair competition, promoting sustainability in the value chain, respect for property rights;
 - f. Consumer issues:** fair marketing, factual and unbiased information, fair contractual practices, protecting consumers' health and safety, sustainable consumption, consumer service and support, and complaint and dispute resolution, consumer data protection and privacy, access to essential services, education and awareness;
 - g. Community involvement and development:** community involvement, education and culture, employment creation and skills development, technology development and access, wealth and income creation, health, social investment.

Supplier assessments	4.2a Percentage of suppliers screened against the sustainable procurement policy using company-defined and documented assessment procedure, within the previous two years	GRI 308-1; GRI 414-1 (partially)
	4.2b Percentage of suppliers assessed against the sustainable procurement policy through site visits, within the previous two years	

Guidance (based on GRI 308-1 and GRI 414-1):

- 4.2a: Disclose the percentage of all active suppliers that have been screened against the sustainable procurement policy using company-defined and documented assessment procedure. Supplier screening can include formal or documented process that applies a set of performance criteria as one of the factors in determining whether to proceed in a relationship with a supplier.
- 4.2b: Disclose the percentage of all active suppliers that have been assessed against the sustainable procurement policy through physical site visits within the previous two years. Assessments can be informed by audits, contractual reviews, two-way engagement, and complaint and grievance mechanisms.

For more information, please go to:

GSMA ESG website

gsma.com/betterfuture/esg

Contact the team

betterfuture@gsma.com

with subject header
'ESG Consultation'

#BetterFuture #ESG



This initiative has been in part funded by the Swedish International Development Cooperation Agency, Sida, and is supported by the GSMA and its members. Sida does not necessarily share the views expressed in this material. Responsibility for its contents rests entirely with the authors.





EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws.

gsma.com

Tel: +44 (0)20 7356 0600

Fax: +44 (0)20 7356 0601

Copyright © 2022 GSM Association

ey.com/en_uk/tmt

ey.com/en_uk/climate-change-sustainability-services

