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ESG Metrics for Mobile

Realising value for society through common industry KPIs

June 2024

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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

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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 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 in 2022 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. This was followed by a consultation period where operators tested and fed back on the metrics.

These efforts resulted in 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 are enabling 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 are generating 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 continue to 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. These contributions have been invaluable, and we look forward to continued collaboration as we further expand adoption of the metrics.

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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.

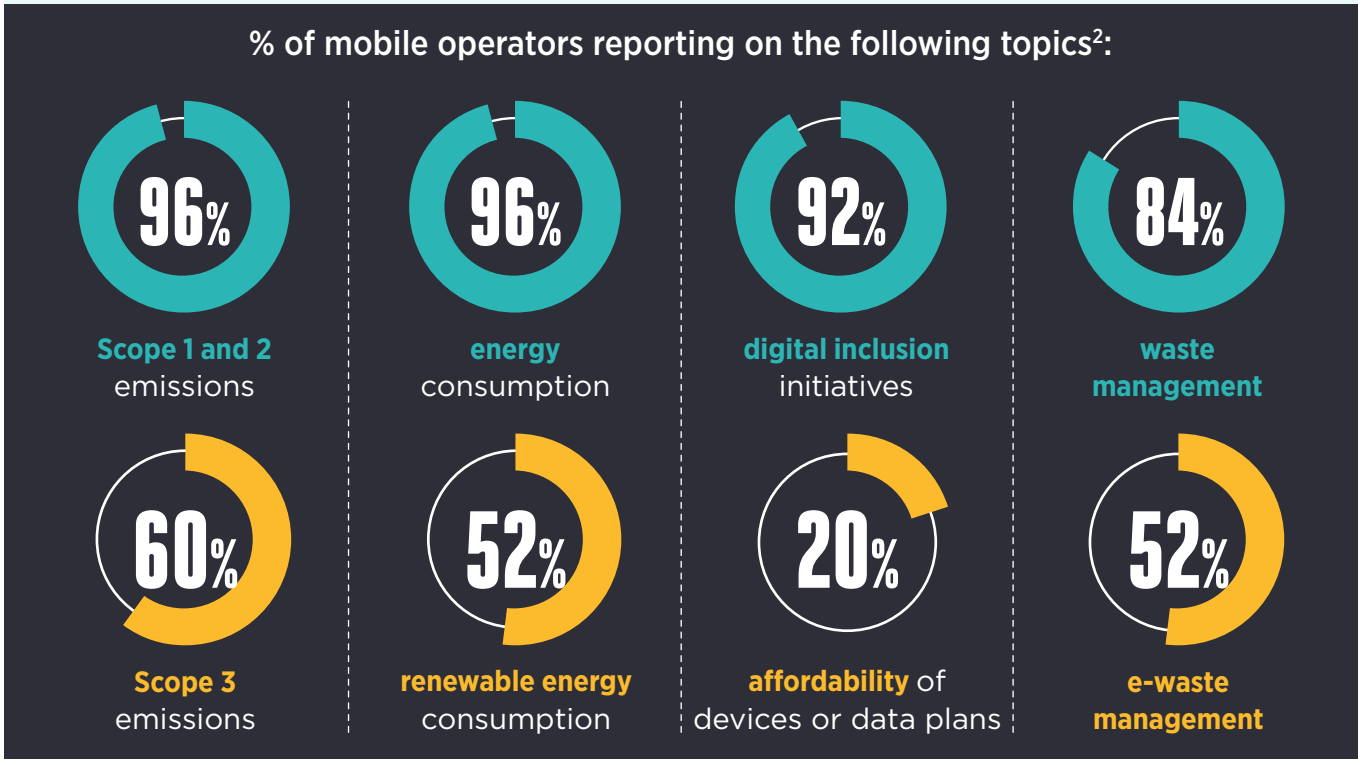
However, the existence of around 600 global ESG reporting standards and what has long been described as an "alphabet soup" of standard-setters, has contributed to fragmentation and an increasing reporting burden on companies.

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.



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 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 core KPIs has been developed 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 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 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, ended September 2022, provided 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.

This was followed in 2023 by the ESG Metrics for Mobile pilot programme, which saw 10 mobile operators (Dialog Axiata, Globe, MTS, Orange, Singtel, STC, Telefónica, Telenor, Turkcell and Zain) submit data to GSMA Intelligence in order to better understand the landscape and progress of operator efforts in social and environmental sustainability.[3]

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.

For more information on this initiative, go to gsma.com/betterfuture/esg

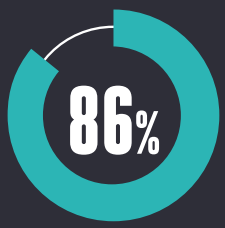
3. ESG Metrics for Mobile: insights from early adopters, GSMA, 2023

Introduction

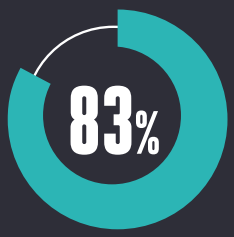
Attitudes towards ESG are shifting

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.[4] 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.

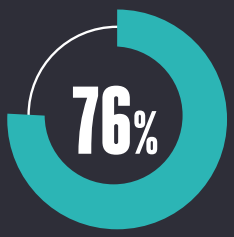
Management attitudes to ESG and long-term value[5]



Say a focus on ESG has been critical to build trust with their stakeholders in uncertain times



Say companies that maintain their focus on ESG and long-term value will be more resilient in the face of increasing disruption and volatility



Say addressing major global challenges, such as climate change, will be key to driving and protecting their company's long-term value

4. 'Sixth global institutional investor survey', EY, 2021
5. '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. Poor management of the sustainability agenda appears in EY's report 'Top 10 risks for telecommunications in 2024', ranking fourth, reflecting its growing prominence.[6] 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.

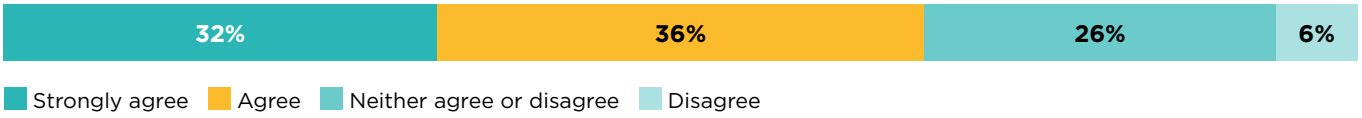
However, there is evidence that mobile operators are a force for ESG improvements not only within their own industry but also across the entire economic ecosystem. A shift towards energy-efficient networks and sustainable business practices is taking place, and digital connectivity is transforming access to healthcare, education and financial services. Meanwhile, mobile is enabling carbon reductions across society of at least 10 times the industry's emissions.[7] 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

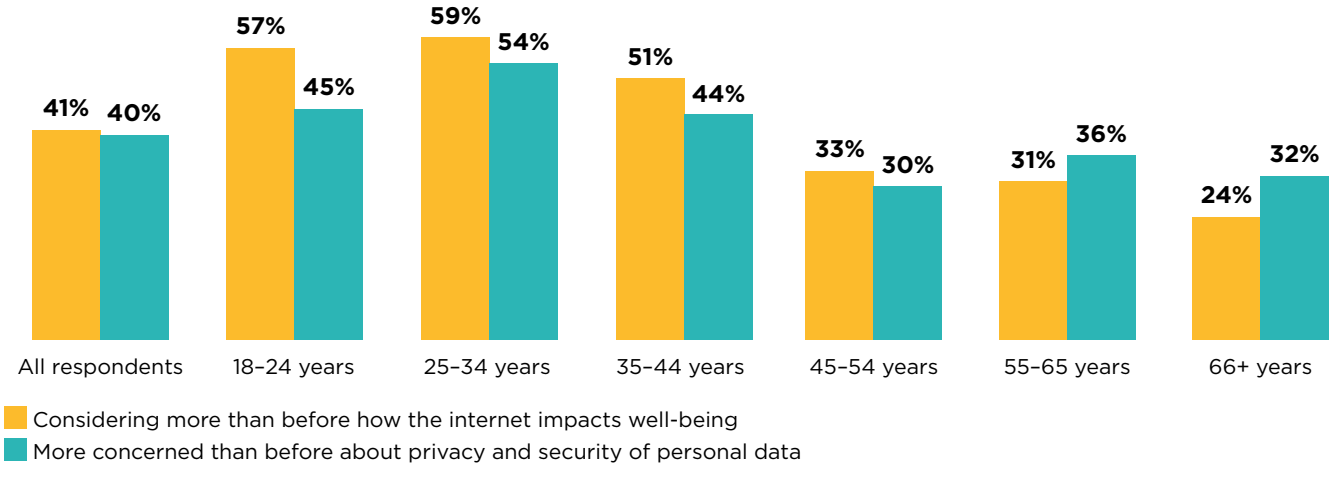
Statement: "My organisation is more interested than before in 5G and IoT use cases that can help it meet its sustainability goals."



The global COVID-19 pandemic saw 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. In 2021 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.[8]

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

Source: 'Decoding the digital home', EY, 2021



6. ey.com/en_gl/telecommunications/top-10-risks-for-telecommunications
7. 'The enablement effect', GSMA, 2019
8. 'Decoding the digital home', 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 in 2021, 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.[9]

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.

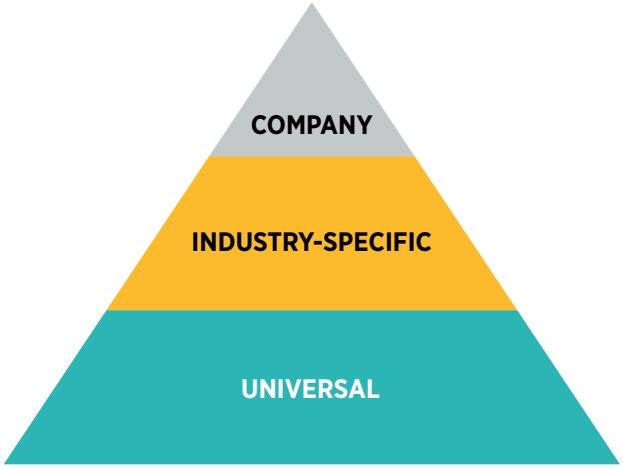
9. 'Sixth global institutional investor survey', EY, 2021

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.

The three tiers of ESG reporting



In 2023, the International Sustainability Standards Board (ISSB) and European Commission released new reporting standards that usher in a new era in international corporate reporting and have far-reaching implications for businesses in Europe and globally. The ISSB's first two standards will lead to a comprehensive, comparable and consistent global sustainability reporting baseline, covering general requirements for the disclosure of sustainability-related financial information (IFRS S1) and climate-related disclosures (IFRS S2).

The European Sustainability Reporting Standards (ESRS) will require in-scope companies to disclose more sustainability-related information than ever before about their business models, strategy and value chains. It aims to ensure that companies publicly disclose adequate, comparable and reliable information about the sustainability risks and opportunities they face, as well as the impacts they have on people and the environment (i.e., principle of double materiality).

The industry ESG metrics were developed with the ISSB, ESRS and other impending sustainability frameworks (such as the U.S. Securities and Exchange Commission's proposed climate rules) in mind. They were originally designed to complement and 'sit on top of' the World Economic Forum's Stakeholder Capitalism metrics, which are now embedded within the ISSB's inaugural standards.[10] They also align to existing frameworks, guidance and methodologies where possible. This includes those established by the Sustainability Accounting Standards Board (which are now the responsibility of the ISSB) and the Global Reporting Initiative (whose approach to double materiality is closely aligned to the ESRS).

10. World Economic Forum and ISSB Partner to Compile Learnings on Early Sustainability Reporting Efforts, June 2023

Building upon universal ESG reporting

Industry-specific KPIs form the second tier of ESG reporting. The set of 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:

1

Meaningful for stakeholders

The KPI will influence the assessments and decisions of external stakeholders, including investors.

2

Decision-useful

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.

3

Comparable

The KPI will enable meaningful peer-to-peer comparisons across geographies, and the definitions and calculation methods are transferable to most companies.

4

Feasible

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.

5

Best indicator

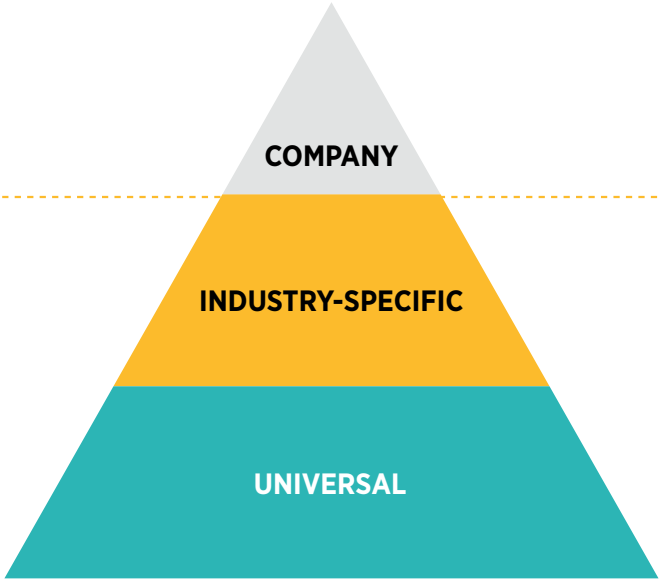
For the given topic, the KPI represents the best indicator of the company's ability to create value in the short, medium and long term.

The KPIs include those that are more established and focus on enterprise value, such as emissions and energy consumption. 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.

In some cases, the KPIs use a denominator such as data traffic, subscriptions or revenues 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 the electricity grid, geography and climate, social and demographic factors, and policy and regulatory environments. 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.

The industry ESG framework

Two tiers of ESG reporting



The set of 10 core KPIs are designed to form the important, industry-specific layer of ESG reporting. They should be used as a complement to universal and jurisdictional reporting frameworks that will already encompass many of the topics operators have agreed are material to the industry. This includes, for instance, critical issues such as climate-related risks and opportunities, diversity and inclusion, business ethics, employee health and safety, social investments and tax transparency.

Mobile industry KPIs

INDUSTRY-SPECIFIC

ENVIRONMENT	DIGITAL INCLUSION	DIGITAL INTEGRITY	SUPPLY CHAIN
Emissions	**Network coverage**	**Data protection**	**Sustainable supply chain**
◊ Science-based targets » Scope 1, 2 and 3 emissions	» Population covered by mobile network	» Customer data incidents	◊ Sustainable procurement policy » Supplier assessments
Energy	**Affordability**	**Digital rights**	
» Energy consumption	» Device and subscription affordability	◊ Digital rights policy	
Circular economy	**Digital skills**	**Online safety**	
» Circularity » Electronic waste	» Digital skills programmes	◊ Online safety measures	

◊ Yes/no questions
» KPIs

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.[11]

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.[12] 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.

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.

11. 'Measuring stakeholder capitalism: towards common metrics and consistent reporting of sustainable value creation', World Economic Forum, 2020
12. '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.

As of January 2024, 70 operator groups representing 68 per cent of the global mobile industry by revenue and 48% by connections are 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.[13] 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 (for Scope 1 and 2 only) 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. To help align methodologies and advice on data sources, the new GSMA Scope 3 Guidance for Telecommunication Operators[14] was published in 2023 and has already been used by some operators. Wider adoption will improve future measurement.

In time, there may be an opportunity to develop "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.[15]

Energy

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

Energy costs account for between 20 per cent and 40 per cent of operators' network operating expenditure (opex) and are subject to rising prices.

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) 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.

13. 'Mobile Net Zero — State of the Industry on Climate Action', GSMA, 2024
14. 'Scope 3 Guidance for Telecommunication Operators', GSMA, 2023
15. 'The enablement effect', GSMA, 2019

Environment topics

Circular economy

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.

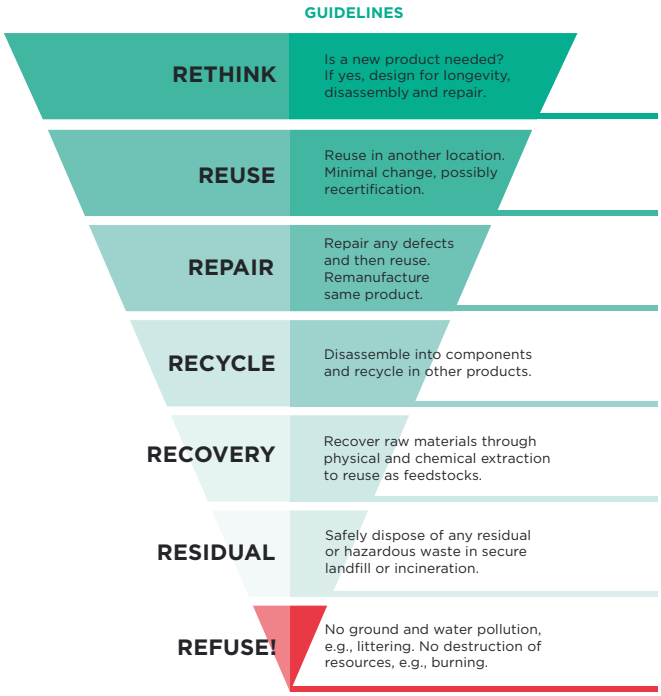
Actions towards the bottom require more energy and resource use, so should be used only as a last resort when options higher up have been explored.

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.[16] 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.[17] Eco Rating can also be used to evaluate the environmental impact of the entire process of production, transportation, use and disposal of mobile phones.[18] There are also opportunities to explore enablement metrics that help to measure the industry's impact on other sectors' waste reduction efforts.

The circular model includes a vision for 2050 to help drive the industry towards a sustainable future. This is defined as a future where devices have as long a lifetime as possible, where they are made with 100% recyclable and recycled content using 100% renewable energy and where no device ends up as waste. There are two key principles to support this vision: Increasing longevity of devices and zero waste.[19]

Waste hierarchy

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



16. 'Strategy paper for circular economy: network equipment', GSMA, 2022
17. See: ellenmacarthurfoundation.org
18. See: ecoratingdevices.com
19. www.gsma.com/betterfuture/wp-content/uploads/2023/02/Strategy-Paper-Circular-Economy-Mobile-Devices.pdf

Environment KPIs

Topic	Core metrics	KPI code	Alignment
Emissions	**Science-based targets** **1.1a. Disclose whether the company has set, or committed to set, near-term science-based targets:** [Yes/No] **If yes**, provide the: i. Temperature alignment ii. Target approval/validation status **1.1b. Disclose whether the company has set a corporate net zero target (covering Scopes 1, 2 and 3):** [Yes/No] **If yes**, provide the: i. Net zero target year i. Target approval/validation status	GSMA-ENV-01	TCFD Recommendations; Science-Based Targets Initiative
	Scope 1, 2 and 3 emissions **1.2a. Scope 1 and 2 GHG emissions** i. Scope 1 emissions (tonnes CO_2e) ii. Scope 2 emissions, location-based (tonnes CO_2e) iii. Scope 2 emissions, market-based (tonnes CO_2e) iv. Percentage change in combined Scope 1 + 2 emissions since last reporting period (specify if Scope 2 emissions are location-based or market-based). v. Combined Scope 1 + 2 emissions per unit total revenue (tonnes CO_2e per currency) (specify if Scope 2 emissions are location-based or market-based). **1.2b. Scope 3 GHG emissions** i. Total Scope 3 emissions (tonnes CO_2e) ii. Scope 3 emissions, by category (tonnes CO_2e)	GSMA-ENV-02	GRI 305:1-3, TCFD, GHG Protocol (modified); CDP Climate Change
Energy	**Energy consumption** **1.3a. Total energy consumption** i. Total energy consumption (MWh) ii. Purchased electricity, total (MWh) iii. Purchased electricity, from renewable sources (MWh) iv. Generated electricity consumed by the company, from renewable sources (MWh) v. Total diesel consumption in generators (litres) **1.3b. Network energy consumption** i. Total network energy consumed, including core, fixed and mobile networks (MWh) ii. Energy consumed by mobile networks (MWh) iii. Total network energy consumed per unit data (MWh/PB) or subscription (kWh per subscription) iv. Percentage change in network energy intensity (MWh/PB or kWh per subscription) since the last reporting period.	GSMA-ENV-03	GRI 302-1; SASB TC-TL-130a.1 (modified); CDP Climate Change

Environment KPIs

Topic	Core metrics	KPI code	Alignment
Circular economy	**Circularity** **1.4a. Circularity of network equipment** i. Percentage of network equipment decommissioned in the reporting period that was repaired, reused or sold to another company (%). ii. Percentage of network equipment installed in the reporting period that was reused or refurbished, as a share of total network equipment installed in the reporting period (%). **1.4b. Circularity of mobile devices** i. Used mobile devices collected through operator take-back schemes in the reporting period as a percentage of new mobile devices distributed directly to customers in the reporting period (%). ii. Percentage of used mobile devices collected through operator take-back schemes in the reporting period that were repaired, reused or recycled i.e. diverted from landfill or incineration (%). iii. Percentage of refurbished, repaired or used mobile devices distributed to customers for reuse in the reporting period, as a share of all mobile devices distributed directly to customers in the reporting period (%). **1.4c. Circularity of customer premises equipment (CPE)** i. Used CPE collected through operator take-back schemes in the reporting period as a percentage of CPE distributed to customers in the reporting period (%). ii. Percentage of used CPE collected through operator take-back schemes in the reporting period that were repaired, reused or recycled i.e. diverted from landfill or incineration (%). iii. Percentage of refurbished, repaired or used CPE distributed to customers in the reporting period as a share of all CPE distributed to customers in the reporting period (%).	GSMA-ENV-04	SASB TC-TL-440a.1 (modified); GRI 306-3 (modified); GSMA Circularity Targets
	Electronic waste **1.5a. Electronic waste** i. Total electronic waste generated (tonnes) ii. Percentage of electronic waste reused or recycled, by weight (%)	GSMA-ENV-05	GRI 306-3 (modified); 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.[20]

Global network coverage continues to grow, with 95 per cent of the world's population covered by mobile broadband networks.[21] 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.

20. 'Reset or level up. How can Gigabit Britain deliver for all? Digital connectivity to stimulate the UK's recovery in 2021', EY, 2020
21. 'The state of mobile internet connectivity report', GSMA, 2023

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.[22] 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.[23]

Disclosing the retail price 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.[24] 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.[25]

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.

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.

22. 'Accelerating affordable smartphone ownership in emerging markets — RFI', GSMA, 2019
23. 'The state of mobile internet connectivity report', GSMA, 2021
24. ibid
25. ibid

Digital inclusion KPIs

Topic	Core metrics: prosperity	KPI code	Alignment
Network coverage	**Population covered by mobile network** **2.1. Percentage of population covered by operator's mobile network** **Breakdown by: 3G, 4G, 5G**	GSMA-INC-01	ITU Indicator 2.6
Affordability	**Device and subscription affordability** **2.2a. Retail price of the most affordable smartphone, as percentage of monthly GDP per capita** **2.2b. Retail price of 1GB of data, as percentage of monthly GDP per capita**	GSMA-INC-02	GSMA Methodology
Digital skills	**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**	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.[26]

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.[27] 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.[28]

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.[29]

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).[30]

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.

26. From SASB metric TC-TL-230a.1
27. 'An introduction to human rights for the mobile sector', GSMA, 2019
28. See: 2020 Ranking Digital Rights Corporate Accountability Index
29. 'An introduction to human rights for the mobile sector', GSMA, 2019
30. 'A framework to understand women's mobile-related safety concerns in low-and middle-income countries', GSMA, 2018

Digital integrity KPIs

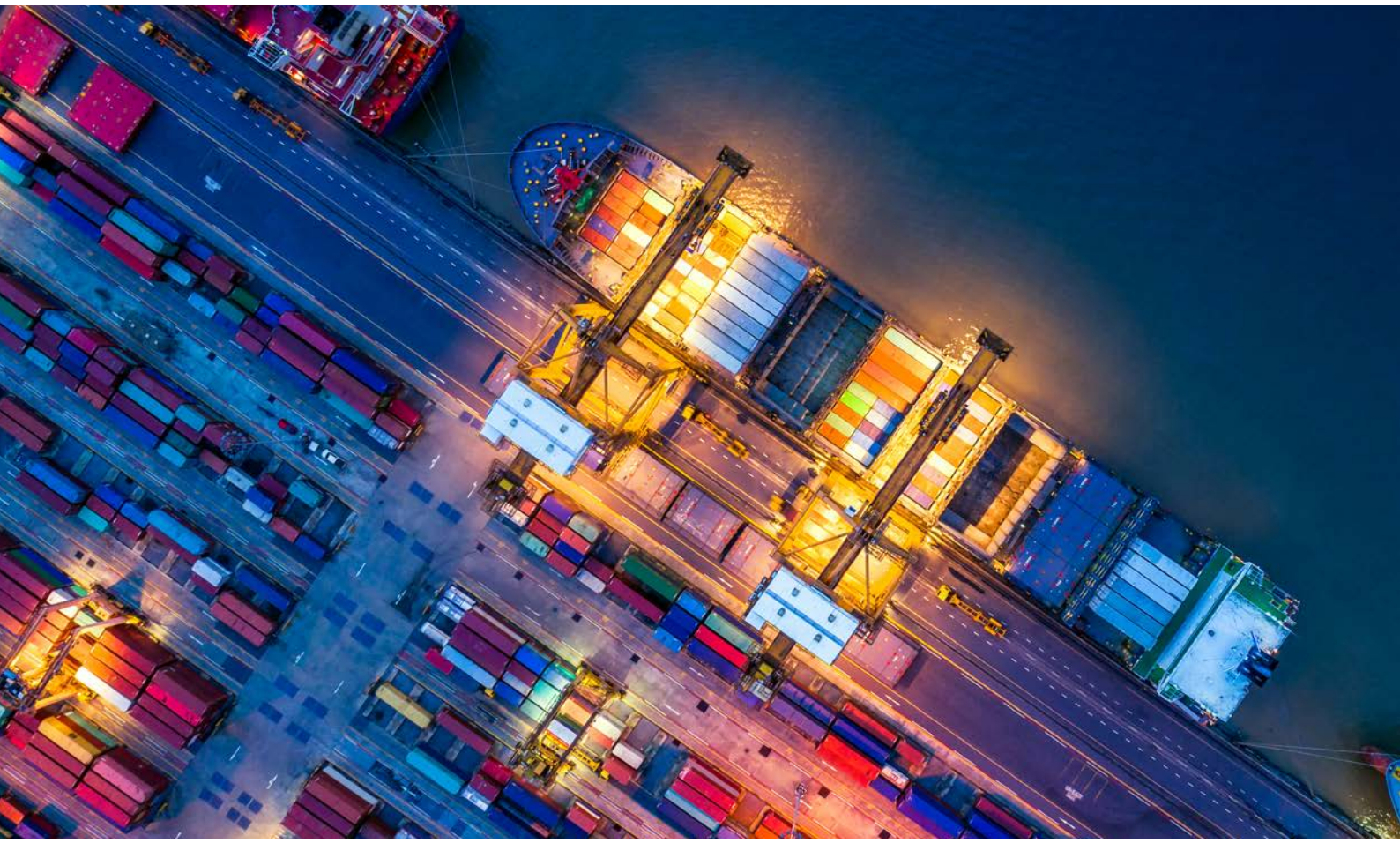
Topic	Core metrics: prosperity	KPI code	Alignment
Data protection	**Customer data incidents** **3.1a. Number of data breaches, per million subscribers** **3.1b. Percentage of data breaches involving PII** **3.1c. Number of customers affected, per million subscribers** **3.1d. Number of regulatory actions for data protection violations (e.g. marketing-related complaints, data breaches), per million subscribers**	GSMA-INT-01	SASB TC-TL-230a.1 (modified)
Digital rights	**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)**	GSMA-INT-02	2020 Ranking Digital Rights Corporate Accountability Index
Online safety	**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)**	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.[31]

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.



31. '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."[32] 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).[33]

Supply chain KPIs

Topic	Core metrics: prosperity	KPI code	Alignment
Sustainable supply chain	**Sustainable procurement policy** **4.1a. Do you have a sustainable procurement policy in place? (Yes/No)** **4.1b. If yes, how many of the following elements does it cover?** 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
	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** **4.2b. Percentage of suppliers assessed against the sustainable procurement policy through site visits, within the previous two years**	GSMA-SUP-02	GRI 308-1; GRI 414-1 (partially)

32. See: ISO 20400:2017. Sustainable procurement — Guidance
33. See: Joint Audit Cooperation

Next steps

Looking ahead to 2024 and beyond

Improving reporting will remain a priority for the telecoms sector over the next decade as operators place sustainability issues at the centre of their business strategies. The GSMA will continue to collaborate with its members and partners to share knowledge, provide guidance and support adoption of the ESG Metrics for Mobile.

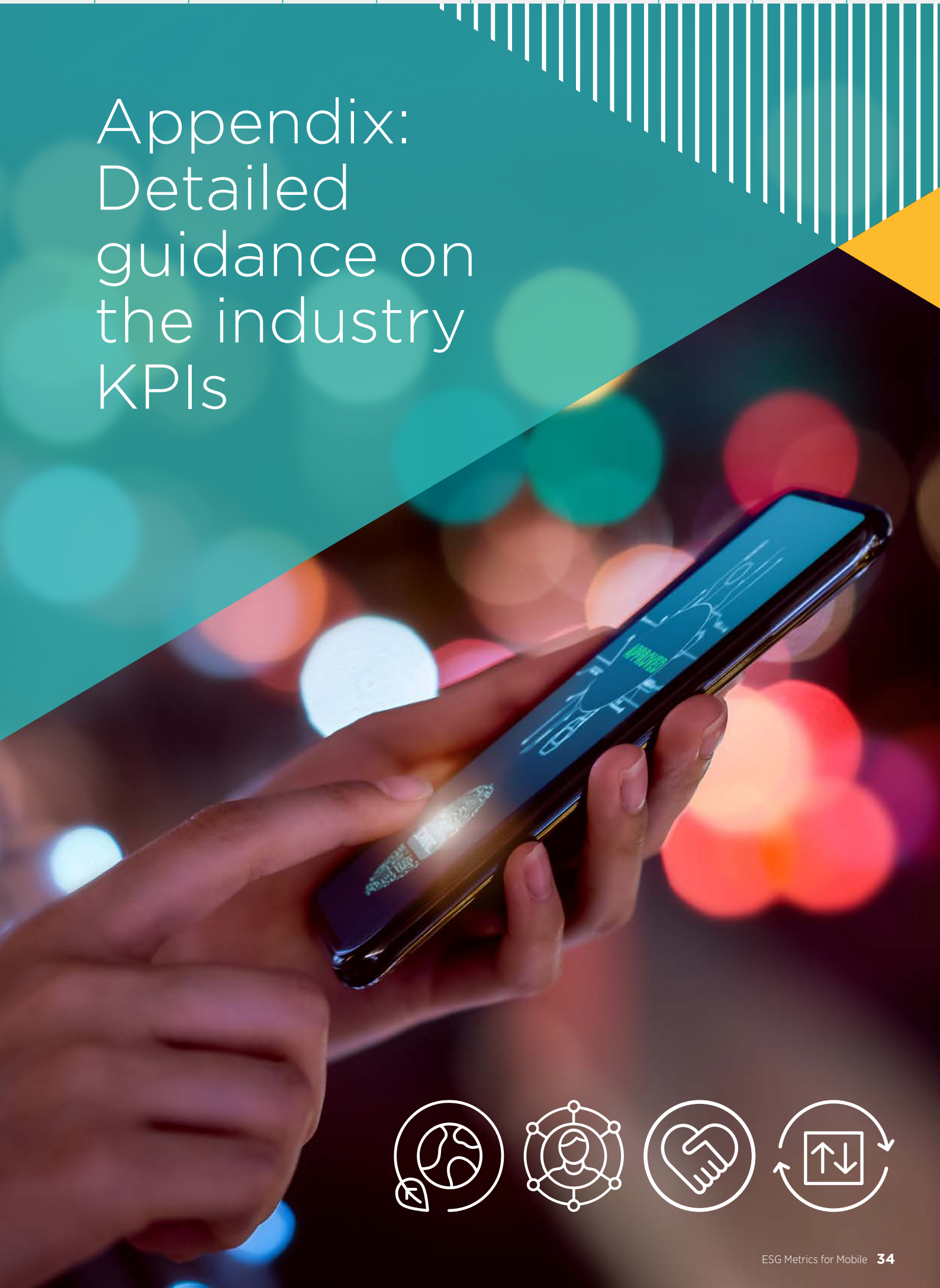
To help operators further enhance their sustainability reporting, GSMA Intelligence will extend its research activity in 2024, gathering relevant data and creating industry insights based on new 2023 information.

The aim is to work with an increased range of participating operators to make the results as representative and impactful as possible across all regions.

In addition to public-facing research and best-practice guidelines, participating operators will receive customised reports on their own ESG data submissions compared to industry averages on an anonymised basis. This will help operators benchmark themselves against their peers, identifying areas where they excel as well as opportunities for improvement.

For more information about the ESG Benchmarking 2024 project or to become directly involved, contact betterfuture@gsma.com, including the subject header 'ESG Benchmarking'.

Appendix: Detailed guidance on the industry KPIs



Environment

Topic	KPI	Alignment
Science-based targets	**1.1a. Disclose whether the company has set, or committed to set, near-term science-based targets:** [Yes/No] **If yes,** provide the: i. Temperature alignment ii. Target approval/validation status **1.1b. Disclose whether the company has set, or committed to set, a corporate net zero target (covering Scopes 1, 2 and 3):** [Yes/No] **If yes,** provide the: i. Net zero target year ii. Target approval/validation status	TCFD Recommendations; Science-Based Targets Initiative

Guidance:

- 1.1a: Disclose if the company has set, or has committed to set, near-term science-based GHG emission reduction targets that are in line with the goals of the Paris Agreement. Guidance for mobile networks operators on how to set science-based targets can be found in the GSMA's **Guidance for ICT Companies Setting Science-based Targets report**.
- 1.1a(i): If the company has set, or committed to set, a near-term science-based target, indicate the temperature alignment of the target (e.g. 1.5°C).
- 1.1a(ii): If the company has set, or committed to set, a near-term science-based target, indicate the status of target approval/validation (e.g. committed, set/validated).
- 1.1b: Disclose if the company has set, or has committed to set, a target to achieve net zero emissions covering Scopes 1, 2 and 3.
- 1.1b(i): If the company has set, or committed to set, a net zero target, indicate the target year (e.g. 2050).
- 1.1b(ii): If the company has set, or committed to set, a net zero target, indicate the approval status, if applicable (e.g. committed, set/validated).

Scope 1, 2 and 3 emissions	**1.2a. Scope 1 and 2 GHG emissions** i. Scope 1 emissions (tonnes CO_2e) ii. Scope 2 emissions, location-based (tonnes CO_2e) iii. Scope 2 emissions, market-based (tonnes CO_2e) iv. Percentage change in combined Scope 1 + 2 emissions since last reporting period (specify if Scope 2 emissions are location-based or market-based) v. Combined Scope 1 + 2 emissions per unit total revenue (tonnes CO_2e per currency) (specify if Scope 2 emissions are location-based or market-based) **1.2b. Scope 3 GHG emissions** i. Total Scope 3 emissions (tonnes CO_2e) ii. Scope 3 emissions, by category (tonnes CO_2e	GRI 305:1-3, TCFD, GHG Protocol (modified); CDP Climate Change (C6.1, C6.3, C6.10, C6.5)

Continued >

Environment

Guidance:

- 1.2a(i): Disclose the company's total global Scope 1 GHG emissions (e.g. carbon dioxide, methane, nitrous oxide, F-gases, etc.) in metric tonnes of CO_2-equivalent (CO_2e). This KPI corresponds to question C6.1 in the CDP Climate Change 2023 Questionnaire.
- 1.2a(ii): Disclose the company's total global Scope 2 location-based GHG emissions (e.g. carbon dioxide, methane, nitrous oxide, F-gases, etc.) in metric tonnes CO_2e. This KPI corresponds to question C6.3 in the CDP Climate Change 2023 Questionnaire.
- 1.2a(iii): Disclose the company's total global Scope 2 market-based GHG emissions (e.g. carbon dioxide, methane, nitrous oxide, F-gases, etc.) in metric tonnes CO_2e. This KPI corresponds to question C6.3 in the CDP Climate Change 2023 Questionnaire.
- 1.2a(iv): Percentage change in combined Scope 1 and 2 emissions should be calculated as:
  (Total Scope 1 and 2 emissions in current reporting period – Total Scope 1 and 2 emissions in previous reporting period) ÷ Total Scope 1 and 2 emissions in previous reporting period.
  - Specify whether Scope 2 emissions used in the calculation are location-based or market-based emissions, or provide calculations for both values.
  - A negative value indicates a reduction in emissions.
- 1.2a(v): The Scope 1 and 2 emissions intensity KPI is calculated as:
  Total Scope 1 and 2 emissions in current reporting period ÷ Total revenue in current reporting period.
  - Specify whether Scope 2 emissions used in the calculation are location-based or market-based emissions, or provide calculations for both values.
  - Specify the currency of revenue (USD is preferred). This KPI corresponds to question C6.10 in the CDP Climate Change 2023 Questionnaire.
- 1.2b(i): Disclose the company's total global Scope 3 GHG emissions in metric tonnes CO_2e. This corresponds to question C6.5 in the CDP Climate Change 2023 Questionnaire.
- 1.2b(ii): Disclose the company's Scope 3 emissions under each Scope 3 category, explaining any exclusions. This corresponds to question C6.5 in the CDP Climate Change 2023 Questionnaire.

Energy consumption	**1.3a. Total energy consumption** i. Total energy consumption (MWh) ii. Purchased electricity, total (MWh) iii. Purchased electricity, from renewable sources (MWh) iv. Generated electricity consumed by the company, from renewable sources (MWh) v. Total diesel consumption in generators (litres) **1.3b. Network energy consumption** i. Total network energy consumed, including core, fixed and mobile networks (MWh) ii. Energy consumed by mobile networks (MWh) iii. Total network energy consumed per unit data (MWh/PB) or subscription (kWh per subscription) iv. Percentage change in network energy intensity (MWh/PB or kWh per subscription) since the last reporting period	GRI 302-1; SASB TC-TL-130a.1 (modified); CDP Climate Change (C8.2)

Continued >

Environment

Guidance:

- 1.3a(i 1.3a(i): Disclose the total amount of energy consumed by the company in the reporting period, in megawatt-hours (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 in generators and fleets, 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 (energy consumed by networks, data centres, offices, fleet vehicles etc.).
  - 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.
  - This KPI corresponds to question C8.2a in the **CDP Climate Change 2023 Questionnaire**.
- 1.3a(ii): Disclose the total amount of electricity purchased or acquired by the company in the reporting period (MWh). This KPI corresponds to question C8.2a in the CDP Climate Change 2023 Questionnaire.
- 1.3a(iii): Disclose the total amount of electricity purchased or acquired by the company from renewable energy sources in the reporting period (MWh). This KPI corresponds to question C8.2a in the CDP Climate Change 2023 Questionnaire.
  - 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 solar, wind, hydro, geothermal and biomass.
  - Purchased or acquired renewable electricity may include renewable energy power purchase agreements (PPAs), energy attribute certificates (e.g. renewable energy certificates (RECs), guarantees of origin (GOs)) and other green electricity products (e.g. green tariffs). For additional details, refer to the **CDP Technical Note: Accounting of Scope 2 emissions**.
- 1.3a(iv): Disclose the total amount of electricity generated by the company from renewable sources that was consumed by the company in the reporting period (MWh). For example, on-site solar generation consumed by mobile towers. This KPI corresponds to question C8.2d in the CDP Climate Change 2023 Questionnaire.
- 1.3a(v): Disclose the total amount of diesel fuel consumed in generators in the reporting period (litres). This only includes diesel consumed in stationary generators for power generation and excludes diesel used in vehicles.
- 1.3b(i): Disclose the total amount of energy consumed by the company's networks (including core, fixed and mobile networks) in the reporting period (MWh). This value will be a subset of the total energy consumption value reported in 1.3a(i).
- 1.3b(ii): Disclose the total amount of energy consumed by the company's mobile networks in the reporting period (MWh). This value will be a subset of the total value reported in 1.3b(ii).
- 1.3b(iii): Disclose the company's network energy intensity, in terms of energy per unit data (MWh/PB) and/or energy per subscription (kWh/subscription). The KPI is calculated as:
  [Total network energy consumed in MWh ÷ Total network data traffic in petabytes] or
  [Total network energy consumed in kWh ÷ Total number of mobile and fixed subscribers].
  Total network data traffic includes traffic across an operator's fixed and mobile networks and should be estimated based on available standards (e.g. ITU-T L.1331 or ETSI ES203 228 for mobile networks). Total number of subscribers includes subscribers for mobile networks (e.g. contract, prepaid, MVNO, fixed wireless, enterprise, wholesale) and fixed networks (e.g. fixed broadband, fixed narrowband, enterprise, wholesale), and excludes M2M/IoT and roaming subscribers.
- 1.3b(iv): Percentage change in network energy intensity is calculated based on the KPI calculated in 1.3b(iii) as:
  (Network energy intensity in current reporting period – Network energy intensity in previous reporting period) ÷ Network energy intensity in previous reporting period.
  - A negative value indicates a reduction in network energy intensity.

Continued >

Environment

Topic	KPI	Alignment
Circularity	**1.4a. Circularity of network equipment** i. Percentage of network equipment decommissioned in the reporting period that was repaired, reused or sold to another company (%). ii. Percentage of network equipment installed in the reporting period that was reused or refurbished, as a share of total network equipment installed in the reporting period (%). **1.4b. Circularity of mobile devices** i. Used mobile devices collected through operator take-back schemes in the reporting period as a percentage of new mobile devices distributed directly to customers in the reporting period (%). ii. Percentage of used mobile devices collected through operator take-back schemes in the reporting period that were repaired, reused or recycled i.e. diverted from landfill or incineration (%). iii. Percentage of refurbished, repaired or used mobile devices distributed to customers for reuse in the reporting period, as a share of all mobile devices distributed directly to customers in the reporting period (%). **1.4c. Circularity of customer premises equipment (CPE)** i. Used CPE collected through operator take-back schemes in the reporting period as a percentage of CPE distributed to customers in the reporting period (%). ii. Percentage of used CPE collected through operator take-back schemes in the reporting period that were repaired, reused or recycled i.e. diverted from landfill or incineration (%). iii. Percentage of refurbished, repaired or used CPE distributed to customers in the reporting period as a share of all CPE distributed to customers in the reporting period (%).	SASB TC-TL-440a.1 (modified); GRI 306-3 (modified); GSMA Circularity Targets

Guidance:

- **1.4a: Network equipment** includes equipment associated with the radio access network, fixed access network and IP core network. For a complete list and details, refer to the **GSMA Strategy Paper for Circular Economy: Network equipment** (see p16 and the Appendix).
- 1.4a(i): Disclose the percentage of network equipment decommissioned in the reporting year that was repaired, reused or sold to another company after it was decommissioned. This can be reported by units, volume/weight and/or purchase price. For example, if reporting by units, this can be calculated as:
  Number of units of network equipment decommissioned in the reporting year that was repaired, reused or sold to another company ÷ Total number of units of network equipment decommissioned in the reporting year.

Continued >

Environment

- 1.4a(ii): Disclose the percentage of network equipment installed in the reporting year that is a reused or refurbished product. For example, if reporting by units, this can be calculated as:
  Number of units of reused or refurbished network equipment installed in the reporting year ÷ Total number of units of network equipment installed in the reporting year.
- **1.4b: Mobile devices** include smartphones, feature phones, wearables and mobile routers. Operators may choose to focus only on mobile phones or include other types of mobile devices, specifying what is included in the scope of the KPI. Mobile devices exclude network equipment and fixed equipment such as fixed CPEs, set-top boxes and smart home equipment.
- 1.4b(i): Disclose the take-back rate of mobile devices. This is calculated as:
  Number of used mobile devices collected through the company's take-back schemes in the reporting period ÷ Number of new mobile devices distributed directly to customers in the reporting period.
  - 'Used devices' are devices that have been used by their previous owner before being disposed of or devices that suffer from a major fault and cannot be repaired. Used devices do not include devices coming back to operators through legally required returns/change-of-mind policies. In geographies where it may be difficult for operators to collect whole devices (e.g. in developing markets), the definition of devices could be extended to equipment components/waste in quantity and quality that are equivalent to those of mobile devices (e.g. collecting 150 grammes of qualified equipment components/waste can be equivalent to collecting one whole mobile device). In this case, operators should specify this in their reporting, along with the conversion they are using.
  - 'Collected' devices are used devices that are brought back to operator stores, sent to operators either through direct postal routes or through third-party collection points, or picked-up by operators from collection points managed through operator partnerships (e.g. special operation in commercial mall, town hall etc.).
  - 'Take-back schemes' are any initiatives led by the operator to collect used devices such as trade-in schemes.
  - 'Distributed devices' refer to new devices that are sold, given (e.g. to charity), leased or provided as part of an 'as a service' model on the consumer market or B2B market by the mobile network operator to customers through the operator's own channels, including through physical and online stores and call centres. This includes devices that are sold, leased or provided 'as-a-service' to businesses that then provide the devices to their employees and contractors. This definition excludes devices that are distributed by MNOs to third parties such as distributors and retailers that then re-sell the device to end users.
  - This KPI relates to **new circularity targets** announced by GSMA in 2023: "By 2030, the number of used mobile devices collected through operator take-back schemes amounts to at least 20% of the number of new mobile devices distributed directly to customers.
- 1.4b(ii): Disclose the percentage of used mobile devices collected by operators that are repaired/reused or transferred to controlling recycling organisations (i.e. diverted from landfill or incineration). This is calculated as:
  Number of used mobile devices collected through the company's take-back schemes in the reporting period that were repaired, reused or transferred to controlled recycling organisations ÷ Number of used mobile devices collected through the company's take-back schemes in the reporting period.
  - 'Repaired/reused' refers to devices that are repaired or refurbished (either by the operator or by specialised repair or refurbishment companies) and re-distributed to end users for reuse. Refurbishment includes data cleaning, necessary repairs, testing and re-packaging.
  - 'Landfill or incineration' includes landfill sites, waste that is disposed of in the natural environment or the burning of devices (including with energy recovery). Exemptions to this are unrecyclable and hazardous materials that must be disposed of securely.
  - This KPI relates to **new circularity targets** announced by the GSMA in 2023: "By 2030, 100% of used mobile devices collected through operator take-back schemes will be repaired, reused or transferred to controlled recycling organisations."

Continued >

Environment

- 1.4b(iii): Disclose the percentage of mobile devices distributed to customers in the reporting period that were repaired/reused. This is calculated as:
  Number of repaired/reused mobile devices distributed directly to customers in the reporting period ÷ Total number of mobile devices distributed directly to customers in the reporting period.
- **1.4c: Customer premises equipment (CPE)** includes in-home devices such as internet routers, Wi-Fi hubs and access points, and set-top boxes.
- 1.4c(i): Disclose the take-back rate of CPE if relevant to your company. This is calculated as:
  Number of used CPE collected through the company's take-back schemes in the reporting period ÷ Total number of CPE devices distributed directly to customers in the reporting period.
- 1.4c(ii): Disclose the percentage of used CPE collected by operators that are repaired/reused or transferred to controlling recycling organisations (i.e. diverted from landfill or incineration). This is calculated as:
  Number of used CPE collected through the company's take-back schemes in the reporting period that were repaired, reused or transferred to controlled recycling organisations ÷ Number of used CPE collected through the company's take-back schemes in the reporting period.
- 1.4c(iii): Disclose the percentage of CPE distributed to customers in the reporting period that were repaired/reused. This is calculated as:
  Number of repaired/reused CPE distributed directly to customers in the reporting period ÷ Total number of CPE distributed directly to customers in the reporting period.

Electronic waste	**1.5a. Electronic waste** i. Total electronic waste generated (tonnes) ii. Percentage of electronic waste reused or recycled, by weight (%)	GRI 306-3 (modified); SASB TC-TL-440a.1 (modified)

Guidance:

- 1.5a(i): Disclose the total amount of electronic waste generated by the company during the reporting period (in tonnes). Electronic waste includes network equipment, mobile devices, CPE and other electronic waste from operations (e.g. employee laptops, servers, displays etc.).
- 1.5a(ii): Disclose the percentage of electronic waste generated in the reporting period that is reused or recycled (i.e. diverted from landfill or incineration). This is calculated as:
  Electronic waste that is reused or recycled in the reporting period ÷ Total electronic waste generated in the reporting period.

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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

Guidance (based on ITU Indicator 2.6):

- 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: [(total number of inhabitants covered by the company's mobile cellular signal)/(total population of country)] x 100.
- Coverage should only refer to 3G, 4G and 5G mobile cellular technologies. Each technology type should be disclosed separately.

Topic	KPI	Alignment
Device and subscription affordability	**2.2a. Retail price of the most affordable smartphone, as percentage of monthly GDP per capita** **2.2b. Retail price of 1GB of data, as percentage of monthly GDP per capita**	GSMA Methodology

Guidance (based on GSMA Methodology for calculating affordability):

- These disclosures should be reported at the country level.
- 2.2a: Device affordability is calculated as: [price of the cheapest smartphone device/(GDP per capita in reporting country as reported by the IMF World Economic Outlook/12)] x 100.
- 2.2b: Data affordability is calculated as: [price of 1Gb of data in reporting country/(GDP per capita in reporting country as reported by the IMF World Economic Outlook/12)] x 100.

Topic	KPI	Alignment
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

Guidance:

- 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.

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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):

- 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:
  - 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):

- 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.

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* 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)** **4.1b. If yes, how many of the following elements does it cover?** a. Organisational governance b. Human rights c. Labour practices d. Environment e. Fair operating practices f. Consumer issues g. Community involvement and development	ISO 20400:2017

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.

Topic	KPI	Alignment
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** **4.2b. Percentage of suppliers assessed against the sustainable procurement policy through site visits, within the previous two years**	GRI 308-1; GRI 414-1 (partially)

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

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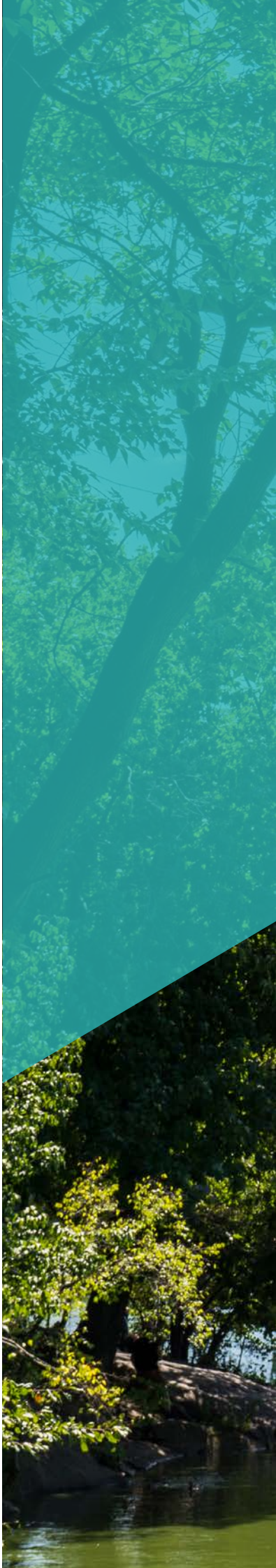
This initiative has been in part funded by the Swedish International Development Cooperation Agency, Sida, and is supported by the GSMA and its members. Sida does not necessarily share the views expressed in this material. Responsibility for its contents rests entirely with the authors.



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