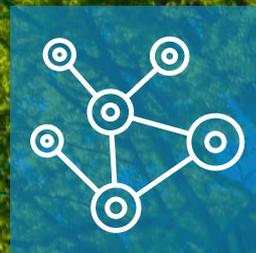


GSMA™

# ESG Metrics for Mobile: insights from early adopters

December 2023





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.

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# Contents

<b>Executive summary</b>	<b>4</b>
<hr/>	
<b>1. Sustainability reporting in context</b>	<b>9</b>
The evolving landscape of sustainability reporting	10
Sustainability reporting challenges	11
<hr/>	
<b>2. Environment</b>	<b>13</b>
Reducing environmental impacts	14
ESG Metrics for Mobile findings	17
Further reading	19
<hr/>	
<b>3. Digital inclusion</b>	<b>20</b>
ESG Metrics for Mobile findings	23
Further reading	24
<hr/>	
<b>4. Digital integrity</b>	<b>25</b>
ESG Metrics for Mobile findings	28
Further reading	29
<hr/>	
<b>5. Supply chain</b>	<b>30</b>
ESG Metrics for Mobile findings	32
Further reading	33
<hr/>	
<b>6. Next steps</b>	<b>34</b>
Looking ahead to 2024 and beyond	36



# Executive Summary



# Assessing the sustainability performance of mobile operators

With stakeholders becoming increasingly informed and discerning in their assessment of sustainability claims, the need for a robust and consistent approach to measuring and communicating sustainability performance has reached a new level of importance. With this in mind, the GSMA devised two frameworks to assess the sustainability performance of mobile operators and understand their interactions with society.

- **The GSMA Sustainability Assessment Framework** was designed in collaboration with Yale University to guide best practice and progress on sustainable development activities specific to the mobile sector.<sup>1</sup> The material issues assessed in the framework were selected based on stakeholder interest and impact on business, through research conducted by the GSMA. The assessment is based on publicly available information, such as company sustainability reports, annual reports and other online communications.

- **ESG Metrics for Mobile** is a new ESG reporting framework tailored specifically to the telecoms sector.<sup>2</sup> Developed by GSMA and EY, it incorporates 10 industry-specific KPIs, which offer a consistent and comparable perspective on the industry's most material impacts and drivers of value. In 2023, 10 mobile operators (Dialog Axiata, Globe, MTS, Orange, Singtel, STC, Telefónica, Telenor, Turkcell and Zain) committed to participating in the ESG Metrics for Mobile pilot programme.

This report analyses the latest data collected through these frameworks to understand the landscape and progress of operator efforts in social and environmental sustainability. The report structure follows the four categories of the ESG Metrics for Mobile KPIs: environment, digital inclusion, digital integrity and supply chain.



<sup>1</sup> *The GSMA Sustainability Assessment Framework 2021*, GSMA, 2021

<sup>2</sup> *ESG Metrics for Mobile*, GSMA, 2022



## Environment

By committing to net-zero targets, operators are taking action to reduce their emissions, as well as their indirect emissions up and down their value chains. Today, 62 operator groups representing 61% of global mobile revenue are committed to science-based targets.<sup>3</sup> The high degree of climate disclosure among operators is also evident in the GSMA's Sustainability Assessment Framework, which lists the Climate Impact category as the highest scoring issue. However, there remains work to be done on disclosing information related to Scope 3 emissions, which account for the majority of CO<sub>2</sub> emissions for operators and are most complex to assess.

Among the operators participating in the ESG Metrics for Mobile pilot, the median proportion of Scope 3 emissions in relation to total emissions stood at 83%. As with Scope 1 and 2 emissions per GB, there was significant variation in Scope 3 emissions per GB. For instance, the operator with the highest Scope 3 emissions recorded a value 20 times greater than the lowest. This highlights the difficulty of making comparisons between the Scope 3 emissions of operators due to variances in operator reporting boundaries, methodologies and databases.

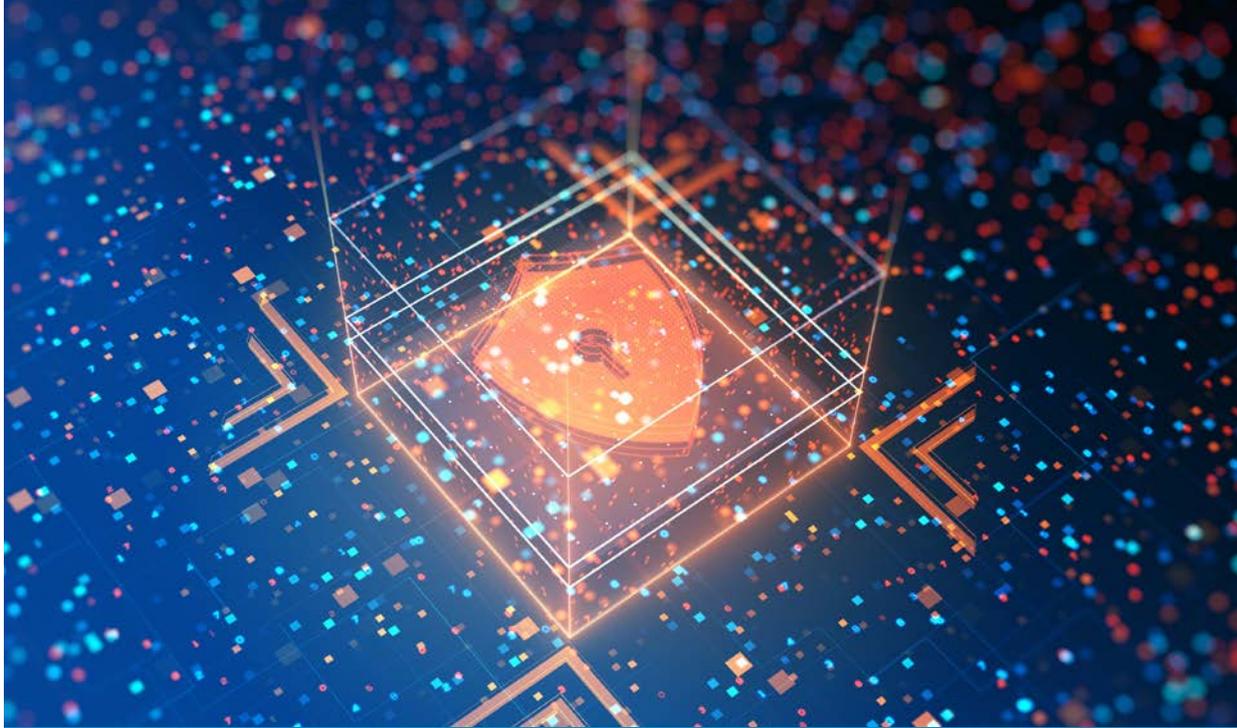


## Digital inclusion

Digital Inclusion scored sixth highest in the material issues assessed in the GSMA's Sustainability Assessment Framework, highlighting the comprehensiveness of public disclosures made by mobile operators. This is underpinned by the growing number of operators that publish digital inclusion policies or clear strategic commitments for diversity. In many cases, these commitments are supported by performance data and targets, particularly on the proportion of the population covered by mobile broadband networks, which reached 95% at the end of 2022.

However, digital inclusion is not only about network coverage. As the coverage gap narrows, attention is shifting towards closing the usage gap. Therefore, operators should also convey their progress in tackling other barriers to mobile internet access in their public disclosures, which is still thin on the ground. The mobile industry continues to make progress on improving digital skills. ESG Metrics for Mobile pilot data showed that, on average, 0.24% of subscribers received digital skills training from the 10 participating operators in 2022. This percentage might appear modest but equates to more than 13 million people when extrapolated across the total global mobile subscriber base (5.5 billion individuals). This is also a global percentage, so it will be skewed down by subscribers in countries where virtually everyone is already on the internet, meaning the true take-up rate in low- and middle-income countries is likely higher.

<sup>3</sup> *Mobile Net Zero: State of the Industry on Climate Action 2023*, GSMA, 2023



## Digital integrity

Most operators assessed in the GSMA Sustainability Assessment Framework have clear policy and governance structures in place for ensuring customer privacy and security across services and operations, while leading operators also disclose performance data on aspects such as data enquiries and data breaches. As a result, Privacy and Cyber Security consistently ranks as one of the highest scoring material issues in the GSMA Sustainability Assessment Framework.

Additionally, in the GSMA's ESG Metrics for Mobile pilot, all participating operators reported the existence of a digital rights policy. However, the depth and comprehensiveness of these policies can vary significantly among operators. All operators participating in the pilot confirmed the presence of controls or programmes aimed at enhancing online safety for children and other vulnerable groups.



## Supply chain

Public reporting on sustainable procurement is well established among mobile operators. Of the 25 operator groups assessed as part of the GSMA's Sustainability Assessment Framework, 22 have specific policies relating to how they hold suppliers accountable to ethical, social, human rights and governance standards, while 17 provide quantitative performance data on holding suppliers accountable to these standards.

The GSMA ESG Metrics for Mobile framework asks operators to specify the aspects covered by their sustainable procurement policies, drawing from ISO 20400 guidelines. Elements such as labour practices, environmental considerations and fair operating practices were present in all operators' sustainable procurement policies.

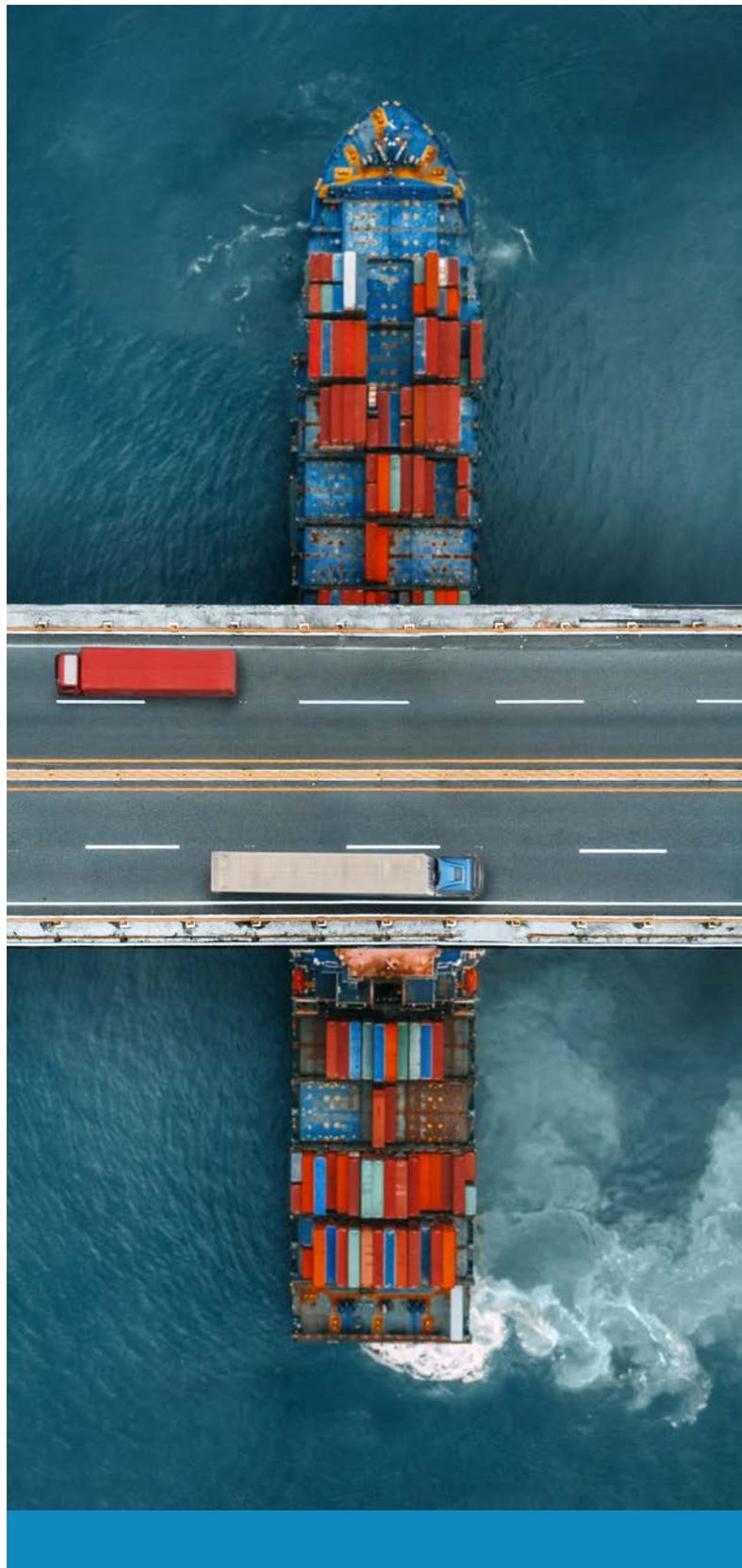
# Outlook: towards a harmonised set of KPIs

Adopting a harmonised set of KPIs across the mobile industry will be central to future progress in sustainability reporting. Through the application of these metrics, operators will also generate valuable insights that can inform internal decision-making processes, enable data-driven interactions with stakeholders and showcase progress made towards ESG objectives.

The ESG Metrics for Mobile KPIs pilot is an important step forward for improving consistency and comparability across sustainability reporting in the mobile industry. However, while operators participating in the pilot reported a comprehensive set of metrics across topics such as emissions, energy, network coverage, digital skills and data protection, there remains room to improve disclosures on waste reduction, affordability and sustainable supply chains. Many of these are relatively novel reporting areas and companies face challenges in providing comprehensive data due to the limited availability of information.

To help deliver a more consistent approach to sustainability reporting in the mobile industry, GSMA Intelligence will run an extended version of the ESG Metrics for Mobile pilot in 2024, based on new 2023 data. For the dataset to become more representative of the broader industry, we invite more telecoms operators to join us.

For more information on the project or to become directly involved, contact [betterfuture@gsma.com](mailto:betterfuture@gsma.com), including the subject header 'ESG Benchmarking'.





# 1. Sustainability reporting in context



# The evolving landscape of sustainability reporting



Mobile operators have been at the forefront of a broader cultural change that puts sustainability at the core of corporate strategy. The day-to-day business of the mobile industry now includes efforts to connect the unconnected, minimise the carbon emissions associated with mobile networks and develop innovative services to advance digital equality.

In an evolving landscape, where consumers, employees and investors increasingly base their decisions on a company's sustainability track record, the need to effectively measure and communicate progress has become paramount. This urgency is accentuated by the heightened scrutiny of sustainability initiatives across various sectors and organisations, prompting companies to reassess their approaches to evaluating performance.<sup>4</sup>

At the same time, enhancing sustainability reporting is crucial for ensuring compliance with evolving reporting standards. As sustainability issues ascend the global agenda, policymakers are introducing more stringent carbon-reporting regulations and reinforcing mandates for businesses to disclose a comprehensive set of metrics.

Prominent initiatives such as the European Commission's Corporate Sustainability Reporting Directive, the UK's Streamlined Energy and Reporting policy and the SEC's decision to standardise the disclosure of Scope 1, 2 and 3 emissions for all registered public companies serve as noteworthy steps in this direction. It is expected that policymakers in other regions will follow suit by introducing their own directives for companies to increase disclosures on progress towards sustainable targets.

<sup>4</sup> See, for example: 'S&P drops ESG scores from debt rating amid scrutiny', *Financial Times*, August 2023

# Sustainability reporting challenges

Like many sectors, sustainability reporting in the mobile industry suffers from complexity and fragmentation, and can be impacted by regional environments. For instance, while most mobile operators' annual sustainability reports contain crucial information on topics such as greenhouse gas emissions, energy consumption and digital inclusion, there is a noticeable lack of consistency in reporting approaches. This inconsistency limits the industry's ability to comprehensively demonstrate its societal value, since the information provided may not follow a uniform or standardised format.

To address these challenges, the GSMA has developed two frameworks to assess the sustainability performance of mobile operators and understand their interactions with society. The Sustainability Assessment Framework identifies the most relevant material issues for the mobile sector, while ESG Metrics for Mobile establishes reporting metrics related to these issues.

- **The Sustainability Assessment Framework**, designed in collaboration with Yale University, measures progress on sustainable development activities specific to the mobile sector. The assessment is based on publicly available information, such as company sustainability reports, annual reports and other online communications.
- **ESG Metrics for Mobile** is an ESG reporting framework tailored specifically to the mobile sector.<sup>5</sup> The framework, developed by GSMA and EY, incorporates 10 industry-specific KPIs, which offer a consistent and comparable perspective on the industry's most material impacts and drivers of value.

This report analyses the data collected through these frameworks to understand the landscape of operator efforts in social and environmental sustainability. The report provides valuable insights into best practices, as well as recommendations for the mobile industry and its stakeholders.



5 *ESG Metrics for Mobile*, GSMA, 2022

**Figure 1** | Sustainability Assessment Framework

 <b>Customer and Society</b>	Customer Service
	Digital Inclusion
	Child Online Safety
	Business Ethics
	Privacy and Cyber-security
	Freedom of Expression
	Mobile Communications and Health
	Tax Transparency
 <b>Employee and Supply Chain</b>	Responsible Employer
	Employee Diversity
	Health and Safety
	Responsible Sourcing
	Supplier Capacity Development
 <b>Environment</b>	Waste and E-waste
	Climate Impact
	Climate Risk

Source: GSMA

**Figure 2** | ESG Metrics for Mobile framework

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

Source: GSMA



## 2. Environment





# Environment

Climate change is one of the greatest threats humanity has ever faced, with wide-ranging consequences for people and nature across the world. In response, mobile operators are increasing their commitments to reach net-zero carbon emissions. By committing to net-zero targets, operators are taking responsibility for their emissions, as well as indirect emissions up and down their value chains. Today, 62 operator groups representing 61% of the global mobile industry by revenue are committed to science-based targets.<sup>6</sup>

To better understand current emissions and reduce them, the mobile industry has increased its level of climate disclosure. Of the industry, 67 operators in 2022 disclosed to the Carbon Disclosure Project (CDP) – the global disclosure system. This is an increase of seven operators versus 2021 and accounts for 79% of mobile revenue and 66% of global connections.<sup>7</sup> The

high degree of climate disclosure among operators is also evident in the GSMA's Sustainability Assessment Framework, which lists the Climate Impact category as the highest scoring issue.

However, further work remains on disclosing information related to Scope 3 emissions, which are largely from the supply chain. In 2023, the GSMA has published specific guidance for operators to help them with Scope 3 reporting.<sup>8</sup> Operators publicly disclosing Scope 3 emissions adhere to the guidelines set forth by the GHG Protocol's Corporate Value Chain (Scope 3) Standard, which splits Scope 3 emissions into 15 distinct categories. Singtel is one of the few operators to publicly report its emissions across each of the 15 categories.<sup>9</sup> This approach enables readers of Singtel's sustainability report to gain a clear understanding of the factors behind its Scope 3 emissions and its advancements in emission reduction.

## Reducing environmental impacts

Transitioning to renewable energy sources forms part of many operators' strategies to reduce emissions. European and North American operators tend to be able to access renewable energy more easily via the grid, and many have set ambitious goals. Some already have network operations powered 100% by electricity from renewable sources. In these instances, renewables are mostly purchased via certified energy suppliers. Self-generated renewable electricity is more challenging given the limited space owned by mobile network operators. This is highlighted by the GSMA Intelligence Energy Benchmarking study, which shows that directly produced solar accounts for less than 1% of total energy consumption.<sup>10</sup>



6 *Mobile Net Zero: State of the Industry on Climate Action 2023*, GSMA, 2023

7 *Ibid*

8 *Scope 3 Guidance for Telecommunication Operators*, GSMA, 2023

9 Singtel Sustainability Report 2023

10 *Going green: benchmarking the energy efficiency of mobile networks (second edition)*, GSMA Intelligence, 2023



## Operator spotlight



### Globe Telecom's energy reporting

GSMA analysis reveals that an overwhelming majority (96%) of operators disclose data regarding their energy consumption.<sup>11</sup> Reporting of information about renewable energy consumption is more limited, partly because some operators do not or cannot access renewables. Globe Telecom serves as an example of an operator providing detailed public reporting on its renewable energy practices.<sup>12</sup> The company provides insights into its total energy consumption fuelled by renewable sources, encompassing specific details such as the volume of energy procured through power purchase agreements (PPAs).

Globe also provides information on both market-based and location-based Scope 2 emissions. This approach enables readers to gain insights into two crucial aspects: firstly, the energy contracts acquired (referred to as market-based emissions), and secondly, the average emission intensity of the grid (tCO<sub>2</sub>e/MWh) from which the actual energy consumption takes place (location-based emissions).

Beyond transitioning to renewable energy sources, operators can reduce their environmental impact by focusing on opportunities to transition both mobile devices and customer premises equipment to more circular business models. It is therefore important for operators to understand how these devices move into and out of their organisation to identify opportunities for waste prevention and the adoption of circularity measures. Working closely with operators, the GSMA developed a set of targets in 2023 to boost the mobile industry's circularity ambitions. Twelve operators have signed up to these targets so far.<sup>13</sup>

However, there is still limited data disclosure on e-waste. This can be attributed to various factors. For example, the GSMA's Strategy Paper for Circular Economy noted there is a data gap on what happens to devices when the first consumer no longer needs the device but does not return it to a mobile operator.<sup>14</sup> There are also limited organised or formal systems for taking back e-waste in some markets, creating further data availability challenges. This issue is particularly pronounced in low- and middle-income countries. It highlights the importance of partnerships, exemplified by the collaboration between Orange and Emmaüs International as discussed below.<sup>14</sup>

<sup>11</sup> *ESG Metrics for Mobile*, GSMA, 2022

<sup>12</sup> *Empowering Customers with Everyday Digital Solutions Integrated Report 2022*, Globe, 2023

<sup>13</sup> 'Mobile Industry eyes five billion 'dormant' phones sitting in desk drawers for reuse or recycling', GSMA, June 2023

<sup>14</sup> *Strategy Paper for Circular Economy: Mobile devices*, GSMA, 2022

<sup>15</sup> Emmaüs International is a not-for-profit organisation that aims to combat poverty and homelessness

## Operator spotlight



### Orange's circular economy reporting

Orange has implemented an array of initiatives aimed at extending the lifespan of its IT and network equipment. In its annual sustainability report, it quantifies the impact of these initiatives and provides key metrics, such as the number of devices collected.<sup>15</sup> For example, Orange has developed an internal platform for buying and selling reconditioned equipment, known as the Orange Sustainable and Circular Ambition for Recertification (OSCAR) programme. The initiative achieved almost €130 million in avoided or saved capital costs over a two-year period.

Furthermore, Orange aims to collect 90% of equipment (including Livebox routers and set-top boxes) after contract cancellation between 2022 and 2025. This equipment

then undergoes refurbishment to be leased once again. In 2022, it achieved a collection rate of 66%, collecting almost 3.7 million items of equipment across its European operations.

Orange faces more intricate challenges when repairing and reusing electronic devices in markets outside Europe. Illustrating its commitment to overcoming these challenges, Orange and Emmaüs International began running workshops in 2010 to facilitate the collection of mobile phone waste in Africa. They collected the equivalent of 428,000 mobiles in 2022. The aim between 2022 and 2025 is to collect Waste Electrical and Electronic Equipment (WEEE) equivalent in weight to 20% of the mobile phones sold in Africa and the Middle East.



<sup>15</sup> Orange 2022 Integrated Annual Report, Orange, 2023

# ESG Metrics for Mobile findings

Reducing energy consumption stands as a pivotal component within operators' pursuit of net-zero objectives. Analysis of energy consumption data submitted by participating operators shows the network accounts for an average of 90% of energy use for an operator. On average, operators used 1.1 MWh of energy to transfer 1000 GB of data in their network (0.00011/GB). Four operators exhibited energy consumption falling within the 0.00015–0.00019 MWh/GB range, while three operators reported substantially lower levels of network energy consumption, spanning from 0.00001 to 0.00005 MWh/GB. The differences between operators can be attributed to factors such as user behaviour patterns, data traffic per connection, climate or the geography of country networks.

Analysis of the Scope 1 and 2 emissions (tonnes CO<sub>2</sub>e) data submitted by operators participating in the ESG Metrics for Mobile

pilot shows there was an average 5% year-on-year reduction in absolute Scope 1 and 2 emissions among participating operators. That said, 4 out of 10 participating operators reported an absolute increase in Scope 1 and 2 emissions. Although the average increase across these four operators was only 3%, the upward trajectory of emissions highlights the importance of accelerating energy-efficiency programmes and the transition to renewable electricity.

To improve comparability across the industry, the ESG Metrics for Mobile framework asks operators to use 'gigabyte (GB) of data' as a denominator when reporting emissions. On average, operators produced 0.00007 tonnes CO<sub>2</sub> emissions (Scope 1 and 2 combined) per GB of data consumed. Scope 3 accounts for the majority of CO<sub>2</sub> emissions for operators. Of the participating operators, the median proportion of Scope 3 emissions in relation to total emissions stood at 83%,



highlighting the importance of measuring and reducing emissions within the supply chains of operators. As with Scope 1 and 2 emissions per GB, there was significant variation in Scope 3 emissions per GB. For instance, the operator with the highest Scope 3 emissions recorded a value that was 20 times greater than the lowest.

It can be difficult to make comparisons between the Scope 3 emissions of operators due to variances in operator reporting boundaries, methodologies and databases.

These factors can also introduce complexities when attempting year-on-year comparisons for Scope 3 emissions.<sup>16</sup> Notably, two participating operators recorded year-on-year fluctuations exceeding +/-50%. Setting these aside, the average year-on-year change in Scope 3 emissions among the participating operators amounted to -4%. This underscores operators' proactive efforts in curbing Scope 3 emissions, such as incorporating environmental criteria in tender calls and implementing recycling initiatives for network equipment and user devices.

**Table 1** | ESG Metrics for Mobile – Environment: selected KPIs

Topic	Metric	Maximum	Minimum	Average	Median
<b>Emissions</b>	Absolute Scope 1 and 2 emissions (tonnes CO <sub>2</sub> e) per 1 GB data	0.0002	0.000003	0.0001	0.0001
	Absolute Scope 3 emissions (tonnes CO <sub>2</sub> e) per 1 GB data	0.0003	0.00002	0.0001	0.0001
	Percentage change in absolute Scope 1 and 2 emissions since last reporting period	5%	-34%	-5%	-3%
	Percentage change in absolute Scope 3 emissions since last reporting period	55%	-56%	-3.2%	-2.7%
<b>Energy</b>	Total energy consumed (MWh) per 1 GB of data	0.0002	0.00002	0.0001	0.0002
	Total network energy consumed (MWh) per 1 GB of data	0.0002	0.00001	0.0001	0.0001

Note: data derived from submissions provided by 10 operators. While these findings offer valuable insights into the practices of these operators, they may not necessarily represent the entire industry.

Source: GSMA

<sup>16</sup> To improve transparency, the GSMA has been working with members on Scope 3 measurement guidance.

# Further reading

The GSMA's Mobile Net Zero report assesses the progress of the mobile industry against its ambition to be net zero by 2050.<sup>17</sup> It demonstrates how operators are working to improve energy efficiency across their footprints, transition to renewable energy and make supply chains more sustainable.

To help operators on their net-zero journey, the GSMA has published a step-by-step guide for mobile operators to achieve near-term science-based targets,<sup>18</sup> as well as specific guidance for assessing and reporting Scope 3 GHG emissions.<sup>19</sup> The GSMA has also published a strategy paper on the circular economy, focusing on how network equipment can evolve towards more circular business models.<sup>20</sup>

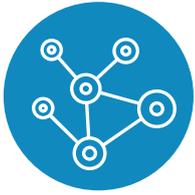


17 *Mobile Net Zero: State of the Industry on Climate Action 2023*, GSMA, 2023  
18 *Achieving Climate Targets Guide*, GSMA, 2023  
19 *Scope 3 Guidance for Telecommunications Operators*, GSMA, 2023  
20 *Strategy Paper for Circular Economy: Mobile devices*, GSMA, 2022



# 3. Digital inclusion





# Digital inclusion

Digital inclusion aims to ensure equitable access to mobile products and services for all members of society, particularly those underserved. GSMA research reveals that while 95% of the population have access to mobile broadband coverage, only 57% of the world's population use mobile internet. The primary hurdles hindering broader mobile internet<sup>21</sup> adoption include affordability, especially of handsets, and the need to bolster digital skills.

Digital Inclusion ranked sixth highest in the material issues assessed in the GSMA's Sustainability Assessment Framework, highlighting the comprehensiveness of public disclosures made by mobile operators. This is underpinned by the growing number of operators that publish digital inclusion policies or clear strategic commitments for diversity. For example, Vodafone's 'Inclusion for all' statement sets out a commitment to ensure its products and services are usable by the broadest possible audience.<sup>22</sup>

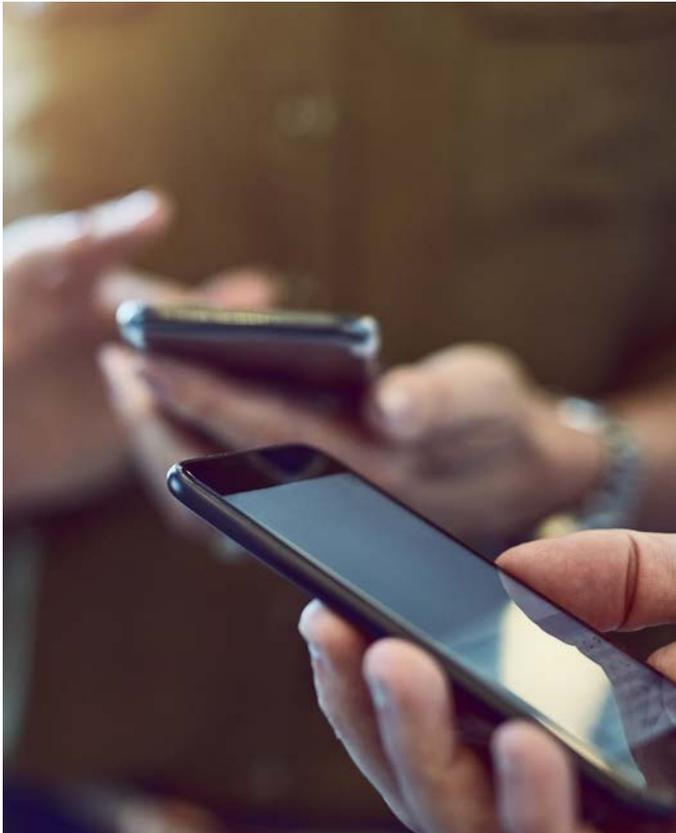
In many cases, these commitments are supported by performance data and targets. For instance, Airtel Africa provides information on 2G, 3G and 4G coverage in its annual sustainability report. The operator also provides data on network coverage among people living in rural areas. With most urban and peri-urban areas now covered by mobile networks, tracking the availability of networks in rural areas will become increasingly important to ensure equal access to mobile broadband services for all segments of the population. As part of its digital inclusion strategy, Airtel Africa has committed to reaching rural mobile coverage of 80% across its markets by 2025.

However, digital inclusion is not just about network coverage. Operators must also explain how they are addressing other barriers to mobile internet access in their public disclosures. GSMA research shows



<sup>21</sup> *The State of Mobile Internet Connectivity 2023*, GSMA, 2023

<sup>22</sup> [www.vodafone.com/sustainable-business/our-purpose-pillars/inclusion-all](http://www.vodafone.com/sustainable-business/our-purpose-pillars/inclusion-all)



## Operator spotlight



### Telenor's digital skills reporting

Telenor is an example of a mobile operator providing clear reporting on the number of people who have completed its digital skills training courses. In 2022, it trained more than 1.3 million people in digital skills across the Nordics and Asia. Moreover, since 2021, it has trained 3 million people and is on track to reach its 2025 goal of 6 million.<sup>23</sup>

To measure the outcomes that its training programmes have produced or influenced, Telenor provides information on the proportion of its subscriber base that are active data users. This figure currently stands at 58%, with the operator aiming to increase it to 68% by 2025. Other metrics such as demonstrable skills improvements and improved generation can also be used to measure the effectiveness of digital skills training.

that in 2022, the median cost of an internet-enabled handset across low- and middle-income countries (LMICs) was 16.3% of monthly GDP, and the median cost of 1 GB of data was 1.4% of monthly GDP.<sup>24</sup> However, while affordability of entry-level data plans continues to improve across most regions, affordability of entry-level handsets has remained generally unchanged.

MTN is one of the few operators to provide information in its annual sustainability reports on the cost of mobile data. It also shares information on the year-on-year reduction in blended data cost across its markets, enabling readers to understand whether its services are becoming more affordable over time. In comparison, disclosures on the number of people who have received digital skills training are widely available in operator sustainability reports and press releases. For example, Millicom had trained more than 700,000 children and teenagers through its digital education programme, as of June 2023.<sup>25</sup>



<sup>23</sup> Telenor Annual Report 2022, Telenor, 2023

<sup>24</sup> The State of Mobile Internet Connectivity 2023, GSMA, 2023

<sup>25</sup> [www.millicom.com/what-we-stand-for/society/digital-education/](https://www.millicom.com/what-we-stand-for/society/digital-education/)

# ESG Metrics for Mobile findings

Analysis of the data provided by operators participating in the ESG Metrics for Mobile pilot programme underscores the significant challenge of handset affordability. The median affordability of entry-level handsets among participating operators stood at 14% of monthly GDP per capita, reaching as high as 26% in certain markets. In contrast, in high-income countries, the cost of an entry-level internet-enabled handset, relative to monthly GDP per capita, was as low as 2%, pointing to the significant disparity in affordability between markets. On a positive note, all participating operators in the ESG Metrics for Mobile pilot programme indicated that the average cost of 1 GB of data remained well below the 2% of income threshold.

The ESG Metrics for Mobile framework also asks operators to report on 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.<sup>26</sup> The submitted data showed that, on average, 0.24% of subscribers received digital skills training across the 10 pilot operators in 2022. This percentage might appear modest, but it equates to more than 13 million people when extrapolated across the total global mobile subscriber base (5.5 billion individuals). This is also a global percentage, so it will be skewed down by subscribers in countries where virtually everyone is already on the internet. The true take-up rate in LMICs is likely to be higher.

**Table 2** | ESG Metrics for Mobile – Digital inclusion: KPIs

Topic	Metric	Maximum	Minimum	Average	Median
<b>Network coverage</b>	Percentage of population covered by operator's 3G network	99%	87%	95%	97%
	Percentage of population covered by operator's 4G network	99%	90%	96%	95%
	Percentage of population covered by operator's 5G network	99%	29%	56%	41%
<b>Affordability</b>	Cost of the most affordable smartphone, as a percentage of monthly GDP per capita	26%	1.8%	13.8%	13.7%
	Average cost of 1 GB of data, as a percentage of monthly GDP per capita	0.6%	0.01%	0.17%	0.03%
<b>Digital skills</b>	Number of people (excluding employees) who have completed a basic, intermediate or advanced digital skills training programme (as per ITU definition), divided by the total subscriber footprint of a given operator	0.81%	0.0002%	0.24%	0.05%

Note: data derived from submissions provided by 10 operators. While these findings offer valuable insights into the practices of these operators, they may not necessarily represent the entire industry.

Source: GSMA

26 Digital Skills Toolkit, ITU, 2018

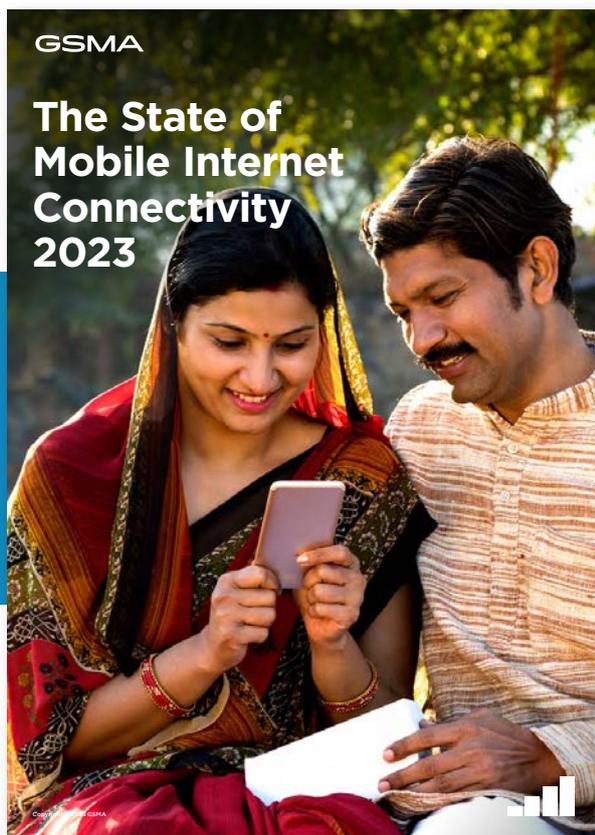
# Further reading

While this report analyses the role of telecoms operators in advancing digital inclusion, it is also important to consider how companies across other industries are helping advance a more inclusive digital economy and society. The World Benchmarking Alliance's Digital Inclusion Benchmark assesses where a range of companies are on their journey to a more digitally inclusive environment.<sup>27</sup> Telecoms operators topped its 2023 rankings, accounting for 11 of the top 20 highest-scoring companies.

The GSMA produces multiple reports on digital inclusion. For example, the State of Mobile Internet Connectivity Report provides a comprehensive overview of trends in global connectivity, as well as insights into the key barriers to mobile internet adoption and use.<sup>28</sup> To help address one of these

barriers – lack of digital skills – the GSMA's Mobile Internet Skills Training Toolkit (MISTT) provides a set of free resources to teach people the basic skills they need to access and use mobile internet.<sup>29</sup>

Additionally, GSMA's Mobile Gender Gap Report explores the latest data on the mobile gender gap, the key barriers preventing women's equal access to and use of mobile, and what is needed to close the gap.<sup>30</sup> The report highlights the need to deliver digital skills training programmes that meet women's preferences for what and how they want to learn. In recognition of this, the GSMA co-founded the EQUALS Her Digital Skills initiative, which aims to design and provide access to free, gender transformative, foundational digital skills training, e-skills badges and e-mentoring for 1 million women and girls by 2026.<sup>31</sup>



27 [www.worldbenchmarkingalliance.org/digital-inclusion-benchmark/](http://www.worldbenchmarkingalliance.org/digital-inclusion-benchmark/)  
28 *The State of Mobile Internet Connectivity 2023*, GSMA, 2023  
29 [www.gsma.com/mobilefordevelopment/mistt/](http://www.gsma.com/mobilefordevelopment/mistt/)  
30 *The Mobile Gender Gap Report 2023*, GSMA, 2023  
31 [www.equalshintech.org/her-digital-skills](http://www.equalshintech.org/her-digital-skills)



# 4. Digital integrity





# Digital integrity

As mobile services become increasingly ingrained in people's social, economic and professional lives, there is a corresponding need to ensure that consumers can use services safely and securely. The mobile sector has a key role to play in supporting 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.

Most operators assessed in the GSMA Sustainability Assessment Framework have clear policy and governance structures in place for ensuring customer privacy across services and operations. This helps operators to identify risks relating to collection, retention and use of sensitive personal data, while building resilience into the systems and processes governing data. Leading operators also disclose performance data into aspects such as data enquiries and data breaches. For example, Telefónica publishes

data on requests for information by authorities; proceedings opened on data protection issues; data protection fines; total number of cybersecurity incidents classified as serious; cybersecurity incidences affected personal customer data and number of customers affected by data breaches.<sup>32</sup> Privacy and Cyber Security consistently ranks as one of the highest-scoring material issues in the GSMA Sustainability Assessment Framework.

Conversely, Freedom of Expression was the lowest-scoring material issue in the most recent Sustainability Assessment Framework. The analysis revealed that 8 of the 25 companies assessed do not disclose any relevant information on Freedom of Expression. Vodafone is an example of a company that reports more substantial information on this topic. The operator publishes information on its website explaining how it aims to respect privacy and freedom of expression in addition to providing annual reporting on disclosure demands from government authorities.<sup>33</sup>



<sup>32</sup> 2022 Management and ESG Report, Telefónica, 2023

<sup>33</sup> [www.vodafone.com/sustainable-business/operating-responsibly/handling-government-demands](http://www.vodafone.com/sustainable-business/operating-responsibly/handling-government-demands)



Some operators discuss Freedom of Expression in their digital rights policies. For example, in its annual sustainability report, Verizon provides details on how it responds to government demands, as well as how it determines, communicates and enforces policies and commercial practices that affect users' fundamental right to privacy, freedom of expression and information. Furthermore, Verizon's Code of Conduct notes the company's policy requirement to obtain legal approval before providing anything of value to any government official, the need for adequate controls over third parties who may interact with government officials on Verizon's behalf, and the importance of maintaining records that fully and accurately document all business transactions.

The GSMA Sustainability Assessment Framework also analyses operator efforts aimed at addressing consumer concerns regarding online safety for children. Most operators assessed disclose policies and governance arrangements related to protecting children against inappropriate content and issues such as privacy and grooming, while almost half (44%) disclosed quantitative data to demonstrate performance on the issue, typically in the form of the number of children or parents provided with training. For example, Grameenphone, in partnership with Unicef, launched the Child Online Safety programme, which concluded in June 2022. It reported that more than 300,000 children received training in online safety over the course of the project.<sup>34</sup>

34 Telenor Annual Report 2022, Telenor, 2023

# ESG Metrics for Mobile findings

The ESG Metrics for Mobile framework helps operators decide which data privacy metrics to include in their sustainability reporting. The KPIs are aligned to the industry standards developed by the Sustainability Accounting Standards Board, 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. Notably, half of the participating operators in the ESG Metrics for Mobile pilot disclosed that they had encountered no data breaches at all.

All participating operators in the ESG Metrics for Mobile pilot reported the existence of a digital rights policy. However, the depth and comprehensiveness of these policies can vary significantly among operators. The GSMA ESG Metrics for Mobile framework underscores the importance

of a mobile operator’s digital rights policy encompassing a broad spectrum of critical issues. This includes addressing topics such as data privacy, transparency, freedom of expression, government mandates to shut down or restrict access and government requests for data.

All operators participating in the ESG Metrics for Mobile pilot confirmed the presence of controls or programmes aimed at enhancing safety for children and other vulnerable groups when online.<sup>35</sup> For example, several operators provide free customised training courses for vulnerable groups as well as tailored customer support in their sales channels. They also offer or signpost technical tools, solutions and where to go for further support (e.g. parental controls and helplines). These efforts raise awareness of the issues and provide avenues for customers to get further support.

**Table 3** | ESG Metrics for Mobile – Digital integrity: selected KPIs

Topic	Metric	Maximum	Minimum	Average	Median
<b>Data protection</b>	Number of data breaches, per million subscribers	0.038	0	0.007	0.000004
	Number of customers affected by data breaches, per million subscribers	9.8	0	1.6	0.0006
	Number of regulatory actions for data protection violations (e.g. marketing-related complaints, data breaches), per million subscribers	0.019	0	0.0038	0

Note: data derived from submissions provided by 10 operators. While these findings offer valuable insights into the practices of these operators, they may not necessarily represent the entire industry.

Source: GSMA

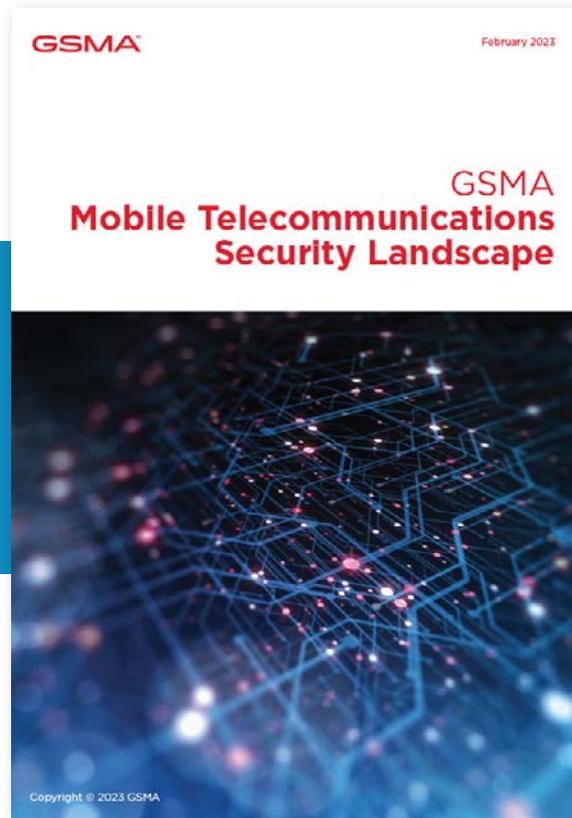
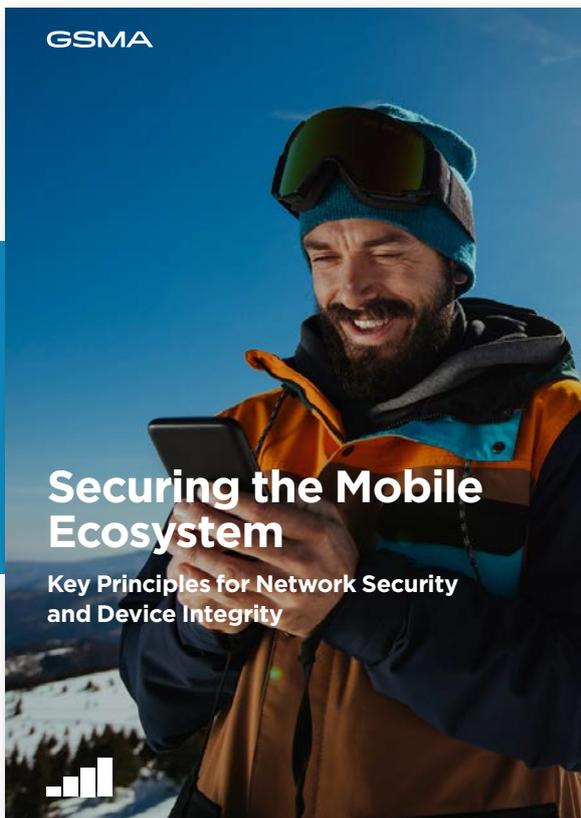
<sup>35</sup> Per the 2020 UN Roadmap for Digital Cooperation, vulnerable groups can include women, older people, young people, children, migrants, refugees, internally displaced people, people with disabilities, rural populations and indigenous people.

# Further reading

The GSMA report *Safety, Privacy and Security Across the Mobile Ecosystem* takes each of the major issues of consumer protection, privacy, public safety and infrastructure security in turn. It highlights the potential issues, what is already being done to address them and what further actions may be needed.<sup>36</sup> Furthermore, the GSMA publishes the *Mobile Telecommunications Security Landscape* report, which highlights the growing security risks arising from malicious interventions in supply chains and direct physical and electronic attacks on infrastructure.<sup>37</sup> It also considers the steps operators can take to safeguard the confidentiality, integrity and availability of communications across the network by

securing critical assets (hardware, software and data) and preventing unauthorised access or intrusion to any of the constituent nodes or links.

The GSMA Guide to Enhancing Children's Lives Through Mobile outlines how mobile operators can contribute to positive outcomes for children in terms of their rights, development and well-being while minimising any adverse risks and impacts that mobile services can pose for children. The GSMA has collated a series of inspiring stories from mobile operators about their work supporting children's rights, to mark the 30th anniversary of the UN Convention on the Rights of the Child (CRC).



36 *Safety, privacy and security across the mobile ecosystem*, GSMA, 2022

37 *GSMA Mobile Telecommunications Security Landscape 2023*, GSMA, 2023



# 5. Supply chain





# Supply chain

Mobile operators' suppliers range from SMEs providing services to local offices through to large, global companies manufacturing network equipment and electronic devices. The supply chain for purchased equipment is complex, with multiple tiers and thousands of workers across different countries.

Within their supply chains, companies face risks of illegal or unethical behaviour as well as low environmental standards and poor treatment of workers, including labour rights violations. This can result in a wide range of potential negative impacts for workers, their families and local communities. If poor practices come to light, it is often the well-recognised, large brands at the 'top' of the supply chain that face the greatest reputational damage.

Public reporting on sustainable procurement is well established among mobile operators, given the complex and multifaceted issues found across the value chain for mobile devices and network equipment. Of the 25 operator groups assessed as part of the GSMA's Sustainability Assessment

Framework, 22 have specific policies relating to how they hold suppliers accountable to ethical, social, human rights and governance standards. Meanwhile, 17 of the operator groups provide quantitative performance data on holding suppliers accountable to these standards.

Dialog Axiata is an example of an operator that has made recent strides in its supply chain reporting. In its sustainability report, the operator demonstrates its commitment to responsible procurement by disclosing the percentage of new suppliers screened for labour practices and negative societal impact. It also provides data on the supplier audits it performs, differentiating between physical site inspections and remote assessments conducted via Microsoft Teams. Dialog Axiata discloses additional supplier-related data, such as the total number of suppliers (differentiating between national and international) and spending by supplier category. This transparency aids stakeholders in understanding Dialog's supplier relationships.



# ESG Metrics for Mobile findings

The GSMA ESG Metrics framework asks operators to specify the aspects covered by their sustainable procurement policies, drawing from ISO 20400 guidelines. Elements such as labour practices, environmental considerations and fair operating practices were present in all operators' sustainable procurement policies. This is unsurprising given these have immediate and tangible impacts on a company's sustainability profile. Furthermore, regulations in many countries mandate companies to follow sustainable practices related to these elements.

The supplier assessment disclosure also asks operators to provide information regarding the proportion of suppliers that have been screened against their sustainable procurement policy. The proportion of suppliers assessed ranged from 65% to 100%. For some operators, the task of screening

all their suppliers against the sustainable procurement policy can be challenging when dealing with a substantial supplier base, often numbering in the thousands. This undertaking demands significant resources. It is therefore logical to prioritise screening the most strategically important suppliers. These tend to be the suppliers for whom no viable alternatives exist and/or suppliers who account for the largest portion of total spend.

Site visits play an important role in supporting supplier assessment, ensuring transparency and preventing non-compliance. Nonetheless, the cost of such visits means operators have to balance in-person assessments with alternative methods to assess suppliers, such as online inspections via video conferencing tools. On average, participating operators assessed around 85% of their suppliers through site visits.

**Table 4** | ESG Metrics for Mobile – Supply Chain: selected KPIs

Topic	Metric	Maximum	Minimum	Average	Median
Sustainable supply chain	Percentage of suppliers screened against the sustainable procurement policy using company-defined and documented assessment procedure, within the previous two years	100%	65%	93%	100%
	Percentage of suppliers assessed against the sustainable procurement policy through site visits, within the previous two years	99%	72%	85.5%	85.5%

Note: data derived from submissions provided by 10 operators. While these findings offer valuable insights into the practices of these operators, they may not necessarily represent the entire industry.

Source: GSMA

# Further reading

GSMA's human rights guidance provides an introduction to some of the key human rights issues for mobile operators, as well as case studies and resources to support GSMA members to develop and strengthen their human rights programmes.<sup>38</sup> It focuses on privacy and freedom of expression, child rights and safety online, child labour, forced labour and human trafficking, conflict minerals and community impacts from building and maintaining infrastructure.

The Joint Audit Cooperation (JAC) is an association of 17 telecoms operators that aims to verify, assess and develop the corporate social responsibility performance (including labour standards) of shared suppliers in the sector. This is done through coordinated on-site audits of suppliers based on a common verification, assessment and development methodology.<sup>39</sup>



<sup>38</sup> *Human Rights Guidance for the Mobile Industry*, GSMA, 2020  
<sup>39</sup> [jac-initiative.com](http://jac-initiative.com)



# 6. Next steps



# Unlocking value through the ESG Metrics for Mobile

Embracing a standardised set of ESG KPIs across the mobile industry offers numerous benefits. These KPIs streamline data collection and reporting processes for operators, fostering consistency in the information disclosed across the industry. As more operators adopt these KPIs, this not only equips operators with a clearer grasp of their ESG performance but also empowers them to identify how they stand compared to the industry average.

Moreover, the adoption of these KPIs can enhance operators' engagement with external stakeholders. Investors, for instance, gain a more profound level of comparability and understanding of the industry's nuances and contexts. Additionally,

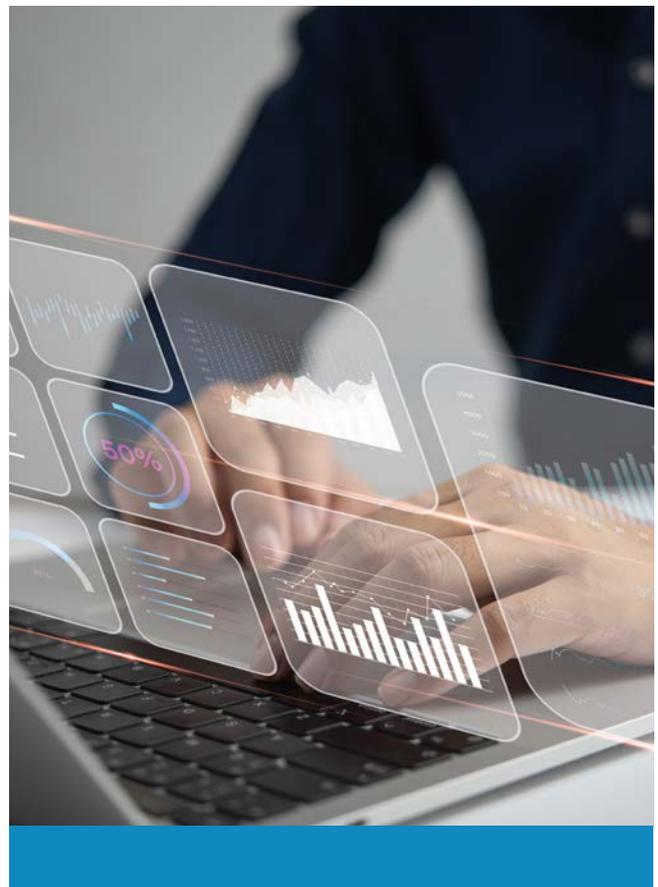
these metrics identify key areas to help facilitate meaningful discussions with policymakers regarding the industry's ESG impact and progress.

Having the capability to provide a full inventory of the most relevant industry KPIs can also help operators capitalise on valuable business opportunities. For example, it can help operators to secure valuable contracts with the growing number of enterprises that incorporate sustainability criteria into their RFQ processes. Additionally, gathering data on critical metrics is a pivotal step for operators aspiring to attract green financing, further aligning their operations with sustainability goals.

# Unlocking value through the ESG Metrics for Mobile

The ESG KPIs encompass a range of metrics, from well-established ones such as emissions and energy consumption to emerging and less-tested indicators in areas such as digital skills. Consequently, it was not surprising to observe some variation in the reporting levels among participating operators during the ESG Metrics for Mobile pilot.

Improving ESG reporting requires continued industry dialogue to identify best-practice reporting and ensure the set of ESG KPIs remain material and appropriate. It also requires a company's leadership to align behind the ESG KPIs and employees across all organisational levels to be educated about the importance of sustainability reporting and their role in the process (e.g. identifying and accessing relevant data sources). This emphasis on internal buy-in is particularly important for operators at the beginning of their sustainability journeys. However, even established operators in this area have opportunities to strengthen their sustainability reporting.



# Looking ahead to 2024 and beyond

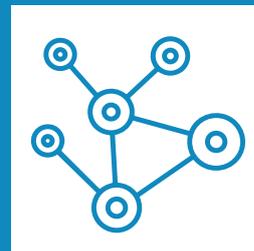
Improving reporting will continue to be a strategic priority for the telecoms sector over the next decade, as operators place sustainability issues at the centre of their business strategies.

To help operators enhance their sustainability reporting, GSMA Intelligence will run an extended version of a similar ESG benchmarking activity in 2024, based on new 2023 data. However, to make the results as representative and impactful as possible across all regions, we would like to increase the range of participating operators.

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](mailto:betterfuture@gsma.com), including the subject header 'ESG Benchmarking'.





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