GSMA

2023 Mobile Industry Impact Report: Sustainable Development Goals

Summary Report

September 2023

GSMA

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 from across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Industry Services and Solutions, Connectivity for Good, and Outreach. This activity includes underpinning the technology and interoperability that make mobile work, advancing policy, tackling today's biggest societal challenges and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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Forewords

Mats Granryd

Director General, GSMA

This year marks the eighth year since the mobile industry demonstrated its commitment to sustainable development, becoming the first industry to commit to the 17 UN Sustainable Development Goals (SDGs). As we reach the halfway point for achieving these goals, now is the perfect time for the mobile industry to reflect on our achievements, examine the current challenges and set our sights on the opportunities that lie ahead. In 2015, when the world adopted the 2030 Agenda for Sustainable Development, the mobile industry's average SDG impact score stood at 33, achieving 33% of what it could potentially contribute to the SDGs.

Fast forward to 2022, and our industry's average impact score across the 17 SDGs rose to 53, demonstrating significant progress. Notably, we have witnessed substantial improvements in contributions to SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, and SDG 7: Affordable and Clean Energy. These advancements can be attributed to the increasing number of people who rely on mobile technology to access educational resources, use government services and manage their bills.

The mobile industry's biggest impact continues to be in SDG 9: Industry, Innovation and Infrastructure, driven by the widespread reach of mobile networks, investments in 5G and infrastructure and the growing uptake of mobile internet services. Over the past seven years, close to 2 billion more people have gained access to the internet through their mobile phones. This significant connectivity achievement has brought us closer to bridging the digital divide and empowering individuals with the resources they need to thrive.

We have also made significant progress in expanding mobile broadband coverage. By the end of 2022, 95% of the global population had access to mobile broadband coverage, leaving only 400 million people without connectivity. Considering that this number stood at 1.8 billion in 2015, the remarkable progress is clear to see. It becomes even more remarkable with the realisation that countries with a higher mobile connectivity score do better overall in the implementation of their SDGs.

While much has been achieved, the global landscape has also undergone profound transformations in recent years, presenting new challenges that hinder our progress towards the SDGs. The Covid-19 pandemic, conflicts, climate-related disasters, the ongoing economic crisis and high inflation have significantly impacted our efforts. Vulnerable populations have borne the brunt of rising energy and food prices, exacerbating the cost-of-living crisis. In this context, the work we do as an industry to advance the SDGs becomes even more crucial in building resilience and creating a sustainable future.

While we remain optimistic about the potential impact we can achieve, we cannot take progress for granted. The flat average SDG impact score observed in 2022 means that we must keep working together across the public and private sectors to accelerate our efforts and increase the scale of our impact.

As we navigate towards the 2030 SDG targets, this report considers how we can accelerate our efforts. By focusing on unlocking growth in mobile and mobile internet adoption, accelerating the usage of mobile-enabled services and embracing sustainable business practices, we can maximise our contributions to the SDGs.

Together, as an industry, we have the opportunity to drive positive change, empower communities and create a sustainable future by unlocking the power of connectivity and creating a better future for all.

José María Álvarez-Pallete

Chairman and CEO, Telefónica
Chairman, GSMA

As the Chairman of the GSMA, it is with great pleasure that I present to you the eighth annual Mobile Industry Impact Report on the UN Sustainable Development Goals (SDGs).

This report showcases the remarkable progress and potential of the mobile industry in contributing to the SDGs. As we reach the halfway point towards 2030, we must take stock of our achievements, acknowledge the challenges, and identify the path forward.

The report paints a vivid picture of the current state of the SDGs and the critical role mobile technology plays in shaping our collective future. However, it also highlights the urgent need for a fundamental shift in commitment, solidarity, financing and action to put the world on a better path.

The global landscape has been shaped by significant crises – the Covid-19 pandemic, conflicts, climate-related disasters and an ongoing economic crisis with high inflation. These challenges have only exacerbated the already faltering progress towards the SDGs. Rising energy and food prices intensify the cost-of-living crisis and disproportionally affect vulnerable populations.

The report reveals that only about 12% of the overall SDG targets with available data are on track, with nearly half experiencing moderate to severe deviations. Alarming figures indicate that 575 million people will still be living in extreme poverty by 2030, and hunger levels have regressed to those not seen since 2005.

Yes, there are reasons to be alarmed and worried. Yet, against this backdrop, I am proud to belong to an industry that plays a vital role, day after day, in empowering and bringing people closer together, building resilient communities and taking action to build a sustainable and inclusive digital future.

Mobile technology has become the primary means of internet access for billions of people, especially in low/middle income countries, enabling access to critical information, services, education, healthcare and income-generating opportunities. Moreover, mobile operators worldwide are increasing their commitment to reach net zero carbon emissions and promote the circular economy while supporting the green transition in other industries.

The report highlights the progress made by the mobile industry in increasing its impact on each of the 17 SDGs since 2015. Notably, the industry achieved its highest impact in SDG 9: Industry, Innovation and Infrastructure, driven by the widespread reach of mobile networks and mobile internet adoption. This is showcased through industry case studies such as Telefonica's incorporation of an ethical and sustainability framework called Responsible by Design, bringing sustainability to digital solutions innovation.

Additionally, significant strides have been made in reducing disparities in mobile internet adoption between different user segments, supporting SDG 5: Gender Equality and SDG 10: Reduced Inequalities.

However, despite these achievements, more must be done to enhance mobile's contribution to the SDGs. The mobile industry must collaborate closely with

stakeholders, including governments, other industries, civil society and the international community, to scale up mobile's impact. This report serves as a call to action, highlighting areas where the industry needs to improve or accelerate its actions to achieve the 2030 agenda.

Looking ahead, the report presents a vision of the future, emphasising the importance of unlocking growth in mobile and mobile internet adoption, accelerating the usage of mobile-enabled services and leveraging emerging technologies such as 5G and IoT to drive progress. It is essential that telecommunications infrastructure is recognised as a sustainable investment.

I invite you to explore the findings of this report and join us in the collective effort to unleash the power of connectivity, transform lives and create a better future for all. Together, we can overcome the challenges we face and build a sustainable world that leaves no one behind.

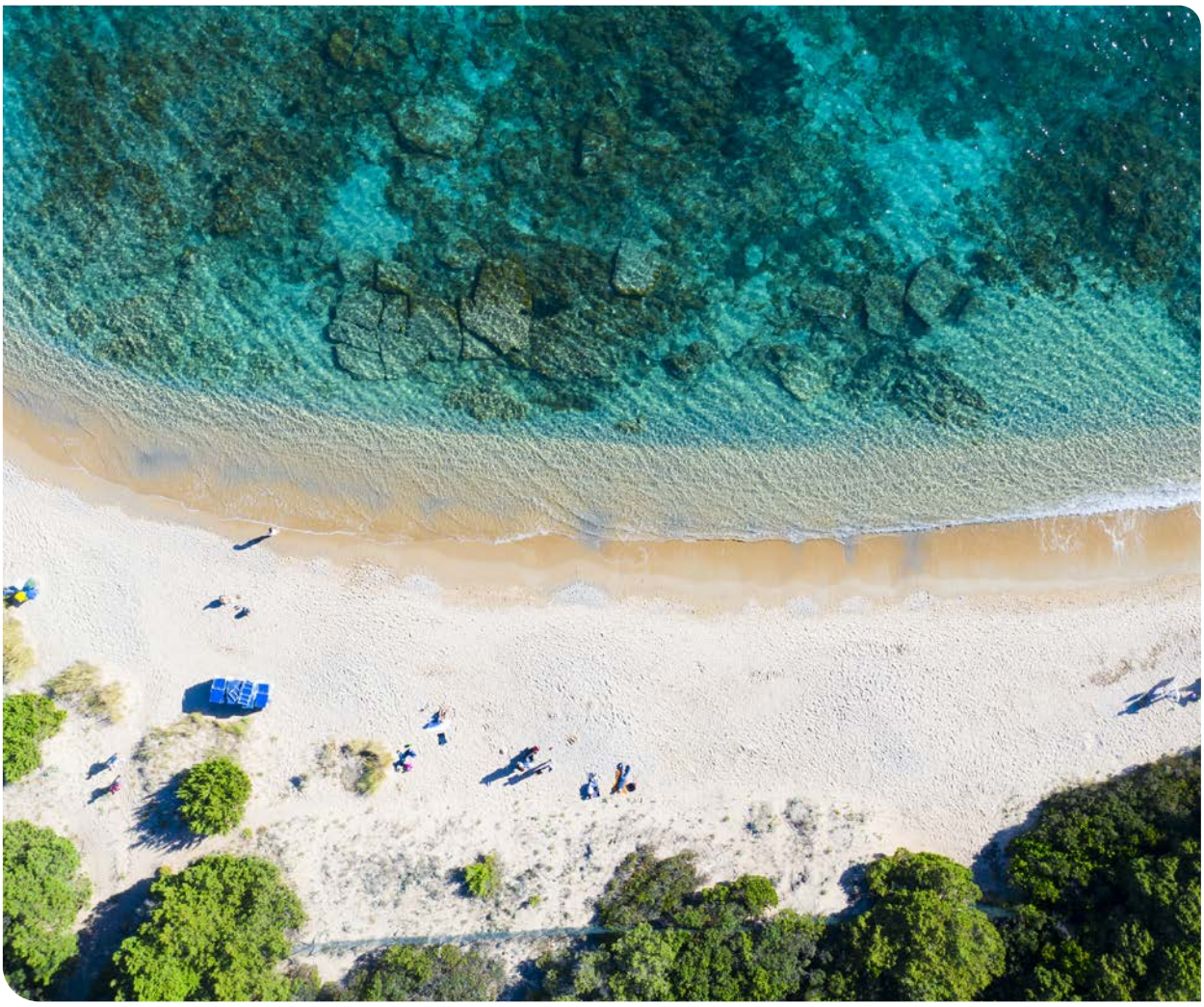
Doreen Bogdan-Martin

Secretary-General, International Telecommunication Union

The International Telecommunication Union (ITU) has been accompanying countries on their technological journeys since 1865. This has taught us that great innovation opportunities often come with equally formidable challenges.

As the digital landscape is shifting beneath our feet, presenting great challenges but also unprecedented opportunities to address our most pressing global challenges, achieving all 17 Sustainable Development Goals (SDGs) by the end of the decade is one of the world's greatest tests yet.

Meanwhile, about a third of humanity is still unconnected, with women accounting for a disproportionate and growing share of the global offline population. And, while we know digital inclusion and skills are catalysts for the SDGs, less than half of the world's countries track digital skills.



The challenges are vast, but the reason to hope is bigger still: we have the technologies we need to deliver on the 2030 Agenda for Sustainable Development. Mobile connectivity is one of them, with far-reaching impacts for communities everywhere.

That's why, earlier this year, I challenged the mobile industry to step up efforts in steering the world onto a more sustainable and resilient path while leaving no one behind. The 2023 edition of the GSMA's Mobile Industry Impact Report shows how they're doing just that.

These pages reveal concrete examples of how the mobile industry is contributing to global sustainable development, especially by making technology more inclusive and meaningful for the most vulnerable among us. One example is how mobile internet is now used by 47 per cent of the world's poorest 40 per cent — the equivalent to 1.5 billion people.

The GSMA's impact scores for each SDG are based on two enablers: connectivity and sustainable business practices. Both are closely tied to the ITU's strategic goals of universal connectivity and sustainable digital transformation, reflecting our unified approach to SDG action.

This report reaffirms that meaningful connectivity is where our efforts must be laser-focused, and that our work cannot stop once network infrastructure is in place. Devices must be made more affordable so that everyone can access the wealth of opportunities that being online offers.

The ITU also applauds operators' commitment to environmental action. We welcome the launch of the GSMA's ESG Metrics for Mobile, which complement ITU technical standards on mobile network energy efficiency, to help put the industry on the path to net zero.

It takes the collective effort of every economic sector, government, academic institution and international organisation to deliver on the 2030 Agenda. All of us have a role in making connectivity sustainable and universal in the service of each SDG.

This year's Mobile Industry Impact Report serves as a valuable input in a long line of research.

The ITU recently collaborated with the United Nations Development Programme, the Boston Consulting Group and the Interamerican Development Bank to explore how digital transformation can accelerate progress on the SDGs. In fact, the entire UN system is working tirelessly on a rescue plan for people and planet through the SDG Summit, Our Common Agenda, and other multi-stakeholder processes.

Mobile must be part of our drive to put the SDGs back on track.

The world cannot wait. The fate of all the unconnected and all those struggling to stay online is in the balance. What's at stake is humanity's relationship with technology and our ability to keep this planet healthy for future generations.

Our goal must be nothing less than an inclusive and sustainable digital future for all before the end of this decisive decade.

01 Executive Summary

The world is not on track to achieve the 2030 Agenda

Underpinning the 2030 Agenda for Sustainable Development is a shared promise by every country to work together to secure the rights and wellbeing of everyone on a healthy, thriving planet. However, at the halfway point on the way to 2030, the Sustainable Development Goals (SDGs) are in deep trouble.[1]

1 *Progress towards the Sustainable Development Goals: Towards a Rescue Plan for People and Planet*, UN, 2023

The Covid-19 pandemic, war in Ukraine and climate-related disasters have slowed the already faltering progress of the SDGs. Meanwhile, the cost-of-living crisis has affected economies globally, with vulnerable populations most affected by rising prices for energy and food. A preliminary UN assessment of 140 SDG targets that have data available shows that only about 12% are on track. Close to half are showing progress but are moderately or severely off track, and 30% have either seen no movement or have regressed below the 2015 baseline.[2]

The implications are stark. With the current trends, 575 million people will still be living in extreme poverty in 2030 and only about a third of countries will meet the target to halve national poverty levels.[3] Moreover, the world is back at hunger levels not seen since 2005. Food prices remain higher in more countries than in the 2015–2019 period.[4]

A fundamental shift is therefore needed – in commitment, solidarity, financing and action – to put the world on a better path. The mobile industry has an important role to play in facilitating this shift.

Mobile is integral to advancing the SDGs

Mobile is the primary (in some cases, only) way most people in low- and middle-income countries (LMICs) access the internet. It provides access to critical information and services such as education, healthcare and financial services, as well as income-generating opportunities. Meanwhile, mobile operators worldwide are increasing their commitments to reach net zero carbon emissions[5] and supporting the green transition across other industries.

However, at the halfway point, more can be done to improve mobile's contribution to the SDGs. The mobile industry must therefore work closely with stakeholders, including governments, other industries, civil society and the international community, to find new ways to scale the impact of mobile.

This eighth edition of the annual SDG report demonstrates the mobile industry's continued commitment to the goals, and identifies areas where the industry needs to improve or accelerate its actions to achieve the 2030 Agenda.

2 *Ibid*
3 sdgs.un.org/goals/goal1
4 sdgs.un.org/goals/goal2
5 *Mobile Net Zero State of the Industry on Climate Action 2023*, GSMA, 2023

Mobile's impact on the SDGs

1. **Since 2015, the mobile industry has increased its impact on each of the 17 SDGs.** In 2022, the average SDG impact score across the 17 goals was 53. This means the industry achieved 53% of its potential contribution to the SDGs – up from 33% in 2015.

2. **Countries with higher levels of mobile connectivity have achieved greater progress towards meeting the SDGs.** Countries that have achieved the biggest improvements in mobile connectivity have also typically achieved greater improvements in SDG implementation.

3. **Rising mobile internet adoption has contributed towards progress across all SDGs.** Over the past seven years, nearly 2 billion people have gained access to the internet through a mobile. By the end of 2022, 57% of the world's population (4.5 billion people) was using mobile internet. This paves the way for individuals to engage in a range of online activities, with access to vital information and life-enhancing tools that contribute to several SDGs.

4. **Improvements in the SDG impact scores stalled in 2022.** This was due to a decline in the proportion of mobile subscribers engaging in activities on their phones relevant to the SDGs. While mobile use across these activities remained higher than before the pandemic, the resumption of in-person engagements across sectors such as education and healthcare is likely having an impact on user behaviour. The cost-of-living crisis is also likely to be impeding usage, as the global rise in inflation is putting pressure on consumers and potentially hindering their ability to fully use mobile services.

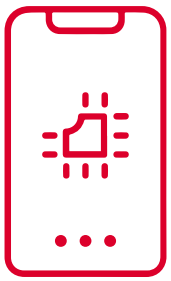
5. **Based on the current trajectory, mobile will reach 76% of its full potential impact on the SDGs by 2030.** However, the stalled progress observed in 2022 underscores the uncertainty ahead and the importance of accelerating the industry's contribution.

Key findings

Mobile internet adoption

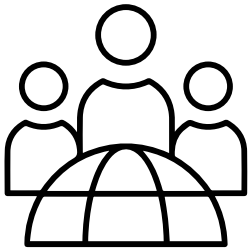
65%

by 2030



Mobile internet adoption will reach **65%** of the population **by 2030**

Adoption among underserved groups



47%

of the **world's poorest 40%**, or **1.5 billion people**, use mobile internet

Global mobile broadband coverage

5%

of the world's population lives in areas **without mobile coverage**

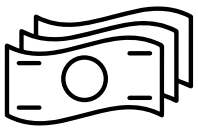
Mobile industry commitment to net zero target

43%

of the mobile industry by revenue has committed to reach **net zero by 2050** or earlier

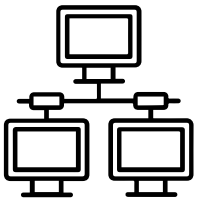
Access to financial services via mobile

49%



of mobile subscribers, or **2.6 billion people**, use mobile financial services

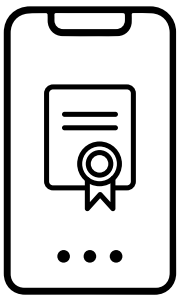
IoT connections



×2

Total IoT connections are expected to **more than double** between 2022 and 2030

Access to education via mobile



42%

of mobile subscribers, or **2.3 billion people**, use mobile to access **educational information** for themselves or their children

4G, 5G and download speeds

4G's share of total mobile connections **quadrupled** between 2015 and 2022

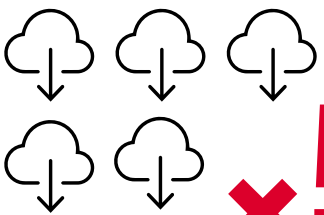
×4

>10%

5G

5G surpassed 10% of total connections in 2022

Together, these have facilitated a **fivefold improvement** in average **mobile download speeds** between 2015 and 2022



×5

Source: GSMA Intelligence - calculations of data provided by Ookla® Speedtest Intelligence®

02 Mobile's impact on the SDGs at the halfway point

The GSMA has developed a methodology to measure and track the impact of the mobile industry across all 17 SDGs annually. For each SDG, an 'impact score' is calculated out of 100. A score of zero means the industry is having no impact at all, while a score of 100 means the industry is doing everything possible to contribute to that SDG. The impact scores are underpinned by two enablers: connectivity and sustainable business practices. A more detailed description is provided in the 2023 Mobile Industry Impact Report Methodology.[6]

6 gsma.com/betterfuture/2023sdgimpactreport

Mobile's impact on the SDGs has grown significantly since 2015

In 2015, the year that marked the adoption of the 2030 Agenda for Sustainable Development, the mobile industry's average SDG impact score was 33. SDG 9: Industry, Innovation and Infrastructure was the only SDG where the mobile industry scored more than 40. The industry scored less than 30 on four SDGs.

The mobile industry has subsequently made strong progress in increasing its impact on the SDGs. By 2022, the average SDG impact score across the 17 SDGs reached 53. This means the mobile industry is achieving 53% of what it could potentially contribute to the SDGs. Furthermore, there are now 11 SDGs where mobile's contribution is above 50, while all SDGs score more than 40.

The biggest improvements since 2015 have been recorded in the industry's contribution to SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, and SDG 7: Affordable and Clean Energy. This is due to the increasing proportion of people using mobile for activities such as obtaining educational information for themselves or their children, accessing government services and paying bills. The improvement in impact scores for SDGs 6 and 7 was also driven by growth in smart utility connections, which was the fastest-growing IoT vertical between 2015 and 2022, according to GSMA Intelligence data.

While mobile's impact on the SDGs has grown significantly since 2015, the average SDG impact score stalled in 2022. This was due to a decline in the proportion of mobile subscribers engaging in activities on their phones relevant to the SDGs. While mobile use across these activities remained higher than before the pandemic, the resumption of in-person engagements across sectors such as education and healthcare is likely having an impact on user behaviour. The impact of the cost-of-living crisis is also likely to be impeding usage, as the global rise in inflation is putting pressure on consumers and potentially hindering their ability to fully use mobile services.

Figure 1 | SDG mobile impact scores

Note: Scores rounded to the nearest whole number

Source: GSMA Intelligence

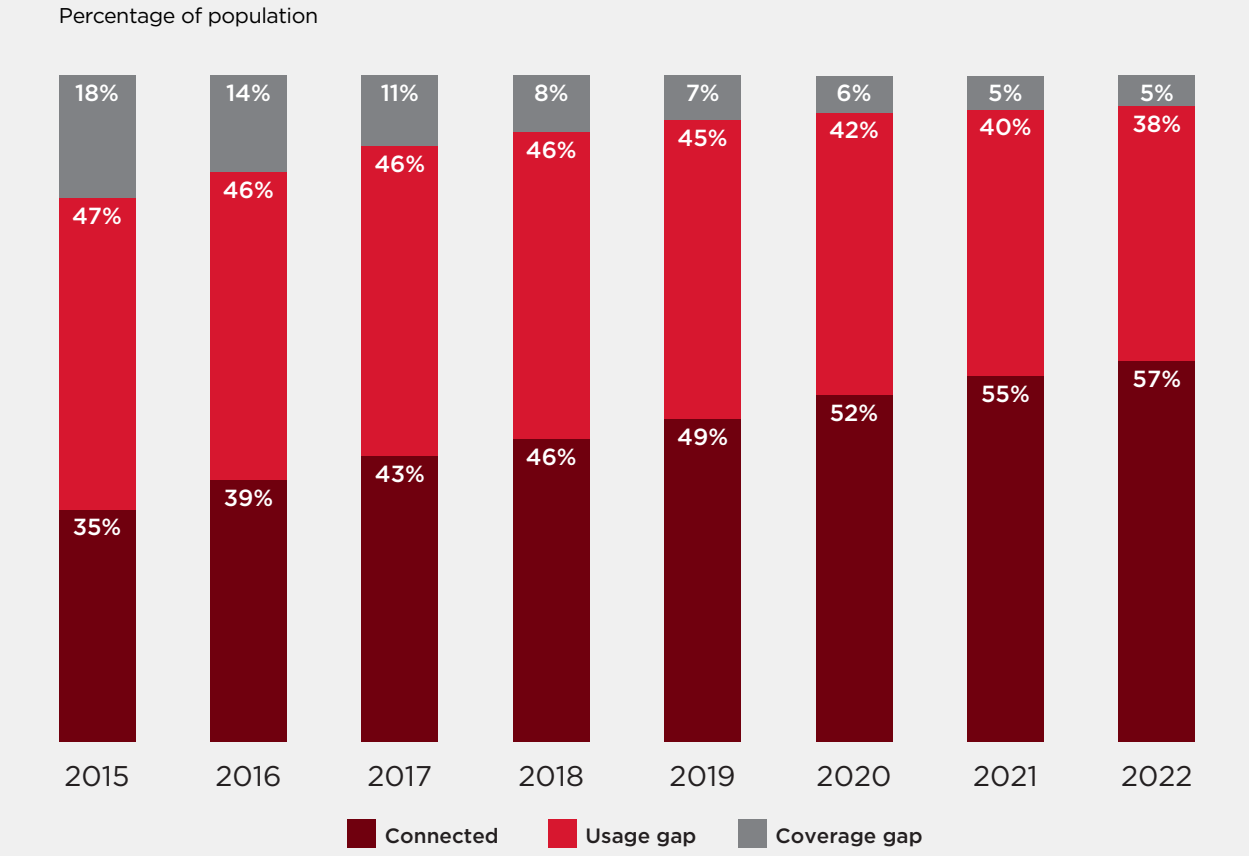
Mobile is the primary means of accessing the internet for billions of people

The mobile industry continues to achieve its highest impact on SDG 9: Industry, Innovation and Infrastructure, driven by the reach of mobile networks and the take-up of mobile internet services. Over the past seven years, nearly 2 billion people have gained access to the internet on a mobile phone. By the end of 2022, 57% of the world's population (4.5 billion people) was using mobile internet.

Furthermore, the share of the world's population living in areas without mobile broadband coverage stood at just 5% at the end of 2022, meaning 400 million people are still not covered by a mobile broadband network (compared to 1.8 billion people in 2015). The reduction in the size of the coverage gap has slowed since 2018, highlighting how the remaining uncovered communities – which are predominantly rural, poor and sparsely populated – are the most challenging to reach in a financially sustainable manner.

A much larger proportion of the unconnected live in areas already covered by mobile broadband networks. By the end of 2022, 38% of the world's population (3 billion people) lived within the footprint of a mobile broadband network but were not using mobile internet. While this usage gap remained relatively unchanged between 2015 and 2019, it declined by around 300 million people in both 2020 and 2021, and 210 million people in 2022. However, the usage gap remains substantial and is 7.5× the size of the coverage gap.

Figure 2 | Global mobile internet connectivity: coverage and usage gaps



Note: Totals may not add up due to rounding.
Unique subscriber data is sourced from GSMA Intelligence, combining data reported by mobile operators with the annual GSMA Intelligence Consumers in Focus Survey. Coverage data is sourced from GSMA Intelligence, combining data reported by mobile operators and national regulatory authorities. Population data is sourced from the World Bank.

Source: GSMA Intelligence

Progress has also been made in reducing disparities in mobile internet adoption between different user segments, supporting the industry's contribution to SDG 5: Gender Equality and SDG 10: Reduced Inequalities. Examples include the following:

- Since 2015, there have been 410 million new mobile internet subscribers in rural areas. Consequently, rural mobile internet adoption reached 41% (1.4 billion people) at the end of 2022.
- Mobile internet is used by 47% of the world's poorest 40%,[7] which is equivalent to 1.5 billion people and represents an increase of 710 million people since 2015.
- 61% of women in LMICs now use mobile internet, compared to 75% of men. While 1.4 billion women are using mobile internet (470 million more than in 2017), there are still 310 million fewer women than men doing so. This equates to a 19% mobile internet gender gap (compared to 25% in 2017).[8]

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7 This calculation of mobile penetration takes into account the poorest 40% of population in each country.
8 *The Mobile Gender Gap Report 2023*, GSMA, 2023

Mobile technology helping to improve lives

The importance of mobile technology in improving lives is evident from looking at the relationship between two indices: one that tracks progress on the implementation of the SDGs (SDG Index[9]) and one that measures the enablers of mobile internet adoption (Mobile Connectivity Index[10]).

Figure 3a shows that countries with higher mobile connectivity scores have achieved greater progress in SDG implementation, while countries with lower mobile connectivity scores have achieved less progress. These correlations also hold if we control for income, as the relationship between SDG progress and mobile connectivity is not just explained by a country's level of income. Furthermore, Figure 3b shows that countries that have achieved the greatest improvements in mobile connectivity have also typically achieved greater improvements in SDG scores.

This is consistent with academic and empirical evidence which shows that the adoption of mobile technology has resulted in significant economic, social and environmental gains. Examples include the following:

- Over the last five years, the economic value added generated by mobile technologies and services has increased by $500 billion, reaching $5.2 trillion of economic value added (5% of global GDP) in 2022.[11]
- Mobile technology reduces poverty. During 2010–2016, mobile broadband lifted 2 million people out of extreme poverty in Nigeria (which accounts for a quarter of Africa's poor), reducing the share of people in Nigeria in extreme poverty by 1.5 percentage points.[12]
- The mobile industry has increased global employment by around 2 million in the last five years. In 2022, it supported 28 million jobs.[13]
- The use of mobile technology powered a global reduction in greenhouse gas (GHG) emissions of around 2,135 million tonnes of CO_2 in 2018. These emissions savings were 10 times greater than the global carbon footprint of the mobile industry itself.[14]
- Mobile ownership combined with internet connectivity is associated with an improvement in people's lives and wellbeing.[15]
- Analysis from the 2022 GSMA Consumer Survey in 12 LMICs shows that the majority of respondents (73%) felt mobile internet usage delivers a positive overall impact on their lives.[16] In the 2021 GSMA Consumer Survey, more than three quarters of respondents claimed that having a mobile helps with day-to-day activities, makes them feel safer, gives them easy access to useful information and helps them with work or business. Almost 60% of respondents that own a mobile said it helps them with studies or education.[17]

9 dashboards.sdgindex.org/
10 mobileconnectivityindex.com/index.html
11 *The Mobile Economy 2023*, GSMA, 2023
12 GSMA analysis, see *The Welfare Effects of Mobile Broadband Internet: Evidence from Nigeria*, World Bank, 2020
13 *The Mobile Economy 2023*, GSMA, 2023
14 *The Enablement Effect 2021*, GSMA, 2021
15 *The Impact of Mobile on People's Happiness and Well-Being*, GSMA and Gallup, 2018, and *Mobile Internet Use, Well-being and Gender: Understanding the Links*, GSMA, 2022
16 *The Mobile Gender Gap Report 2023*, GSMA, 2023
17 GSMA Consumer Survey 2021. Analysis is based on the median response level in the surveyed countries.

Figure 3a | Countries with high mobile connectivity index scores do better on the SDG index

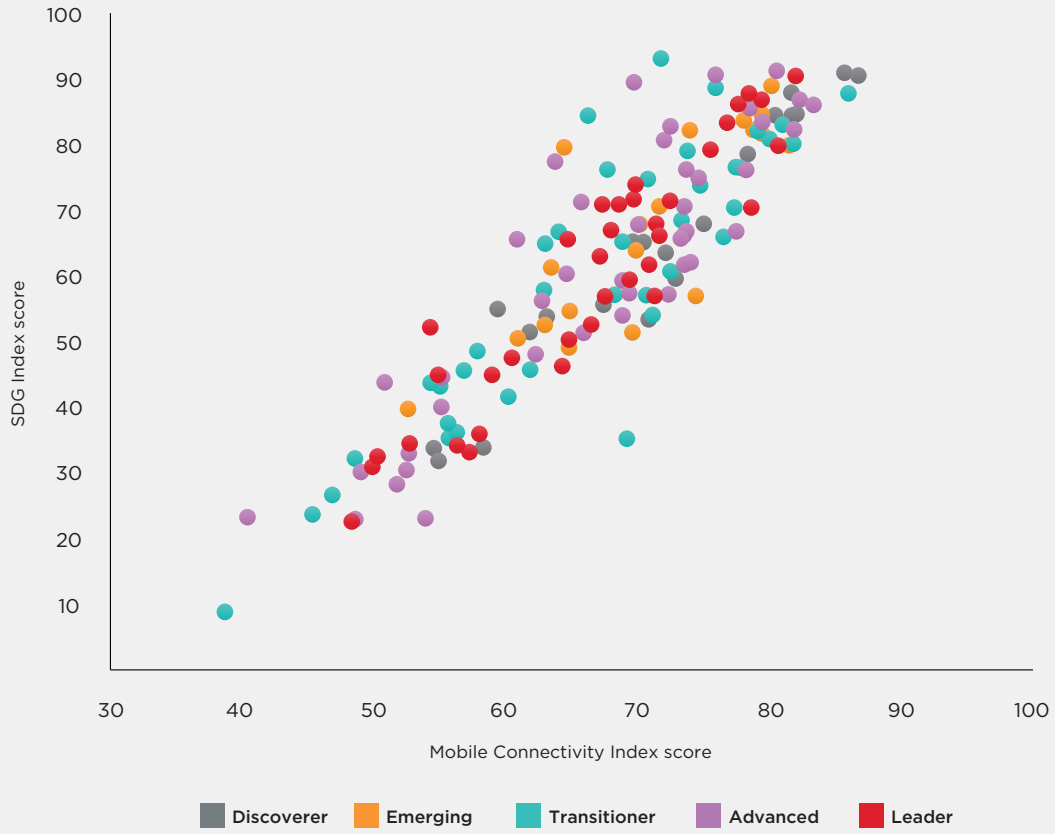


Figure 3b | Those countries that have seen the biggest improvement in mobile connectivity index scores have also seen notable improvements in SDG outcomes

Source: GSMA Intelligence

Being connected to mobile internet is only the first step

To harness the full potential of mobile technology, individuals must engage with new and enriching online services that can accelerate social and economic inclusion. As Figure 4 shows, the proportion of mobile subscribers engaging in activities on their phones relevant to the SDGs has grown significantly since 2015, amplifying mobile's influence across several areas.

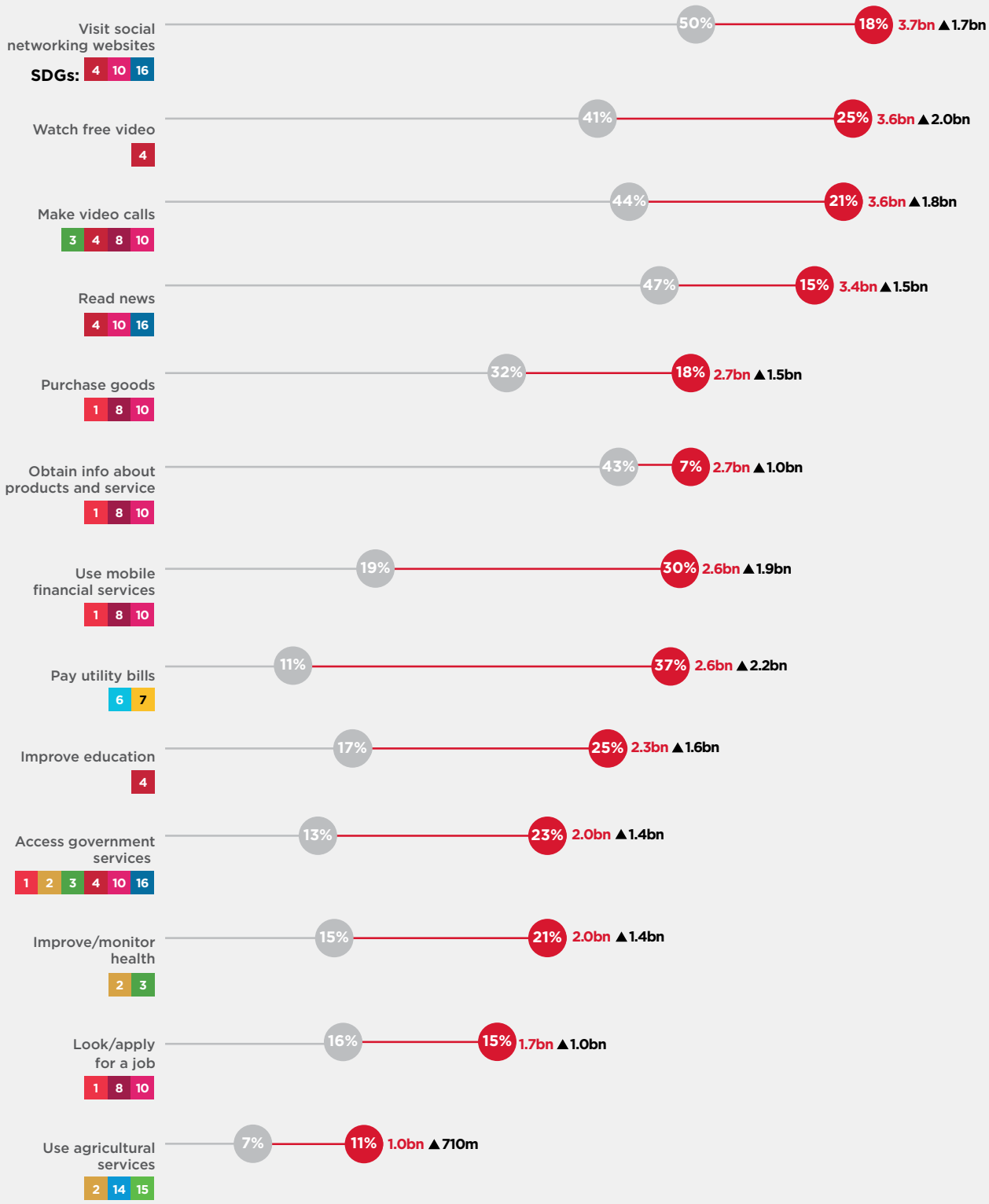
Using mobile to engage in life-enhancing activities is particularly important in LMICs, where access to traditional services is often lacking, especially in areas such as education and healthcare. For example, an additional 1.4 billion people in LMICs have used mobile to access educational information since 2015, meaning 40% of mobile subscribers (1.8 billion individuals) used mobile for this purpose in these markets. There has also been strong growth in the number of people in LMICs using mobile to improve or monitor health over the past few years, reaching 1.3 billion users (30% of mobile subscribers) at the end of 2022. Improvements to network quality (see Figure 5) pave the way for users to access more comprehensive educational and health services that integrate higher bandwidth applications such as video streaming and video calling.

Mobile also plays an integral role in reducing the financial exclusion gap in LMICs. There were 1.6 billion registered mobile money accounts by the end of 2022 – more than double the number of registered accounts (772 million) in 2017.[18] This enables households to lift themselves out of poverty by helping them better manage their cash flow, handle risk and build working capital.

18 gsma.com/sotir/

Figure 4 | Mobile usage by activity and the related SDGs

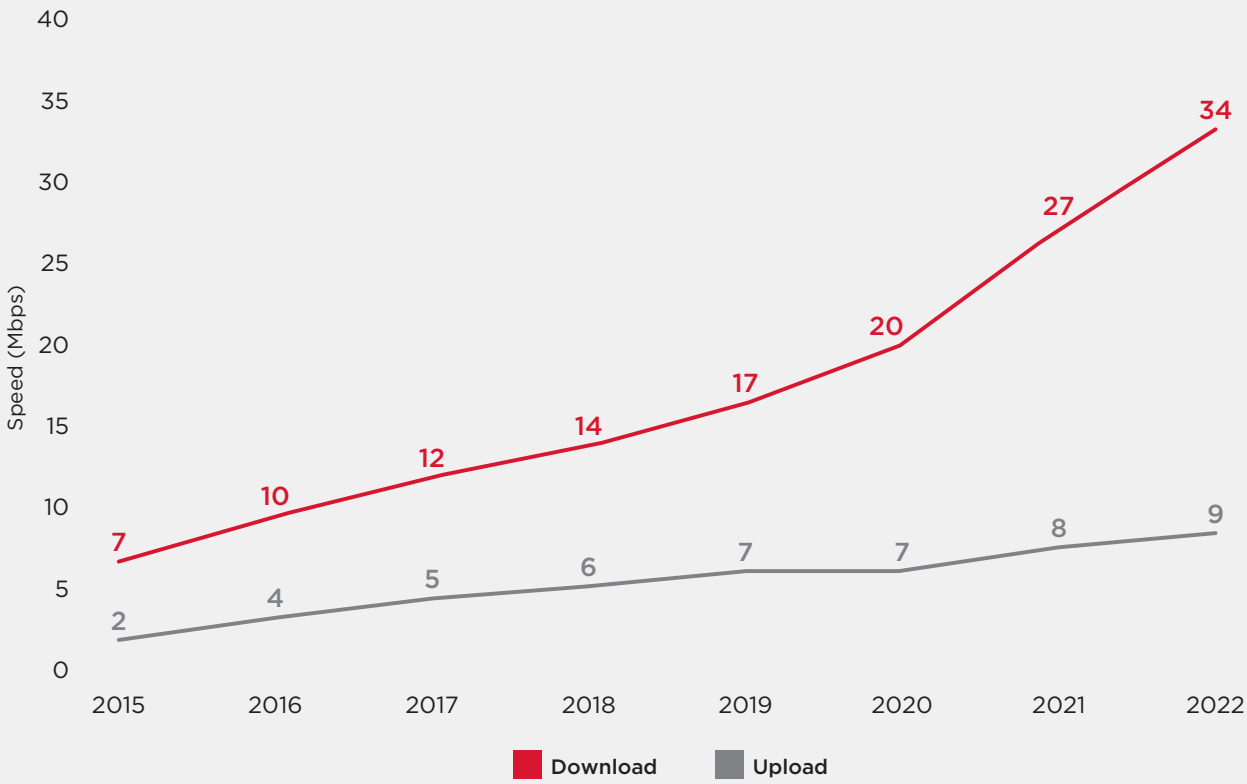
Percentage of mobile users engaging in an activity on a mobile device



Data sourced from the GSMA Intelligence Consumers in Focus Survey, which has more than 50,000 respondents and covers 52 countries, during 2017–2022. The number of users is calculated by multiplying unique mobile subscribers by the percentage of survey respondents that performed a particular activity (e.g. reading the news) on a mobile. Unique subscriber data is sourced from GSMA Intelligence, combining data reported by mobile operators with the annual GSMA Intelligence Consumers in Focus Survey.

Source: GSMA Intelligence

Figure 5 | Global average download/upload speeds for mobile



Source: GSMA Intelligence calculations of data provided by Ookla® Speedtest Intelligence®

IoT growth and embedding sustainable business practices further drive the SDG impact of mobile

IoT connections increased by 11 billion between 2015 and 2022, reaching 16 billion connections worldwide. This accelerated the industry's impact on a range of SDGs. For instance, the rise of smart-city solutions as part of efforts from governments to improve quality of life and the efficiency of urban operations and services supports SDG 3: Good Health and Well-being, SDG 11: Sustainable Cities and Communities, SDG 13: Climate Action, and SDG 17: Partnerships for the Goals.[19]

While mobile's SDG impact is principally driven by the provision of connectivity and services, operators also contribute to sustainable development through their business operations. For example, operators are taking steps to rapidly cut their emissions by 2030. Those in Europe and North America are leading, with network emissions per connection falling since 2021 and absolute emissions plateauing. This reflects operators' established energy-efficiency programmes and access to renewable electricity.[20]

Steps to cut emissions are part of the broader cultural change being instigated by many operators that puts environmental, social and governance (ESG) issues at the core of corporate strategy. As well as minimising the carbon emissions associated with mobile networks, the day-to-day business of the mobile industry includes efforts to connect the unconnected and develop innovative services to advance digital equality. This is driving the mobile industry's contribution to the SDGs while also helping operators create commercial value and build stronger relationships with customers, investors and other stakeholders.

As stakeholders become more astute in their assessment of ESG claims, an effective and consistent approach to measuring and communicating performance is increasingly important. In 2022, the GSMA launched ESG Metrics for Mobile – a first-of-its-kind, mobile-sector ESG reporting framework featuring 10 industry-specific KPIs.[21] These help operators deliver a more consistent and comparable view of the industry's most material impacts and drivers of value, allowing for more effective and meaningful communication between operators and their stakeholders.[22]

19 *The changing shape of smart cities: new trends and new roles for operators*, GSMA Intelligence, 2022
20 *Mobile Net Zero State of the Industry on Climate Action 2023*, GSMA, 2023
21 *ESG Metrics for Mobile*, GSMA and EY, 2022
22 The GSMA plans to release a report on the status and progress of ESG in the mobile industry later in 2023

03 Looking ahead to 2030

Assuming that the average annual growth in SDG mobile impact scores recorded from 2015 to 2022 persists over the next eight years, mobile will reach 76% of its full potential impact on the SDGs by 2030. However, the flat average SDG impact score for 2022 underlines the uncertainty associated with assuming the continuation of the earlier growth trend. The mobile industry and its partners must therefore increase the pace and scale of their impact to maximise mobile's contribution. To help with this, several calls to action for mobile operators, governments and other stakeholders are included here.

Actions to drive mobile internet adoption

- Reaching the remaining 400 million people not covered by mobile broadband in a commercially sustainable manner will require a reduction in the cost of network deployment. Innovations in backhaul, low-cost base station technologies and power supply are already helping to achieve this.[23] However, an enabling policy environment that reduces cost and uncertainty around spectrum allocations, licensing and network deployment is also necessary.[24]

- Around 90% of the unconnected population worldwide live within the footprint of a mobile broadband network but are not using mobile internet. Improving coverage alone is not going to be enough to connect the unconnected. Addressing other barriers such as affordability, digital skills, relevance, and safety and security will be critical to maximise the industry's impact on the SDGs.

- Approaches to improve affordability should include efforts to lower the cost of internet-enabled handsets and data, innovative data pricing strategies and handset-financing options, as well as providing targeted subsidies and tax policies that promote the uptake of internet-enabled devices and data service.[25]

23 *Accelerating Rural Connectivity: Insights from the GSMA Innovation Fund for Rural Connectivity*, GSMA, 2022
24 *Driving the digital revolution with improved mobile coverage*, GSMA, 2020
25 *Making internet-enabled handsets more affordable in low- and middle-income countries*, GSMA, 2022

Actions to drive the use of mobile-enabled services

- A study by the Broadband Commission reported that between $428 billion and $2 trillion of investment was needed to ensure universal connectivity. It also concluded that the investment, funding and financing models that enabled earlier infrastructure development and its use no longer suffice.[26] To augment and expand on the current models, the study recommended broadening the base of contributors to include companies participating in and benefitting from the digital economy. It argues that such contributions should be sustainable and predictable, managed efficiently and disbursed in a timely and prioritised manner. By supporting investments to enhance network quality, new funding models can facilitate the adoption of more bandwidth-intensive mobile services, helping to amplify the impact of mobile technology on the SDGs.
- There is a need to expand the availability of local content and services to scale mobile's impact on the SDGs, particularly in LMICs. Governments should take the lead by accelerating the digitisation of public services, including e-government services, healthcare and education, taking a mobile-first approach.
- Startups play an important role in delivering digital solutions that drive mobile internet use in LMICs.[27] These companies require different kinds of partnerships – with private-sector players, governments and other stakeholders – to scale their solutions for the underserved. For example, partnerships with mobile operators can provide additional expertise and resources as well as access to certain hard-to-reach segments.

26 *21st Century Financing Models for Bridging Broadband Connectivity Gaps*, Broadband Commission, 2021
27 *Driving mobile internet use in low- and middle-income countries: Lessons and insights from the GSMA Innovation Fund*, GSMA, 2023

Actions to drive IoT adoption

- Most IoT use cases require a mix of skills and resources, as well as a partnership-based model. In markets where IoT is still nascent, operators can scout regional and local tech hubs to identify relevant startups or build their own IoT-centric incubators (e.g. Orange 5G Lab Dakar and XL Axiata's X-CAMP in Indonesia).
- In cases where government entities are also major service providers (for example, in centralised energy and water), there is the opportunity for public procurement to act as an accelerator of IoT adoption through large-scale deployments. Governments can also support IoT adoption by formulating national standards and specifications for IoT devices, such as smart meters.

04 Final reflection: unlocking the potential of mobile

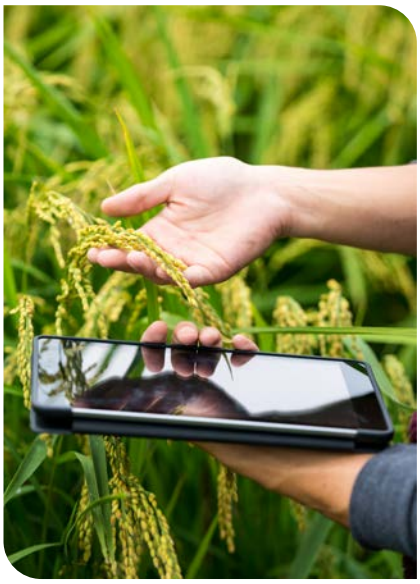
The mobile industry has played a significant role in advancing the SDGs. With billions of people relying on mobile as their primary means of accessing the internet, it has enabled engagement with a multitude of life-enhancing services. Moreover, mobile serves as the linchpin of the digital economy, propelling innovation and acting as a catalyst for transformation across different sectors. Mobile also stands as a crucial component in combating climate change, with operators making rapid advances in their own decarbonisation efforts while offering valuable solutions to other industries.

However, at the halfway point, it is clear that progress is not happening at the pace and scale needed to maximise the mobile industry's contribution to achieving the SDGs. There is an urgent need to release the untapped potential of the industry, as countries with higher rates of mobile connectivity will achieve greater SDG impact.

By prioritising sustainable and inclusive digital transformation and actively engaging the mobile sector on this journey, governments and the international community can help spur tangible benefits for citizens and economic prosperity.

This will be achieved through the following:

- Ensuring continuous industry commitment to drive and scale SDG impact through integrating purpose into core business.
- Reforming policy to support sustainable levels of investment in mobile broadband infrastructure, contributing to SDG 9: Industry, Innovation and Infrastructure, which in turn enables the industry to impact a range of other SDGs.
- Driving use of mobile-enabled activities and scaling IoT solutions to drive enterprise digitisation.
- Tapping into the potential of AI, big data analytics and mobile innovation to address societal challenges.
- Leveraging the role of the international community, UN agencies and multilateral development banks to prioritise investment in digital development.



For more information on the mobile industry's contribution to the SDGs, please visit:

www.gsma.com/betterfuture/2023sdgimpactreport

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