2017 Mobile Industry Impact Report: Sustainable Development Goals

Executive Summary
The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences.

For more information, please visit the GSMA corporate website at www.gsma.com

Follow the GSMA on Twitter: @GSMA

This report was produced by GSMA Intelligence:

GSMA Intelligence is the definitive source of global mobile operator data, analysis and forecasts, and publisher of authoritative industry reports and research. Our data covers every operator group, network and MVNO in every country worldwide – from Afghanistan to Zimbabwe. It is the most accurate and complete set of industry metrics available, comprising tens of millions of individual data points, updated daily. GSMA Intelligence is relied on by leading operators, vendors, regulators, financial institutions and third-party industry players, to support strategic decision-making and long-term investment planning. The data is used as an industry reference point and is frequently cited by the media and by the industry itself. Our team of analysts and experts produce regular thought-leading research reports across a range of industry topics.

www.gsmaintelligence.com

info@gsmaintelligence.com

Cover image: Olivier Galibert
CONTENTS

I FOREWORD 3
II QUOTES 6
III EXECUTIVE SUMMARY 9
Two years into the 2030 Agenda for Sustainable Development, we are witnessing decisive commitment and transformational progress towards its achievement. This agenda and its 17 Sustainable Development Goals seek to ensure that every individual realises his or her potential on a healthy planet for generations to come, an ambition that will require swift action by public and private actors alike.

The participation of business in the implementation of the Sustainable Development Goals (SDGs) is critical as a key driver of innovation and employment. Mobile technology has a particularly important role to play, as an essential part of our everyday lives, our societies and markets, providing connectivity and services for billions of people around the world.

Mobile technology has a special role as a tool for empowering women and young people, giving them a voice online when they may struggle to be heard in their communities and societies. And mobile technology helps migrants to send remittances back to their families, which can make an enormous economic contribution in many countries and regions.

I welcome this report, in which the mobile technology industry sets an important example by measuring, tracking and disclosing its collective impact, helping to identify opportunities to stimulate and expand collaboration. Mobile technology is a driving force behind the data revolution that will bring SDG implementation to scale.

This report shows that mobile technology is having an impact across all 17 SDGs, and is increasing its contribution. More people than ever are connecting and using mobile services to improve their lives. Financial services, health information and educational resources are just a few of the ways in which mobile technology is contributing to achieving the SDGs.

As the report highlights, mobile technology is also critical to humanitarian response. Connectivity and information are essential for refugees and displaced people, and in the aftermath of natural disasters. The mobile industry is stepping up to fulfil its important role in disseminating life-saving information and supporting social and economic stability.

Achieving the 2030 Agenda will require robust leadership, concerted action and collaboration. The mobile industry must continue to lead the private sector, and to partner with public institutions to maximise its reach. Further, the industry has a unique opportunity to engage with today’s young people to shape the economic and political future of our communities.

I am confident the mobile industry, with the support of operators and other key partners across the sector, will continue to be a key player in achieving the SDGs.

Amina J. Mohammed
Deputy Secretary-General
United Nations
CONNECTING EVERYONE AND EVERYTHING TO A BETTER FUTURE

#betterfuture
Eighteen months ago, the mobile industry became the first sector to commit as a whole to the United Nations Sustainable Development Goals (SDGs). As an industry, we have an important opportunity to leverage the mobile networks we have built and the services we deliver to help achieve the SDGs.

A year ago, we released the inaugural edition of the Mobile Industry Impact Report. This first-of-its-kind study provided a baseline of our industry’s impact in achieving the SDGs and detailed the actions needed to extend and strengthen our impact.

With the publication of the 2017 Mobile Industry Impact Report, I am proud to report that the mobile industry has increased its impact across all 17 Goals. Mobile operators around the world are working to deploy mobile-enabled solutions that drive greater inclusion in cities and remote communities, enable access to essential services such as health and education, create employment opportunities and empower people with the tools to reduce poverty and inequality. Here are a few examples:

**SDG 1: No Poverty** – Over the last decade, mobile money has done more to extend the reach of financial services than traditional bricks and mortar banking was able to do over the last century. As of the end of 2016, there were more than half a billion registered mobile money accounts in over 90 countries.

**SDG 5: Gender Equality** – The mobile industry is focused on increasing women’s access to and use of mobile services in low- and middle-income countries around the world. Through the Connected Women Commitment Initiative and others, GSMA Connected Women and its mobile operator partners have delivered life-enhancing services to more than 17 million women in developing countries.

**SDG 7: Affordable and Clean Energy** – There are now approximately 1 million mobile-enabled pay-as-you-go solar home systems globally, impacting 5 million people, with nearly 40,000 new systems added each month.

**SDG 11: Sustainable Cities and Communities** – Today, more than 110 operators in nearly 80 countries support the GSMA Humanitarian Connectivity Charter to contribute to humanitarian response, improve access to communication and information for those affected by crisis, reduce loss of life and aid recovery.

We are focused on amplifying and accelerating our industry’s impact on the SDGs, through collaborative initiatives such as Big Data for Social Good. Launched earlier this year, this leverages the world’s leading mobile operators’ big data capabilities to address epidemics and natural disasters.

From services such as mobile money and mobile agriculture, to the Internet of Things and the 5G networks of the future, we’re making a difference to the lives of people around the world and helping to preserve and protect our planet. As you review this report, I encourage you to consider how you can contribute to the SDGs. This is not something we can accomplish alone as individuals, as companies, even as an industry; we must work together, united, to make the 2030 agenda a reality.

Mats Granryd
Director General
GSMA
The United Nations have laid out a clear path for global progress with the Sustainable Development Goals. The World Economic Forum is endorsing these principles and is dedicating its Sustainable Development Impact Summit to achieving concrete steps towards these important goals. Of course, it could not be done without the private sector playing a central role. This report is testament to the active participation of GSMA and highlights the impressive impact of mobile on achieving progress for all.

Prof. Klaus Schwab, Founder and Executive Chairman of the World Economic Forum

Connecting people is critical to the World Bank Group’s mission to end extreme poverty, and we are working to further enhance our capacity to deploy technology and innovation to address the development challenges we need to tackle. The GSMA and its members bring a deep knowledge of mobile financial services, a proven ability to innovate, and a commitment to accelerating financial inclusion. They are key partners in the effort to deliver universal financial access and help people lift themselves out of poverty.

Dr Jim Yong Kim, President, World Bank Group

The Sustainable Development Goals are the vision-piece of our globalization puzzle.

Complex and comprehensive, the Goals and Targets reflect the diversity of humankind and respond to the important challenges it faces.

Specific and measurable, they are the basis of a new social contract between the world’s leaders and “We the Peoples”.

The Goals are anchored in the reality that we are interconnected and interdependent to an unprecedented degree.

We are grateful to count the Mobile Industry amongst our partners, helping to ensure that globalization leads to more inclusive prosperity, equality and social justice.

Thomas Gass, Assistant Secretary-General, United Nations Department of Economic and Social Affairs

The immense impact of the mobile is to bring in every people’s hands the power to engineer solutions of their own to challenges of their own. I saw that directly with the youth I support in vulnerable communities of Mexico, South Sudan and Uganda: mobile access magnifies their capacity as direct actors of lasting peace and sustainable development.

Forest Whitaker, SDG Advocate and Founder of the Whitaker Peace & Development Initiative
Continued investment in mobile is by far the most efficient and cost-effective way to connect the unconnected and deliver on the vision of the SDGs. The mobile industry has perhaps one of the most important roles to play in shaping a more sustainable future. Every goal — from ending poverty and halting climate change to fighting injustice and inequality — can be positively impacted by ICT, and I commend the GSMA for its 2017 Mobile Industry Impact Report highlighting what our industry ecosystem has achieved, and what more we can do.

Börje Ekholm, CEO, Ericsson

I am delighted to see this report which highlights the positive impact of mobile technology on sustainable development, and especially how greater access to telecommunication networks and improved connectivity has enabled social and economic progress. Mobile technology is one of the key technologies that will be essential to the achievement of the UN’s Sustainable Development Goals by 2030.

Dr Houlin Zhao, Secretary-General, ITU

At a time when our economic model is condemning many to a future without hope, the Sustainable Development Goals offer us a unique chance to eradicate poverty and drive a more sustainable form of capitalism. Actions from business leaders and companies across all sectors will be central to achieving this. Many are now realizing the enormous opportunities that exist for enlightened businesses willing to stand up and address the world’s urgent challenges. The leadership of the mobile industry to collectively commit to driving progress on the SDGs and deliver a true sector-wide approach is an example to others, and one we should applaud and follow.

Paul Polman, CEO, Unilever
In February 2016 at Mobile World Congress in Barcelona, the mobile industry became the first industry to commit to the Sustainable Development Goals (SDGs), an ambitious plan unanimously adopted in 2015 by all 193 countries in the United Nations General Assembly aiming to end extreme poverty, fight inequality and protect our planet. As part of this commitment, in September 2016 the GSMA published its first Impact Report measuring the industry’s impact on the SDGs.\(^1\) This second report shows the progress our industry has made since in terms of impacting each Goal.

Figure 1 presents the impact scores for 2015 and how they changed in 2016, showing that the industry’s impact increased across all 17 SDGs in the first year after the Goals were adopted. The greatest upward movement in 2016 was in SDGs 3: Good Health and Well-being, 11: Sustainable Cities and Communities, and 13: Climate Action. For all three, enhanced connectivity, network quality and resilience are the key drivers behind the industry’s increased impact. The Goals where the industry is contributing the most are SDGs 9: Industry, Innovation and Infrastructure, 13: Climate Action, and 11: Sustainable Cities and Communities. The overall impact remains lowest for SDGs 14: Life below Water, 2: Zero Hunger, and 6: Clean Water and Sanitation.

FIGURE 1

SDG impact scores

Normalised score (out of 100)
Three underlying trends explain much of the improvement in the industry’s impact on the SDGs in 2016:

**Better networks**
Mobile operators have invested heavily in expanding infrastructure and improving quality of service. More than half the world’s population – around 4 billion people – are now within reach of a 4G network, while 350 million more people were covered by a 3G network in 2016, bringing overall 3G coverage to 83%. In addition to providing access to mobile services, wider coverage, improved network quality and resilience play a critical role before and during epidemics, conflicts and natural or climate-related disasters. They support emergency communication and broadcast services and provide accurate and timely information on the movement of affected populations.

**More connectivity**
Operators continue to connect the unconnected, with 230 million new subscribers in 2016, bringing the total to 4.8 billion (65% penetration); 350 million new mobile internet subscribers, bringing the total to 3.5 billion (48% penetration); and 100 million more cellular machine-to-machine (M2M) connections, bringing the total to 410 million. The economic and social benefits of this are wide-ranging, with connectivity driving improvements in economic growth through improved productivity, infrastructure development and efficiency. Operators have been particularly proactive in pursuing more innovative solutions to roll out mobile networks in remote areas, making mobile services more affordable to the poorest individuals and driving efforts to accelerate digital inclusion for women.

**Doing more with mobile**
Users are becoming increasingly sophisticated in how they use their mobile phones and are starting to access more advanced mobile-enabled services. In 2016 more than 100 million new mobile money accounts were registered to reach a total of more than half a billion, allowing users to access financial services that enable them to make investments and manage expenses. There were also 500 million new users of social media on mobile to reach a total of 2.5 billion, helping promote social and political inclusion and facilitating the development of education networks.
Although the mobile industry’s achievements are substantial, it is still far from realising its potential impact, with the highest score at 45 out of 100 (for SDG 9). Mobile operators, working with the broader mobile ecosystem, still have much to do to contribute to achieving the SDGs. This includes working towards universal access, scaling up new solutions such as IoT, and helping to fill gaps in areas such as health, education, finance and utilities through the development of mobile-enabled solutions. Only when this has been achieved will operators be able to maximise their impact across all the SDGs.

To help the world achieve the SDGs and their targets, operators must continue to think above and beyond ‘business as usual’ improvements and accelerate every activity that contributes to the SDGs. Not only is there a moral imperative in connecting everyone and everything to a better future; there are wider benefits in terms of the “triple bottom line” of people, planet and profits. Digital solutions that help achieve the SDGs could generate $2.1 trillion in additional annual revenues for the broader information and communications technology (ICT) sector by 2030\(^2\) – this includes both connecting the unconnected and expanding the range of services and digital solutions offered. Furthermore, achieving the Goals will not only bring revenue opportunities from new customers and products; it will also increase the value of existing users through enhanced services that improve their living conditions, which will ultimately increase revenues, enhance user loyalty and grow subscriber uptake.

Finally, it is critical that operators continue to work together as an industry and establish partnerships and collaborations with a range of organisations – governments, international organisations and other industries – to maximise efforts towards the SDGs. As the mobile industry looks to meet the demands of a digitalised world, the need to work with governments to develop pro-investment conditions and modernised regulatory policies has never been greater. Both industry and governments must approach this digital revolution with the right mix of policies, regulation and consumer protection while providing the framework for companies to compete and innovate.

\(^2\) System Transformation: How digital solutions will drive progress towards the Sustainable Development Goals, GeSI and Accenture, 2016
With the mobile industry’s impact on the SDGs increasing in 2016, the GSMA - in collaboration with operators - has made several commitments and taken part in a number of initiatives that seek to continue this momentum. During the next year, we will focus on delivering these commitments:

1. **Big Data for Social Good** – this initiative leverages mobile operators’ big data capabilities to address humanitarian crises, including epidemics and natural disasters.

2. **National Dialogues for Digital Impact** – an initiative to bring the industry’s SDG commitment to the local level by convening key government ministries, leaders of the mobile industry and consumer insights to explore how mobile can accelerate its positive impact on society.

3. **We Care Campaign** – in Latin America, mobile operators have joined forces as an industry and made a series of commitments to ensure that users can enjoy the transformative benefits of mobile technology in a safe and reliable environment.

4. **Connected Women Commitment Initiative** – this initiative supports mobile operators in low- and middle-income countries to reduce the gender gap in mobile internet and mobile money by 2020.

5. **IoT Big Data** – the GSMA is working with the mobile industry to establish an IoT Big Data Ecosystem to encourage a common approach to data sharing that will help IoT realise its full potential and encourage the development of new projects across transport, the environment and smart cities.

6. **Mobile for Development (M4D) Initiatives** – GSMA M4D, in collaboration with the mobile industry, has undertaken a number of projects to drive progress across the SDGs.
   - As part of the M4D Utilities Fund, operators are partnering with utility service providers to deliver energy, water and sanitation solutions for over 4 million people.
   - The GSMA and the industry have committed to support the creation of 500 million new registered mobile money accounts over the course of the World Bank’s Universal Financial Access 2020 initiative.
   - The GSMA will offer expertise in mobile money to address the opportunities and challenges of mobile cash disbursements in disaster-prone countries.
   - Under the Ecosystem Accelerator programme and its Innovation Fund, the GSMA is committed to helping start-ups and mobile operators in Africa and Asia build partnerships and scale commercial innovation with positive socio-economic impact.
   - Under the GSMA’s Humanitarian Connectivity Charter, a set of principles adopted on preparedness and response activity, more than 110 operators in nearly 80 countries are contributing to humanitarian response and improving access to communication and information for those affected by crisis.

7. **Partnerships for the Goals** – partnerships with different entities, including the UN, will look at new business models and mechanisms to support the implementation of the SDGs, and engage governments and mobile industry leaders to increase the positive social impact of mobile technologies.

In the meantime, the GSMA and the mobile industry will continue to report on its progress each year and will continue to develop and improve the evidence used to track operators’ impact on the SDGs. With this framework in place, both the industry and the international community will be able to understand the impact, progress, challenges and ultimately action needed for the mobile industry to harness its full potential to achieve the SDGs.
Better networks

Improvements

Population coverage

<table>
<thead>
<tr>
<th></th>
<th>3G</th>
<th>4G</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>79%</td>
<td>4 billion</td>
</tr>
<tr>
<td>2016</td>
<td>83%</td>
<td></td>
</tr>
</tbody>
</table>

More than half of the world’s population

Network quality

Average mobile broadband download speed

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>3G</td>
<td>13.5 Mbps</td>
<td>16.6 Mbps</td>
</tr>
<tr>
<td>4G</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: GSMA Intelligence calculations using Speedtest Intelligence data from Ookla

SDGs impacted

Source: GSMA Intelligence

Examples

Support emergency communication and provide location data before and during epidemics and natural or climate-related disasters.

Provide emergency broadcast systems to enable effective risk mitigation of environmental threats to agriculture.

Provide communication services to stimulate local business (and economic) growth in poor communities.
How better networks impact the SDGs

Examples

Support emergency communication and provide location data before and during epidemics and natural or climate-related disasters.

Provide emergency broadcast systems to enable effective risk mitigation of environmental threats to agriculture.

Provide communication services to stimulate local business (and economic) growth in poor communities.

#betterfuture
More connectivity

### Improvements

<table>
<thead>
<tr>
<th>Mobile subscriber penetration</th>
<th>Mobile internet subscriber penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2015</strong> 63% 230m NEW SUBSCRIBERS</td>
<td><strong>2015</strong> 44% 350m NEW MOBILE INTERNET SUBSCRIBERS</td>
</tr>
<tr>
<td><strong>2016</strong> 65%</td>
<td><strong>2016</strong> 48%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cellular M2M connections</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2015</strong> 310 million</td>
</tr>
<tr>
<td><strong>2016</strong> 410 million</td>
</tr>
</tbody>
</table>

Source: GSMA Intelligence
Examples of how more connectivity impacts the SDGs

- Drive economic growth through improved productivity, infrastructure development and improved consumption efficiency.
- Promote the transfer and diffusion of new technologies.
- Monitor air quality, climate change and water and energy efficiency.
- Improve the inclusiveness of economic development by expanding trade, enabling participation in the labour force (particularly for women and people with disabilities) and increasing access to public services.
- Improve productivity of manufacturing and industrial processes.
- Monitor marine, coastal and forest ecosystems.

#betterfuture
Doing more with mobile

### Improvements

#### Mobile money

- **450m** → **555m**
- **23% increase**

Source: GSMA Mobile Money

#### Social media users

- **2bn** → **2.5bn**
- **29% increase**

Source: We Are Social

#### mAgri

- **13m**
- **54% increase**

Source: GSMA mAgri

This figure only captures applications tracked by the GSMA.

---

**Examples of how doing more with mobile impacts the SDGs**

- **SDG 1:** Provide financial services to individuals and small businesses that would otherwise be financially excluded, and facilitate access to low-cost remittances.
- **SDG 4:** Promote social and political inclusion (irrespective of age, sex, disability, race, ethnicity, religion or economic status).
- **SDG 7:** Help to access electricity, water and sanitation through pay-as-you-go solutions, and provide digital payment services for utility bills.
- **SDG 9:** Provide information about weather conditions, pest outbreaks and new farming technologies through mAgri solutions, and enable the upskilling of agricultural communities.
- **SDG 13:** Provide access to information to communities, increasing awareness of sustainable development practices.
- **SDG 17:** Facilitate the provision of digital forms of identity, which is critical to protecting legal rights and accessing basic services and social safety nets.

---

**2015 vs. 2016**

- **Registered accounts**
  - 450m (2015) → 555m (2016) **23% increase**
  - 1,500m (2015) → 1,300m (2016)

- **People**
  - 1.5bn (2015) → 1.3bn (2016)
  - 1.3bn (2015) → 1.5bn (2016)

- **Social media users**
  - 2bn (2015) → 2.5bn (2016) **29% increase**

---

**2017 Mobile Industry Impact Report: Sustainable Development Goals**

---

**18**
SDGs impacted

Examples of how doing more with mobile impacts the SDGs

Provide financial services to individuals and small businesses that would otherwise be financially excluded, and facilitate access to low-cost remittances.

Promote social and political inclusion (irrespective of age, sex, disability, race, ethnicity, religion or economic status).

Facilitate the development of networks to enhance education and provide a digital solution for parents to pay school fees.

Provide businesses with the means to market their products and services.

Help to access electricity, water and sanitation through pay-as-you-go solutions, and provide digital payment services for utility bills.

Provide information about weather conditions, pest outbreaks and new farming technologies through mAgri solutions, and enable the upskilling of agricultural communities.

Provide access to information to communities, increasing awareness of sustainable development practices.

Facilitate the provision of digital forms of identity, which is critical to protecting legal rights and accessing basic services and social safety nets.

#betterfuture
CONNECTING EVERYONE AND EVERYTHING TO A BETTER FUTURE

gsma.com/betterfuture