



2016 Mobile Industry Impact Report: Sustainable Development Goals





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Sam Baker
Partner
Monitor Deloitte, TMT Industry Group
sambaker@deloitte.co.uk
www.deloitte.co.uk

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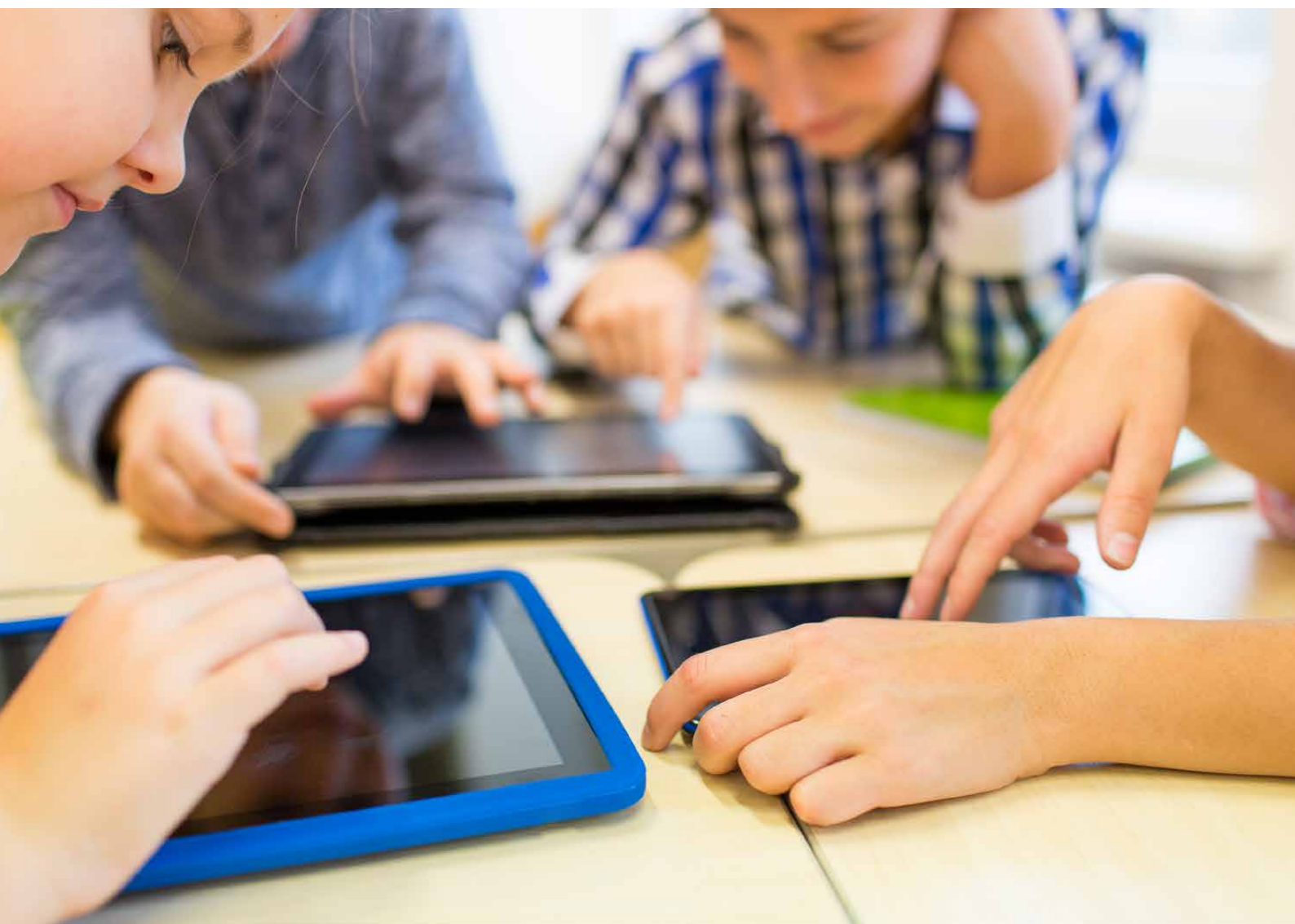
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THE MOBILE INDUSTRY AND PURPOSE

This first-of-its-kind report offers critical insights into the transformative impact of the mobile industry on individuals, societies and economies around the world, in developed and developing markets. Importantly, it establishes a benchmark through which the industry will assess its success in contributing to the Sustainable Development Goals (SDGs) and serves as a blueprint for other industries as they commit to achieving the SDGs.



THE MOBILE INDUSTRY

The mobile industry has moved from being a luxury service provider in an analogue economy to providing the foundations of all interactions in the digital world:

- Two thirds of the world, or 4.7 billion unique subscribers¹, are now connected by mobile networks with approximately 200 million additional people being connected each year;
- 2.2 billion people have mobile broadband, enabling them to participate in the digital economy;
- At the end of 2015, there were more than 310 million Internet of Things (IoT) / machine-to-machine (M2M) connections, with growth forecast to drive this to one billion connections by 2020, demonstrating the emerging scale and scope of the digital world and the mobile industry's role within it.²

CONNECTING EVERYONE AND EVERYTHING TO A BETTER FUTURE

The mobile industry purpose, “Connecting Everyone and Everything to a Better Future”, was launched at Mobile World Congress (MWC) 2016 in Barcelona, and formally acknowledges the responsibility that comes with owning and operating the networks that have such pervasive reach and such influence on our lives. There are three parts to this purpose:

INCLUSION “Connecting Everyone”:

Around three billion people remain unconnected and a further 2.4 billion people are connected to voice and simple text services only;

INNOVATION “Connecting Everything”:

IoT is developing rapidly, but the level of penetration remains low. A core part of the purpose is to contribute to the development of IoT and the promise it brings;

INFLUENCE “A Better Future”:

The industry recognises that connectivity is transformational and that operators have a collective responsibility to influence how this connectivity is used.

1. Source: GSMA Intelligence, The Mobile Economy 2016 (<https://www.gsmainelligence.com/research/?file=97928efe09cda2864cdc1ad1a2f58c&download>)
2. Source: GSMA Intelligence data, Deloitte analysis (2016)

THE SUSTAINABLE DEVELOPMENT GOALS

On 25 September 2015, the heads of state, government and High Representatives issued a declaration from the UN headquarters adopting the SDGs and their targets, and committing to work together to change the world.³

The SDGs follow the Millennium Development Goals (MDGs), which focused on the challenges of poverty and human development in poorer countries. The MDGs succeeded in demonstrating the power of shared goals. The SDGs are far broader, integrating the economic, social and environmental agendas across all geographies and applying both to developed and developing economies. The SDGs apply to all of us with no exceptions, and provide a universally agreed definition of “a better future”.

The 17 SDGs, with 169 associated targets, represent a breath-taking level of ambition in both the scale and scope of change, with timelines for achievement in 2030 or earlier. The SDGs have been developed at a time when the global economic growth of the last decades (which benefited the MDGs) is uncertain, and some key indicators, particularly those relating to equality, inclusion and environmental sustainability, are tracking in the wrong direction³.

Successful delivery of the SDGs requires major changes to the way different economies and their underlying sectors work together globally, as well as the speed at which innovative ideas and best practice are propagated around the world. The evolving digital economy provides an opportunity to do things very differently and the mobile industry has a foundational position in this evolution.

Governments, sectors, and individual organisations are beginning to formally recognise the SDGs and develop action plans. Sharing approaches, knowledge, and capabilities will be critically important in this phase to ensure that best practice is followed, and that the route to implementation is as efficient and effective as possible. The mobile industry seeks to be an exemplar in terms of its level of commitment and its desire to lead, having first committed to the SDGs in February 2016 at Mobile World Congress in Barcelona.



3. Source: UN, Transforming our world: the 2030 Agenda for Sustainable Development (<https://sustainabledevelopment.un.org/post2015/transformingourworld>)

THIS REPORT: THE MOBILE INDUSTRY IMPACT REPORT: SUSTAINABLE DEVELOPMENT GOALS

This report is a critical input into the development of a comprehensive SDG implementation plan for the mobile industry. The report links the mobile industry's activities to the SDGs and their targets, and assesses the impact of these activities on the SDGs. This body of evidence is then used to reflect on the implications of current trends and what the industry can do to enhance impact. The development of the report has created a framework, approach, dataset, model and narrative that can be adopted by other sectors and organisations embarking on this journey.

The development of this report and its associated assets has four main objectives:

- 1** Facilitate progress reporting through the creation of a common, measureable system that links the industry's activities to their impact on the SDGs and their associated targets;
- 2** Provide an input into industry decisions on strategy, planning and investment;
- 3** Allow the mobile industry to engage more effectively with existing or new partners on the basis of the impact on the SDGs;
- 4** Create a framework that can be shared with others in the mobile communications ecosystem, as well as with other industries.

This is year 1 of the report. As it evolves, improved and more complete data sets will be built, and coverage of specific areas of industry focus will no doubt become more detailed. Nevertheless, it is an important step in establishing a robust framework that quantifies impact. As the first of its type, the impact report

will also benefit others as they develop their own approaches. The mobile industry firmly believes that effective measurement and reporting is an important component of driving the necessary change, and as such commits to continuing to develop this approach and to report on a yearly basis.

The approach to developing the impact analysis that underpins the report has four principal stages:



Target filtering: Identifying the SDG targets that the mobile industry can impact in a significant way. Those excluded are typically focused on state intervention or policy (with the exception of specific mobile industry policy that the GSMA and broader industry actively contribute to). Just under half of the 169 targets have been selected.



Driver definition: Describing how industry activity drives the impact against the target. This might be discrete to the industry, or an activity that the industry participates in. Approximately 110 drivers have been defined.



Driver importance assessment: An assessment of the importance of the driver in contributing to the target. This reflects the breadth of each of the targets: in every case, the mobile industry is not the sole contributor as other sectors and types of organisation also contribute.



Metric identification and measurement: Metrics are then developed for each driver, and measures across 90 countries were identified to allow quantification of performance. Metrics are typically proxies rather than precise measures of the driver, and are built up from about 50 variables.

This allows the creation of scores which assess the contribution of the mobile industry against both the targets and SDGs. These scores can be compared and used as a baseline in subsequent years. As the methodology and data sets evolve, 2016 can be updated to ensure a comparable year-on-year story.

sought from a wide range of operators and experts, on the industry, on reporting and on sustainability. The support of the 24 operators represented on the GSMA board has been critical to the process, as has GSMA staff expertise.

The framework is robust, but the population of the framework requires significant judgement, which in turn requires knowledge and understanding both of the industry and of the targets. As such, input has been

The most critical inputs have been from a working group of 15 operators, and the GSMA programme teams, comprised of world-leading experts in their own domains, for example, mobile money or cellular infrastructure.

While the report is primarily focused on the assessment of impact across the SDGs, and the forward-looking implications of that analysis, there are three additional topics covered:



Sustainable business policies and practices: Acknowledgement that the mobile industry has a primary responsibility to respect and uphold universal principles of responsible business in areas such as human rights, labour, environment and anti-corruption in the conduct of their business;



The industry's commercial model: Reflections on the strength and sustainability of the commercial model in light of the current and expected impact on the SDGs;



Commitments: A series of commitments by the industry to further promote the SDGs, enhance the industry impact on the SDGs, and advance the capability of other sectors to also contribute.



KEY FINDINGS: IMPACT ANALYSIS

All SDGs are impacted by the mobile industry to varying degrees, with the greatest impact being felt on: SDG 9: Industry, Innovation and Infrastructure, SDG 1: No Poverty, SDG 4: Quality Education and SDG 13: Climate Action. The way the industry contributes across these four SDGs differs significantly:

- **SDG 9** calls for resilient infrastructure, sustainable and inclusive industrialisation, and innovation. The industry makes a powerful contribution through: extending and upgrading its infrastructure; connecting remote, less-included communities; stimulating economic participation; and supporting IoT-related innovation.
- **SDG 1** focuses on eradicating poverty, providing equal access to economic resources, and building the resilience of the poor. The industry plays its part by stimulating economic participation and activity through voice and data services; providing affordable connectivity; and acting as a provider of financial services to developing economies, including the powerful platform of mobile remittances that is particularly valuable to underserved communities.

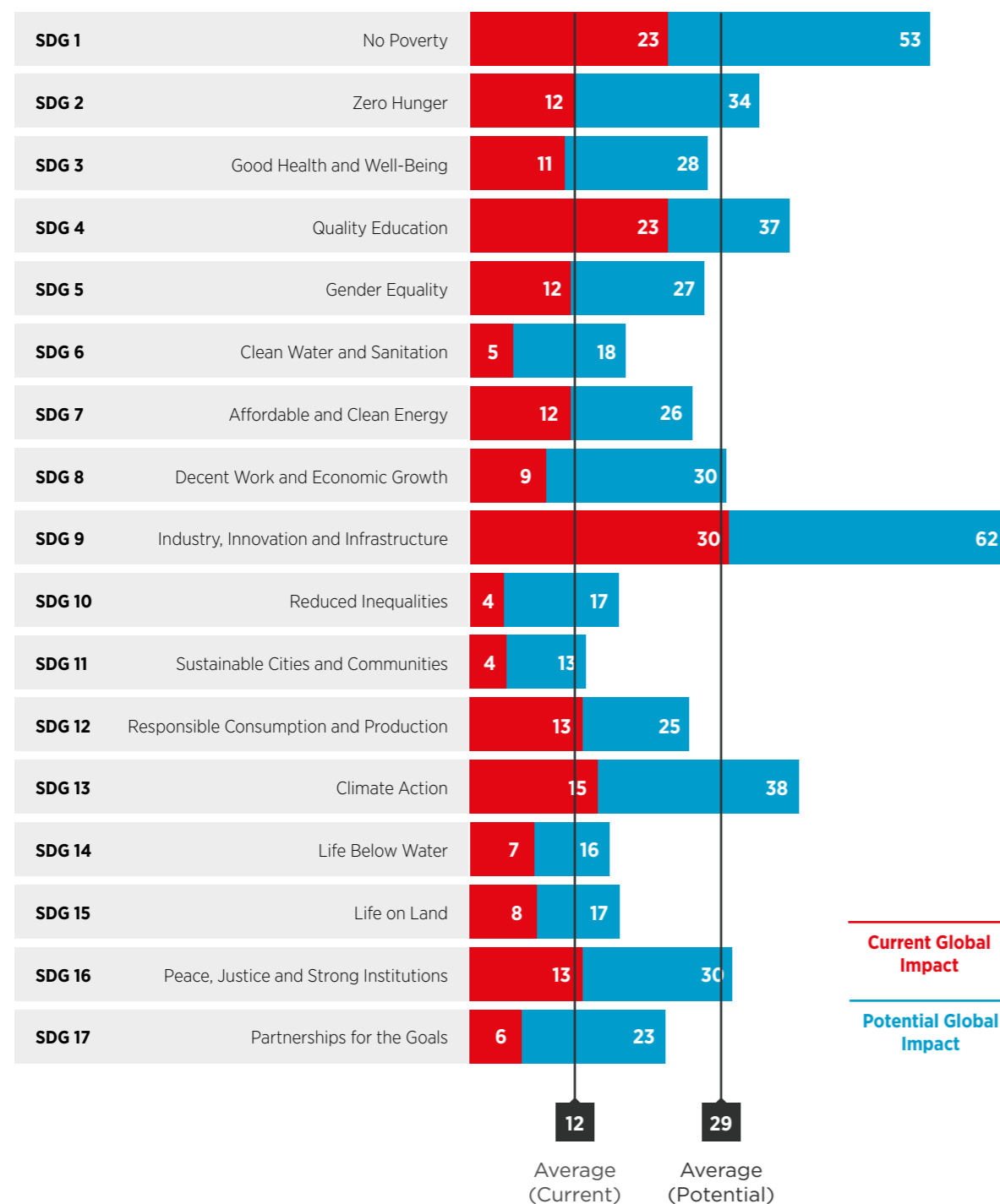
- **SDG 4** targets significant improvements in the quality of, and access to, good education across formal and more skills-based categories. The industry primarily impacts this SDG by providing connectivity to schools and learners, giving access to digital resources. The industry also provides educational platforms directly, including content, and facilitates the purchase of school-related services in poorer economies through mobile money.
- **SDG 13** seeks improvements in community resilience to the effects of climate change and improved planning and management. The industry contributes by providing emergency communications systems, connectivity and tailored services, e.g. broadcasts at times of disaster and early warning systems based on data analytics, sensors, and crowd sourcing.

It is important to note that the impact scoring of these four SDGs does not imply prioritisation on behalf of the industry. The scores reflect the number of targets that can currently be materially influenced by what the industry currently does, the importance of the industry to those targets, and a measure of performance using industry metrics. In future years, as progress is tracked against plan, a sense of prioritisation might be inferred.

A key factor in establishing the proportion of the targets selected is the exclusion of those that emphasise policy or state intervention, for example the eighth target (11.a) under SDG 11: Sustainable Cities and Communities is "Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning". Whilst mobile communications will undoubtedly be involved in these processes at some stage, no compelling mobile industry driver was identified with sufficient distinctiveness and impact, so that target is excluded.

The second main influence is the performance of the drivers as measured by the metrics. Drivers that contribute through, for instance, basic connectivity, will be measured by a metric related to penetration and will have a high performance score. Drivers that contribute through the emerging features and capabilities of the industry e.g. M2M investment or IoT, will have a lower performance score.

FIGURE 1
Current and Maximum Potential SDG Impact Scores⁴



4. Note: Maximum Potential is based on every country reaching the maximum potential score for each metric used to measure Impact. In this scenario the number of targets impacted, and importance of the industry to those targets remains as current.

Figure 1 above shows the current performance scores and the potential. The potential assumes that the industry maximises performance but does not increase the number of targets it can significantly influence; that is, the core business model stays intact. However, the industry could choose to collaborate in areas outside that model, for example, by playing a leading role in urban planning, in which case the potential could be significantly higher than shown here. Scaling the existing business model alone could deliver over two times the current impact for the higher scoring SDGs and over three times for the lower scoring SDGs: allowing the industry to map out continued evolution against these 2030 targets.

The industry activities that drive impact are spread across the value chain: 30% are operational activities, 27% are related to the primary output of the industry: connectivity, 32% are related to services or content that are based on that connectivity, and 11% are assessed as non-core. Example of drivers by value chain classification include:

- **Mobile Network Operator (MNO) operations:** Increasing the energy efficiency of operating infrastructure such as base stations and data centres (contributes to both SDG 7: Affordable and Clean Energy and SDG 12: Responsible Consumption and Production);
- **Connectivity:** Provide affordable access to basic voice and data services to enable access to primary and secondary e-learning (SDG 4: Quality Education);
- **Service or content platform:** Support low-cost, accessible remittance services in developing areas (SDG 1: No Poverty);
- **Non-core activities:** Actively seek engagement with public and private organisations to promote sustainability (SDG 17: Partnerships for the Goals).

5. ITU and UN data, Deloitte analysis: both coverage and e-waste per population calculated as simple averages across all countries in group

Impact is also influenced by the directness of the relationship between the specific industry activity and the target. There are three categories: direct (no intervening stage or third party required), indirect (requiring third-party collaboration or intervention) and systemic (impact that requires the interaction of multiple parties over time). Whilst there will be significant systemic impact, that impact is much more difficult to attribute. As a result, 90% of the drivers are direct or indirect. Examples of each category includes:

- **Direct:** Provide an affordable mobile service entry point to women in all areas (SDG 5: Gender Equality);
- **Indirect:** Provide communications services to stimulate local business and economic growth in poor communities (SDG 1: No Poverty);
- **Systemic:** Connect remote communities to digital agricultural marketplaces to improve price outcomes and increase the income of farmers (SDG 2: Zero Hunger).

The metrics and measures have been collected at country level, which can be aggregated to provide a view on impact by region or other country grouping. Some of the targets are location-specific, in which case the score pertains only to performance in the target location. The more developed regions typically score better on those drivers driven by core infrastructure roll-out and investment in new technologies, but less well in terms of environmental impact e.g. measures of e-waste. The less developed regions typically score less well on aggregate, reflecting the lower levels of infrastructural investment and inclusion. For instance, the 3G coverage across developed countries is 98% and 1.4 kg of e-waste is generated annually per person, while in developing countries coverage is 74% and e-waste generation is 0.4 kg per person⁵. These are broad generalisations and there are plenty of differences between regions that are explored in the report.



#betterfuture

Sustainable business policies and practices

The impact analysis maps out the industry drivers that influence the SDGs. It does not comprehensively describe or analyse the company operations and the extent to which they adhere to sustainable business policies and practices. However, that should not be taken as an indication that sustainable business policies and practices are unimportant. The industry recognises that both need to be in place to lead.

Adherence to policy and implementation is implied by the proportion of the industry that signs up to the UN Global Compact ten principles, and the extent to which progress is reported against in sustainability reports. Operators belonging to groups that collectively represent more than 4 billion subscribers globally

have signed up so far to the UN Global Compact ten principles, and the industry has a number of operators at the top of the Dow Jones Sustainability Index (DJSI).

However, as the industry develops, there are plenty of challenges to manage, not least privacy and data protection, e-waste and the increasing energy requirements driven in part by the exponential growth in demand for and usage of mobile data. As such, progress in this area forms part of the commitment that the mobile industry is making to the SDGs, the industry purpose, and its place in the world.

The industry's commercial model

Much is expected of the industry, both by itself and others, and this will require continued investment in infrastructure, as well as innovation in areas like IoT. Periods of increased investment have always been a feature of the industry and operators - with the participation of customers, business partners and regulators - have managed to keep profitability at a level that attracts continued funding.

However, this model differs significantly by operator, and by country operations within operators; in aggregate there has been some year-on-year profitability decline. The core participants in the industry and its markets need to continue to work

together to ensure the sustainability and affordability of the model, as well as the continued investment and radical improvements in functionality, that have been characteristic of the industry.

To be clear, the industry does not see a trade-off between the delivery of impact against the SDGs and a robust financial model. Quite the opposite: a clear and leading contribution to the broader social, environmental and economic challenges of the world is critical to a sustainable, investable sector of the size and scope of the mobile industry.

OUTLOOK

The impact analysis demonstrates that the core business of the mobile industry impacts all SDGs. The industry is continuing to grow, and as such, it can be expected that the impact made will grow. To meaningfully accelerate progress against the SDGs, there are three main ways that the mobile industry can drive impact in line with its purpose:

CONNECTING EVERYONE AND EVERYTHING TO A BETTER FUTURE

Industry Purpose

SDG Impact Accelerator

INCLUSION
Connecting Everyone

Scaling networks and access: expanding the global mobile network footprint and connecting subscribers to voice and data services.

INNOVATION
Connecting Everything

Innovation: creating new ways to enhance the quality of connectivity and ease of access; and innovating mobile-enabled platform services to meet sustainable development needs (e.g. mobile identity and M2M).

INFLUENCE
A Better Future

Policy and partnerships: contributing to sustainable development policy alongside governments and agencies, both as an industry and together with other partners.



However, this ambition to accelerate progress highlights some challenges moving forward:

- Achieving continued growth will be more difficult and require more investment. The unconnected are likely to be harder to reach and less able to afford connectivity than those already connected, and this comes as growth in data places additional demands on the existing networks. Access and affordability are the critical customer-side constraints and will require technical and commercial innovation together with policy changes to address sustainability.
- The current rate of change, particularly given the constraints noted above, may not be sufficient in the light of the radical and transformational demands of the SDGs. The industry needs to challenge itself and its ecosystem to accelerate change in the most important areas.
- The impact analysis, not surprisingly, shows that impact is unevenly distributed across geographies and, where data is available, within geographies. Inclusiveness is a critical principle underlying almost all of the SDGs. The industry needs to engage with

broader stakeholders to promote inclusiveness and eliminate the digital divide.

- The reach and utility of the mobile network provides the industry with greater influence than it currently exerts. The number of targets excluded from the impact analysis should be scrutinised, and the industry can come together to influence some of those policy or state interventions that the SDGs require. The digital economy needs steering to avoid the negative outcomes of concentration and inequality, and the industry has a strong role to play here, together with governments and other governing bodies.

Addressing these challenges will accelerate the impact on the SDGs, and through that, their achievement. Many of the challenges listed above are being addressed by individual operators; the key overarching challenge is being able to work together as an industry, together with the right third parties, including the UN, to harness the potential.

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THE INDUSTRY COMMITMENT AND A CALL TO ACTION

The mobile industry recognises the challenges and opportunities laid out in this report and is ready to make a series of public commitments that will solidify the next, critical steps. These commitments are wholly in line with our stated industry purpose.

The industry is resolute in its ambition to create to a #betterfuture and commits to:

- Partner with the UN to develop a road map for the mobile industry, with an initial focus on humanitarian assistance;
- Become a lead advocate of SDG impact reporting and sustainability principles, including the UN Global Compact ten principles;

- Utilise the industry's convening power to drive further SDG engagement and commitment.

Each of these commitments will involve mobile network operators, the wider supply chain and also third parties motivated to act in a similar way. The industry firmly believes these commitments lay the foundation for a transformational change of the industry position and impact and, with it, a transformation in the ability of the world to achieve the SDGs.

The industry wants to do this in an open and collaborative way and, as such, challenges all business partners, regulators, customers, governments and other industries to help us shape our plans, engage with us as we execute, challenge us to do more and help us all share in a better future.



GSMA HEAD OFFICE

Floor 2
The Walbrook Building
25 Walbrook
London EC4N 8AF
United Kingdom
Tel: +44 (0)20 7356 0600
Fax: +44 (0)20 7356 0601

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