

Annual Report 2023



The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach.

Connectivity for Good engages members, governments and civil society, to advance positive policy and spectrum outcomes, facilitate digital innovation to reduce inequalities in our world, and tackle today's biggest societal challenges such as digital inclusion, climate change and sustainability.

Industry Services and Solutions underpins the technology and interoperability that make mobile work. Via our projects, working groups and promotional activities we facilitate the industry's focus on areas such as 5G, Mobile IoT, fraud and security. And our technical services offer tools, data and resources to enable even more efficient and robust mobile experiences for users.

Outreach provides the world's largest platform for convening and informing the mobile ecosystem at MWC Barcelona, Shanghai, Las Vegas, Africa and the M360 series, and through Mobile World Live and GSMA Intelligence with breaking news, insights and expert analysis.

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

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Chairman's Foreword

As I reflect on the year that has passed, I count myself incredibly lucky to be leading alongside the GSMA Board in the biggest technological revolution in human history, a revolution with mobile connectivity at its core.

The year that has passed has been a challenging one for us all, but also an invigorating one, reminding us of the power of sticking together and supporting each other in a world that has become increasingly complex and fractured.

As the GSMA Board, we have been united in the areas that count and significantly advanced several key challenges facing the industry, including the investment gap, spectrum harmonisation and the usage gap.

The launch of GSMA Open Gateway was a significant step forward for us this year, a clear indication of our commitment as an industry to lead the way in the technological revolution. I am incredibly proud of our work together as a Board in making this happen, and even prouder of the GSMA team who went above and beyond to ensure that we launched in February with proofs of concept that demonstrated this was not just another lofty idea, but a reality that could work.

With 39 operator groups representing over 228 network operators onboard by year-end, and the first commercial network APIs launched, momentum is growing, but this is just the beginning. Over the next few years Open Gateway will enable us to build a deep ecosystem for innovation across industries. I look forward to seeing what the future holds in store.

As we head into 2024, this Annual Report gives us the opportunity to reflect on the year that has passed and celebrate the incredible strides we have made.

José María Álvarez-Pallete López

GSMA Chair and Chairman & CEO of Telefónica

Director General's Foreword

I am incredibly proud of the impact of the GSMA this year, driving connectivity for billions in the midst of an increasingly fractured global landscape. The power of teamwork and collaboration was clear as we led the way forward on behalf of the mobile industry.

The year started with the launch of GSMA Open Gateway at MWC Barcelona, with a vision to unlock the full potential of 5G digital services. It was fantastic to see momentum build, with 39 operator groups representing over 64% of global mobile connections signing onto the initiative, and more growth expected in 2024.

The World Radiocommunication Conference 2023 meant that spectrum was top of mind for us all. As an industry, we worked together to advocate for more harmonised spectrum, and welcomed an agreement between governments on new mobile low-band spectrum (below 1 GHz) and mid-band spectrum in the 3.5 GHz and 6 GHz ranges.

Another key focus was highlighting the investment gap, and our collaborative efforts as an industry drove significant momentum around this challenge. As mobile data traffic grows exponentially, our industry finds itself under increasing pressure to shoulder the costs of network infrastructure investment to keep up with customer demands. In Europe, for example, it is estimated that an additional €174 billion of investment is required to reach the 2030 Digital Decade targets. This year we helped galvanise more than 20 European operators to jointly call for regulation to address this investment gap, and as a result, high-level EU policymakers now recognise the need to significantly improve the regulatory environment for our industry.

Of course, driving digital inclusion to address the usage gap remained a priority in 2023, and the power of collaboration was clear as we established the Affordability Coalition, bringing together operators, device manufacturers and organisations such as the World Bank, to advance handset affordability. Our Mobile for Development work in low- and middle- income countries also reached an important milestone - impacting the lives of over 220 million people.

Lingering uncertainties in early 2023 meant we were unsure if we could hold MWC Shanghai. But hold it we did, for almost 37,000 attendees from 115 countries and territories. This year, MWC Barcelona, with over 88,500 attendees, and MWC Shanghai demonstrated that the value of doing business in person remains very much at a premium.

This year was also important financially as we delivered the final phase of our financial recovery strategy, rebuilding reserves to above pre-pandemic and target levels. 2024 now marks a new phase in the GSMA's development with a new corporate and financial strategy and the rollout of a culture reinvigoration programme - ensuring that the organisation is very well equipped for the future.

A sincere thank you to the GSMA team, our members, partners and stakeholders. And gratitude also for the continued support of our Board and our Chairman Mr José María Álvarez-Pallete López.

Mats Granryd

Director General, GSMA



Chapter 1

Strategy



Vision, Mission and Strategy

Today's societal, economic, and environmental challenges are more complex than ever, and the mobile industry's ongoing investment and innovation are crucial for affordable, accessible, and sustainable solutions across all geographies.

The GSMA's vision is to unlock the full power of connectivity so that people, industry and society thrive.

- promote the industry through reports, thought leadership, events, media and marketing channels.

The GSMA's mission is to be recognised as THE global industry association for the advancement of mobile technology by representing, promoting, serving and unifying mobile operators, the broader mobile ecosystem and industries around the world who are pursuing digital transformation to deliver real impact for business and society.

- serve the industry through GSMA services, training, news, data insights and research to inform, improve and support our members.
- unify through collaboration which drives innovation, global interoperability and business opportunities.

The GSMA's strategy is to:

- represent our members to governments, regulators, international institutions and development organisations.

The GSMA operates across three pillars - Connectivity for Good, Industry Services and Solutions, and Outreach, with threefold organisational KPIs - engagement, impact, and financial.

Financial Strategy

The GSMA Group is overall not-for-profit and relies on contributions from events, services and membership fees to provide funding for its activities.

In 2023, the GSMA delivered, for the first time since 2019, a full annual series of events. Diversification of funding sources continued with growth across Services and Membership products. The GSMA's financial recovery strategy, developed in the wake of the Covid-19 pandemic, enabled the GSMA to survive and thrive with an overarching ambition to rebuild reserves.

As 2023 closes, reserves now exceed pre-pandemic levels and as the GSMA looks forward to 2024, a new financial strategy has been developed. The new strategy builds on the lessons learned from the pandemic and ensures the GSMA can return to its non-profit purpose with a stable foundation for future growth and impact.



Chapter 2

Governance



GSMA Board 2023

The GSMA Board is comprised of Group CEOs, CEOs and C-level representatives from the world's leading mobile operators. Collectively they set the GSMA's strategic direction, ensuring its work is fully aligned with the needs of mobile operators and their customers across the world. The Board ensures that the GSMA's resources are focused on activities where collective action can deliver significant benefits to the mobile industry's customers, beyond those that individual operators could achieve through their own pursuits. Board members serve a 2-year term.



**GSMA
Chair**

José María
Álvarez-Pallete
Telefonica





**GSMA
Deputy
Chair**

Gopal Vittal
Bharti Airtel





**GSMA
Director
General**

Mats Granryd
GSMA





Carlos M. Jarque
America Movil





Igal Elbaz
AT&T





Hans Wijayasuriya
Axiata





Gao Tongqin
China Mobile





Li Jun
China Telecom





Baojun Liang
China Unicom





Dominique Leroy
Deutsche Telekom






Hatem Dowidar
e&






Frehiwot Tamru
Ethio Telecom






Makoto Takahashi
KDDI





Young Shub Kim
KT





Jens Schulte-Bockum
MTN





Michaël Trabbia
Orange





Mathew Oommen
Reliance Jio





Yuen Kuan Moon
Singtel





Olayan Alwetaid
STC





Roberto Nobile
Telecom Argentina





Pietro Labriola
Telecom Italia





Sigve Brekke
Telenor





Vicki Brady
Telstra





Kaan Terzioğlu
Veon





Rima Qureshi
Verizon





Ahmed Essam
Vodafone



Board updates throughout 2023

KT: Hyeonmo Ku, President & CEO, served as KT representative to the Board until March 2023. Young Shub Kim, President & CEO, was appointed to the Board as KT representative on 11 September 2023.

Orange: Michaël Trabbia, Chief Technology & Innovation Officer, served as Orange representative to the Board until September 2023. Bruno Zerbib, Chief Technology and Innovation Officer, was appointed to the Board as Orange representative on 11 September 2023.

GSMA Leadership Team

As a member of the Board, the Director General is responsible for the day-to-day management of the GSMA. The Director General is supported by a leadership team comprising individual officers, each responsible for specific aspects of the GSMA's work.



Mats Granryd
Director General



Lara Dewar
Chief Marketing Officer



Louise Easterbrook
Chief Financial Officer



John Giusti
Chief Regulatory Officer



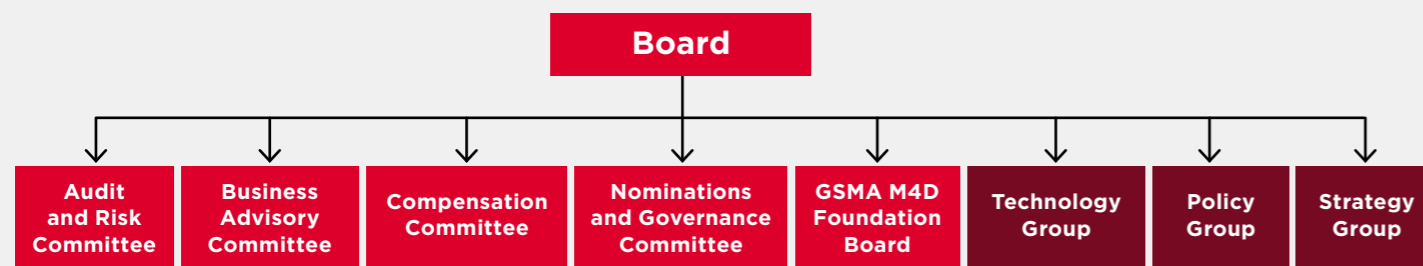
John Hoffman
CEO and Director, GSMA Ltd.



Alex Sinclair
Chief Technology Officer



Committees



The Board delegates specific responsibilities to the following boards and committees:

- The **Audit and Risk Committee** is responsible for overseeing the GSMA’s financial controls, risk management and financial performance.
- The **Business Advisory Committee** provides advice to the Board on specific issues relating to events and other commercial activities of the GSMA to convene or support the mobile industry.
- The **Compensation Committee** is responsible for determining the compensation of the Director General and the GSMA Leadership Team and the compensation policies and practices of the GSMA, reviewing and approving the annual organisational performance objectives and reviewing Leadership Team succession planning.
- The **Nominations and Governance Committee** is responsible for managing the process of nominating, appointing and electing members to the Board, its committees and its expert groups and for overseeing and managing the governance processes of the GSMA Board, Committees and Groups.
- The **GSMA Mobile for Development Foundation Inc. Board** is responsible for oversight of the GSMA Mobile for Development Foundation donor-funded programmes. A dedicated in-house compliance team provides oversight of all grant-funded programmes to ensure that the specific contractual requirements of each donor are met.

Three groups, each chaired by a member of the Board, act as advisors to the Board:

- The **Strategy Group** supports the Board by developing and proposing strategies for overall strategic focus and direction of the GSMA, the industry, and matters of strategic importance to the operator community.
- The **Policy Group** advises the Board on specific issues relating to public policy, regulation, spectrum management, industry reputation, advocacy and the use of mobile technology to achieve scale in delivering developmental and social goals.
- The **Technology Group** provides expert advice to the Board on matters relating to products and technology architecture evolution, including interoperability.

Membership

As of 31 December 2023, the GSMA had 1,112 members, comprising mobile operators and ecosystem players.

| | |
|---|--------------|
| Operator Member | 652 |
| Industry Member | 326 |
| Rapporteur | 65 |
| Parent Company Member | 19 |
| Sector, 5GIN and Activity Contributor Members | 45 |
| Telecommunications Administration Member | 5 |
| Total | 1,112 |

Working Groups

The GSMA’s global technology working groups, comprising over 150 groups and sub-groups, held more than 1,250 meetings with over 6,000 member participants. These groups updated or released approximately 200 essential documents, covering all aspects of system specifications, including interoperability, roaming and interconnect.

| Prominent Working Groups & Taskforces | Acronym | Members December 2023* |
|--|---------|------------------------|
| Wholesale Agreements and Solutions Group | WAS | 2,326 |
| eSIM Group | eSIM | 495 |
| Fraud and Security Group | FASG | 1,281 |
| Networks Group | NG | 641 |
| Interoperability Data Specifications and Settlements Group | IDS | 375 |
| Terminal Steering Group | TSG | 313 |
| Internet Group | IG | 219 |
| Intellectual Property Rights Working Group | IPR | 12 |
| Automotive Identity Group | AID | 60 |

*Individual participants

Risk Management

The Risk and Compliance Committee is responsible for the provision of effective and appropriate internal governance relating to risk management and compliance. The Committee has oversight of the organisation’s risk management, internal controls and related compliance activities. Comprised of the GSMA’s Leadership Team, and supported by senior advisors from the finance, people and culture, information technology and legal functions, the Risk and Compliance Committee reports on its activities to the Audit and Risk Committee.

The Risk and Compliance Committee is responsible for:

- Ensuring effective operation of the risk management framework
- Reviewing the organisation’s principal risks
- Reviewing the quality, adequacy and effectiveness of the internal controls and mitigation plans
- Monitoring emerging and future principal risks
- Reviewing any material risk materialisation
- Ensuring rigorous compliance with laws and regulations relating to business conduct

In January 2024, the Risk & Compliance Committee assessed the principal risks of the GSMA as follows:

| Consequence \ Likelihood | Rare | Unlikely | Possible | Likely | Almost Certain |
|--------------------------|------|----------|------------|--------|----------------|
| Catastrophic | | | | | |
| Major | | | 2 9 | 1 5 6 | |
| Moderate | | | 3 4 7 8 | | |
| Minor | | | | | |
| Insignificant | | | | | |

- 1 Reliance of GSMA on events (including risks to delivery of MWC B)
- 2 Compliance with antitrust law
- 3 Safety and security at GSMA
- 4 Management of donor funds
- 5 Cyber threat and information security
- 6 Compliance with data protection regulations
- 7 Third party reliance
- 8 Regulatory changes/scrutiny impacting GSMA’s operating model
- 9 Impact of geopolitical developments on the GSMA

The Committee considered three risks as no longer principal risks for the GSMA due to the decrease in risk profile:

1. Impact of pandemic on events
2. Intercompany interdependencies
3. Maintaining the GSMA’s impact within the industry

Note: The risk heat map indicates the ‘Net Risk’ rating after taking mitigations into account. Numbers in the key are for reference only and do imply a ranking of the risks.



Chapter 3

Our people: Diversity, equity and inclusion



Our Values

PASSIONATELY DRIVEN
INSIGHTFUL
LEADERS
STRONGER
TOGETHER

Our people: Diversity, equity and inclusion

As a global organisation representing an industry that covers 95% of the world’s population, it is the GSMA’s imperative to build a team that is truly diverse and inclusive. The GSMA unites a global ecosystem and leads by example, working with the wider industry to make commitments and strive for best practice in diversity and inclusion across the world.

Diversity, Equity and Inclusion (DEI) is an essential part of the GSMA’s culture, and the organisation strives to produce tangible results that bring about long-term sustainable change through a DEI agenda with three core principles:

- **Transparency:** Open reporting of diversity data and progress internally and externally
- **Inclusive Culture:** Creating an environment of psychological safety through investment in the DEI agenda and education
- **Accountability:** Removing bias and empowering GSMA leaders to drive the DEI agenda



Ensuring we deliver on our actions

The **Steering Committee** provides direction in developing the DEI strategy and promotes the DEI agenda within the organisation.



Louise Easterbrook
Chief Financial Officer
UK



John Giusti
Chief Regulatory Officer
UK



Lizzie Chilton
People and Culture Director
UK

The **GSMA DEI team** ensures that the GSMA has appropriate tools and support to deliver the DEI strategy and goals to promote a diverse and inclusive working environment.



Fiona Onochie
Head of Talent and DEI
UK



Nadia Mastantuono
DEI and Wellbeing Partner
UK

OneGSMA Co-chairs. OneGSMA is an employee-led forum that engages staff to get involved in delivering the DEI strategy and goals. They are key in fostering a truly inclusive culture by understanding where we can improve through grassroots interventions.



Ankur Vashishtha
Workplace Services Manager
INDIA



Radhika Gupta
Head of Data Acquisition
INDIA



Carol Gitobu
M4D Senior Market Engagement Manager
KENYA

Chapter 4

Highlights from
the yearConnectivity
for Good

Engaging public and private sectors to advance positive policy and spectrum outcomes, and tackle today's biggest societal challenges



Alignment of the industry for **WRC-23**, advocating for digital equality through enhanced low-band capacity for rural 5G, global harmonisation through access to 5G launch band at 3.3-3.8 GHz, and IMT expansion through 6 GHz for future 5G.

Pioneered thought leadership with endorsements from EU Equals, World Bank, ITU, OECD, Broadband Commission and ICC on the Usage Gap, Affordability, AI Ethics, and the Investment Gap.

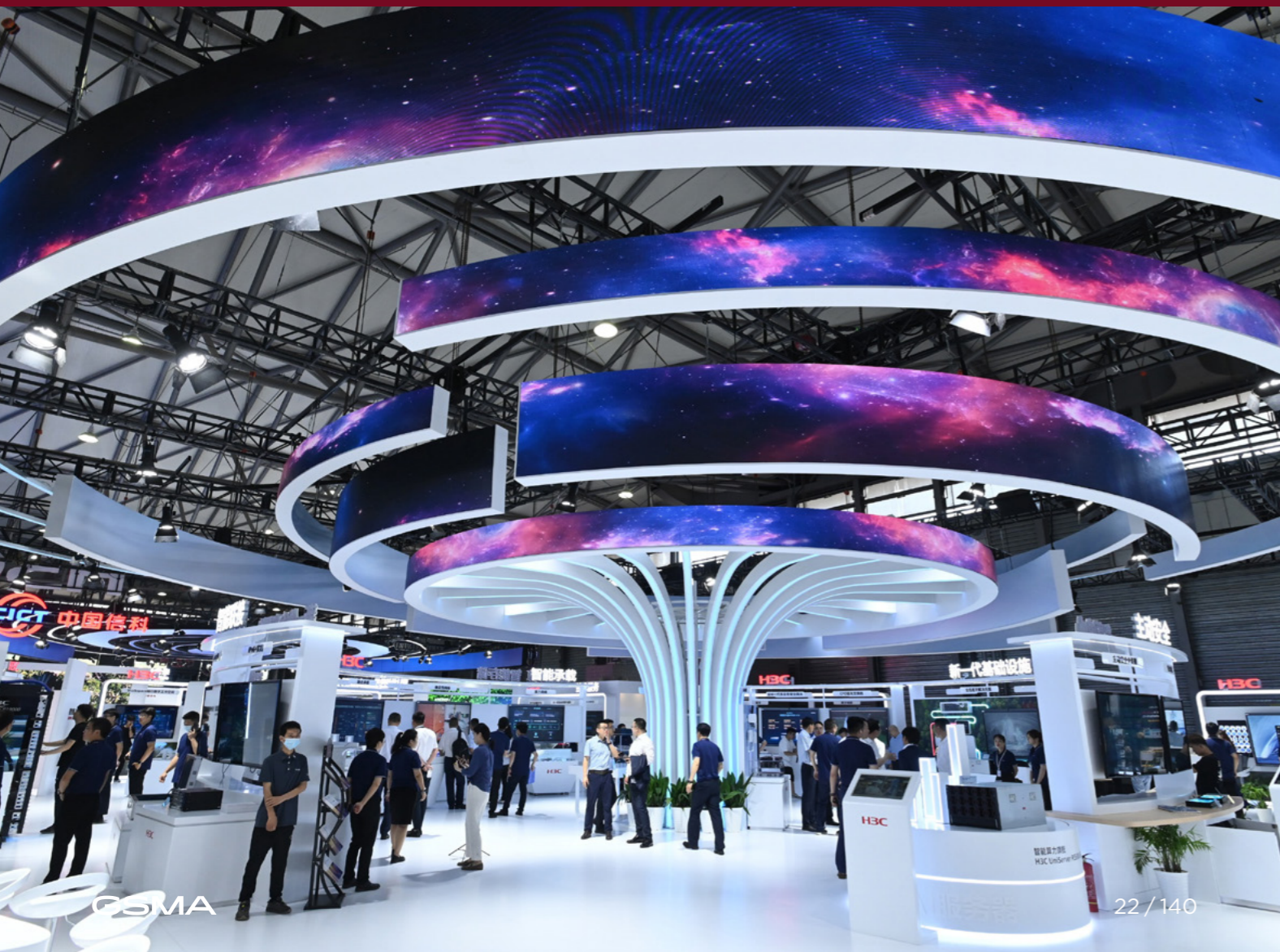
The **EU Fair Contribution to network investment** advocacy campaign resulted in an acknowledgement of the infrastructure investment gap and the need to significantly improve the regulatory environment for the European telecoms industry at the highest levels of EU policy makers.

Launch of the multi-year **Breaking Barriers** campaign, calling on governments, regulators, device manufacturers and the industry, to drive mobile internet adoption and close the usage gap. Linked to this, the **Affordability Coalition** is working to drive action on the affordability of mobile devices, one of the key barriers in addressing the usage gap.

Positive advocacy results in over **21 markets** relating to annual license fees, tax, data and privacy, single wholesale networks, tech neutrality and mid- and low-band spectrum auctions, deployment fees and regulation.

Leadership role in the UN Secretary General's **Early Warning for All Initiative**, including membership of the High-Level Advisory Panel and the Pillar 3 Working Group on 'Warning dissemination and communication'.

Over **14 policy positions** uniting the voice of the industry on Climate NetZero, industry circularity targets, the mobile industry and AI, and Network Shutdowns.



Industry Services and Solutions

Underpinning the technology and interoperability that makes mobile work – via global working groups, communities, Foundry projects, industry services and promotional activities

Technology Working Groups

2023 was the key year for GSMA's roaming group (WAS) returning to pre-pandemic normal. Through bilateral negotiation sessions, WAS plenary meetings are key to operators being able to maintain the tens of thousands of roaming agreements that they manage.

Networks

The 2023 5G Futures Summit series saw over 1000 attendees from 543 companies, fostering crucial industry partnerships. This was complemented by the launch of the 5G Futures Community, with a specific focus on advancing core 5G technologies, including 5G mmWave, 5GSA, 5G-Advanced, 5GNC and AI for networks.

Security

MWC Barcelona 2023 and M360 UK emphasised mobile security, underscoring the need for safe communications during times of conflict. Quadrupling the professional database demonstrated the growing importance of mobile security to the wider ecosystem.

Open Gateway

Launched at MWC Barcelona 2023, 39 group operators representing more than 228 operators and over 60% of mobile connections worldwide are participating in the GSMA Open Gateway initiative.*

* As of 31 December 2023

Industry Services

The GSMA continued to serve some 1900 customers during 2023 with a range of data and tools in the device, network and certification space that solve connectivity challenges.

GSMA Foundry

The Home of Mobile Innovation, bringing together GSMA members and industry partners, delivered 30 projects this year addressing industry-level challenges. For example, 'Connecting the Unconnected' - the first commercial connectivity aerostat by World Mobile in Mozambique.

Vertical Communities

Activity increased with even more impactful communities for Advanced Air Mobility, Digital Industries, Fintech, Identity & Data and 5G IoT. Over 100 sessions with 11,000 participants and 45 content pieces created an interest group of over 60,000 contacts.

Outreach

Convening and informing the mobile ecosystem

Almost **140,000** in-person attendees at MWCs in Barcelona, Shanghai, Las Vegas and Kigali and M360s in Baku, Mexico City, London, Seoul and Riyadh.

Ministerial Programme at MWC Barcelona was attended by 196 delegations representing 151 countries and 45 intergovernmental organisations. This year also saw the consolidation of the **Policy Leaders Forum** at MWC Kigali - attended by 59 delegations from across the African continent, cementing our regional presence.

MWC Shanghai **10-year** anniversary celebrated with a full return to in-person attendance after Covid restrictions lifted.

Mobile World Live daily news to **177,000+** tech and telecoms professionals.

170+ reports from GSMA Intelligence, forecasting the future with **50 million** data points.

150,000+ media mentions at MWC Barcelona.

35 million impressions were delivered for MWC Barcelona across our inhouse paid media channels.

Regional Highlights

NORTH AMERICA



Carlos Bosch
Head of North America

In 2023, the North America region strengthened its ties with the Caribbean through two successful Caribbean Coalition Roundtables, attended by operators and regulators. Additionally, 9 working groups, across 3 well-attended Regional Interest Groups events, collaborated on industry challenges, aiming for consensus and harmonisation. The region also achieved success with Ericsson's "Drone commercial network field test" in the Foundry Project. Of course, we were also proud to host MWC Las Vegas again, which included a Verizon-funded Tech4Girls Programme, benefiting 300+ girls in the USA and the Caribbean.



Lucas Gallitto
Head of Latin America

LATIN AMERICA

A powerful CEO panel opened our successful M360 LATAM in Mexico at the end of May, attended by over 700 delegates from 24 countries. At MWC Shanghai, we held the inaugural LATAM roundtable with industry members and governments, promoting best international practices through GSMA's global platforms. We championed our industry's priorities with a We Care commitment focused on closing the usage gap and an Open Gateway multi-operator launch in Brazil. We also continued our work in supporting our members' advocacy agendas, covering traditional topics as well as new discussions on Artificial Intelligence, where we signed a regional partnership with UNESCO that quickly turned global.

EUROPE



Daniel Pataki
Head of Europe

This year our European members presented a united front in the European Commission Consultation on "the future of the electronic communications sector and its infrastructure" response. These efforts led to this topic being discussed among the EU telecoms ministers and we welcome the European Commission's forward-looking leadership on the topic. We also started to prepare for the European elections 2024, working on the industry's manifesto for incoming policymakers and new EU Commissioners. We were also proud to host our first M360 Eurasia event in Baku, Azerbaijan, which exceeded all expectations.



Jawad Abbassi
Head of Middle East and North Africa

MIDDLE EAST AND NORTH AFRICA

This year we were pleased to see several well attended workshops and events, including the Networks Group NG#18 in Doha, Qatar, a 5G Capacity Building session in Jordan, and a successful spectrum workshop in Saudi Arabia. We were also pleased to host a successful M360 Riyadh for the second year in a row, bringing together key mobile industry stakeholders from across the region.



Angela Wamola
Head of Sub-Saharan Africa

SUB-SAHARAN AFRICA

A successful MWC Kigali brought together 6 of the biggest mobile network operators in the region and His Excellency President Paul Kagame to forge partnerships for driving greater digital inclusion with African governments. Our advocacy engagements on reducing the usage gap and investment gap resulted in GSMA aligned spectrum assignment in Senegal and Uganda, the suspension of 5% excise duty on mobile services in Nigeria, the complete removal of mobile money levies in Tanzania, as well as publication of two flagship reports: USF in Africa and the Mobile Tax Policy and Digital Development: A study of markets in Sub-Saharan Africa.

CHINA



Sihan Chen
Head of Greater China

2023 saw the successful return of MWC Shanghai with participants from 115 countries and regions. 5G IN continued to grow and more than doubled its membership base, with more than 30 members expected by the end of this year. Operators continued to advance their 5G business and actively contributed to Open Gateway, Foundry & 5G-Advanced First Adopters programmes, indicating a strong commitment from the region to the future of connectivity. We also expanded our vertical stakeholder engagements across regions with a successful Digital Leaders programme at both MWC Barcelona and Shanghai.



Julian Gorman
Head of Asia Pacific

ASIA PACIFIC

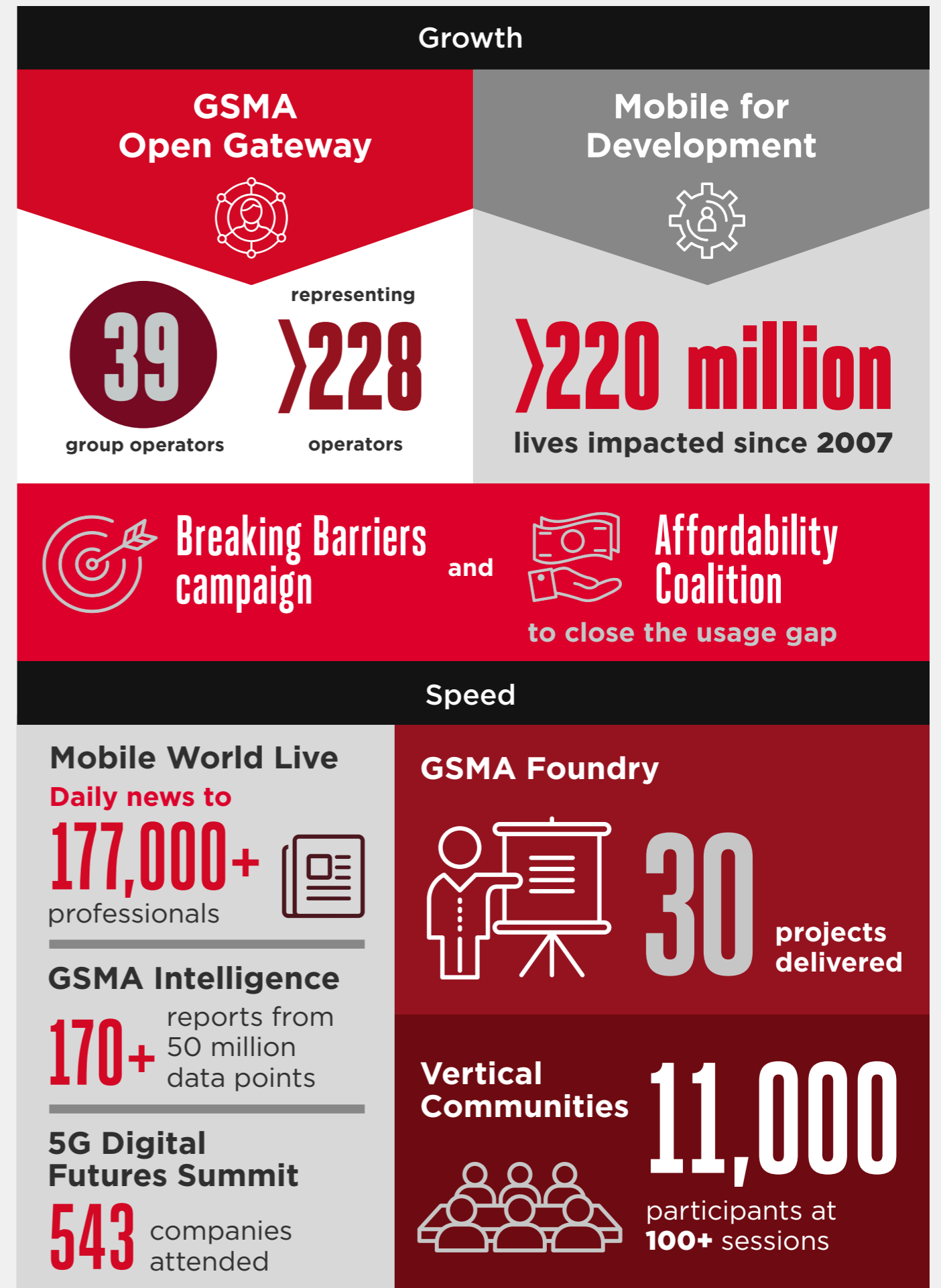
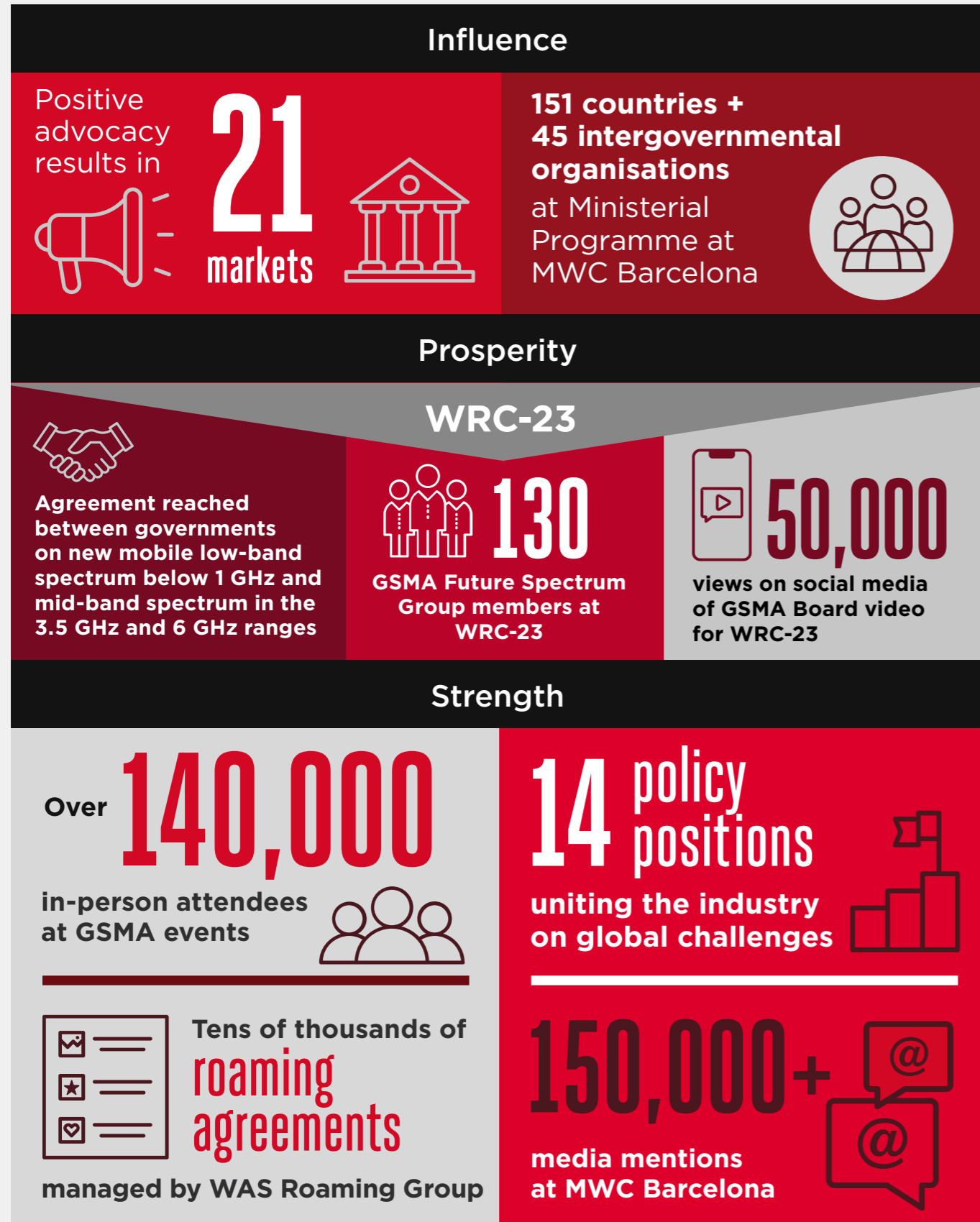
Our advocacy efforts were instrumental in driving policy reforms in India that have enabled MNOs to achieve the world's fastest rollout of 5G, now serving 120 million customers in the country. Engagement across multiple channels expanded our influence with governments on policy reforms such as Rights of Way in India, provision of additional affordable spectrum in Bangladesh, and encouraging voluntary infrastructure sharing required to drive digital transformation in the region. Of course, we also hosted a very successful M360 in Seoul, with over 40% of attendees from vertical industries.

Chapter 5

Operational review



Global impact



2023 Reality

An increasingly fractured world

The economic and geopolitical uncertainty that characterised 2022 continued in 2023, as the war in Ukraine continued and conflict erupted in the Middle East and Africa.

With the ongoing disruption to both energy and food supplies, the cost of living continued to rise rapidly in many parts of the world, compounding the negative socio-economic impact of the pandemic. The climate crisis was also increasingly apparent, as many parts of the world experienced extreme weather conditions in 2023.

In 2024, geopolitical uncertainty is likely to continue, particularly as elections are set to take

place in several of the world's largest economies. With the global economy facing so many unpredictable headwinds, it is hard for the mobile industry to gauge how much to invest and where.

Still, both the public and private sectors are increasingly reliant on mobile connectivity and services to underpin the much-needed digital transformations and the technological advances required to address the world's gravest challenges.

Delivering positive impact

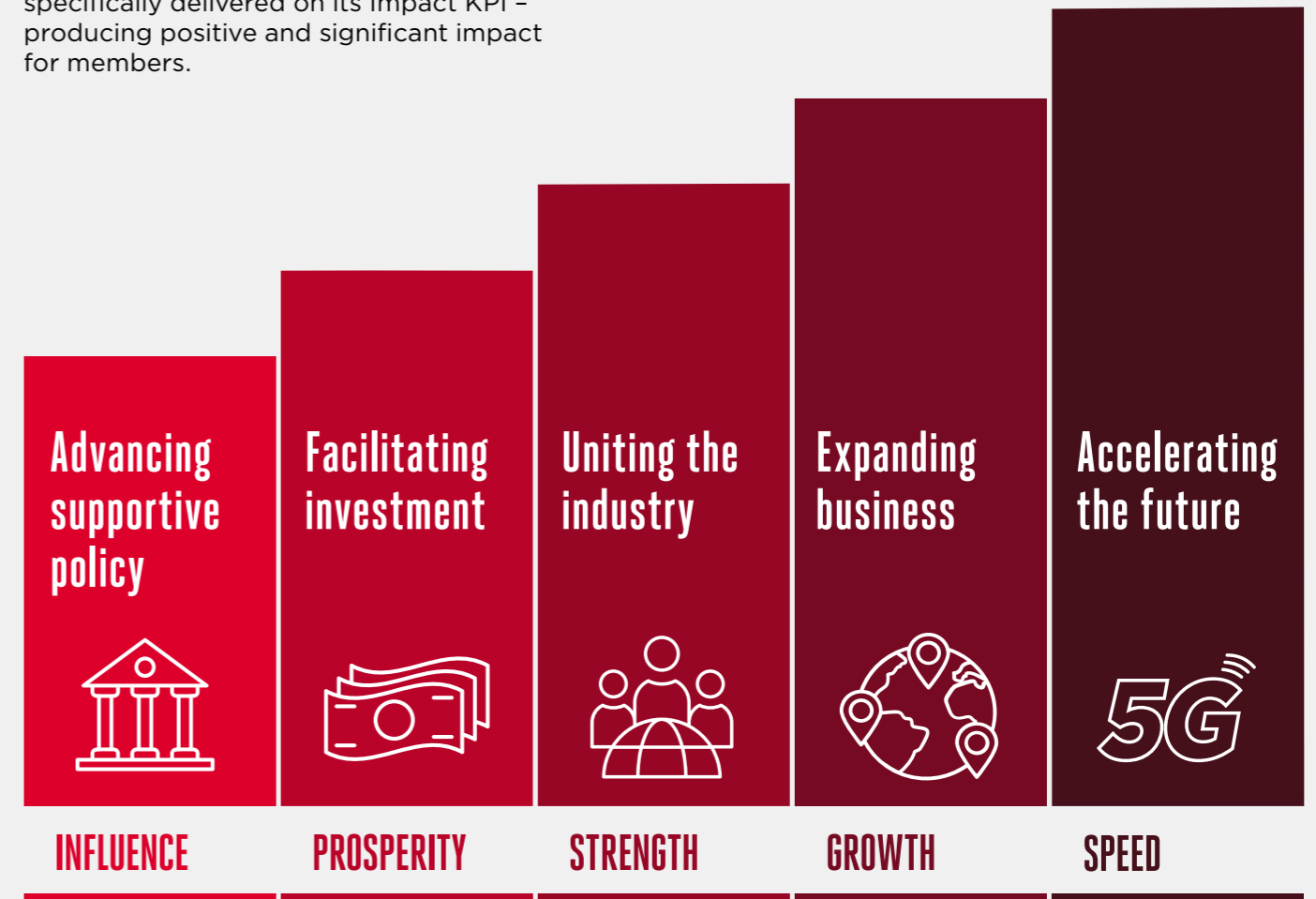
The GSMA's vision is to unlock the full power of connectivity so that people, industry and society thrive. Investment and innovation by the mobile industry are crucial to develop affordable, accessible, and sustainable solutions to the world's most pressing societal, economic, and environmental challenges.

As the global representative of the mobile industry, the GSMA operates across three pillars - Connectivity for Good, Industry Services and Solutions, and Outreach, with threefold organisational Key Performance Indicators (KPIs) - Financial, Engagement and Impact. To help it pursue these KPIs effectively in an increasingly complex and dynamic world, this year the GSMA has refreshed its organisational culture and governance, launched initiatives to further increase diversity, equity, and inclusion, and embedded an approach to risk management across the organisation.

Impact is demonstrated across five areas of value to the mobile industry - advancing supportive policy, facilitating investment, uniting the industry, extending access, and accelerating the future.

Following the economic fallout from the pandemic, the GSMA is now emerging from the third and final year of a financial recovery plan with a reshaped organisation, new ways of working and a resilient financial position. With the scope to step up investment in 2024, the GSMA can amplify its impact going forward.

This chapter highlights how the GSMA specifically delivered on its Impact KPI - producing positive and significant impact for members.



5.1 INFLUENCE

Advancing supportive policy

Today, more than 5.4 billion people rely on mobile connectivity, which contributes US\$5.2 trillion to annual global GDP.¹ To continue investing, operating and innovating at the level that consumers, businesses and governments demand, mobile operators need supportive public policy.

Progress in supportive policy and regulation is achieved by consistent long-term engagement with governments and regulatory authorities, drawing from detailed in-country experience, extensive data analytics and a broad understanding of regional and global trends and perceptions. Under the auspices of the global and regional Policy Groups, the GSMA balances a well-informed global view, ongoing engagement with members and governments, and the agility to quickly address urgent in-country challenges. Dependent on political and budget cycles, positive outcomes are generally the result of

multi-year efforts. In 2023, GSMA employees travelled extensively to advance supportive public policy through productive face-to-face meetings.

Reflecting the value of the GSMA's forward thinking and expertise in addressing multiple stakeholders and audiences across the public and private sectors, experts from all levels and areas of the organisation are continually invited to speak at events. In 2023, Mats Granryd and the leadership team received over 100 invitations to speak, including from governments and multilateral organisations.

Mobile connectivity



is essential in the lives of **5.4 billion people**



contributes **\$5.2 trillion** to global GDP

1. www.gsma.com/mobileeconomy/



Addressing the Investment Gap

During 2023, the GSMA focused on possible policy solutions for the investment challenges that mobile operators face in Europe and beyond. These solutions include a proposal to the EU that would lead to a fair and proportionate contribution from the largest traffic generators towards the costs of network infrastructure.

After inputting to the European Commission's consultation on the future of the electronic communications sector and its infrastructure,² the GSMA convened EU policymakers and the broad connectivity ecosystem at the GSMA Brussels office for an in-depth public discussion on the possible solutions for the fair contribution debate. Speakers included representatives of the European Commission, industry, academia, regulators and big tech.

At another public event on this topic, José María Álvarez-Pallete, Chairman & CEO of Telefónica and Chairman of the GSMA Board, delivered a keynote to the audience of EU policymakers, members and EU digital stakeholders. The GSMA also partnered with POLITICO to host a panel debate on Europe's Telecoms Single Market Potential.

Furthermore, 21 mobile operator CEOs published an open joint letter calling for Europe to act to protect its digital future. The letter was widely

covered by European and national media. The fair contribution messages were again highlighted in the GSMA's *Mobile Economy Europe 2023*³ report, launched during a European Parliament plenary session in Strasbourg.

As a result of this advocacy campaign, high-level EU policymakers now recognise the infrastructure investment gap and the need to significantly improve the regulatory environment for the European telecoms industry. EU Commissioner Breton acknowledged that "too many regulatory barriers to a true telecoms Single Market still exist, on spectrum acquisition, consolidation, legacy networks, security, and so on" and pledged that "Europe will do 'whatever it takes' to keep its competitive edge" when announcing the upcoming Digital Networks Act.

Beyond Europe, the GSMA launched the *Connectivity Gaps in Latin America report*⁴ to help frame the Investment Gap debate in the region, while in India, the GSMA highlighted the need for policy reforms to support investment by mobile network operators in a consultation response. The GSMA also convened government and industry stakeholders for a roundtable at M360 APAC in Seoul to trigger the debate on fair contribution in the APAC region.



2. <https://www.gsma.com/newsroom/press-release/telecom-sector-joins-forces-in-call-for-new-policies-to-drive-eu-connectivity-leadership/>
 3. <https://www.gsma.com/mobileeconomy/europe/>
 4. <https://www.gsma.com/latinamerica/resources/connectivity-gaps-in-latin-america/>

Working with governments

At the behest of members, the GSMA applied its regulatory and policy expertise extensively in 2023, backed by GSMA primary data and analysis, and facilitated industry positions on the issues that most occupied national governments.

In 2023, the GSMA Ministerial Programme at MWC Barcelona – the world’s leading forum

for policymakers and global industry leaders – welcomed a record 196 delegations representing 151 countries and 45 intergovernmental organisations. Regional Policy Leaders Forums also took place at MWC Kigali, convening over 500 attendees from Africa, and at M360 APAC in Seoul.



Asia Pacific

- India enacted new **data protection** laws reflecting elements of GSMA advocacy work over many years on smart data privacy laws.
- The GSMA’s input into 5G spectrum and rights of way policy in India helped to pave the way for mobile network operators to achieve the world’s fastest **rollout of 5G**, resulting in approximately 120 million 5G customers within a year. To drive further progress, the GSMA established a community dedicated to the development of a sustainable 5G mobile ecosystem in India.
- The GSMA ran an online workshop in Pakistan to support its campaign to reduce the number, impact and scale of **network shutdowns** on mobile operators. It was attended by more than 30 key stakeholders.

Europe



- The GSMA successfully engaged with the European Parliament on proposed **child sexual abuse material (CSAM) regulation**, obtaining amendments which recognise the different roles and responsibilities of the actors in the internet value chain and balance the prevention of harm whilst safeguarding encryption and privacy of communications.
- With respect to the implementation of the Digital Markets Act, the GSMA advocated to include Apple iMessage as a digital gatekeeper to allow for **messaging interoperability with RCS** (rich communications services). The European Commission opened a market investigation into the gatekeeping nature of iMessage, which is set to conclude in February 2024. In November, Apple announced that its products will support RCS.
- Following GSMA advocacy efforts, the EU excluded all the use cases for the telecoms industry from the category of high-risk AI systems and the corresponding stricter obligations in its proposed **Artificial Intelligence Act**. The final text of the legislation also includes clearer and more detailed definitions, as well as large parts of the GSMA’s position on data sharing and data processing services switching.
- In partnership with the ITU, the GSMA organised **5G training** for the regulators and industry stakeholders in Tajikistan and Turkmenistan.
- The GSMA helped to facilitate an extension of the **EU roaming** area to Moldova through a voluntary agreement between EU and Moldovan operators to lower roaming costs.
- Ahead of the **EU elections** in 2024, the GSMA welcomed almost 500 EU stakeholders to events at its Brussels office in 2023, including Members of the European Parliament, EU Commission officials, Member State ambassadors and government representatives, members and broader digital ecosystem players. An online video of an event featuring the GSMA Board Chairman and a discussion on the EU Telecoms Single Market was streamed more than 8,000 times.

Greater China

- The Minister of the Cyberspace Administration of China endorsed and participated in MWC Shanghai, and the GSMA secured stronger investment for the event from the city government with the first Digital Shanghai exhibition zone, and 5G city tour for **ministerial delegations**.





Latin America

- Across the LATAM region, the GSMA responded to 17 **public consultations** in Brazil, Uruguay, Chile, Perú, Honduras, Costa Rica and México, communicating its members' positions, and generating more than 400 pieces of media coverage.
- In Honduras, the GSMA helped prevent a **mandatory SIM registration** bill of law.
- Trustworthy relationships were established with **new governments** in Argentina and Ecuador, preceding and after Presidential elections, to facilitate industry priorities.



Middle East and North Africa

- GSMA Intelligence conducted a mobile operator-funded benchmarking study of the Kuwaiti market, initiated after engagement with the CITRA Chair and team. This will now lead to essential discussions with Kuwaiti regulators on **fibre, international gateways, and 5G spectrum**.
- The GSMA facilitated discussions between UN agencies, Egyptian regulators, and mobile operators with regard to the situation in **Gaza**.
- Engagement with the UNDP at the 2023 UN General Assembly led to the commitment to host a high-level **Digital Day** at MWC Barcelona 2024 and convene 70 high-level regional representatives to launch **digital cooperation initiatives**.



North America

- With the support of local governments, the GSMA's **Tech4Girls** programme benefitted more than 300 young women across the US and the Caribbean islands, including Trinidad and Tobago, Jamaica, Guyana, St. Vincent and the Grenadines, Turks and Caicos, Saint Lucia, and Belize.



Sub-Saharan Africa

- GSMA-led advocacy in Madagascar culminated in the liberalisation of **fibre optic infrastructure deployment** and the introduction of a universal licensing regime ensuring equal opportunities for all operators.
- The GSMA advocated for progressive **data protection** laws in the DRC, leading to the promulgation of digital code and law by the government. The **new law** made it possible for the DRC to sign the Malabo Convention for cybersecurity and personal data protection, making it easier for mobile operators and other ecosystem players to do business in the country.
- Following long-standing advocacy, participation in public consultations and written submissions by the GSMA, Nigeria enacted a new Data Protection Act that safeguards individual privacy and opens opportunities for **growth in emerging technologies**, such as AI, cloud-based solutions and IoT.

Capacity Building

GSMA Capacity Building develops and delivers training for policymakers and regulators as they strive to keep pace with the evolving mobile industry. These courses underpin the organisation's advocacy efforts, ensuring regulatory frameworks support growth to extend connectivity for good across the globe. The 15 courses, which are available for online and face-to-face training, were delivered to over 600 policy makers and regulators, via 1,500 training days, in 61 countries.

New courses in 2023 included Child Rights and Connectivity, Addressing the Digital Divide, The Evolution of Radio Access Networks, and Climate, which was launched at MWC Kigali to regulatory authorities and ministries from 17 Sub-Saharan countries.



The GSMA is a trusted partner in this space... it is valuable that we are getting trained by an entity such as GSMA that has the credibility to bring out these issues in a neutral and independent way. I am very grateful to the GSMA for taking the bold step to create (the Climate course) and launch it with us. I would like to encourage the GSMA to continue to do this."

Dorothy Akello, Chair of the Ugandan Communications Commission and Dean of the School of Engineering, Makerere University



The training has provided me with valuable insights that I intend to implement towards enhancing Malawi's digital sector. The knowledge and skills I have acquired have equipped me with the necessary tools to effect the desired change. I am committed to applying these elements on the ground, fostering an environment conducive to growth and innovation."

Daud Elvin Suleman, Director General Malawi Communications Regulatory Authority - MACRA



Working with multilateral organisations

In 2023, the GSMA continued to engage with influential international organisations to support global technology and digital development policy. On behalf of the mobile industry, the GSMA prioritised engagement with the ITU, the OECD, the World Bank Group, and selected agencies from the United Nations, including the UN Leadership team, on the following topics:

- Connectivity to address both coverage and usage gaps
- Internet governance, data and AI
- Mobile’s transformational impact in achieving the UN Sustainable Development Goals (SDGs)

In September, the GSMA participated in the **UN General Assembly** in New York, highlighting the impact of the mobile sector on societies and economies. The annual *Industry SDG Impact Report*⁵ was launched at the UN SDG Digital Day, showcasing the role of ICT solutions in scaling SDG impact.

In 2023, the GSMA prioritised establishing a strong partnership with the newly elected **ITU** leadership team, headed by Secretary-General Doreen Bogdan-Martin. For the first time, the GSMA welcomed all ITU elected officials at MWC Barcelona, and introduced the new leadership team to mobile industry C-suite executives and ministerial-level government stakeholders. This engagement was highly valued by ITU leadership, which is committed to enhancing collaboration with the private sector.

Engagement with the ITU-D and ITU-T sector focussed on internet adoption, digital skills, usage gap, mobile data costs, roaming, mobile money and climate. The GSMA also submitted five pledges to the ITU’s Partner2Connect Digital Coalition, related to the development of digital skills in low- and middle-income countries, capacity building, and its Connectivity for Refugees Initiative.

In collaboration with the ITU and GeSI, the GSMA launched “Scope 3” guidance⁶ to support the telecom industry to measure the carbon emissions of the whole value chain of ICT companies. The GSMA also supported the creation of the ITU’s new Green Digital Action initiative, providing strategic direction for the *ICT sector decarbonisation* and *Early Warning System* pillars of the initiative.

During 2023, the GSMA also deepened collaboration with the **World Bank** on digital development, and is one of the few private sector advisors to the Digital Development Partnership.

At MWC Kigali, the GSMA launched a new research paper on the energy challenges in Sub-Saharan Africa, with input from the World Bank and IEA. The GSMA and World Bank agreed to work together on the topic in more detail in 2024.

In parallel, the GSMA provided input to the World Bank report *Affordable Devices for All*, which includes a recommendation to lower taxes on equipment as a measure to increase smartphone adoption. The GSMA also launched a multi-stakeholder alliance on smartphone affordability of which the the World Bank and IFC are active participants. As part of this initiative, the Bank will be launching a programme in 2024 focused on de-risking smartphone financing.

Throughout 2023, the GSMA closely engaged in the activities of the **Broadband Commission**, co-chairing the Working Group on Connectivity for micro, small, and medium-sized enterprises (MSMEs) with the International Trade Centre (ITC). The Working Group produced an UN-endorsed report aligned to GSMA findings and recommendations on obstacles and solutions to driving increased use of mobile connectivity by MSMEs in low- and middle-income countries. The GSMA also informed the Broadband Commission’s *2023 State of Broadband* report, driving adoption of investment gap and usage gap messages aligned to mobile industry positions.

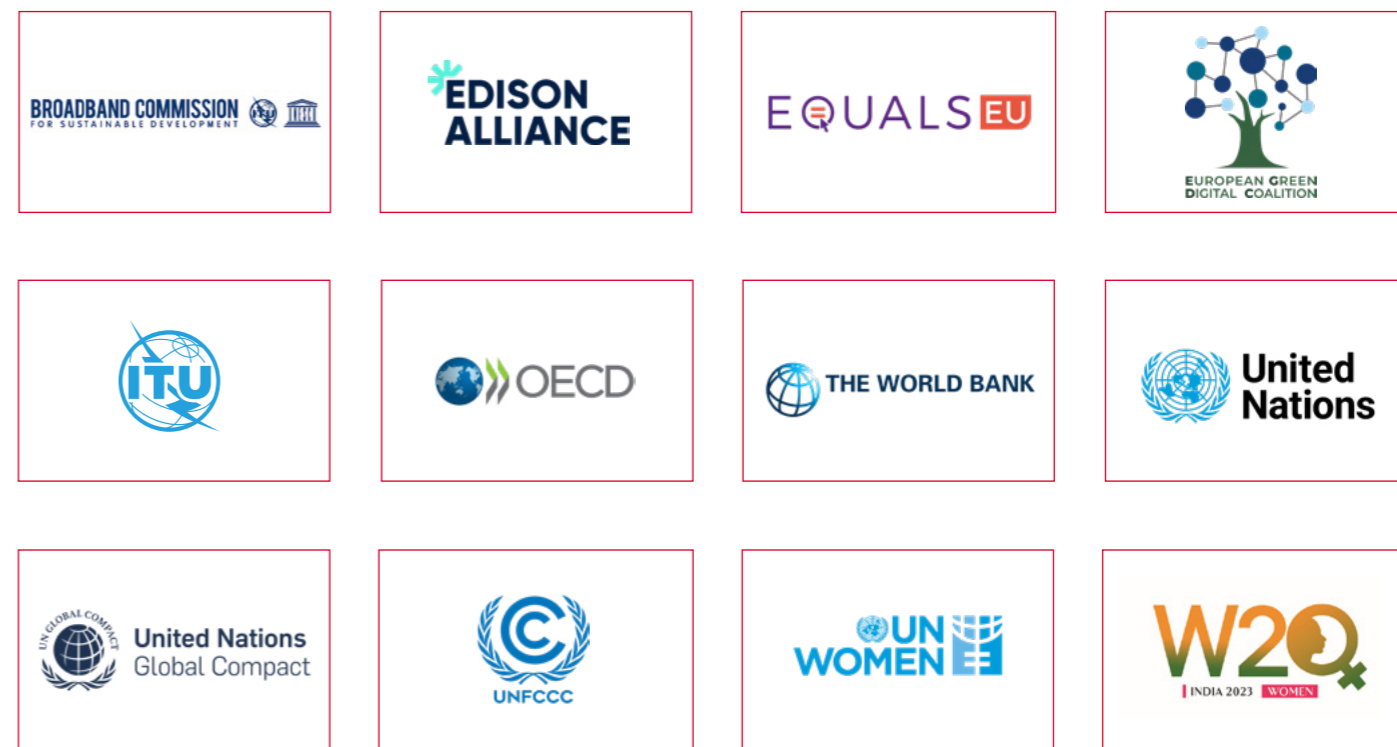
In 2023, the GSMA increased its engagement with the **OECD**, which has been expanding the scope of its traditional telco activities to include new players in the digital ecosystem. The GSMA contributed to the development of an upcoming OECD report *Financing Broadband Networks of the Future* to ensure views of the mobile industry are captured in the OECD’s recommendations. The GSMA continues to be part of the private sector group at the OECD (BIAC) and the Global Working Party on AI.

Under the **W20** India Presidency, the GSMA, which is represented in the EU delegation to W20, was elected as Co-Chair of the Taskforce on Bridging the Digital Gender Divide. As a result, the W20 Communique adopted a call for halving the digital gender gap (including mobile) by 2030 by addressing barriers around affordability, literacy and digital skills, accessibility, and online safety which was subsequently also reflected in the G20 India Leaders Declaration.

As part of its active contribution to the **EQUALS** Global Partnership for Gender Equality in the Digital Age, the GSMA celebrated the successful completion of a three-year EU funded project EQUALS EU,⁷ which included:

- the mapping of gender-inclusive innovation ecosystems across 22 countries
- innovation camps and hackathons attended by around 450 participants across 25 countries
- an incubator programme on gender-inclusive entrepreneurship
- an international summer school for future leaders in gender-inclusive innovation
- and the release of two gender equity tools for digital inclusion

The EQUALS Her Digital Skills initiative co-led by the GSMA received a renewed financial endorsement by Verizon and a new financial commitment from Qualcomm. To date, the initiative has directly or indirectly benefitted 100,000 women across 40 countries.



5. <https://www.gsma.com/betterfuture/2023sdgimpactreport>
 6. <https://www.gsma.com/betterfuture/wp-content/uploads/2023/07/Scope-3-Guidance-2023.pdf>

7. <https://equals-eu.org/>

5.2 PROSPERITY Facilitating investment

The mobile connectivity that is at the heart of the expanding global digital economy depends on continual large-scale investment by mobile operators. The GSMA forecasts mobile operators will together invest US\$1.5 trillion in capital spending between 2023 and 2030, of which 92% will be in 5G networks, bringing considerable benefits to consumers, businesses and governments.⁸

As they seek to build out 5G as cost-effectively as possible, mobile operators continue to explore new innovations and opportunities, including Open RAN technologies (which reduce the proprietary components and interfaces in radio access networks), cloud-native core networks and greater automation.



8. www.gsma.com/mobileeconomy/

Securing spectrum capacity

Spectrum access is a critical issue for the GSMA as we support our members' spectrum capacity requirements to improve and expand services, break down barriers to digital equality and address the usage and coverage gaps.

The biggest event of the year was WRC-23, held in Dubai during November and December under the auspices of the International Telecommunication Union (ITU). The GSMA advocated for three main issues: low-band capacity for rural 5G, harmonisation of the 5G pioneer band at 3.5 GHz, and future expansion into the upper 6 GHz band for 5G-Advanced while ensuring studies for future IMT identification to develop in the new cycle. The GSMA's campaign for WRC-23 took place over four years, encompassing technical and engineering work, economic studies, marketing, and advocacy to ensure that the needs of the mobile industry were met.

GSMA board members participated in a WRC-23 social and marketing campaign. Chairman José María Álvarez-Pallete, Mats Granryd and 13 other board members came together as one voice in videos to convey the 'WRC-23: For the Benefit of Billions' campaign,⁹ which have achieved over 50,000 views to date. Members of the GSMA's Future Spectrum Group featured in chairperson roles at WRC-23, as did the GSMA's Veena Rawat and Luciana Camargos.

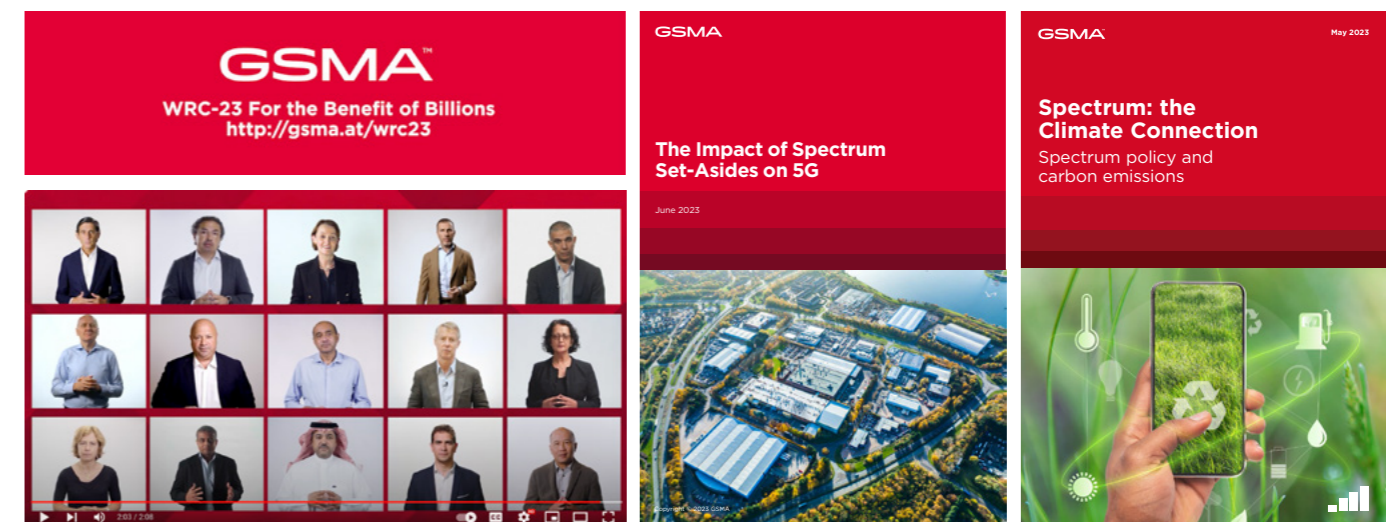
It was a successful WRC and GSMA targets were exceeded. The agenda for WRC-27 is now decided and it will be another busy four-year cycle. However, the work done at WRC is only the first step towards MNO use of spectrum. Issues, such as spectrum pricing, licensing conditions, and

roadmaps for what happens next also need to be addressed before MNOs can utilise spectrum to improve and expand mobile connectivity.

One welcome trend during 2023 was the continued demise of single wholesale networks. This has been the subject of long-term, analysis-based advocacy from the GSMA. Proponents of these government-initiated monopolies believed they would offer better coverage and more affordable services but these networks have not proved successful to date and are being abandoned in favour of competition-based approaches.

The negative practice of setting aside spectrum for applications other than public mobile networks, including private networks for companies, industries or public sector organisations unfortunately continued in 2023. This constrains the amount of spectrum available for mobile operators and impacts the quality and reach of mobile networks. The GSMA's *Impact of Spectrum Set-Asides on 5G*¹⁰ report outlines this issue, which was a concern raised at Board level in 2023 and our government engagement work on it will continue as prominently in 2024 as it did this year.

Spectrum management can be a useful tool in combatting climate change while simultaneously generating economic benefits for society. This link between spectrum and carbon emissions reduction was made clear by a GSMA report: *Spectrum: The Climate Connection*.¹¹ Ensuring that spectrum management decisions have a positive impact on the journey to net zero is an issue which infiltrates all spectrum engagement as we help mobile deliver a cleaner, greener future.



9. <https://www.youtube.com/watch?v=WXTUCXOzI>

10. <https://www.gsma.com/spectrum/wp-content/uploads/2023/06/Impact-of-Spectrum-Set-Asides-on-5G.pdf>

11. <https://www.gsma.com/spectrum/resources/spectrum-climate-connection/>



In 2023, there were important advances for ongoing work in multiple regions of the world:



Asia Pacific

- A GSMA-led advocacy campaign, highlighting how infrastructure competition can unleash innovation, resulted in the Malaysian Government revising its strategy of a **5G single wholesale network** and instead introducing a second network to help drive consumer and enterprise innovation.
- Following GSMA engagement on **private 5G networks**, India reversed its decision to allow spectrum to be set-aside in prime IMT bands.



Europe

- The GSMA intensified engagement with the European Commission and the RSPG (Radio Spectrum Policy Group) through quarterly meetings and regular written submissions, the publication of a position paper on options for EU **spectrum policy** and a dedicated workshop for policymakers. The latter was attended by more than 20 stakeholders, including representatives from five EU Member States.



Greater China

- The GSMA worked with the Ministry of Industry and Information Technology to secure China's national identification of the **6 GHz band** for IMT, which was announced at MWC Shanghai.
- Following GSMA engagement, China Mobile, China Telecom and China Unicom joined the GSMA Open Gateway, demonstrating their commitment to collaborate on the open network API framework.



Latin America

- Following discussions and correspondence with the GSMA, the government in Peru assigned the **AWS-3 and 2.3 GHz bands** to mobile connectivity.
- Following a GSMA intervention in Mexico, the regulator made the lower part of the 6 GHz band licence-exempt, and kept **annual spectrum fees** at the same levels, without inflation adjustments. Mexico, Brazil and several other countries together representing more than 60% of the world's population, asked to be included in the identification of the upper part of 6 GHz for IMT at WRC-23.
- The GSMA published the *Brazil Market Insight | The 6 GHz Band* report,¹² which prompted conversations at Congress level to reassess **spectrum policy** for this band.
- In Ecuador, the government reduced its **spectrum-related charges** by 83% following GSMA calls to lower these fees.
- In Colombia, GSMA advocacy contributed to lower **reserve prices** in a 5G auction, compared to previous auctions and other improved conditions.



MENA

- The GSMA in partnership with the Saudi Telecommunication Company hosted a successful Spectrum Workshop with 85 attendees in Saudi Arabia, which deepened the **relationship between the regulator and the industry** and led to the updated auction process that is to happen in 2024.



12. <https://www.gsma.com/spectrum/wp-content/uploads/2023/01/Brazil-Market-Insight-The-6-GHz-Band.pdf>



Sub-Saharan Africa

- In Uganda, engagements by the GSMA and mobile operators led to the release of spectrum in the 700 MHz and 3500 MHz bands. These bands are critical to bridging the **rural-urban connectivity gap** and the technology evolution to 5G.
- After the regulator in Senegal invited applications for **5G spectrum licenses**, the GSMA held a pre-auction workshop on the importance of affordable and technology-neutral mid- and low-band spectrum in bringing socio-economic benefits. Two operators were successfully awarded spectrum in 700 MhHz and 3.5 GHz. All operators are now able to use any bands to provide 5G, paving the way to Technology Neutrality in the country.
- In Cameroon, the GSMA and mobile operators successfully advocated for reasonable **spectrum pricing**, countering a proposal to increase fees from 1% to 8.5% of operators' annual revenues. After the GSMA highlighted the impact of such a measure on mobile service affordability, the government capped fees at 3.3%, saving mobile operators 5% of annual revenue.
- Low broadband usage in Rwanda prompted a policy review in 2022, which led to the **liberalisation of 4G** and future technologies in place of the existing Single Wholesale Licensing Framework. GSMA engagement led to the granting of the necessary license to MTN and Airtel for these services, driving a 60% increase in 4G traffic in the first two months as customers adopted more affordable mobile broadband services.



Reforming taxation

The GSMA promotes best practice principles of taxation, thereby making mobile services more affordable for consumers and facilitating investment in networks and services by operators. Efforts are reinforced with GSMA-produced research and analysis on mobile sector tax reforms, highlighting the corresponding benefits of broader internet adoption, economic growth and social inclusion.

In 2023, there were important advances in several markets:

- The GSMA updated its analysis of the impact of the **mobile money levy** in Tanzania and presented the results to in-market stakeholders. The government responded with the complete removal of the levy on receiving and transfer transactions and the removal of the airtime levy. Tanzania also reduced right of ways charges by 80-90%, which will contribute to reducing the investment gap and usage gap in that market.
- Kenya reduced its **excise duty** on telephone and internet data services from 20% to 15%, following the submission of a GSMA case study and recommendation to the Ministry of Finance.
- The GSMA opposed DRC’s proposed **license fee** hike from 3% to 5%, citing hindrance to network investment, which is crucial for bridging the coverage gap. These advocacy efforts kept fees at 3%, saving mobile operators US\$23 million annually.
- The government in Nigeria had imposed a 5% excise duty on telecom services despite the GSMA’s recommendations, but the newly elected regime suspended the tax, ensuring **cost stability**, continuous service usage, and reducing mobile operators’ overheads.



The “Crowding-In” effect

In low- and middle-income countries, the GSMA is focused on attracting large-scale investment to increase the impact of digital solutions on the lives of underserved populations and to bolster innovation and commercial viability for mobile operators.

Governments and institutions provide donor funding to the GSMA Mobile for Development Foundation, which runs thematic programmes that research impact opportunities, engage on the ground in target countries, and provide advocacy expertise to partners. Donor funding is also used to provide direct funding to innovative local entrepreneurs, who are, by nature, early-stage higher-risk investments. Through the GSMA Innovation Fund (covered in more detail in Addressing digital divides), the GSMA supports these start-ups on their path to sustainability and scale, facilitating partnerships with mobile operators and connections with investors.

Between 2017 and 2023, the GSMA Innovation Fund, funded by donors, invested in 136 organisations in low- and middle-income countries that have gone on to raise over £651 million in additional funding from private investors, equivalent to 27 times the investment made by those donors up to November 2023.

In October 2023, GSMA Innovation Fund start-up ReCircle closed a pre Series-A funding round with investments from Flipkart Ventures, 3i Partners (Impact India Investment Partners) and Acumen Fund. This will enable ReCircle to enhance its waste management and recycling service offerings, utilising mobile technology, and to develop its partner network, which includes more than 350 collectors.

In November 2023, GSMA Innovation Fund start-up J-Palm Liberia secured a US\$1.2 million investment from the USAID Africa Trade and Investment programme. This investment is part of the USAID Agribusiness Incubator and Development activity, a five-year, US\$20 million programme aimed at boosting Liberia’s agricultural sector. This will help to foster growth, expansion, and the creation of new domestic and international markets for Liberian agribusinesses. J-Palm Liberia is using the GSMA Innovation Fund grant to develop two mobile blockchain apps to deliver transparency and traceability to Liberian wild-harvest palm oil supply chains.



5.3 STRENGTH Uniting the industry

The GSMA's vision is to unlock the full power of connectivity so that people, industry and society thrive.



Serving the needs of members

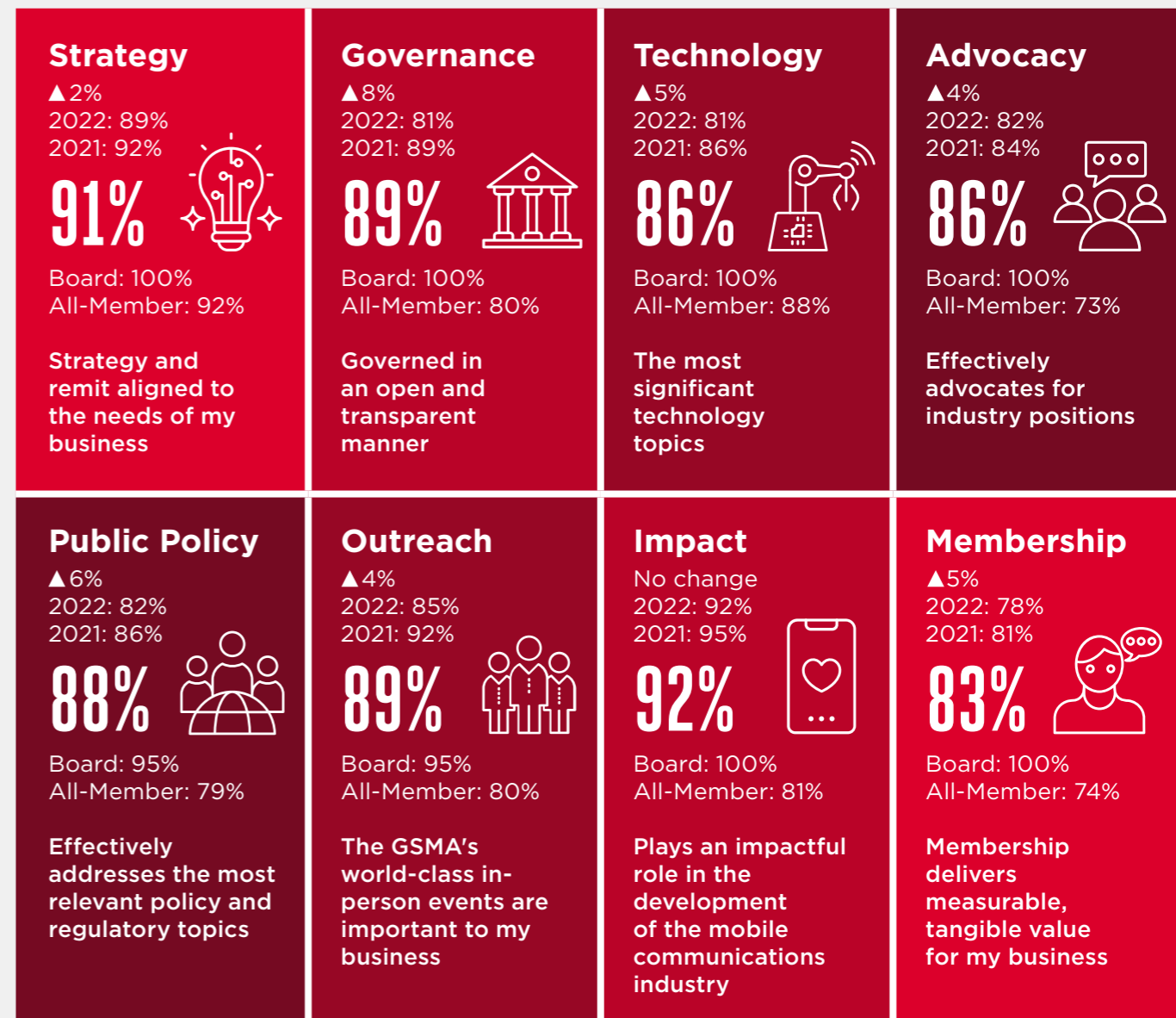
The annual survey of operator member CEOs received its highest response rate in recent years, with 32% of CEOs responding. The survey revealed a hugely encouraging NPS score of 45, an increase of 7 points over 2022, reflecting Heads of Regions' efforts in reaching out to CEOs, promoting working group participation, and increasing regional C-level meetings and communications.

My message for members, and especially the MNOs, I encourage them to actively take part in the working groups, in order to shape the future of this industry as we have done for the last 30 years”

Sergio Cozzolino, International & European Affairs, TIM, GSMA SIM/eSIM Working Group Chairman, GSMA ISAG Working Group Deputy Chairman

Key Category Results Dashboard

Annual CEO Survey (& Board/All-Member)



In light of 6% margin of error, scores remain largely unchanged

In April, the GSMA launched Member Gateway, the new member portal. Leveraging Microsoft 365 technology, the platform is scalable and is designed to enhance collaboration among working group members. Complementing the Member Gateway is Roaming Gateway, a single hub for the GSMA's numerous roaming tools, which had previously resided in both the GSMA InfoCentre2 and RAEX platforms.



The GSMA is an industry group that can truly converge all the different forces into what the operators, vendors, software developers and others in the ecosystem require. Not only this, the GSMA plays a crucial role in policy and spectrum, the lifeblood of what makes this industry successful.”

Caroline Chan, Vice President,
Network and Edge Group, Intel



I'm impressed by GSMA's initiatives like NESAS, Signalling, Interconnect PRD's, IoT, 5GCKB, and more. These are not just guidelines, but potential regulatory foundations to enhance security. This continuous focus on Regulatory Compliance is proof to GSMA's dedication to the industry's security and compliance.”

Muhammad Moqet ur Rab,
Senior Manager, Security Architecture
& Governance, Omantel

2023 marked a triumphant chapter for Wholesale Agreements and Solutions (WAS) events, with two events attracting more than 1,100 in-person attendees – in line with pre-pandemic attendance records. This success owes much to the members that hosted them – TELUS and Infobip – and the support of valued sponsors. Moreover, members who contribute their expertise during conference sessions enrich knowledge sharing among attendees, and importantly, the dedicated roaming community that conducts critical negotiations for the tens of thousands of roaming agreements necessary for the year ahead.

To optimise processes and align with industry advancements, the Interoperability Data Specifications and Settlement (IDS) working group decided that the TAP (Transferred Account Procedures) standard will no longer be enhanced for 5G billing. The TAP replacement

is a more streamlined, simplified and adaptable process known as BCE (Billing and Charging Evolution). To facilitate a smooth transition and ensure members are well equipped, the GSMA offers comprehensive training on this process, while encouraging participation and promoting the opportunity to contribute to the shaping of future standards.

Completion of IoT eSIM

In response to member requests to simplify the eSIM architectures, in May the GSMA published the new eSIM standard for IoT devices. This new architecture¹³ is the largest enhancement for provisioning IoT devices since the original M2M standard introduced for the M2M market nearly 10 years ago. A significant benefit is that the new standard requires very low levels of integration.

13. <https://www.gsma.com/esim/esim-specification/>

Addressing global and regional challenges

The scale of mobile connectivity, and its importance in the daily lives of more than 5.4 billion people, means that the GSMA is uniquely placed to help address the world's biggest societal and economic challenges, by developing industry-wide positions.

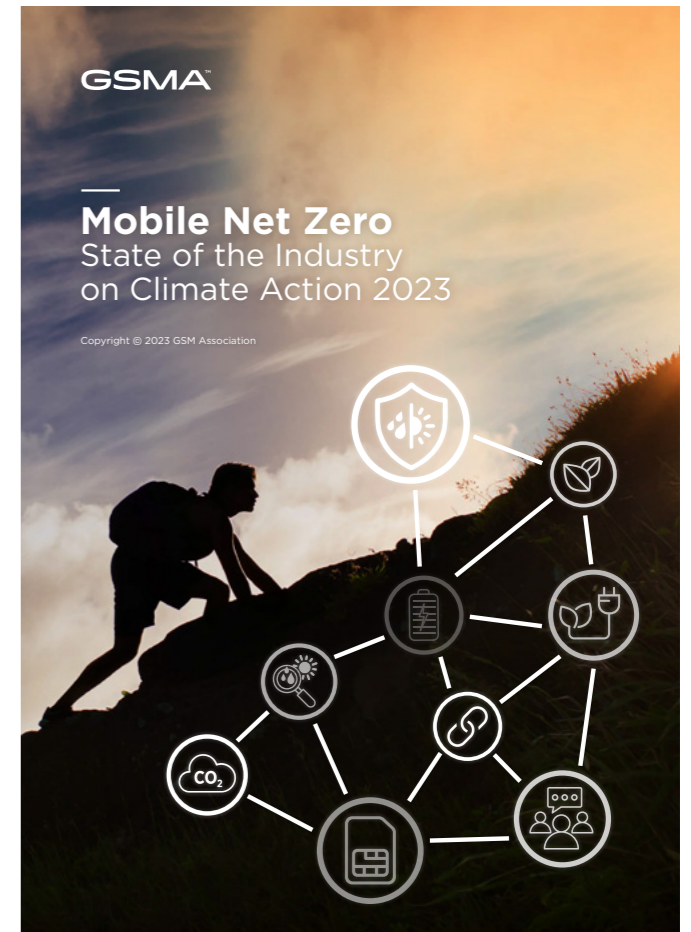
Climate

The climate crisis remains one of the world's most pressing challenges. In March, the GSMA released its third annual report *Mobile Net Zero: State of the Industry on Climate Action 2023*,¹⁴ highlighting how the mobile industry is progressing against its ambition to be net zero by 2050. To date, 62 operators, representing 61% of the industry by revenue and 46% by connections, have committed to rapidly cutting their emissions over the next decade, an increase of 12 operators from last year's report.

The GSMA continues to encourage key companies across the industry to disclose climate impacts and set targets in line with the net zero ambition. In 2023, the GSMA sent CDP (Carbon Disclosure Project) disclosure requests to more than 100 operators and 200 industry suppliers, the data from which is used to produce the *Mobile Net Zero* report¹⁵ updates.

In June, 12 leading operators signed up to circularity targets developed jointly with the GSMA to encourage the number of take back schemes of mobile devices and to ensure no device would end up as waste in landfill. In 2024, the GSMA will support further engagement with suppliers around circularity.

The GSMA also announced 12 new grantees from the GSMA Innovation Fund for Climate Resilience and Adaptation, which is supported by the UK Foreign, Commonwealth and Development Office (FCDO) and the Swedish International Development Cooperation Agency (Sida).¹⁶ This Innovation Fund aims to accelerate the testing, adoption and scalability of digital innovations that help the world's most vulnerable populations anticipate and respond to the negative impacts of climate change.



2023 also saw the launch of the GSMA Innovation Fund for Climate Resilience and Adaptation 2.0,¹⁷ which attracted nearly 600 applications from innovators spanning Africa, Asia, Latin America and beyond, harnessing the power of mobile and digital technology to tackle urgent climate challenges.

Digital technology also offers significant potential to address biodiversity loss and strengthen the management of the world's natural resources.

14. <https://www.gsma.com/betterfuture/resources/mobile-net-zero-state-of-the-industry-on-climate-action-2022-report>

15. <https://www.gsma.com/betterfuture/resources/mobile-net-zero-state-of-the-industry-on-climate-action-2023>

16. https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2023/06/GSMA_Emerging-trends-for-climate-tech-innovations_2023.pdf

17. <https://www.gsma.com/mobilefordevelopment/the-gsma-innovation-fund-for-climate-resilience-and-adaptation/>

In 2023, the GSMA ClimateTech and FCDO-funded Reversing Environmental Degradation in Africa and Asia (REDAA) programmes released a new study exploring barriers and opportunities to such solutions.¹⁸

The GSMA also published reports on the role of digital technologies in enabling climate financing. Mobile connectivity serves as the foundation for a range of digital technologies, such as payments, platforms, artificial intelligence, the Internet of Things and blockchain, which are unlocking access to climate financing for start-ups, businesses and service providers operating in low- and middle-income countries.

With cities accounting for 70% of global carbon emissions, positive change in urban areas is a specific focus for the GSMA. This is true particularly across Africa and Asia, where 90% of urban growth from now until 2050 will be concentrated. Cities need to embrace digital innovation and public-private collaboration to adapt to climate change and deliver climate-resilient and sustainable services such as energy, water, sanitation, waste management and transport. The GSMA has supported urban innovators to scale their solutions, while also building partnerships for climate impact between private and public sector stakeholders, and the mobile industry across cities in LMICs.¹⁹

Environmental, social and governance

Environmental, social and governance (ESG) frameworks help stakeholders understand how organisations are managing risks and opportunities related to ESG criteria. In 2022, the GSMA published an industry-wide ESG reporting metrics framework²⁰ in close collaboration with a taskforce of mobile operators, EY and the Yale Center for Business and the Environment, and experts from the investment community. In 2023, six operators – Telefónica, stc, Globe, Singtel, Axiata and Airtel – serving hundreds of millions of subscribers, adopted the ESG Framework in their sustainability reports. As well as aiming to further increase operators' adoption of this framework in 2024, the GSMA continues to support mobile operators on industry best practice on key material issues for the sector.

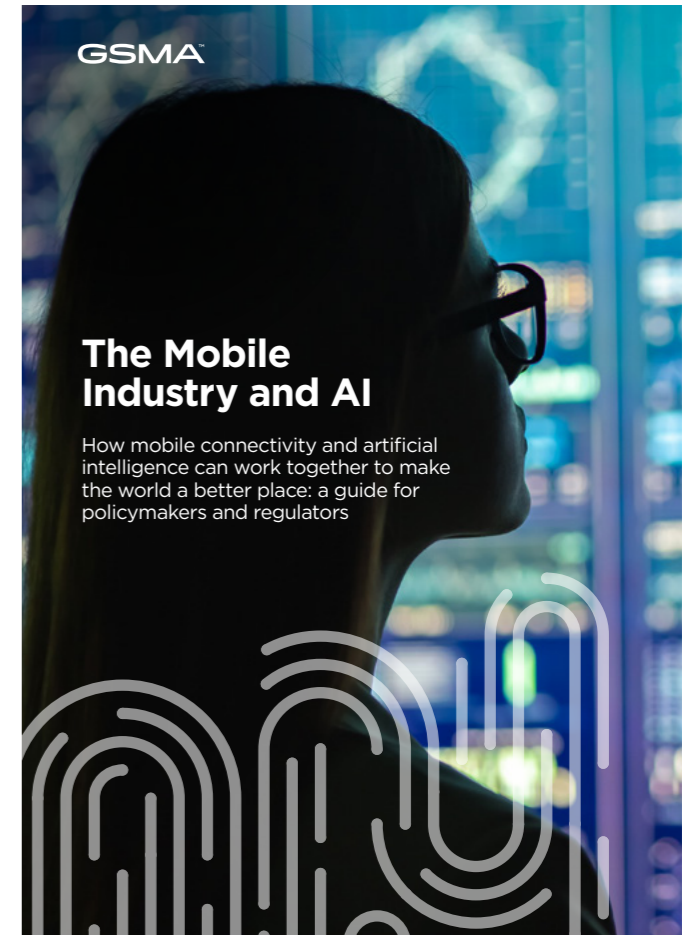
Artificial intelligence

Artificial intelligence has advanced to a point where it is now playing a major role in automating processes across the economy. Together with its global taskforce, the GSMA created *The mobile industry and AI guide*²¹ for policymakers and regulators, outlining how mobile connectivity and artificial intelligence (AI) can work together to deliver impactful ethical AI solutions. A roundtable at the Ministerial Programme at MWC Barcelona brought together policymakers, leading mobile operators and international organisations to discuss the role each stakeholder should play in building a thriving, trustworthy and innovative AI environment. The GSMA also submitted input to various public consultations (in Europe, India, Pakistan, Senegal and ASEAN) and delivered capacity building courses to governments and regulators around the world.

Following the publication of the *AI Ethics Playbook*²² and tools²³ in 2022, the GSMA helped mobile operators in different regions of the world integrate the tools into business practice. This resulted in increased adoption and requests to support the implementation of responsible AI activities within industry. Furthermore, the GSMA's work was recognised by leading international organisations. For example, UNESCO invited the GSMA to present at key fora²⁴ and the OECD incorporated the GSMA guidance into its *OECD AI Policy Observatory*,²⁵ and the AI Verify Foundation invited the GSMA to join and provide recommendations on responsible AI by design.

The GSMA continued its AI for Impact (AI4I) initiative to commercially scale AI, while protecting privacy and implementing ethics by design. In 2023, three additional AI leads from mobile operators joined the initiative, taking the total to 27 mobile operators and a network of global thought leaders (including the OECD, UNESCO, AI Verify Foundation).

To identify and progress priority use cases, the GSMA collaborated with the Humane AI Net project, the German Research Centre for Artificial Intelligence (DFKI), Telefónica, the European Telecommunications Network Operators' Association (ETNO) and German Entrepreneurship, to jointly publish an *AI Research agenda for the telecommunications industry*.²⁶ The GSMA further identified how mobile AI could be



The Mobile Industry and AI

How mobile connectivity and artificial intelligence can work together to make the world a better place: a guide for policymakers and regulators



used to aid disaster preparedness and response, as input to the UN Early Warning Systems for All (EWS4A) initiative.

The GSMA Governance model for AI is to be featured as an illustration of how internal governance structures can be designed in the ASEAN Guide on AI Governance and Ethics.



18. <https://www.gsma.com/mobilefordevelopment/resources/exploring-barriers-and-incentives-to-digital-solutions-in-natural-resource-management/>
 19. <https://www.gsma.com/mobilefordevelopment/blog/introducing-freetown-waste-transformers-organic-waste-to-energy-in-sierra-leone/>
<https://www.gsma.com/mobilefordevelopment/digitalutilities/the-digital-utilities-partnerships-hub/>
 20. <https://www.gsma.com/betterfuture/resources/esg-metrics-for-mobile>

21. <https://www.gsma.com/betterfuture/resources/the-mobile-industry-and-ai>
 22. https://www.gsma.com/betterfuture/wp-content/uploads/2022/01/The-Mobile-Industry-Ethics-Playbook_Feb-2022.pdf
 23. <https://www.gsma.com/aiethics-sag/>
 24. <https://foroiac.org/en/>
 25. <https://oecd.ai/en/catalogue/tools/the-ai-ethics-playbook-implementing-ethical-principles-into-everyday-business>
 26. <https://www.humane-ai.eu/humaneai-research-telecoms/>

Shaping media narratives

In 2023, the GSMA's communications strategy had three objectives:

1



Position the GSMA as a thought leader, prioritising earned-first media relations

2



Create more connections with vertical industries, to demonstrate the breadth of GSMA members

3



Modernise year-round communications approach, supported by data-driven insights

The GSMA crafted new and refined messaging, tailored for selected spokespeople, and cultivated stronger connections with both tier-one and trade media. The overarching goals were to uphold the clarity and consistency of messaging, and to foster a deeper comprehension among new readers of the unique role of the GSMA.

Communications emphasised the pivotal role that the GSMA plays in the industry's efforts to address global challenges, with a focus on key themes such as the investment gap, spectrum, GSMA Open Gateway, the usage gap and 5G momentum.

Positioning GSMA events as unmissable within the industry and spotlighting their expansion into adjacent and vertical sectors was also a focus, to reinforce the relevance of MWCs and M360s for media professionals.

GSMA welcomed 2,400 international journalists to MWC Barcelona, which generated 136,500 media stories throughout the event. Notably, 26,900 of these stories featured prominent GSMA references, and 116 pre-event and on-site interviews/briefings were organised with GSMA spokespeople.

The GSMA continues to diversify PR content by reducing the number of press releases, maximising the impact of the most newsworthy topics, and shifting focus to other channels, such as external speaker platforms, blogs, influencer relationships, open letters, media roundtables, and in-person briefings. This approach emphasises quality and relevance in the GSMA's interactions with the media.



Bloomberg
Mobile Giants Announce United Interface to Lure Cloud Developers

THE ECONOMIC TIMES
GSMA, ESA collaborate on development of new satellite, terrestrial network technologies

BusinessGreen
Mobile operators dial up plan to tackle world's five billion dormant phones

FT FINANCIAL TIMES
Telecoms companies take first steps on emissions cuts

techradar pro
China is set to top a billion 5G connections within two years

THE WALL STREET JOURNAL
South Korea Had High Hopes for 5G. What Happened?

Forbes
Mobile World Congress Las Vegas 2023 Showcases The Power Of Mobility

EL PAÍS
MWC mobile tech fair to show off new phones, AI, metaverse

Forbes
Breaking Barriers: Closing the Mobile Usage Gap and Fostering Digital Inclusion

REUTERS
Exclusive: Telcos draw up proposal to charge Big Tech for EU 5G rollout

South China Morning Post
MWC Shanghai returns as in-person event after 2-year pandemic hiatus as telecoms sector sharpens focus on 5G, internet, augmented reality

LightReading
Eurobitex: GSMA, ESA combine for communications convergence

POLITICO
Big Telco vs. Big Tech: The battle over 'fair share,' explained

ComputerWeekly
MWC 2023: GSMA launches open network API initiative

CNBC
Big Tech vs. Big Telco: Top EU official says there's no 'battle' over network funding

CIO
5G ready or 5G really? Industry CIOs face hard truths about private 5G

RCRWireless
5G to reach 57% of mobile connections in LatAm by 2030: GSMA

5.4 GROWTH Extending access

The GSMA supports the growth of the mobile industry in multiple ways. One key area of focus is helping mobile operators to fully monetise the capabilities of their new 5G networks by providing the developer community with the tools and access they need to create compelling services. Another priority is helping mobile operators to close the multiple digital divides, broaden financial inclusion and reduce the gender gap in adoption and usage of mobile services.

Monetising 5G

Mobile operators and developers need to work together to unlock the full potential of 5G networks to realise monetisable value. At the GSMA Board meeting in September 2022, 14 mobile operators signed an MoU to create a framework of open application programming interfaces (APIs), designed to provide universal access to mobile networks, allowing developers and cloud service providers to improve and build new digital services and accelerate the development of immersive technologies.

This MoU led to the launch of the GSMA Open Gateway initiative at MWC Barcelona 2023, with the support of 21 mobile operators. Facilitated and driven by the GSMA, the initiative is designed to expose and monetise telecommunication network capabilities through open APIs and universal federation.

GSMA Open Gateway APIs are defined, developed and published in CAMARA, the open source project for developers to access enhanced network capabilities, driven by the Linux Foundation in collaboration with the GSMA. Working in CAMARA, simple and clear APIs between telcos and enterprise developers can be delivered quickly, using developer-friendly tools and software code.

By the end of 2023, a total of 39 operator groups, encompassing around 228 operators representing over 64% of mobile connections globally, were supporting the GSMA Open Gateway initiative. Each committed to launch at least one CAMARA API by the end of 2023, and by 31 December 21 operators had achieved this.

GSMA Open Gateway works with industry partners, such as Azure, AWS, Ericsson/Vonage, Infobip and Nokia, to provide three go-to-market structures for enterprise developers through marketplaces, reseller channels and directly to operators.

Local mobile operators are acting as champions in 15 markets with the aim of aligning go-to-market APIs and facilitating commercial product launches by MWC Barcelona 2024, giving enterprise developers simple, ubiquitous access to operators' customers. Two markets have already launched, Sri Lanka and Brazil. In Sri Lanka, all four of the country's mobile operators - Bharti Airtel Lanka (Private) Limited, Dialog Axiata PLC, Hutchison Telecommunications Lanka Ltd, and

SLT-Mobitel - have each launched three APIs: One Time Password Validation, Device Location and Carrier Billing, giving developers and enterprises a standard way to technically and commercially reach over 21 million Sri Lankans regardless of their network operator. In Brazil, mobile operators Claro, TIM and Vivo have announced the commercial launch of three network API services focused on improving online security: Number Verify, SIM Swap and Device Location.

To date,* 26 CAMARA APIs have been published and are ready for service. The GSMA is certifying deployments of Open Gateway APIs with operators so that the only thing the developer will need to change for global mobility is their credentials. Certification will ensure consistent and pure adoption of APIs, no matter which federation methodology is chosen. The *Northbound Open Service Level Agreement* template, which looks to standardise the terms of service between the enterprise developer and either a channel partner, or directly with the operators, has been approved and is available for operators for use. The template will speed up the contracting for each API individually.

A *Channel Partner On-boarding guide*, which provides an implementation manual for business integration, commercial principles and technical integration between channel partners and operators to support marketplace and reseller business models, has been developed and is available for use.

The *East-West Open Federation Agreement* template, which interconnects operators so API network capability calls can be provided between their networks, allowing enterprise developers a single direct ubiquitous connectivity, is set to be developed within the GSMA's Wholesale Agreements & Solutions working group by February 2024.

In 2024, the GSMA will publish a global catalogue and marketplace ensuring that enterprise developers have access to a view of live Open Gateway API deployments. This will signpost to the operators' own portals to encourage adoption.

Since the launch of Open Gateway at MWC Barcelona, there have been 5,000 media articles and six pieces of broadcast coverage (including Bloomberg and CNBC) covering the initiative.

*as of 31 December 2023

Since the launch of **Open Gateway** at MWC Barcelona, there have been **5,000 media articles** and **six pieces of broadcast coverage**



The inaugural GSMA Open Gateway Developer Conference, DevCon, sponsored by Nokia, 5GFF and Telefónica, was held at MWC Las Vegas, along with launch of the Open Gateway Challenge²⁷ - an awards programme to recognise developers who utilise public CAMARA APIs to create commercial cloud-based services. Outreach to developers has been ramping up, with Open Gateway evangelists presenting at 21 events to date, such as Kubecon, API Days, Openatom and DSP Leaders World.

In addition, the GSMA has launched the Open Gateway Community,²⁸ which provides a knowledge sharing space for operator and developer communities to meet and present use cases, proof of concepts and best practices. To date, more than 350 people have engaged with the Community.

27. <https://www.mwcbarcelona.com/mobile-awards/categories-and-awards?name=2g-open-gateway-challenge&id=1700941&type=glomos#category-digital-everything>
 28. https://www.gsma.com/futurenetworks/gsma_events/gsma-open-gateway-community-meeting-1/

Addressing digital divides

The GSMA helps drive innovation in digital technology to reduce inequalities, particularly in low- and middle-income countries. The GSMA is singularly positioned at the intersection of the mobile ecosystem and the development sector, stimulating digital innovation to deliver both sustainable business and large-scale socio-economic impact for the underserved.

Governments and institutions provide donor funding to the GSMA Mobile for Development Foundation, which runs thematic programmes that research impact opportunities, engage on the ground in target countries, and provide advocacy expertise to partners.



Digital inclusion

Mobile internet adoption and usage brings with it information and opportunity, by placing everyday services within easy reach, benefitting individuals, their families and communities.

With 95% of the world's population already covered by a mobile broadband network, addressing the usage gap – the 38% of the global population with coverage, but not using the internet – is the main challenge. While important progress has been achieved in increasing internet adoption and usage, there is a growing digital divide between and within countries.

The GSMA helps the mobile industry address the usage gap by conducting research and analysis, engaging with governments, intergovernmental organisations and partners, and advocating across all channels. The GSMA's *State of Mobile Internet Connectivity 2023*²⁹ was downloaded 1,200 times in the first month following publication, and attracted over 2,800 page views, reinforcing the importance of this work. Key messages from the report were shared at UNESCO's Digital Learning week, the UN Global Development Conference, and the ITU-D's Regional Development Forum for Africa, and were cited by the World Bank, ITU and the OECD.

The GSMA also published the *2023 Mobile Connectivity Index*,³⁰ which measures the performance of 170 countries against the key enablers of mobile internet adoption – infrastructure, affordability, consumer readiness, and content and services – which is integral to the mobile industry's commitment to drive mobile internet connectivity and accelerate digital inclusion.

The GSMA's *Mobile Internet Skills Training Toolkit* has now been used to train more than 65 million people across 27 countries with the basic digital skills needed to use the mobile internet. That figure rose by more than 10 million in the year to June 2023. In 2023, modules were translated into 10 new languages, bringing the total number of languages to over 30.



The GSMA supported governments on policies to help accelerate mobile internet adoption, including by women, in India, Ghana, Nigeria, Pakistan, the Philippines, Rwanda, Tanzania and Zambia. For example, the GSMA worked with UNCDF Zambia on the development of Zambia's Digital Transformation Strategy, which was published by Zambia's Ministry of Science and Technology in October 2023. It includes objectives related to improving digital skills, affordability, and establishing a national governance framework to support digital transformation.

Financial inclusion

Financial inclusion is critical for fostering economic development, reducing poverty, and promoting social equity. There have been many advances in financial inclusion in the past decade with account ownership in low- and middle-income countries increasing by 30% since 2011, bringing the total account ownership for adults in low- and middle-income countries up to 71% in 2021. Yet, globally, some 1.4 billion people remain unbanked, and millions more are underserved. Across Africa, the un- and under-banked make up around 50% of the population.

Mobile money is an important enabler of financial inclusion, currently offering 1.6 billion registered users access to safe, innovative and inclusive digital financial services. As mobile money services continue to diversify and reach new markets and regions, the GSMA has supported the expansion of the ecosystem, by developing certifications, initiatives and publications, including the *State of the Industry Report on Mobile Money*,³¹ the GSMA Mobile Money API, the GSMA Mobile Money Certification and the Mobile Money Regulatory Index.³²

The State of the Industry Report on Mobile Money is the only source of supply-side data for the industry. In April, the GSMA published the 11th edition showing the continued growth of the industry, and the role of mobile money as a mainstream financial service across low- and middle-income countries. Today, the industry is processing over US\$1.26 trillion annually (this is \$3.45 billion/day), a 22% increase year-on-year. The report was downloaded nearly 8,000 times.

The GSMA Mobile Money Certification independently assesses a provider's ability to deliver secure and reliable services, while protecting consumers' rights and combating money laundering and the financing of terrorism. Some 244 million active accounts are covered by the 14 GSMA Mobile Money Certified Providers, with five newly certified providers being added in 2023.

The GSMA engages with policymakers, regulators, and international organisations to ensure an enabling regulatory environment, and tracks the progress of this work and the evolution of mobile money regulatory



environments through the Regulatory Index. In 2023, GSMA engagement with members and central banks led to three documented cases of positive change of policies:

- a reduction in the transaction levy of 1.5% to 1% in Ghana,
- a removal of the levy entirely in Tanzania; and
- an increase in both the daily transaction limit and wallet size allowed in Kenya

In Kenya, this change saw the volume of merchant payments increase 433% and the value increase by 166%. These changes impact millions of users, driving down the costs of using mobile money and increasing the convenience and efficiency of services.

29. <https://www.gsma.com/r/somic/>

30. <https://www.mobileconnectivityindex.com/>

31. <https://www.gsma.com/mobilefordevelopment/resources/state-of-the-industry-report-on-mobile-money-2023-2/>

32. <https://www.gsma.com/mobilemoneymetrics/#regulatory-index>

GSMA Innovation Fund

The GSMA Innovation Fund, funded by the UK Foreign, Commonwealth and Development Office (FCDO) and the Swedish International Development Cooperation Agency (Sida), accelerates the development of mobile tech solutions that are addressing key global challenges. Through grant funding and tailored technical assistance, it positions innovators in low- and middle-income countries to scale operations and amplify their social and environmental impact. The fund's current strategic focus is on mobile internet adoption and digital inclusion, assistive tech solutions that target persons with disabilities, digital urban services that provide access to energy, water, sanitation, promote plastic recycling and waste management, climate resilience and adaptation, and humanitarian innovation.

In November, with a £1.5 million investment from the UK Foreign, Commonwealth and Development Office (FCDO), eight grantees were selected for support by the GSMA Innovation Fund for Anticipatory Humanitarian Action, using mobile technology to help anticipate potential humanitarian impacts and enable effective early response.

The GSMA Innovation Fund supports innovators by facilitating partnerships with mobile operators and public sector organisations, providing technical assistance as well as specialist advisory, tools and templates to accelerate, test, adopt and scale digital innovation. For example, the Fund is supporting Crop2Cash in Nigeria, ReCircle in India (see The "Crowding-In" effect section for more details) and Diyalo in Nepal.

Crop2Cash

In Nigeria, Crop2Cash provides smallholder farmers with access to formal financing for agricultural inputs and enables them to receive digital payments and access to other digital financial services, such as credit. The GSMA supported Crop2Cash in November 2022 to connect farmers to high-yielding drought-resistant seeds via USSD, and to provide tailored SMS weather advisory to smallholder farmers on best agricultural practices. As of March 2023, Crop2Cash had 20,011 smallholder farmers accessing its USSD solution, of which 5,513 were women.

Diyalo

In Nepal, Diyalo provides automation of water production using IoT technology and water sensors at water pump station sites. It offers IoT-based water quality monitoring technology which comprises a water intelligence system, a mobile application, and IoT-enabled web-based software known as "Watermark". The GSMA supported Diyalo in March 2022 to further develop its offering through a mobile app and enterprise dashboard for urban utility providers. As of August 2023, 16 B2B utility companies had registered on the 'Watermark' app and experienced a 10% reduction in non-revenue water. In addition, Diyalo grew the number of total app users from zero to 10,434.



The mobile gender gap

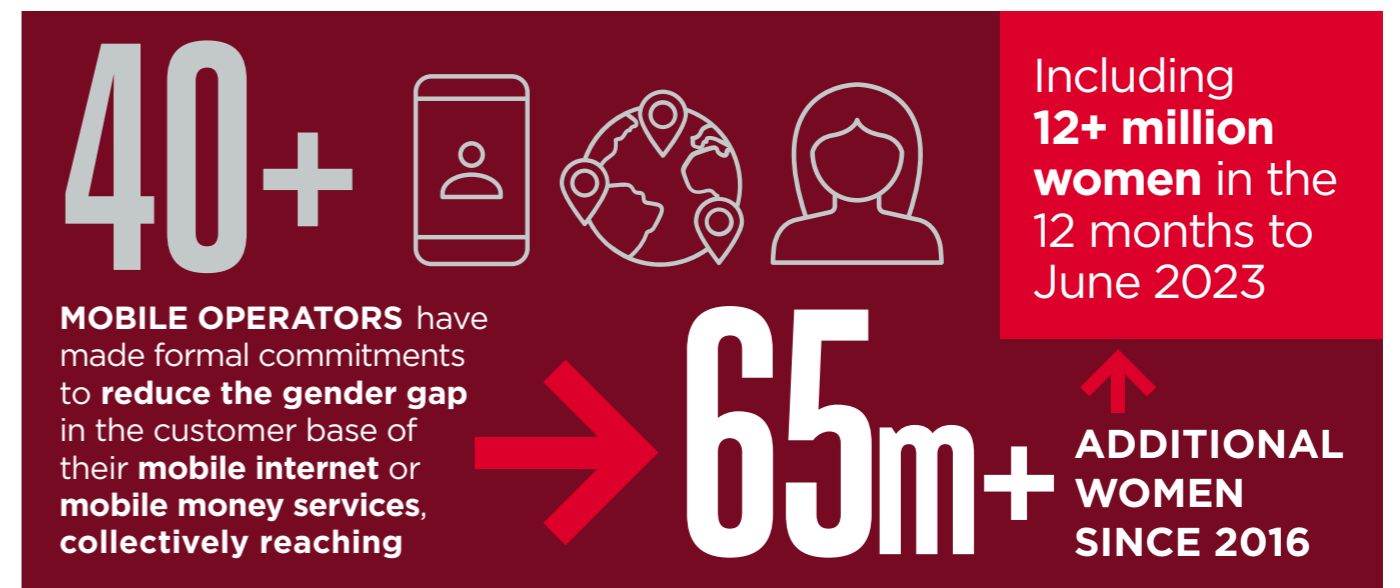
The GSMA continues to measure the persistent mobile gender gap – women in low- and middle-income countries are 7% less likely to own a phone than men, and 19% less likely than men to use mobile internet. In May, the GSMA released the annual *Mobile Gender Gap Report 2023*³³ which shows that although more women in low- and middle-income countries are using mobile internet than ever before, their rate of adoption has slowed for the second year in a row and a significant gender gap remains. The report revealed the latest statistics and explored the key barriers to equal mobile ownership and mobile internet use in low- and middle-income countries. Key messages from the report were shared on high profile platforms, such as EQUALS and the United Nations General Assembly, and were cited by the UNCDF, Women's World Banking and USAID.

The report received tier 1 media coverage through interviews with CNBC Africa, Business Insider Africa and CNBC India and generated 25+ articles. Media and social media mentions were 84% up from the previous edition, while "the predicted reach" of the campaign rose by 73%. The report also saw 2,100 downloads and 5,000 page views in the first five months.

To reduce the gender gap, the GSMA has forged long-term partnerships. Through the GSMA Connected Women Commitment initiative, over 40 mobile operators across low- and middle-income countries have made formal commitments to reduce the gender gap in the customer base of their mobile internet or mobile money services, collectively reaching over 65 million additional women with these services since 2016, including over 12 million additional women in the 12 months to June 2023.



In July, the GSMA presented its work on digital and financial inclusion of women to the President of Pakistan, and in September shared knowledge on the mobile gender gap with the Economic Research Unit, Department of Telecommunications in India. The GSMA also launched the 'Outstanding Women Digital Leadership Awards' at M360 APAC.



33. <https://www.gsma.com/r/gender-gap/>

Humanitarian preparedness, response and recovery

Global humanitarian needs continue to rise sharply, with 360 million people now in need of humanitarian assistance and protection. Communities affected by natural disasters, food insecurity, conflict and displacement rely on digital technologies to communicate with loved ones, seek and share crucial information, and to access humanitarian assistance.

At COP-27 the UN Secretary General launched the Early Warnings for All (EW4A) Initiative, with the ambition for every person in the world to be protected by an early warning system by 2027. In 2023, the GSMA played a leading role in the initiative, reflecting the life-saving potential of mobile connectivity in disseminating early warning messages. The GSMA joined the High-Level Advisory Panel, attending the inaugural advisory board meeting in March 2023, and the Pillar 3 working group on “warning dissemination and communication”, and is investing in early warning solutions through donor-funded innovation funds, conducting research on risk communications, and convening multi-stakeholder events.

In July, the GSMA, UNHCR, the ITU and the Government of Luxembourg launched the Connectivity for Refugees initiative,³⁴ which aims to ensure all major refugee hosting areas have available and affordable connectivity by 2030, advancing the digital inclusion of more than 20 million people forced to flee, and their hosts.

The GSMA is putting renewed focus on the Humanitarian Connectivity Charter – a set of principles and best practices developed by mobile operators on how to prepare for, respond to and recover from a sudden onset emergency.

The GSMA has to date* provided more than 11 million people with improved access to and use of life-enhancing mobile services during humanitarian preparedness, response, and recovery, which includes 1.4 million people added in 2023. During the year, the GSMA facilitated seven new partnerships between mobile operators and private sector and humanitarian organisations, taking the total to 38 partnerships.



The GSMA continues to play an important role as a broker between the humanitarian aid and development sector and the mobile industry, whose contribution is as critical as it ever has been in helping us solve the complex problems forcibly displaced people and their hosting communities face in a challenging global environment. The investments made through the Mobile for Humanitarian programme play a catalytic role in nudging the entire sector forward, improving the way we do business, supporting communities and ensuring that forcibly displaced communities around the world can access connectivity.”

Hovig Etyemezian, Head of Innovation Service, UNHCR



34. <https://www.unhcr.org/innovation/connectivity-for-refugees/>

*as of 31 December 2023

5.5 SPEED Accelerating the future

As a major investor in information and communications infrastructure, the mobile industry is pivotal to the ongoing digital transformation of the global economy and individual sectors. Mobile connectivity is vital to realise the digital ambitions of governments and the private sector alike.

The GSMA continues to facilitate the mobile industry's future investment in multiple ways – including membership, working groups and communities, the development of industry-standard specifications, ecosystem engagement and cross-sector collaboration, access to the GSMA Foundry, global events, and analysis and

insights from proprietary data. GSMA expertise across these areas helps inform the business strategy and decision making of members in an ever more complex world.



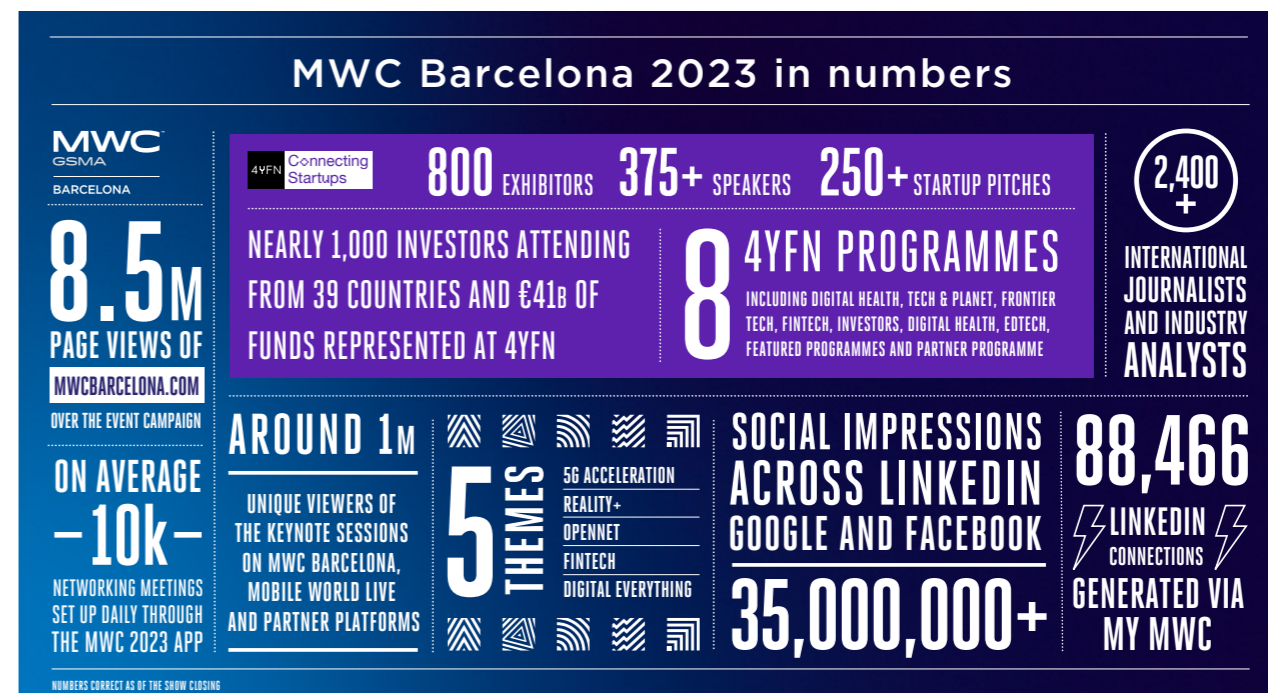
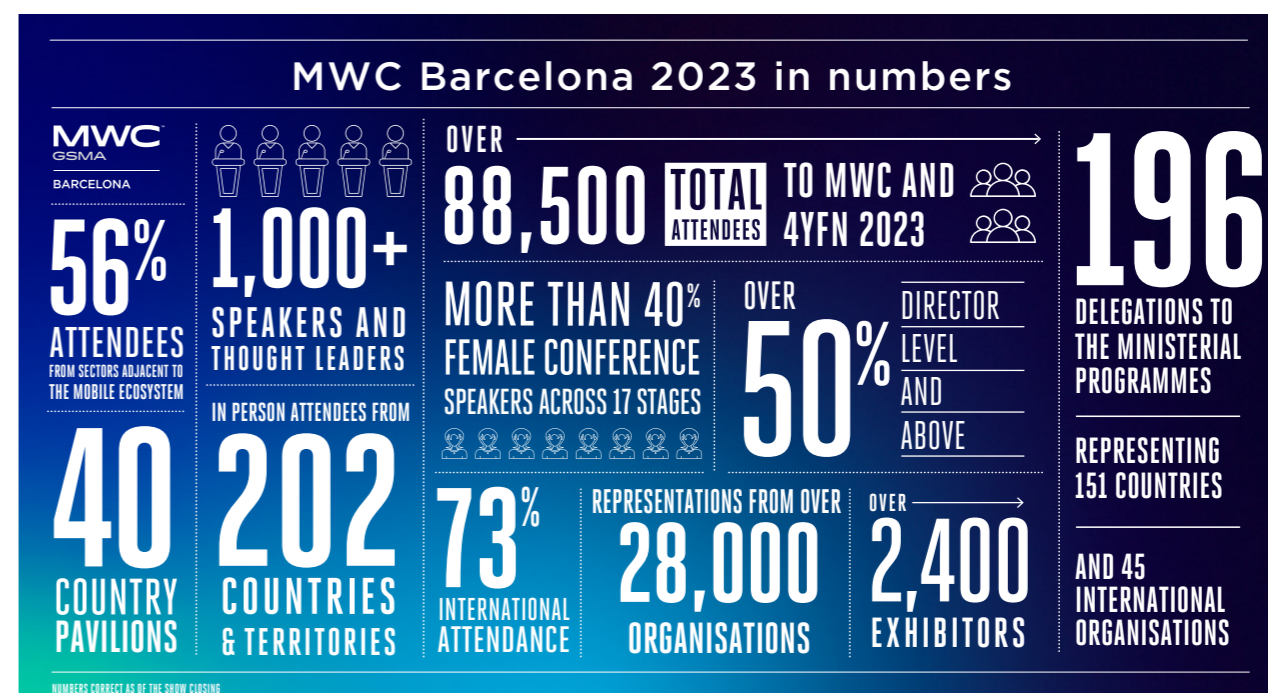
Convening our global community

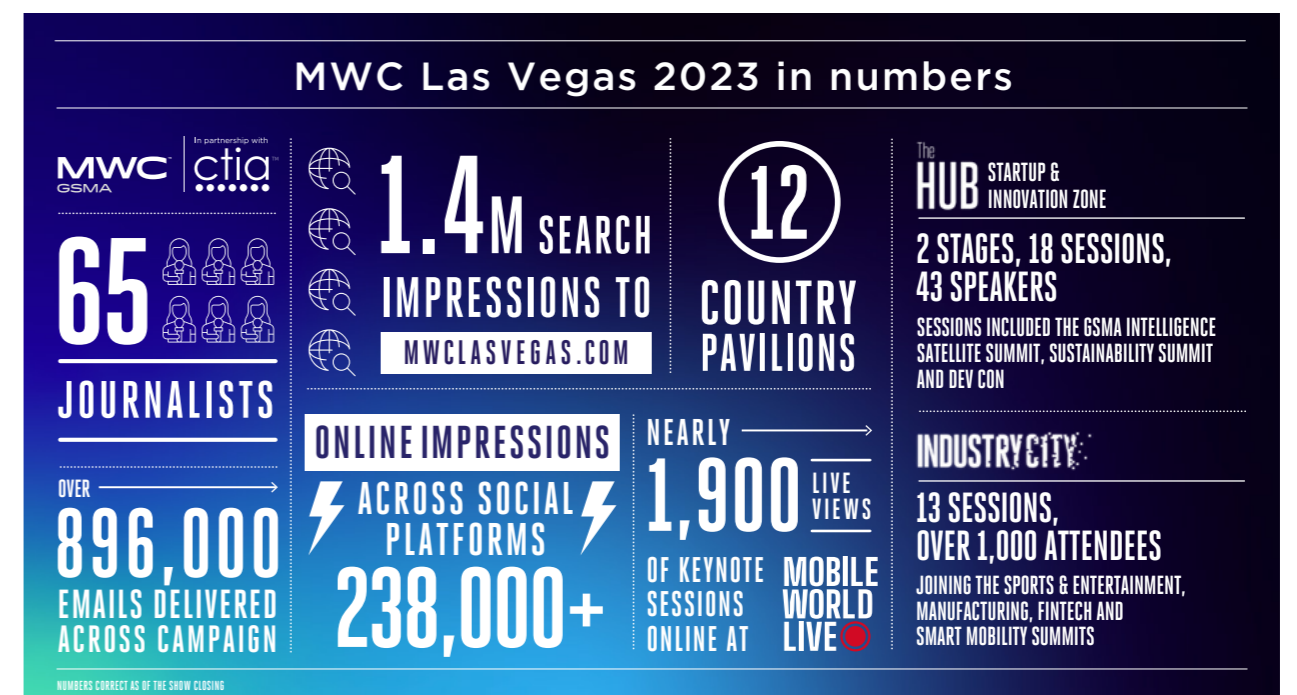
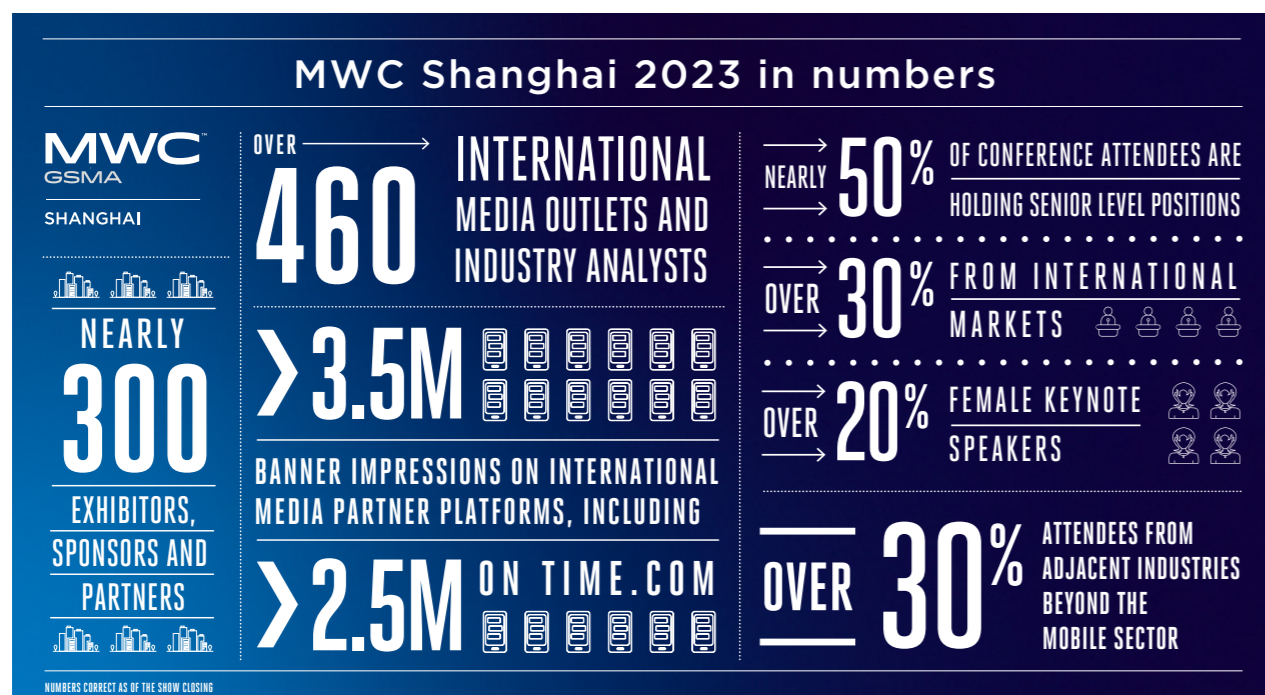
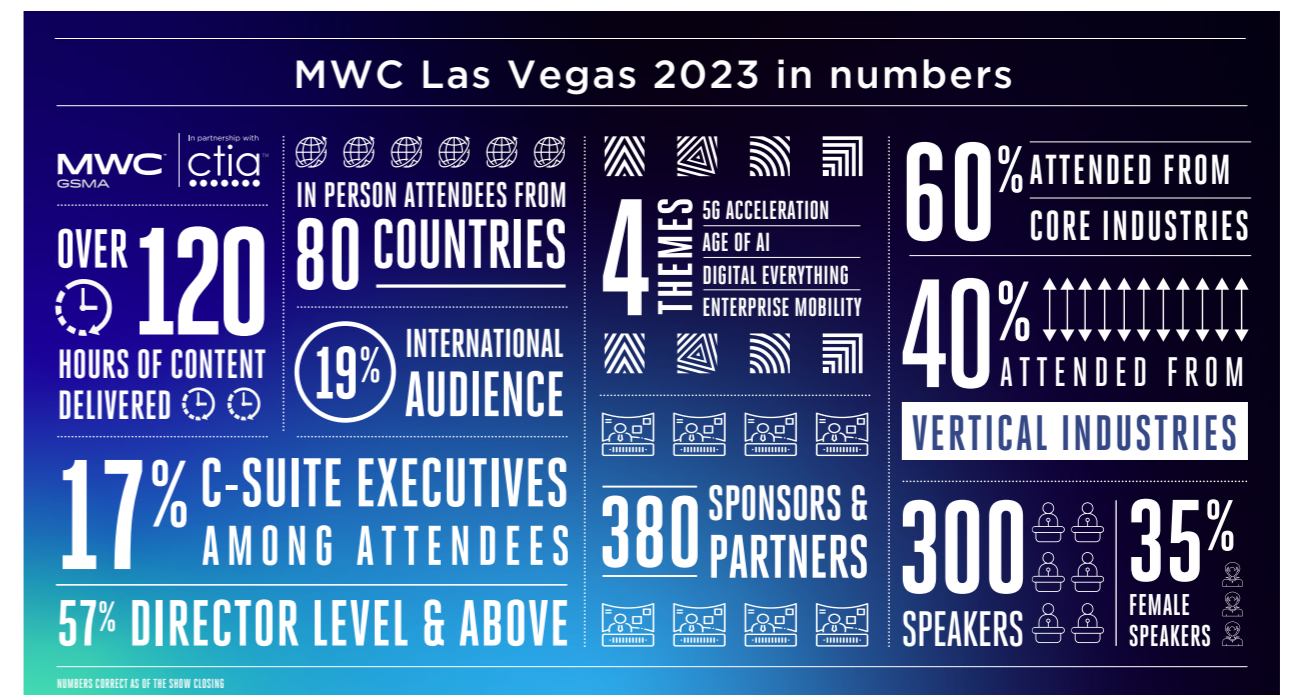
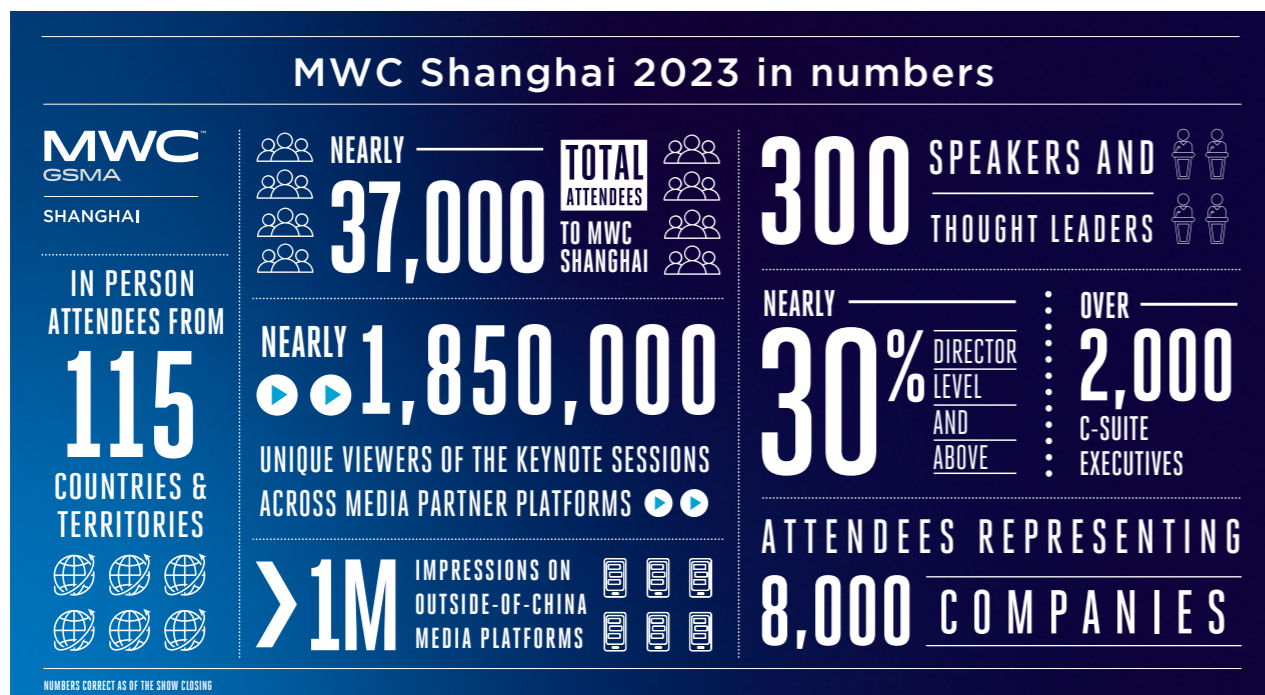
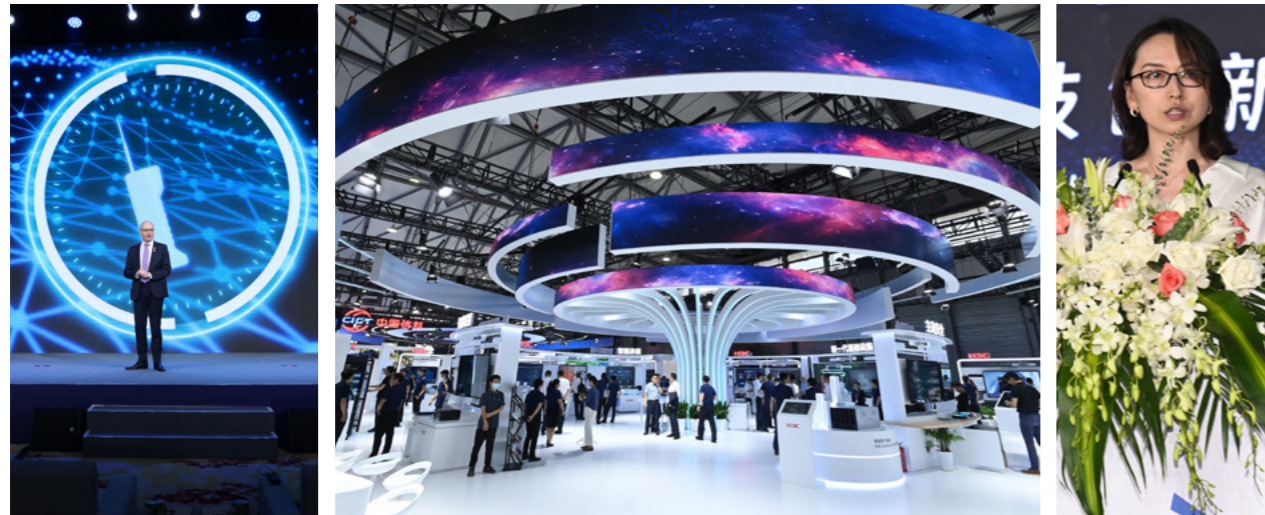
The convening power of the GSMA is central to its full value to members and its impact on society. GSMA events bring together key players from the private and public sectors, as well as partners from across other industries and regions, to progress the industry and therefore, wider society.

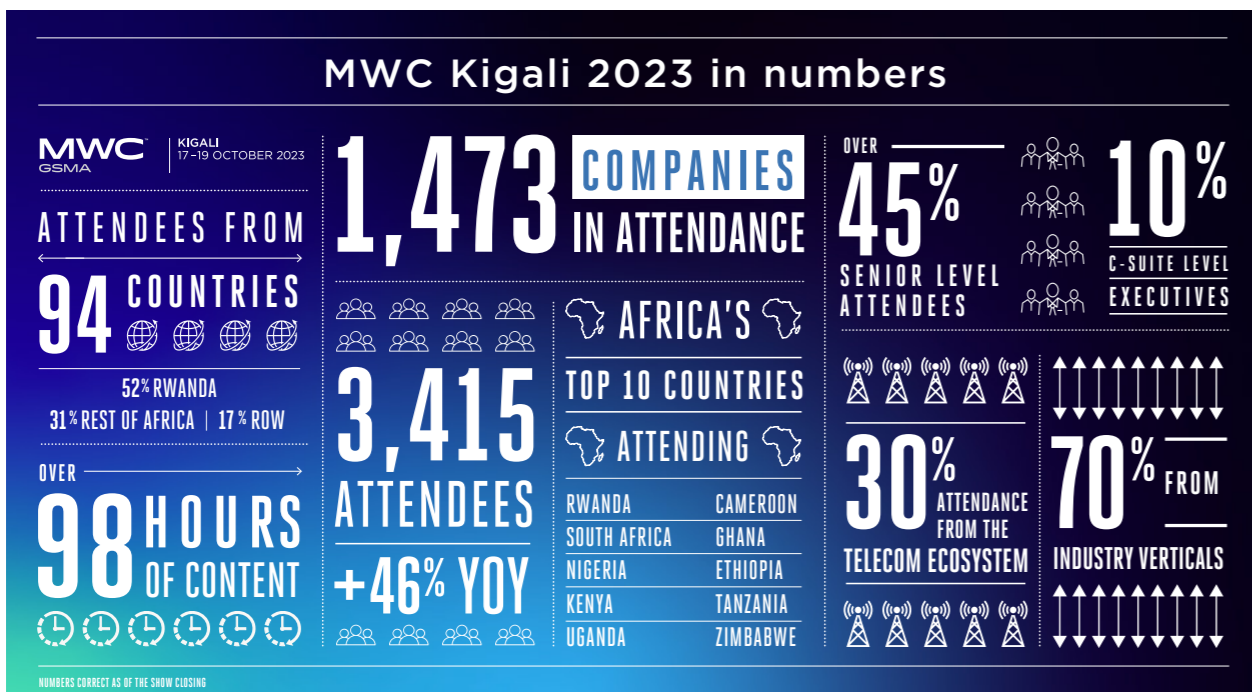
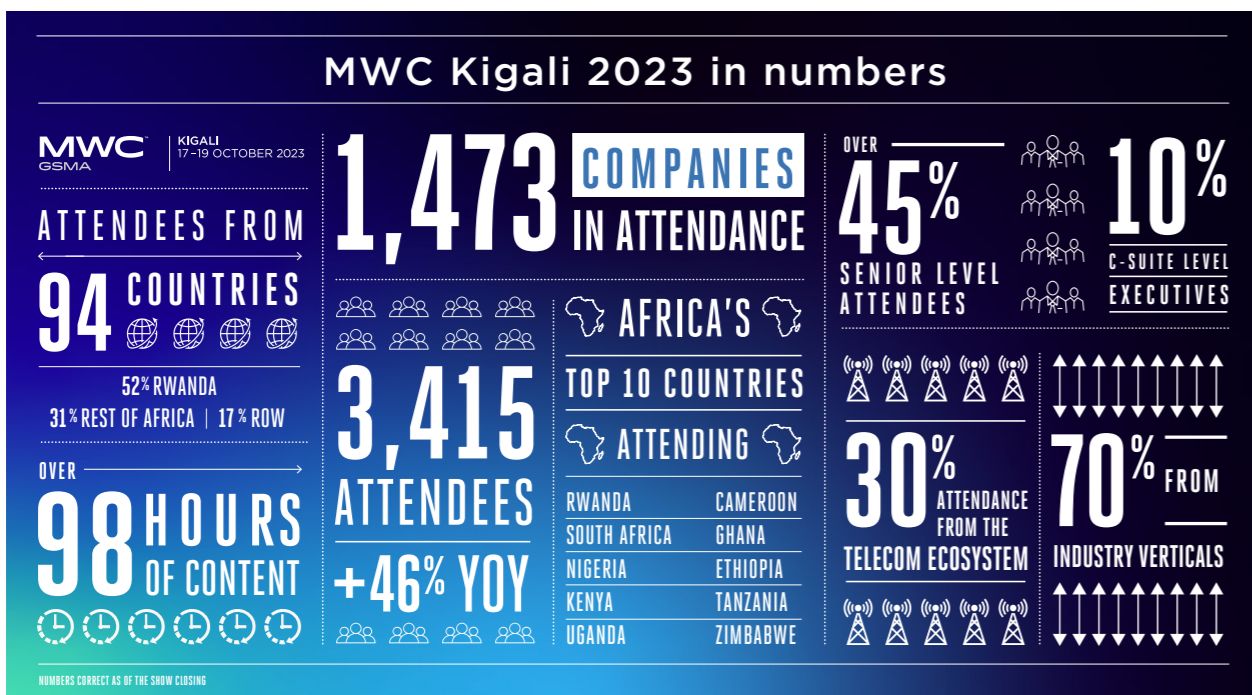
– progressing relationships, sales, policies, international co-operation, social issues and much more.

MWC Barcelona 2023 saw 88,500 people attend from every country in the world. It was a very strong reminder of what is possible when people convene face to face

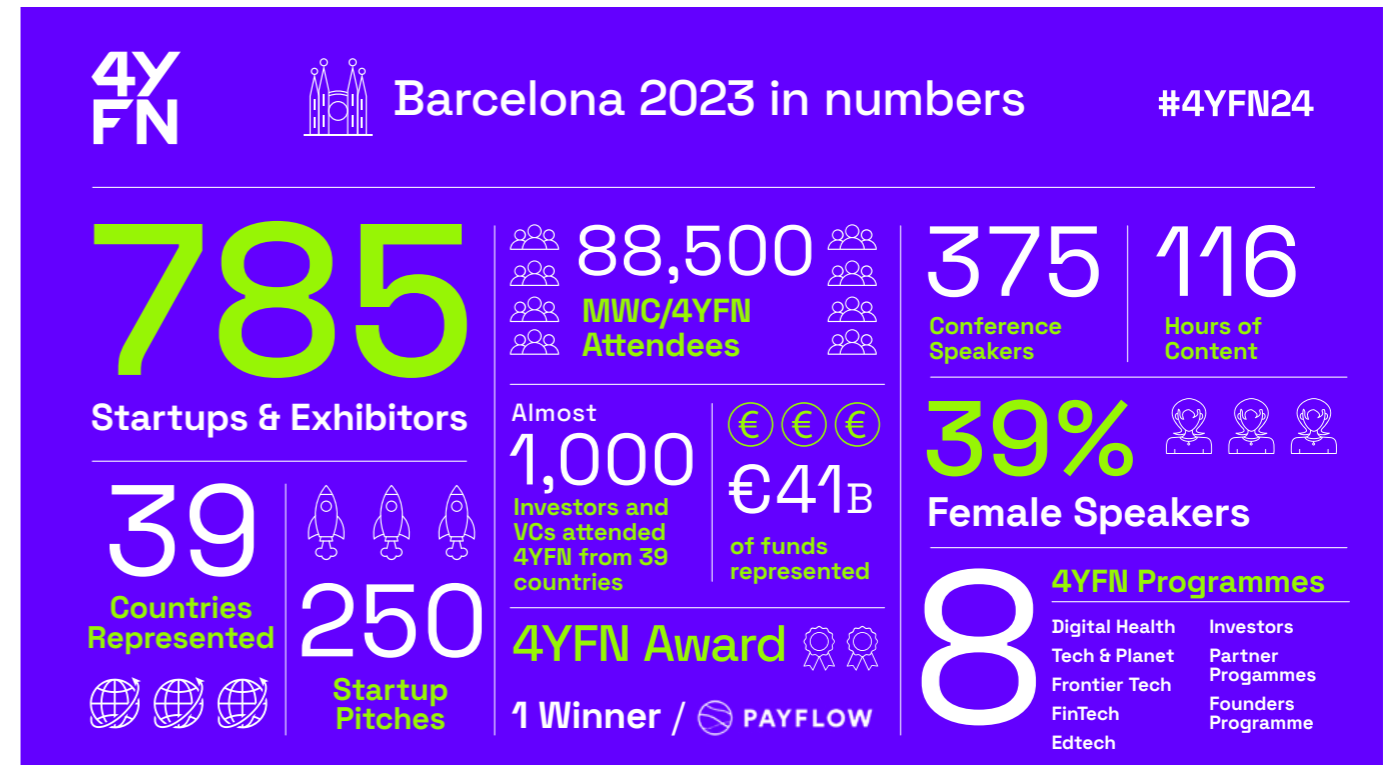
In 2023, the percentage of female speakers and non-mobile industry speakers continued to rise at GSMA events. Female speakers increased from 24% (2018, 2019 and 2021 three-year average) and 35% in 2022, to 38% in 2023, for MWC Barcelona and MWC Las Vegas. Non-mobile industry speakers increased from 19% in 2022 to 20% in 2023 for MWC Barcelona.





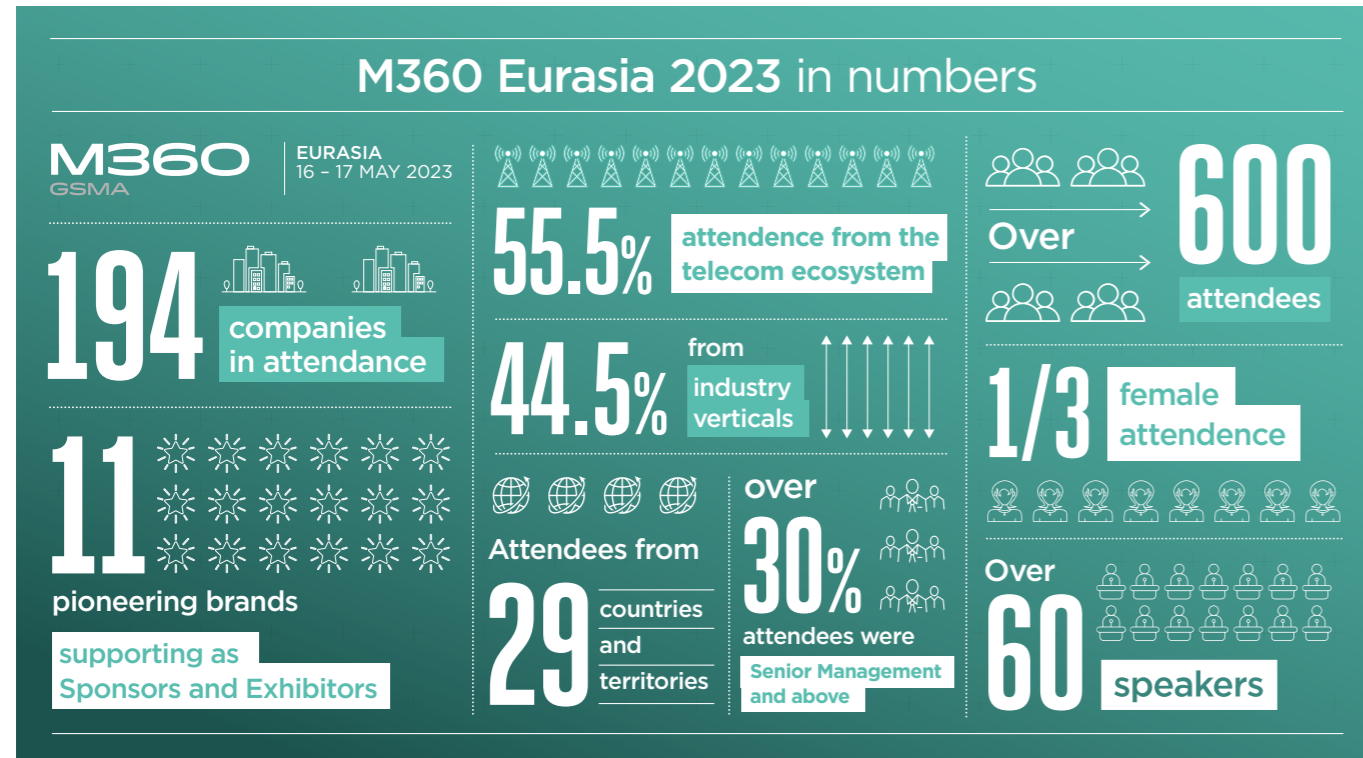


4YFN, the startup event at MWC Barcelona, connects entrepreneurs, investors, and companies to launch new business ventures together. 4YFN will celebrate its 10-year anniversary in 2024, after welcoming 22,000 attendees in 2023, and rebranding for a more dynamic and modern look and feel, to reinforce future growth.

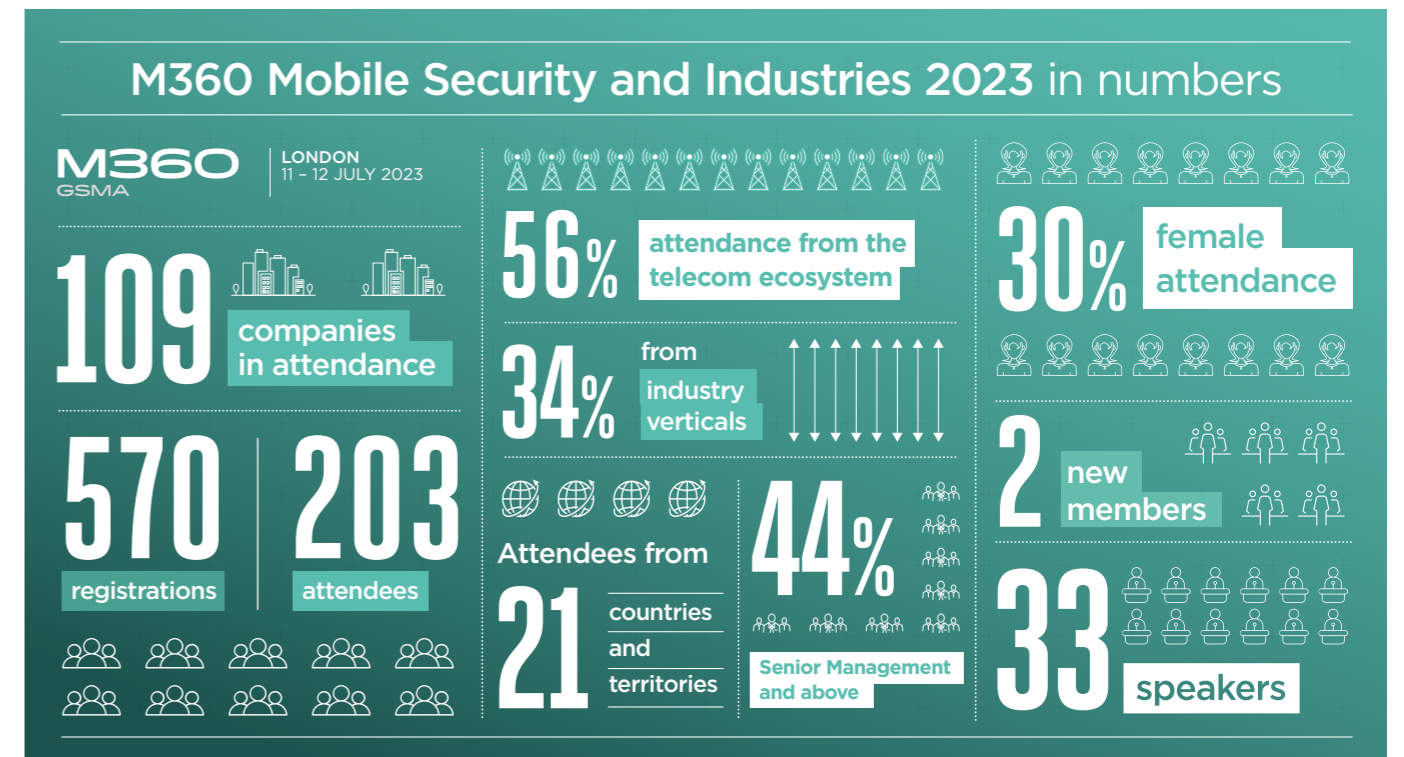
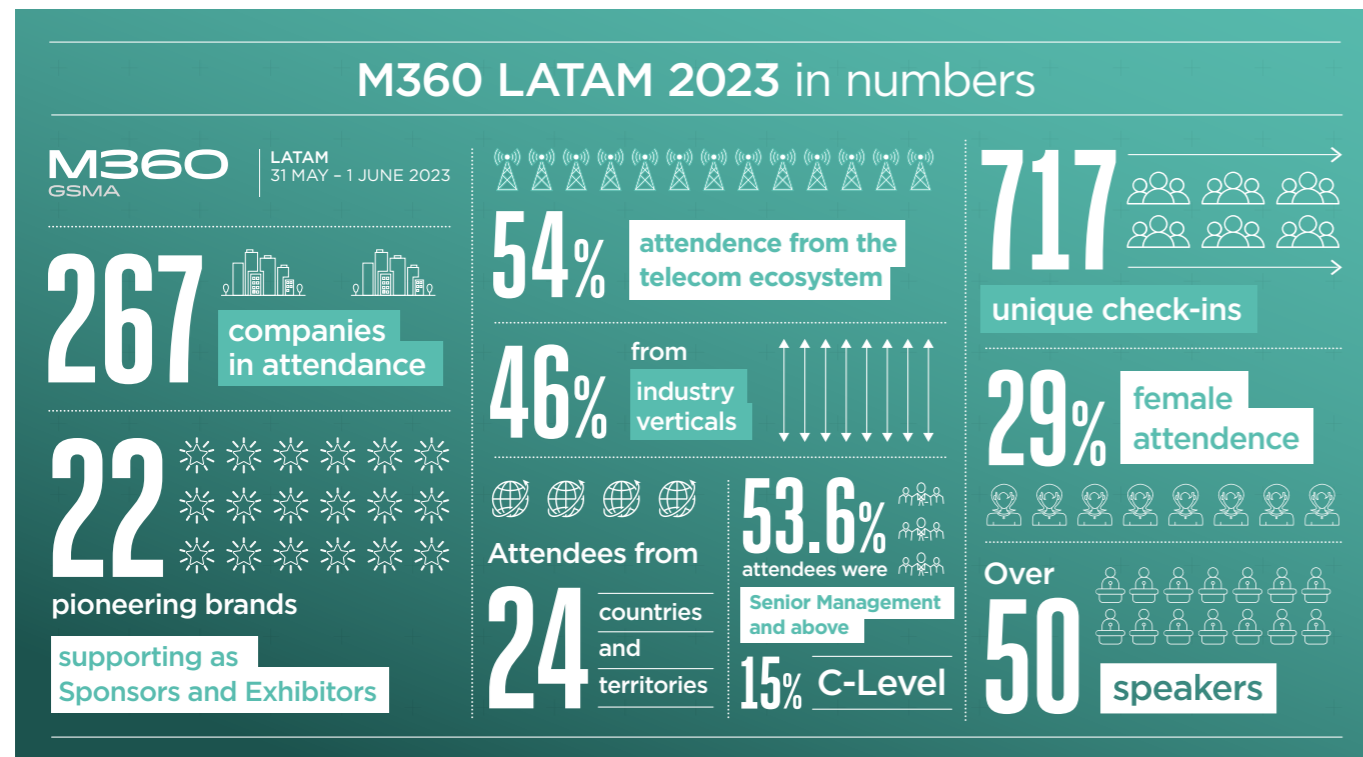


The GSMA's regional M360 series is designed to reach all GSMA members and address their needs very specifically.

In May, M360 Eurasia welcomed over 600 attendees, from 194 organisations and 29 countries and territories to the inaugural event in Azerbaijan's capital city, Baku, including speakers from Azercell, Veon, Google, the World Bank and the ITU.

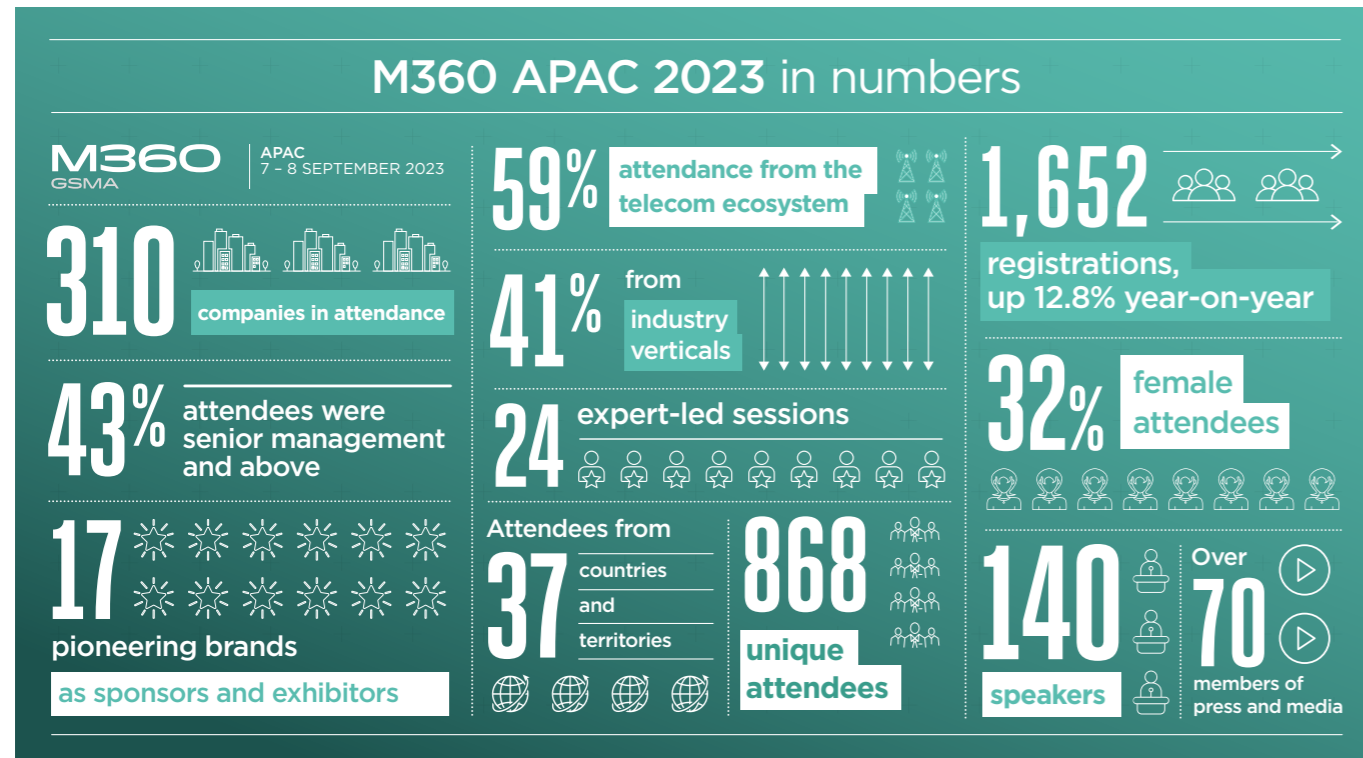


M360 LATAM hosted over 700 attendees in México City in May, providing a conference platform to cultivate public and private co-operation in mobile and adjacent industry verticals, to discuss their challenges and successes, as well as network with peers.

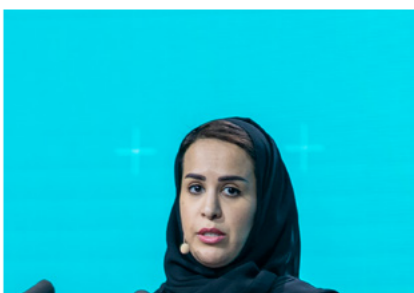
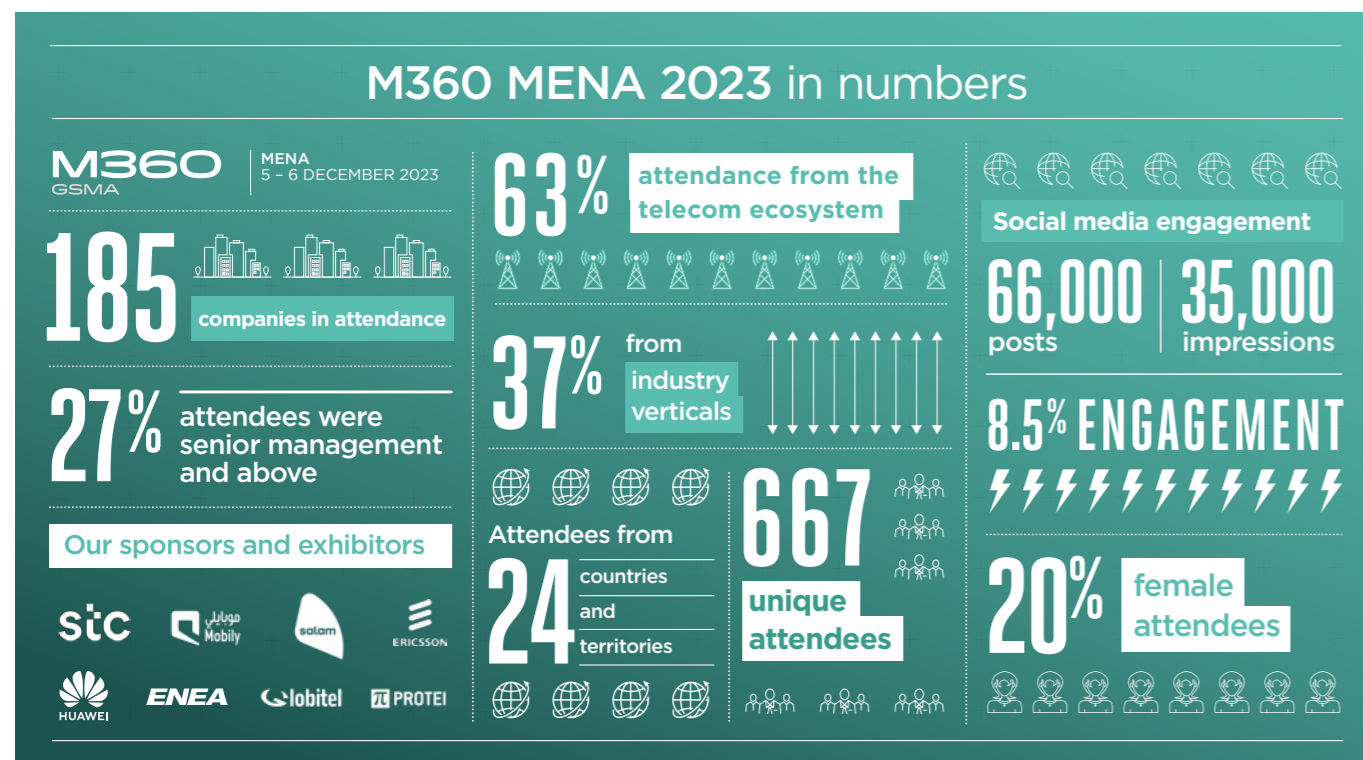


In July, the GSMA hosted its first M360 in the UK - M360 Mobile Security and Industries - at the GSMA offices in London, and welcomed over 200 security industry professionals to share best practices on how to securely unlock the value of mobile technologies and transform industries including aviation, automotive, banking, fintech, manufacturing and telecoms. The conference covered the latest industry developments in establishing trust and identity, securely deploying IoT solutions, the importance of eSIM, and successfully managing the overall threat landscape.

More than 850 people attended the M360 APAC in Seoul, Korea in September. Leaders from the private and public sector met to discuss how to realise the full potential of the digital economy, through a united vision for APAC.



And in December, the GSMA hosted M360 MENA in Riyadh for the second year, where leaders from the private and public sectors discussed how to realise the full potential of the digital economy.

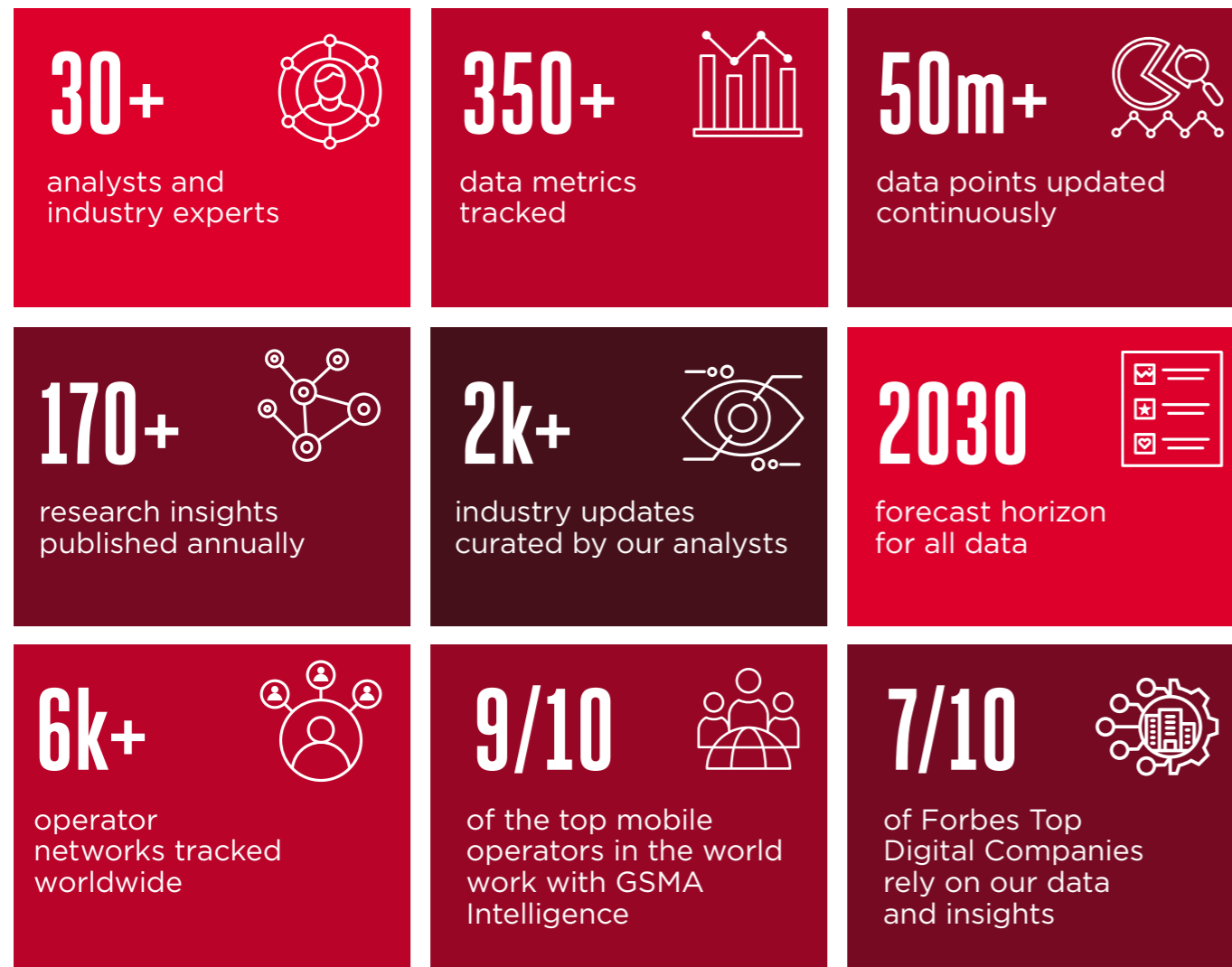


Forecasting the future

In 2023, a dedication to delivering market-leading insights and comprehensive data firmly established **GSMA Intelligence** as the go-to source of information for operators and the broader technology ecosystem worldwide. Delivering over 170 reports in 2023 alongside an expansive database of over 50 million datapoints, GSMA Intelligence remains at the forefront of the mobile, telecoms, and digital ecosystem landscape.

The research agenda continued to build upon work on operator strategies, commercial models, and digital trends, expanding into critical industry priorities, such as drones, gaming, eSIM, and private networks. Additional drivers of growth and relevance in 2023 include:

- Ahead of WRC-23, GSMA Intelligence upgraded its market-leading spectrum navigator platform with an all-new interactive user interface, and updated data covering spectrum assets in all markets around the world.
- The GSMA Intelligence operator energy efficiency benchmark, and cloud versus edge energy implication research, provided important insights to support sustainability planning, a strategic priority for operators.
- GSMA Intelligence's research into the role network API exposure and generative AI play in operator network transformation strategies, alongside enterprise and consumer service offers, delivered actionable insights.



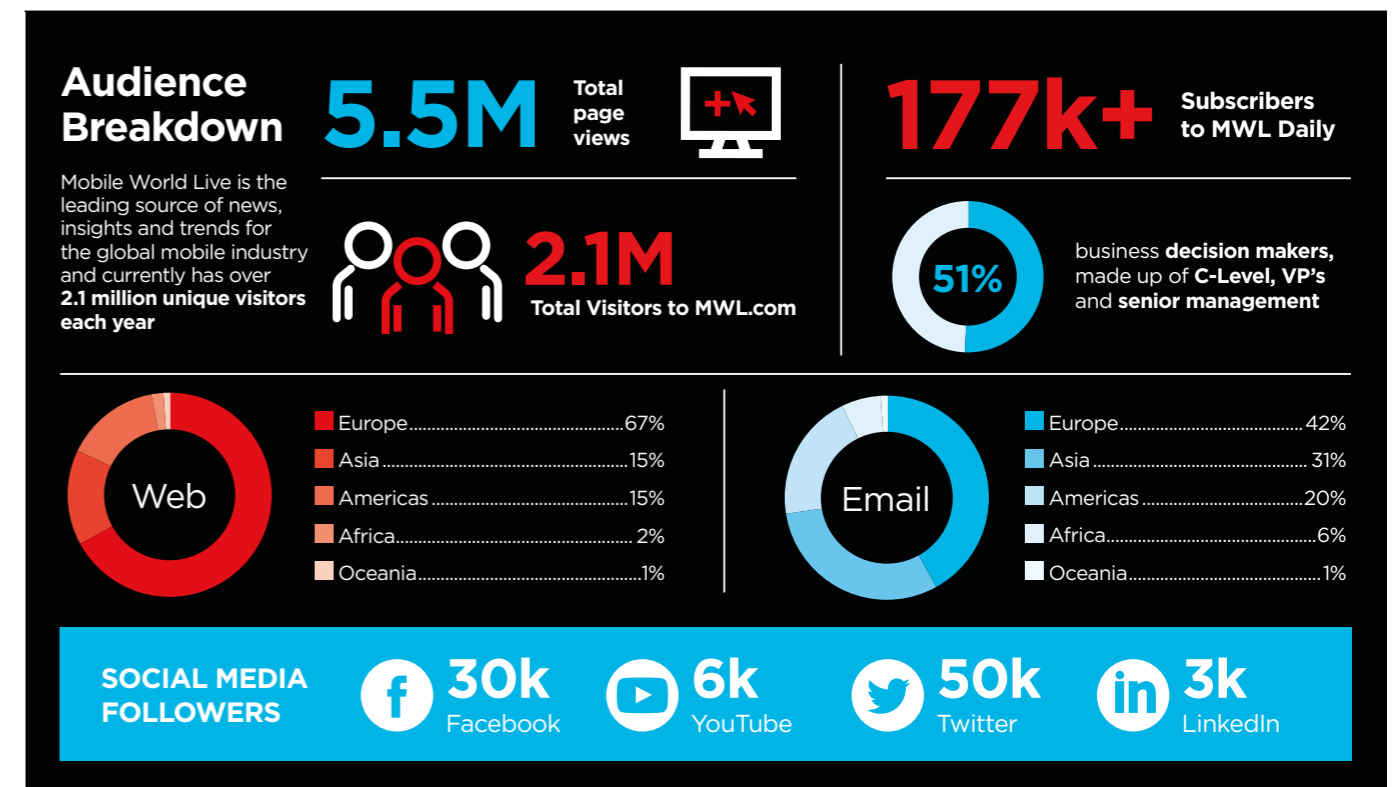
Mobile World Live (MWL), the GSMA's media operation, continued to play a forward-reaching role by bringing daily breaking news, expert analysis and intelligence to industry professionals. In-house editorial and production specialists worked directly with brand partners to produce bespoke strategic content and deliver it to a global audience via website and media channels.

In 2023, MWL launched a new brand and website, to modernise look and feel, and align to other GSMA brand refreshes.



MWL's flagship daily newsletter continued to serve a global community of over 177,000 mobile, tech and telecommunications professionals, with strategic emphasis on curating engaging editorial content for its audience.

As the lead media partner for the GSMA, MWL played an active role across GSMA events. At MWC Barcelona, MWL TV live-streamed keynotes, CxO interviews, show floor features and the GLOMO Awards, making all content available on-demand immediately on MobileWorldLive.com. This generated more than 283,000 live views and 4,500+ hours of viewing time. MWL also streamed the Mobile 360 event series to attract a wider audience, and provided MWC Las Vegas with live keynote streaming, analysis review programmes and onsite interviews.





Shaping the future

GSMA Foundry – The home of mobile innovation

The GSMA Foundry is the hub for cross-industry collaboration and business development, where GSMA members rapidly develop real-world solutions, nurture new ideas, and scale proven solutions globally to shape the digital future.

In 2023, the Foundry focused on project delivery in four areas – digital transformation, network efficiency, 5G monetisation and non-core revenues. Following the successful delivery of 15 new projects in 2022, Foundry activity scaled rapidly in 2023 with 30 projects delivered. One of these, World Mobile's Connecting the Unconnected project aims to close the digital divide in Africa with tethered aerostats providing connectivity from up to 300 metres in the air. The project launched the first commercial telecommunications aerostat in Mozambique in October.

The Foundry Innovation Showcase was prominent at GSMA Pavilions at MWCs in 2023. In Barcelona, eight demos featured, including Cellnex's immersive learning with bi-directional holograms, a 5G MEC Powered Digital Twin Store and the Bridge Alliance Federated Edge Hub. The annual Foundry Excellence Awards at MWC Barcelona recognised five successful projects, and at MWC Las Vegas, the Foundry promoted BeWhere's 5G CV2X trial, Ericsson's Connected Drone Testing and Nokia's Network as Code. The Foundry's networking breakfast in Las Vegas convened over 200 industry professionals, twice as many as the same event the year before.

The Foundry is supporting the development of 5G New Calling (5GNC), which brings ultra-HD, intelligent, and interactive calling capabilities to enhance basic voice and video calls. The Foundry worked with Huawei and partners to deliver a roundtable at MWC Shanghai, a webinar in September (with 980 live attendees and more than 1,400 on-demand views), three case studies, and a white paper on the role 5GNC will play in the global communications landscape over the next few years, following 3GPP's Release 18.

Also part of 3GPP Release 18, the launch of 5G-Advanced will mark the next milestone in the 5G Era. The Foundry is supporting the development of 5G-Advanced, which will improve throughput speeds, maximise coverage, enhance mobility and increase power efficiency.

The 5G Transformation Hub Challenge, which concluded at MWC Barcelona, announced six challenge winners in the categories of 5G Smart Production, Energy, Living, Entertainment, Productivity and Innovation.

In July, the Foundry and the European Space Agency announced a partnership to enhance collaboration between mobile and satellite industries and accelerate innovation in integrating satellite communications with 5G and future 6G networks. In November, the Foundry announced a new partnership with 4YFN to further align and consolidate innovation.

In 2024, the GSMA Foundry will develop and strengthen new partnerships and encourage more companies from across the industry to collaborate and drive mobile innovation forward.



We are excited to partner with the GSMA Foundry to bring this innovative solution to Mozambique. Our goal is to connect the unconnected and close the digital divide in Africa. We believe that everyone has the right to access the opportunities that mobile internet can offer. By using aerostats and a blockchain-based sharing economy, we can provide low-cost, high-quality, and community-owned connectivity to millions of people.”

Micky Watkins, World Mobile's CEO



5G-Advanced, the next milestone in the 5G era, has demonstrated the innovativeness and future potential of the already standing 5G ecosystem with improvements to speed, coverage, and efficiency. Enhancing the XR capabilities and sustainability within AI & Machine Learning designs, 5G-A has created several business opportunities for the global enterprise market.”

Richard Cockle, Head of GSMA Foundry

Industry communities – engaging with key customer markets

Beyond the traditional working groups, the GSMA engages with organisations to build essential connections between the mobile market and key customer markets. Industry communities focus on customer vertical markets – advanced air mobility, fintech, manufacturing and telecoms – and enabling technologies – IoT, telco edge cloud, and identity and data. This focused industry engagement enables the mobile industry to better understand market requirements and inform these key sectors about the capability and value of new mobile technology. This helps scale the mobile market for the benefit of members, their customers and the world.

Identity and data

Mobile identity and data APIs are delivering the next generation of mobile authentication, fraud detection and prevention solutions, benefitting users across the economy. The adoption of commercial solutions from the mobile industry grew substantially in 2023, with transaction volume growth remaining above 50%, even in more mature markets. Financial services widely use SIM swap data to protect against account takeovers, whilst many enterprises secure their onboarding processes by verifying customer data against mobile operator records. Analysts are recognising Number Verify – which seamlessly verifies a user's mobile number with their mobile operator – as the next generation in mobile authentication.

The GSMA Identity and Data Community supports this progress by connecting the ecosystem through sharing knowledge and best practices. In 2023, the community engaged with 105 companies, focusing on GSMA operator and industry members, and organised three online events. The community also hosted seminars at MWC Barcelona (attracting 217 attendees) and the UK M360 Mobile Security and Industries event, highlighting new opportunities for mobile identity in the enterprise market, how to scale adoption and emerging solutions, such as for age verification. To further raise market awareness, the GSMA presented the power of mobile identity enablers at four key events, including the European Identity and Cloud Conference, and participated in the OECD Recommendation on the Governance of Digital Identity.

Collaboration within the community has helped build worldwide momentum to address the issue of social engineering scams and resulted in

the initiation of a new industry specification to enable Number Verify support over Wi-Fi.

Finally, the mobile industry stepped up its involvement in the European Digital Identity project in 2023. Through the European Identity Group, the GSMA continued to engage with the European Commission and liaised with relevant standard bodies. These efforts were supported by three whitepapers highlighting how mobile assets could participate in the delivery of secure, privacy-preserving European identity wallets at scale.

FinTech

The FinTech and Mobile Economy community continued to have good momentum, growing to over 100 companies. Four member sessions exploring key trends were attended by over 300 members, and featured presentations by Telefónica, Airtel, MTN, Ethio Telecom and associate members including Alipay, Worldpay, Huawei and Ericsson. Summits at MWC Barcelona, MWC Las Vegas and MWC Kigali were well attended, providing platforms for high quality presentations from senior partners sharing compelling insights.

The community's project work focused on supporting market development of APIs. It also supported collaboration between UK Finance, UK banks and UK mobile operators to create a new scam call solution, with the first operator going live in November and others to follow. Parallel work in the US has created a successful pilot of a similar scam call solution, with roll-out earmarked for 2024. The development of a cross-industry

approach in Italy has led to the development of a pilot, and work is underway in South Africa to create a cross-industry approach with the banks. Finally, the momentum from the fraud workshop at MWC Kigali, in conjunction with the Rwanda Banking Association, will enable the GSMA to shape a cross-industry approach in that market.

Security

Security has continued to be a priority area for the GSMA. In 2023 there was a focus on increasing the visibility of GSMA security activities with the launch of a new security conference at MWC Barcelona and MWC Las Vegas. The GSMA hosted the industry's first global mobile operator Chief Information Security Officer (CISO) roundtable, supplemented by the launch of regional CISO roundtables throughout the year. The GSMA also launched a Fraud and Security LinkedIn channel, reaching 1,000 subscribers.

The GSMA Telecommunication Information Sharing and Analysis Center continues to develop with a focus on new regional and topic-related data sharing groups, complementing the new Fraud & Security Intelligence Sharing sub-group. The Coordinated Vulnerability Disclosure programme has received 15 new vulnerability cases and there has been a continued focus on building closer links with security researchers. Meanwhile, the GSMA Network Equipment Security Assurance Scheme is now firmly established as the basis for an EU certification on 5G network equipment to be developed by the European Union Agency for Cybersecurity.

Digital Industries

As the fourth industrial revolution continues towards digitalisation and intelligent connectivity, the Digital Industries community is focused on driving the adoption of mobile technologies in the industrial sector through regular forums, webinars, publications and events, including the highly popular Manufacturing Summits at MWC. More than 178 attendees, representing 67 organisations from industrial enterprises, mobile operators and the wider ecosystem, joined the GSMA Digital Industries Forum in 2023 to share knowledge, lift the barriers to digital transformation in the sector, and identify innovation and collaboration opportunities.

In China, the GSMA has launched the Convergent Network Architecture of 5G and Manufacturing initiative with the three largest operators and nearly 100 vertical ecosystem partners to accelerate the usage of 5G in vertical industries.

Smart Mobility

The GSMA's Smart Mobility community seeks to use mobile connectivity and services to improve the efficiency, safety and sustainability of transportation systems. The number of companies participating in either the Drone Interest Group or the Aerial Connectivity Joint Activity (the cooperation with the Global UTM Association) jumped from 65 to 123 in 2023.

In 2023, input from GSMA members helped to drive the formulation of decisions and policies

in some countries, such as the release of the Spectrum for Unmanned Aircraft Systems (UAS) licence by Ofcom in the UK, while nine major mobile network operators and 10 specialist stakeholders inputted into the GSMA report *MNO Drone Services Business Models*.³⁵

To help understand the role of mobile operators in supporting UAS, the Aerial Connectivity Joint Activity produced a *Landscape Whitepaper on UAS Cellular Ecosystem*.³⁶ In 2023, the group also published a revised version of the *Interface for Data Exchange between MNOs and the UAS Ecosystem*³⁷ including information about people density. The work on people density gathered a lot of interest from EASA (European Union Aviation Safety Agency) in support of the SORA 2.5,³⁸ and the work is now officially part of the phase 3 of the Open Gateway API.

The GSMA has been asked to present to the International Civil Aviation Organization (ICAO) annual symposium called Drone Enable, marking the first time a representative of the mobile industry will address the aviation industry stakeholders in the ICAO symposium. The GSMA was also invited to participate in the ICAO Panel on the Trust Framework – which is also a first for an organisation from the mobile industry.

In 2023, the GSMA's new Smart Mobility website³⁹ attracted 10,257 page views, while the Smart Mobility sessions at the four main GSMA event featured 60 speakers and attracted over 1,200 attendees.



The Advance Air Mobility community grew from 65 members in 2022 to

123
members
in 2023



35. https://www.gsma.com/smartmobility/wp-content/uploads/2023/09/MNO_Drone_Services_Business_Models_Whitepaper_20231020.pdf
 36. https://www.gsma.com/smartmobility/wp-content/uploads/2023/07/UAS_Cellular_Ecosystem_Whitepaper.pdf
 37. <https://www.gsma.com/iot/resources/gsma-foundry-case-study-digital-eyes-in-the-sky/>
 38. specific operations risk assessment
 39. <https://www.gsma.com/smartmobility/>

IoT Community

The 20-member 5G IoT Strategy Group promotes IoT technology and capabilities and accelerates the adoption of 5G IoT solutions, including LTE-M and NB-IoT. It is also involved in preparations for the launch of Massive IoT and the requirements needed for the introduction of non-terrestrial networks (NTN). The community's action groups also address specific customer needs, such as provisioning, SIM, Roaming, and capacity management. In 2023, the focus for the IoT community was on energy and the environment and how IoT solutions are impacting those sectors.

In 2023, the GSMA published two factsheets⁴⁰ on energy/environment IoT solutions based on LTE-M/NB-IoT, and showcased IoT solutions in the energy sector by presenting at the ETSI IoT Conference in July. The IoT Summit at MWC Las Vegas attracted over 100 attendees and 12 speakers, and the GSMA and members Semtech and Thales showcased demos at the Enlit Europe event in Paris. The GSMA audited and updated the Mobile IoT Deployment map⁴¹ to track a total of 252 mobile IoT networks, and held two 5G IoT Forums, to attract members to new action groups.

Advancing the 5G era

5G has been the fastest adopted generation of mobile technology. Since its initial deployment in 2019, 5G has rapidly expanded to nearly 270 countries worldwide, achieving a 16% market penetration. This achievement is testament to industry collaboration and the speed, responsiveness, and versatility of 5G networks, enabling reliable and secure connections for a multitude of simultaneous users.

As 5G industry applications continue to evolve, and demand increases for the advanced capabilities 5G networks provide, the GSMA launched the 5G Futures Community⁴² at MWC Barcelona 2023, with a strategic focus of supporting key opportunities and areas of growth within industry, including 5G New Calling, 5G Advanced, 5G mmWave, 5GSA (standalone) and AI for networks. The community works closely with international ecosystem participants to share benefits, best practices, success stories and opportunities of 5G technologies, while also serving as a channel for identifying and addressing the real-world, salient challenges faced by mobile network operators and global enterprise markets.

The GSMA hosted the 5G Futures Summit 2023 series during MWC Barcelona, MWC Shanghai and MWC Las Vegas, attracting over 1,000 attendees across all three, helping to drive discussions forward and achieve change in the industry.

With the forthcoming release of 3GPP's Release 18 and 19, the GSMA is undertaking an industry-led campaign on 5G Advanced, focusing on the innovative applications that are likely to emerge over the next few years and how key players are making huge strides in this space.

Operator Platform for Telco Edge Cloud (TEC)

The Operator Platform Group brings together developers, operators, platform providers and the broader ecosystem to transform operator's exposed edge and network services and create the level of commonality required to achieve global, interoperable scale, as demonstrated by the GSMA Open Gateway (see Chapter 6).



GSMA Services

GSMA Services help operators, device manufacturers, services providers and aggregators do business together more effectively, ultimately leading to better customer experiences. GSMA Services deliver key capabilities to the industry in the areas of device intelligence, networks certification, all operating 24x7, with high availability. There are more than 20 services in the portfolio serving more than 2,000 customers in more than 150 countries.

Some services are based on the accurate and comprehensive collated mobile device data gathered by the GSMA, some rely on the GSMA acting as a data exchange for the common good and other services underpin important interoperable service functions, ensuring the mobile ecosystem runs smoothly, such as VoLTE testing and remote SIM provisioning.

In 2023, the GSMA launched the International Revenue Share Fraud (IRSF) Prevention service, which is an important development to counter telecom fraud. It provides the most extensive and real-time database to prevent international revenue share fraud (IRSF) before it happens.

More broadly, GSMA Services' new Showcase Live bi-monthly webinar highlights key challenges being faced by the industry and offers solutions to them. The GSMA will continue to investigate new opportunities to deliver value to the mobile ecosystem in 2024 and beyond.



40. <https://www.gsma.com/iot/mobile-iot-resources/>

41. <https://www.gsma.com/iot/deployment-map/>

42. <https://www.gsma.com/futurenetworks/resources/watch-on-demand-5g-futures-community-webinar-1/>



Now we can create future strategies from a RAN perspective and better define radio and capacity issues, meaning our customers get optimal connectivity.”

Olivier Noppe, Handsets & Hardware CoE Lead, Commercial, Telenet, GSMA Device Map customer.



From Vodafone’s perspective, we find its use in our direct distribution provides the best customer experience, by giving an almost no-touch device activation experience.”

Fabrice Denis, Principal Manager Services & Platforms at Vodafone Group, GSMA eSIM Discovery Customer



The TAC data provided by the GSMA Device Database is our source of truth for device identification across all our products. We use GSMA Device Database to source detailed and accurate device information”

Sachie Bristow, Head of Sales, WDS-Sicap GSMA Device Database customer



Device



GSMA TAC Allocation

Industry appointed issuer of TAC (type allocation codes) for all connected devices to identify unique mobile equipment types

GSMA eUICC Identity Scheme

The industry appointed issuer of EINs (eUICC identification numbers) so manufacturers can create their own EIDs

GSMA Device Database

Direct access to TAC showing device and band performance-based attributes

GSMA Device Check™

Remove the risk of handling stolen or fraudulent devices, by checking a device's status

GSMA Device Map

TAC data overlaid with 150+ curated attributes to assist with advanced customer insights

GSMA Device Registry

Be part of the collective fight against device crime. Flag fraudulent and stolen devices

GSMA eSIM Discovery

Enable seamless eSIM provisioning with industry standard service

GSMA Network Settings Exchange

One location housing all device network settings for OEMs to retrieve so services run reliably

Certification



GSMA Security Accreditation Scheme

Security assessment of UICCC and eUICC suppliers, and of eUICC subscription management service providers

GSMA Network Equipment Security Assurance Scheme

Facilitates improvements in network equipment security and resilience levels

GSMA eUICC Security Assurance

Principles and procedures to evidence industry security standards are met to instil confidence

Network



GSMA IRSF Prevention

A global database of international revenue share fraud numbers to enable preventative action

GSMA Interoperability Testing

Tests to demonstrate that networks and devices are VoLTE capable for both non-roaming and roaming scenarios

GSMA Root DNS

Private inter-operator internet to enable roaming of packet-based network services

GSMA PathFinder™

Access 8.6+ billion numbers to route important and timely customer service messages

TAC: Type Allocation Code,
EID: eUICC Identifier
EIN: EUM Identification Number

For more information on GSMA Services visit: www.gsma.com/solutions-and-impact/industry-services/

Chapter 6

Looking ahead

In 2024, the GSMA will continue to help its members unlock the full potential of this new technological era, characterised by ongoing advances in the capabilities of mobile networks and related areas.

The GSMA has now completed its three-year financial recovery programme, enabling it to begin investing on behalf of members at levels similar to those before the pandemic. The GSMA has developed a strategic multi-year business plan for 2024 and beyond that prioritises resources in line with the needs of members, commits it to delivery and allows room for learning and pivoting as the market or opportunities dictate.

As well as investing in core capabilities, such as the working groups, policy, events, research, and product development, the GSMA has prioritised helping its members to monetise the massive investment they have made in 5G by opening up new revenue opportunities and developing new cost efficiencies. In this regard, a key priority for 2024 is to ensure that GSMA Open Gateway becomes a seamless, secure, open solution for developers to access 5G capabilities, akin to the SWIFT payment system in the financial services sector.

The GSMA will also continue to pursue solutions to the infrastructure investment gap, while building policy, regulatory and technological expertise in AI, quantum computing, 5G evolution and 6G, utilising existing platforms to ensure its value propositions are aligned with the industry's direction and priorities.

At the same time, the GSMA is reinforcing its Connectivity for Good work to advance positive policy, reduce inequalities and tackle the big societal challenges. In this domain, the GSMA will build depth across its core, broaden its expertise in emerging technologies, and reinvigorate its profile on the international stage. In partnership with donors, the GSMA will also continue to focus on improving lives through the use of mobile solutions that support underserved and vulnerable populations.

In an increasingly complex geopolitical landscape, the GSMA will address regional specific service needs, by building and strengthening scalable products and continuing to develop strategic partnerships and joint initiatives with industry solution partners. And, of course, GSMA events will continue to be a world-class platform for the industry and a strong financial contributor to the association.



Chapter 7

Financial statements

GSM Association
Consolidated Financial Statements
 31 December 2023
 Swiss Registration no: CH-660.1.280.995-4

GSM Association
Statement of Board's responsibilities
 Year ended 31 December 2023

Statement of Board's responsibilities

The Board members of GSM Association ('the Board') have accepted responsibility for the preparation of these non-statutory financial statements accounts for the year ended December 31, 2023 which are intended by them to give a true and fair view of the state of affairs of the company and of the profit or loss for that year. They have decided to prepare the non-statutory financial statements in accordance with International Financial Reporting Standards as adopted by the EU (IFRS as adopted by the EU).

In preparing these non-statutory financial statements, the Board have:

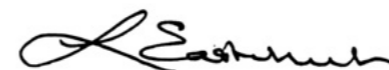
- selected suitable accounting policies and applied them consistently;
- made judgements and estimates that are reasonable and prudent;
- stated whether they have been prepared in accordance with IFRS as adopted by the EU;
- assessed the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- used the going concern basis of accounting unless they either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

The Board are responsible for such internal control as they determine is necessary to enable the preparation of non-statutory financial statements accounts that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the company and to prevent and detect fraud and other irregularities.

The financial statements were approved by the Board on 26 April 2024 and signed on its behalf by:



Director General, Mats Granryd
 26 April 2024



Chief Financial Officer, Louise Easterbrook
 26 April 2024



GSM Association Independent auditor's report to the Board of GSM Association Year ended 31 December 2023

Independent auditor's report to the board of GSM Association

Opinion

We have audited the non-statutory consolidated financial statements of GSM Association ("the group") for the year ended December 31, 2023 which comprise the Consolidated Income and Expenditure Account, Consolidated Balance Sheet, Consolidated Cash Flow Statement, Consolidated Statement of Changes in Equity and related notes, including the accounting policies in note 1. The non-statutory financial statements have been prepared for the reasons set out in note 1.

In our opinion the non-statutory financial statements:

- give a true and fair view of the state of the group's affairs as at December 31, 2023, and of its surplus for the year then ended; and
- have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and the terms of our engagement letter dated 19 February 2024. Our responsibilities are described below. We have fulfilled our ethical responsibilities under, and are independent of the group in accordance with, UK ethical requirements including the FRC Ethical Standard. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

Going concern

The Board have prepared the non-statutory financial statements on the going concern basis as they do not intend to liquidate the group or to cease its operations, and as they have concluded that the group's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over its ability to continue as a going concern for at least a year from the date of approval of the non-statutory financial statements ("the going concern year").

In our evaluation of the Boards' conclusions, we considered the inherent risks to the group business model and analysed how those risks might affect the group financial resources or ability to continue operations over the going concern year.

Our conclusions based on this work:

- we consider that the Boards' use of the going concern basis of accounting in the preparation of the non-statutory financial statements is appropriate;
- we have not identified, and concur with the Boards' assessment that there is not, a material uncertainty related to events or conditions that, individually or collectively, may cast significant doubt on the group's ability to continue as a going concern for the going concern year.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the above conclusions are not a guarantee that the group will continue in operation.

GSM Association Independent auditor's report to the Board of GSM Association Year ended 31 December 2023

Fraud and breaches of laws and regulations – ability to detect

Identifying and responding to risks of material misstatement due to fraud.

To identify risks of material misstatement due to fraud ("fraud risks") we assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. Our risk assessment procedures included:

- Enquiring of management, the audit committee and inspection of policy documentation as to the Group's high-level policies and procedures to prevent and detect fraud as well as whether they have knowledge of any actual, suspected or alleged fraud.
- Reading Board and audit committee minutes.
- Considering remuneration incentive schemes and performance targets for management.
- Using analytical procedures to identify any unusual or unexpected relationships.

We communicated identified fraud risks throughout the audit team and remained alert to any indications of fraud throughout the audit.

As required by auditing standards, we perform procedures to address the risk of management override of controls, in particular the risk that Group management may be in a position to make inappropriate accounting entries. On this audit we do not believe there is a fraud risk related to revenue recognition because the Group is a non-profit association and there is no incentive to overstate the revenue.

We did not identify any additional fraud risks.

We performed procedures including:

- Identifying journal entries and consolidation adjustments to test for the group based on risk criteria and comparing the identified entries to supporting documentation. These included those posted by senior finance management/ those posted and approved by the same user/ those posted to unusual accounts.

Identifying and responding to risks of material misstatement related to compliance with laws and regulations

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience and through discussion with the management (as required by auditing standards), and from inspection of the Group's regulatory and legal correspondence and discussed with the management the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit.

The potential effect of these laws and regulations on the financial statements varies considerably.

Whilst the Group is subject to many other laws and regulations, we did not identify any others where the consequences of non-compliance alone could have a material effect on amounts or disclosures in the financial statements.

Context of the ability of the audit to detect fraud or breaches of law or regulation

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it.

GSM Association
Independent auditor's report to the Board of GSM Association
 Year ended 31 December 2023

In addition, as with any audit, there remained a higher risk of non-detection of fraud, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. Our audit procedures are designed to detect material misstatement. We are not responsible for preventing non-compliance or fraud and cannot be expected to detect non-compliance with all laws and regulations.

Boards' responsibilities

As explained more fully in their statement set out on page 93, the Board is responsible for: the preparation of the non-statutory financial statements, which are intended by them to give a true and fair view; such internal control as they determine is necessary to enable the preparation of non-statutory financial statements that are free from material misstatement, whether due to fraud or error; assessing the group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the group or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the non-statutory financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the non-statutory financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

The purpose of our audit work and to whom we owe our responsibilities

Our report has been prepared for the group solely in accordance with the terms of our engagement. It has been released to the group on the basis that our report shall not be copied, referred to or disclosed, in whole (save for the group's own internal purposes) or in part, without our prior written consent.

Our report was designed to meet the agreed requirements of the group determined by the group's needs at the time. Our report should not therefore be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than the group for any purpose or in any context. Any party other than the group who obtains access to our report or a copy and chooses to rely on our report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, KPMG LLP will accept no responsibility or liability in respect of our report to any other party.

KPMG LLP

KPMG LLP
Chartered Accountants
 15 Canada Square
 London
 E14 5GL
 26 April 2024

GSM Association
Consolidated Income and Expenditure Account
 Year ended 31 December 2023

| | Notes | 31-Dec-23 £ | 31-Dec-22 £ |
|--|-------|-------------------|-------------------|
| Revenue | 3 | 195,494,642 | 137,548,129 |
| Other operating income | 4 | 1,146,164 | 1,836,596 |
| Operating costs excluding amortisation and depreciation | 5 | (141,004,248) | (108,334,234) |
| Amortisation | 10 | (872,048) | (933,580) |
| Depreciation | 7 | (3,216,753) | (2,589,366) |
| Operating surplus | | 51,547,757 | 27,527,545 |
| Finance income | 8 | 6,242,863 | 827,486 |
| Interest expense | 12A | (416,868) | (540,142) |
| Surplus before taxation | | 57,373,752 | 27,814,889 |
| Income tax expense | 9 | (1,682,061) | (981,288) |
| Surplus for the year | | 55,691,691 | 26,833,601 |

There is no other comprehensive income for the year.

The accompanying notes on pages 101 to 121 form an integral part of these financial statements.


GSM Association
Consolidated Balance Sheet
 31 December 2023

| | Notes | 31-Dec-23 £ | 31-Dec-22 £ |
|--|-------|---------------------------|---------------------------|
| Assets | | | |
| Non-current assets | | | |
| Intangible assets | 10 | 1,116,452 | 1,354,049 |
| Property, plant and equipment | 11 | 2,760,300 | 3,770,604 |
| Right-of-use assets | 12A | 6,525,968 | 7,356,107 |
| Lease Receivables | 12B | - | 1,928,315 |
| Other financial assets | 13 | 4,915,505 | 496,819 |
| Total non-current assets | | <u>15,318,225</u> | <u>14,905,894</u> |
| Current assets | | | |
| Other financial assets | 13 | 132,996,927 | 68,336,177 |
| Trade and other receivables | 14 | 60,710,510 | 49,620,657 |
| Lease Receivables | 12B | 1,928,315 | 2,924,015 |
| Cash and cash equivalents | 15 | 80,256,517 | 75,346,006 |
| Total current assets | | <u>275,892,269</u> | <u>196,226,855</u> |
| Total assets | | <u>291,210,494</u> | <u>211,132,749</u> |
| Equity and Liabilities | | | |
| Capital and reserves | | | |
| Retained earnings | 28 | 120,062,427 | 64,315,656 |
| Total Equity | | <u>120,062,427</u> | <u>64,315,656</u> |
| Liabilities | | | |
| Non-current liabilities | | | |
| Lease Liabilities | 12A | 5,149,497 | 7,823,921 |
| Total non-current liabilities | | <u>5,149,497</u> | <u>7,823,921</u> |
| Current liabilities | | | |
| Trade and other payables | 16 | 30,612,527 | 26,186,411 |
| Lease Liabilities | 12A | 3,504,857 | 4,468,489 |
| Deferred income | 17 | 123,067,035 | 105,589,181 |
| Deferred grants | 18 | 4,530,096 | 210,347 |
| Other current liabilities | 19 | 1,616,497 | 1,393,264 |
| Provisions for other liabilities and charges | 20 | 2,667,558 | 1,145,480 |
| Total current liabilities | | <u>165,998,570</u> | <u>138,993,172</u> |
| Total liabilities | | <u>171,148,067</u> | <u>146,817,093</u> |
| Total equity and liabilities | | <u>291,210,494</u> | <u>211,132,749</u> |

The accompanying notes form an integral part of these financial statements.
 These financial statements were approved by the Board on 26 April 2024 and signed on its behalf by



Director General, Mats Granryd
 26 April 2024



CFO, Louise Easterbrook
 26 April 2024

GSM Association
Consolidated Cash Flow Statement
 Year ended 31 December 2023

| | Notes | 31-Dec-23 £ | 31-Dec-22 £ |
|---|-------|--------------------------|--------------------------|
| Cash flows from operating activities | | | |
| Cash generated from operations | 26 | 71,356,441 | 54,677,195 |
| Interest paid | | (416,868) | (540,142) |
| Income tax paid | | (1,458,511) | (1,536,596) |
| Net grant received / (disbursed) | | 4,307,925 | (4,797,155) |
| Net cash generated from operating activities | | <u>73,788,987</u> | <u>47,803,302</u> |
| Cash flows from investing activities | | | |
| Purchase of property and equipment | 11 | (452,504) | (2,524,724) |
| Purchase of intangible assets | 10 | (641,851) | (434,361) |
| Proceeds from lease receivables | | 3,042,420 | 498,619 |
| Purchase of bonds | | (20,000,000) | (20,000,000) |
| Placement of Term deposits | | (46,331,583) | (48,263,377) |
| Net cash used in investing activities | | <u>(64,383,518)</u> | <u>(70,723,843)</u> |
| Cash flows from financing activities | | | |
| Payment of lease liabilities | | (4,573,933) | (3,980,867) |
| Net decrease in customer advances | | - | (2,921,757) |
| Net cash used in financing activities | | <u>(4,573,933)</u> | <u>(6,902,624)</u> |
| Net increase / (decrease) in cash and cash equivalents | | <u>4,831,536</u> | <u>(29,823,165)</u> |
| Cash and cash equivalents at the beginning of the year | | 75,346,006 | 103,811,500 |
| Effect of foreign exchange rate changes on cash held | | 78,975 | 1,357,671 |
| Cash and cash equivalents at the end of the year | | <u><u>80,256,517</u></u> | <u><u>75,346,006</u></u> |

The accompanying notes form an integral part of these financial statements.

GSM Association
Consolidated Statement of Changes in Equity
Year ended 31 December 2023

| | Total Equity £ |
|----------------------------------|---------------------------|
| Balance as at 31 December 2021 | 36,311,413 |
| Surplus for the year | 26,833,601 |
| Currency translation differences | 1,170,642 |
| Balance as at 31 December 2022 | <u>64,315,656</u> |
| Surplus for the year | 55,691,691 |
| Currency translation differences | 55,080 |
| Balance as at 31 December 2023 | <u><u>120,062,427</u></u> |

The accompanying notes form an integral part of these financial statements.

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

1. Accounting policies

The GSM Association (The Association) is a Verein domiciled and incorporated in Switzerland, registered address c/o Kendris AG, Wengistrasse 1, 8004 Zurich.

The Association is non-profit orientated and its principal activities are:

- a. The promotion and evolution of the GSM networks and the GSM platform for international roaming; for the provision of standardised services (e.g. voice, data, multimedia); as the core of other systems (e.g. UMTS, IMT 2000 (FPLMTS), DECT) employing different wireless access methods (e.g. TDMA, CDMA) and as the core of new applications.
- b. The promotion and evolution of standards and specifications that enable the widespread deployment of wireless services and applications in furtherance of the public interest;
- c. The promotion of a regulatory, legislative and public relations agenda that will advance the interest of the Members;
- d. The conduct of trade shows and the delivery of managed services that are aligned with the interests of Members with the goal of providing funding to support the activities of the GSMA;
- e. The provision of support and leadership on industry initiatives to benefit Members and the wireless ecosystem; and
- f. The taking of such other actions as may be necessary, suitable or proper for the accomplishment of the foregoing objectives.

The accounting policies adopted by the organisation, which have been consistently applied to all years presented in the financial statements, are as follows:

1.1 Basis of preparation

The non-statutory consolidated financial statements have been prepared and approved by the directors in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union ("Adopted IFRSs").

Going concern

The financial statements have been prepared under the historical cost convention on a going concern basis.

GSMA management has prepared cash flow forecasts for the year to 31 December 2025 which have also been sensitised to reflect severe but plausible downside scenarios, taking into consideration the group's principal risks. In the base case scenario, management has assumed that events, including MWC Barcelona GSMA's flagship event, will continue to operate as planned. The severe but plausible downside scenario assumes that, as during the pandemic, GSMA is not able to operate its full portfolio of events and higher inflation continues longer than expected.

Closing cash balances plus current Other financial assets amounted to £213.2m as at 31 December 2023 and, even under the above scenarios, the group's cash position is still expected to remain strong.

Based on the above factors, and the director's assessment of the group's financial position, cash flow forecasts and key assumptions, the director's concluded that it is appropriate to prepare the financial statements of the Group on a going concern basis.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

1.2 Basis of consolidation

These financial statements are the non-statutory consolidated financial statements of the GSM Association, and its subsidiaries. The subsidiaries are those companies controlled, directly or indirectly, by the GSM Association where control is defined as the power to govern the financial and operating policies of an enterprise so as to obtain benefits from its activities.

This control is normally evidenced when the GSM Association owns, either directly or indirectly, more than 50% of the voting rights or potential voting rights of a company's share capital. Inter-company balances and transactions are eliminated in full.

1.3 Accounting Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and the disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting year. Actual results could differ from those estimates.

1.4 Revenue Recognition

Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. Revenue is recognised when a customer obtains control of goods or services in line with identifiable performance obligations. The majority of revenue across the Group continues to be recognised evenly over the course of the contract because this reflects the timing of the provision of the service.

- a. **Members subscription:** Members subscription income from members is included in the consolidated income and expenditure account over the year to which the subscription relates.
- b. **Conferencing income:** The Association holds conferences on an annual basis. The revenue generated from attendance at the conferences is recognised in the consolidated income and expenditure account on the delivery of the conferences. In the event of cancellation of the conference and any resultant goodwill offering to customers, the transaction price is allocated to the remaining performance obligations in accordance with the terms of the offer.
- c. **Managed services:** Managed services is income from member and non-member sources and is included in the income and expenditure account as earned. These services include Device information, eSIM, Fraud & security, Network & Interconnect, roaming, GSMA Advance and GSMA Intelligence.

1.5 Leases

The Group has applied IFRS 16 using the modified retrospective approach.

At the inception of a contract, the Group assesses whether a contract is, or contains a lease. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a year of time in exchange for consideration'. To assess whether the contract conveys the right to control the use of an identified asset, the Group assesses whether:

- the contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Group.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

- the Group has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract.

The Group assess whether it has the right to direct 'how and for what purpose' the asset is used throughout the period of use.

Measurement and recognition of leases as a lessee

At lease commencement date, the Group recognises a right-of-use asset and a lease liability on the balance sheet. The right-of-use asset is measured at cost, which is made up of the initial measurement of the lease liability, any initial direct costs incurred by the Group, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payments made in advance of the lease commencement date, net of any incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of the right-of-use assets are determined on the same basis as those of property and equipment. The Group also assesses the right-of-use asset for impairment when such indicators exist.

At the commencement date, the Group measures the lease liability at the present value of the lease payments unpaid at that date, discounted using Group's incremental borrowing rate as the discount rate. Lease payments included in the measurement of the lease liability are made up of fixed payments, including in-substance fixed payments, variable payments based on an index or rate, amounts expected to be payable under a residual value guarantee and payments arising from options reasonably certain to be exercised.

The lease liability is measured at amortised cost using the effective interest method. It is re-measured to reflect any reassessment or modification, or if there are changes in in-substance fixed payments. When the lease liability is re-measured, the corresponding adjustment is reflected in the right-of-use asset, or profit and loss if the right-of-use asset is already reduced to zero.

Short-term leases and leases of low-value assets

The Group has elected to account for short-term leases that have a lease term of 12 months or less and leases of low-value assets using the practical expedients. Instead of recognising a right-of-use asset and lease liability, the payments in relation to these are recognised as an expense in profit or loss on a straight-line basis over the lease term.

On the balance sheet, right-of-use assets have been included under non-current assets, current portion of the lease liabilities included under current liabilities and non-current portion of the lease liabilities have been included in non-current liabilities.

The Group as a lessor

As a lessor the Group classifies its leases as either operating or finance leases. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of the underlying asset, and classified as an operating lease if it does not. The Group recognises lease payments received under operating leases as income on straight-line basis over the lease term as part of 'Other operating income'.

1.6 Pension costs

Contributions in respect of the Association's defined contribution scheme are charged to the income and expenditure account when they become due.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

1.7 Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and with banks, deposits held at call with banks and other short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

1.8 Intangible assets: Computer Software

Costs associated with the development and production of identifiable and unique software products controlled by the company and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Only external costs are capitalised.

Computer software costs recognised as assets are amortised using the straight-line method over their estimated useful life of three to five years.

1.9 Intangible assets: Conferencing Rights

Costs associated with the acquisition of conferencing rights controlled by the company and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Only external costs are capitalised. Conferencing rights costs recognised as assets are amortised using the straight-line method over their estimated useful life of three years.

1.10 Property and Equipment

Property and equipment are stated at historical cost or deemed cost less accumulated depreciation and impairment losses.

Depreciation is provided on a straight-line basis, so as to write off their cost less residual amounts over their estimated economic lives. The estimated economic lives assigned to property and equipment are as follows:

| | Years |
|---------------------|-------------------------|
| Office equipment | 3 - 5 |
| Leasehold additions | Life of lease - 3 to 10 |

The Association's policy is to review the remaining economic lives and residual values of property and equipment on an ongoing basis and to adjust the depreciation charge to reflect the remaining estimated life and residual value.

Fully depreciated property and equipment are retained in the cost of property and equipment and related accumulated depreciation until they are removed from service. In the case of disposals, assets and related depreciation are removed from the financial statements and the net amount, less proceeds from disposal, is charged or credited to the income statement.

1.11 Impairment

Assets that are subject to amortisation or depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash generating units).

1.12 Deferred income

Deferred income arises in respect of income received from members for specific expenditure programmes, where expenditure on these programmes does not take place in the year under review. It also includes annual subscriptions invoiced to members in advance of the membership year to which they relate and conference income invoiced to exhibitors in advance of the events being held.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

1.13 Trade receivables

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost, less provision for impairment. A provision for impairment of trade receivables is established where there is objective evidence that the Association will not be able to collect all amounts due according to the original terms of the receivables. When a trade receivable is uncollectible, it is written off against an allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited back to the income statement.

1.14 Grants

Grants are recognised when there is reasonable assurance that the entity will comply with the conditions attaching to it, and that the grant will be received. Grants are held in the balance sheet and only recognised as income over the years necessary to match them with the related costs which they are intended to compensate.

1.15 Provisions

Provisions are measured at present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

1.16 Foreign currencies

(i) Functional and presentation currency
Items included in the financial statements of the association are measured using the currency of the primary economic environment in which the association operates ('the functional currency'). The financial statements are presented in UK Sterling, which is the association's functional and presentation currency and is denoted by the symbol "£".

(ii) Transactions and balances

Transactions in foreign currencies are translated to the Company's functional currencies at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated to the functional currency at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognised in the income statement, except for differences arising on the retranslation of qualifying cash flow hedges, which are recognised in other comprehensive income. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are retranslated to the functional currency at foreign exchange rates ruling at the dates the fair value was determined.

1.17 Taxation

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the Group operates and generates taxable income.

Management yearically evaluates positions taken in tax returns with respect to situations in which applicable tax legislation is subject to interpretation and establishes provisions, where appropriate, on the basis of the amount expected to be paid to the tax authorities.

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred tax liability is settled.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

Deferred tax is charged directly to equity if the tax relates to items that are credited or charged, in the same or a different year, directly to equity. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

1.18 Classification of financial instruments

The Association classifies its financial assets as loans and receivables, which comprise trade and other receivables, Investments and cash and cash equivalents. The Association classifies its financial liabilities as trade and other payables, deferred income and deferred grants held at amortised cost.

1.19 Fair value of financial instruments

The carrying values of the Association's trade and other receivables, cash and cash equivalents and trade and other payables approximate their fair value due to their short-term nature. Investments are measured at fair value and changes in fair value are recognized in profit and loss as they arise.

1.20 Key judgement and estimation uncertainty

The preparation of consolidated financial statements under IFRS requires management to make estimates and assumptions that affect amounts recognised for assets and liabilities at the balance sheet date and the amounts of revenue and expenditure incurred during the reported year. There are no material estimates or assumptions that have a significant impact on the carrying value of assets and liabilities within the next financial year.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

2. Segmental information

At 31 December 2023, the group is organised on a worldwide basis into three main business segments:

- GSMA Ltd - managed services (see Note 29)
- GSMA - other industry activities
- GSMA Foundation - manages grants and provides resources and support to GSMA Mobile for Development programmes

The Operating segment results for the year ended 31 December 2023 are as follows:

| Business Segments | GSMA Ltd £ | GSMA £ | Foundation £ | Group £ |
|-------------------------------------|---------------|--------------|-----------------|--------------|
| Total segment revenue | 150,635,112 | 57,042,743 | - | 207,677,855 |
| Inter-segment revenue | - | (12,183,213) | - | (12,183,213) |
| | 150,635,112 | 44,859,530 | - | 195,494,642 |
| Surplus/(deficit) before income tax | 77,160,768 | (19,645,258) | (141,758) | 57,373,752 |
| Income tax expense | (334,255) | (1,347,806) | - | (1,682,061) |
| Surplus/(deficit) for the year | 76,826,513 | (20,993,064) | (141,758) | 55,691,691 |
| Depreciation | 966,432 | 2,250,321 | - | 3,216,753 |
| Amortisation | 150,800 | 721,248 | - | 872,048 |

The segment results for the year ended 31 December 2022 are as follows:

| | GSMA Ltd £ | GSMA £ | Foundation £ | Group £ |
|-------------------------------------|---------------|--------------|-----------------|--------------|
| Total segment revenue | 105,812,553 | 43,729,242 | - | 149,541,795 |
| Inter-segment revenue | - | (11,993,666) | - | (11,993,666) |
| | 105,812,553 | 31,735,576 | - | 137,548,129 |
| Surplus/(deficit) before income tax | 40,915,913 | (12,983,044) | (117,980) | 27,814,889 |
| Income tax expense | (627,965) | (353,323) | - | (981,288) |
| Surplus/(deficit) for the year | 40,287,948 | (13,336,367) | (117,980) | 26,833,601 |
| Depreciation | 820,559 | 1,768,807 | - | 2,589,366 |
| Amortisation | 307,814 | 625,766 | - | 933,580 |

Inter-segment revenues represent management charges between the segments. The basis is cost plus agreed commercial arms-length margin. The Foundation is grant funded. The segment results reflect the overhead costs of the Foundation which is funded by contributions from GSMA.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

The segment assets and liabilities at 31 December 2023 and capital expenditure for the year then ended are as follows:

| | GSMA Ltd | GSMA | Foundation | Inter Group | Total Group |
|---------------------|---------------|--------------|-------------|--------------|---------------|
| | £ | £ | £ | £ | £ |
| Assets | 224,255,968 | 79,473,074 | 11,781,906 | (24,300,454) | 291,210,494 |
| Liabilities | (123,664,998) | (61,891,658) | (9,891,865) | 24,300,454 | (171,148,067) |
| Capital expenditure | 279,112 | 815,243 | - | - | 1,094,355 |

The segment assets and liabilities at 31 December 2022 and capital expenditure for the year then ended are as follows:

| | GSMA Ltd | GSMA | Foundation | Inter Group | Total Group |
|---------------------|---------------|--------------|-------------|--------------|---------------|
| | £ | £ | £ | £ | £ |
| Assets | 160,637,338 | 56,722,536 | 5,879,446 | (12,106,571) | 211,132,749 |
| Liabilities | (106,554,580) | (47,688,306) | (4,680,778) | 12,106,571 | (146,817,093) |
| Capital expenditure | 340,585 | 2,618,500 | - | - | 2,959,085 |

3. Revenue

| | 31-Dec-23 | 31-Dec-22 |
|---|--------------------|--------------------|
| | £ | £ |
| Members subscription | | |
| - Operator Members contributions | 22,031,001 | 20,909,579 |
| - Industry Members contributions | 12,199,273 | 10,093,723 |
| Conference and events income (Note below) | 138,761,229 | 86,265,293 |
| Managed services income | 22,503,139 | 20,279,534 |
| | <u>195,494,642</u> | <u>137,548,129</u> |

Conference and events income includes partially recognised income on the cancelled Barcelona event (MWCB20) amounting to £4,021,973 and £7,685,408 for the years ended 31 December 2023 and 31 December 2022 respectively.

The remaining performance obligation of the MWCB20 is included in 'Deferred income' under 'Goodwill offer - credit roll-over' (Note 17). The remaining cash offer payable is £183,579 as at 31 December 2023 (31 December 2022: £183,896) and is shown under Other Current Liabilities as 'Goodwill offer - cash' (Note 19).

4. Other operating income

| | 31-Dec-23 | 31-Dec-22 |
|------------------------------------|------------------|------------------|
| | £ | £ |
| Sub-lease rental income (Note 12B) | 1,146,164 | 1,060,434 |
| Grant Income | - | 776,162 |
| | <u>1,146,164</u> | <u>1,836,596</u> |

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

5. Operating costs

| | 31-Dec-23 | 31-Dec-22 |
|---|--------------------|--------------------|
| | £ | £ |
| Employee benefit expense (Note 6) | 63,500,814 | 56,848,146 |
| Outsourced services expenditure | 33,787,980 | 24,532,222 |
| Employee travel and accommodation | 5,487,207 | 2,973,832 |
| Project consultants fees and expenses | 7,227,808 | 5,047,181 |
| Establishment expenses | 3,119,537 | 3,497,875 |
| Communication costs | 615,971 | 490,778 |
| Legal and professional fees | 13,235,557 | 7,997,880 |
| Auditor's remuneration | 356,854 | 287,949 |
| Information services and technology costs | 5,195,451 | 4,698,166 |
| Marketing and promotional expenditure | 6,017,200 | 4,538,984 |
| Bad debts | 298,810 | 239,265 |
| Foundation overhead expenses | 141,758 | 117,980 |
| Net foreign exchange losses / (gains) | 1,472,784 | (3,369,145) |
| Other financial expenses | 546,517 | 433,121 |
| | <u>141,004,248</u> | <u>108,334,234</u> |

6. Employee benefit expense

| | 31-Dec-23 | 31-Dec-22 |
|--|-------------------|-------------------|
| | £ | £ |
| Wages and salaries including restructuring costs | 49,980,382 | 44,841,210 |
| Social Security costs | 6,377,990 | 5,551,018 |
| Pension costs - defined contribution plans | 2,898,819 | 2,436,372 |
| Other staff costs | 4,243,623 | 4,019,546 |
| | <u>63,500,814</u> | <u>56,848,146</u> |

Average monthly number of staff

567 522

7. Depreciation

| | 31-Dec-23 | 31-Dec-22 |
|---|------------------|------------------|
| | £ | £ |
| Depreciation on Property, plant and equipment (Note 11) | 1,458,258 | 1,287,339 |
| Depreciation on Right-of-use assets (Note 12) | 1,758,495 | 1,302,027 |
| | <u>3,216,753</u> | <u>2,589,366</u> |

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

8. Finance income

| | 31-Dec-23 | 31-Dec-22 |
|---|------------------|----------------|
| | £ | £ |
| Interest income from Other financial assets | 6,124,458 | 624,611 |
| Interest on Lease Receivables (Note 12) | 118,405 | 202,875 |
| | <u>6,242,863</u> | <u>827,486</u> |

9. Taxation

| | 31-Dec-23 | 31-Dec-22 |
|---|------------------|----------------|
| | £ | £ |
| (a) The charge, based on surplus on ordinary income over expenditure comprises: | | |
| US Unrelated Business Income Tax at 21% (31 December 22: 21%) | 82,506 | 983,415 |
| UK Corporation Tax at 19% (31 December 22: 19%) | 922,514 | 291,961 |
| Spain Corporate Income Tax at 25% (31 December 22: 25%) | 458,413 | 116,890 |
| Switzerland Capital Tax at 0.17% of equity (31 December 22: 0.17%) | 7,033 | 7,780 |
| China Corporate Income Tax at 25% (31 December 22: 25%) | - | - |
| Ireland Corporation Tax at 12.5% (31 December 22: 12.5%) | - | - |
| India Corporate Income Tax at 27.55% (31 December 22: 27.55%) | 36,872 | 45,327 |
| Brazil Corporate Income Tax at 34% (31 December 22: 34%) | - | - |
| Kenya Corporate Income Tax at 37.5% (31 December 22: 37.5%) | 20,307 | 25,390 |
| Argentina Corporate Income Tax at 30% (31 December 22: 30%) | 50,777 | 51,148 |
| Under / (over) provision in previous year | 103,639 | (540,623) |
| Corporation tax charge for the year | <u>1,682,061</u> | <u>981,288</u> |

- (b) Tax reconciliation
The current charge for the year is different than the current charge that would result from applying the standard rate of Corporation Tax applicable in the respective countries to surplus on ordinary activities. The differences are explained below:

| | 31-Dec-23 | 31-Dec-22 |
|--|------------------|----------------|
| | £ | £ |
| Surplus before taxation | 57,373,752 | 27,814,889 |
| Surplus on ordinary activities at the UK standard rate of tax: 23.5% (31 December 22: 19%) | 13,482,832 | 5,284,829 |
| Effects of: | | |
| Disallowable expenses | (11,904,410) | (3,762,918) |
| Under / (Over) provision in previous year | 103,639 | (540,623) |
| | <u>1,682,061</u> | <u>981,288</u> |

The Group has carried forward tax losses of £41,587 (31 December 2022: £3,720,369) in its subsidiary GSMA Shanghai Co Ltd that is available for offset against future suitable taxable profits. No deferred tax asset has been recognised in these entities in respect of these losses due to uncertainty over the existence of future suitable taxable profit forecast at the balance sheet date.

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

10. Intangible assets

The gross carrying amounts and accumulated amortisation of intangible assets are as follows at 31 December 2023:

| | Conference Rights | Computer Software | Capital works-in-progress | Total |
|---------------------------------|--------------------------|--------------------------|----------------------------------|-------------------|
| Cost | £ | £ | £ | £ |
| At 31 December 2022 | 25,785,745 | 11,674,142 | 313,917 | 37,773,804 |
| Additions | - | 396,382 | 245,469 | 641,851 |
| Transfer to Computer Software | - | 559,386 | (559,386) | - |
| Disposals | - | (6,914,990) | - | (6,914,990) |
| At 31 December 2023 | <u>25,785,745</u> | <u>5,714,920</u> | <u>-</u> | <u>31,500,665</u> |
| Accumulated Amortisation | | | | |
| At 31 December 2022 | 25,785,745 | 10,634,010 | - | 36,419,755 |
| Amortisation | - | 872,048 | - | 872,048 |
| Disposals | - | (6,907,590) | - | (6,907,590) |
| At 31 December 2023 | <u>25,785,745</u> | <u>4,598,468</u> | <u>-</u> | <u>30,384,213</u> |
| Net Book Value | | | | |
| At 31 December 2023 | <u>-</u> | <u>1,116,452</u> | <u>-</u> | <u>1,116,452</u> |

Additions to Computer software include amount of £559,386 software costs incurred for enhancing our Infocentre which was capitalised during the year.

The gross carrying amounts and accumulated amortisation of intangible assets are as follows at 31 December 2022:

| | Conference Rights | Computer Software | Capital works-in-progress | Total |
|---------------------------------|--------------------------|--------------------------|----------------------------------|-------------------|
| Cost | £ | £ | £ | £ |
| At 31 December 2021 | 25,785,745 | 11,737,224 | - | 37,522,969 |
| Additions | - | 120,444 | 313,917 | 434,361 |
| Disposals | - | (183,526) | - | (183,526) |
| At 31 December 2022 | <u>25,785,745</u> | <u>11,674,142</u> | <u>313,917</u> | <u>37,773,804</u> |
| Accumulated Amortisation | | | | |
| At 31 December 2021 | 25,785,745 | 9,883,956 | - | 35,669,701 |
| Amortisation | - | 933,580 | - | 933,580 |
| Disposals | - | (183,526) | - | (183,526) |
| At 31 December 2022 | <u>25,785,745</u> | <u>10,634,010</u> | <u>-</u> | <u>36,419,755</u> |
| Net Book Value | | | | |
| At 31 December 2022 | <u>-</u> | <u>1,040,132</u> | <u>313,917</u> | <u>1,354,049</u> |

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

11. Property, plant and equipment

| | Office Equipment | IT Equipment | Leasehold Improvements | Total |
|---------------------------------------|---------------------|-----------------|---------------------------|------------|
| Cost | £ | £ | £ | £ |
| At 31 December 2022 | 710,217 | 1,038,511 | 9,295,507 | 11,044,235 |
| Additions | 4,014 | 397,075 | 51,415 | 452,504 |
| Effect of movements in exchange rates | (2,700) | (8,707) | (32,741) | (44,148) |
| At 31 December 2023 | 711,531 | 1,426,879 | 9,314,181 | 11,452,591 |
| Accumulated Depreciation | | | | |
| At 31 December 2022 | 525,360 | 415,052 | 6,333,219 | 7,273,631 |
| Depreciation | 80,449 | 346,383 | 1,031,426 | 1,458,258 |
| Effect of movements in exchange rates | (2,700) | (6,702) | (30,196) | (39,598) |
| At 31 December 2023 | 603,109 | 754,733 | 7,334,449 | 8,692,291 |
| Net Book Value | | | | |
| At 31 December 2023 | 108,422 | 672,146 | 1,979,732 | 2,760,300 |
| | | | | |
| | Office Equipment | IT Equipment | Leasehold Improvements | Total |
| Cost | £ | £ | £ | £ |
| At 31 December 2021 | 502,741 | 1,151,646 | 7,701,521 | 9,355,908 |
| Additions | 206,237 | 720,861 | 1,597,626 | 2,524,724 |
| Effect of movements in exchange rates | 1,239 | 2,099 | (3,640) | (302) |
| Disposals | - | (836,095) | - | (836,095) |
| At 31 December 2022 | 710,217 | 1,038,511 | 9,295,507 | 11,044,235 |
| Accumulated Depreciation | | | | |
| At 31 December 2021 | 460,700 | 939,767 | 5,417,212 | 6,817,679 |
| Depreciation | 63,468 | 303,793 | 920,078 | 1,287,339 |
| Effect of movements in exchange rates | 1,192 | 2,239 | (4,071) | (640) |
| Disposals | - | (830,747) | - | (830,747) |
| At 31 December 2022 | 525,360 | 415,052 | 6,333,219 | 7,273,631 |
| Net Book Value | | | | |
| At 31 December 2022 | 184,857 | 623,459 | 2,962,288 | 3,770,604 |

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

12. Leases

A. Leases as lessee

The Group leases office buildings for its office space. The leases of office space is for a period of two to ten years. Some leases include an option to renew the lease for an additional year after the end of the contract term. Some leases provide for additional rent payments that are based on changes in local price indices. The Group sub-leases some of its properties under operating leases.

| | 31-Dec-23 | 31-Dec-22 |
|--|------------|------------|
| Cost | £ | £ |
| Right-of-use assets | | |
| Opening balance | 10,837,022 | 4,379,754 |
| Additions | 935,877 | 6,460,134 |
| Effect of movements in exchange rates | (103,424) | (2,866) |
| Closing balance | 11,669,475 | 10,837,022 |
| Accumulated Depreciation | | |
| Opening balance | 3,480,915 | 2,184,310 |
| Depreciation (Note 7) | 1,758,495 | 1,302,027 |
| Effect of movements in exchange rates | (95,903) | (5,422) |
| Closing balance | 5,143,507 | 3,480,915 |
| Net Book Value | | |
| Closing balance | 6,525,968 | 7,356,107 |
| Lease Liabilities | 31-Dec-23 | 31-Dec-22 |
| Maturity analysis - contractual undiscounted cash flows | £ | £ |
| Due within one year | 3,849,176 | 4,883,249 |
| Due within 2 to 5 years | 5,053,462 | 6,933,237 |
| Due over 5 years | 607,629 | 1,494,981 |
| | 9,510,267 | 13,311,467 |
| Lease liabilities in the Consolidated Balance Sheet | | |
| Current | 3,504,857 | 4,468,489 |
| Non-current | 5,149,497 | 7,823,921 |
| | 8,654,354 | 12,292,410 |
| Consolidated Income and Expenditure Account | 31-Dec-23 | 31-Dec-22 |
| | £ | £ |
| Interest on lease liabilities | 416,868 | 540,142 |
| Expenses related to short-term leases | 248,335 | 614,935 |

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

B. Leases as lessor

All leases are classified as operating leases from a lessor perspective with the exception of a sub-lease, which the Group has classified as a finance sub-lease.

| Lease Receivables | 31-Dec-23 | 31-Dec-22 |
|--|------------------|------------------|
| | £ | £ |
| Maturity analysis - contractual undiscounted cash flows | | |
| Due within one year | 1,943,768 | 3,042,420 |
| Due within 2 to 5 years | - | 1,943,768 |
| Total undiscounted lease receivable | 1,943,768 | 4,986,188 |
| Unearned finance income | 15,453 | 133,858 |
| Net investment in the lease | 1,928,315 | 4,852,330 |
| Lease Receivables in the Consolidated Balance Sheet | | |
| Current | 1,928,315 | 2,924,015 |
| Non-current | - | 1,928,315 |
| | 1,928,315 | 4,852,330 |
| Consolidated Income and Expenditure Account | | |
| | 31-Dec-23 | 31-Dec-22 |
| | £ | £ |
| Interest on Lease Receivables (Note 8) | 118,405 | 202,875 |
| Income from sub-leasing (Note 4) | 1,146,164 | 1,060,434 |

13. Other financial assets

| | 31-Dec-23 | 31-Dec-22 |
|--------------------|--------------------|-------------------|
| | £ | £ |
| Non-current | | |
| Bonds | 4,915,505 | 496,819 |
| | 4,915,505 | 496,819 |
| Current | | |
| Term deposits | 96,487,048 | 48,668,417 |
| Bonds | 36,509,879 | 19,667,760 |
| | 132,996,927 | 68,336,177 |

Term deposits have stated interest rates between 5.4% to 6.1% and mature within 12 months. Bonds portfolio is managed by an AA-rated custodian Bank. A bond ladder approach is adopted on a portfolio of several fixed-income securities with varying dates of maturity to minimize interest-rate risk, increase liquidity, and diversify credit risk.

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

14. Trade and other receivables

| | 31-Dec-23 | 31-Dec-22 |
|----------------------------------|-------------------|-------------------|
| | £ | £ |
| Conferencing receivables | 45,627,940 | 35,161,802 |
| Membership contributions | 1,488,683 | 1,248,253 |
| Less: trade receivable provision | (882,314) | (928,862) |
| | 46,234,309 | 35,481,193 |
| Prepayments | 10,995,667 | 10,476,866 |
| VAT recoverable | 983,410 | 1,154,288 |
| Other receivables | 2,497,124 | 2,508,310 |
| | 60,710,510 | 49,620,657 |

15. Cash and cash equivalents

| | 31-Dec-23 | 31-Dec-22 |
|--------------------------|-------------------|-------------------|
| | £ | £ |
| Cash at bank and on hand | 70,016,517 | 55,294,558 |
| Demand deposits | 10,240,000 | 20,051,448 |
| | 80,256,517 | 75,346,006 |

Cash and cash equivalents include restricted cash of £11,761,043 (31 December 2022: £5,865,802) held under GSMA Mobile for Development Foundation, Inc. which is only available for specified activities undertaken by the foundation.

16. Trade and other payables

| | 31-Dec-23 | 31-Dec-22 |
|---------------------------------|-------------------|-------------------|
| | £ | £ |
| Trade payables | 6,074,388 | 5,687,180 |
| Social security and other taxes | 1,597,784 | 2,308,061 |
| Accrued expenses | 21,877,651 | 17,127,358 |
| Other payables | 1,062,704 | 1,063,812 |
| | 30,612,527 | 26,186,411 |

17. Deferred income

| | 31-Dec-23 | 31-Dec-22 |
|--|--------------------|--------------------|
| | £ | £ |
| Membership fees invoiced in advance | 12,956,408 | 15,349,779 |
| Conference and events income invoiced in advance | 110,110,627 | 86,216,864 |
| Goodwill offer - credit roll-over (Note 3) | - | 4,022,538 |
| | 123,067,035 | 105,589,181 |
| Current | 123,067,035 | 105,589,181 |
| | 123,067,035 | 105,589,181 |

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

18. Deferred grants

The Foundation continues to seek third party funding to further expand the delivery capability of its core programmes: Connected Society, Connected Women, Mobile for Humanitarian, Ecosystem Accelerator, AgriTech for Development, Digital Utilities, M4D Initiatives, Climate Tech, and Mobile Money.

During the year ended 31 December 2023 the Foundation received funding from Foreign, Commonwealth & Development Office (FCDO), Bill & Melinda Gates Foundation, Swedish International Development Cooperation Agency (SIDA), Verizon Foundation, German Development Agency (GIZ), The United States Agency for International Development (USAID) and VISA.

| | 31-Dec-23 | 31-Dec-22 |
|--|------------------|----------------|
| | £ | £ |
| Opening grant deferred | 210,347 | 4,817,579 |
| New Grants received | 21,480,046 | 12,673,898 |
| Expenditure incurred | (17,172,121) | (17,471,053) |
| Unrealised foreign exchange gains on USD cash and cash equivalents | 11,824 | 189,923 |
| Closing grant deferred | <u>4,530,096</u> | <u>210,347</u> |

19. Other current liabilities

| | 31-Dec-23 | 31-Dec-22 |
|--------------------------------|------------------|------------------|
| | £ | £ |
| Current tax liabilities | 1,432,918 | 1,209,368 |
| Goodwill offer - cash (Note 3) | 183,579 | 183,896 |
| | <u>1,616,497</u> | <u>1,393,264</u> |

20. Provision for other liabilities and charges

| | 31-Dec-23 | 31-Dec-22 |
|-----------------|------------------|------------------|
| | £ | £ |
| Opening balance | 1,145,480 | 203,336 |
| Movement | 1,522,078 | 942,144 |
| Closing balance | <u>2,667,558</u> | <u>1,145,480</u> |

The closing balance includes property provision of £812,351 (31 December 2022: £828,967) in respect of dilapidations due under lease terms for GSMA office locations.

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

21. Subsidiaries

The group has the following significant subsidiaries:

| Name of Company | Country | Address |
|---|----------------|--|
| GSM Conference Services Limited | United Kingdom | 1 Angel Lane, London EC4R 3AB, UK |
| GSMA Limited | United States | 165 Ottley Drive, Suite 203, Atlanta, GA, USA 30324 |
| GSMA MC LLC | United States | 165 Ottley Drive, Suite 203, Atlanta, GA, USA 30324 |
| GSMC Event Project Management SL | Spain | Palau de Congressos - Hall 5, Avda. Maria Reina Cristina s/n 08004 Barcelona Spain |
| GSMA Mobile For Development Foundation Inc. | United States | 165 Ottley Drive, Suite 203, Atlanta, GA, USA 30324 |
| GSMA (Shanghai) Co Ltd | China | Unit 1801, 18F Kerry Parkside Offices, 1155 Fangdian Road, Pudong, 201204 Shanghai, China |
| GSMA Services India Private Limited | India | 11th Floor, Hindustan Times House, 18-20 Kasturba Gandhi Marg, New Delhi, 110001, India |
| GSMA S.R.L | Argentina | Av. Del Libertador 6810, Ciudad Autónoma de Buenos Aires, Argentina |
| GSMA 4YFN Event Management | Spain | Fira Barcelona Montjuic, Side Entrance Hall 1, Avinguda de la Reina, Maria Cristina, 08004, Barcelona, Spain |
| GSMA Advisory Services Ltd | United Kingdom | 1 Angel Lane, London EC4R 3AB, UK |
| GSMA Ventures LLC | United States | 165 Ottley Drive, Suite 203, Atlanta, GA, USA 30324 |
| GSMA Services LLC | United States | 165 Ottley Drive, Suite 203, Atlanta, GA, USA 30324 |

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

22. Related party transactions

Related party transactions are at arm's length basis. During the year the Association has a related party relationship with its key management personnel:

| | 31-Dec-23 | 31-Dec-22 |
|--|------------------|-----------|
| | £ | £ |
| The compensation of key management is as follows | 8,234,549 | 7,803,873 |

23. Pension commitments

The Association operates a defined contribution scheme. The assets of the scheme are held separately from those of the Association in an independently administered fund. The pension costs charge represents contributions payable by the Association to the fund.

| | 31-Dec-23 | 31-Dec-22 |
|--|------------------|-----------|
| | £ | £ |
| Contributions charged to the income and expenditure account for the year | 2,898,819 | 2,436,372 |

24. Contingencies

Following cancellation of MWCB20 (Note 3), and the successful delivery of MWCB21, MWCB22 and MWCB23 the Group does not deem the risk of any litigation as material. In addition to events, the Group may be subject to complaints and lawsuits occurring in the ordinary course of business.

25. Ultimate controlling party

The Association regards the members of the Annual General Meeting as the ultimate controlling party.

GSM Association

Notes to the Consolidated Financial Statements

Year ended 31 December 2023

26. Cash generated from operations

| | 31-Dec-23 | 31-Dec-22 |
|---|-------------------|-------------------|
| | £ | £ |
| Surplus before tax | 57,373,752 | 27,814,889 |
| Less: Interest received | (6,242,863) | (827,486) |
| Add: Interest Paid | 416,868 | 540,142 |
| Operating surplus | 51,547,757 | 27,527,545 |
| Adjustment for: | | |
| Depreciation | 3,216,753 | 2,589,366 |
| Amortisation | 872,048 | 933,580 |
| Loss on disposal of property, plant and equipment | 7,400 | 5,348 |
| Changes in working capital | | |
| Trade and other receivables | 9,764,289 | 12,738,826 |
| Trade and other payables | 5,948,194 | 10,882,530 |
| Net cash generated from operations | 71,356,441 | 54,677,195 |

27. Financial Instruments and risk management

IFRS 9 Financial Instruments has been applied to cash and cash equivalents, Investments, trade and other receivables and trade and other payables.

(a) Market Risk

Interest rate risk management

The Association maintains a fixed interest rate profile to manage its interest rate risk exposure in its financial assets.

Foreign exchange risk management

The Association is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the Euro and the US Dollar.

Its foreign exchange risk arises from future transactions and recognised assets and liabilities undertaken in currencies other than Sterling. The Association has its major income streams in Sterling, US Dollars and Euros and these are broadly matched by its short-term outflows in these currencies.

Our policy concerning forex exposure is to naturally hedge our cash flows to provide some stability over the medium term, supplemented by hedging using short term treasury instruments.

Price risk management

The Association has no exposure to equity securities price risk at the balance sheet date.

GSM Association
Notes to the Consolidated Financial Statements
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(b) Credit risk management

The Association does not have any significant concentrations of credit risk. Policies are in place to ensure that transactions are only undertaken with customers with an appropriate credit history. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Association considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Association's historical experience and informed credit assessment and including forward-looking information.

The Group considers a financial asset to be in default when the debtor is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held) or the financial asset is more than 120 days past due.

(c) Liquidity risk management

The Association has no borrowings at the balance sheet date and ensures its liquidity is maintained by yearly reviews of all short and medium term funding requirements. Its policy is to support its retained earnings by cash or cash equivalents.

(d) Hedging activities

The Association has not entered into any hedging transactions.

(e) Other derivatives

The Association has not entered into any other derivative transactions.

(f) Classification of financial instruments

A financial asset (unless it is a trade receivable without a significant financing component that is initially measured at the transaction price) is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition.

Trade and other receivables, amounts due from related parties, and cash and cash equivalents are measured at amortised cost. Investments are measured at fair value and changes in fair value are recognized in profit and loss as they arise.

The Association's non-derivative financial liabilities consist of amounts due to related parties, and trade and other payables. All non-derivative financial liabilities are recognised initially at fair value less any directly attributable transaction costs.

(g) Capital Management

The Association has a reserves strategy which is built at a subsidiary group level and is designed to safeguard the individual lines of business, taking into consideration their individual operating models and risks.

GSM Association
Notes to the Consolidated Financial Statements
Year ended 31 December 2023

28. Retained Earnings

| | £ |
|---|--------------------|
| Opening retained reserves at 1 January 2023 | 64,315,656 |
| Surplus for the year ended 31 December 2023 | 55,691,691 |
| Currency translation differences | 55,080 |
| Closing retained reserves at 31 December 2023 | <u>120,062,427</u> |

29. Subsequent events

During the year ended 31 December 2022, the board had approved a restructure of GSMA Ltd to separate services activities and intellectual property into new entities. This model is designed to better facilitate the growth and diversification of GSMA Ltd activities. Accordingly the following new entities had been established:

- GSMA Services LLC will operate all managed services;
- GSMA Advisory Services Ltd will operate all certification, research & consulting activities;
- GSMA Ventures LLC will hold all intellectual property assets; and
- GSMA Ltd will continue to organise Mobile World Congress and m360 events.

During the year ended 31 December 2023, some of the Services lines of business were transferred from GSMA Ltd to GSMA Services LLC and GSMA Advisory Services Ltd. The restructure is expected to complete in January 2025.

GSM Association, Zurich**Financial Statements**

31 December 2023

Swiss Registration no: CH-660.1.280.995-4



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**Report of the Statutory Auditor to the General Meeting of
GSM Association, Zurich**

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of GSM Association (the Association), which comprise the balance sheet as at 31 December 2023, and the income statement and the cash flow statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 125 to 135) comply with Swiss law and the Association's articles of incorporation.

Basis for Opinion

We conducted our audit in accordance with Swiss law and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Association in accordance with the provisions of Swiss law, together with the requirements of the Swiss audit profession, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

The Board of the Association is responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Board of the Association's Responsibilities for the Financial Statements

The Board of the Association is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the Association's articles of incorporation, and for such internal control as the Board of

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GSM Association, Zurich
Report of the Statutory Auditor
to the General Meeting on the
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the Association determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of the Association is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to going concern, and using the going concern basis of accounting unless the Board of the Association either intends to liquidate the Association or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and SA-CH will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of the Associations' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Association to cease to continue as a going concern.

We communicate with the Board of the Association regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



GSM Association, Zurich
Report of the Statutory Auditor
to the General Meeting on the
Financial Statements

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and PS-CH 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of the Association.

We recommend that the financial statements submitted to you be approved.

In addition, as per the article 963 et seqq. CO the consolidated financial statements for the period started 1 January 2023 and ended 31 December 2023 were prepared but not audited by the statutory auditor as required by article 728a CO. A non-local independent auditor expressed an unmodified opinion on those consolidated financial statements on 26 April 2024.

KPMG AG

Marc Ziegler
Licensed Audit Expert
Auditor in Charge

Daniel Baumgartner
Licensed Audit Expert

Zurich, 26 April 2024

GSM Association, Zurich

Balance sheet

as at 31 December 2023

| Assets | Notes | 31-Dec-23 | 31-Dec-22 |
|---|-------|---------------|---------------|
| CHF 1,000 | | | |
| Cash and cash equivalents | | 15,708 | 7,404 |
| Term deposits | | 43,623 | 31,931 |
| Trade accounts receivable | 2.1 | 6,636 | 4,513 |
| Lease Receivables | 2.2 | 2,066 | 3,271 |
| Other short-term receivables | | 2,522 | 2,694 |
| Prepaid expenses | | 4,305 | 3,328 |
| Total current assets | | 74,860 | 53,141 |
| Investments | 2.4 | 154 | 154 |
| Property, plant and equipment | 2.5 | 2,159 | 3,105 |
| Intangible assets | 2.6 | 890 | 1,237 |
| Leased assets | 2.3 | 5,690 | 6,792 |
| Lease Receivables | 2.2 | - | 2,157 |
| Total non-current assets | | 8,893 | 13,445 |
| Total assets | | 83,753 | 66,586 |
| Liabilities and equity | | | |
| CHF 1,000 | | | |
| Trade accounts payable | 2.7 | 29,981 | 15,853 |
| Short-term interest-bearing liabilities | 2.8 | - | - |
| Other short-term liabilities | | 819 | 1,032 |
| Lease liabilities | 2.3 | 3,067 | 4,330 |
| Accrued expenses and deferred income | 2.9 | 27,091 | 25,930 |
| Total short-term liabilities | | 60,958 | 47,145 |
| Lease liabilities | 2.3 | 4,640 | 7,644 |
| Customer advances | 2.10 | - | - |
| Provisions | | 969 | 1,366 |
| Total long-term liabilities | | 5,609 | 9,010 |
| Total liabilities | | 66,567 | 56,155 |
| Retained Earnings / (Accumulated deficit) | 2.11 | 17,186 | 10,431 |
| Total equity | | 17,186 | 10,431 |
| Total liabilities and equity | | 83,753 | 66,586 |

These financial statements were approved by the Board on 26 April 2024 and signed on its behalf by

Director General, Mats Granryd
26 April 2024

CFO, Louise Easterbrook
26 April 2024

GSM Association, Zurich
Income statement
for the period ended 31 December 2023

| CHF 1,000 | Notes | 31-Dec-23 | 31-Dec-22 |
|---|-------|-----------------|-----------------|
| Revenue from services | 2.12 | 46,249 | 49,313 |
| Other operating income | 2.13 | 840 | 1,385 |
| Total operating income | | 47,089 | 50,698 |
| Personnel expenses | | (42,856) | (42,288) |
| Other operating expenses | | (27,738) | (21,139) |
| Depreciation on property, plant and equipment | | (1,119) | (1,051) |
| Depreciation on Leased assets | | (1,276) | (905) |
| Amortization on intangible assets | | (808) | (740) |
| Operating result | | (26,708) | (15,425) |
| Contributions from subsidiaries | 1.2 | 33,690 | 131,621 |
| Financial income | | 2,093 | 556 |
| Financial expenses | | (530) | (521) |
| Non-operating expenses | 2.2 | - | - |
| Profit for the year before taxes | | 8,545 | 116,231 |
| Direct taxes | | (1,078) | (256) |
| Profit for the year | | 7,467 | 115,975 |

GSM Association, Zurich
Cash flow statement

| CHF 1,000 | Notes | 31-Dec-23 | 31-Dec-22 |
|--|-------|-----------------|-----------------|
| Profit for the year | | 7,467 | 115,975 |
| Depreciation and amortization of non-current assets | | 3,203 | 2,696 |
| Loss on disposal of Leased asset | | - | - |
| Other non-cash income | | (1,316) | (317) |
| Changes in trade accounts receivable | | (2,123) | 123 |
| Changes in other short-term receivables & prepaid expenses | | (804) | (1,720) |
| Changes in trade accounts payable | | (19,562) | (106,002) |
| Changes in other short-term liabilities | | (213) | 614 |
| Changes in accrued expenses and deferred income | | 1,161 | (4,868) |
| Changes in provisions | | (397) | 1,036 |
| Cash flows from operating activities | | (12,584) | 7,537 |
| Acquisition of property, plant and equipment | | (254) | (2,566) |
| Acquisition of intangible assets | | (461) | (351) |
| Placement of Term deposits | | (10,376) | (31,614) |
| Cash flows from investing activities | | (11,091) | (34,531) |
| Changes in lease liabilities | | (4,671) | (5,045) |
| Changes in lease receivables | | 3,362 | 926 |
| Changes in short-term interest-bearing liabilities | | - | (39,376) |
| Changes in customer advances | | - | (3,606) |
| Distribution from GSMA Ltd | | 33,690 | 44,748 |
| Cash flows from financing activities | | 32,381 | (2,353) |
| Change in cash and cash equivalents | | 8,706 | (29,347) |
| Reconciliation: | | | |
| Cash and cash equivalents as at beginning of year | | 7,404 | 34,579 |
| Effect of exchange rate changes | | (402) | 2,172 |
| Balance in cash and cash equivalents as at end of year | | 15,708 | 7,404 |
| Change in cash and cash equivalents | | 8,706 | (29,347) |

GSM Association, Zurich Notes

1. Principles

1.1 General aspects

The company is an association, non-profit orientated, domiciled and incorporated in Switzerland, registered address c/o Kendris AG, Wengistrasse 1, 8004 Zurich. These annual financial statements were prepared according to the principles of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations). Where not prescribed by law, the significant accounting and valuation principles applied are described below. It should be noted that to ensure the company's going concern, the company may create or release hidden reserves.

The consolidated financial statements of GSM Association for the financial years ended on and before 31 December 2023 were regularly prepared and audited by non-local independent auditor who expressed an unmodified opinion on those consolidated financial statements. However, these consolidated financial statements were not audited by the statutory auditor as required by article 728a of the Swiss Civil Code of Obligations (CO).

1.2 Going concern

GSM Association is funded in part from membership fees collected by the UK branch and in part from the commercial activities conducted by GSMA Ltd group which includes holding conferences on an annual basis. MWC24 has recently concluded and was a very successful event. GSMA Ltd plans to run a full suite of events during 2024.

Historically, GSMA Ltd transfers surplus reserves to GSM Association. During the year ended 31 December 2023, total contributions from GSMA Ltd amounted to £30m (CHF 33,690k).

Based on the above factors, and the director's assessment of the Company's financial position, cash flow forecasts and key assumptions, the director's concluded that it is appropriate to prepare the financial statements of the Company on a going concern basis.

1.3 Property, plant and equipment

Property and equipment are stated at historical cost less accumulated depreciation and impairment losses. Depreciation is provided on a straight-line basis, so as to write off their cost less residual amounts over their estimated economic lives.

The Association's policy is to review the remaining economic lives and residual values of property and equipment on an ongoing basis and to adjust the depreciation charge to reflect the remaining estimated life and residual value. Fully depreciated property and equipment are retained in the cost of property and equipment and related accumulated depreciation until they are removed from service.

1.4 Intangible assets

Costs associated with the development and production of identifiable and unique software products controlled by the company and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Only external costs are capitalised. Computer software costs recognised as assets are amortised using the straight-line method over their estimated useful life.

1.5 Revenue from services

Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Revenue is recognised when a customer obtains control of goods or services in line with identifiable performance obligations. The majority of revenue for the Company continues to be recognised evenly over the course of the contract because this reflects the timing of the provision of the service. Members subscription income from members is included in the Income statement in the year to which the subscription relates.

1.6 Leases

As a lessee, leasing transactions are recognized in the balance sheet on a substance over form basis. For this, leasing agreements and rental leases are classified as finance leases if essentially all of the risks and benefits related to the ownership of the leased object have been transferred to the Company as the lessee. All other leasing transactions are considered operating leases. For finance leases the value of the leased or rented object is capitalized as 'Leased assets' (ROU assets) at the beginning of the contract; the same amount is recorded as leasing liability. The depreciation of ROU assets and the amortization of the leasing liabilities then take place over the leasing year. For operating leases, the rental and leasing rates paid are directly recognized in the income statement when they become due.

As a lessor the association classifies its leases as either operating or finance leases. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of the underlying asset, and classified as an operating lease if it does not. The association recognises lease payments received under operating leases as income on straight-line basis over the lease term as part of 'Other operating income'. For finance leases, the lessor derecognises the underlying asset and recognises a finance lease receivable at an amount equal to its net investment in the lease, which comprises the present value of the lease payments and any unguaranteed residual value accruing to the lessor.

GSM Association, Zurich

2. Information on balance sheet and income statement items

2.1 Trade accounts receivable

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|--|--------------|--------------|
| Receivables from third parties - gross | 1,448 | 1,262 |
| Less: Provision for doubtful debts | (438) | (580) |
| Receivables from third parties - net | 1,010 | 682 |
| Receivables from companies in which the entity holds an investment | 173 | 474 |
| Receivables from other group companies | 5,453 | 3,357 |
| Total | 6,636 | 4,513 |

2.2 Lease Receivables

As a lessor, all leases are classified as operating leases from a lessor perspective with the exception of a sub-lease, which the Company has classified as a finance sub-lease. The finance sub-lease is recognised as a finance lease receivable at an amount equal to its net investment in the lease, which comprises the present value of the lease payments and any unguaranteed residual value accruing to the lessor.

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---|--------------|--------------|
| Maturity analysis - contractual undiscounted cash flows | | |
| Due within one year | 2,082 | 3,404 |
| Due within 2 to 5 years | - | 2,174 |
| Total undiscounted lease receivable | 2,082 | 5,578 |
| Unearned finance income | 16 | 150 |
| Net investment in the lease | 2,066 | 5,428 |
| Balance sheet | | |
| Current | 2,066 | 3,271 |
| Non-current | - | 2,157 |
| Total | 2,066 | 5,428 |
| Income statement | | |
| Interest on Lease Receivables (Finance lease) | 133 | 239 |
| Income from sub-leasing (operating lease) | 876 | 858 |

GSM Association, Zurich

2. Information on balance sheet and income statement items

2.3 Leased assets & Lease liabilities

As a lessee, the Company leases office buildings for its office space. The leases of office space is for a year of two to ten years. Some leases include an option to renew the lease for an additional year after the end of the contract term. Some leases provide for additional rent payments that are based on changes in local price indices. The Company sub-leases some of its properties under operating leases.

Leased assets

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|--------------------------|--------------|--------------|
| Cost | 8,466 | 8,418 |
| Accumulated depreciation | (2,776) | (1,626) |
| Net book value | 5,690 | 6,792 |

Lease liabilities

The maturity of leasing obligations which have a residual term of more than twelve months or which cannot be cancelled within the next twelve months is show below. These amounts include payments related to rental or leasing contracts up to the end of their (a) contract period or (b) notice period, as applicable.

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---|--------------|---------------|
| Maturity analysis - contractual undiscounted cash flows | | |
| Due within one year | 3,297 | 4,693 |
| Due within 2 to 5 years | 4,443 | 6,569 |
| More than 5 years | 651 | 1,672 |
| Total | 8,391 | 12,934 |
| Balance Sheet | | |
| Current | 3,067 | 4,330 |
| Non-current | 4,640 | 7,644 |
| Total | 7,707 | 11,974 |
| Income statement | | |
| Interest on lease liabilities | 372 | 447 |

GSM Association, Zurich

2. Information on balance sheet and income statement items

2.4 Investments

The association ultimately holds 100% of its Group companies. Direct investments are in the following group companies:

| Company | Domicile | Capital in 1,000 | | Share in voting and capital rights, in % | |
|-------------------------------------|------------------------|------------------|-----------|--|-----------|
| | | 31-Dec-23 | 31-Dec-22 | 31-Dec-23 | 31-Dec-22 |
| GSMA S.R.L | Buenos Aires Argentina | CHF 2 | CHF 2 | 90.00 | 90.00 |
| GSMA Services India Private Limited | New Delhi India | CHF 152 | CHF 152 | 99.99 | 99.99 |

Indirect investments are in the following group companies:

| Company | Domicile |
|---|----------------|
| GSMA Conference Services Limited | United Kingdom |
| GSMA Limited | United States |
| GSMA MC LLC | United States |
| GSMA Event Project Management SL | Spain |
| GSMA Mobile For Development Foundation Inc. | United States |
| GSMA (Shanghai) Co Ltd | China |
| GSMA 4YFN Event Management | Spain |
| GSMA Advisory Services Ltd | United Kingdom |
| GSMA Ventures LLC | United States |
| GSMA Services LLC | United States |

2.5 Property, plant and equipment

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|----------------------------|--------------|--------------|
| IT equipment | 532 | 634 |
| Office equipment | 116 | 207 |
| Office furniture & fit-out | 1,511 | 2,264 |
| Total | 2,159 | 3,105 |

2.6 Intangible assets

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---------------------------|------------|--------------|
| Computer Software | 890 | 886 |
| Capital works-in-progress | - | 351 |
| Total | 890 | 1,237 |

Computer software include amount of CHF 351k software costs incurred for enhancing our Inforcentre which was capitalised during the year.

GSM Association, Zurich

2. Information on balance sheet and income statement items

2.7 Trade accounts payable

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---|---------------|---------------|
| Accounts payable due to third parties | 2,822 | 2,382 |
| Accounts payable due to companies in which the entity holds an investment | 538 | 195 |
| Accounts payable due to other group companies | 26,621 | 13,276 |
| Total | 29,981 | 15,853 |

Accounts payable due to other group companies

The Company mainly undertakes intercompany transactions with GSM Ltd. related to each party settling liabilities or collecting receivables for the other. Interest paid on the intercompany aggregate balances was CHF 2,309k and CHF 1,717k for the years ended 31 December 2023 and 31 December 2022 respectively. According to the restated Service agreement between GSM Association and GSMA Ltd, any funds received incur interest on the accumulated outstanding balance at 3.5% plus SONIA per annum.

2.8 Short-term interest-bearing liabilities

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|-----------------------------------|-----------|-----------|
| Loan due to other group companies | - | - |

On 24 March 2020, GSM Association entered into a Loan agreement with GSMA Ltd. to obtain loans to fund its cash flow requirement. In the year ending 31 March 21, GSM Association received CHF 32,487k and in the previous year a further CHF 6,171k. As per the Loan agreement, the interest rate was 5% per annum, calculated on the basis of a 360-day year comprised of twelve 30-day months. On 28 April 2022, GSM Ltd. waived the principal amount of the loan, and the accumulated interest was settled through Inter-company transaction.

2.9 Accrued expenses and deferred income

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|------------------|---------------|---------------|
| Accrued expenses | 16,593 | 13,674 |
| Deferred income | 10,498 | 12,256 |
| Total | 27,091 | 25,930 |

Deferred income mostly consists of Membership fees invoiced in advance.

2.10 Customer advances

Customer advances represents Membership fee billed and received in advance of 12 months from the reporting date.

GSM Association, Zurich

2. Information on balance sheet and income statement items

2.11 Retained Earnings / (Accumulated deficit)

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---|---------------|---------------|
| Opening Retained Earnings / (Accumulated deficit) | 10,431 | (107,434) |
| Surplus for the year | 7,467 | 115,975 |
| Currency translation differences | (712) | 1,890 |
| Closing Retained earnings | 17,186 | 10,431 |

2.12 Revenue from services

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|---|---------------|---------------|
| Members subscription revenue | 38,330 | 36,625 |
| Managed services revenue | 1,209 | 3,961 |
| Revenue from services - other group companies | 6,710 | 8,727 |
| Total | 46,249 | 49,313 |

2.13 Other operating income

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|-------------------------|------------|--------------|
| Grant Income | 36 | 844 |
| Sub-lease rental income | 804 | 541 |
| Total | 840 | 1,385 |

GSM Association, Zurich

3. Other information

3.1 Net release of hidden reserves

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|--------------------------------------|-----------|-----------|
| Total net release of hidden reserves | - | - |

3.2 Full-time equivalent employees

The annual average number of full-time equivalent employees for the reporting year, as well as the previous year, exceeded 250.

3.3 Contingent liabilities

There are no known contingent liabilities.

3.4 Audit fees

| CHF 1,000 | 31-Dec-23 | 31-Dec-22 |
|--|-----------|-----------|
| Audit services (consolidated financial statements) | 197 | 189 |

3.5 Significant subsequent events

The risk of lockdowns and restrictions on the events sector remains. The Company continues to monitor the environment and assess the potential exposure, the impact to customers and other key stakeholders and review business continuity plans as appropriate.

Contacts

Contact the GSMA



| GSMA Location | Address |
|---------------|--|
| Atlanta | 165 Ottley Drive NE, Suite 203, Atlanta, GA30324, USA |
| Barcelona | Avda. Reina Maria Cristina, s/n, Hall 1, 08004 Barcelona, Spain |
| Beijing | Level 24, Tower 3, China Central Place, 77 Jianguo Road, Chaoyang District, Beijing, China, 100025 |
| Brussels | Boulevard du Regent, 35, 1000 Brussels, Belgium |
| Buenos Aires | Av. Del Libertador 6810, 15th Floor, C1429BMO, Ciudad Autónoma de Buenos Aires, Argentina |
| Delhi | 11th Floor, Hindustan Times House, 18-20 KG Marg, Barakhamba, New Delhi, 110001, India |
| Hong Kong | 46/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay, Hong Kong |
| London | 1 Angel Lane, London, EC4R 3AB, UK |
| Nairobi | Floor 2, Delta Corner Annex, Ring Road, Westlands Lane, PO Box 45651-000100, Nairobi, Kenya |
| Shanghai | 1801, 18/F, Kerry Parkside Offices, 1155 Fangdian Road, Pudong, Shanghai, China, 201204 |

| Auditors | Bankers | Solicitors |
|---|--|--|
| KPMG LLP Chartered Accountants 15 Canada Square London E14 5GL | HSBC BANK PLC London Corporate Banking Centre Level 6, 71 Queen Victoria Street London EC4V 4AY, UK | HOMBURGER RECHTSANWÄLTE Prime Tower, Hardstrasse 201, 8005 Zurich, Switzerland |

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