



Capacity
Building

GSMA Capacity Building Programme Overview

Supporting policymakers and regulators with free courses, books and resources



Introduction	1
Courses	2
Mobile for Socio-Economic Development	3
Advanced Spectrum Management for Mobile Telecommunications	4
Children and Mobile Technology	5
Competition Policy in the Digital Age	6
Internet of Things	7
Principles of Internet Governance	8
Mobile Money for Financial Inclusion	9
Principles of Mobile Privacy	10
Radio Signals and Health	11
Mobile Sector Taxation	12
Weighing the Benefits of Universal Service Funds	13
Disaster Preparedness and Response	14
How We Deliver Our Training	16
Global Reach, Local Impact	20
Meet the Experts	28
The Mobile Policy Handbook	32
Contact Us	



Capacity Building: Training for the Future of Mobile Regulation

The GSMA is the global association of mobile network operators. In this role, it closely analyses policy and regulation related to mobile telecommunications and ICT, as well as the effects they have worldwide. The Capacity Building programme's in-house experts have used this knowledge to create high-quality training courses that highlight real-world examples of policy and regulatory best practice. Offered both as face-to-face classes and online courses, GSMA training helps keep policymakers and regulators abreast of current industry trends and how they affect the delivery of mobile services in countries around the world.

Mobile for Socio-Economic Development

On-site: 3 day course

Online: 6 week course

Course Overview

The potential of mobile technologies to enhance people's lives and generate economic value is unprecedented. Governments in every country have a responsibility to create the conditions that maximise the benefits for society.

This intensive course highlights the contribution that the mobile industry and mobile technologies make to the economy, and the wide range of mobile services that, particularly in developing countries, can transform people's lives. Participants will learn about regulatory best practices for the mobile sector, as well as practical steps that can accelerate the delivery and uptake of mobile-driven education, healthcare and financial services.

Course Objectives

- Understand the economic contribution of the mobile sector and the effects of government intervention.
- Learn how government can best support universal access to mobile.
- Learn how mobile technologies contribute to social welfare through health, education, financial inclusion and e-government.



Advanced Spectrum Management for Mobile Telecommunications

On-site: 2 day course

Online: 5 week course

Course Overview

This course considers the history and technical evolution of mobile telecommunications before moving on to cover the core functions of the spectrum manager. Participants will learn about how spectrum is used, the characteristics of spectrum bands and the progression of mobile technologies. The course also covers the principles of spectrum planning at a national, regional and international level. A deep dive into spectrum licensing will be followed by an overview of regulatory topics that relate to spectrum, such as infrastructure sharing, and numerous illustrative case studies.

Course Objectives

- Understand the processes and approaches to spectrum allocation and licensing.
- Learn how spectrum management is changing in an ever-evolving sector.
- Apply the concepts to one's own national spectrum conditions.

Children and Mobile Technology

On-site: 2 day course

Online: 3 week course

Course Overview

Children and young people are among the most avid users of mobile technologies, which can have a tremendously positive impact on their lives. Like any tool, however, mobile technologies can be used to cause harm, and parents, governments and industry have a role in protecting and supporting children who are connected. This course looks at the issue from several angles, including cultural differences regarding children's use of mobile devices, child online protection and whether regulation is necessary.

Course Objectives

- Learn what is known about children's use of mobile technologies.
- Acknowledge the benefits while mitigating risks for children.
- Understand the law related to online child sexual exploitation.
- Understand the role of regulation in child online protection.





Competition Policy in the Digital Age

On-site: 2 day course

Online: 5 week course

Course Overview

Competition in mobile telecommunications is multifaceted and dynamic. Regulatory authorities must be alert to rapid technological changes that impact infrastructure competition and the related downstream and upstream markets.

This course provides a foundation for understanding the rules of competition and the regulatory powers that apply to the telecommunications sector, within the background of a wider competitive landscape that now includes over-the-top players.

Course Objectives

- Understand the application of competition law as it applies to the telecommunications sector, especially abuse of dominance and merger control.
- Look at the interaction between competition law and regulation, especially Significant Market Power/Dominant Carrier regulation.
- Compare the treatment of the telecommunications sector in regulation and competition law with the situation in the wider communications ecosystem.

Internet of Things

On-site: 2 day course

Online: 4 week course

Course Overview

The Internet of Things (IoT) holds tremendous promise for citizens, consumers, businesses and governments. Referring to machines, devices and appliances of all kinds that are connected to the internet through multiple networks, IoT has the means to shrink healthcare costs, reduce carbon emissions, increase access to education, improve transportation safety and much more. This course provides a high-level overview of IoT concepts from a mobile perspective, outlines the role IoT can play in enhancing the quality of life of citizens and explains the key differences between traditional telecoms services and the IoT world. It also discusses the implications that IoT has for policymakers and regulators.

Course Objectives

- Understand the benefits IoT can bring to citizens, consumers and businesses.
- Learn about the key difference between IoT and traditional telecoms services.
- Discover the regulatory implications of IoT.



Principles of Internet Governance

On-site: 2 day course

Online: 4 week course

Course Overview

Internet governance is the development of shared principles, norms, rules, decision-making procedures and programmes that shape the evolution and use of the Internet. The policies and processes involved in internet governance have taken centre stage over the last several years and are of concern to all stakeholders engaged in internet issues. This course will provide an overview of internet governance through its history, institutions, processes and people.

The course discusses and analyses the actual or potential consequences of different policy approaches, including the multi-stakeholder model, which have been either adopted or proposed for internet governance at the national, regional and global level.

Course Objectives

- Understand the history, institutions and people involved in internet governance.
- Learn about the policies and processes involved in internet governance and how they are approached by different stakeholders.
- Apply the concepts to local, regional, national and international internet issues.

Mobile Money for Financial Inclusion

On-site: 1 day course

Online: 4 week course

Course Overview

Mobile money services are proliferating in many countries, providing 'unbanked' citizens with the ability to manage their money and make financial transactions efficiently and securely. While the business model has been proven through hundreds of self-sustaining services, many countries have only a nascent mobile money sector. Meanwhile, in mature markets the mobile money platform is now used to offer a broader range of financial and mobile-for-development services.

This course provides an in-depth look at mobile money services — how they work, the stakeholders involved and the regulatory enablers, as well as critical issues such as cross network interoperability.

Course Objectives

- Understand the value of mobile money services to individuals and society.
- Learn about the regulatory framework that is required, as well as the legal boundaries, for mobile money to flourish.



Principles of Mobile Privacy

On-site: 1 day course

Online: 4 week course

Course Overview

The growth of the mobile internet and converged services is creating new challenges related to the use and protection of people's personal information, as data flows between multiple parties, in real time, across geographic borders.

This course investigates the current state of mobile privacy, highlights research on consumer attitudes towards their privacy and examines current and emerging regulations around the world. The course also reviews the GSMA's universal mobile privacy principles, Privacy Design Guidelines for app developers and industry initiatives that give consumers more control over how their information is used.

Course Objectives

- Understand the facets of mobile privacy, data protection and consumer trust.
- Consider the role of mobile operators, internet content providers and consumers in respecting and protecting the privacy of consumers.
- Consider how regulation can be applied effectively to protect consumer privacy in a converged world.

Radio Signals and Health

On-site: 1 day course

Online: 4 week course

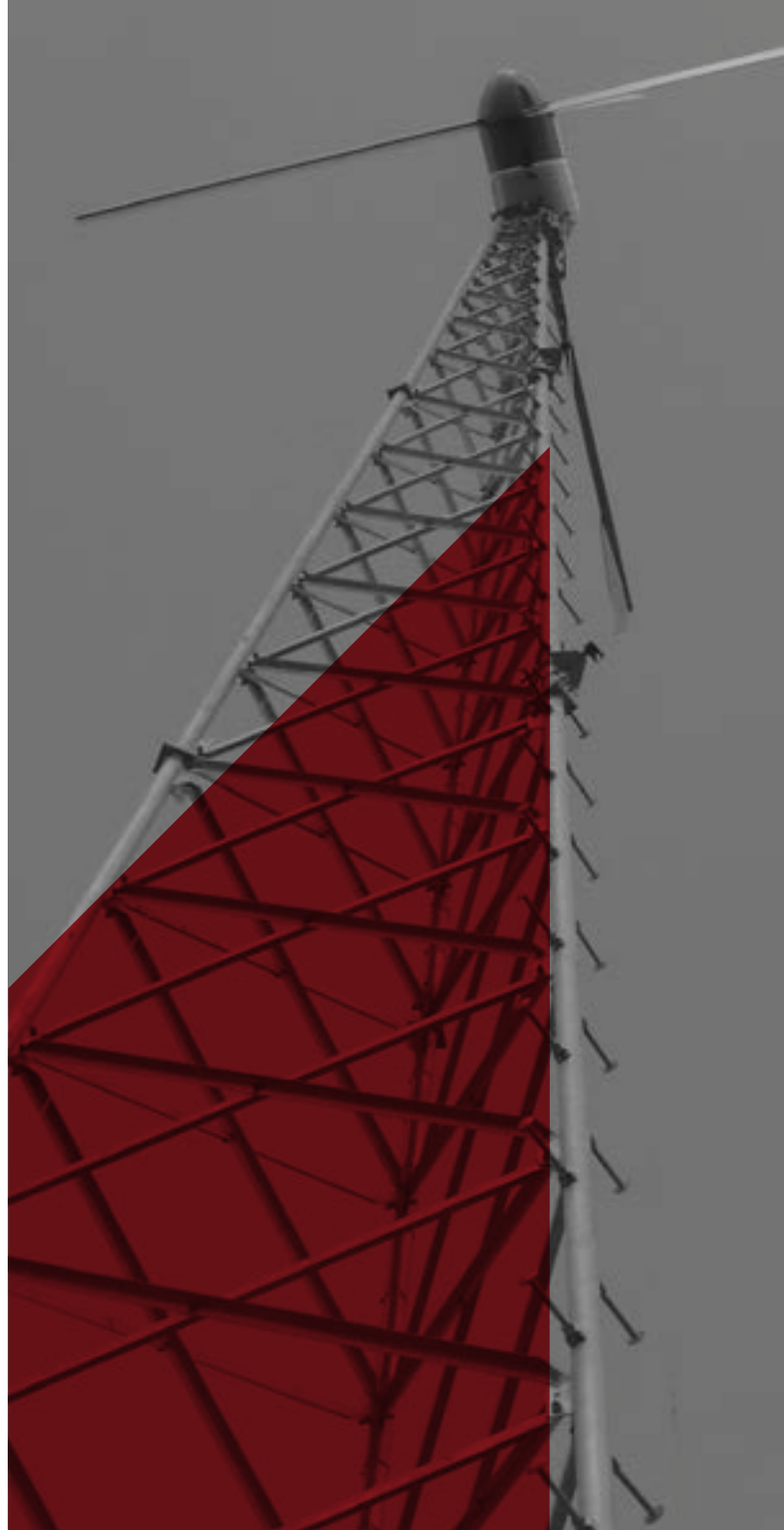
Course Overview

The effect of radio transmissions on health has been studied extensively, leading to international standards for network antennas and exposure limits for workers and the public.

Despite the ever-growing body of scientific knowledge, many people continue to be concerned about electromagnetic fields (EMFs) and their impact on health. This course looks at the state of the science, standards for mobile technologies, regulatory compliance and public awareness and education.

Course Objectives

- Understand public concerns and the accumulated knowledge about the health effects of EMFs.
- Learn about internationally accepted safety requirements for radio transmissions.
- Learn how to respond to public safety concerns and increase awareness of the science.





Mobile Sector Taxation

On-site: 1/2 day course

Online: 3 week course

Course Overview

In many countries, in a variety of ways, governments impose substantial taxes on the mobile industry – above and beyond standard corporate tax. Sector-specific taxation is never without consequences; for mobile operators, special taxes affect consumer prices as well as operators' ability to build and upgrade their networks. This course takes a critical look at mobile industry taxation, the outcomes thereof, and how telecoms regulators can affect the level of sector-specific taxation.

Course Objectives

- Learn about the principles of taxation.
- Understand the ways additional taxes are applied to the mobile industry.
- Learn how supplemental mobile sector taxation impacts consumers and society.
- Consider how over-taxation of the sector can be rolled back, to everyone's benefit.

Weighing the Benefits of Universal Service Funds

On-site: 1/2 day course

Online: 3 week course

Course Overview

Governments in many countries impose a levy on the mobile sector to fund network deployment in areas where the market conditions do not support commercial investment. While the ultimate objective of universal service is laudable, the results of this approach have been mixed. This course looks at the record of universal service funds (USFs) in achieving their objectives and considers alternative approaches to connecting the unconnected.

Course Objectives

- Understand the challenges involved in connecting the rest of society.
- Learn how countries around the world have used their USFs, and the outcomes for citizens.
- Consider alternatives to USFs that could be more effective.





Disaster Preparedness and Response

On-site: 1 day course

Online: 4 week course

Course Overview

Research into the role that mobile networks play in disaster response highlights the importance of providing access to critical communication and information for affected populations, as well as providing communication between these communities, humanitarian agencies and the international community. Recent emergencies, such as the Ebola crisis in West Africa and the earthquake in Nepal in April 2015, highlight the increasingly important role mobile plays during times of crisis. As mobile communication becomes ever more critical to the success of disaster response efforts, and as the ecosystem becomes more complex, there is a need for policymakers and regulators to better understand how they can support the benefits that mobile communication delivers during emergencies.

Course Objectives

- Understand how the inclusion of mobile in disaster response plans can help save lives and speed up recovery time during emergencies.
- Consider how aid is becoming increasingly digitised and the role mobile can play in this new environment of digitised aid.
- Learn how improved coordination between mobile operators, governments, regulatory authorities and the humanitarian response community is critical during times of crisis.
- Discover how regulators around the world are adopting flexible approaches to policy during emergencies to positively impact response efforts.

How We Deliver Our Training

Our courses are offered at low or no cost and are suitable for professionals at any stage of their careers.

Online

All of our courses are available online via the GSMA Capacity Building eLearning portal.

This provides students with ultimate flexibility and control over their own learning. The portal allows students to study our courses from anywhere in the world, anytime, from any mobile device and at their own pace.

Courses vary in length from three to six weeks and require a commitment of two to four hours per week. The course culminates with the assessment of a practical multimedia project. Participation is free of charge, subject to participation requirements and availability.

www.gsmatraining.com



Face-to-Face

The GSMA has formed strategic partnerships with reputable international and regional organisations around the globe in order to deliver face-to-face courses where they are needed the most and at a convenient location for learners.

The face-to-face courses vary in length from a half day to three days and can also be delivered on-site at your organisation.

Supporting policymakers and regulators with free courses, books and resources.

Global Reach, Local Impact

We have trained students from over 95 countries



The GSMA has trained students from over 95 countries around the world, providing insights into the latest industry, policy and regulatory thinking.

We help local policymakers and regulators positively shape the development and reach of mobile services in their country and provide guidance on how to leverage mobile broadband to enable digital and financial inclusion for citizens.

Our Partners include



United States Telecommunications Training Institute







“ This course provided the information
I needed to be more effective in my
everyday duties. ”

Radio Signals and Health student, Zambia



Meet the Experts

“

The trainer had excellent knowledge of the field and participation and sharing knowledge was encouraged.

”

Advanced Spectrum Management for
Mobile Telecommunications student, Pakistan

**WLADIMIR BOCQUET**

Head of Policy Planning –
Regulatory and Government
Affairs, GSMA

Wladimir provides public policy analysis and recommendations to the GSMA executive team and offers a strategic view of global policy trends to GSMA members. Previously at the GSMA, he was Senior Director of Spectrum Policy, responsible for building consensus on spectrum policy positions and promoting best practice in spectrum management.

In addition to his GSMA responsibilities, Wladimir also serves as a lecturer for the US Telecom Training Institute (USTTI) and other international training bodies.

Wladimir earned a degree in telecommunications from Telecom Bretagne (Ecole Nationale Supérieure des Télécommunications de Bretagne, France) and a doctorate from the University of Kyoto, Japan. ▲

**ROBERTO ERCOLE**

Senior Director of Spectrum,
GSMA

Roberto is a Chartered Engineer in Europe, specialising in mobile radio systems and radio spectrum regulation. He graduated with a degree in Applied Physics in 1988, and a Masters in Electronic Engineering in 1990. He also has a post graduate certificate in EU and UK Competition Policy and Law.

Roberto has assisted governments in developing spectrum liberalisation policies and in helping to promote competition in mobile markets by encouraging new entrants. He headed-up the GSMA's promotional campaigns at WRC07 and 12 to secure global spectrum for IMT/mobile broadband. ▲

**LARA GIDVANI**

Mobile Money Regulatory
Specialist, GSMA

Lara is the Regulatory Specialist for Asia for the Mobile Money Programme. Based out of Mumbai, she supports mobile network operators to address regulatory barriers and engage with regulators to develop mobile money deployments.

Previously, Lara worked as a consultant at Bankable Frontier Associates. In this role she focused on assessing the regulatory landscape for new mobile payment products. This involved investigating the linkages between financial inclusion, stability, integrity, and consumer protection, and developing the strategies, structures and measurement frameworks to institutionalise financial inclusion as a policy objective. ▲

**MORTIMER HOPE**

Director of Africa, GSMA

Mortimer joined the GSMA in July 2014 as the Director of Africa, based in the GSMA Africa office in Nairobi. He is responsible for developing and disseminating GSMA public policy in areas such as spectrum, infrastructure sharing, international mobile roaming and taxation. This involves working with various stakeholders such as operators, regulators and government departments across Africa.

Mortimer holds a Master of Science Degree in Telecommunications from the Moscow Technical University of Communications Technology and Informatics, and an MBA from the University of Pretoria. He is registered as a Professional Engineer with the Engineering Council of South Africa and is a Fellow of the South African Institute of Electrical Engineers. ▲

**JENNY JONES**

Public Policy Director, GSMA

Jenny is responsible for the GSMA's mYouth programme, which is concerned with children's use of mobile phones, and encouraging the safe and responsible use of mobile devices and services. She also leads the Mobile Alliance Against Child Sexual Abuse Content. Previously, she worked for Vodafone Group and Spectrum Strategy Consultants. She holds a BA in Modern Languages from the University of Oxford. ▲

“The case studies were particularly useful in illustrating practical applications for how mobile technology can transform lives.”

Mobile for Socio-Economic Development student, Kenya



DOMINIQUE LAZANSKI
Public Policy Director, GSMA

Dominique works on cyber security policy and internet governance for the GSMA and also leads the GSMA's Internet Governance Task Force. Previously, she worked for Yahoo!, eBay and Apple in the US, and more recently for the Taxpayers' Alliance in the UK.

She holds a BA from Cornell University, an MSc in Information Systems Management from the London School of Economics and a second master's degree from the University of Bath. ▲



EMANUELA LECCHI
Head of Competition, GSMA

As Head of Competition at the GSMA, Emanuela closely tracks developments in competition law and regulation. Prior to joining the GSMA, she was a partner at a leading law firm in London. In this role she advised governments, regulators, competition authorities and corporate clients on matters of competition law and regulation. This work included acting as an advisor to the Government of the Commonwealth of The Bahamas and the Telecommunications Regulatory Authority of Bahrain, as well as providing training courses to Ofcom, the UK's communications regulator.

A lawyer by background, she also has an MSc in Economic Regulation and Competition from City University London and from 2006 to 2015 she was a visiting lecturer, teaching the legal module of that MSc. ▲


NIALL MAGENNIS

Content Director, GSMA

Niall works with subject matter experts within the GSMA to develop and manage the content for all of the GSMA's Capacity Building training courses. He also serves as a trainer for courses on Mobile for Socio-Economic Development and the Internet of Things.

Further to this, Niall compiles and edits the GSMA's Mobile Policy Handbook, the publication which details all of the GSMA's public policy positions. Before joining the GSMA, Niall worked as a freelance journalist covering developments in the technology sector for many of the world's leading magazines and newspapers. He holds a BA in Journalism, Film and Broadcasting from the University of Wales. ▲


MANI MANIMOHAN

Public Policy Director, GSMA

Mani is a versatile tech product and public policy strategist with more than 15 years of experience. As Public Policy Director at GSMA, he focuses on the business and regulatory drivers impacting the mobile telecoms industry, developing and communicating the industry thinking on tech and digital public policy to governments, institutions and other stakeholders. Mani has worked with major technology vendors, start-ups, consultancies and a regulatory authority leading initiatives. He has in-depth knowledge and experience of a broad range of public policy areas including market reviews, price regulation, net neutrality, taxation, universal service funds and broadband and network infrastructure models.

Mani is a Master's Scholar with a First Class Honours degree and a Doctorate in Engineering from the University of Cambridge. ▲


MATTHEW BLOXHAM

Head of Connected Society, GSMA

Matthew is Head of the GSMA's Connected Society Programme which supports the industry's ambition to connect everyone to the mobile Internet. Matthew has over 20 years' experience working in the telecom sector as a consultant, investment analyst and strategic advisor for mobile, fixed-line, cable and data centre businesses.

Matthew joined the GSMA in May 2014, initially leading public policy programmes on a range of issues including net neutrality, level playing field and competition. Previously Matthew spent 14 years in the financial services industry as an investment analyst with Deutsche Bank and Goldman Sachs and started his career in strategy consulting with PA Consulting Group and Arthur Andersen (now Deloitte). ▲

“The content as well as the overall scope of the course was very interesting and relevant.”

Competition Policy in the Digital Age student, UAE



BRIAN MUTHIORA

Mobile Money Regulatory Specialist, GSMA

Brian is the GSMA Mobile Money Regulatory Specialist based in Nairobi. In this role he provides tailored support to mobile operators in the Sub-Saharan Africa and MENA regions, helping them find solutions to the regulatory barriers inhibiting the growth of their mobile money services.

Brian is a regulatory practitioner with over 13 years of corporate experience spanning converged telecommunications and digital financial services. He joined the GSMA from Safaricom where he spent five years providing legal and regulatory support for M-PESA and contributed to the development of Kenya's digital financial services regulatory framework.

Brian is an Advocate of the High Court of Kenya and holds LLB and LLM degrees. ▲



STEFANO NICOLETTI

M2M Regulatory Manager, GSMA

Stefano is the M2M Regulatory Manager within the Connected Living Programme at the GSMA.

Stefano works closely with member companies and ecosystem stakeholders to identify priorities, execute activities and communicate findings with a particular focus on policy and regulation. His objective is to stimulate growth and innovation in connected Internet of Things services.

Prior to this, Stefano was a principal consultant and analyst specialising in telecoms regulatory policy.

He holds an MSc from the University of Siena and a BSc in Economics from the University of Florence. ▲

**VIKRAM RAVAL**

Regulatory & Public Policy
Consultant, GSMA

Vikram is a communications regulatory and policy specialist, with a focus on a range of international telecoms regulatory matters. With over 15 years telecoms experience, Vikram has worked across a range of telecoms communications sectors – fixed and mobile, business and consumer.

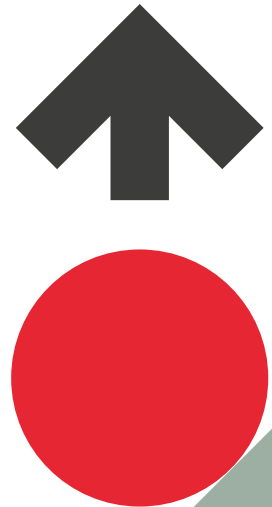
He has previously worked for mobile operators Orange, Verizon and Lebara Group. At the GSMA he covers a range of subjects in international mobile regulation including International Roaming, Taxation, Trade and ITU with a focus on developing markets in Africa, the Arab States and Asia. ▲

**JACK ROWLEY**

Senior Director Research &
Sustainability, GSMA

Jack leads radiofrequency safety and environmental activities within the GSMA's Public Policy department. He has more than 25 years of experience in the telecommunications industry and is the author of over 100 publications on mobile communications safety.

He holds an Electronics Engineering degree with a First Class Honours from the University of Limerick (Ireland) and a PhD from the RMIT University (Australia). Jack is also a member of the Bioelectromagnetics Society and a senior member of the IEEE. ▲





YIANNIS THEODOROU

Senior Manager Regulatory & Public Policy, GSMA

Yiannis is responsible for managing a number of regulatory and public policy initiatives, currently focusing on mobile privacy and data protection. He has been leading the GSMA's research programme on consumer privacy and developed toolkits for GSMA members outlining issues and good practice in areas such as Big Data, the Internet of Things and prepaid SIM card registration. Yiannis has represented the GSMA at various forums globally, promoting the GSMA's self-regulatory initiatives and engaging with industry stakeholders.

Before joining the GSMA, Yiannis worked as a Strategy Associate at Ofcom, where he gained 5 years of experience in strategy and regulatory policy in the fixed, mobile, internet and TV sectors. Yiannis holds a post-graduate degree in management and a law degree. ▲



RONDA ZELEZNY-GREEN

Senior Digital Learning & Training Manager, GSMA

Ronda manages and leads training through the Capacity Building programme's eLearning portal, and serves as an on-site trainer for the Mobile for Socio-Economic Development and Children and Mobile Technology courses. She has more than 10 years of face-to-face and online teaching and training experience, and has worked with learners on five continents and across all education levels. At the GSMA, Ronda is also the in-house expert in mobile learning and training. Formerly, she was a Mobile Telecommunications Analyst with regional expertise in Sub-Saharan Africa and subject matter expertise in public policy and gender.

Ronda holds an MA in Applied Linguistics from the University of Massachusetts – Boston, and an MSc in Practising Sustainable Development with ICT4D specialism from Royal Holloway, University of London. ▲

The Mobile Policy Handbook

A country's citizens benefit most when the private and public sectors work together in a spirit of openness and trust. The GSMA is committed to supporting governments and regulators in their efforts to introduce pro-investment telecommunications policies.

The Mobile Policy Handbook: An Insider's Guide to the Issues is a window into industry perspectives, a signpost to regulatory best practice and a portal to more information.

To download the 2016 Mobile Policy Handbook visit: <http://mph.gsma.com/publicpolicy/download-mph>





Spectrum Management and Licensing

Data traffic on mobile networks is skyrocketing as consumers and businesses use smartphones, tablets, laptops and other devices to access email and entertainment, mapping and messaging, browsing and banking, as well as social networking and sharing services. As the recent Internal of Things industry grows, it too will place significant extra demand on mobile data services.

To meet this explosion in demand, mobile operators need more spectrum. Sufficient, interoperable harmonised spectrum is essential to ensuring the quality of service that consumers and businesses have come to expect, and rely on, from mobile networks.

The GSMA is very active at the national, regional and global levels to

advocate for the timely identification and release of more spectrum for mobile broadband. In this regard, we work with national governments and regulators, with regional organisations and the International Telecommunication Union (ITU).

The GSMA also serves as a clearinghouse for sector research and market data. Because spectrum management has many facets – including issues such as interference, spectrum auctions and licence processes – the GSMA contributes on behalf of mobile operators to the work of regulators with market projections, analysis, regulatory guidance and policy recommendations based on objective data and recognised best practice. Many of these reports are referenced in this handbook.

18

Mobile Innovations

Mobile Policy Analysis

Mobile Health and IoT

Background

The pressures on healthcare systems have never been greater, due to factors including rising expectations, aging populations and particularly in emerging economies, the combined challenges of rising prevalence and increasing incidence of chronic illness. Mobile health systems provide an opportunity to help healthcare providers deliver faster and more efficient healthcare, increasing access to health care and empowering individuals to manage their own health more effectively.

According to a 2010 report by PWC, mHealth could save over one million lives in sub-Saharan Africa over the next five years and the use of Internet of Things (IoT) technology in healthcare could reduce healthcare costs to €39 billion in the European Union and add €150 billion to the region's gross domestic product by 2031.

Many mobile health practitioners have gained acceptance and are being widely adopted. The market is developing and this growth is accompanied by a rapid increase in the number of solutions that potentially offer new modalities of care. Greater considerations is therefore being given to the role of implementation frameworks that will govern their promotion and use.

Public Policy Considerations

Use cases for mHealth solutions are varied, from medical devices that collect patient data to applications that deliver health services and information. At such times, there is a wide range of potential regulatory touch points.

Although stringent progress has been made over the last few years, there is an ongoing need for clarity in policy and regulation related to mHealth to ensure safety, promote confidence among patients and healthcare professionals, and provide industry with sufficient certainty to bring new products and services to the market.

Policy issues include:

Patient-centric healthcare. Developing policies that promote patient-centred care and assist autonomy to help drive mHealth adoption.

Access. Promoting initiatives to integrate health services into widely available systems and open pathways to encourage the development of reimbursement schemes that reward health outcomes and support innovation.

Implementation. Building end-to-end and establishing government programmes to enable large-scale implementations of mHealth solutions.

System, Interlink and Interoperability

Promoting interoperability and standards that support scalability and a plug-and-play capability.

Regulatory themes include:

Medical devices. Developing and implementing clinical and proportionate regulatory frameworks that aim to ensure patient safety while stimulating innovation.

Consumer use - Telehealth

The diagram illustrates the relationship between Embedded mHealth, Clinical-Telemedicine, and Patient-Centric Healthcare. It features a central box labeled 'Patient-Centric Healthcare' with a red arrow pointing to it from 'Embedded mHealth' (top) and 'Clinical-Telemedicine' (left). A red arrow also points from 'Patient-Centric Healthcare' to 'Data' (right). Below 'Patient-Centric Healthcare' are three boxes: 'Connected devices', 'Mobile device', and 'Interconnection'. A red arrow points from 'Connected devices' to 'Mobile device', and another from 'Mobile device' to 'Interconnection'. A red arrow points from 'Interconnection' to 'Data'. A red arrow points from 'Data' to 'Embedded mHealth'.

Source: PwC Consulting Group

Resources:

- GSMA Report to European Commission Green Paper on mHealth
- GSMA Future Statement of the Healthcare Coalition on Data Protection
- GSMA Report: Future Medical Device Regulation
- PWC: Realising the benefits of mobile-enabled IoT solutions
- GSMA Report: Potential of Mobile Health Solutions to Address Chronic Diseases Challenges
- GSMA View: Transforming Healthcare with an Embedded Mobile
- PwC Consulting Group: Policy and Regulation for Innovation in the Health
- PWC Report: Socio-Economic Impact of mHealth, B2B and B2C
- PWC Report: Socio-Economic Impact of mHealth, B2B and B2C

45

47

Policy for Development

Mobile Policy Handbook

Women and Mobile

Background

Mobile phones provide direct benefits to women, including helping them to tell safer, more independent and more interesting mobile stories. Mobile also improves women's access to educational and employment opportunities.

However, women are currently underrepresented in terms of ownership and usage of mobiles, according to a recent 2009 study¹ commissioned by the GMA, over 17 billion females in low- and middle-income countries do not own a mobile phone. Even those women who do own a mobile tend to use it less frequently and more conservatively than men, especially for more sophisticated services such as mobile internet and mobile money.

This gender gap can be attributed to a number of factors including the cost of handsets and services, network coverage, content availability and user environment, as well as a lack of technical literacy. Social norms are also an issue and women are less likely to be asked to acquire a mobile phone and related services.

Programme Goals

The GMA's Connected Women programme works towards the greater inclusion of women at all levels of the mobile industry chain, to help ensure they can take advantage of the many socio-economic benefits that mobile devices offer. It has a specific focus on closing the gender gap in mobile connectivity and the use of mobile money services.

The programme aims to equip mobile network operators and their partners with the knowledge needed to take action to reduce the gender gap in these areas and encourage barriers to women's use of mobile phones. It also focuses on the greater inclusion of women as leaders in the mobile industry.

Public Policy Considerations

Policy makers and regulators can adopt many strategies to ensure women are not excluded from the benefits of mobile. For example, it is important to ensure appropriate policy and regulatory is in place to lower cost and access barriers for customers. This can be achieved by reducing mobile specific taxes, supporting voluntary infrastructure sharing among licensed operators, and relaxing sufficient spectrum at affordable cost.

Furthermore, governments can consider strategies for increasing mobile and digital skills needed to school curricula or the introduction of training institutions. It may also choose to support access to legal or mobile phone services through campaigns or target policy frameworks.

Data on women's mobile phone access and usage, and on ICT use in the community is not widely available or tracked in many low- and middle-income countries. Without data, policy-makers and the industry cannot make informed decisions to help improve women's access to,

and use of, mobile phones. To address this, policymakers can consider options to track mobile access and use by gender, along with other CS, in national statistics databases.

Women are also under-represented in the technology sector as employees and leaders. This is important as the technology sector is a high-growth field, with its importance to countries' innovation, growth and economic development increasing in global markets. Women today compose 40 per cent of the global workforce and account for more than half of university graduates, yet we see only three to five per cent of senior positions in technology being held by women².

Developing and supporting policies or schemes to address this under-representation is important and it has a measurable economic cost. For example, according to a 2015 European Commission survey on women in ICT, organisations in Europe that have implemented a senior management portfolio gendered at 35 per cent higher return on equity, while female employment/ capital provided an annual economic boost of €9 billion.

¹ Global Connected Women, Bridging the Gender Gap in Mobile Access and Use in Connected Economies, 2009

² "Measuring Gender Equality in the ICT Sector," 2015 European Commission Survey on Women in ICT

Resources

GMA Connected Women Website

Report: Bridging the Gender Gap: Mobile Access and Use in Low- and Middle-Income Countries

Report: Accelerating Digital Inclusion: Empowering women and girls in the mobile industry

Report: Accelerating the digital economy: Gender diversity in the telecommunications sector

24

25

Appendix

Mobile Policy Handbook

Unique subscriber penetration by region

Source: CDA Intelligence

The global unique subscriber base grew by 5.0 per cent during 2014; growth is forecast to continue, but at a slower rate of 3.9 per cent in 2015. However, this growth is far from uniform across the regions of the world. Growth is now largely coming from developing markets, which are forecast to add nearly 900 million subscribers over the next six years, compared to only 50 million new additions in developed markets over the same period.

Unique subscriber penetration rates vary significantly across regions. Europe has the highest penetration rate on average, followed by North America and then the Commonwealth of Independent States. Sub-Saharan Africa had the lowest penetration rate at the end of 2014 at 38 per cent of the population, despite having seen the fastest subscriber growth of any region over the past decade.

Four donut charts illustrating unique subscriber penetration rates by region for 2014 and 2015 forecasts:

- Europe:** 81.0% (2014), 79.7% (2015)
- CIS:** 63.1% (2014), 63.1% (2015)
- N.America:** 72.2% (2014), 72.2% (2015)
- Latin America:** 55.1% (2014), 55.1% (2015)
- Middle East & Africa:** 38.0% (2014), 46.0% (2015)
- Asia Pacific:** 58.0% (2014), 64.7% (2015)

Mobile operator group global ranking by connections Q1 2015

Source: CDA Intelligence, company reports

A horizontal bar chart showing the global ranking of mobile operator groups by connections as of Q1 2015. The x-axis represents millions of connections, ranging from 0 to 900. The y-axis lists the operator groups. China Mobile leads with approximately 840 million connections, followed by Vodafone Group (~440M) and Bharti Airtel Group (~420M).

Operator Group	Connections (millions)
China Mobile	~840
Vodafone Group	~440
Bharti Airtel Group	~420
China Unicom	~380
Telenor Group	~370
T-Mobile Group	~360
Airtel India Group	~340
Vodafone Idea Group	~330
Telcel Group	~320
China Telecom	~310
MTN Group	~300
Orange Group	~290
Sao Cellular	~280
Deutsche Telekom Group	~270
Telkom Indonesia	~260
Telkomsel Group	~250
Telefonika Group	~240
LettinCell Group	~230
Victron Wireless	~220
Eritel Group	~210
Comcast Group	~200
AT&T Group	~190

Mobile connections (hundreds of millions)

222

223

“

I like the fact that the course enlightened
me about what's happening internationally
with privacy and data protection.

”

Principles of Mobile Privacy student,
St. Vincent and the Grenadines





Contact Us

About the GSMA

The GSMA unites nearly 800 operators with more than 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors.

The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences.

For more information

Visit: www.gsma.com/publicpolicy/capacitybuilding or www.gsmatraining.com

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