



About the GSMA



THE GSMA
WAS FOUNDED
IN
1987



The GSMA
represents
the interests
of mobile
operators
worldwide

12 OFFICES WORLDWIDE:



LONDON



DUBAI



ATLANTA



BRUSSELS



BARCELONA



HONG KONG



BRASILIA



BUENOS AIRES



SAO PAULO



NAIROBI



NEW DELHI



SHANGHAI

The GSMA works to deliver a regulatory environment that creates value for consumers by engaging regularly with:



MINISTRIES
OF TELECOMS



TELECOMS
REGULATORY
AUTHORITIES



INTERNATIONAL &
NON-GOVERNMENTAL
ORGANISATIONS

UNITING NEARLY
800
MOBILE
OPERATORS

WITH
300+
COMPANIES
in the broader mobile ecosystem

CONNECTING
27,000+
Industry Experts

Exclusively for GSMA Members, InfoCentre² is your place to connect with a global community of industry experts



The world's leading mobile industry events, Mobile World Congress and Mobile World Congress Shanghai, together attract

130,000+
people from across the globe each year

GSMA Working Groups provide frameworks and standards in commercial, operational and technical matters that help maintain and advance mobile industry ecosystems



**7.5
BILLION+**
MOBILE CONNECTIONS
WORLDWIDE



Capacity
Building

A photograph of a young man with dark hair and glasses, wearing a grey t-shirt, smiling while looking at a black smartphone he is holding in his hands. The background is blurred green foliage.

An Introduction to Capacity Building

© GSM Association 2017



Capacity Building Training Courses

Reaching out to policymakers
and regulators.



Policymakers and regulators play a key role in shaping the way the mobile industry responds to key issues.



As the global association of mobile network operators, the GSMA closely tracks changes in technology, policy and regulation worldwide.

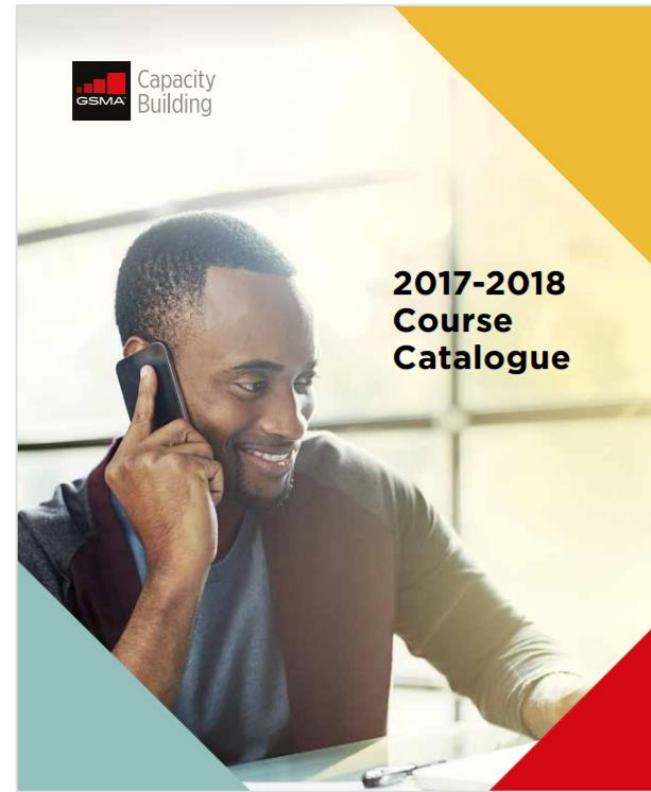


Using this knowledge, we have created a range of high-quality, short training courses to offer insights into the latest industry, policy and regulatory thinking.



In-depth courses developed by experts

Course Title	Duration
Advanced Spectrum Management for Mobile Telecoms	2 Days
Children and Mobile Technology	2 Days
Competition Policy in the Digital Age	1 Day
Disaster Preparedness and Response	1 Day
Internet of Things	2 Days
Leveraging Mobile to Achieve SDG Targets	2 Days
Mobile for Socio-Economic Development	3 Days
Mobile Money for Financial Inclusion	1 Day
Mobile Sector Taxation	½ Day
Principles of Internet Governance	2 Days
Principles of Mobile Privacy	1 Day
Radio Signals and Health	1 Day
Weighing the Benefits of Universal Service Funds	½ Day
Women and Mobile	1 Day





How we deliver our training

The GSMA recognises that organisations, departments and individuals have varying training needs, which is why we can deliver our courses in a number of ways:



Via local partners



On-site



Online



Global Reach, Local Impact

- We have trained students from over 120 countries around the world, providing insights into the latest industry, policy and regulatory thinking.



Key Training Partners:



United States Telecommunications Training Institute





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For more information



www.gsma.com/publicpolicy/capacitybuilding
www.gsmatraining.com



capacitybuilding@gsmab.org





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Mobile for Socio-Economic Development in Asia Pacific

- Pat Walshe, GSMA



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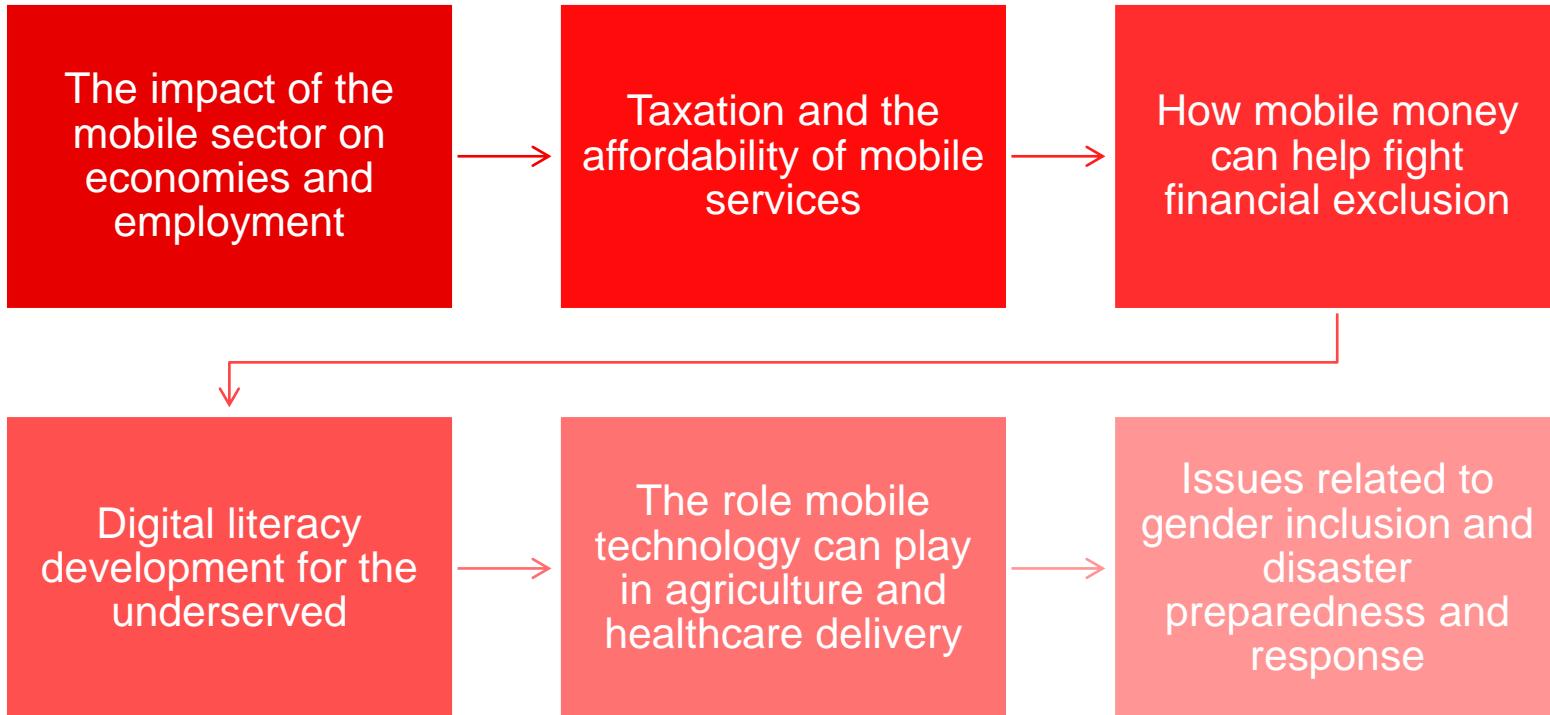


Introductions



Welcome

This course looks at the many ways mobile delivers socio-economic value.





Course Objectives

Day 1 – Discover how mobile drives economic growth and delivers socio-economic benefits

Day 2 – Learn how Agriculture, Health, Connected Women, and Disaster Response can make a difference in the lives of people living in Asia-Pacific



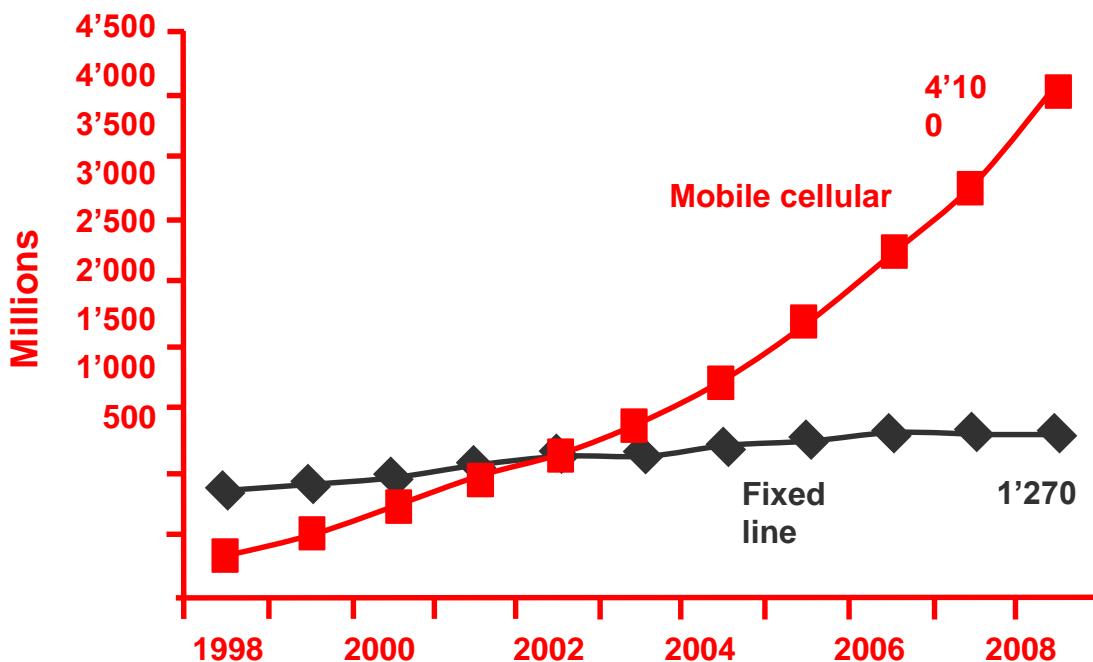
Session 1: Mobile as a Driver of Economic Growth

- The impact of mobile on the economy and employment
- An overview of research on the impact of mobile
- Regional case studies



Mobile technology is a huge success story

Mobile Cellular Subscriptions and Fixed Line Subscribers

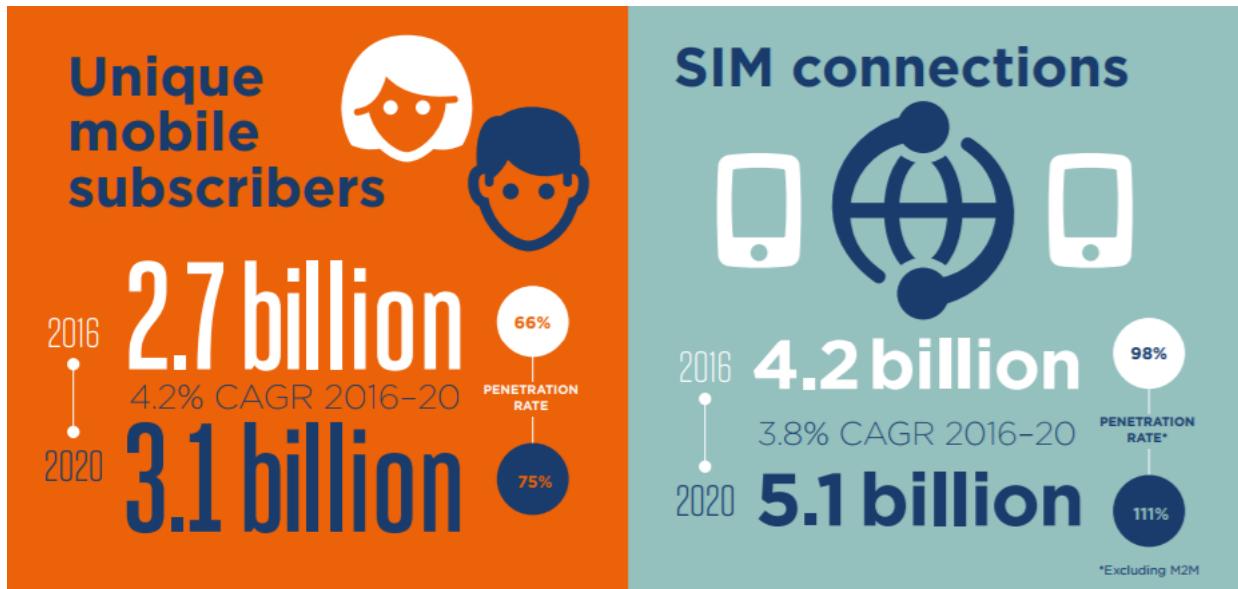


- Even though the first mobile phone network was only built in 1979, data from the International Telecommunication Union (ITU) shows that the number of mobile subscribers had overtaken the number of fixed-line subscribers by 2002
- Mobile technology is still growing and continues to enhance people's lives in a multitude of ways

Source: ITU



Asia Pacific (APAC) leads in both mobile subscribers and connections



Source: GSMA, The Mobile Economy Asia Pacific (2017)

- Although the region has reached its peak in terms of subscriber growth, Asia Pacific will account for almost two thirds of new subscribers globally by 2020, with most of the incremental growth coming from the two dominant markets, India and China.



Asia Pacific showing rapid migration to mobile broadband networks

Figure 3

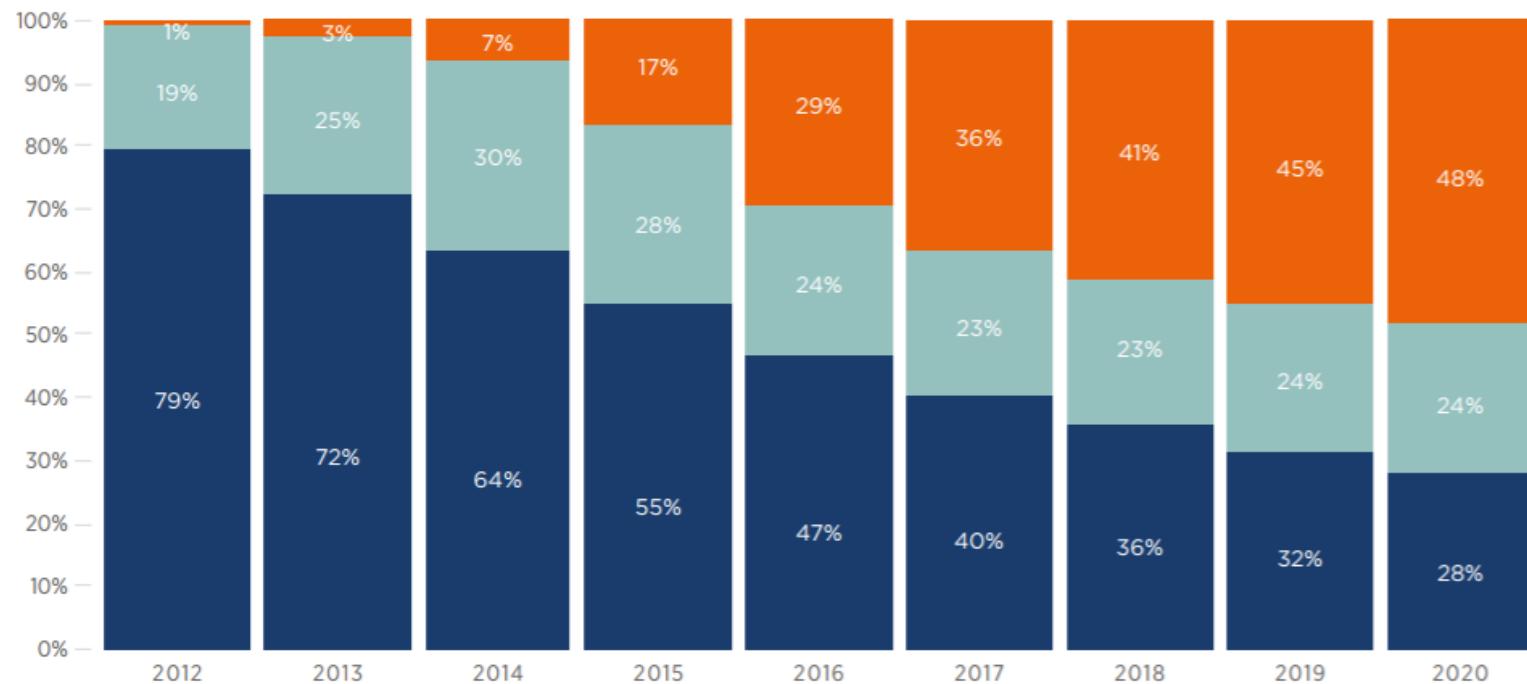
Source: GSMA Intelligence

Technology migration in Asia Pacific

Percentage of connections

2G 3G 4G

Source: GSMA, The Mobile Economy Asia Pacific (2017)



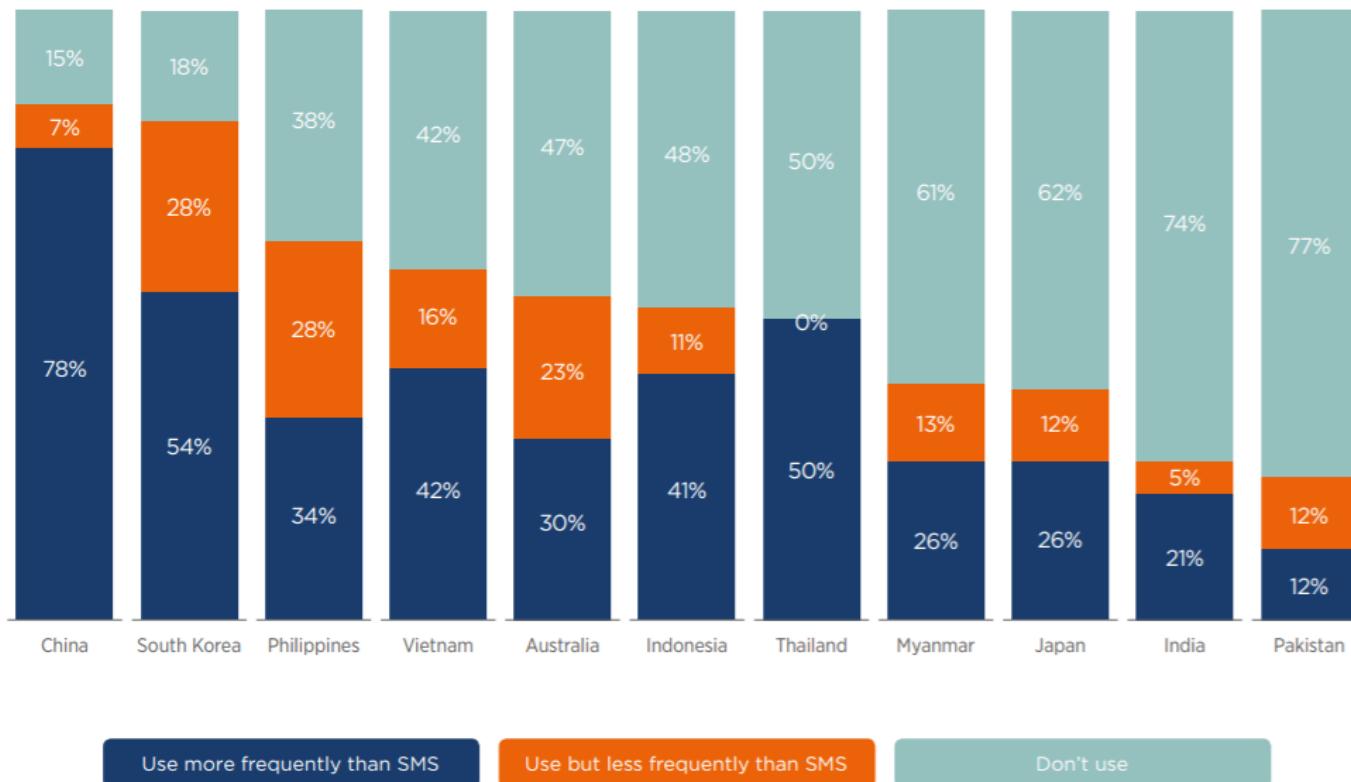


Advanced services leading to data growth

Figure 5

Source: GSMA Intelligence Consumer Survey 2016

IP messaging in Asia Pacific



Source: GSMA, The Mobile Economy Asia Pacific (2017)



An overview of research on the impact of mobile

The GSMA and a number of other organisations have carried out assessments of the socio-economic impacts of the mobile industry.





Research shows positive impacts

The World Bank

- Mobile broadband has a higher positive economic impact than fixed line broadband, particularly in emerging markets
- A 10% increase in mobile broadband penetration drives a 1.4% increase in GDP for low-to-middle income countries

Source: World Bank analysis



The power of mobile and data

Increased mobile penetration and data usage reaps rewards.

A 10% increase
in mobile
penetration
increases
productivity by
4.2%

10 more phones
per 100 people
increases GDP
per capita
growth by up to
1.2%

A 10% increase
in 3G
penetration
increases GDP
per capita
growth by 0.15%

A doubling of
mobile data use
leads to an
increase in GDP
per capita
growth of 0.5%

Sources: GSMA, Deloitte, What is the impact of mobile telephony on economic growth? (2012)
Waverman, Meschi and Fuss, The impact of telecoms on economic growth in developing countries (2005)



Mobile broadband uplift

Mobile broadband brings huge benefits to economies:

A 10% increase in the penetration of broadband services in low and middle-income countries accelerates economic growth by 1.38%

A 10% increase in broadband household penetration delivers a boost to a country's GDP that ranges from 0.1 to 1.4%

A 10% increase in broadband penetration translates into a 1.5% increase in a country's labour productivity over the following 5 years

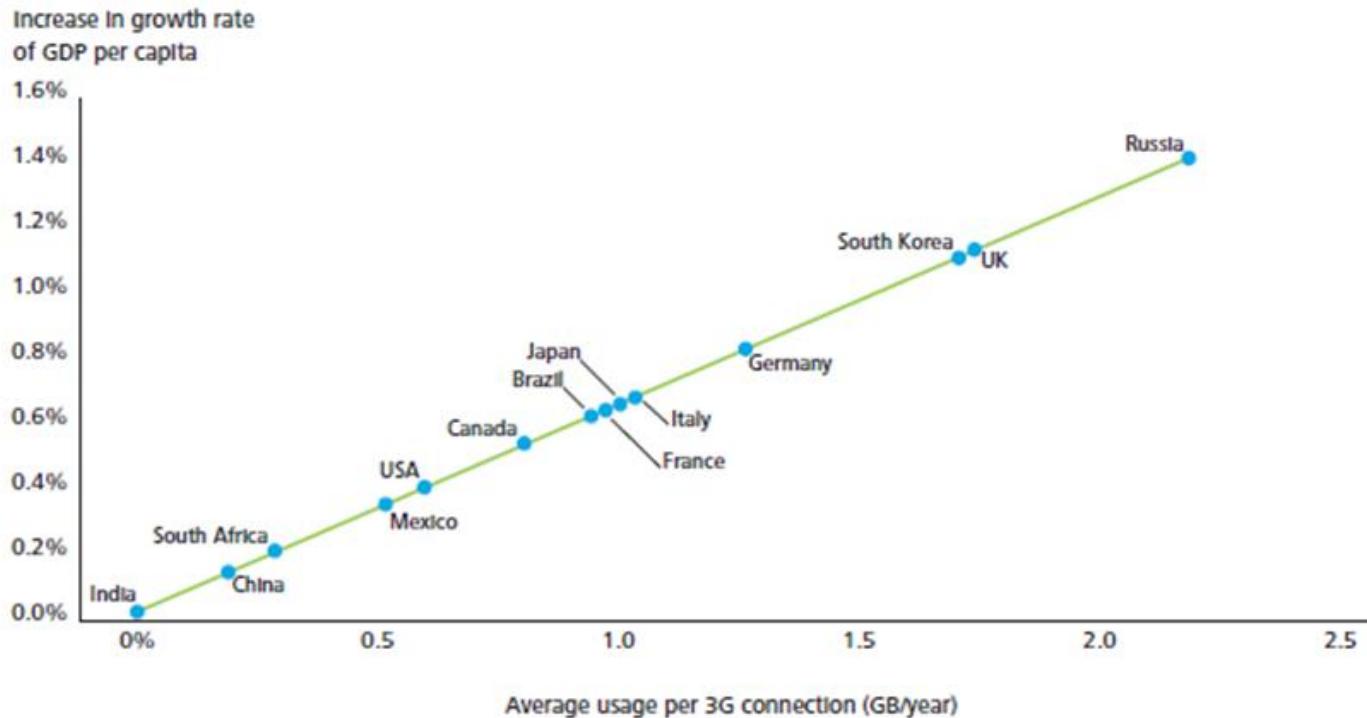
Countries with 80% broadband penetration are more than twice as innovative as countries with 40% penetration

Sources: World Bank, McKinsey & Company, Mobile broadband for the masses (2009), Booz & Company, Digital Highways: The Role of Government In 21st-Century Infrastructure (2009)



Research on the impact of mobile

Figure 4. Effect of doubling mobile data usage per 3G connection on GDP per capita growth



Source: Deloitte analysis



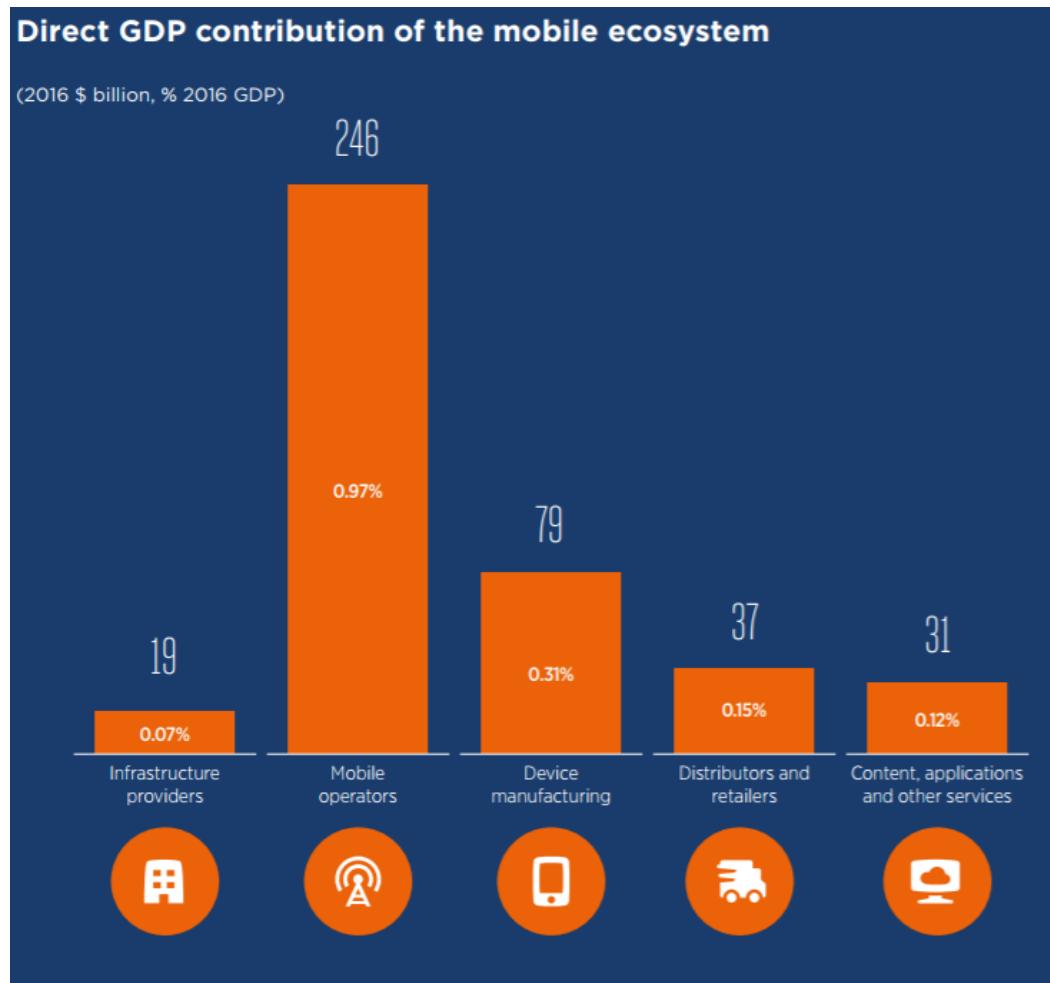
How does mobile deliver these benefits in APAC?

Economic analysis of how mobile achieves its impact.



The impact of mobile on the economy and employment

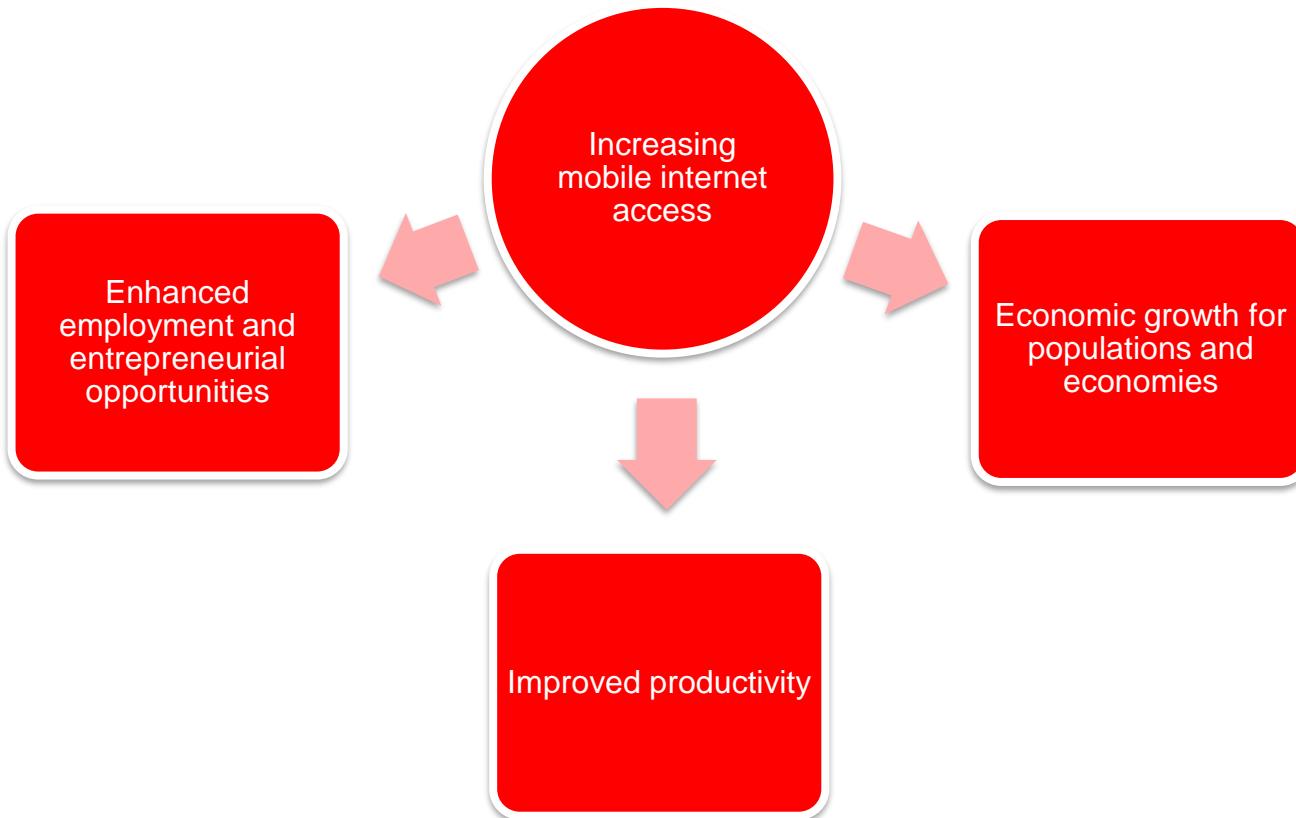
- In 2016, the total value added generated by the mobile ecosystem in APAC was around \$411 billion (or 1.6% of GDP), with mobile network operators accounting for well over half of this.





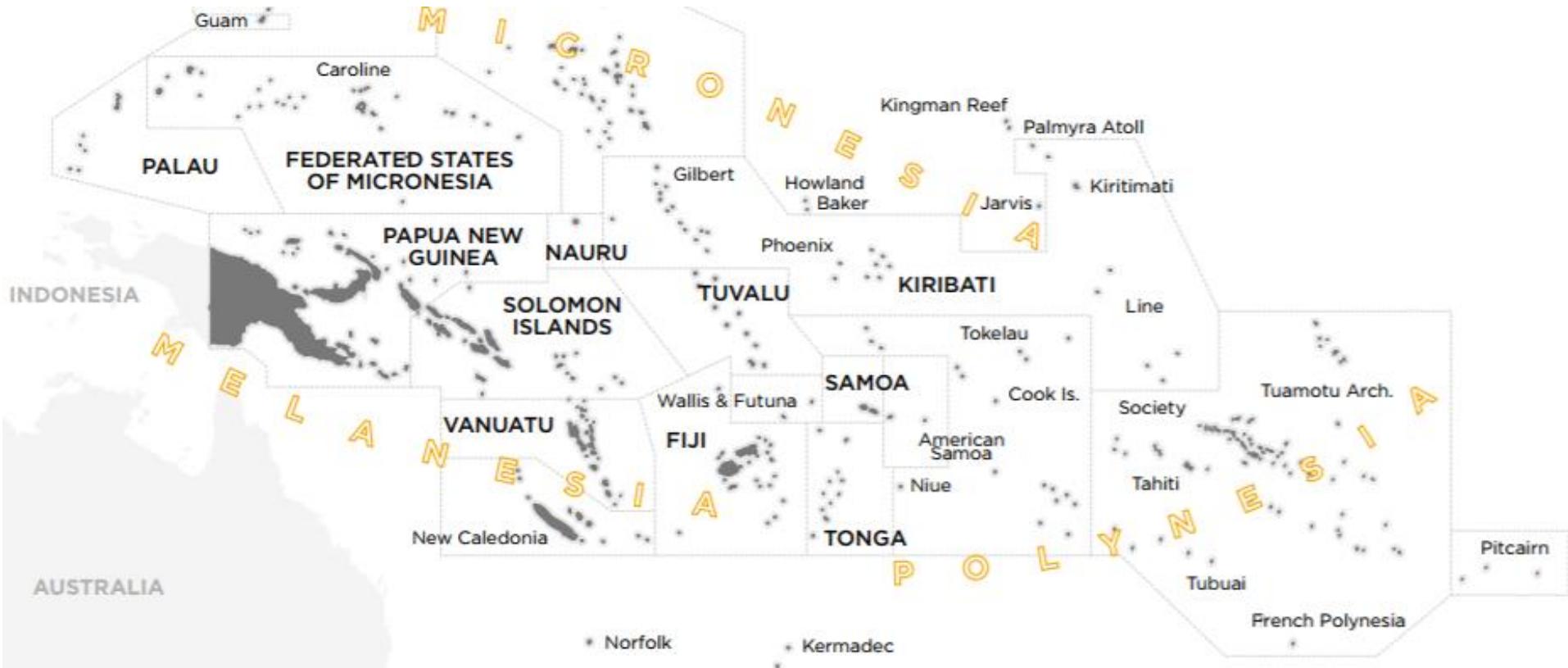
Mobile internet access

Increasing mobile internet access for underserved communities in developing countries has been demonstrated to deliver social and economic impacts:





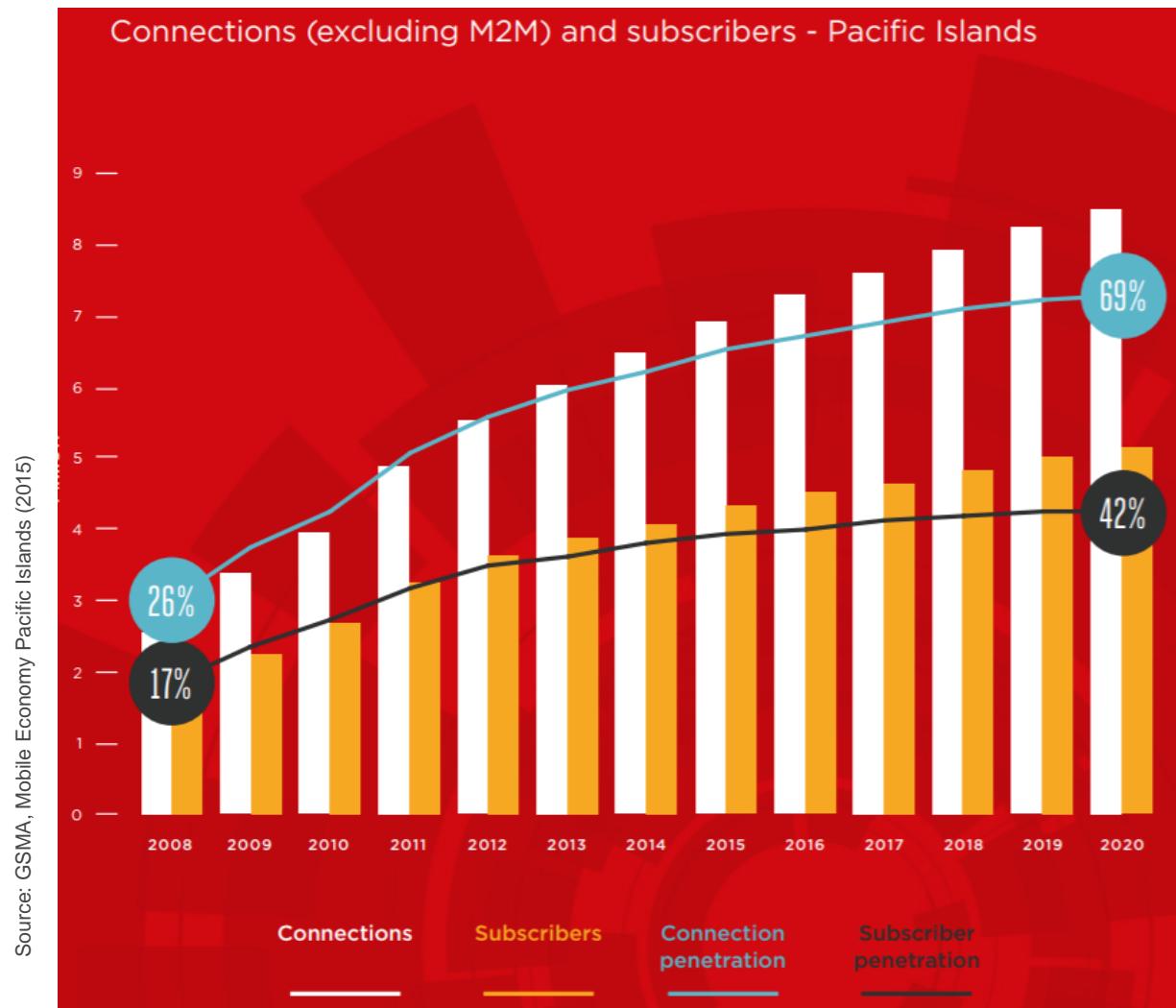
Regional transformation in the Pacific Islands





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Mobile connections and unique subscribers in the Pacific Islands

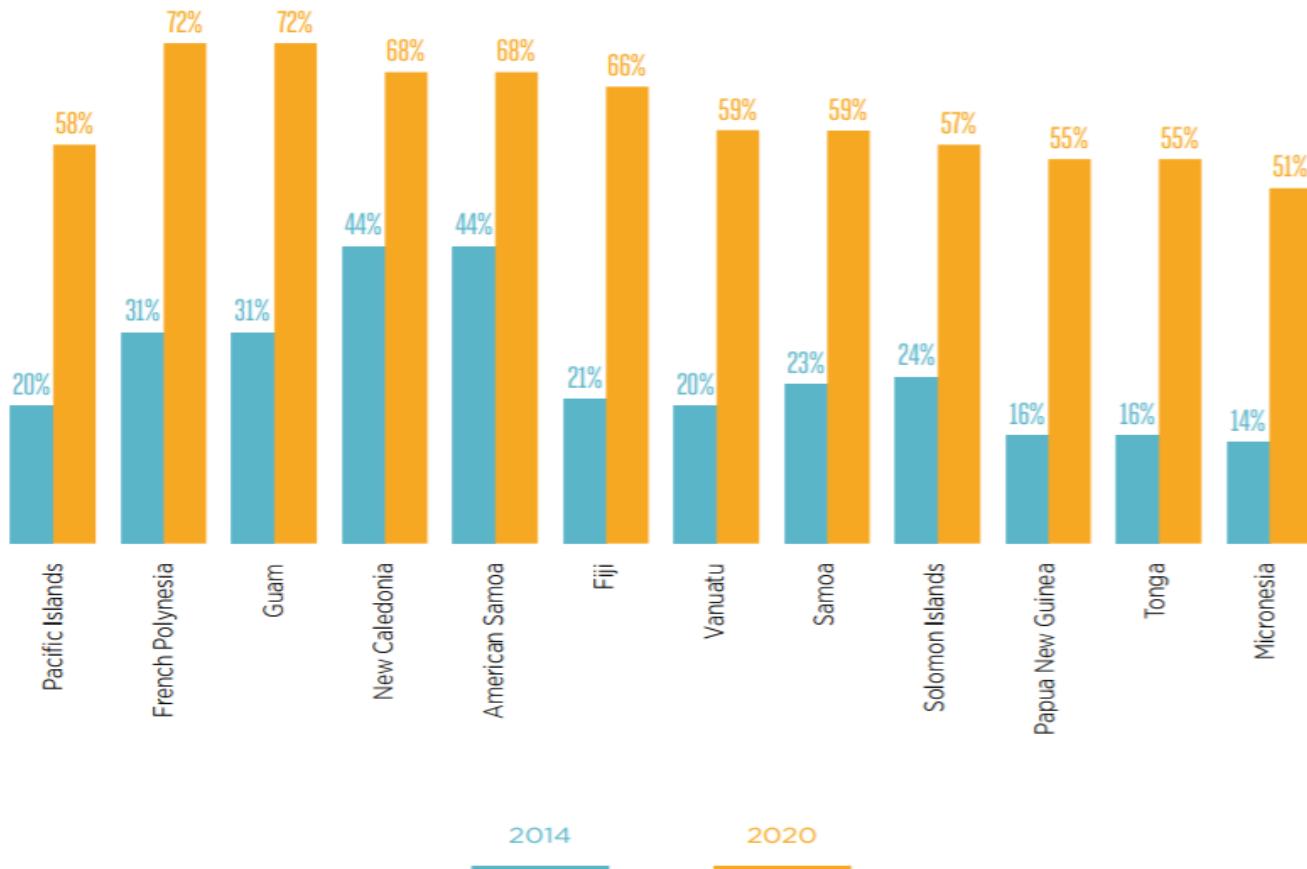




Smartphone adoption in the Pacific Islands

Smartphone adoption in the Pacific Islands - selected markets

Source: GSMA, Mobile Economy Pacific Islands (2015)

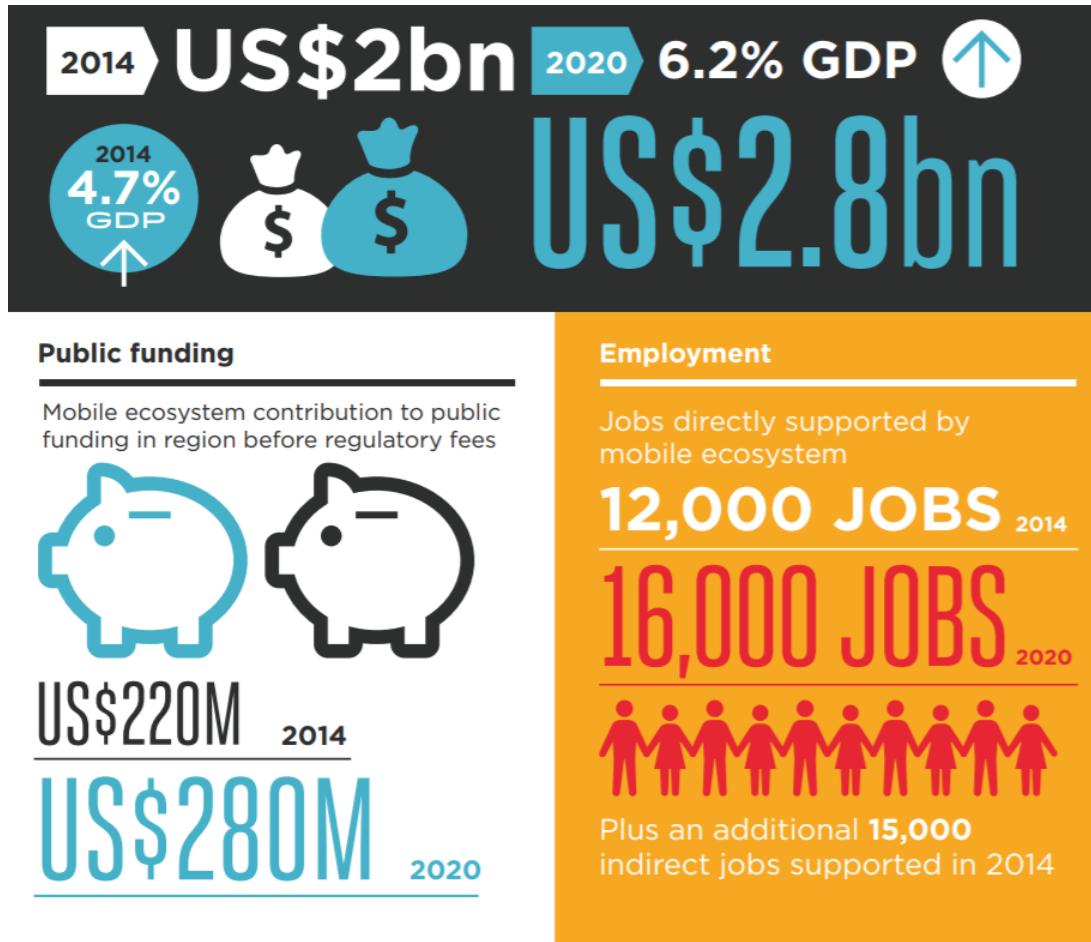




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Mobile industry contribution in the Pacific Islands





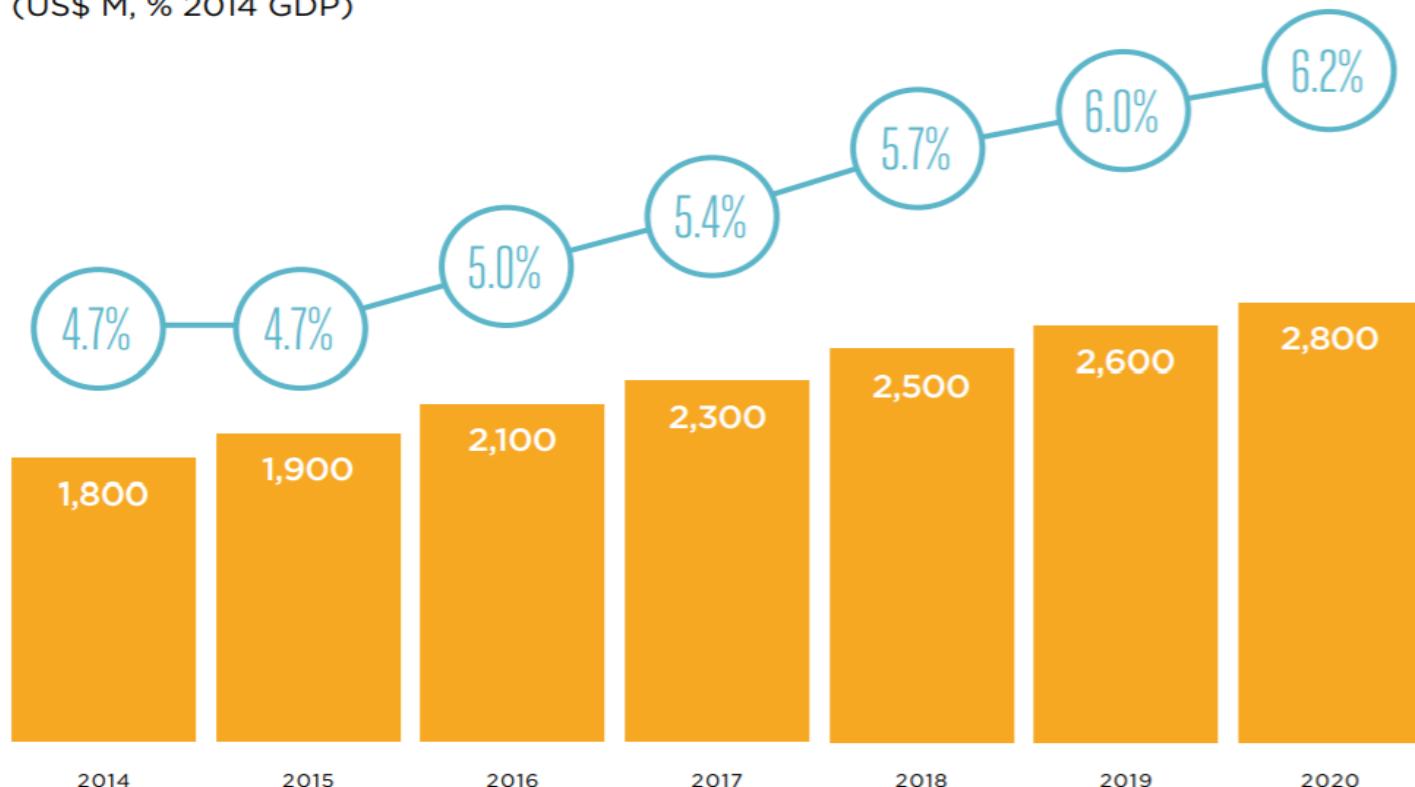
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Mobile industry contribution in the Pacific Islands



Mobile industry contribution to 2020

(US\$ M, % 2014 GDP)



Source: GSMA, Mobile Economy Pacific Islands (2015)

Footnote - In 2015, all major international organisations, including the International Monetary Fund, expect the GDP of the region to experience a one-off positive jump due to the start of large scale exports of natural gas from Papua New Guinea. As a result, and despite expected strong growth in the value added generated by mobile technologies of around 8% in 2015, the also very strong growth in the energy sector means that as a percentage of GDP mobile's contribution will remain stable at 4.7%. Once the one-off effect goes away from 2016 onwards the share of mobile as a proportion of GDP is expected to continue to grow until 2020.

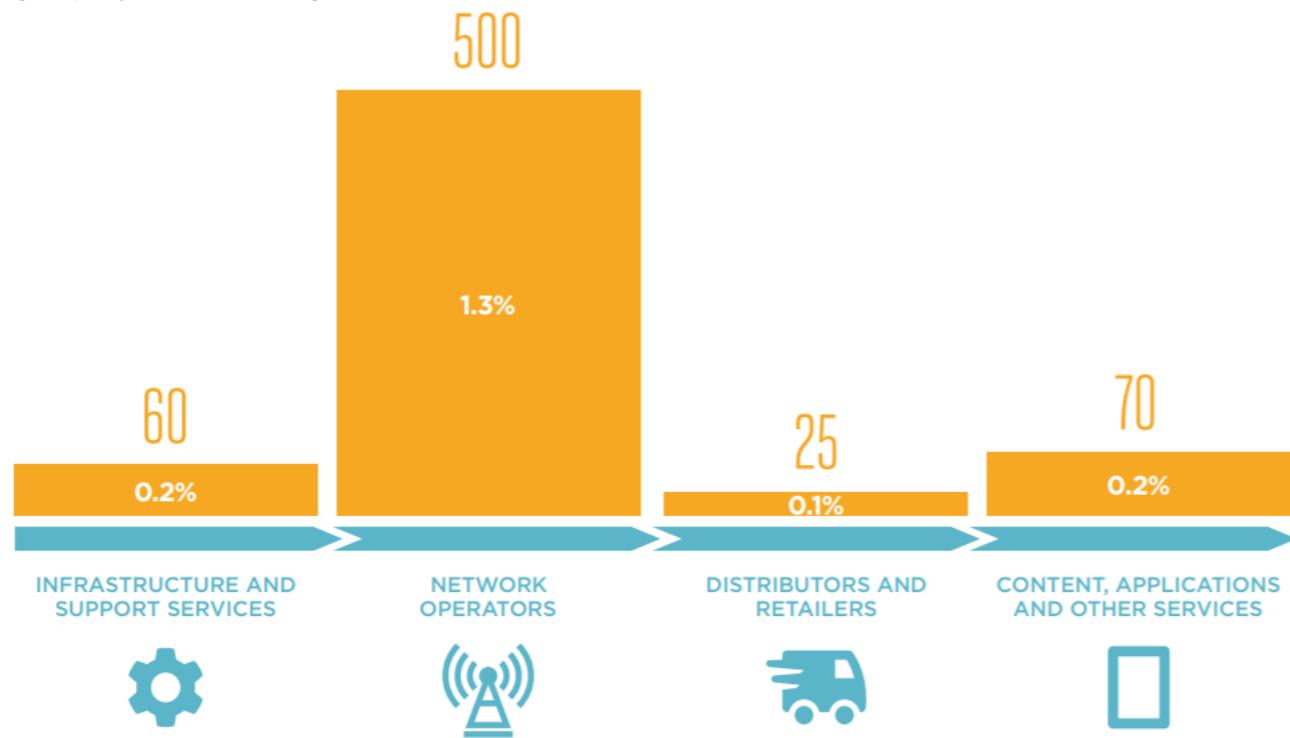


Mobile industry contribution in the Pacific Islands

Direct GDP contribution of the mobile ecosystem

(US\$ M, % 2014 GDP)

Source: GSMA, Mobile Economy Pacific Islands (2015)





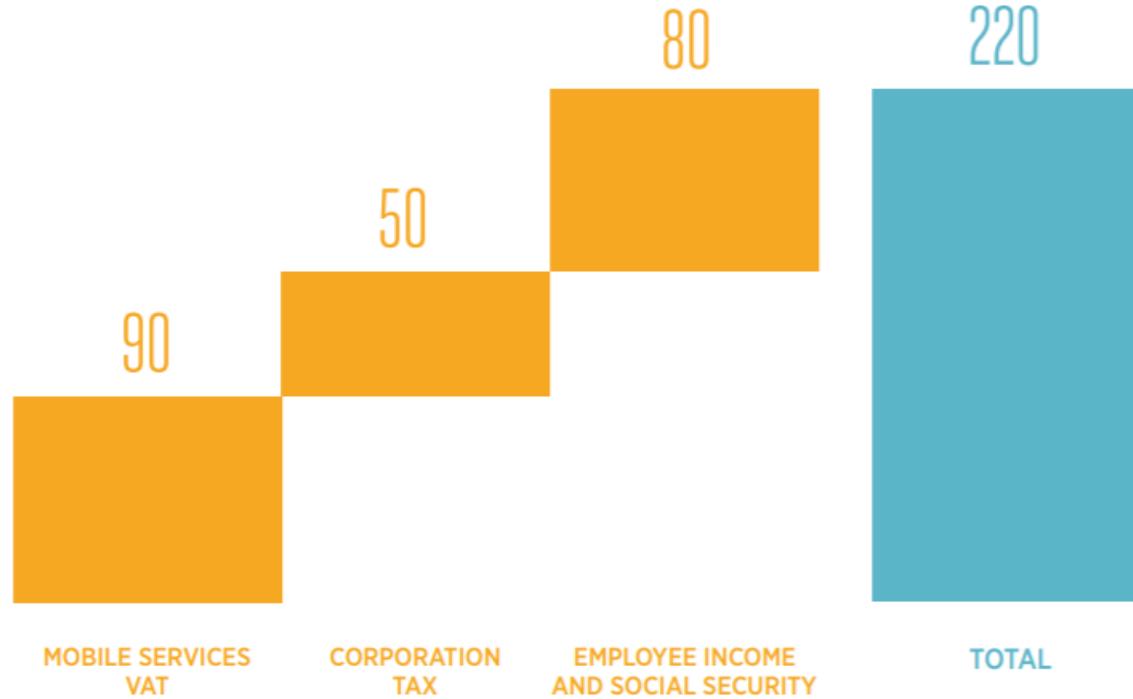
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Mobile industry contribution in the Pacific Islands

Tax contribution by the mobile industry
(2014 million US\$ M)

Source: GSMA, Mobile Economy Pacific Islands (2015)

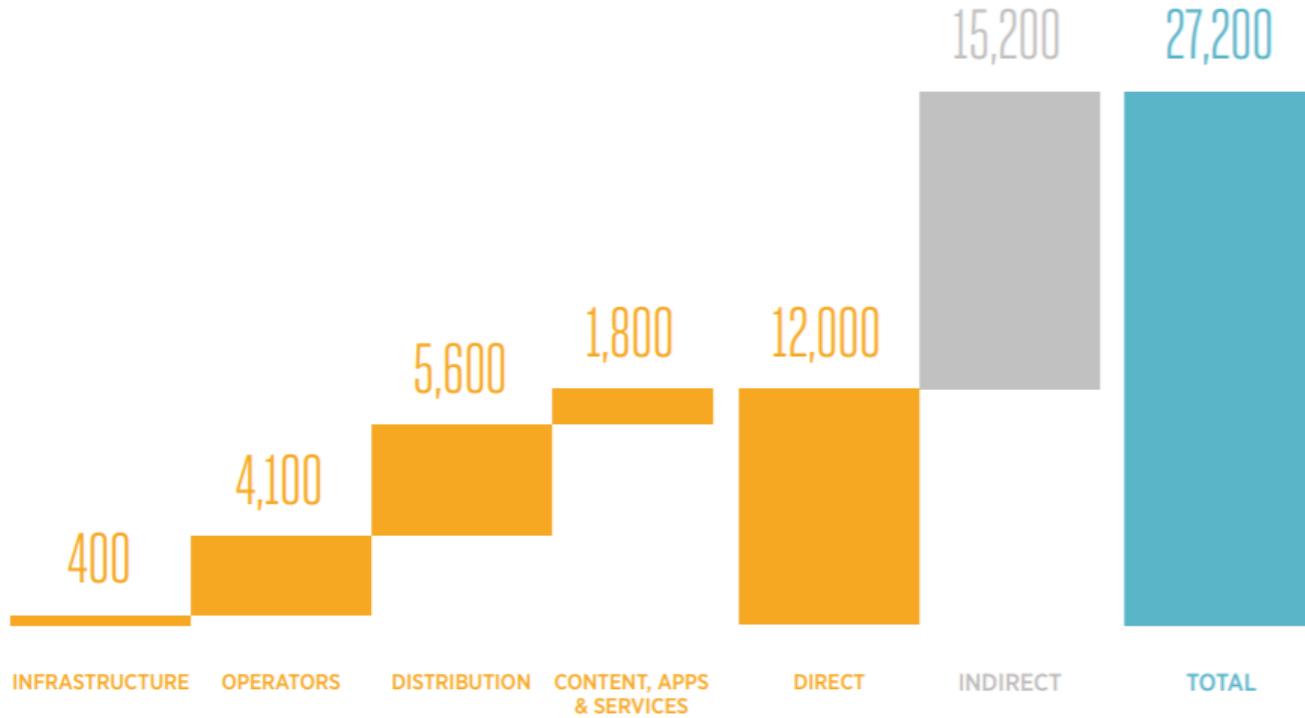




Positive impact on employment

Employment impacts in 2014

Source: GSMA, Mobile Economy Pacific Islands (2015)



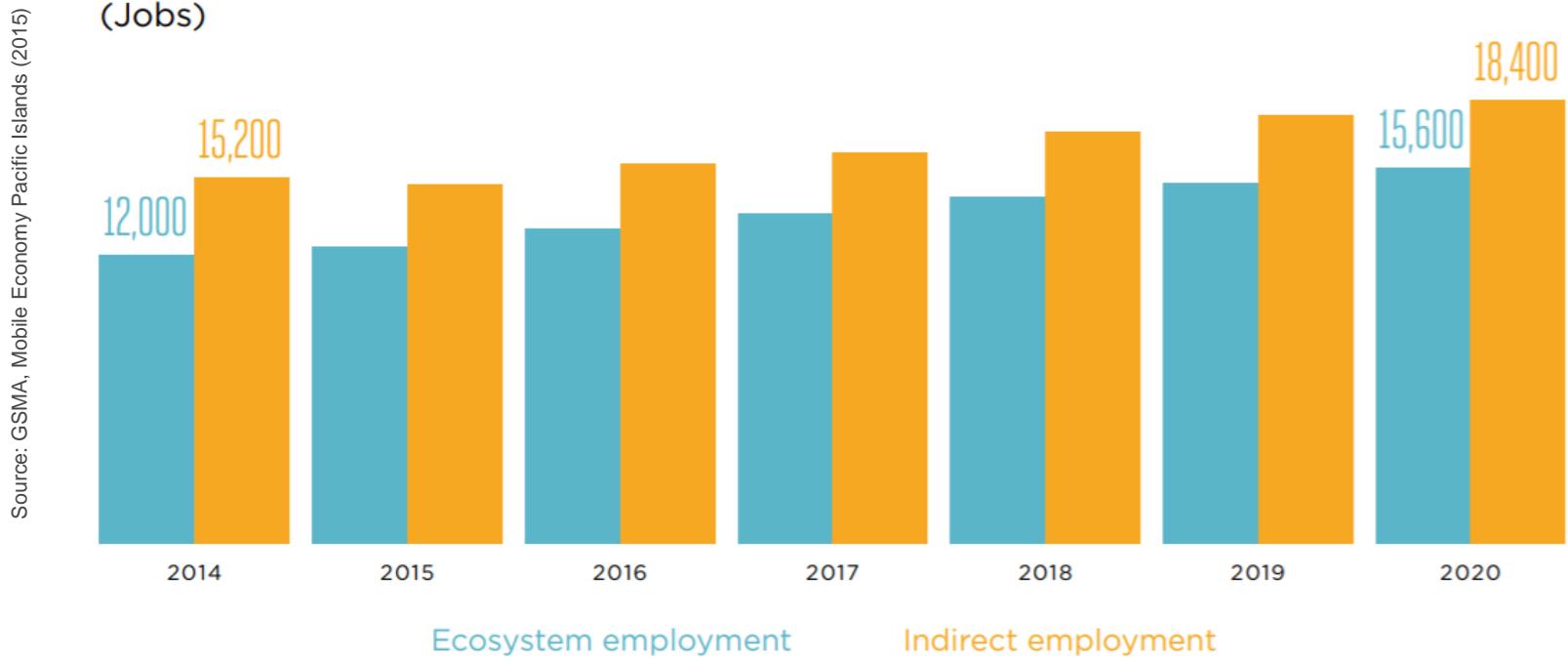
Note: Total does not add up due to rounding.



Positive impact on employment

Employment projections in the period to 2020

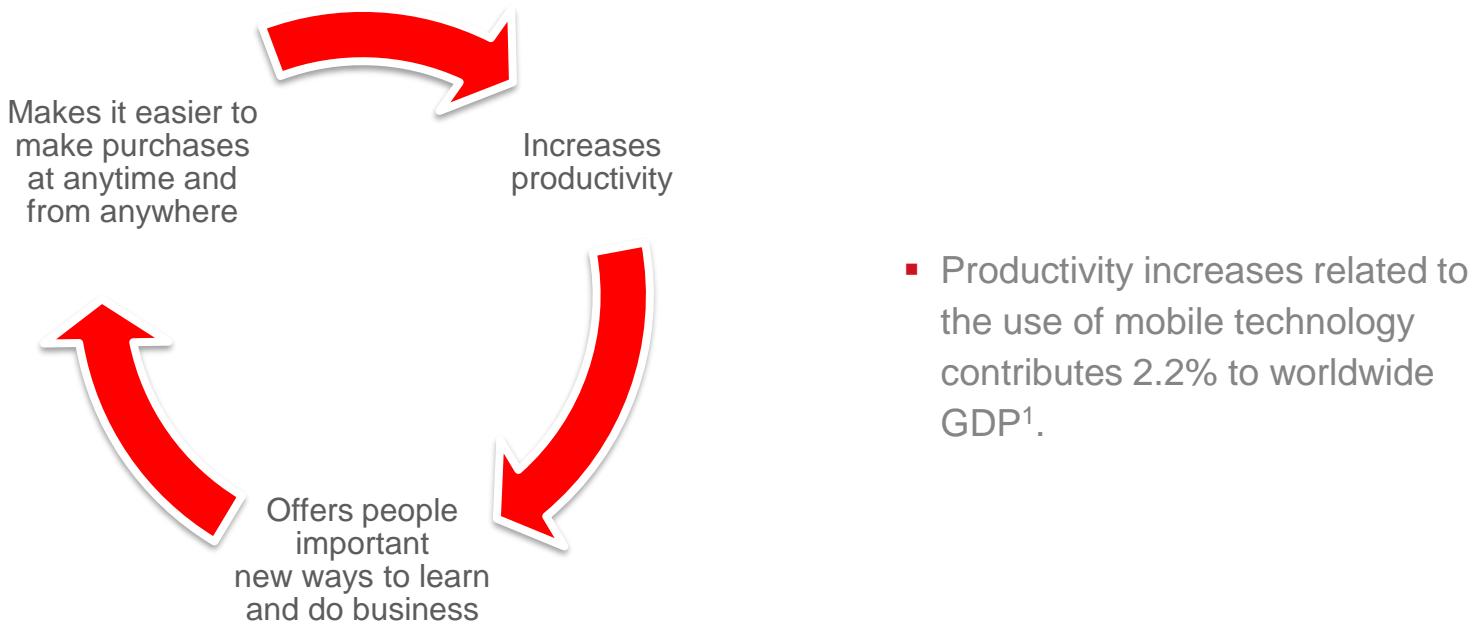
(Jobs)





Beyond the industry ecosystem

Even beyond its immediate ecosystem, the mobile industry strengthens every sector in the wider economy. This effect is amplified in developing countries compared to developed economies.



Source: 1 - GSMA, The Mobile Economy (2015)



Mobile increases productivity



As well as helping to create employment and entrepreneurial opportunities, mobile helps bridge the digital divide and improves education, health and agriculture productivity, leading to improved quality of life for individuals and their families.

- Among nearly 300 other mHealth products and services, associations such as Mobile Alliance for Maternal Action (MAMA) are providing mobile based health services to 2 million women, families and caregivers in Bangladesh and India alone.
- Airtel recently partnered with Million Lights — an online certification platform, to provide certified basic computing courses to consumers via mobile internet.
- Similarly, mobile operators are leading about one third of agriculture value-added services in the Asian continent. Services such as Krishibazar (Bangladesh), Digital Mandi (India) and Nongxintong (China) are examples of these among nearly 50 other services in the region.



Source: GSMA, Mobile Economy Asia Pacific (2015)



India: A mobile-enabled ATM for Water

In India, 700 million people do not have access to clean water. This has serious consequences, as 60% of the diseases in adults and 85% of diseases in children are caused by contaminated water.



- The Sarvajal project equips a local entrepreneur with a ‘water ATM’ that provides safe drinking water at affordable prices.
- The ATM is embedded with 25 sensors and a SIM card, and transfers information in real-time in order to monitor water pressure and filtration, helping to reduce maintenance of the system.
- Customers pay for water using prepaid smart cards, with Sarvajal selling a litre of water for as little as INR 0.25 (<US\$ 0.01), cheaper than large bottled containers or small water pouches.
- In India, where water is available but unsafe, these types of kiosk solutions are critical to increasing access to clean water.
- Sarvajal is now serving 300,000 people daily across 12 Indian states.



Skills training in Bangladesh

BBC Janala is a large-scale mobile-based English teaching tool which has effectively transformed mobile phones into a low-cost educational tool.

- Users can dial a short code and access bi-lingual audio-lessons and also test their English language skills through their mobile phones.
- The service is easily accessible on any handset, across all networks and costs as low as \$0.004 per lesson.
- In Bangladesh and much of South East Asia, English language proficiency is considered critical to improve employment and income opportunities.
- A user, Mishti, who lives in western Bangladesh and works for an insurance company, describes the transformative impact of learning English has had on her life and work. By learning English through this service, she is no longer afraid of interacting with foreigners or her bosses and says, “I need English because if I want to do well in my career, knowing how to speak English is critical.”





Supportive regulatory policies spur investment and growth

The potential of mobile technologies to deliver these socio-economic benefits depends on a supportive regulatory environment.



Operators and investors need stability and clarity to secure the huge investment needed to extend coverage and deliver higher speed connectivity



Over regulation can stifle innovation, raise operating costs, limit competition and, ultimately, harm consumers



Regulation is most effective when policymakers work closely with the mobile industry to keep abreast of trends and ensure policies support, rather than hinder, investment and innovation



Session 2: Case Studies

- Financial Inclusion
- Health service delivery
- Rural communities
- Gender inclusion
- Disaster recovery



Financial Inclusion: Sri Lanka

Sri Lanka adopts a progressive and innovative approach to mobile banking regulation



Sri Lanka — progressive regulation drives adoption of electronic payments

The key issues:

- Sri Lanka has a population of 20 million people and 9.3 million unique mobile subscribers.
- According to the International Finance Corporation (IFC), Sri Lanka has high penetration of bank accounts, but low access to electronic payments, such as debit and credit cards due to the slow rollout of ATMs and Point of Sale devices.
- In 2007, the Central Bank of Sri Lanka (CBSL) authorised National Development Bank to launch a mobile money service called eZ Pay with Dialog, a leading Sri Lankan mobile operator.
- However, the service failed to take off, and by 2012 there were only about 13,000 registered eZ Pay users.





Sri Lanka — progressive regulation drives adoption of electronic payments

The approach:

- With eZ Pay struggling to take off, the CBSL, Dialog and Hatton National Bank PLC (another commercial bank), worked together to understand why the service was unsuccessful.
- After analysing the experiences of countries where mobile money was thriving, the CBSL issued new guidelines in 2011 on two distinct mobile money products: an e-wallet linked to a bank account and an e-wallet provided by a non-bank.
- In 2012, Dialog was awarded a licence to provide non-bank, mobile money services, under the eZ Cash brand. The CBSL also agreed to let Dialog register users without requiring them to have a bank account and opted for proportional, risk-based KYC requirements for new users.





Sri Lanka — progressive regulation drives adoption of electronic payments

The outcomes:

- The evolution of CBSL's approach created an open playing field for bank and non-bank providers, allowing mobile operators to launch a competitive set of mobile money products.
- This enabling regulatory environment extended the benefits of sending and receiving money electronically to a broad segment of society that had previously been excluded.
- In the first month, over 300,000 customers signed up to eZ Cash, and after a year it had more than a million customers.
- In May 2013, 330,535 transactions were conducted through eZ Cash with a total value that exceeded Rs435 million (\$3.32 million).





Mobile Health: South Africa and Indonesia

Hello Doctor brings mobile-based health services to South Africa and Indonesia.



Hello Doctor – The doctor will call you now

The key issues:

- Healthcare services around the world are struggling to deliver medical services to communities that face geographic or economic barriers to access
- Hello Doctor, a mobile-based health platform, was launched in South Africa in 2010 with the aim of addressing these issues
- One of the country's first mobile-based health services, Hello Doctor gives users the chance to chat to a doctor or access the latest healthcare advice 24 hours a day, seven days a week, while also offering advice on how to follow a healthier lifestyle





Hello Doctor – The doctor will call you now

The approach:

- Hello Doctor operates a ‘freemium’ business model – healthy living advice is provided for free; Q&A text consultations are available at very low cost; and in-depth telephone medical consultations are charged at less than \$4
- Regulators have not been receptive, especially the Health Professions Council of South Africa which opposes the service, so Hello Doctor has had to clear a number of hurdles in order to achieve its currently level of success
- As a result, the service is a strong illustration of what can be achieved when mHealth service providers work closely with mobile operators and industry groups to deliver on wider public health objectives





Hello Doctor – The doctor will call you now

The outcomes:

- Serving over 600,000 users in South Africa with just over 100 doctors on-call, it proves mHealth services can achieve significant scale
- Following its initial success, Hello Doctor is starting to expand throughout Africa and Indonesia, led by mobile operators Vodacom, MTN and Telkomsel





Rural Communities: India

mKisan delivers much needed agricultural information and advice to farmers in India

mKisan — agricultural information and advice via mobile phone

The key issues:

- Over 20% of India's GDP is generated through agriculture, but just 40% of farmers have regular access to farming data
- The mKisan initiative — a mobile phone-based mAgri platform serving subscribers in six states across India — seeks to address this issue
- It delivers a wealth of agricultural information, including advice on:
 - Crop agronomy
 - Animal health
 - Weather forecasts
 - Market prices



mKisan — agricultural information and advice via mobile phone

The approach:

- mKisan is provided by value added service provider Handygo and operator Bharti Airtel
- It costs one Rupee a day and farmers buy access in blocks of days rather than through a monthly subscription model, ensuring they only pay for what they need
- Information is delivered through a variety of channels, including
 - Interactive Voice Response
 - SMS
 - Helpline
 - Video
- This means farmers can access the service, irrespective of their educational background, digital literacy or economic circumstance



mKisan — agricultural information and advice via mobile phone

The outcomes:

- More than a million farmers have used the service since its launch in mid-2012 and 327,000 have purchased on-going subscriptions
- A fifth of mKisan users fall below the international poverty line with incomes below \$1.25 a day, and two thirds of users either own small farms (less than two hectares) or work on them, suggesting the service is providing value to some of the poorest farmers in India
- There is still some way to go as mKisan has so far only reached 1 per cent of the potential 13 million-strong market of farmers and agricultural workers in India





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mKisan – Video





Gender Inclusion: India

Uninor and Hand in Hand work together in India to empower female entrepreneurs

Uninor and Hand in Hand — supporting female entrepreneurs



The key issues:

- Globally, 21% fewer women than men have a mobile phone
- Operators are now starting to address this issue by bringing women into the retail chain
- In India, operator Uninor and NGO Hand in Hand worked together to encourage female entrepreneurship in poor communities
- The collaboration has built a network of citizen information centres, managed by female entrepreneurs, in low income areas
- These centres provided entrepreneurship opportunities to other women by training them to sell mobile products and services
- These women then train their peers, so skills are passed on





Uninor and Hand in Hand — supporting female entrepreneurs

The approach:

- Hand in Hand loaned each woman entrepreneur INR 30,000 (\$613) to purchase equipment including a computer, printer, desk, chairs and a power generator
- Every month the entrepreneur made an INR 2000 (\$40) repayment towards this loan over 24 months
- All entrepreneurs received business training in bookkeeping, commission structures and how to complete Customer Acquisition Forms
- They also received training on how to use a mobile phone, how to activate new SIMs and how to sell Mobile Top Ups



Uninor and Hand in Hand — supporting female entrepreneurs

The outcomes:

- The women have proven to be highly successful entrepreneurs and mentors – between August 2010 and July 2011, sales of SIMs and Top Ups rocketed from 30,000 to 120,000, and women entrepreneurs were training 75,000 people across Tamil Nadu
- The initiative is snowballing, with each centre catering to around 4,000 people and more centres spreading from Tamil Nadu to states across the country
- The project was found to be so significant internally at Uninor that the pilot has been scaled up and integrated into Uninor's core business strategy





Disaster Recovery: Philippines

The Philippines prepares for the worst to deliver the best mobile communications when disaster strikes

The Philippines — preparing for when disaster strikes

The key issues:

- Sitting within the Pacific's geologically volatile 'ring of fire' and the region's typhoon belt, the Philippines is subject to a range of natural threats including earthquakes, volcanic activity and severe weather events
- This has prompted government, mobile operators and aid agencies to come together to develop a coordinated communications response strategy
- The Government has been very responsive in producing strong legislation and has also made the mobilisation of the private sector key to the success of the strategy



The Philippines — preparing for when disaster strikes

The approach:

- Regulation has helped encourage mobile operators to invest in building resilient infrastructure designed to withstand all but the most severe shocks
- One of the Philippines' leading wireless providers, SMART Communications, has tightly integrated itself into both governmental and NGO disaster relief services
- SMART has also developed good relations with national meteorological institutes, which have co-located weather monitoring equipment at SMART's base stations, ensuring that it has virtually real-time access to severe weather warnings



The Philippines — preparing for when disaster strikes

The outcomes:

- Mobile phone operators in the Philippines now lead the field in effective cooperation to save lives in disasters, as they are highly responsive to the needs of affected populations and the various government agencies involved in disaster recovery
- The government's disaster response systems now uses a range of channels including text, internet and social media in times of emergency to reach as many people as possible, as quickly as possible
- Collaboration ensures that mobile operators, in concert with government and NGO agencies, can act swiftly to restore communications links should disaster strike





Mobile Apps Demo and Break: 10:45 – 11:30



Session 3: Enhancing Affordability Through Best-Practice Taxation

- Government policy and affordability
- Taxes on mobile consumers
- Fees and levies on operators
- Other telecom-specific taxes
- Regional case-studies



Mobile services must be affordable to have most impact



Despite the widespread growth of mobile, the cost of mobile devices and services remains a significant barrier to further adoption of mobile technology

In order to be able to reach the poorest, whose lives the mobile phone has the most potential to change, mobile services must be affordable

Government policy has a significant influence on the 'cost of ownership' for consumers and businesses

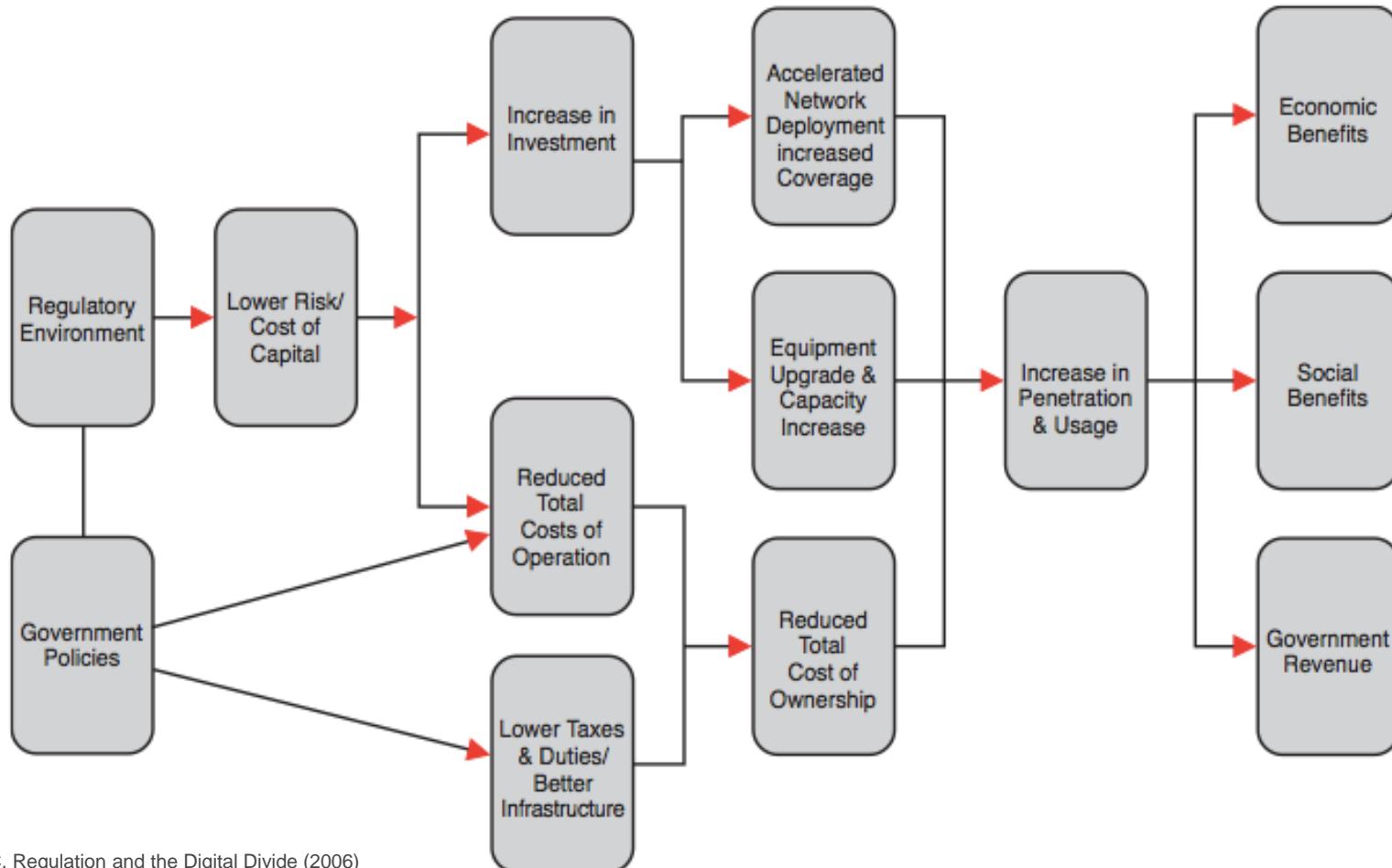
Policy and affordability



- Policy decisions taken across a range of areas flow through to costs to the consumer
- Operational costs determine the economic viability of base station sites, directly impacting coverage
- To bridge the digital divide the overall regulatory environment must encourage investment and use



Policy and the digital divide



Source: PwC, Regulation and the Digital Divide (2006)



Principles of effective taxation

General principles of taxation based on research by the World Bank, IMF and OECD:



Taxation should be broad-based



Taxes should account for the wider socio-economic effects of the sector and products



The tax and regulatory system should be simple, easily understandable and enforced



Different taxes have different economic properties, with a general consensus in favour of broad-based consumption tax



Principles of effective taxation

Taxation works best when it is broad-based

Taxation alters incentives for production and consumption



Economic distortions will generally be minimised where the burden of taxation is spread evenly across the economy



In practice, this equates to putting in place broadly defined bases for taxation, limited rate variations and the effective enforcement of tax compliance

Taxes should reflect wider effects

The case for taxation to address the negative effects of certain sectors or products, such as tobacco, is well recognised



The same logic also applies in the case of industries that create positive effects



There may be a strong case for taxation policy to encourage sectors that have a positive social and economic impact



Principles of effective taxation

Simplicity is best

The tax and regulatory system should be simple, easily understandable and enforced



A lack of transparency over taxation systems and liabilities may deter investors and is also likely to increase enforcement costs for government

Consumption tax – less distorting

Different taxes have different economic properties

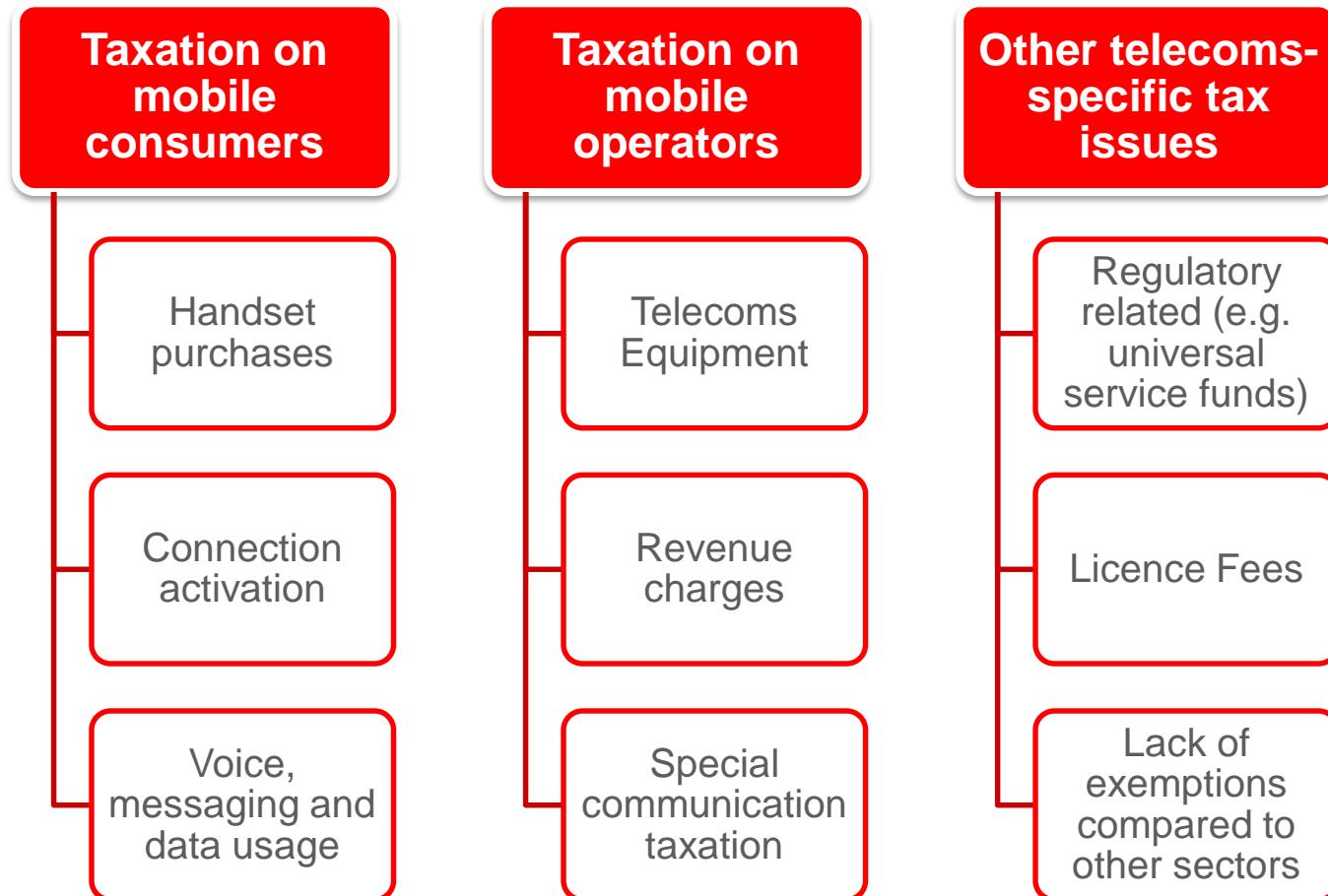


There is a general consensus that, for most products, a broad-based consumption tax is less distorting than taxation on income or profits



Mobile taxation

Taxes on the mobile sector takes a number of different forms.





Balancing taxation and affordability



Affordability of mobile services can be affected when governments impose sector specific taxes and fees

These include special communication taxes, such as excise duties on handsets and airtime, and revenue-share levies on mobile operators

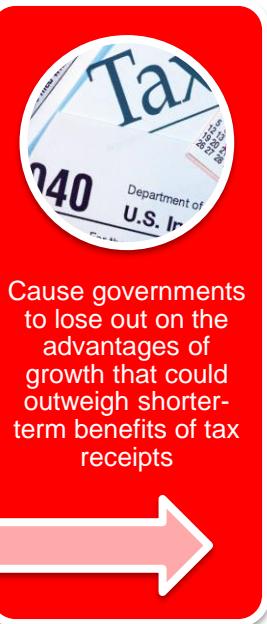
Best practice taxation strikes the right balance between encouraging the growth of the digital economy and fair revenue collection



Problems of unbalanced taxation

If taxation fails to strike the right balance it can ultimately prove counterproductive — especially in the developing world.

Unbalanced taxation policy has the potential to:





High and increasing mobile tax burden in some countries

The GSMA and Deloitte have conducted an in-depth comparative analysis of mobile taxes and fees across 26 markets including Brazil, Cameroon, Croatia, Kenya, Mexico and Turkey. Key findings include:



In 11 of the 26 countries studied, over \$3 in every \$10 of mobile revenue was transferred to the government in the form of taxes, regulatory fees or other charges



High taxes on mobile restrict the growth of the sector and the use of networks



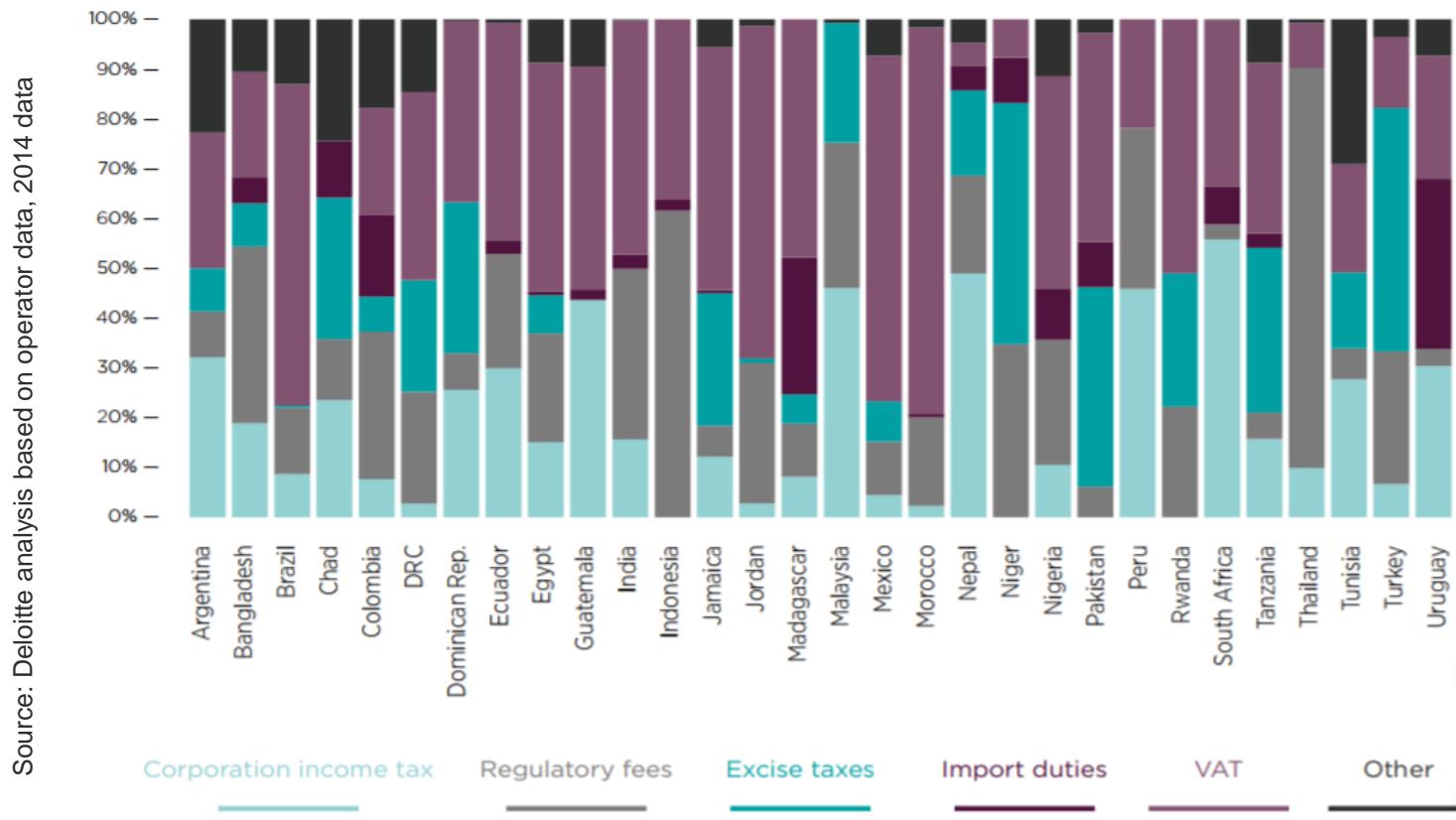
Countries that have reformed taxation (e.g. Uruguay and Kenya) have seen growth in the sector and a boost in vital economic activity

Source: GSMA and Deloitte, Digital inclusion and mobile sector taxation (2015)



Mobile sector tax and fee payments (2014)

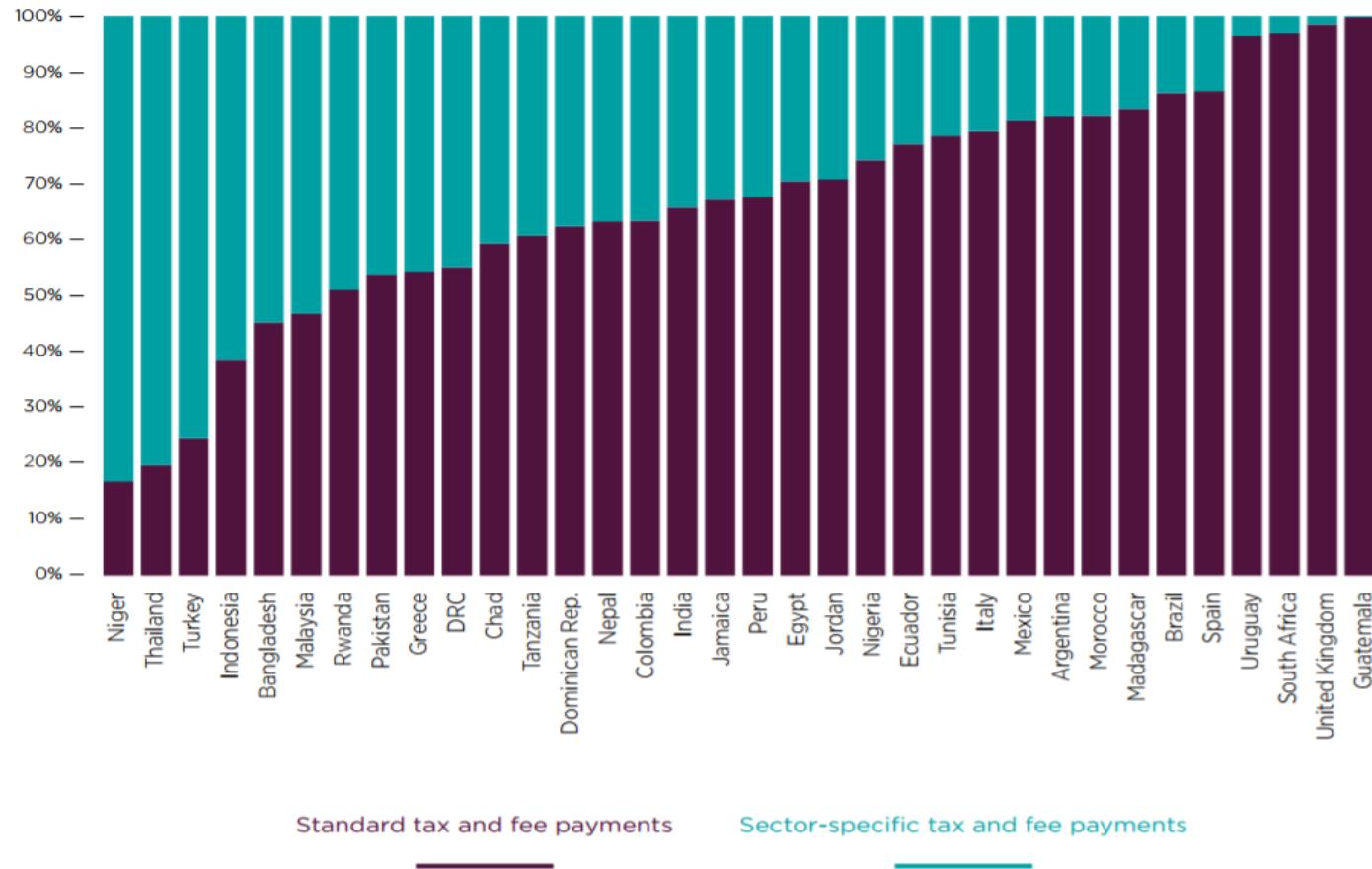
Composition of tax and fee payments for the mobile sector by country, 2014





Sector-specific taxation

Standard vs sector-specific taxes and fees, 2014



Standard tax and fee payments

Sector-specific tax and fee payments

There is discrimination against mobile in raising tax revenues



Research data shows the significant impact taxation has on foreign investment and the adoption of mobile services.

A 1% tax reduction on mobile broadband would result in an up to 1.8% increase in penetration and an up to 0.7% increase in GDP over five years

More affordable mobile services (due to reductions in taxes, for example) lead to economic growth that is high enough to offset the direct medium term negative effect on tax revenue

A review of over 400 different studies found that, on average, a 1% increase in the rate of tax on capital led to a 4% decrease in the level of foreign direct investment

Empirical research has identified a negative relationship between uncertainty over future taxation and investment

GSMA and Deloitte, Global mobile tax review 2006-07 (2007).

GSMA, The impact of taxation on the development of the mobile broadband sector (2012)

GSMA, Taxation and growth of mobile in East Africa (2007)

Mooij and Ederveen, Explaining the variation in empirical estimates of tax elasticities of Foreign Direct Investment (2005)

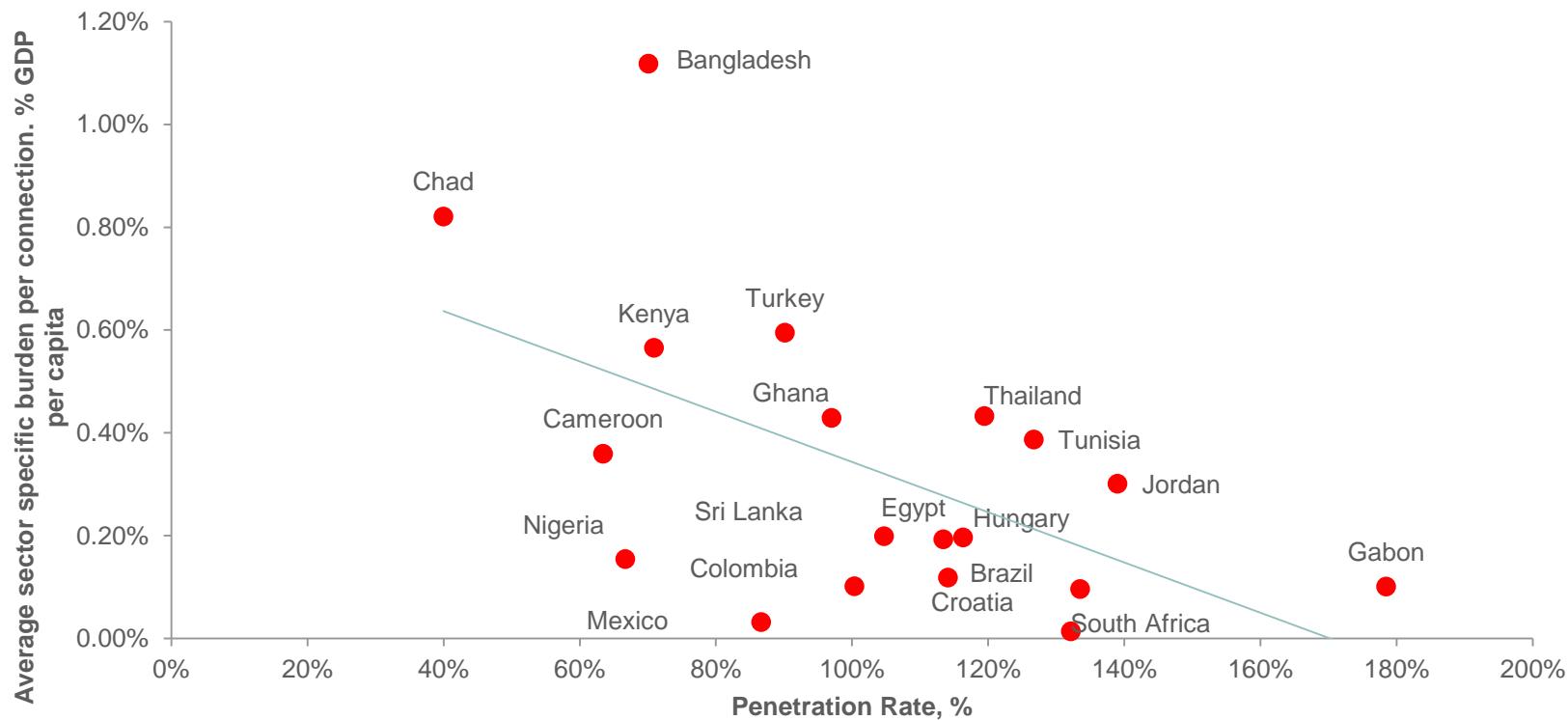
Edmiston, Tax uncertainty and investment: A cross-country empirical examination (2004)



Taxation versus mobile growth

Higher taxes can hinder the adoption of mobile technology

Sector-specific burden and mobile penetration across countries



Source: Mobile taxes and fees: A toolkit of principles and evidence, February 2014



Transitioning to a more balanced tax policy

Address problems early, especially for new services:

- This offers countries the potential to maximise the economic/productive opportunity from those services with lower fiscal costs

Consider alternatives:

- The research shows that even for broad-based taxes, mobile is making an undue contribution
- Moreover, World Bank research finds that most governments have significant capacity to increase tax on economic 'bads' such as pollution, tobacco and alcohol

Phased reductions may help:

- Studies show tax cuts can be fiscally neutral within a few years due to a combination of stimulated economic growth and general sector expansion



Balanced tax policy – positive impact

Estimated impact of mobile tax reforms across selected countries



③ MEXICO: Abolition of 3% excise tax on mobile services
 + 2.2m connections (2% ↑)
 + US \$4.45m in GDP (0.3% ↑)
 + US \$589m in tax revenue

④ Tunisia: Abolition of the 5% industry fee on mobile services
 + 0.4m connections (2% ↑)
 + US \$314m in GDP (1% ↑)
 + US \$22m in tax revenue

⑦ Pakistan: Abolition of the PKR 250 sales tax on SIM cards
 + 0.5m connections (0.2% ↑)
 + US \$270m in GDP (0.1% ↑)
 + US \$13m in tax revenue

② GHANA: Reduction in service tax on voice services and abolition on data
 + 1.3m connections (3% ↑)
 + US \$598m in GDP (1% ↑)
 + US \$0.67m in tax revenue

⑤ Tanzania: Reduction in the excise tax on mobile services from 17% to 10%
 + 2m connections (5% ↑)
 + US \$549m in GDP (1% ↑)
 + US \$11m in tax revenue

⑥ India: Reduction in licence fee from 8% to 6%
 + 33m connections (3% ↑)
 + US \$14,000m in GDP (1% ↑)
 + US \$2,200m in tax revenue

③ DRC: Abolition of excise tax of 10% on mobile services
 + 3.2m connections (5% ↑)
 + US \$970m in GDP (2% ↑)
 + US \$28m in tax revenue

⑧ Jordan: Reduction in excise tax on mobile services from 24% to 12%
 + 0.6m connections (4% ↑)
 + US \$660m in GDP (1% ↑)
 + US \$100m in tax revenue

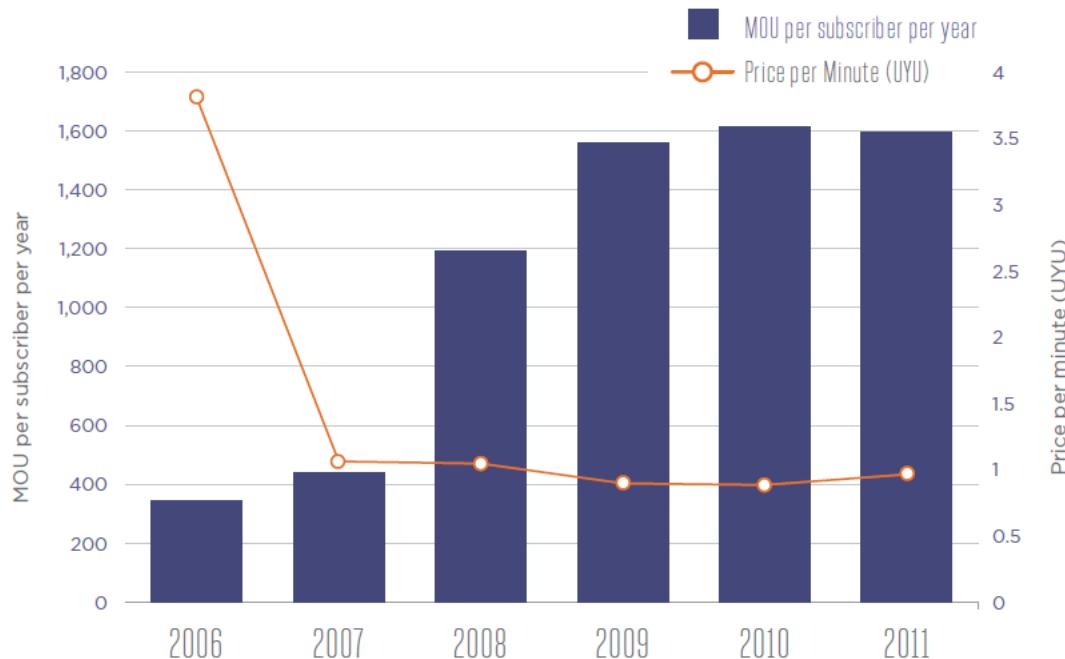
⑨ Bangladesh: Abolition of the BDT 300 sales tax on SIM cards
 + 3.7m connections (2% ↑)
 + US \$2,300m in GDP (1% ↑)
 + US \$61m in tax revenue

Source: GSMA/Deloitte country studies. Impacts are estimated as a difference between the modelled scenario and a base case scenario with no tax reduction in 2020. See footnote 56 for further details.



Uruguay – case study

The Uruguay government abolished an airtime tax in 2007 that had accounted for between 30 and 50 per cent of calling costs.

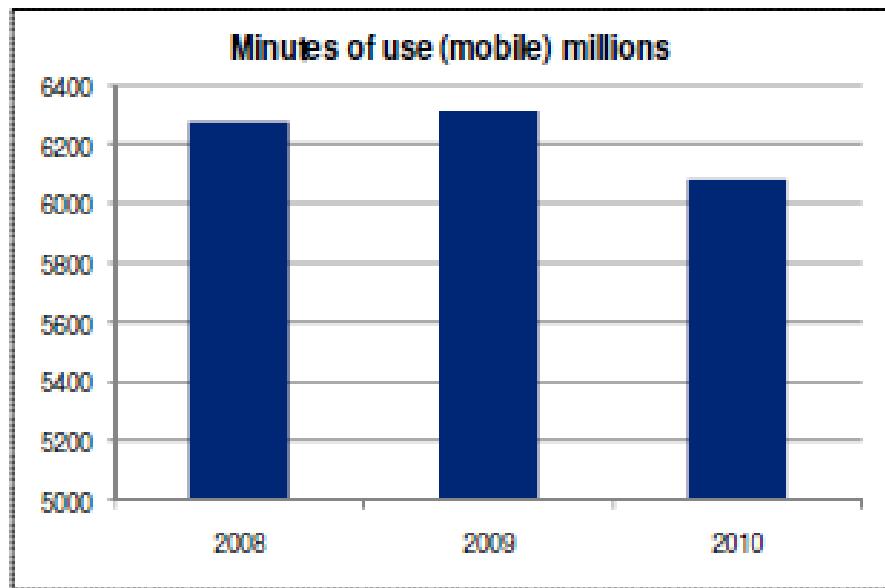


- In the year immediately following, prices fell by over two thirds, from UYU 3.75 per minute to around UYU 1.00 per minute
- Penetration has since more than doubled from 65% in 2006 to 141% in 2011
- Network use has risen from just under 400 annual minutes per subscriber in 2006 to 1,600 in 2011



Croatia – case study

In 2009, as part of its response to the economic crisis, the Croatian government imposed a six per cent tax on mobile gross revenues related to voice, SMS and MMS.



- In the year following the introduction of the tax, Croatia suffered the **first ever fall** in voice and SMS volumes
- Volumes of mobile calls decreased by 4% and volumes of SMS messages decreased by 14%.
- Continuing the differential treatment of MNOs, by taxing them at a higher rate than other businesses in Croatia, risked reducing productivity and consumer benefits.
- In 2012, the tax was finally abolished as part of an attempt to promote additional infrastructure investment



Lunch: 12:30 – 13:30



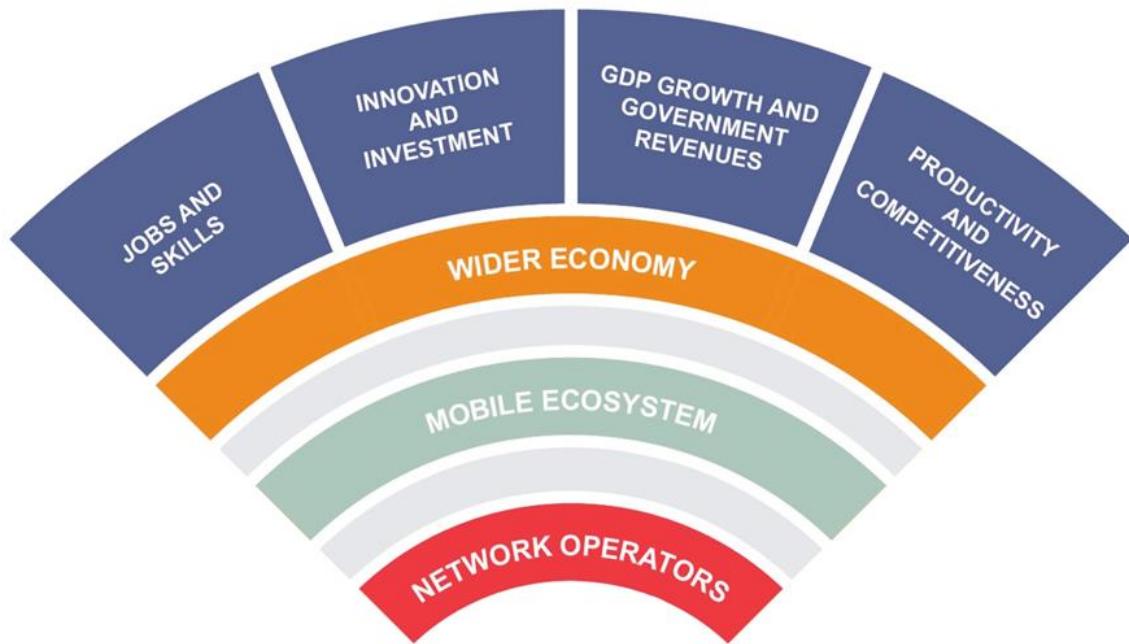
Activity

Group discussion

From your own experience,
give examples of how
technology and mobile have
benefitted the wider economy.

One example per group:

- Jobs and skills
- Innovation and investment
- Growth
- Productivity





Break: 15:15 – 15:30



Session 4: Financial Inclusion

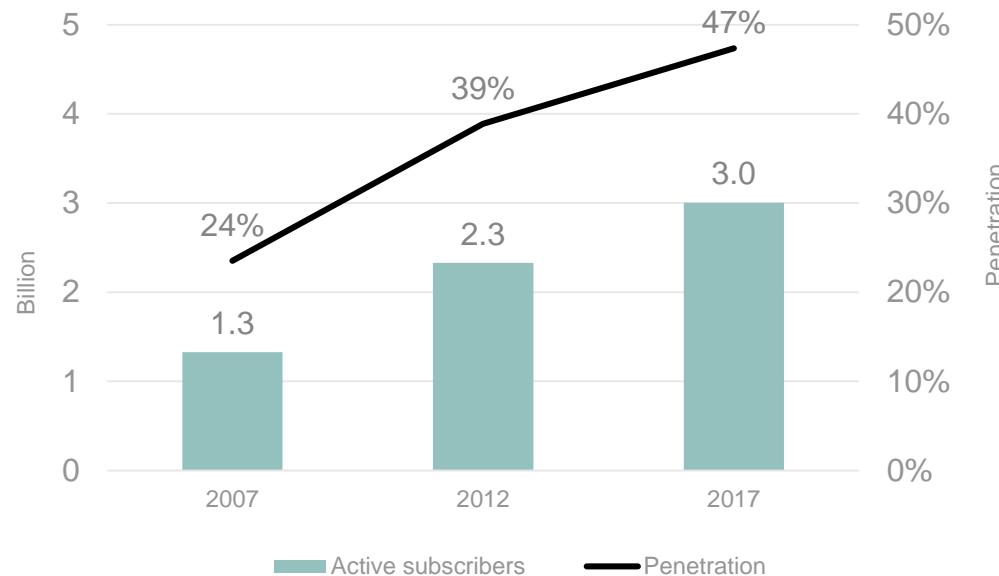
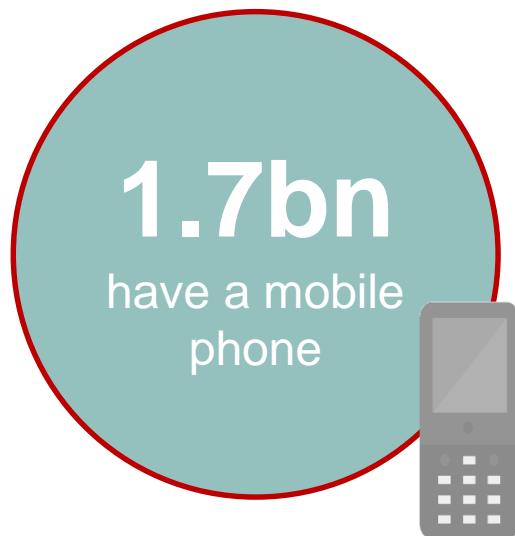
- Benefits of mobile money services
- Mobile money vs mobile banking
- Financial compliance



Mobile can be a catalyst for financial inclusion

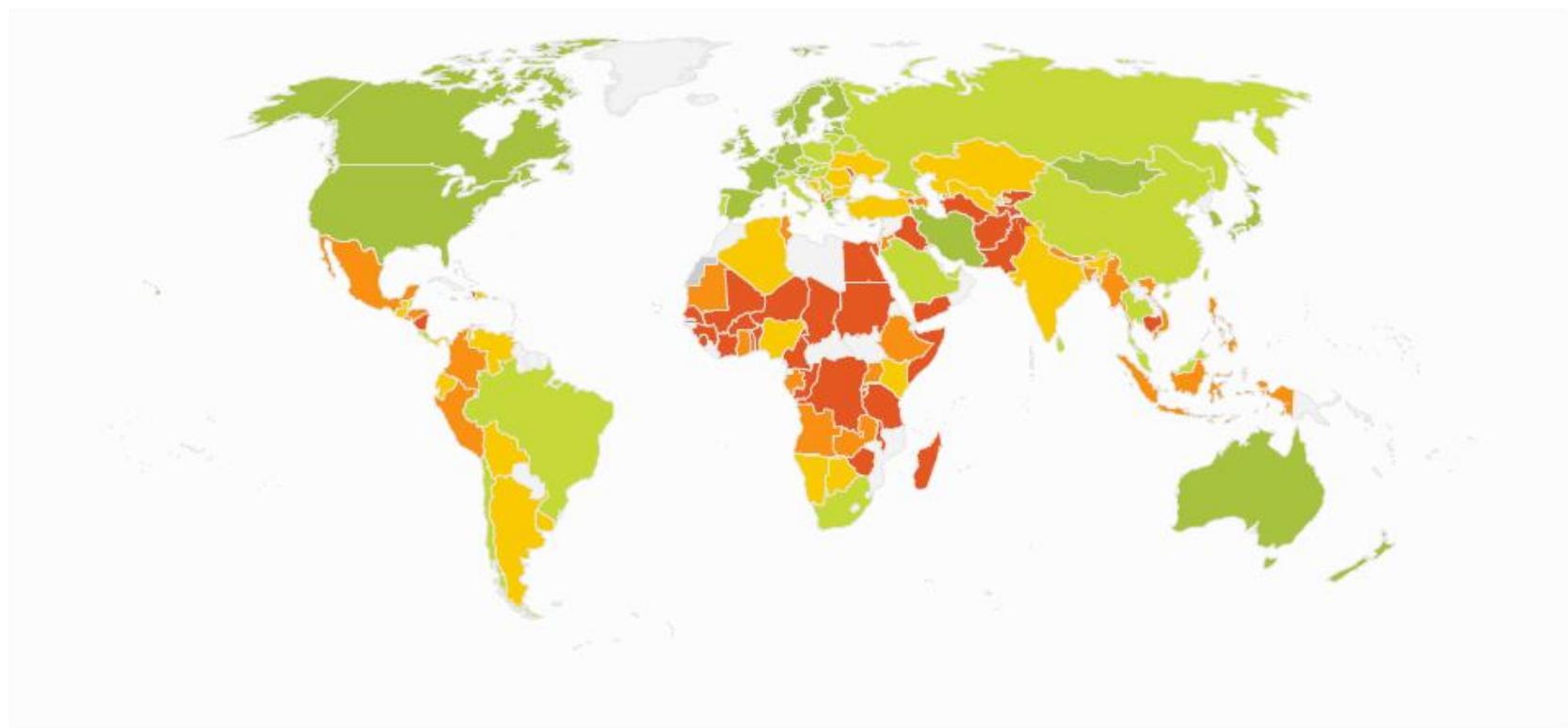
2.5bn

adults without access to
the financial system





World Bank's global Findex data



Account at a financial institution

Percentage of age 15+ with an account, 2017

No data 0 - 20.0 20.0 - 39.0 39.0 - 63.2 63.2 - 87.5 87.5 - 100

Source: World Bank, *The Global Findex Database*, March 2017



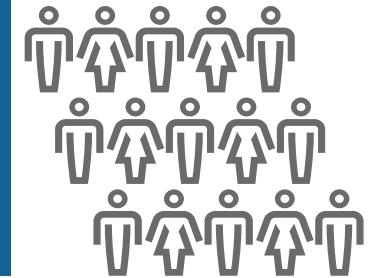
Mobile money continues to extend reach

There are
277 SERVICES
in
92 COUNTRIES



Mobile money is now available in
TWO-THIRDS
of low- and middle-income countries.

556 m
registered accounts globally with
174 m
active accounts



The industry processes over
43 m
TRANSACTIONS PER DAY



Bringing financial inclusion to new regions

SOUTH ASIA

40%

of all new registered accounts in 2016 were in South Asia.

Furthermore, providers were able to sustain strong registration growth and activity rates. In the five-year period between 2011 and 2016, active mobile money accounts in South Asia grew nearly thirty-fold.



LATIN AMERICA AND THE CARIBBEAN

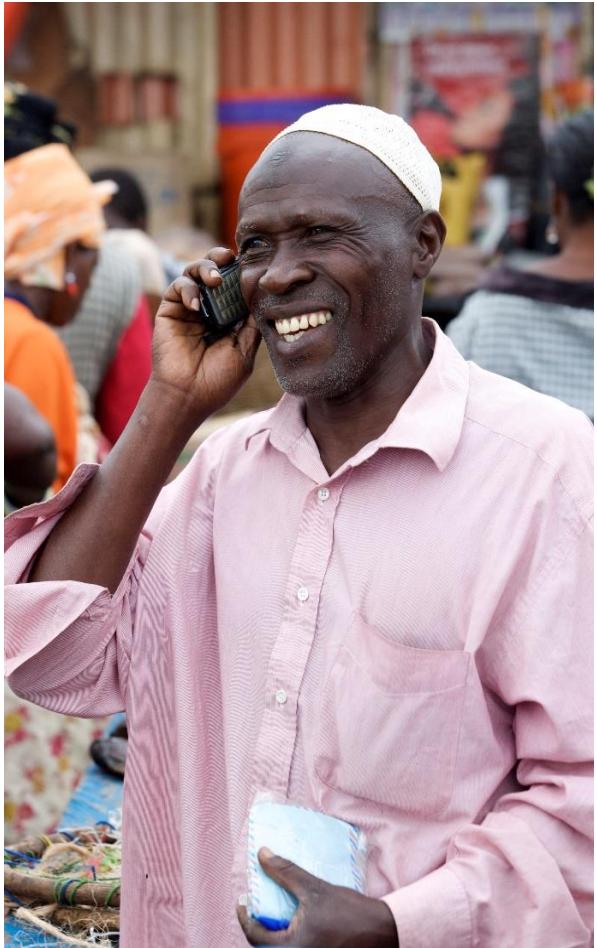
Latin America and the Caribbean has also experienced noteworthy growth in recent years. Active mobile money accounts grew from less than a million in December 2011 to more than

10 million

by the end of 2016. The number of live mobile money services in the region grew from 9 to 30 during this period.



What is mobile money?



Mobile money

- The use of information and communication technologies (ICTs) and non-bank retail channels to **extend the delivery of financial services to clients who would not be reached** profitably with traditional branch-based financial services.
 - Customers can sign up for the service **without an existing bank account**
 - Customers get money into and out of the service by going to a **network of transactional agents outside of bank branches**
 - Customers initiate transactions using an **interface that is available on basic mobile handsets**



In contrast, mobile banking is...

... the extension of banking services delivery through a mobile phone

- Characteristics:
 - Typically additive (additional to other access channels)
 - Deposit taking/banking principles apply
 - Provided by traditional banks, e.g., Equity Bank



Differences between mobile banking & mobile money

Mobile banking	Mobile money
Banking business: deposit-taking and credit services.	Payment service: limited to the provision of money transfer services – domestic remittances, international remittances in some cases. No credit provision.
Bank can take risks (intermediate) customer deposits.	Payment service provider/EMI/mobile money provider prohibited from intermediating customer funds. Funds must be 'ring-fenced' away from the service provider's own funds to protect against insolvency.
Bank is liable for the customer deposits which are typically protected under some deposit insurance or deposit protection scheme.	Ring-fencing requires the placement of the pool of funds in trust by a trustee appointed by the service provider or under escrow by a bank in liquid assets. This ensures the service provider's proximity to the funds is so remote that even upon a service provider's insolvency, its creditors cannot attach the customer funds. It also ensures that the funds are available on demand.
Agents appointed by the bank are licensed to provide agency services and are subject to a proportionately higher compliance standard. Their activities are restricted to taking deposits on behalf of the bank, facilitating withdrawals (much like ATMs), card collection and receiving (but not processing) applications for new accounts, loans, etc.	Typically non-bank retail traders may be appointed as agents to facilitate new customer registration and cash in / cash out (CI/CO). They also act as the customer-facing points of information for the customer.

Evidence of demand



 Formal

 Informal

- Poor households actively manage their financial ‘portfolios’ using a range of formal, semi-formal and informal services.



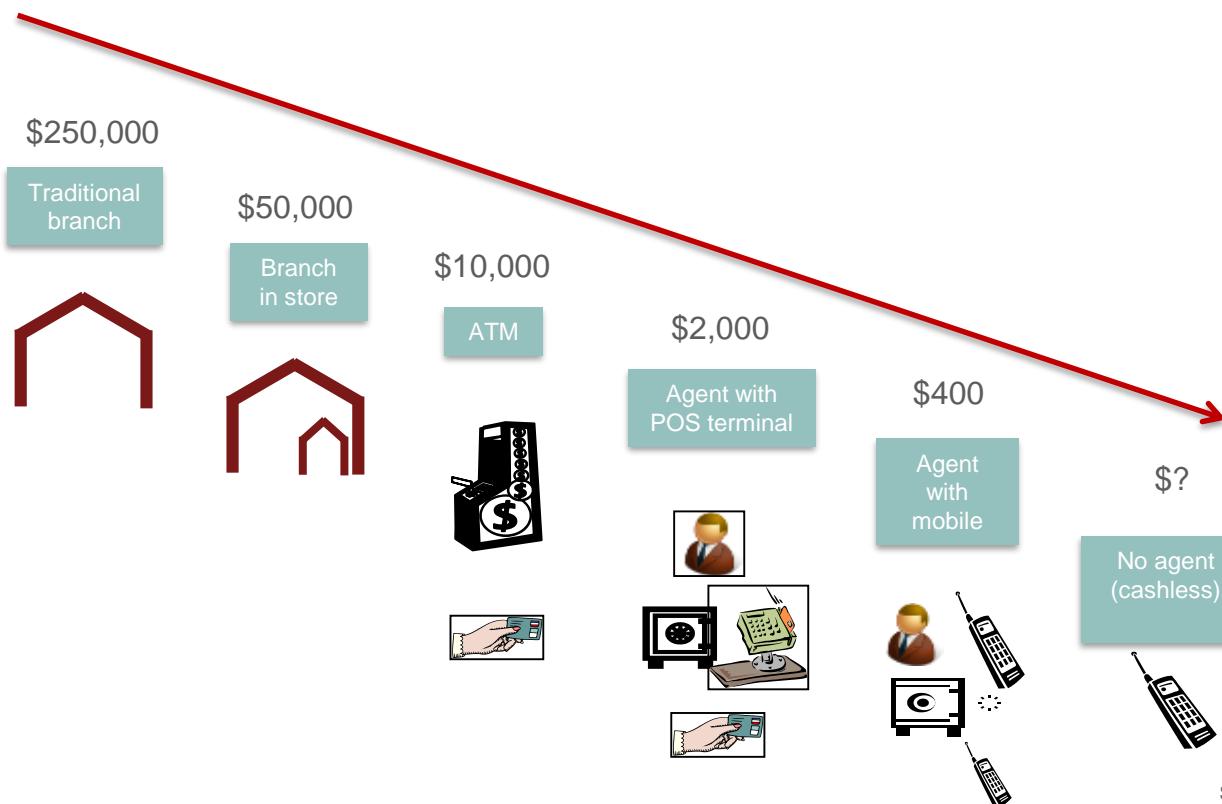
Social impact of mobile money



- Support families to keep children in school
- Improves access to healthcare
- Provision of social benefits to vulnerable groups



Comparative cost of financial access points



Source: CGAP



Mobile money regulatory models

Non-bank or mobile network operator-led model

Mobile network operator (MNO) authorised to offer the services directly.

Bank-led model

Bank authorised to offer the service in partnership with MNO. Bank responsible for compliance.

Narrow Bank model

New institution created and licensed under banking laws but restricted from offering credit.

Emerging ‘controlled’ model

Central banks issue the e-money and manage the central transaction processing platform.



Non-bank or MNO led model

- Commonly seen in Eastern, Southern and part of West Africa.
- MNO signs up customers to use the mobile money service, which is run by the MNO, but variations exist – e.g., in Uganda, MNO does not have access to central bank or does not hold license from regulator.
- The MNO model is most flexible, and allows for evolution of appropriate regulation in tandem with products and services.
- Many markets that implement the MNO model have a ‘wait and see’ position allowing for innovation and thereafter introduced regulation. Others have introduced new regulation to accommodate the service.





Bank led model

- Bank is the service provider. Role of MNO is more peripheral – limited to provide communications infrastructure.
- This model can be seen in Nigeria, South Africa, and parts of Asia and Latin America.
- Bank model faces stringent banking and regulatory challenges, and is less likely to scale as fast as MNO model.
- Slower to innovate new products and services, and non-banks are disincentivised from participating fully, leading to lack of adequate investment.
- Despite some exceptions (such as Pakistan and Bangladesh), banks have not scaled mobile money services and lack incentives to make necessary investments.





Narrow bank model

- New type of institution licensed under existing banking laws is created, which is more limited in terms of services it can provide. Typically, cannot offer credit services.
- Some elements of bank regulation to ensure management of risks associated with credit are waived, but generally, the “know your customer” (KYC) requirements remain.
- Narrow bank model can be seen in India, Mexico and Colombia.
- Narrow banks such as Payment Banks in India may be solution for markets that have a conservative view regarding mobile money.
- This model is very new and it remains to be seen if it will deliver scale.





Emerging ‘controlled’ model

- Central banks issue e-money and manage central processing platform, essentially becoming a market player.
- Emerging ‘controlled’ models such as in Jordan or Sudan feature the central banks playing key role in mobile money business.
- In Jordan, the central bank, for example commissioned development of a central switching platform that acts as a payments switch.
 - Payments service providers are required to connect their platforms to the government’s switch, in a sense mandating interoperability from the onset.
- In Sudan a more restricted model has been mooted where the central bank issues the e-money and operates the payments platform.
- These are relatively new models that need to be tested for their efficacy.



Mobile money regulatory models





Activity

Group discussion

What are some of the key differences between mobile money and mobile banking?



Case Studies



Case study: Sri Lanka

The key issues

- Sri Lanka has a population of 20 million people and 9.3 million unique mobile subscribers.
- According to the International Finance Corporation, Sri Lanka has high penetration of bank accounts, but low access to electronic payments, such as debit and credit cards, due to the slow rollout of ATMs and Point of Sale (POS) devices.
- In 2007, the Central Bank of Sri Lanka (CBSL) authorised National Development Bank to launch a mobile money service called eZ Pay with Dialog, a leading Sri Lankan mobile operator.
- However, the service failed to take off, and by 2012 there were only about 13,000 registered eZ Pay users.



Case study: Sri Lanka

The approach

- With eZ Pay struggling to take off, the CBSL, Dialog and Hatton National Bank PLC (another commercial bank), worked together to understand why the service was unsuccessful.
- After analysing the experiences of countries where mobile money was thriving, the CBSL issued new guidelines in 2011 on two distinct mobile money products: an e-wallet linked to a bank account and an e-wallet provided by a non-bank.
- In 2012, Dialog was awarded a licence to provide non-bank, mobile money services, under the eZ Cash brand. The CBSL also agreed to let Dialog register users without requiring them to have a bank account and opted for proportional, risk-based KYC requirements for new users.





Case study: Sri Lanka

The outcomes

- The evolution of CBSL's approach created an open playing field for bank and non-bank providers, allowing mobile operators to launch a competitive set of mobile money products.
- This enabling regulatory environment extended the benefits of sending and receiving money electronically to a broad segment of society that had previously been excluded.
- In the first month, over 300,000 customers signed up to eZ Cash, and after a year it had more than a million customers.
- In May 2013, 330,535 transactions were conducted through eZ Cash with a total value that exceeded Rs435 million (US\$3.32 million).





Case study: Philippines

The key issues

- The Philippines is an archipelago nation with a population of 92.34m spread over more than 7000 islands.
- In late 2007, just under two thirds of the population were mobile subscribers and the Philippines was named the ‘texting capital of the world.’
- Only 31.3 per cent of Filipino adults have a formal account (Findex 2014).
- 36 per cent of municipalities do not have a banking office (NSFI 2015).





Case study: Philippines

The approach

- Bangko Sentral ng Pilipinas (BSP) was willing to work with mobile operators Globe and Smart to understand the proposed mobile money service so it could 'test and learn'.
- Satisfied with the experience and soundness of these non-banks, as well as management of security risks, BSP Monetary Board granted preliminary approval letters to Globe, the non-bank, to launch the service with conditions around reporting, reconciliation of the float, and supervision.
- In 2001 and 2004 respectively, Smart communications launched SMART Money in partnership with Banco d'Oro and Globe Telecom launched Gcash.
- In 2009, the BSP permitted both banks and non-banks to issue electronic money. Via Circular 649, it offered guidelines governing the issuance and operations of electronic money in the Philippines.





Case study: Philippines

The outcomes

- Although there are an estimated 7million+ mobile money clients in the Philippines, only 4.2 per cent of Filipino adults have a mobile money account.
- The presence of other FSPs, such as pawnshops, remittance agents, money changers, e-payment service providers, mobile banking agents and NSSLAs reduce the percentage of underserved municipalities from 36% to 12%. (NSFI 2015)
- On the frontier of mobile money: both Smart and Globe are evolving their mobile money service offerings to grow the ecosystem by offering merchant payments, companion cards and connections with transport payments.
- In late 2015, the two operator-led mobile money schemes are moving towards account-to-account interoperability,
- The role of non-bank providers is recognised by the BSP, evidenced by participation in the ongoing National Retail Payments Strategy and the National Financial Inclusion Strategy (2015)





Break: 15:15 – 15:30



Session 5: Digital Literacy

- Defining digital literacy
- Barriers to digital literacy
- MISTT and policies to enhance digital literacy



The UN states

That **literacy is a fundamental human right** and the foundation for lifelong learning. It is fully essential to social and human development in its ability to transform lives. For individuals, families, and societies alike, it is an **instrument of empowerment to improve one's health, one's income, and one's relationship with the world**.

Source:- <http://www.unesco.org/new/en/education/themes/education-building-blocks/literacy/>

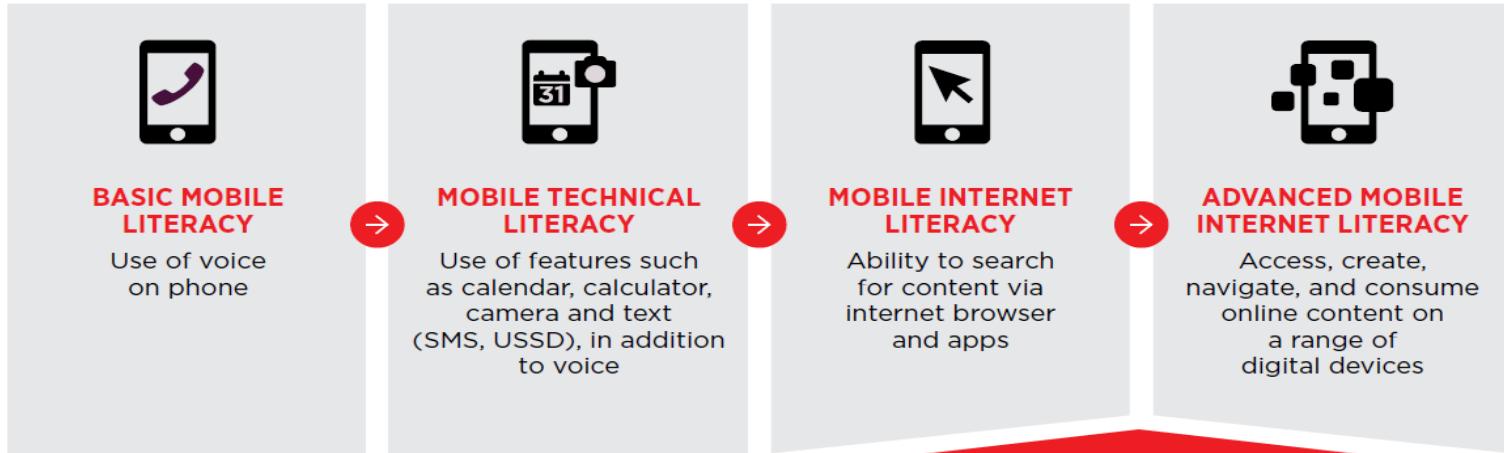


The UN on Information Literacy in a digital world

The Alexandria Proclamation of 2005 describes **information literacy and lifelong learning** as the "beacons of the Information Society, illuminating the courses to development, prosperity and freedom. Information literacy empowers people in all walks of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. It is a **basic human right in a digital world and promotes social inclusion in all nations.**"

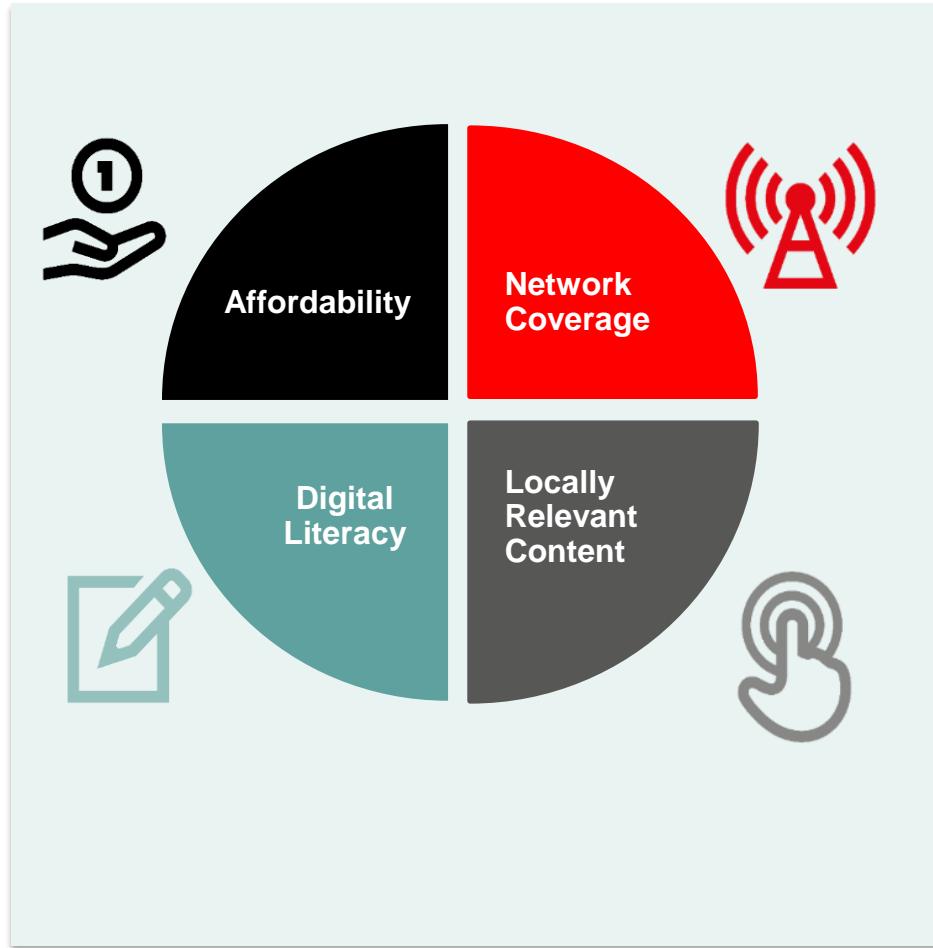


What is Digital Literacy?





Barriers to coming online



The future growth in mobile internet adoption will come from infrequent or new internet users



Global landscape

ACCELERATING MOVES TO MOBILE BROADBAND NETWORKS AND SMARTPHONE ADOPTION

Mobile broadband connections to increase from 55% of total in 2016 to

73%
by 2020

By 2020, there will be

5.7bn
smartphones, growth of 1.9bn from the end of 2016

Mobile data traffic to grow by a CAGR of

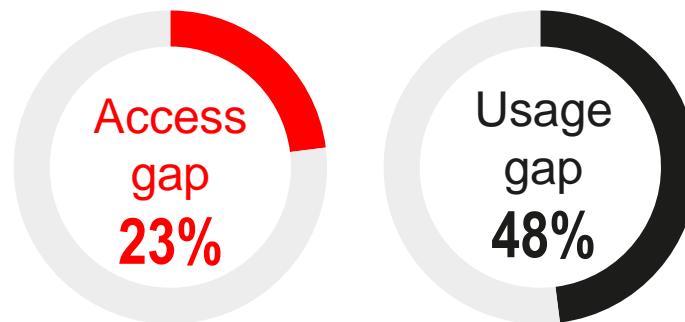
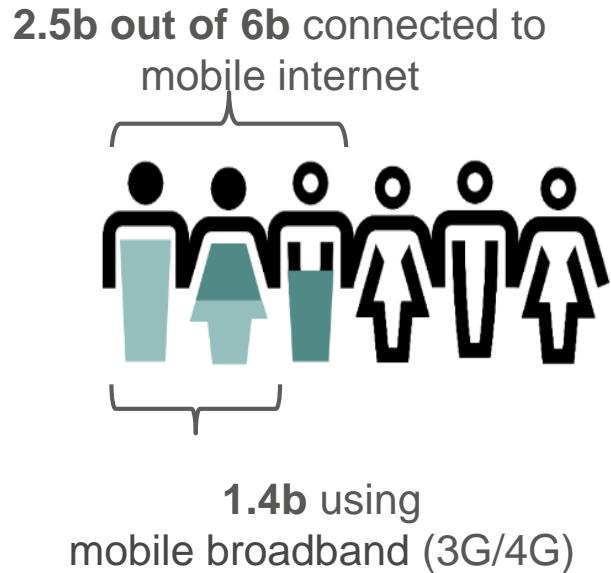
47%
over the period 2016–2020

Source: Ericsson





Mobile connectivity in developing nations



% of population not covered by 3G/4G, vs. covered but not using the mobile internet

Source: GSMA Intelligence



Digital literacy barriers to mobile internet use



757 million adults illiterate globally, 37% of which are in India. **40%** of people in sub-Saharan Africa are illiterate



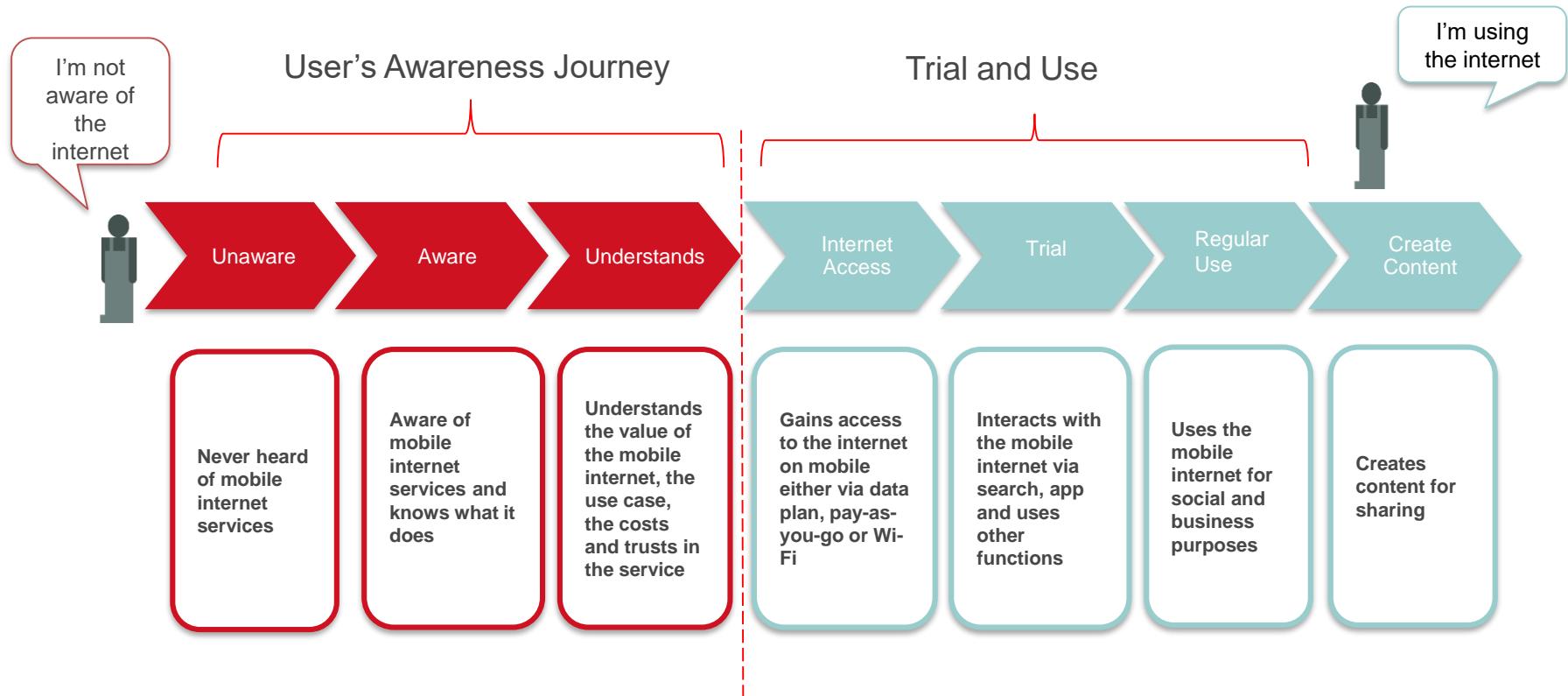
21% Indian and **39%** African respondents to GSMA survey stated **lack of digital skills** was their main barrier to coming online



But by the end of the decade, more than **40%** of the population will still lack internet access, with most of the excluded population living in rural areas



Customer Awareness and Use Journey





Mobile Internet Skills Training Toolkit (MISTT)

- Introduction to the mobile internet on an entry-level android smartphone
- For MNOs, NGOs, Governments or Development Organisations
- Teach the benefits and how to use the mobile internet





Bitesize Training

Each bitesize session follows a similar structure:



What is it?

Give a short explanation of the service. “**Quotation**” marks suggest what trainers could say



What can you use it for?

Briefly explain the benefits of the service. “**Quotation**” marks suggest what trainers could say



How does it work?

Get practical!

Use the ‘How To Use’ posters to help trainees use the service on a phone. This can be one you provide, or the trainee’s own phone



Practice!

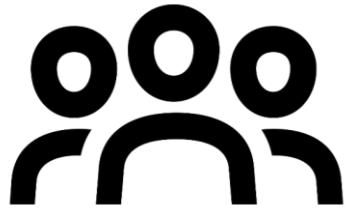
Practice, with examples relevant to audience

- Quick, Functional, Introduction to mobile internet
- All six modules





Why does increased internet access matter?



Individuals

Increased the number of ways we have to communicate, shop, socialize, entertain ourselves, work and learn



Businesses

Efficiencies in delivery of products, opened up **new markets and business models**



Governments

Reduced transaction costs communicating with citizens and delivering government services



Internet access enables participation in the digital economy

MOBILE CONTRIBUTING TO ECONOMIC AND SOCIAL DEVELOPMENT ACROSS THE WORLD



DIGITAL INCLUSION

Delivering digital inclusion to the still unconnected populations.

MOBILE INTERNET PENETRATION

48% 2016 ————— 2020 60%



FINANCIAL INCLUSION

Delivering financial inclusion to the unbanked populations. As of December 2016 there were

277 live mobile money services in 92 countries



INNOVATION

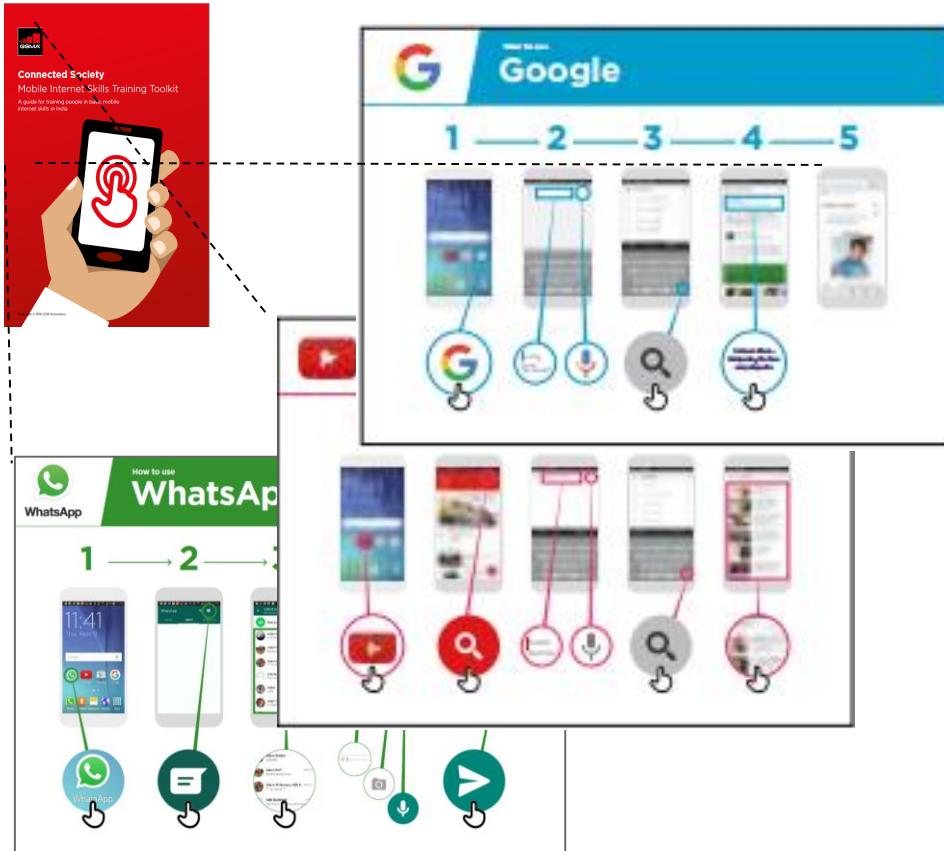
Delivering innovative new services and apps.
Number of M2M connections to reach

1bn by 2020

GSMA Mobile Economy Report 2017



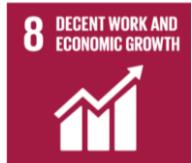
Enabling people with digital literacy leads to...



- Contribute towards improving life skills
- Support economic opportunities - job searches, business development & accessing government services
- Improve communication between governments and citizens



Enabling digital literacy supports SDGs



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Achieve gender equality and empower all women and girls

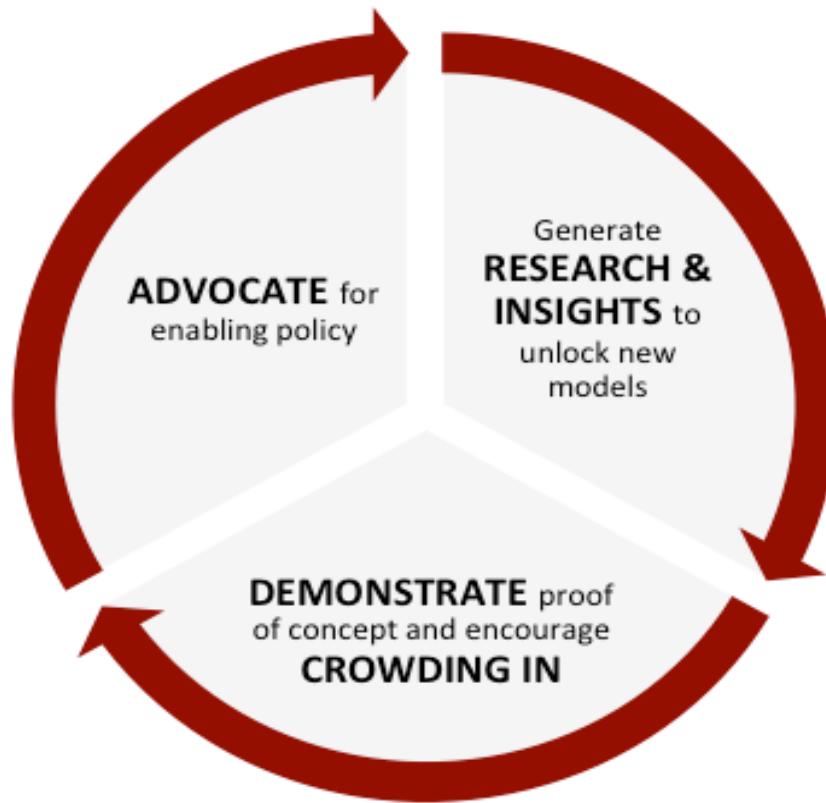
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Strengthen the needs of implementation and revitalise the global partnership for sustainable development



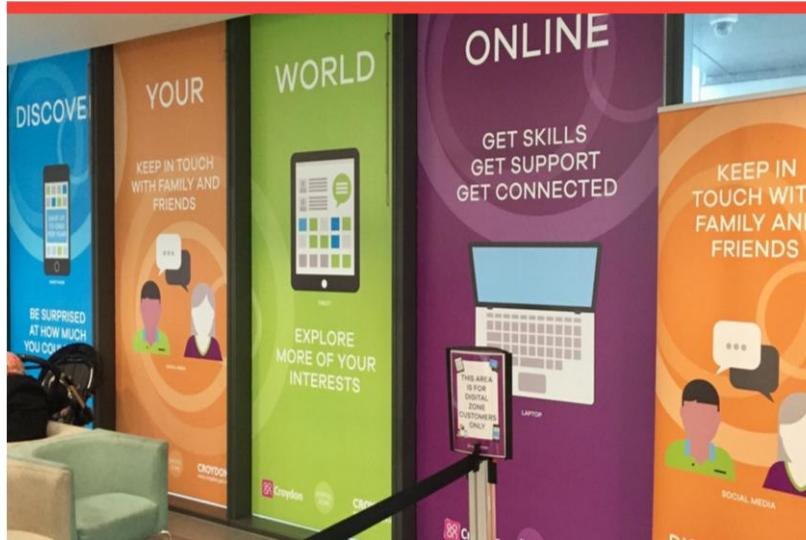
How GSMA advances digital literacy





Case Studies

United Kingdom: Free training in basic digital skills



BBC Research found that 21% of the UK's population lack basic digital skills. In 2016, the Government in partnership with Go ON UK, the digital skills charity, reduced the number of people who are offline by 25% and aim to continue the reduction every 2 years, so that by 2020 everyone who can be digitally capable, will be.



United Kingdom: Making digital inclusion part of wider government policy

- Make digital inclusion part of wider government policy, programmes and digital services
- Establish a quality cross-government digital capability programme
- Give all civil servants the digital capabilities to use and improve government services
- Agree a common definition of digital skills and capabilities
- Boost Go ON UK's partnership programme across the country
- Improve and extend partnership working
- Create a shared language for digital inclusion
- Bring digital capability support into one place
- Deliver a digital inclusion programme to support SMEs and VCSEs
- Use data to measure performance and improve what we do



Capacity
Building

Digital India's commitment to empower citizens with digital skills



- Making one person in every family digitally literate is an integral component of Digital India
- From 2017, Digital India are targeting **60 million people – 40% of rural India's population**, to become **digitally literate over 3 years**.



Digital Literacy policy recommendations

Governments/policy makers must dedicate sufficient funding and support to improve literacy digital skills:

- Education: Expedite the work in offering strong education systems at primary school level
- ICT: Promote use of ICT and internet as a medium of learning in schools, colleges and universities allowing students to master technology use
- Engagement: Ensure collaboration across all government ministries and departments to deliver ICT skills to schools, colleges and universities
- Rural engagement: Devote sufficient resources to extend a supportive learning environment to rural areas



Digital Literacy policy recommendations

- e-government services: Deliver services in education, health and financial disbursements and other life-enhancing services through mobile
- Partnerships: collaborate with operators, development organisations, NGO's and internet players to maximise the potential for improving literacy and digital skills
- Empower rural communities with knowledge of the mobile internet and its benefits through advertising campaigns that raise awareness of the relevant use cases
- Stimulate interest in the mobile internet by showcasing social, cultural and economic advantages of mobile internet in rural communities.



Capacity
Building



ACTIVITY



Capacity
Building

Day 1 Close

