



The Mobile Industry in Latin America

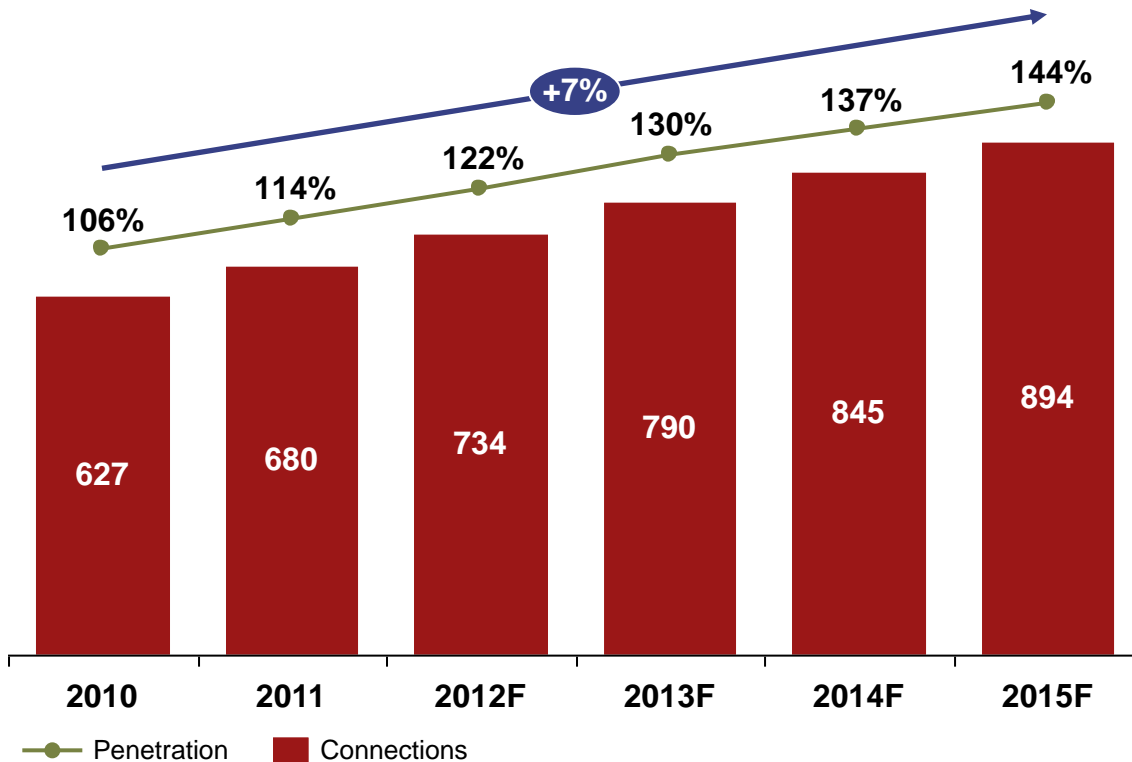
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The Mobile Industry in Latin America (2011)

- **c. 700 mil. mobile connections**
- **72 mil. MBB connections** expected to reach **300 mil MBB connections** by 2015
- **15 mil. LTE connections by 2015** - 35 LTE commitments, 7 trials and 4 commercial launches¹
- **14% capital expenditure**¹
- **US\$124 Bn** aggregated GDP (2.6% of the total regional output^{1,2})
- **US\$48 billion** contribution to public funding^{1,2}
- **Over 1.5m people employed by the mobile industry**¹
- **Strong contribution to the social development** via m-initiatives (m-health, m-agriculture, m-money,...)

The Latam market reached 700 mil in 2011 and is expected to continue its impressive growth and reach c. 900 mil in 2015

Number of Mobile Connections¹
(million, % penetration)



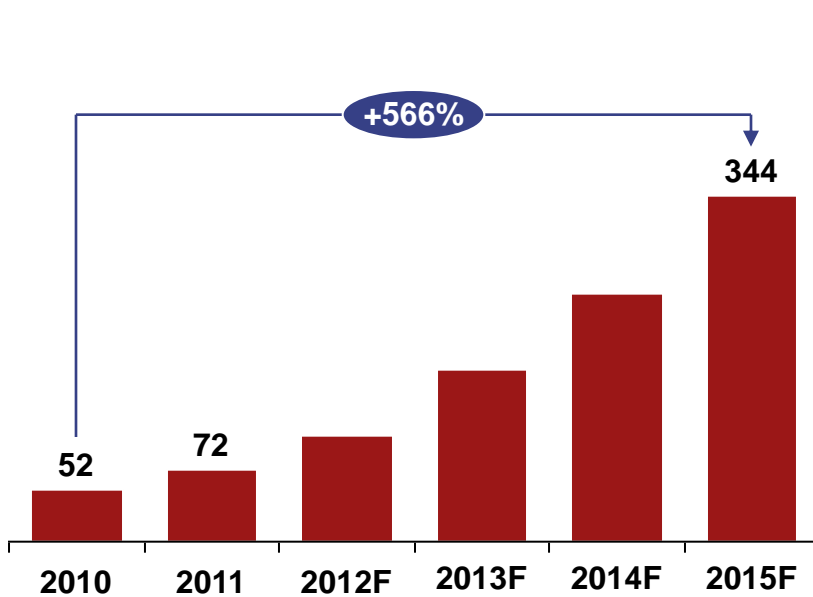
- 100% penetration reached
- Rapid growth over the last four years with significant increase going forward
 - Driven by increasing accessibility and affordability of mobile services (e.g. Prepaid)
 - Boosted by the improved prosperity of the region and the relative shortage of the fixed line infrastructure

1. Include M2M numbers; Numbers have been updated after the publication of the Latin America Mobile Observatory
Source: Wireless Intelligence, Machina, A.T. Kearney Analysis

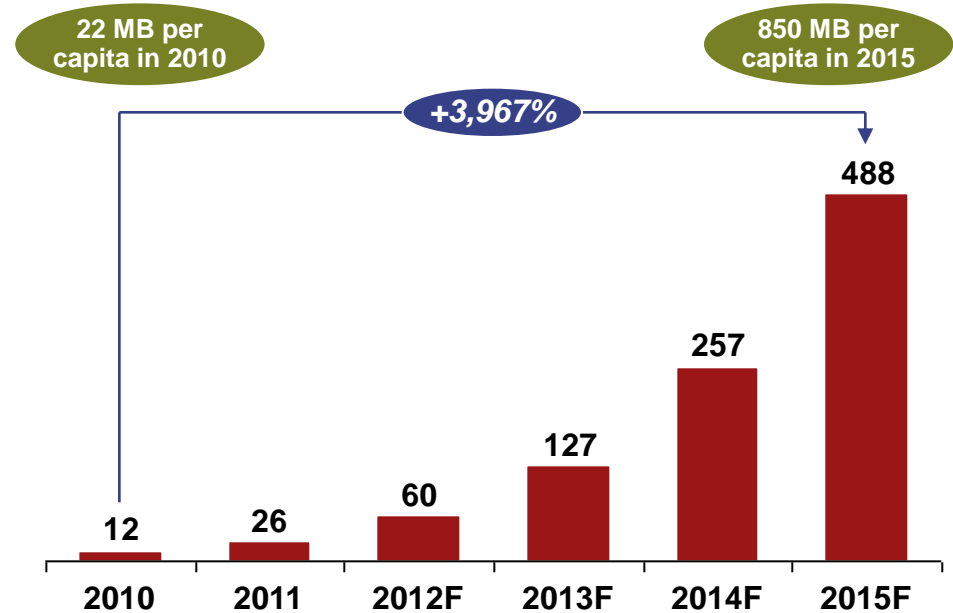
Although still embryonic, MBB is expected to become a significant driver for the mobile industry in Latin America

Number of Mobile Broad Band Connections & Expected Usage

Mobile Broadband Connections (Mil)¹



Mobile data traffic in LatAm and per capita, (Petabytes per month)



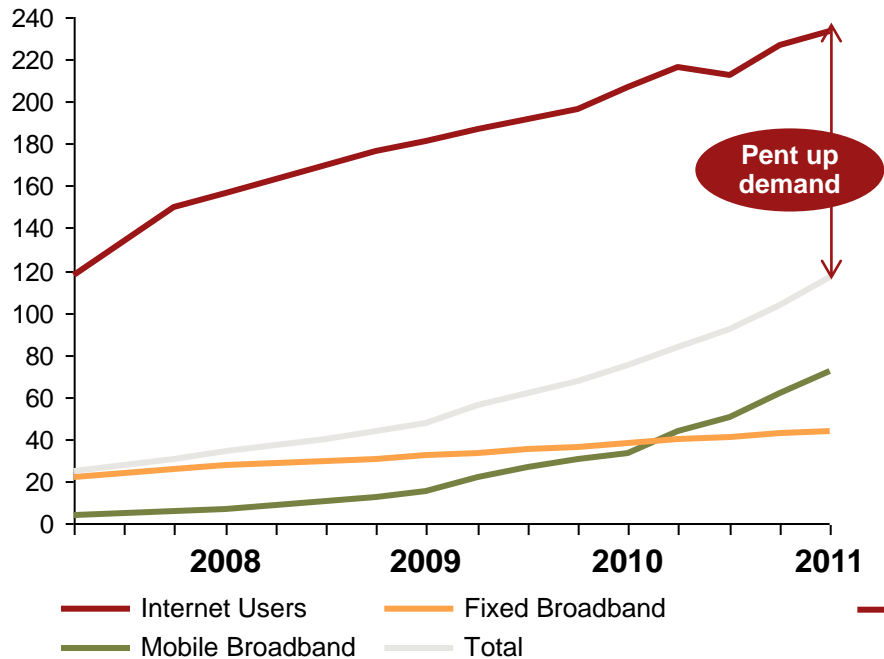
2010 saw 35 LTE commitments, 7 trials and 4 commercial launches. The number of LTE connections is expected to reach 15 mil. By 2015

¹: Numbers have been updated after the publication of the Latin America Mobile Observatory. Q4 each year based on technology; # of subscribers to CDMA 2000 1xEV-DO (Rev. A and Rev. B also), WCDMA HSPA and LTE
Source: The GSMA Latin America Mobile Observatory 2011,

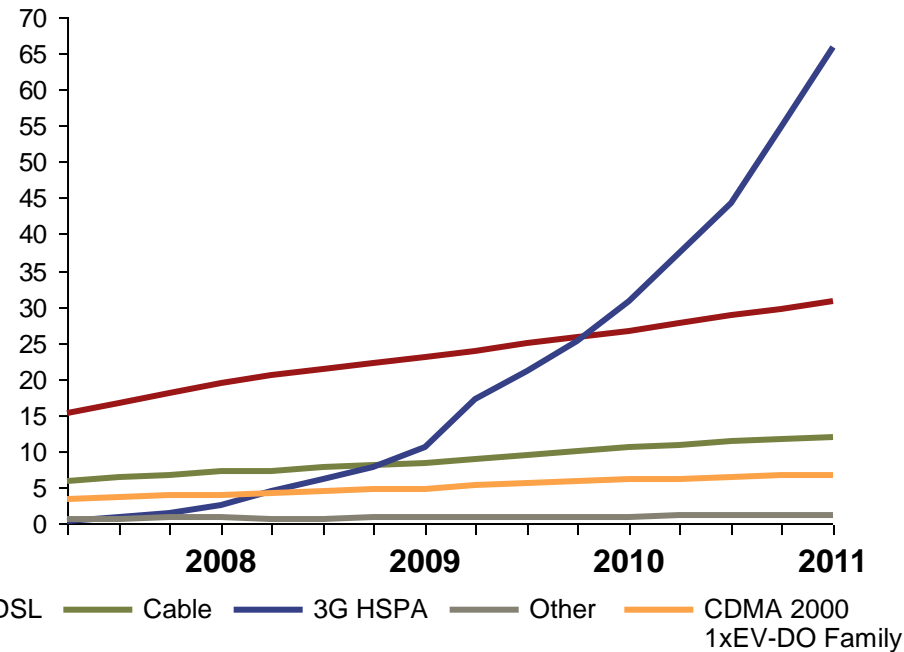
With a significant opportunity for growth as there is an unsatisfied pent up demand for internet services

Broadband growth in Latin America by Technology¹

Broadband vs Internet connections (Millions)



Broadband technology by connections (Millions)

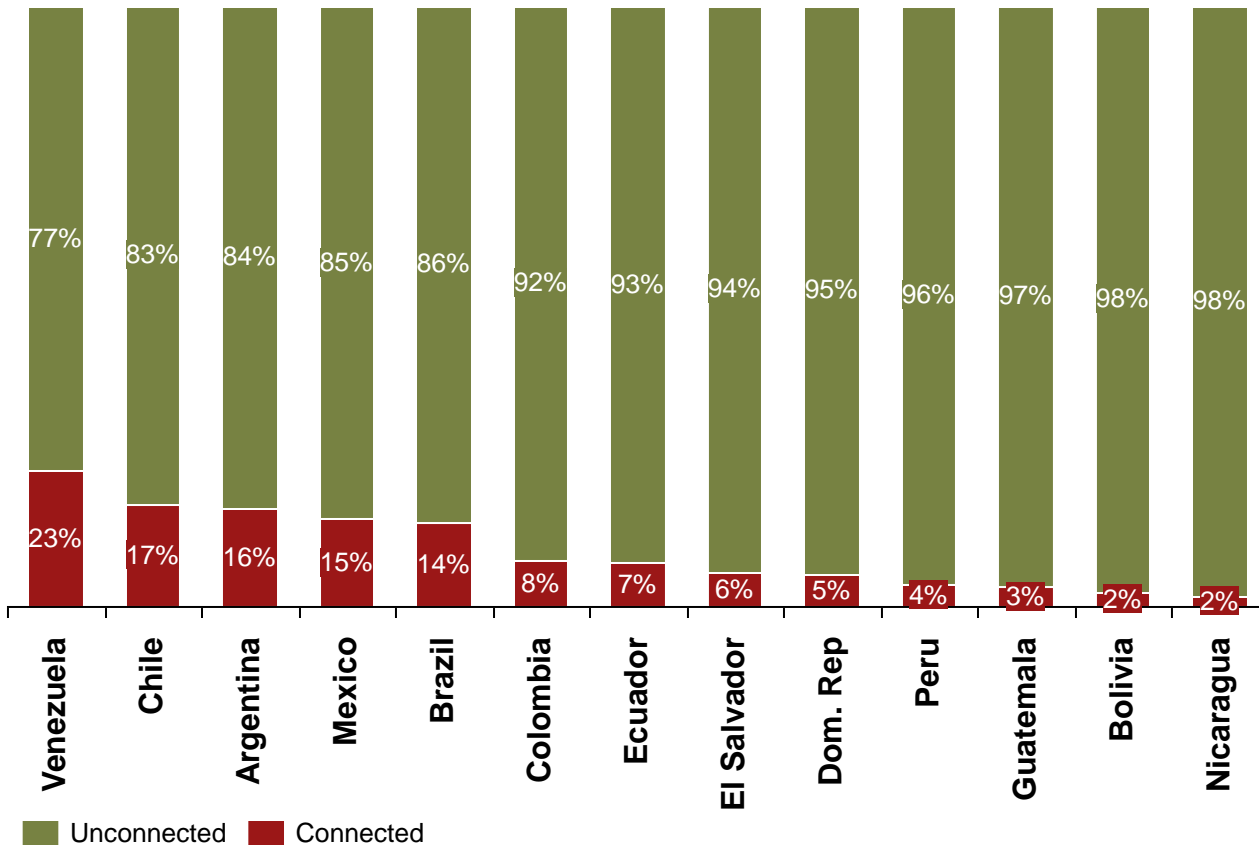


The number of mobile BB connections has recently overtaking the number of fixed line BB, a trend that is expected to further accentuate in the future

¹ Numbers have been updated after the publication of the Latin America Mobile Observatory Source: The GSMA Latin America Mobile Observatory 2011, A.T. Kearney analysis

Particularly as the size of the “unconnected” population is still very substantial across many Latin America countries

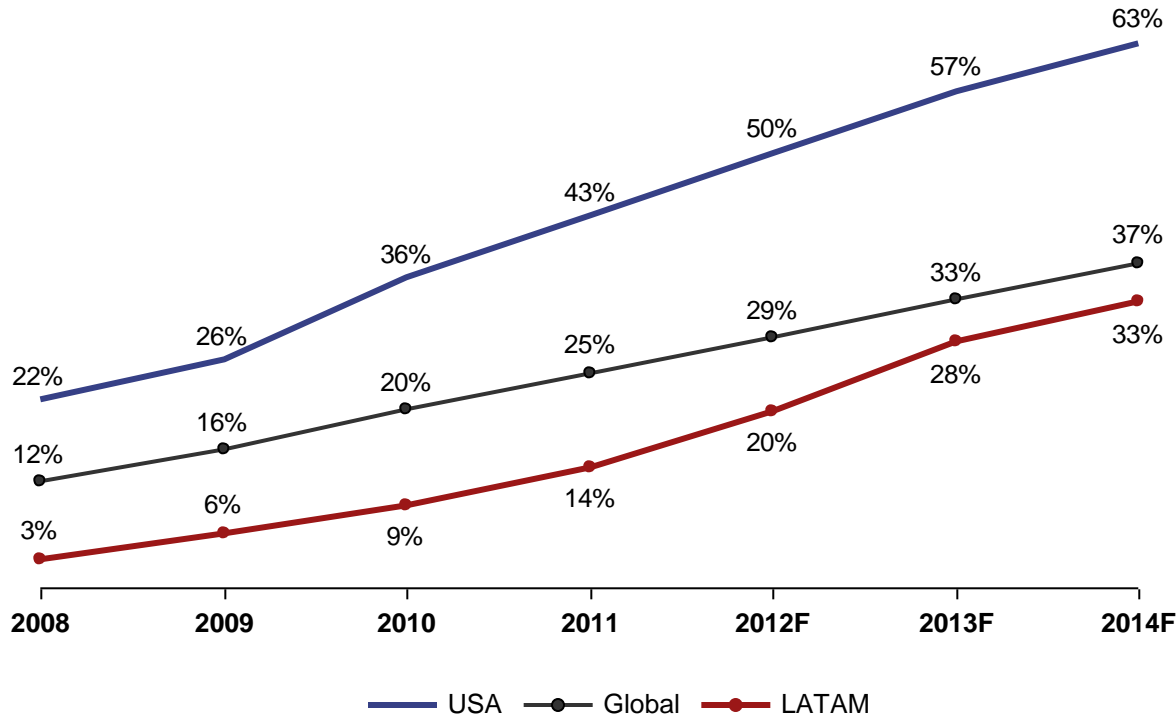
Total broadband (fixed and mobile) connected vs. unconnected in selected countries



- Mobile broadband now offers a way to provide many Latin Americans with their first experience of personal internet access and thus to bridge the Digital Divide.
- The increasing availability of 3G mobile devices and prepaid offers allows mobile to provide a lower entry cost option versus fixed broadband for the low income and “bottom-of-the-pyramid” customer segments

Additional developments such as smartphones and network investment will further foster the penetration of Mobile & MBB

Smartphone Penetration (Selected Countries)

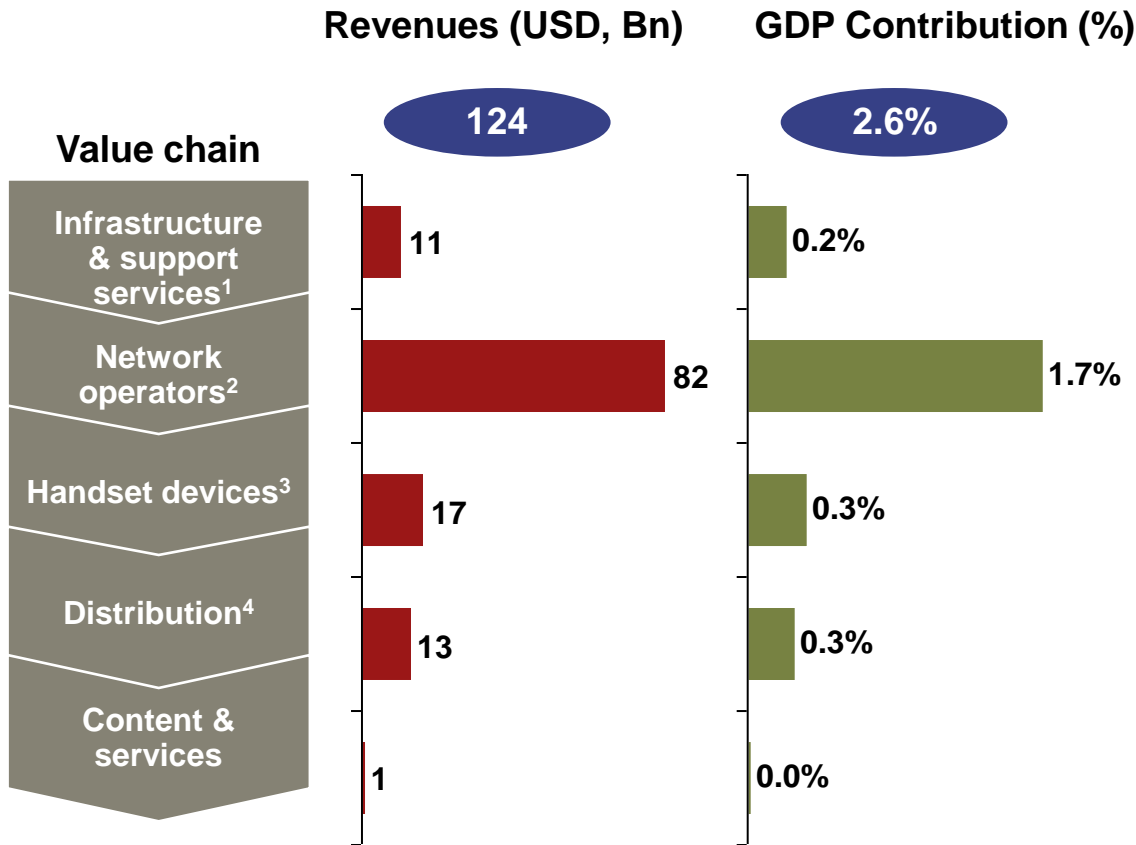


- Historically, Latin America has been following the USA in terms of smartphone penetration
- If this trends continues, Latin America is expected to reach circa 60% penetration by 2018

Latin America operators invested over 14% of their total revenues in 2010

The Latam wider mobile ecosystem contributed to US\$124 Bn to aggregate GDP in 2010, or 2.6% of the total regional output

Revenues and GDP Contribution (2010)

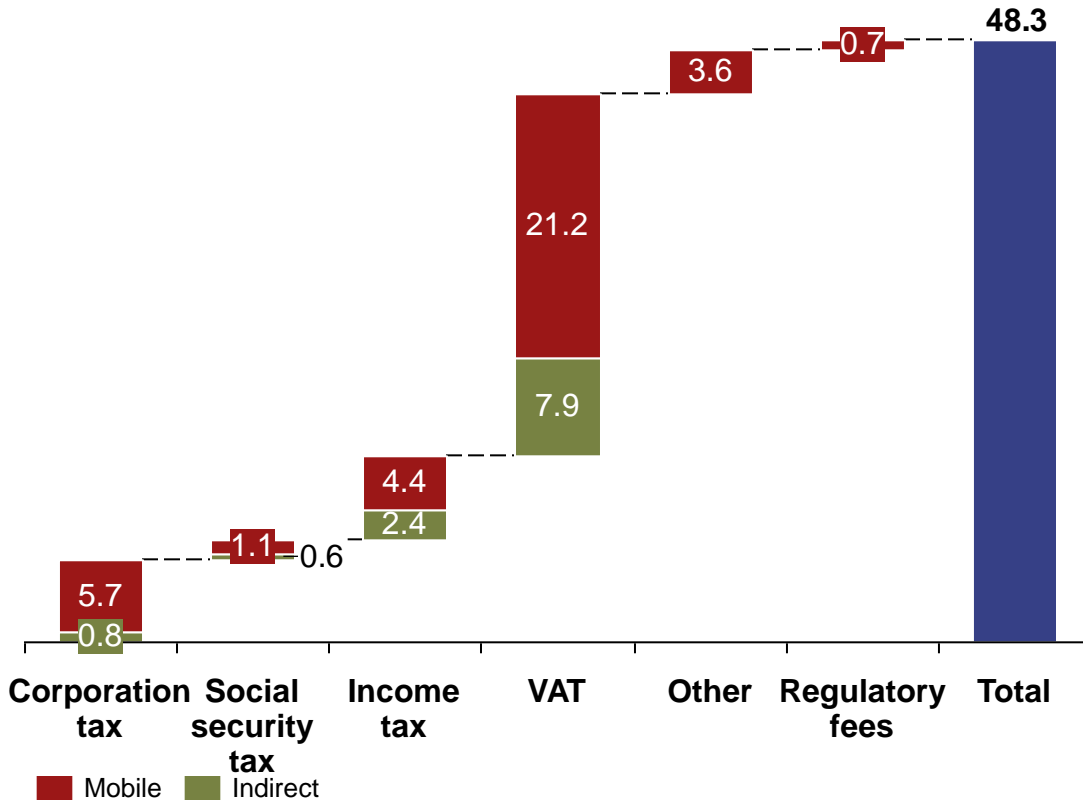


- Mobile operators account to 1.7% (82 Bn) of the total regional GDP
- Raising mobile penetration rates in LatAm countries to 100% could result in a GDP increase of US\$36 Bn, an aggregate of 0.6% of LatAm GDP

1. Suppliers of infrastructure and support services, including public and enterprise network equipment and support services for this infrastructure; 2. Predominantly mobile network operators (MNOs) with some revenues flowing to fixed line network operators (FNOs) for interconnection;; 3. Wireless handset device manufacturers; 4. Distributors and retailers of wireless handset devices; (5) Providers of mobile content and service applications
 Source: The GSMA Latin America Mobile Observatory 2011, A.T. Kearney analysis

It is estimated that the mobile ecosystem’s total contribution to public funding in 2010 amounted to approximately US\$48 billion

Contribution to Public Funding (2010, Bn)

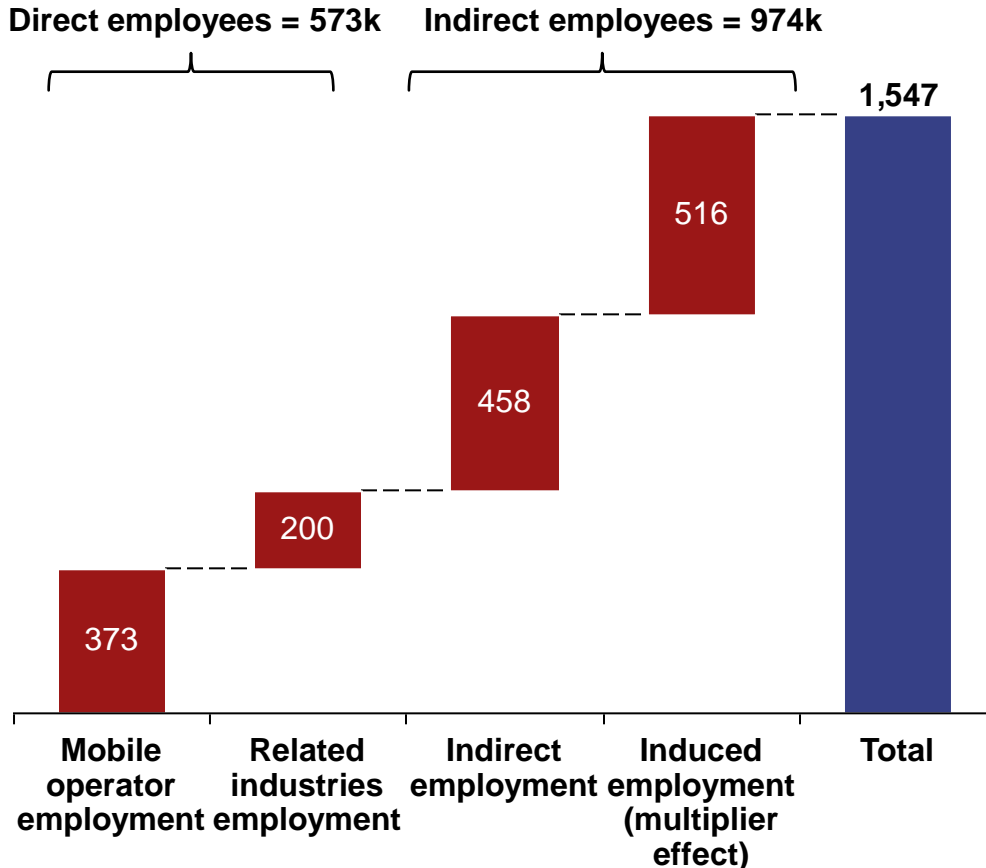


- The mobile ecosystem makes a major contribution to the Latam public finances through various levers including VAT/indirect tax, corporate tax on profits, social security taxes of direct and indirect employees, income taxes and regulatory fees
- Mobile operators contribute to approximately three quarters (US\$ 40 Bn) of the total public funding contribution. The remainder of the contribution reflects taxation of economic activity induced by the mobile industry

1. This varies by country
 Source: The GSMA Latin America Mobile Observatory 2011, A.T. Kearney analysis

The mobile industry plays a pivotal role in contributing to employment in LatAm, with over 1.5m people employed in 2010

Mobile Industry Employment (2010, Bn)

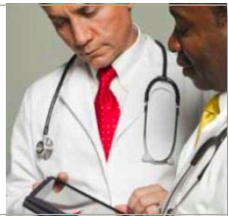


- Direct employment is derived by taking into consideration the mobile operators and related industries
- Indirect employment is derived by determining the value add of each segments of the value chain¹, minus the direct employment
- Induced employment ('multiplier' effect,) calculates whereby jobs are generated by the mobile industry's direct and indirect employee spend

1. It was assumed that owners and funders spend their returns from the industry in a way that generates further employment.
 Source: The GSMA Latin America Mobile Observatory 2011, A.T. Kearney analysis

The mobile industry is also strongly contributing to the social development in Latin America

Social developments



m-Health

Developing and deploying mobile technology to extend healthcare services to a larger number of Latin Americans



m-Money

Contributing to the financial inclusion is a particularly important tool to combat the high inequality and pockets of deep poverty in Latam



m-Learning

Improving and spreading education in LatAm both by enabling learning through mobile devices & by supporting mobile and internet access in schools



m-Agriculture

Using mobile technology in some parts of Latam to aid economic development in rural areas by providing better information to farmers



m-Government

Improving the efficiency of government services in Latam., e.g. mobile operators help governments by providing them with unified communications



Protection of Children

Protecting children from online threats via national/ regional initiatives in the region. Enabling resources in the development & protection of their communities & citizens



Contribution to Safety

Creating public safety with announcements e.g. available on popular websites, offering support to other safety-oriented organizations, etc



Tackling Handset Theft

Co-leading initiatives with governments to actively deterring theft, by preventing the reuse/ activation of stolen mobile phones

But moving forward will require the effective regulatory policies of governments and regulators

Key Messages

The need for a transparent, predictable & consultative regulatory regime

- To attract national/ foreign investment, regulatory regimes must be transparent & predictable. Decisions made by regulatory bodies can potentially change the business case for long-term investment at short notice

Reducing ineffective taxation to drive penetration

- Although mobile telecommunications are providing an important engine for economic growth, further stimulation will require further liberalisation and reform to telecoms taxation policies in some countries in LatAm

Incentives to drive universal access, rather than universal service obligations/ funds

- Reviewing and improving the impact of USF's. Governments and regulators should employ best practices especially when dealing with funds that have not yet been distributed.

The importance of a clear roadmap of spectrum allocation

- Spectrum management is one of the most important issues for the mobile industry globally. Spectrum is a valuable and limited social 'asset' that governments control and need to best utilise to maximise economic and social benefits for their citizens.

For further information please go to:
<http://www.gsma.com/mobile-observatory/>