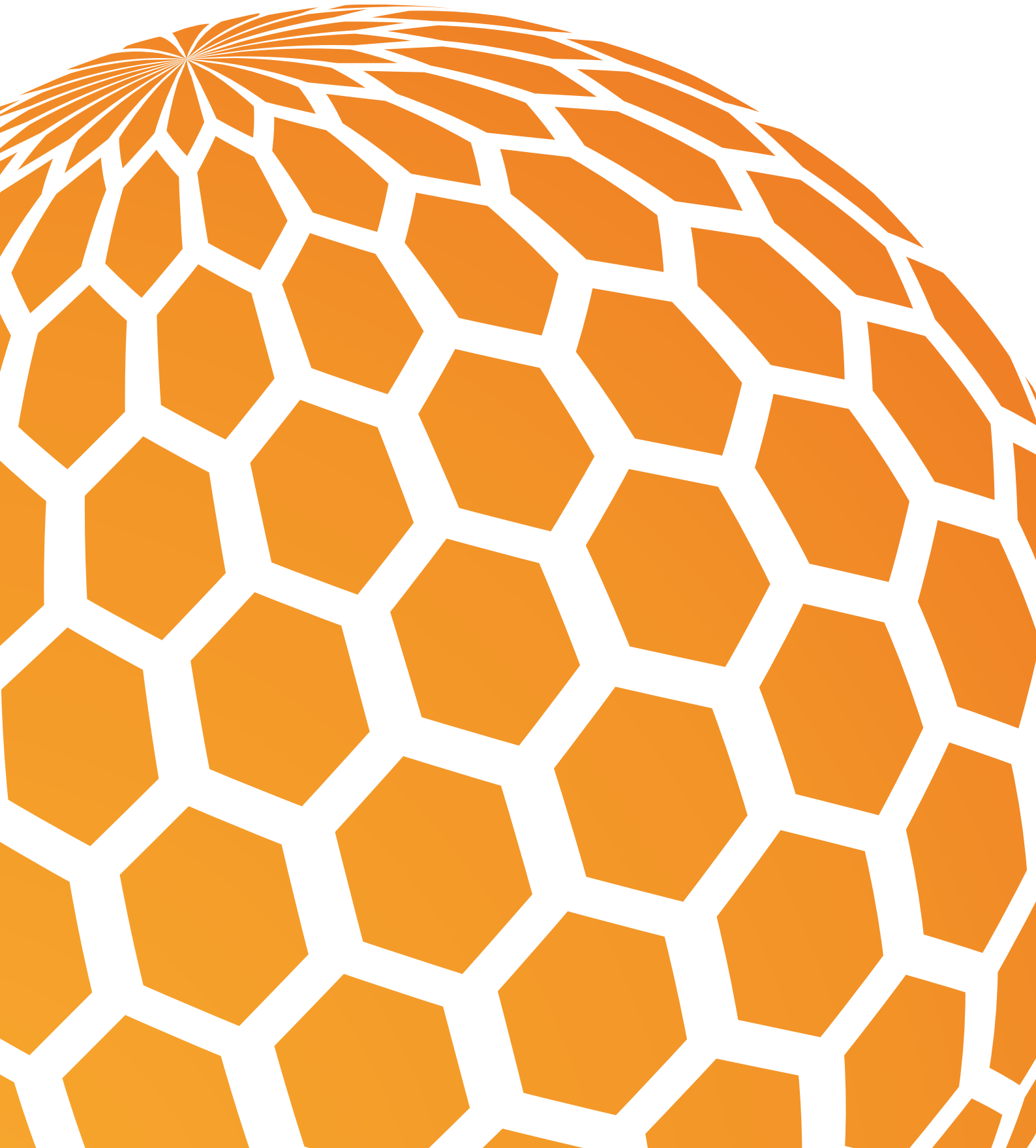




# The Mobile Economy Asia Pacific 2013

Executive Summary





The **GSMA** represents the interests of mobile operators worldwide. Spanning more than 220 countries, the **GSMA** unites nearly 800 of the world's mobile operators with more than 230 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers and Internet companies, as well as organisations in industry sectors such as financial services, healthcare, media, transport and utilities. The **GSMA** also produces industry-leading events such as the Mobile World Congress and Mobile Asia Expo.

For more information, please visit the **GSMA** corporate website at [www.gsma.com](http://www.gsma.com)

or **MOBILE WORLD LIVE**, the online portal for the mobile communications industry, at [www.mobileworldlive.com](http://www.mobileworldlive.com)

This report has been prepared by the Boston Consulting Group and the opinions and conclusions expressed are those of BCG alone and do not represent official GSMA viewpoints.

In this report we provide an overview of the situation in Asia Pacific with some numbers used from GSMA Intelligence amongst others and reflect the situation as of March 2013.

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# Executive Summary

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Mobile technology is one of the most transformative and fast-spreading technologies in history. Not only has mobile phone service reached all but the most remote corners of the globe, the convergence of the internet and mobile telephony has created a rich brew of content and services that benefits more people, in more places than ever.

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The significance of mobile lies in its power to bring individuals, information and services closer together — quickly and conveniently. For a rapidly growing number of people, their mobile device is the centre point of an array of activities — speaking to family, shopping, reading news, listening to music or responding to email. At work, at home or in transit, people rely on mobile applications and services, whether they have a smartphone, a feature phone or another mobile device.

These small handsets, backed by robust mobile networks and a global ecosystem of content and service providers, have become a constant companion in modern life. Mobile is a dynamic and innovative sector, and we have only just begun to experience the value to society that this technology will enable.



# Our lives are becoming more connected, more mobile



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# Opportunities in Asia Pacific

As a region,  
Asia Pacific is  
incredibly diverse.

The state of mobile development varies from country to country, and certainly between rural and urban areas within. Likewise, the impact of mobile across the Asia Pacific economies is uneven. In emerging markets such as India and Bangladesh, mobile-sector development is concentrated around providing access to previously excluded sections of the population and in making services such as healthcare, education or finance accessible and affordable to all.

For the many industrialised countries such as Japan, South Korea and Australia, sector development focuses on greater consumer convenience via services such as mobile banking, or on services that improve people's quality of life, such as remote learning.



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# The economic impact of mobile in Asia Pacific in 2012

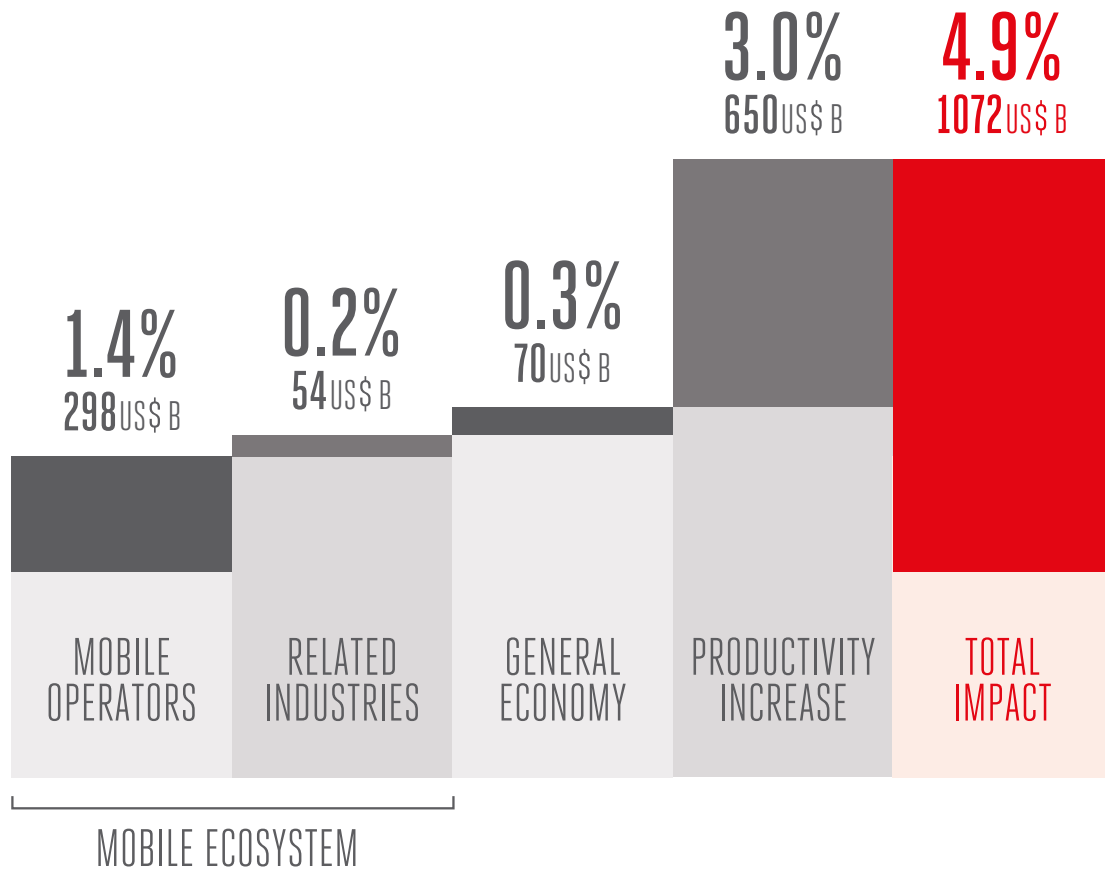
As a result of the success and continuing expansion of mobile in Asia, the sector makes an economic contribution that cannot be ignored. Mobile network operators create economic value directly – by offering a valuable service to citizens, employing people, paying vendors for services, paying taxes and investing in infrastructure and spectrum licences. But it doesn't end there. The mobile industry supports an array of other businesses developing mobile devices, applications and content.

Even beyond the industry ecosystem, mobile strengthens every sector in the wider economy by increasing productivity and providing access to email, applications and the internet at any time. It gives people important new ways to learn and to do business and to buy things. This effect is even stronger in developing countries than in developed economies.

In 2012, mobile network operators generated 1.4% of GDP across Asia Pacific, amounting to US\$298 billion. The full mobile ecosystem contributed US\$351 billion to GDP across Asia Pacific.

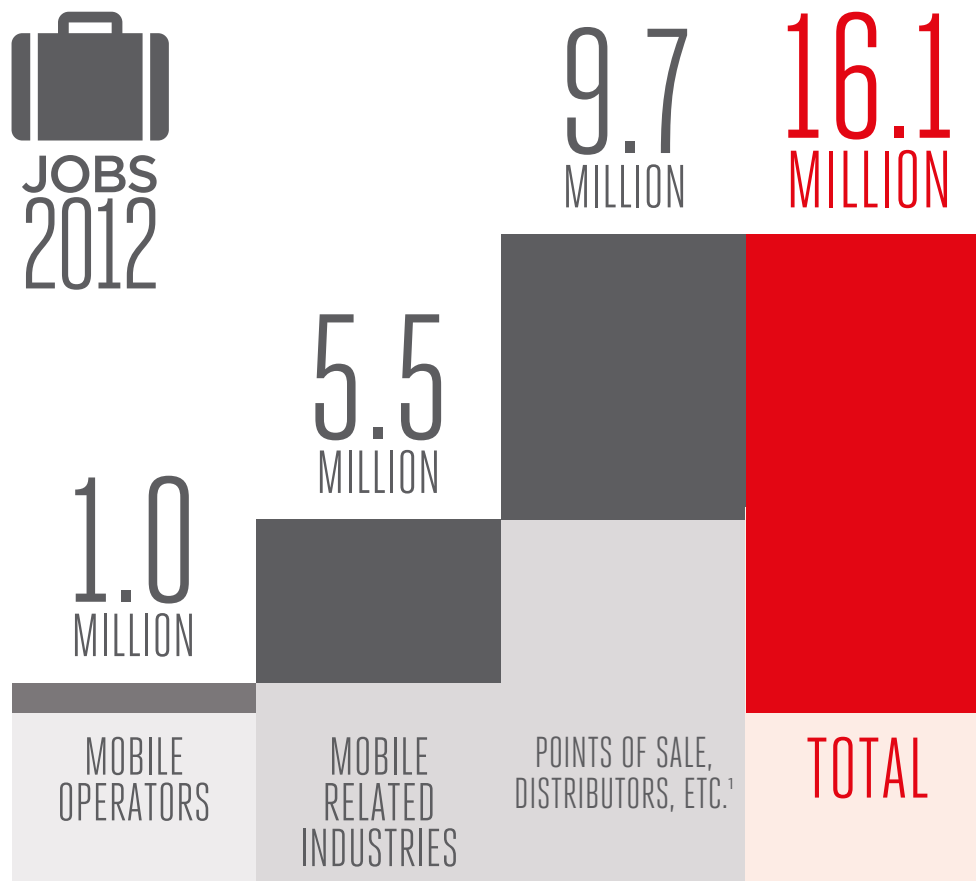
Even more impressive is the degree to which mobile technology contributes to economic output through worker productivity. According to the study, this amounted to US\$650 billion, or an additional 3% of GDP in 2012.

## TOTAL GDP IMPACT OF MOBILE ECOSYSTEM 2012



The mobile ecosystem also supported about 16 million jobs across Asia Pacific in 2012. This includes 6.4 million jobs directly attributable to the mobile ecosystem and an additional 9.7 million jobs across points of sale, distributors etc.

## CONTRIBUTION OF MOBILE ECOSYSTEM TO JOBS

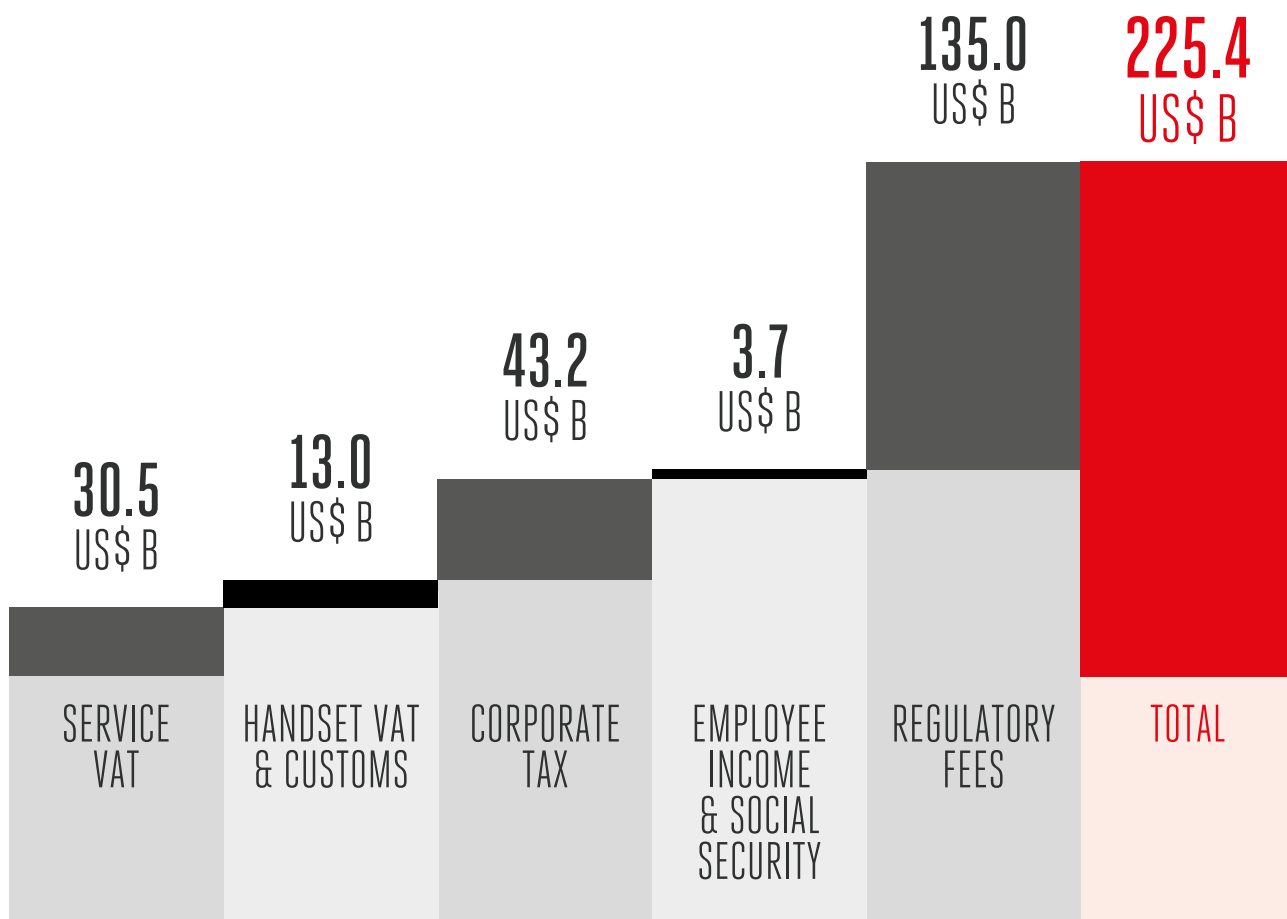


1. Assuming an average 1.5x multiplier between mobile ecosystem employees and indirect jobs from points of sale, distributors etc - GSMA. Source: GSMA Intelligence; EIU; GSMA; BCG analysis

Through taxes, fees and duties, the mobile ecosystem contributes significantly to public funding. This includes value-added tax (VAT) on mobile services, import duties and other special taxes on handsets, corporate taxes applied to the mobile ecosystem revenues, employee taxes paid by people working in mobile ecosystem and regulatory fees. The estimated contribution in 2012 exceeded US\$225 billion, regionwide.



## CONTRIBUTION TO PUBLIC FUNDING BY MOBILE ECOSYSTEM



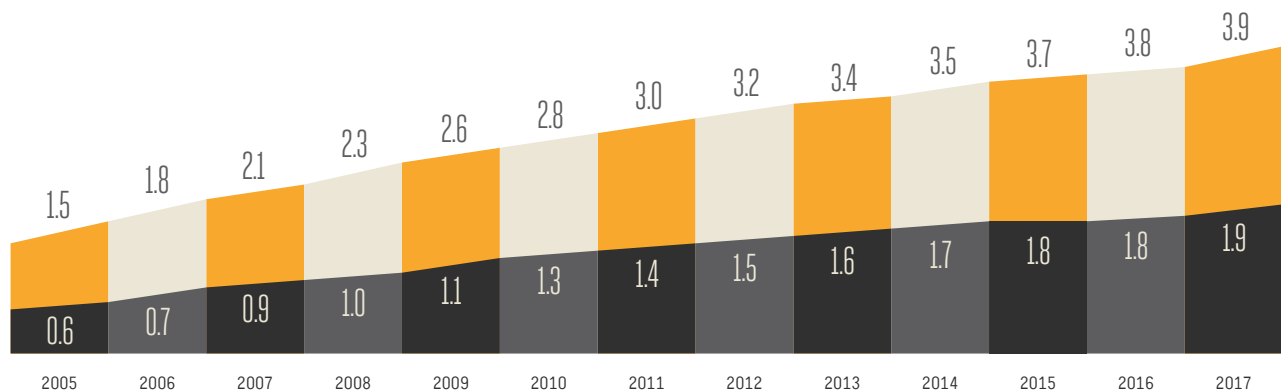
Note: 2012 estimates. Excluding 135B annual regulatory fees, in addition to lump sum payments from spectrum auctions  
Source: GSMA Intelligence; Annual Reports; Factiva; GSMA; BCG Analysis

# By the numbers: subscribers, investment, networks and speeds

Roughly half of the world's mobile connections are now in Asia Pacific, with some 1.6 billion unique subscribers. However, significant differences in market penetration exist across the region, reflecting varying market conditions and levels of investment in different countries. Collectively, mobile network investment surpassed US\$80 billion in 2012.

## LEAPS AND BOUNDS

Asia Pacific leads  
the world in new  
mobile subscriptions

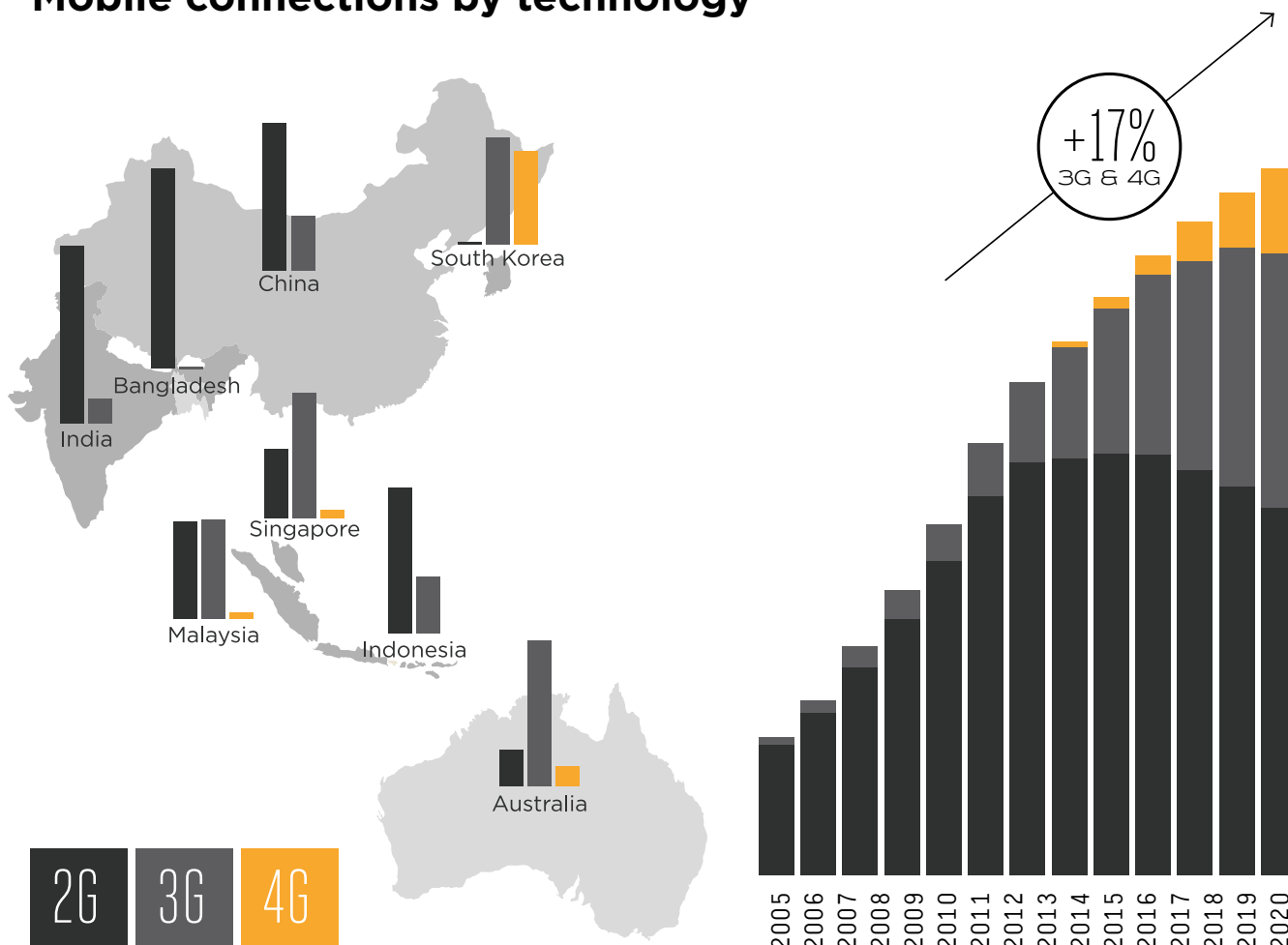


 UNIQUE SUBSCRIBERS WORLD [Billions]

 UNIQUE SUBSCRIBERS ASIA PACIFIC [Billions]

Mobile subscribers in Asia Pacific's developing economies are predominantly connected via 2G mobile services. The migration to mobile broadband offered by 3G and 4G networks is well underway, however, and will in the coming years deliver widespread access to all of the advantages of internet-enabled services and rich content.

## Mobile connections by technology



As broadband services take hold, the volume of data crossing mobile networks in Asia Pacific is growing briskly, showing dramatic increases over the past two years (2010–2012). Growth in mobile voice traffic, meanwhile, has slowed considerably, following a familiar progression seen in other markets.

## Voice vs Data traffic

Voice traffic growth slowing down to around 6% p.a. across Asia Pacific...

6%

142%

...while data is increasing significantly

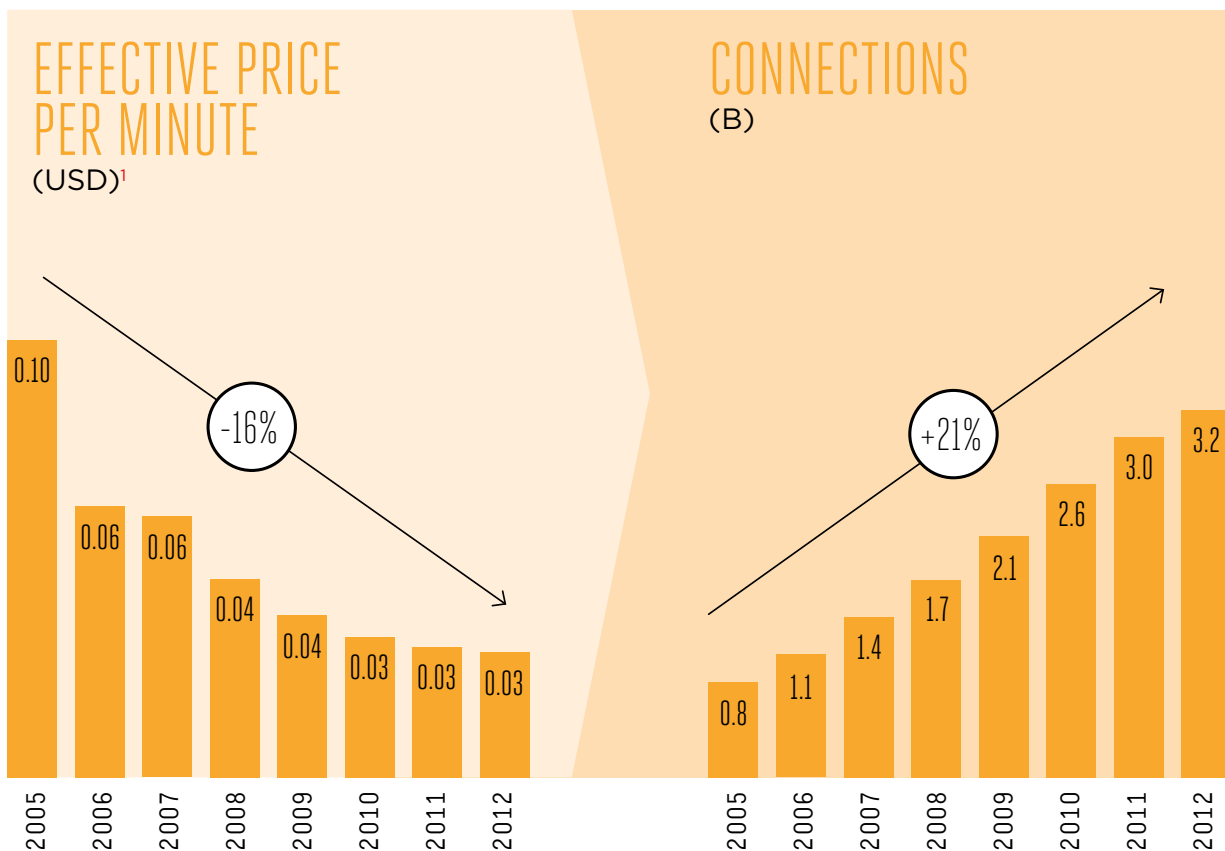
# Greater affordability

Mobile network operators in Asia Pacific have demonstrated their commitment to extending affordable mobile service throughout their markets. This is reflected in the steady reduction in price per minute and average revenue per user (ARPU).

## MOBILE SERVICES COST FOR APAC

Reduced price per minute sharply across Asia Pacific...

... and increasing number of connections



1. GSMA Intelligence 2012 Q4 number from selected operators and countries to show trend  
Source: GSMA Intelligence

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# The dawn of a new mobile ecosystem

As a wide range of new business models emerge, the mobile ecosystem is undergoing a rapid transformation, with the traditional telecom companies expanding their business models and new players rapidly emerging and successfully competing to gain control of the consumer.

## THE KEY TRENDS INCLUDE:

- Entry of nontraditional players in the ecosystem (including technology companies and content providers), that challenge the status quo of traditional operators
- Greater socio-economic impact through collaborative platforms and mobile-enabled services (including mobile payments, educational and information services)

Most notably, the mobile content sector is thriving, with low barriers to entry and growing demand creating countless business and employment opportunities in both developed and developing countries. Many of these companies are becoming increasingly global. In India, for example, the value-added service (VAS) industry sources roughly half of its revenues internationally. As scale is not a requirement for app development, businesses of varying sizes can participate — even enterprises with a handful of employees.

# Sustainable Development - Today and Tomorrow

Looking towards 2020, the mobile ecosystem's contribution keeps building

Figure 1

## GDP

2012 **1Tn** US \$1 trillion  
GDP impact

2020 **3.3Tn**

US \$3.3 trillion  
GDP impact

## EMPLOYMENT

2012 **16M** 16 million jobs created  
by mobile industry  
and points of sale

2020 **22M**

22 million jobs created in mobile  
industry and points of sale

## PUBLIC FUNDING

2012 **100B** US \$100 billion  
contribution to public  
funding, in addition to  
spectrum licenses

2020 **300B**

US \$300 billion contribution to  
public funding, in addition to  
spectrum licenses

## EDUCATION



2012 **50%** proficiency  
improvement  
in key subjects<sup>1</sup>

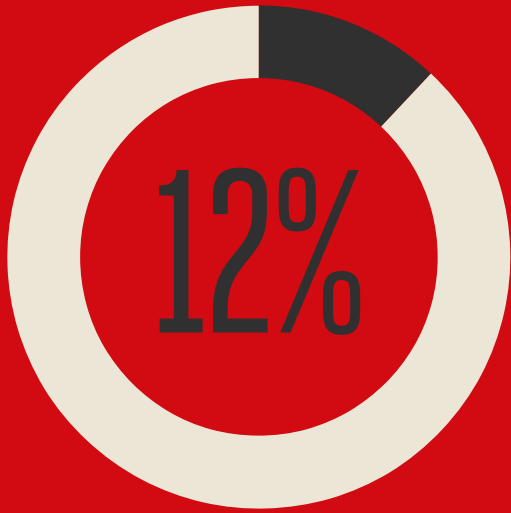


2020 **+20%** employable  
students from  
improved grades<sup>2</sup>

1. Based on previously unbanked baseline 2020 estimates: India 12%, Bangladesh 10%



## PERSONAL FINANCE



**2012** 1% financial inclusion in developing countries<sup>1</sup>

**2020** 12% financial inclusion for 2020<sup>1,2</sup>

1. Based on previously unbanked baseline 2020 estimates; applicable for cluster C countries  
2. NASSCOM digital survey, WSJ, AICTE, NASSCOM digital survey, Microsoft Learning, BCG analysis



## CIVIL SOCIETY

**2012** 1.5B 1.5 billion connected people by mobile

**2020** 2.1B

2.1 billion connected people with mobile



## ENVIRONMENT

**2012** 600M CO2 reduction from 600M high-mobility workers and farmers

**2020** 1 Billion

CO2 reduction from 1 Billion high-mobility workers and farmers



## INFRASTRUCTURE

**2012** 80B US \$80 billion investments in infrastructure

**2020** 240B

US \$240 billion investments in infrastructure

Mobile telecommunications has the potential to unleash far greater socio-economic impact in the coming years. Continued sector growth would make an even greater contribution to GDP, as the mobile ecosystem spreads and as mobile penetration moves towards saturation levels across the region.

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By 2020, mobile could contribute to almost 8% of the Asia Pacific GDP,

with 22 million additional jobs, and 12% more people with access to financial services and significant economic contributions from the mobile industry through infrastructure investment (US \$240billion) and tax payments that contribute to public funding (US \$300billion).

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To achieve these projections, however, the region must address many challenges.



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# Achieving the mobile future

With a majority of the region's people residing in villages, millions of rural households find it difficult to make ends meet, and for many this is exacerbated by a lack of basic infrastructure and services such as regular electricity, education, healthcare and banking. Child mortality rates are high and governments struggle to control the spread of life-threatening communicable diseases. Farmers are disadvantaged by poor access to agricultural information, weather updates and markets. These factors affect their productivity and, inevitably, income levels.

Mobile breaks down barriers by bringing essential services to underserved segments of the population. Mobile has the ability to provide a teacher where there are no schools, a doctor where there are no hospitals and a bank where there are no banks.

Mobile solutions are also beneficial for the advanced economies, where they help improve convenience and efficiency of services. Smartphone-based tools like self-help health utilities, online collaborative learning, advanced technologies like Near Field Communication (NFC) and smart farming with assistance from GPS systems provide populations in the developed world with greater comfort and cost effectiveness.

# Regulatory changes key to unleashing potential



To realise the full benefits of mobile technology in Asia Pacific, changes in regulation are needed to provide the clarity and incentives that attract private investment and spur competition. A stable regulatory roadmap and consistent stakeholder engagement will increase the willingness of telecom companies to invest.

This means increasing the availability of spectrum for mobile, as laid out in the International Telecommunication Union (ITU) standards for frequency bands and amounts, and allocating spectrum lots that can operate different technologies efficiently. The regulatory environment should also foster the trading and sharing of spectrum, with prices that are in line with international benchmarks, after adjusting for purchasing power parity.

Robust spectrum policy should include allocation of the 700 MHz band to mobile, which promises to increase gross domestic product tenfold, while providing a catalyst for the creation of jobs, and increasing government revenues from tax by up to seven times.

The drive towards band harmonisation is a critical part of the process, since some 5–30% of the benefits of the Digital Dividend depend on harmonisation of the 700MHz band.

Governments must look broadly at the needs of the business sector when shaping regulatory frameworks that can foster a mobile-enabled world. Aligning taxation is a key element of this, with a need to focus on how import and export duties, as well as SIM card taxes, might help or hinder the growth of the mobile industry.

Policymakers also need to address public privacy concerns without hampering the operations of service providers.

Meanwhile, the Universal Service Obligation Fund (USOF), requiring companies to provide a baseline level of services to all citizens, should be revisited with a reassessment of how goals and levies can be best aligned and consideration given to the potential for alternative models such as public-private partnerships.





For the full report on Mobile Economy:  
Asia Pacific 2013 please visit the GSMA website at  
[www.gsma.com/mobileeconomyasia](http://www.gsma.com/mobileeconomyasia)

