

Industry trends

Where the industry is now

The mobile industry is a large and important sector with six billion global users. Customer growth over the last five years has been rapid, driven by the benefits of mobility, falling prices and rising penetration in emerging markets. However, pressures on revenue growth from competition and regulation are significant and are likely to remain.

- **86% of the world's population use a mobile phone**
- **Competition is intense with typically at least four mobile operators in each country and numerous additional alternative communications providers**
- **Regulators continue to impose policies to lower the cost of access to mobile networks**

Scale

The mobile industry is one of the largest communication sectors in the world with over six billion users across the globe. In contrast there are only 1.2 billion people with fixed line phones. The mobile industry generates around US\$960 billion of annual service revenue, 80% of which comes from people making standard voice calls and sending texts. Over the last ten years the share of telephone calls via mobile has increased from 20% to 74%, reflecting the benefits of mobility. In 2011¹, 4.3 trillion text messages were sent (about 136,500 every second).

Growth

The demand for mobile services continues to grow. In the last five years the number of users has increased by an average of 17% each year driven by rising living standards, population growth and cheaper mobile services and handsets. In 2011¹ 86% of the world's population has a mobile phone, whereas ten years ago this was only 16%. Most of the new demand for mobile services is from emerging markets such as India and Africa.

In India for example, the number of phone users increased by over 140 million in just one year, 2011¹, which is more than twice the size of the UK population. Emerging markets are growing quickly, and account for over 70% of the world's mobile users. The rest live in developed markets such as Europe and the United States, where demand is growing more slowly as most people already have a device – in Europe for example there is already an average of 1.3 SIM cards per person.

Competition

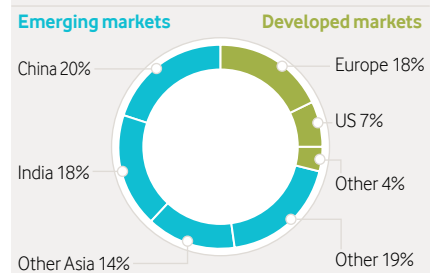
The telecommunications industry is highly competitive, with typically at least four national mobile network operators, such as Vodafone, and one national fixed line operator in each country. In addition, there can be numerous companies that rent capacity from mobile operators and sell their own mobile services to customers. In some countries there can also be several independent distribution companies that compete with the mobile network operators' own stores. Advances in technology are bringing in newer suppliers, such as internet based companies and software providers offering converged services such as voice over internet protocol ('VoIP'). Against this background, consumers have a wide choice of providers.

Regulation

The mobile industry is very heavily regulated by both national, European and other regional and international authorities. Regulators continue to impose policies to lower the cost of access to mobile networks through setting lower mobile termination rates (the fees mobile companies charge for calls received from other companies' networks) and to limit the amount that operators can charge for mobile roaming services. These two areas represent 12% of service revenue for Vodafone.

In an environment of intense competition and significant global regulatory pressures, industry voice prices have tended to reduce over time – and in 2011¹ fell 14%. However, with more mobile phone users and some customers using their devices ever more frequently, global industry revenue remains on a positive trend and expanded 5% in 2011¹.

Mobile phone users by market 2011
Industry data calendar year



Mobile penetration 2011
Industry data calendar year

Market	Penetration (%)
Europe	130
US	106
Turkey	91
India	74
China	74

Outgoing voice prices per minute (year-on-year change)
Vodafone data

Year	Change (%)
2010	-22
2011	-21
2012	-16

Note:
1 Refers to calendar year.

The industry data on pages 18 and 19 is sourced from Strategy Analytics, IDC and Merrill Lynch Wireless Matrix.

Where the industry is heading

The pace of change in the mobile industry is significant with growing sources of revenue from data services such as internet usage; new users from emerging markets; rising take-up of smartphones and tablets; and major advancements in network technology to deliver faster and better services.

- **Data services and emerging markets represent the largest opportunity as traditional voice and text services in developed countries reach maturity**
- **The shift towards smartphones and away from feature phones continues with smartphones representing nearly 40% of devices shipped in the last year**
- **Significant technological improvements have led to faster data networks and product innovation to improve the customer experience**

Growing revenue streams

The share of industry mobile revenue from traditional voice and messaging services in developed markets is declining due to relative market maturity, ongoing competitive and regulatory pressures leading to lower prices for mobile calls, and a slow pace of economic growth. In contrast the demand for data services, such as internet on the mobile, is growing rapidly. In 2006¹ data services accounted for 6% of industry mobile service revenue, in 2011¹ it reached 20%, and it is expected to rise further over the medium term.

Demand is being driven by a combination of higher smartphone penetration, significant enhancements to network data speed and coverage, and an increased range of mobile applications. Smartphones now represent 39% of all handset sales compared to 8% in 2006¹.

Emerging markets, such as India and Africa, represent the regions with the most potential for future revenue growth driven by strong economic growth and low mobile penetration. For example, only 74% of India's 1.2 billion population have a mobile phone implying good potential future market growth. According to external estimates by 2015¹ there will be 1.5 billion new mobile users, and the vast majority will be from emerging markets.

Technological innovation

Today's mobile networks in Europe are typically a combination of 2G networks for traditional voice, text and basic data services, and 3G networks for high speed mobile internet access and application downloads. 3G maximum data downlink speeds are already up to 43 Mbps (with typical user speeds of up to 6 Mbps). 4G, or long-term evolution ('LTE'), the next stage of mobile network development, is already in place in some countries – providing maximum user speeds of up to 150 Mbps (typical user speeds up to 12 Mbps). Going forward, further network upgrades are expected to significantly enhance the user experience through a combination of both faster networks and wider high speed network coverage.

Innovation in services is also critical to enhance customer experience. Vodafone, together with a number of other leading operators, has developed the next wave in personal mobile communications known as rich communication services which will enable data services such as instant messaging or chat, live video sharing and file transfer across any device and on any network, in much the same way as voice and SMS. Vodafone is also developing a range of new services to generate additional revenue and enhance the customer experience such as mobile commerce, machine-to-machine and operator billing, which are discussed in more detail on pages 30 and 31.

Service revenue growth 2012*		%
Vodafone data		
Voice	-4.0	
Messaging	+4.4	
Data	+22.2	
Fixed	+5.4	

Smartphone share of handset shipments		%
Industry data calendar year		
2006	8	
2010	21	
2011	39	

Service revenue from key areas		%
Vodafone data		
2010	23	28 49
2011	27	30 43
2012	29	33 38

■ Emerging markets
■ Mature market data, fixed and other
■ Mature market mobile voice

Maximum mobile data downlink speeds		Mbps
Industry data calendar year		
2007	7.2 (3G)	
2008	14.4 (3G)	
2009	28.8 (3G)	
2010	43.4 (3G)	150 (4G)
2011		150 (4G)