



International Mobile Roaming Services: Facilitating competition and protecting users

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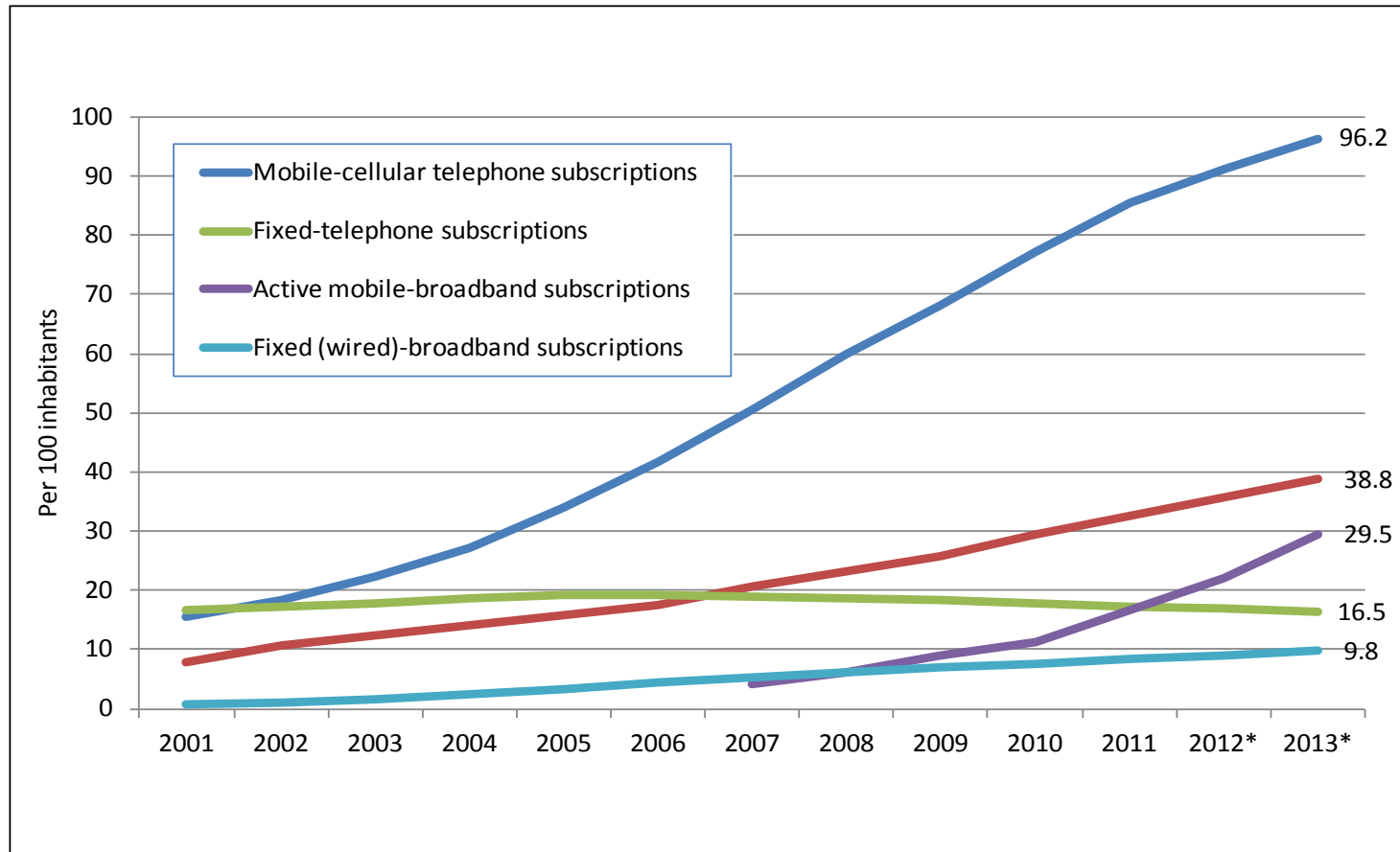


***Overview of the growth of
mobile services and their
increased importance for
economies***

Session 1



Relative growth in global mobile subscriptions

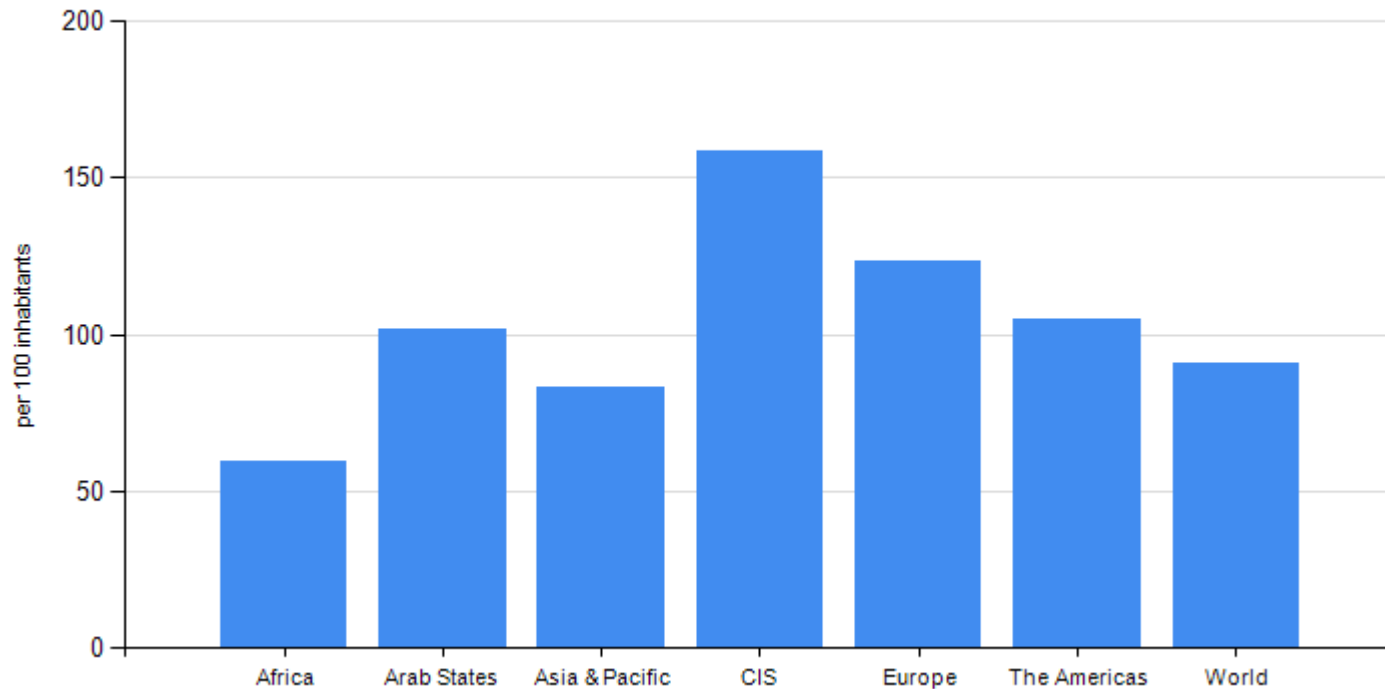


Source: ITU World Telecommunication/ICT Indicators Database, www.itu.int/icteye



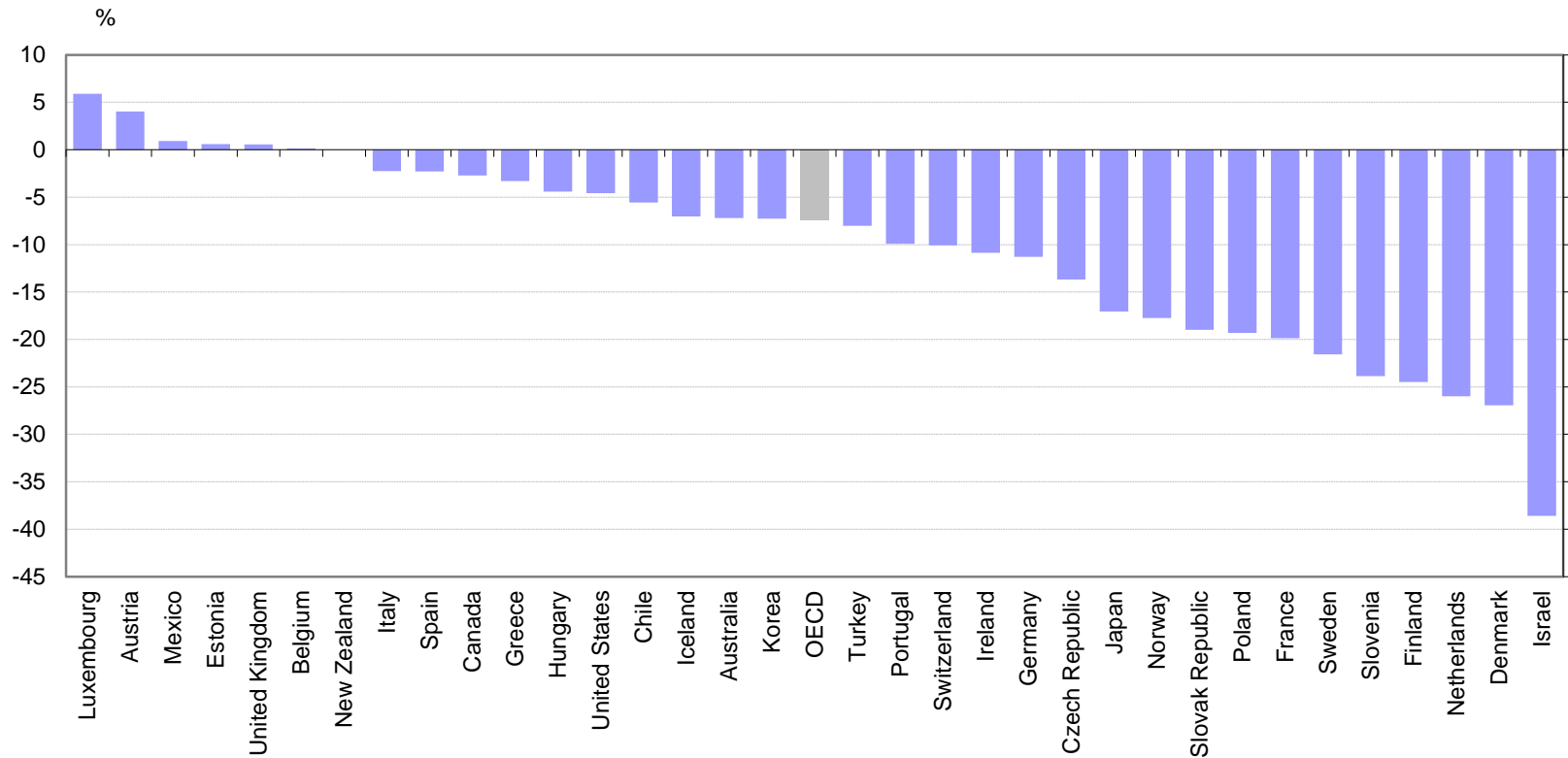
Mobile subscriptions: Geographic distribution

Mobile-cellular subscriptions per 100 inhabitants, 2012





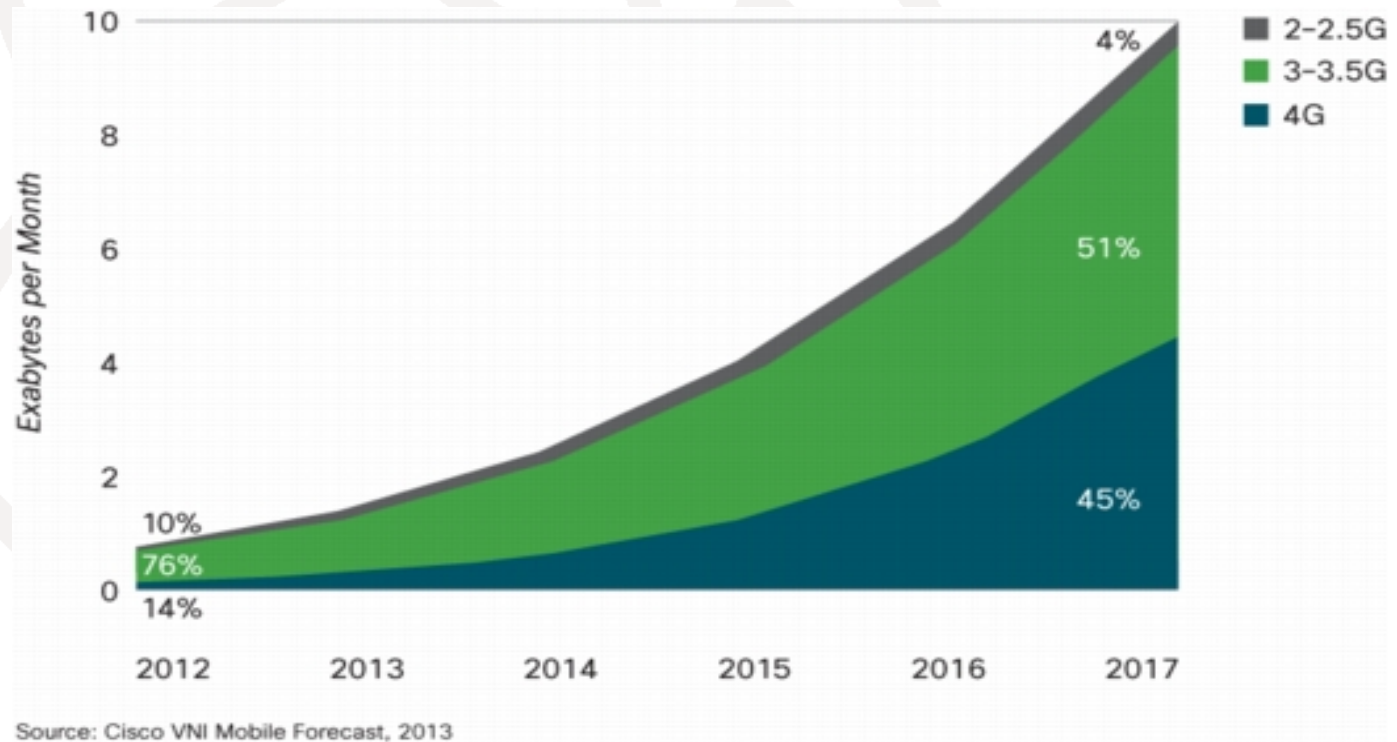
OECD countries: Net additions of fixed telephone lines: 2009-11



Source: OECD, Communications Outlook 2013



4G will be 10 Percent of Connections and 45 Percent of Traffic in 2017



Growth in mobile data roaming

Switzerland: Data Roaming, transmitted and downloaded data (MB millions)

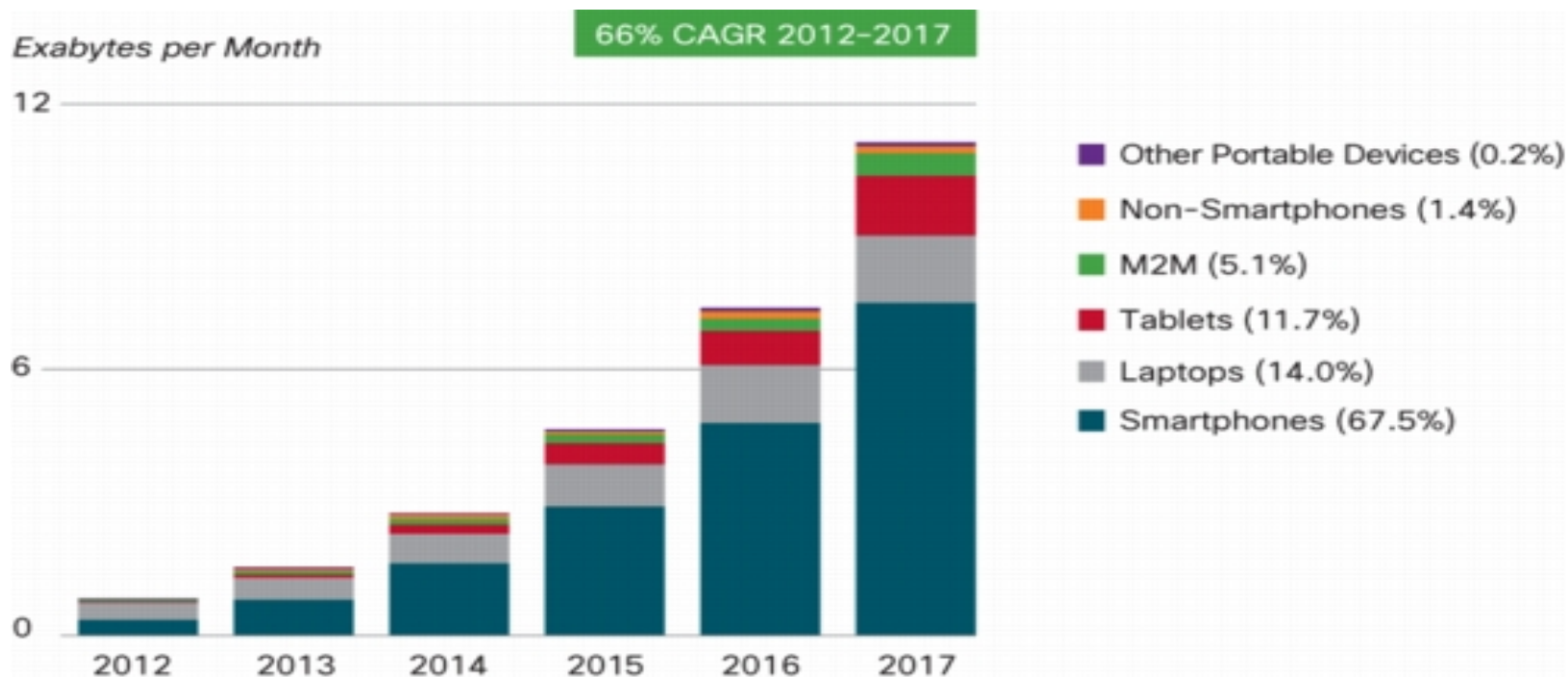
	Within EU/EEA	Rest of World	Total
2009	21.8	4.7	26.6
2010	34.8	9.6	44.4
2011	55.6	15.2	71.0
Growth:			
2009-10	59.6%	102.4%	67.2%
2010-11	60.1%	58.9%	59.8%

Source: OFCOM,

http://www.bakom.admin.ch/dokumentation/zahlen/00744/00746/index.html?lang=en&download=NHZLpZeg7t,lnp6i0NTU04212Z6ln1ad1lZn4Z2qZpnO2Yuq2Z6gpJCDe397gGym162epYbg2c_JjKbNoKSn6A--



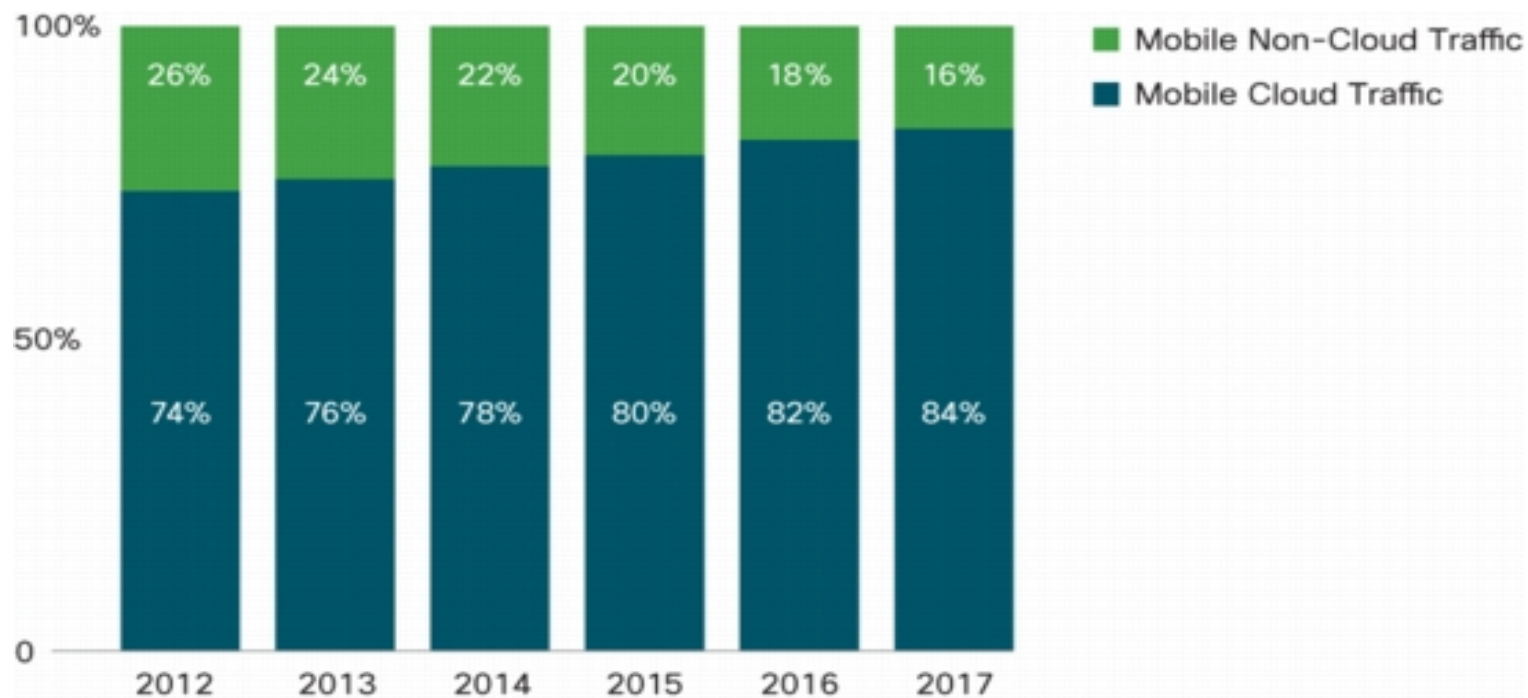
Forecast growth in mobile data traffic



Figures in legend refer to traffic share in 2017.
Source: Cisco VNI Mobile Forecast, 2013



Cloud traffic



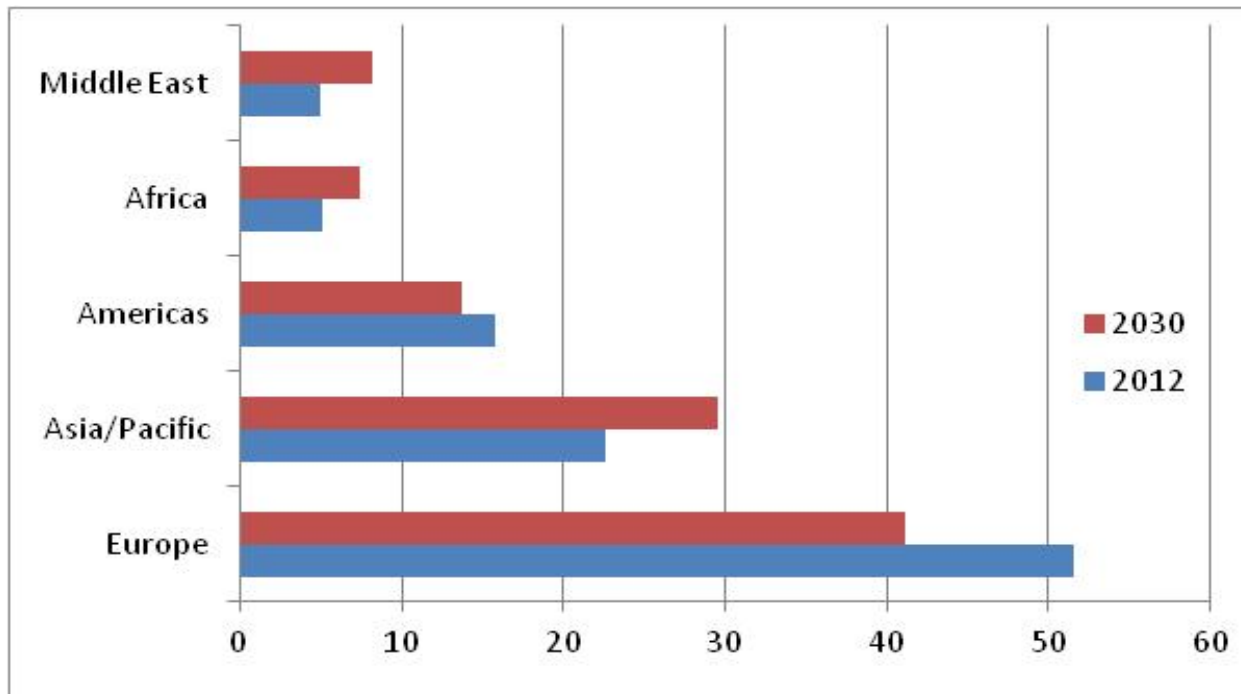
Source: Cisco VNI Mobile Forecast, 2013



International Tourism

- In 2012: 1.035 billion (cf 528 million in 1995);
- Equivalent to 14.5% of world population;
- Forecast to reach 1.8 billion by 2030 according to UNWTO long term forecast;
- Market share of emerging economies increased from 30% in 1980 to 47% in 2012

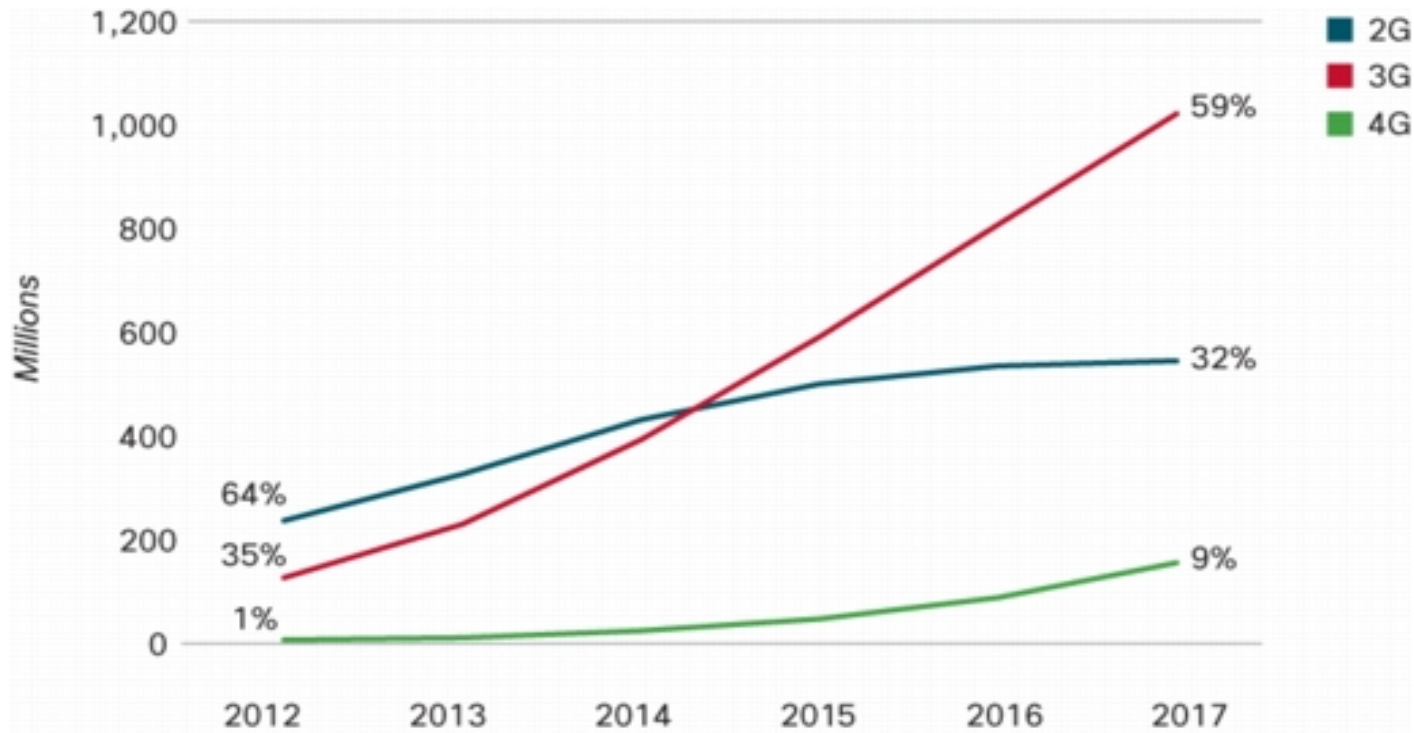
International tourist arrivals: Market share, 2012-2030



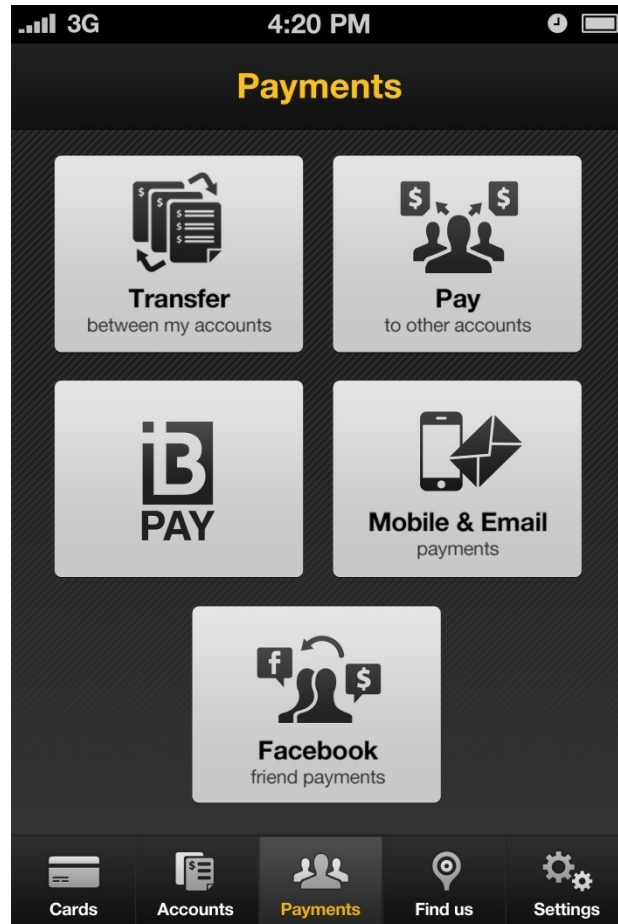
Source: UNWTO, Tourism Highlights, 2013

Machine-to-Machine: Migration to 4G

M2M will account for 5 percent of total mobile data traffic in 2017, compared to 3 percent at the end of 2012. The average M2M module will generate 330 megabytes of mobile data traffic per month in 2017



Mobile innovations



- One in three smartphones now comes with NFC (NFC World);
- Global mobile payment transactions will reach US\$235bn in 2013, +44% relative to 2012 (Gartner);
- SingTel to offer NFC payments in Singapore & Australia (NFC World);

Roaming cameras and E-books?



Infra	LTE 4G
LTE	LTE
3G	HSPA+
Wi-Fi	802.11 a/b/g/n 2.4+5GHz
Wi-Fi Direct	Yes
Bluetooth Profiles	Bluetooth 4.0
Connectivity Support	DLNA, HDMI 1.4

Kindle: Free 3G access, Wi-Fi, & cloud storage



Economic Impact

- Deloitte study: 10% percent increase in mobile penetration increases total factor productivity by 4.2% & a doubling of mobile data use increases GDP per capita by 0.5% & a 10% increase in 3G penetration (i.e. shift from 2G) increases per capita GDP growth by 0.15%.
- Study on Myanmar: Mobile sector would increase GDP by 1.5-7.4% over the first 3 years once licences were issued.

Source: Deloitte, What is the impact of mobile telephony on economic growth? A report for the GSMA; Report commissioned by Ericsson in collaboration with Deloitte, The potential economic impact of mobile communications in Myanmar



But...potential impact limited by high prices

- Optus: Only 1/3rd of customers activate roaming when roaming & half of these only use texts;
- Syniverse survey: 50%+ of respondents do not use mobile data when roaming & 65% talk for less than 30 minutes;
- Syniverse estimates that in 2012 mobile subscribers spent more \$17 billion on solutions to avoid roaming charges;