



## ITU Regional Forum on ICT Measurement Dubai, 13-15 December 2016

# Measuring the Information Society Report and ICT Development Index (IDI)

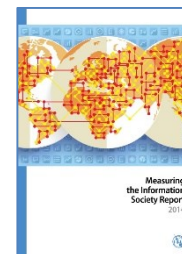
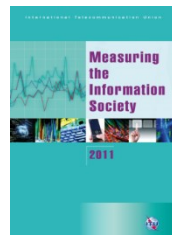
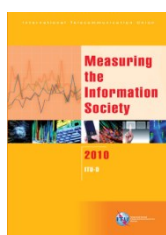
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Head a.i., ICT Data and Statistics Division  
ITU/BDT

# Measuring the Information Society Report

## Main content – 8 editions

2

- Latest trends in ICT developments worldwide
  - ▣ Fixed, mobile, broadband, Internet, revenue, investment
  - ▣ Monitoring global goals (MDGs/SDGs, WSIS targets, Connect 2020)
- ICT Development Index (IDI)
  - ▣ IDI top performers and dynamic countries
  - ▣ Digital divide, regional analysis
- ICT prices and affordability
  - ▣ ICT Price Basket (IPB)
  - ▣ Prices of fixed and mobile voice and data
- Emerging trends
  - ▣ Big data, IoT, digital natives, gender, broadband, broadcasting



# Measuring the Information Society Report 2016

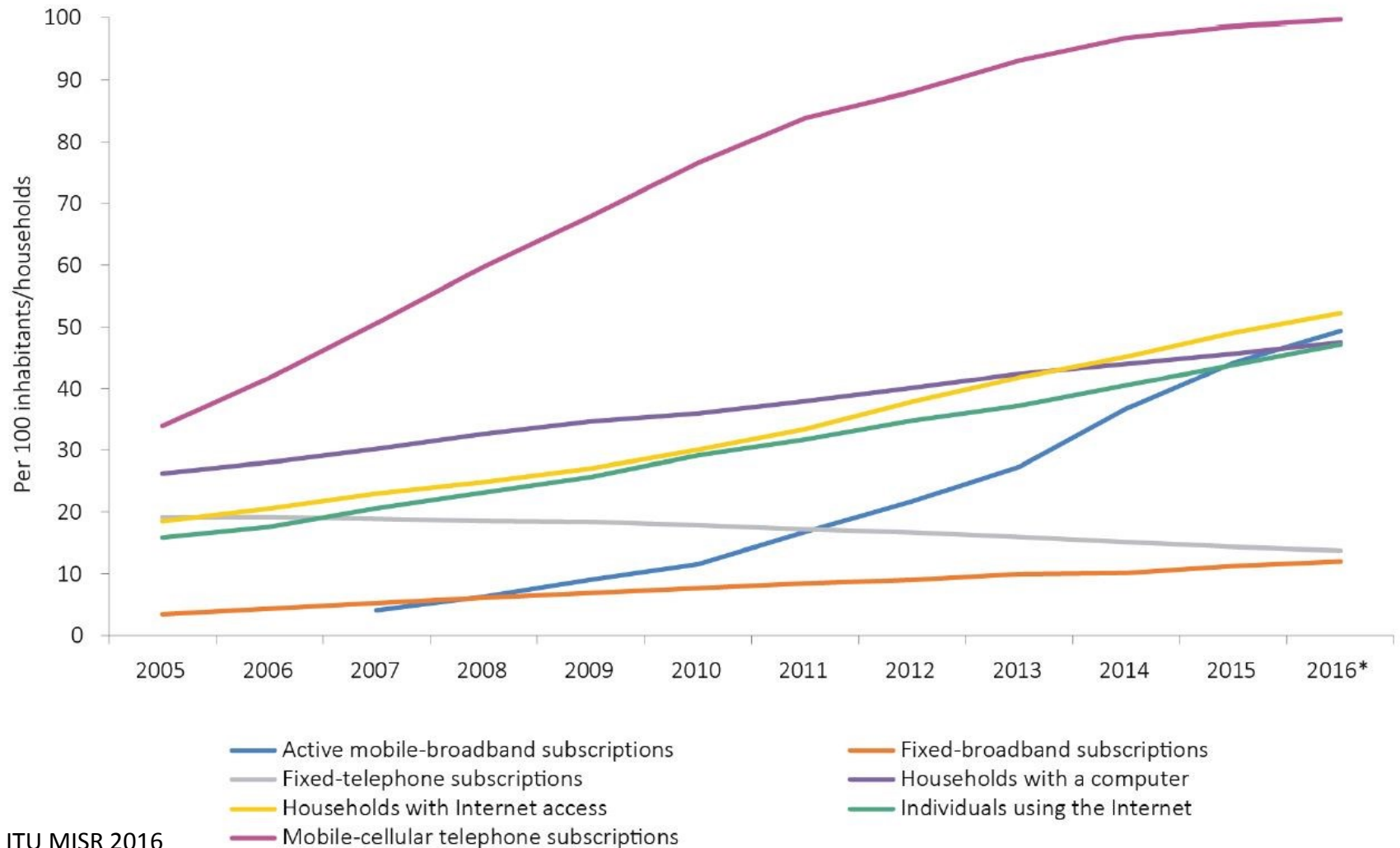


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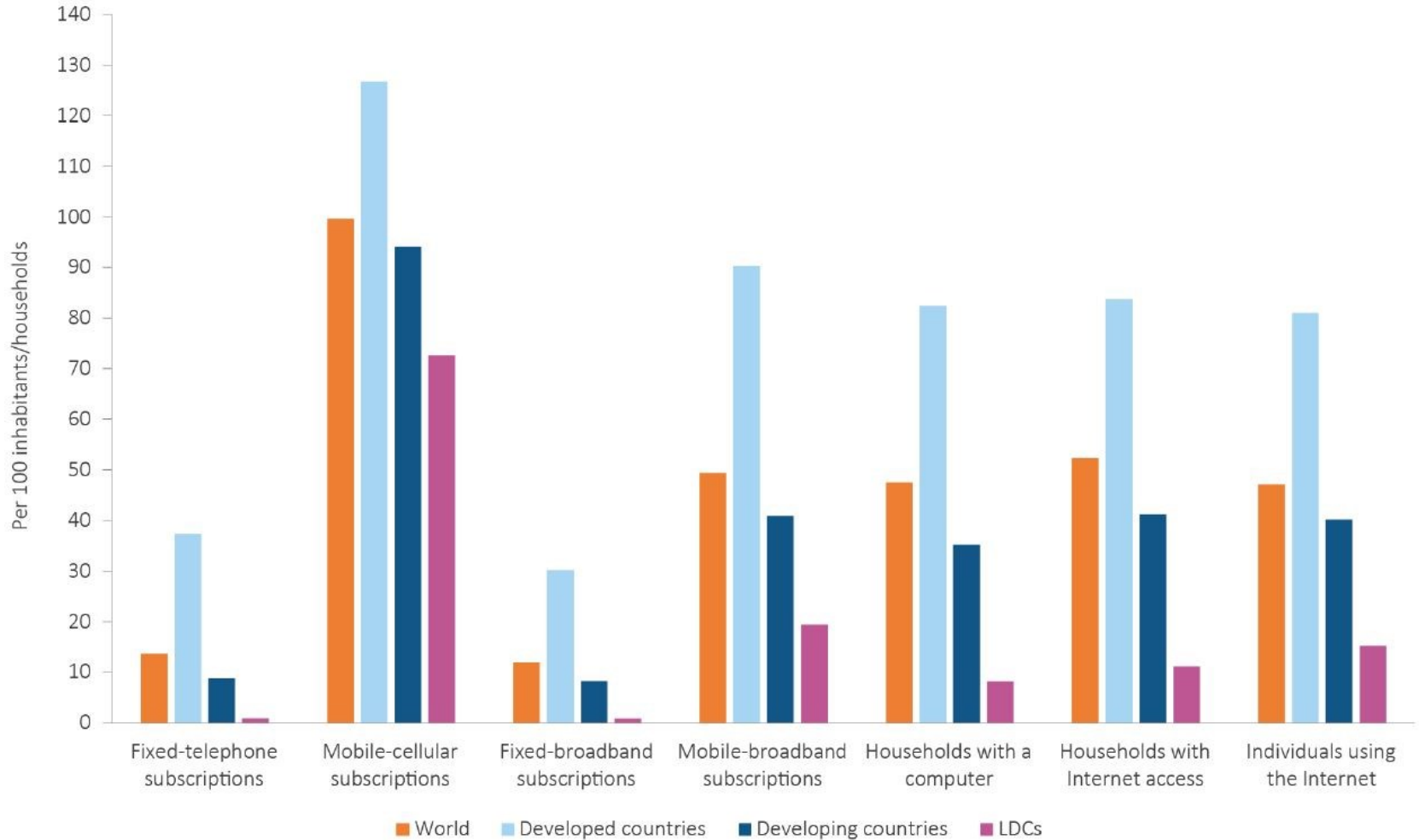
- ❑ **The ICT Development Index (IDI)**
  - ❑ The role of ICTs in monitoring the SDGs
  - ❑ ICT prices
  - ❑ **Measuring mobile uptake**
  - ❑ **Internet user and activity trends**
- **Launched on 23 November 2016**



# A decade of global ICT growth ...



# ... but major differences across the world remain



# The ICT Development Index (IDI)

- 11 indicators, covering 3 areas
- 175 economies
- Comparison of 2 years (IDI 2016 and IDI 2015)
- Regional analysis

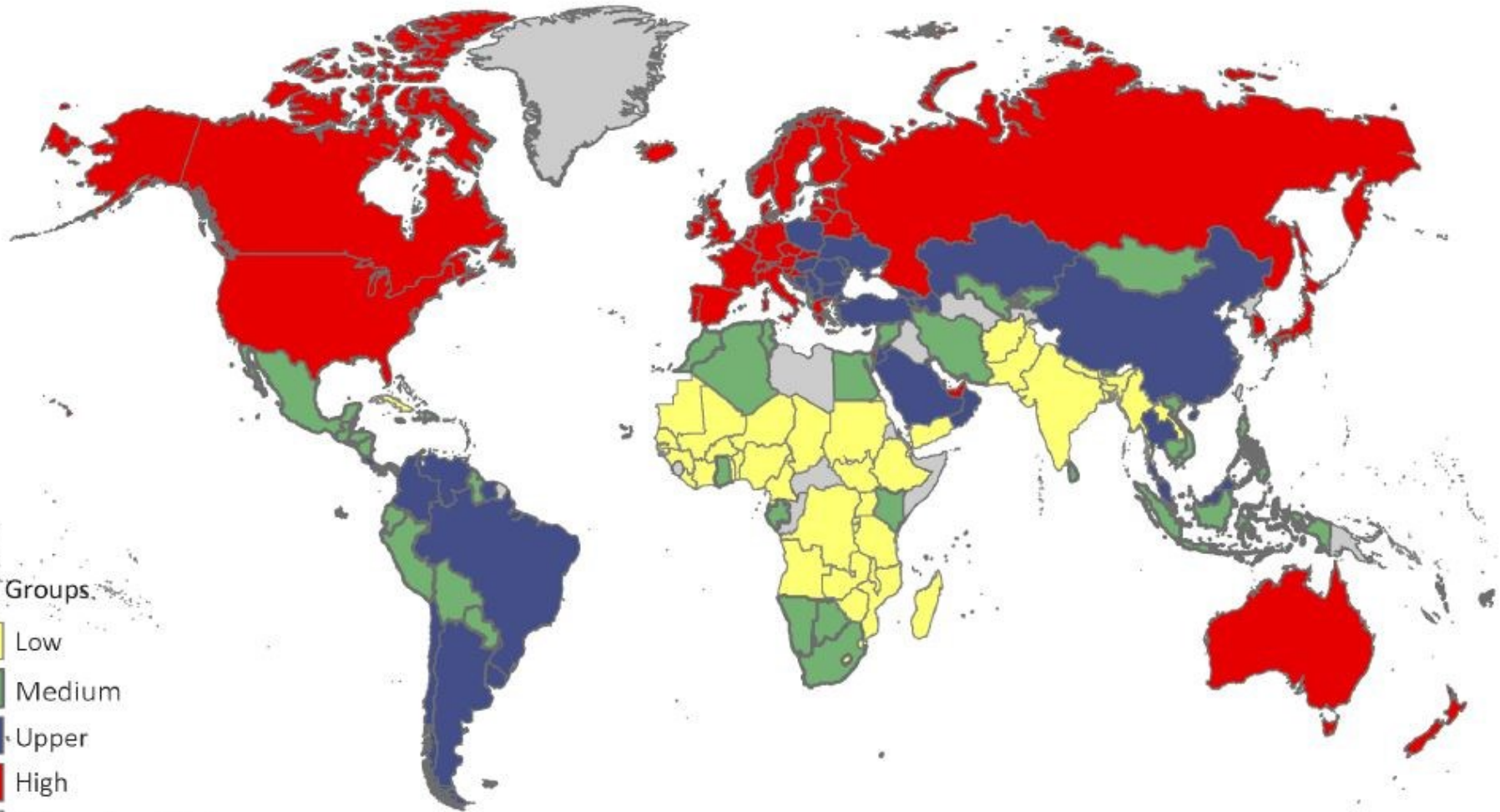
ICT access	Reference value	(%)
1. Fixed-telephone subscriptions per 100 inhabitants	60	20
2. Mobile-cellular telephone subscriptions per 100 inhabitants	120	20
3. International Internet bandwidth (bit/s) per internet user	976'696*	20
4. Percentage of households with a computer	100	20
5. Percentage of households with Internet access	100	20
ICT use	Reference value	(%)
6. Percentage of individuals using the Internet	100	33
7. Fixed-broadband subscriptions per 100 inhabitants	60	33
8. Active mobile-broadband subscriptions per 100 inhabitants	100	33
ICT skills	Reference value	(%)
9. Mean years of schooling	15	33
10. Secondary gross enrolment ratio	100	33
11. Tertiary gross enrolment ratio	100	33

# IDI 2016 top ten (ranked by IDI value achieved)

1. Korea (Rep.)
  2. Iceland
  3. Denmark
  4. Switzerland
  5. United Kingdom
  6. Hong Kong, China
  7. Sweden
  8. Netherlands
  9. Norway
  10. Japan
- The Republic of Korea leads the IDI rankings for both 2015 and 2016
  - Top IDI performers have high income levels, competitive markets and a skilled population
  - There is a strong association between economic and ICT development



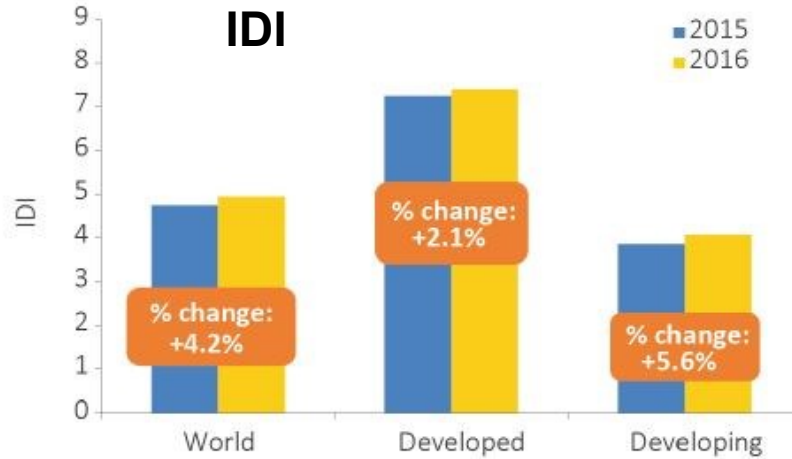
# Geographical distribution of IDI 2016 quartiles



Scale: 1:1,000,000



# Developing countries have lower IDI values but higher growth rates

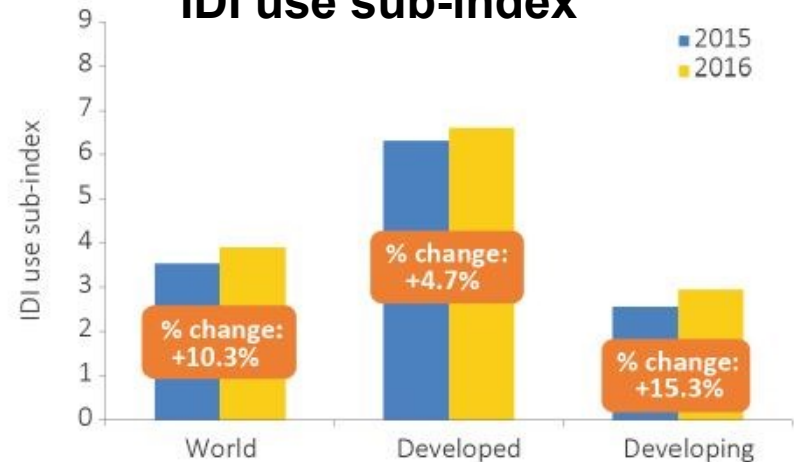


Source: ITU MISR 2016

## IDI access sub-index



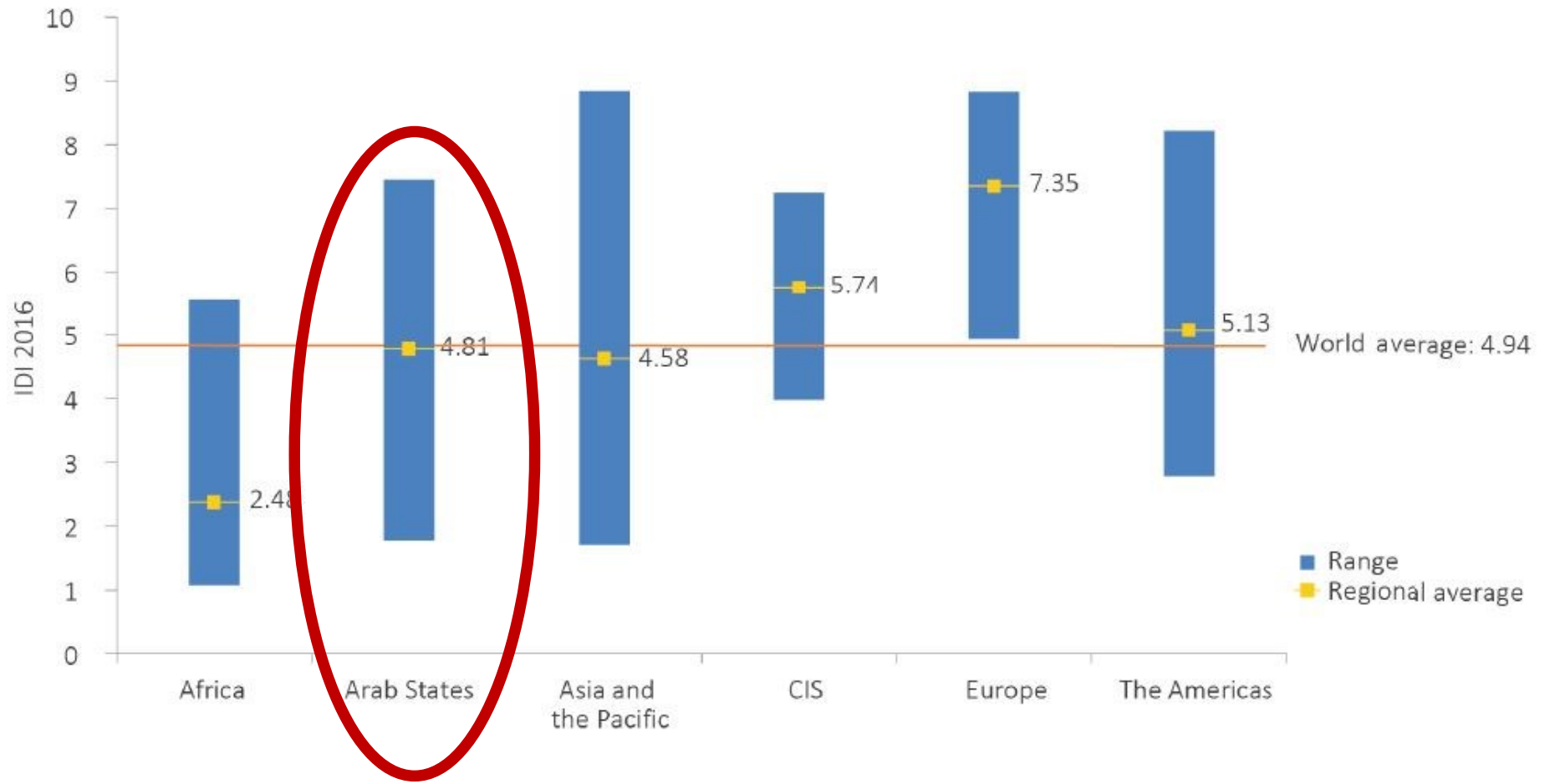
## IDI use sub-index



# IDI top improvers (ranked by change in IDI value between 2015-16)

1. St. Kitts and Nevis
  2. Algeria
  3. Bhutan
  4. Myanmar
  5. Malaysia
  6. Dominica
  7. Bolivia
  8. Grenada
  9. Côte d'Ivoire
  10. Namibia
- St Kitts and Nevis improved its IDI value by 0.98 points and its IDI rank by 20 positions
  - The highest 34 countries ranked by improvement are developing countries
  - The majority (52 out of 73) of those that exceeded average improvement are countries in the upper-middle and lower-middle quartiles of the IDI ranking
  - 12 countries improved their IDI values by more than twice the global average
  - 5 countries experienced a fall in IDI value (including top ranked countries)

# IDI 2016: major differences across and within regions



Source: ITU MISR 2016

# Regional IDI – Arab States

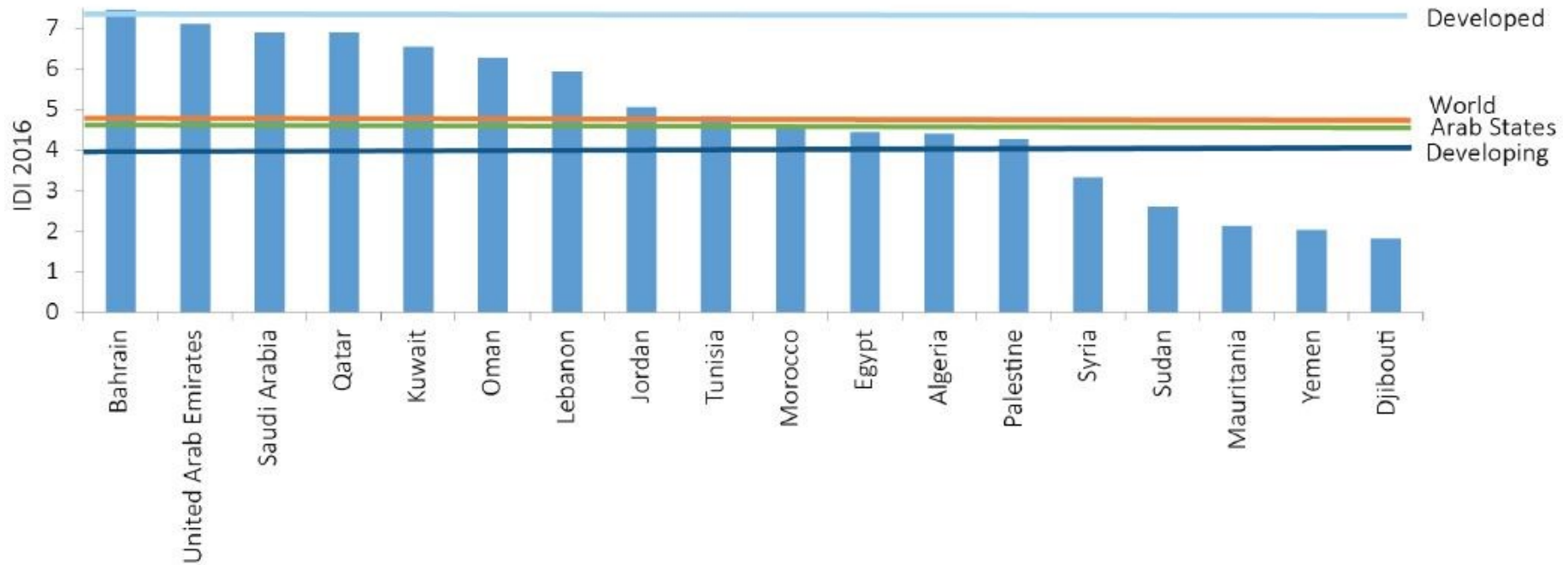
IDI values range between 1.82 and 7.46 (scale 1-10)

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Economy	Regional rank 2016	Global rank 2016	IDI 2016	Global rank 2015	IDI 2015	Global rank change 2016-2015
Bahrain	1	29	7.46	28	7.42	-1
United Arab Emirates	2	38	7.11	35	6.96	-3
Saudi Arabia	3	45	6.90	38	6.88	-7
Qatar	4	46	6.90	43	6.78	-3
Kuwait	5	53	6.54	48	6.45	-5
Oman	6	59	6.27	58	6.04	-1
Lebanon	7	66	5.93	61	5.91	-5
Jordan	8	85	5.06	89	4.67	4
Tunisia	9	95	4.83	95	4.49	0
Morocco	10	96	4.60	98	4.26	2
Egypt	11	100	4.44	97	4.26	-3
Algeria	12	103	4.40	112	3.74	9
Palestine	13	106	4.28	103	4.12	-3
Syria	14	122	3.32	120	3.21	-2
Sudan	15	139	2.60	134	2.56	-5
Mauritania	16	151	2.12	154	1.90	3
Yemen	17	155	2.02	151	1.96	-4
Djibouti	18	161	1.82	160	1.73	-1
<b>Average</b>			<b>4.81</b>		<b>4.63</b>	

# Regional IDI – Arab States

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- ❑ Major differences across the region, between GCC countries and LDCs
- ❑ 5 Arab States could not be included in the IDI due to lack of data

# IDI most dynamic countries – Arab States

Change in IDI ranking				Change in IDI value (absolute)			
IDI rank 2016	Region rank	Country	IDI rank change	IDI rank 2016	Region rank	Country	IDI value change
103	12	Algeria	9	103	12	Algeria	0.66
85	8	Jordan	4	85	8	Jordan	0.38
151	16	Mauritania	3	96	10	Morocco	0.35
96	10	Morocco	2	95	9	Tunisia	0.34
				59	6	Oman	0.24

- Algeria is among the top 5 countries globally that improved most on the IDI over the past year (mostly due to an increase in mobile broadband and Internet uptake)

# Measuring the Information Society Report 2016



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- The ICT Development Index (IDI)
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- ICT prices
- **Measuring mobile uptake**
- Internet user and activity trends



Measuring  
the Information  
Society Report  
2016

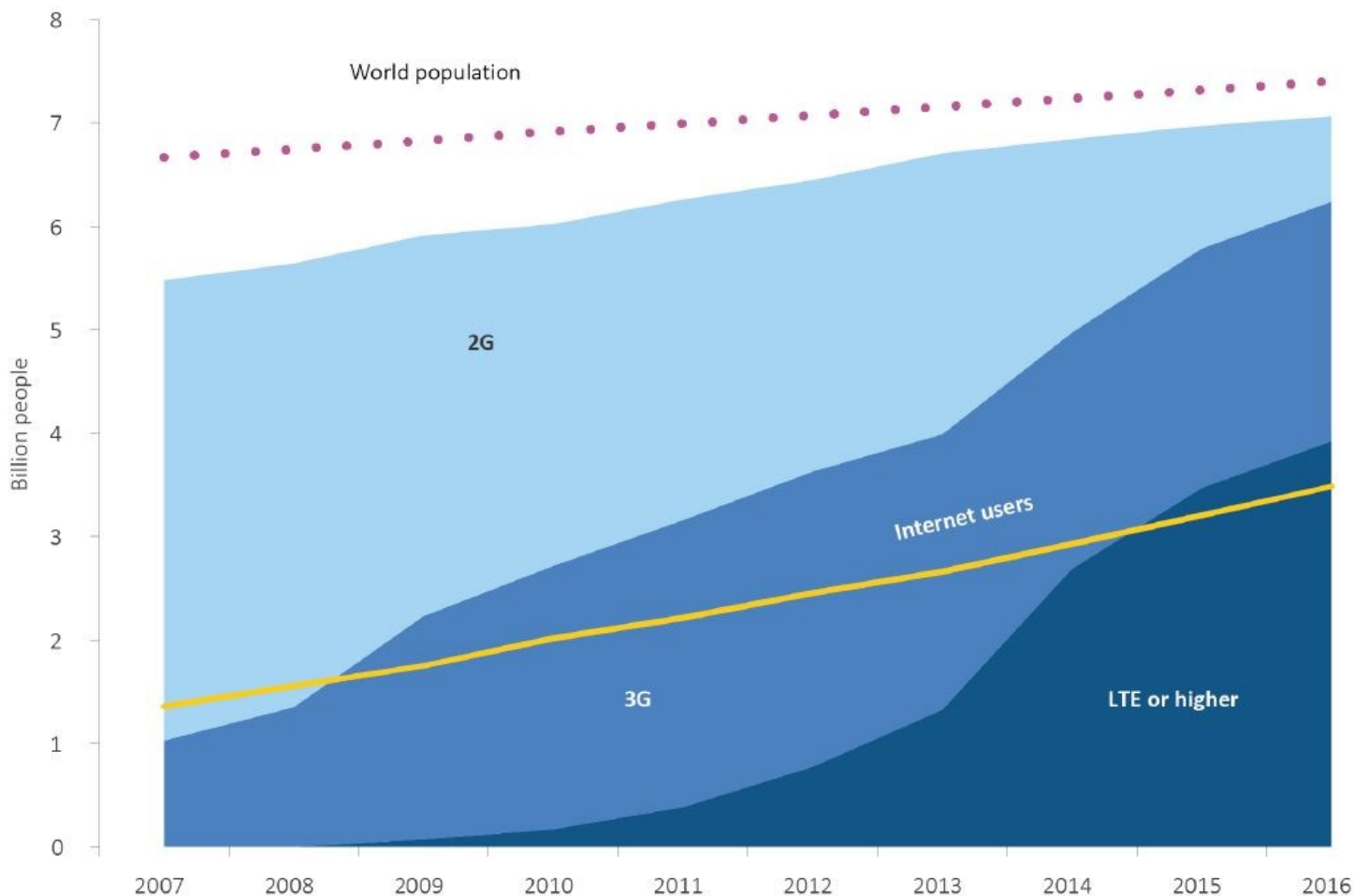




# Mobile network coverage is almost universal and there are 7 billion mobile subscriptions

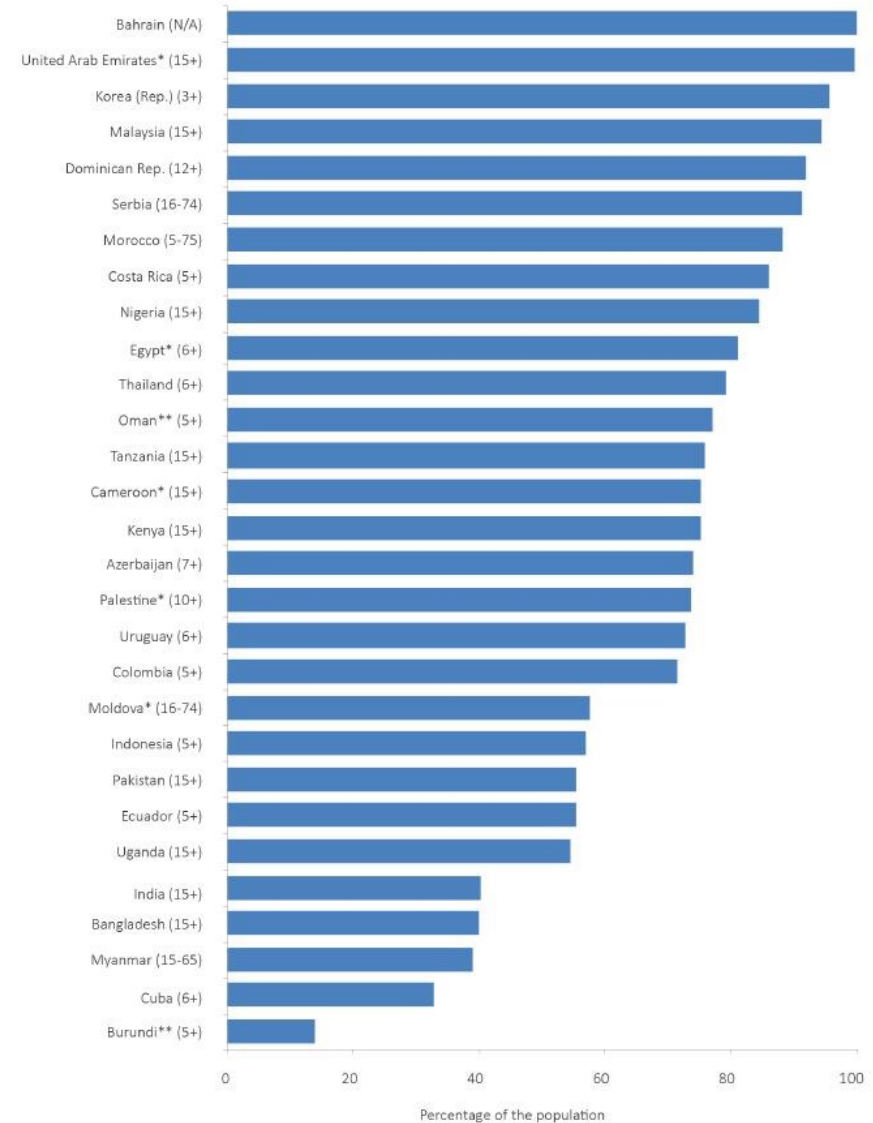


But how many people really use or own a mobile phone?

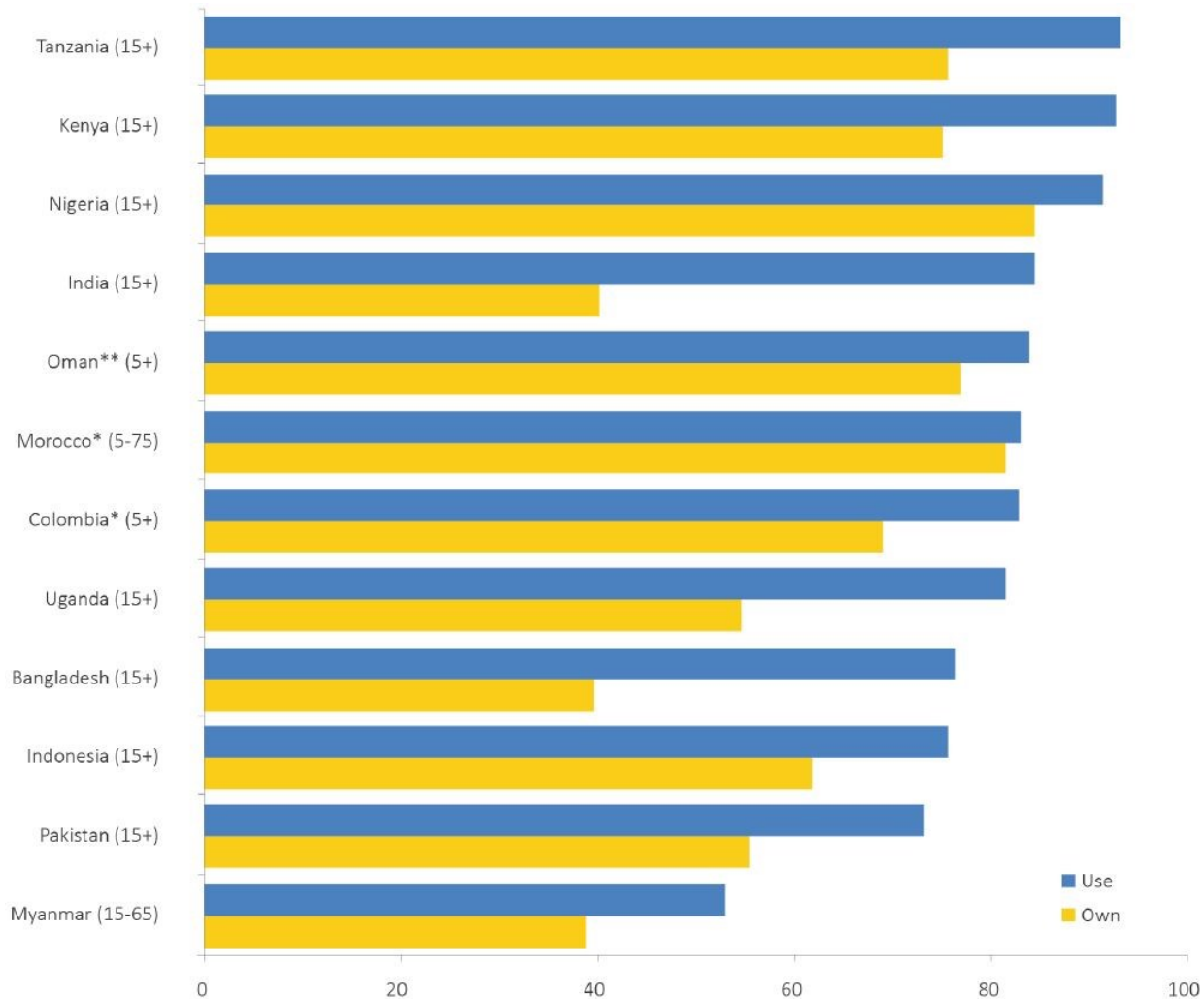


# Individuals who **own** a mobile-cellular telephone (2015 or latest available year)

- ❑ Mobile phone ownership ranges between less than 20% and almost 100% of the population
- ❑ Linked to overall levels of economic development/ income of countries
- ❑ Data are based on national household surveys
- ❑ Need to take into consideration different age scopes of surveys (e.g. < or > 15 years)



# Comparison between individuals who **own** a mobile phone and individuals who **use** a mobile phone (2015 or latest available year)



# Main barriers to mobile-phone ownership and usage: **affordability, coverage and quality, electricity**

Countries	Myanmar	Niger, India, Congo (D.R.C.), Mexico, Indonesia, China, Turkey, Kenya, Colombia, Egypt, Jordan	Uganda, Kenya, Tanzania, Rwanda, Ethiopia, Ghana, Cameroon, Nigeria, Namibia, South Africa, Botswana, Mozambique			
Year	2015	2015	2012			
Ownership/Use	Use	Ownership and use	Ownership			
Main barriers	% respondents		% respondents		% respondents	
	Affordability	42%	Affordability	40-80%	Affordability	60-80%
	No need/use	30%	Mobile coverage and quality	20-70%	Lack of electricity	40-80%
	Mobile coverage and quality	8%	Phone broken/stolen	10-80%	Phone broken/stolen	0-40%
	Lack ICT skills	7%	Operator/agent trust	20-60%	Mobile coverage and quality	5-40%
	Phone broken/stolen	4%	Lack ICT skills	20-40%	No need/use	5-20%
Source	GSMA and LIRNEasia	GSMA	Research ICT Africa			

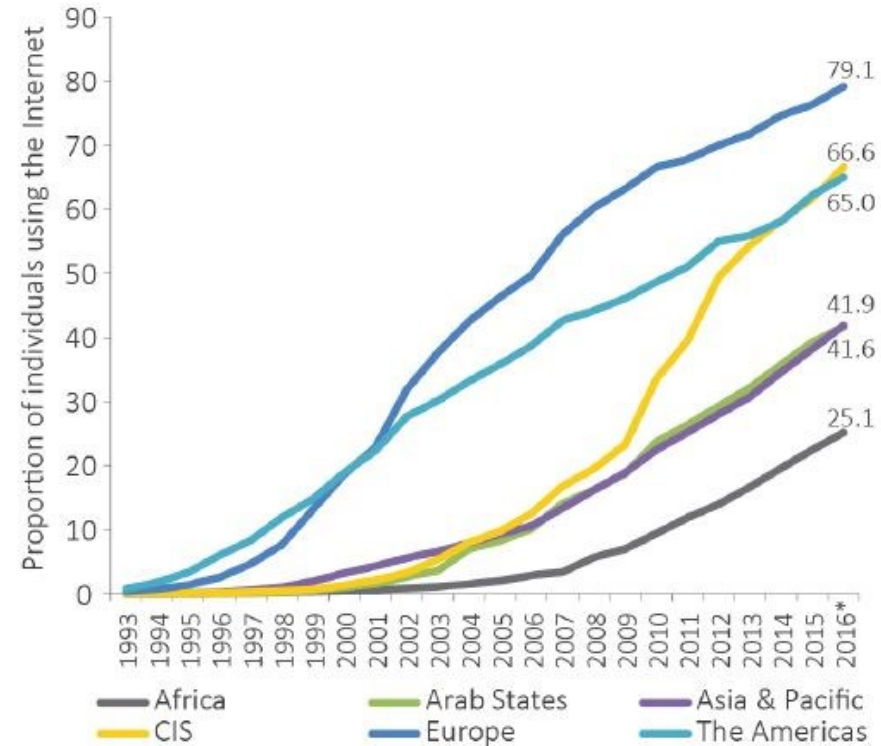
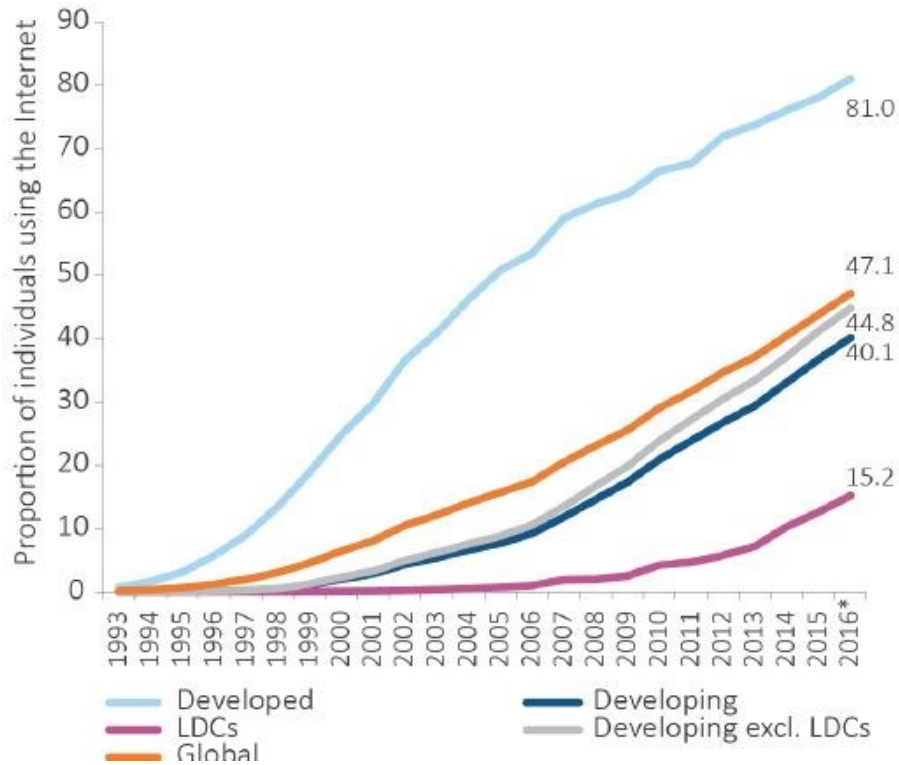
# Index

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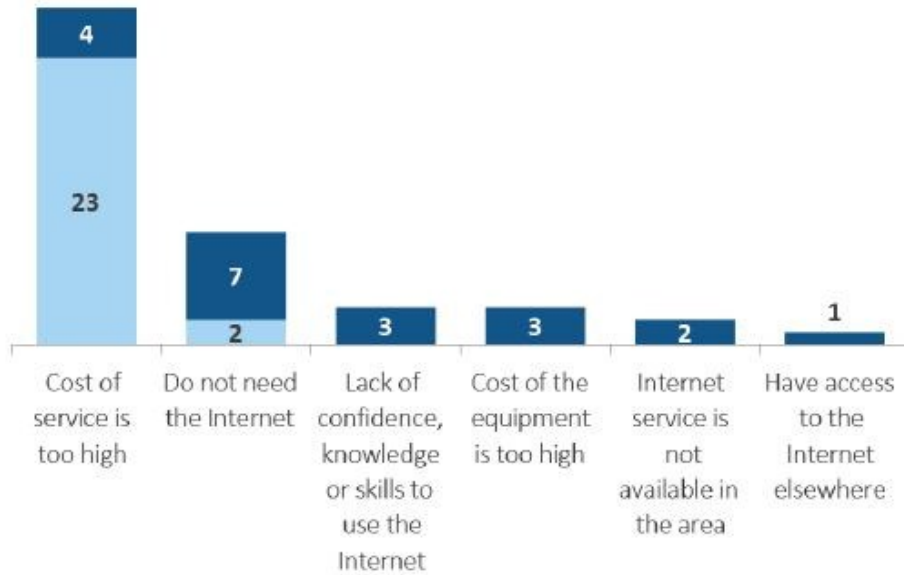


# Proportion of individuals using the Internet by level of development (left) and by region (right)

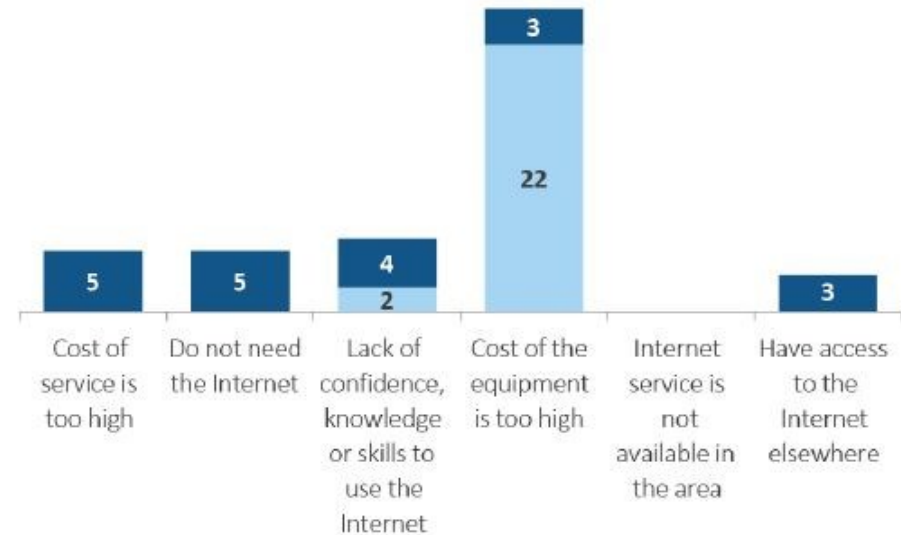


# Top barriers to household Internet access: **cost of service and equipment, no need for Internet**

Top barrier



Second barrier



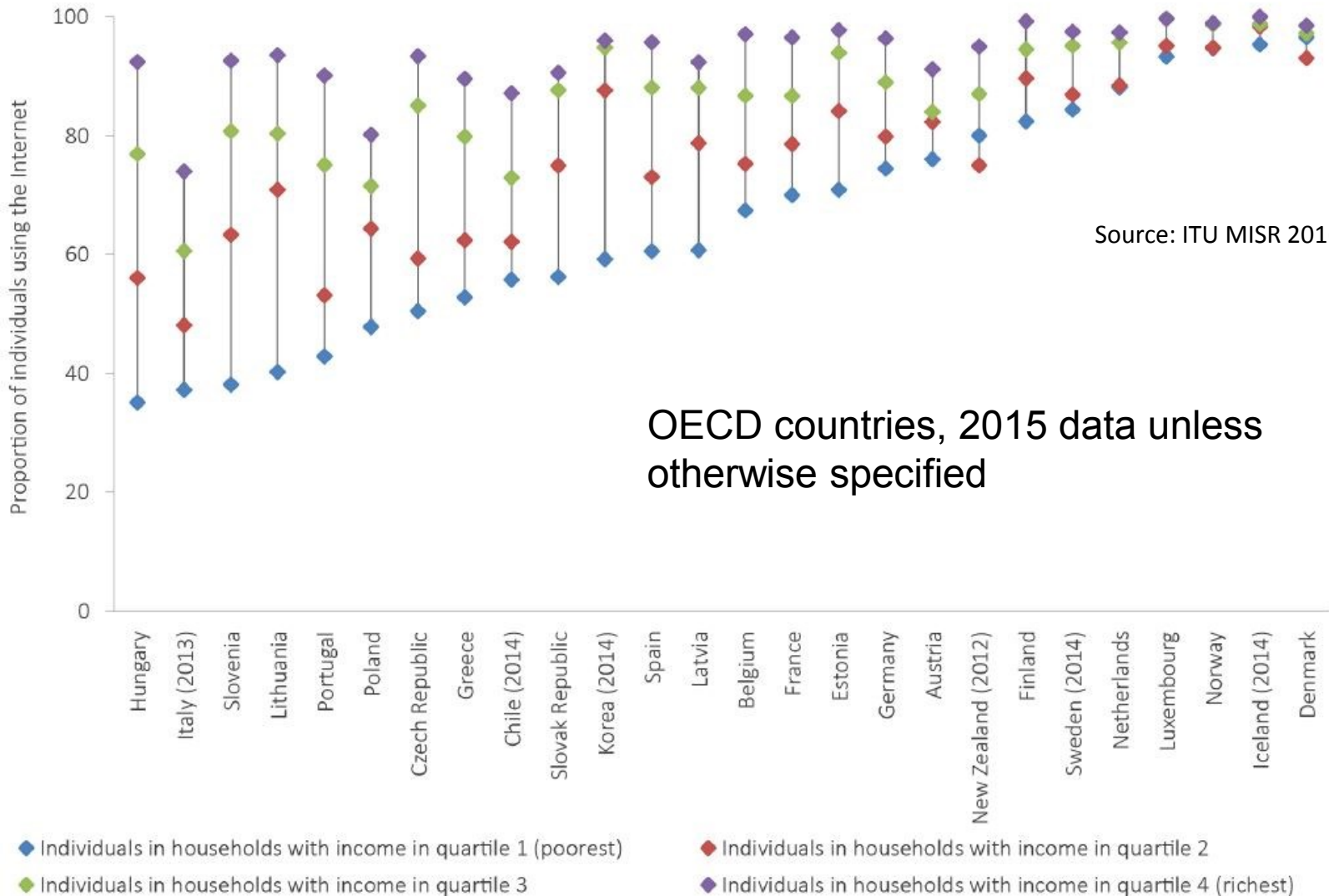
Note: latest data 2013-2015

Source: ITU MISR 2016

■ Developed ■ Developing



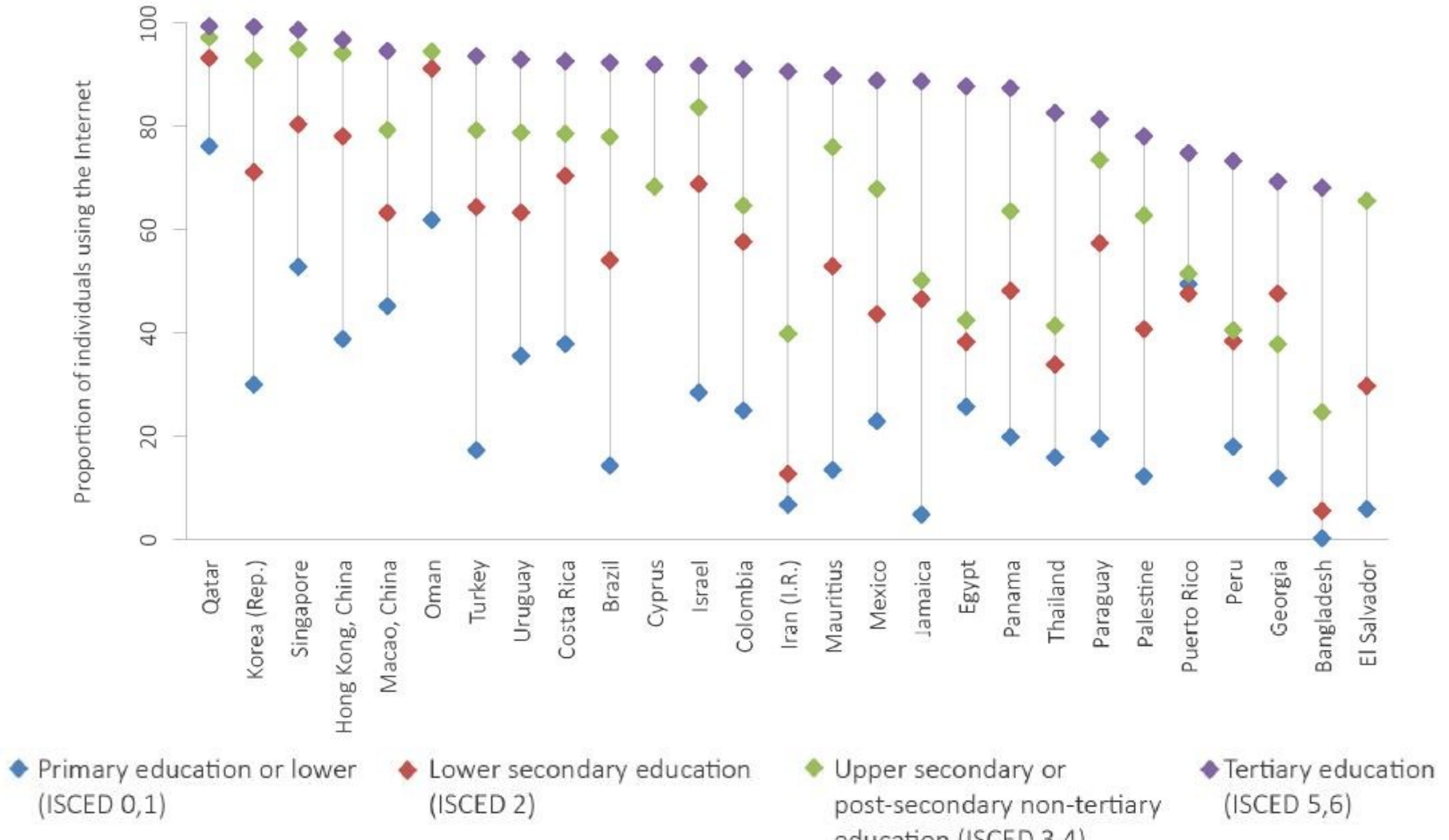
# Internet usage is strongly linked to household income



# Internet use is strongly linked to the level of education

Source: ITU MISR 2016

Developing countries, latest data 2013-2015



# MISR 2016

## More info

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- Full report
- MISR 2016 video
  - ▣ Subtitled in 5 languages
- Chapter summaries
- IDI data visualization tool



<http://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2016.aspx>

# IDI data visualization tool

- IDI 2016 Rank
- IDI 2016 Map
- IDI 2016 by Region
- IDI 2016 Comparison
- Country Card

Select an option

IDI 2016 Rank

IDI 2016 Rank	Economy	IDI 2016 Value	IDI 2015 Rank	IDI 2015 Value	Rank Change
1	Korea (Rep.)	8.84	1	8.78	—
2	Iceland	8.83	3	8.66	↑
3	Denmark	8.74	2	8.77	↓
4	Switzerland	8.68	5	8.50	↑
5	United Kingdom	8.57	4	8.54	↓
6	Hong Kong, China	8.46	7	8.40	↑
7	Sweden	8.45	6	8.47	↓
8	Netherlands	8.43	8	8.36	—
9	Norway	8.42	9	8.35	—
10	Japan	8.37	11	8.28	↑
11	Luxembourg	8.36	10	8.34	↓

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[www.itu.int/en/ITU-D/statistics](http://www.itu.int/en/ITU-D/statistics)