Pakistan School of Internet Governance

Internet Governance Role of Governments

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Islamabad, PAKISTAN

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Relationship between Internet Governance stakeholders and Geographical areas

Tier of governance	Global	Regional	National
Technical standards	IETF, W3C and other global standards bodies	Interaction between global Internet standards and standards set by regional and national agencies for equipment, *etc.*	
Technical coordination	ICANN	RIRs	ccTLDs
Infrastructure	ITU	European Commission	National communications regulators (NRAs)
Public policy	Global agreements (e.g. UDHR) and discussions (e.g. on cybersecurity), UN agencies, *etc.*	Regional treaty organisations	Government ministries, self-regulatory bodies
Discussion fora	IGF, ISOC	Regional IGFs	National IGFs, national ISOC chapters

ITU Structure & Asia-Pacific Region

ITU International Telecommunication Union

ITU Headquarter (Geneva)

ITU-R

Radiocommunication

Satellite/Terrestrial

ITU-T

Telecom Network

Standardization

ITU-D

Development

ITU Regional Offices

| Africa | Americas | Arab States | Asia Pacific | Europe | CIS |

Asia-Pacific Sub-regions (ITU ASP RO)

| ASEAN/ CLMV | North-East Asia | Pacific | South Asia |

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ICT Services Uptake

Global, 2014

Who's online?

By region, 2014

Mobile cellular subscriptions:
- Almost 7 billion

Mobile broadband penetration:
- 84% developed countries
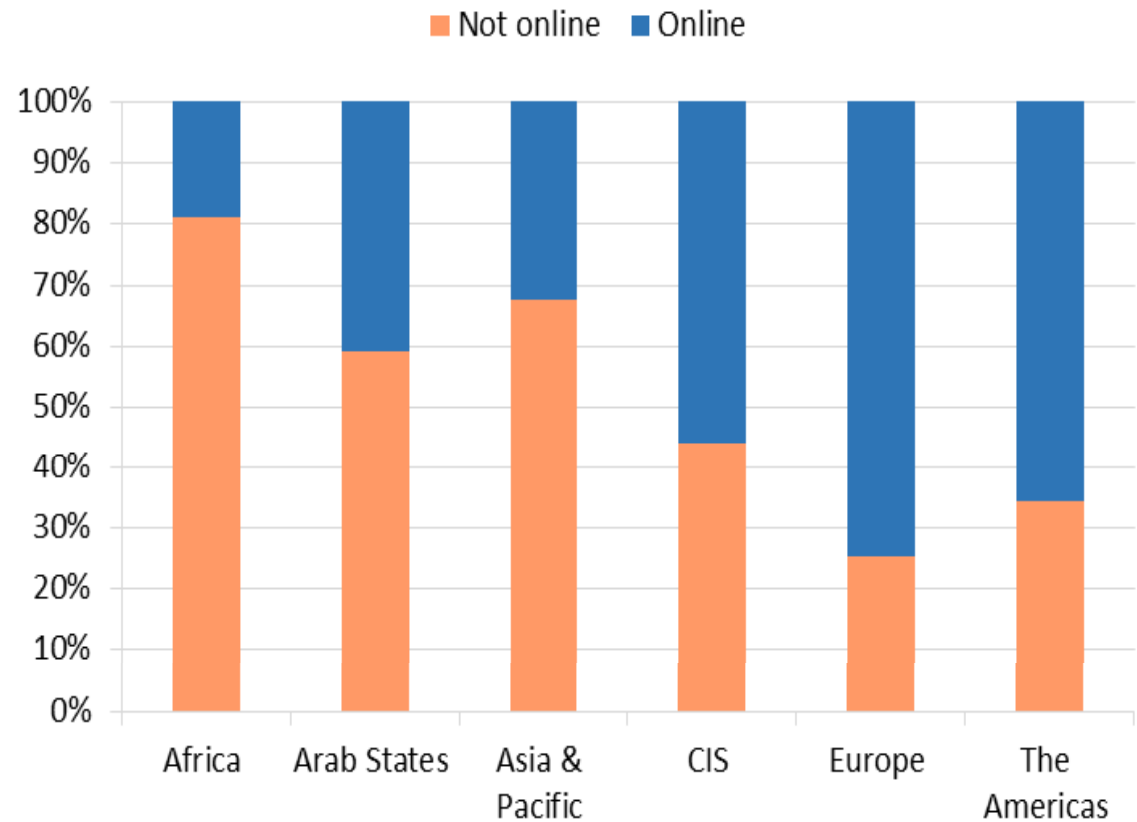- 21% developing countries

Fixed broadband penetration:
- **27.5 % developed countries**
- **6 % developing countries**

- **Almost** 3 billion **people online**
(individuals using the Internet)

Legend: ■ Not online ■ Online

Chart shows percentage 0% to 100% by region: Africa, Arab States, Asia & Pacific, CIS, Europe, The Americas

Source: ITU World Telecommunication/ICT Indicators database

Global Cybersecurity Index by ITU

Objective

The Global Cybersecurity Index (GCI) aims to measure the level of commitment of each nation in cybersecurity in five main areas:

- **Legal Measures**
- **Technical Measures**
- **Organizational Measures**
- **Capacity Building**
- **National and International Cooperation**

104 countries have responded

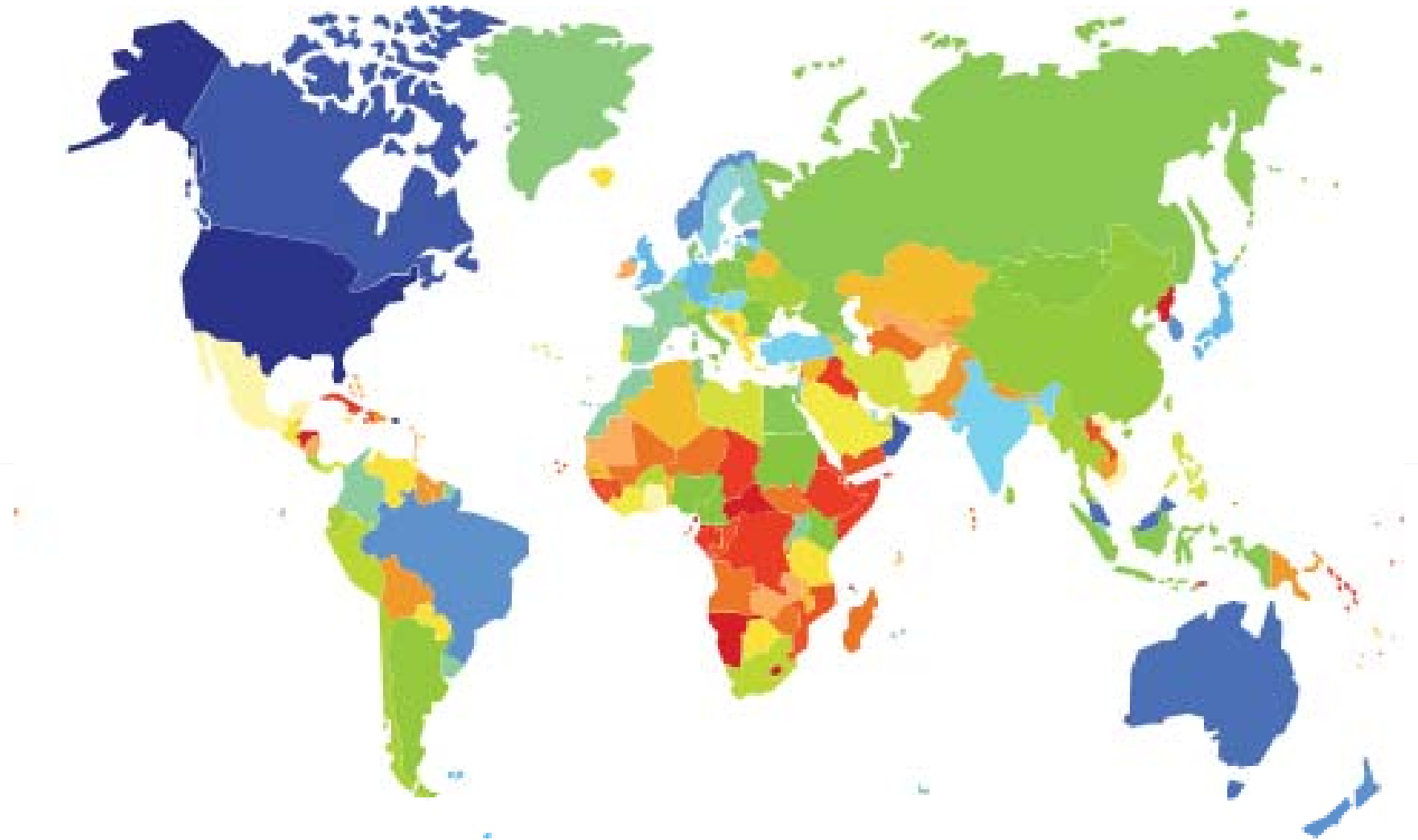**Final Global and Regional Results 2014 are on ITU Website**

http://www.itu.int/en/ITU-D/Cybersecurity/Pages/GCI.aspx

Next iteration in progress

ABIresearch® Global Cybersecurity Index

ITU

National Cybersecurity Commitment HIGHEST LOWEST

APT : Asia Pacific Telecommunity

Pakistan Member in 1979

Members : 38

Policy and Regulations

Radio Communication

Standardization

Human Resource Development

ICT Development

SATRC: South Asian Telecom Regulators' Council

Established in 1997

Pakistan became member in 1997

Members : 8

Capacity Building

Policy Regulations and Services

Spectrum Issues

ICANN : Governmental Advisory Committee (GAC)

Members : 140 Governments or Regulators

Observers : 30 (Inter Governmental Organizations like APT)

Policies regarding ccTLDs

Policies regarding new gTLDs

Members from Pakistan: Secretary of IT and Director (IT)

PAKISTAN'S SCENARIO

Ministry of IT (MoIT)

Pakistan Telecom Authority (PTA)

Telecom Re-Organization Act 1996

MoIT: Policies to Encourage Investment

- **Market liberalization**

- **Investor-friendly policies**

- **Ensure benefits for the investors and the end users**

Deregulations Policy 2003	Cellular Policy 2004	Broadband Policy 2004
USF Policy	Draft Telecommunications Policy, 2015	Draft Prevention of Electronic Crimes Bill, 2015

PTA: Consistent & Fair Regulatory Reforms

Telecom and ICT Growth

Reduction in Regulatory Duties

Foreign Investment

Employment Opportunities

mBanking

QoS Surveys

Consumer Protection Department

Auction for 3G/4G – 23rd April, 2014

- Zong won 10 MHz each in 1800 MHz band and 2100 MHz band @ **US$210.0 Million & US$ 306.92 Million**

- Mobilink won 10 MHz in 2100 MHz band **@ US$300.9 Million**

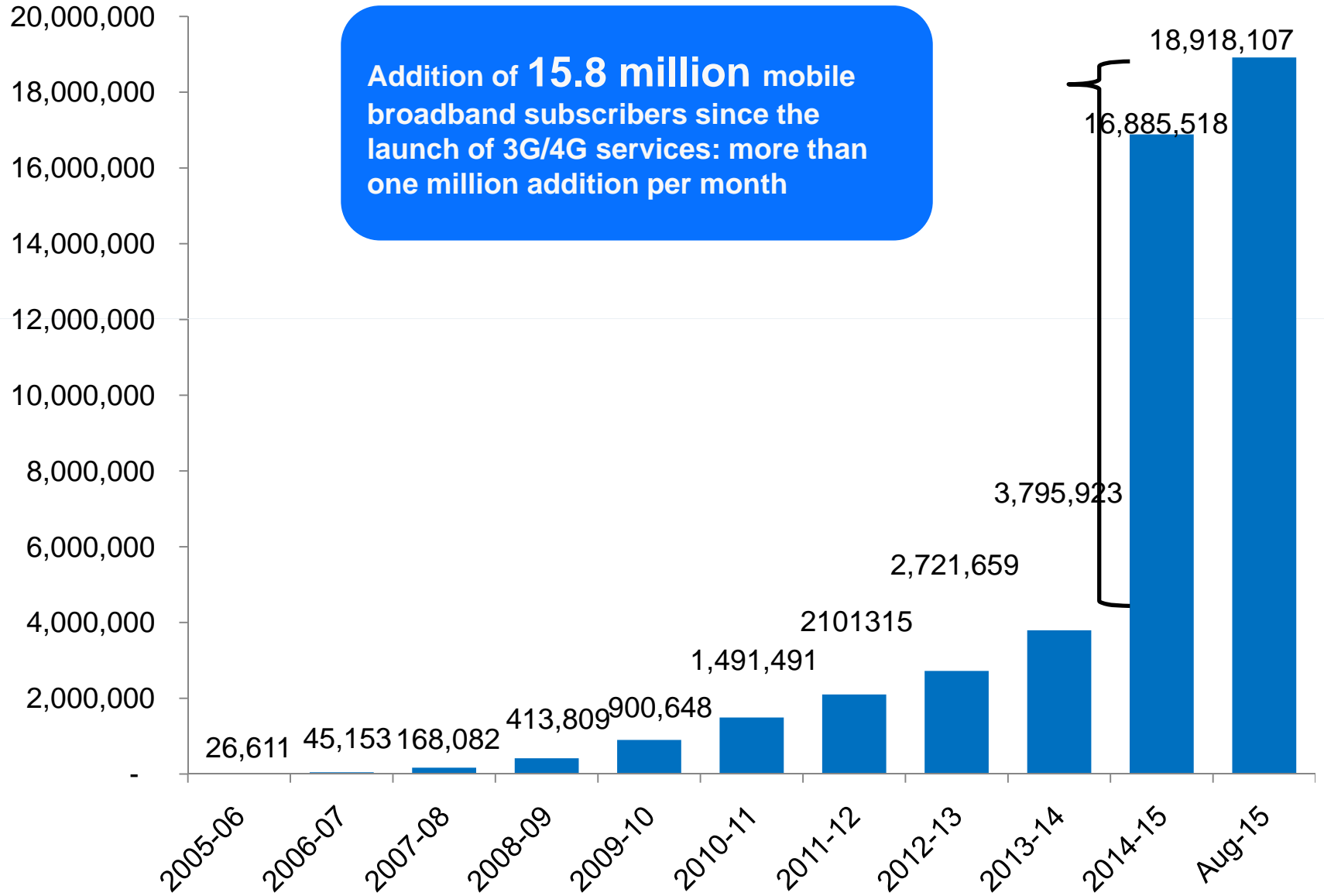- Ufone won 5 MHz only in 2100 MHz band **@US$ 147.5 Million**

- Telenor won 5 MHz in 2100 MHz band **@ US$147.5 Million**

Government got a total of **USD 1.22** Billion from the auction and advance tax
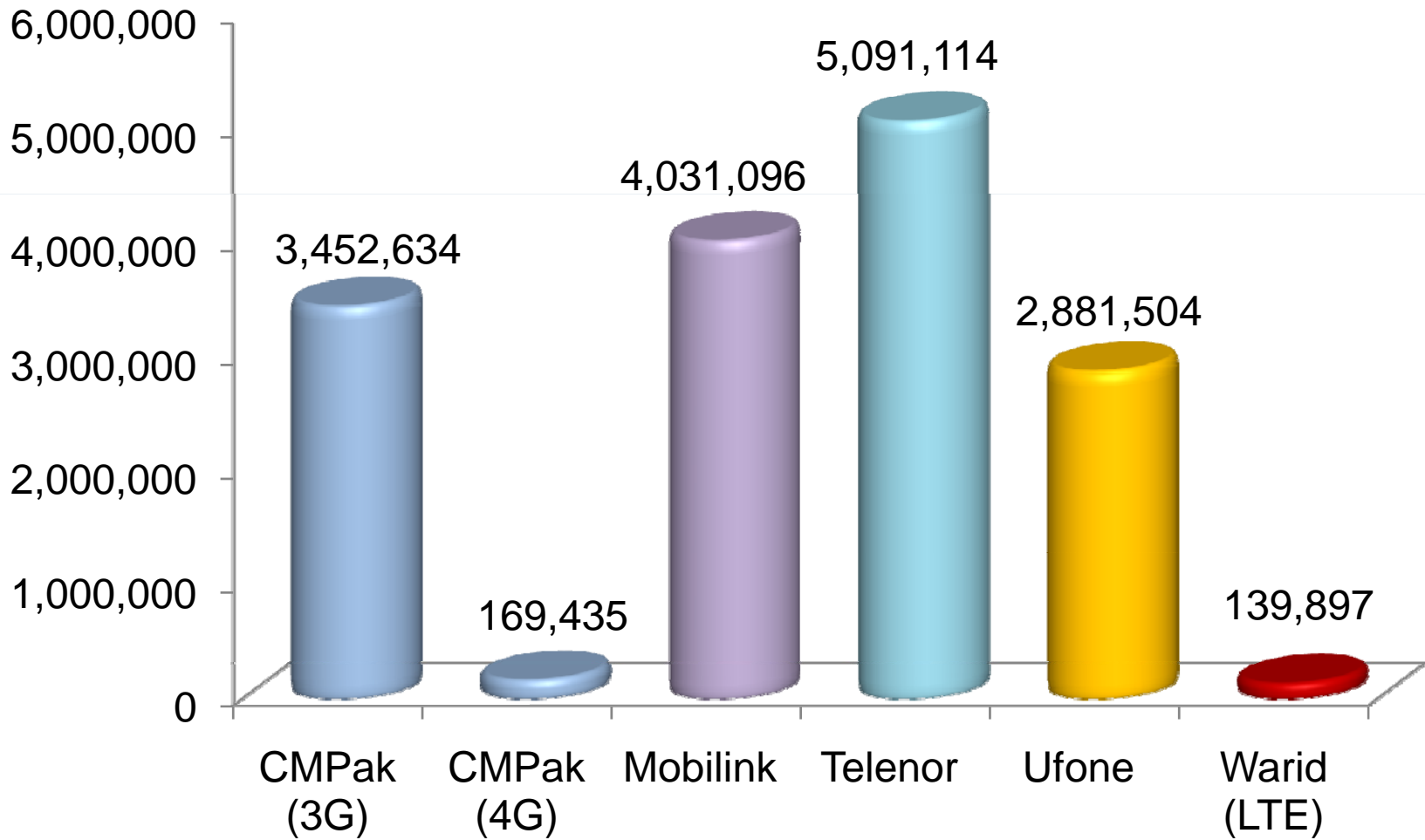
10 MHz in 1800 and 10 MHz in 850 MHz still remain unsold with the Government for possible next auction
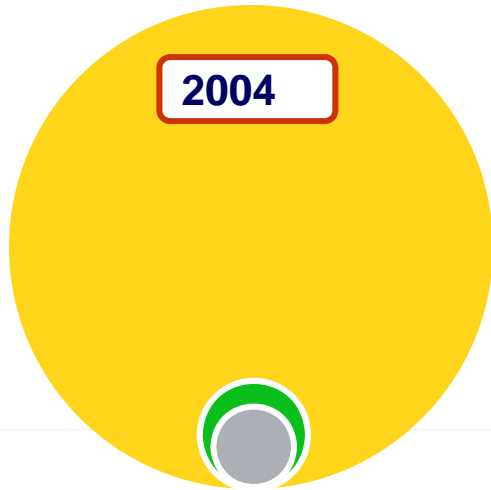
Outstanding growth in MBB after Spectrum Auction

Broadband Subscribers

Addition of **15.8 million** mobile broadband subscribers since the launch of 3G/4G services: more than one million addition per month

Year	Value
2005-06	26,611
2006-07	45,153
2007-08	168,082
2008-09	413,809
2009-10	900,648
2010-11	1,491,491
2011-12	2101315
2012-13	2,721,659
2013-14	3,795,923
2014-15	16,885,518
Aug-15	18,918,107

3G / 4G / LTE Subscribers in Pakistan (Aug 2015)

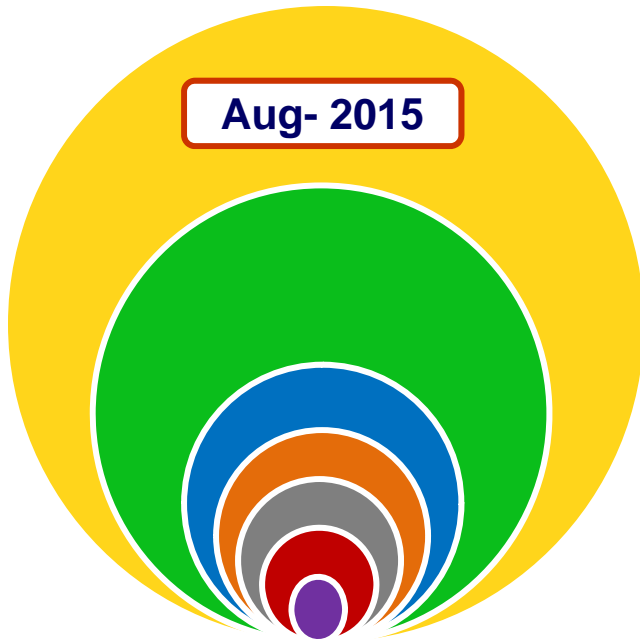# Teledensity and Broadband Comparison

2004

Total Population: 152.5 Million

Mobile Phone subscribers: 5 Million (3.3%)

Fixed Line subscribers: 4.5 Million (2.9%)

WLL subscribers: ---

Broadband subscribers: ---

Aug- 2015

Total Population: 190.23 Million

Mobile Phone subscribers: 118.9 Million (62.51%

PC Internet Users (Est) : 28 Million (14.72%)

Mobile Internet Users: 16 Million (8.29%)

Fixed Line subscribers: 3.0 Million (1.7%)

Broadband subscribers: 19 Million (9.94%)

Source – PTA

MAR 2015

SHARE OF WEB TRAFFIC

BASED ON EACH DEVICE'S SHARE OF THE TOTAL WEB PAGES SERVED TO WEB BROWSERS

SHARE OF WEB PAGES SERVED: LAPTOPS & DESKTOPS

SHARE OF WEB PAGES SERVED: MOBILE PHONES

SHARE OF WEB PAGES SERVED: TABLETS

SHARE OF WEB PAGES SERVED: OTHER DEVICES

we are social

we are social

we are social

50%
YEAR-ON-YEAR:
-16%

46%
YEAR-ON-YEAR:
+24%

3%
YEAR-ON-YEAR:
+13%

0%
YEAR-ON-YEAR:
-
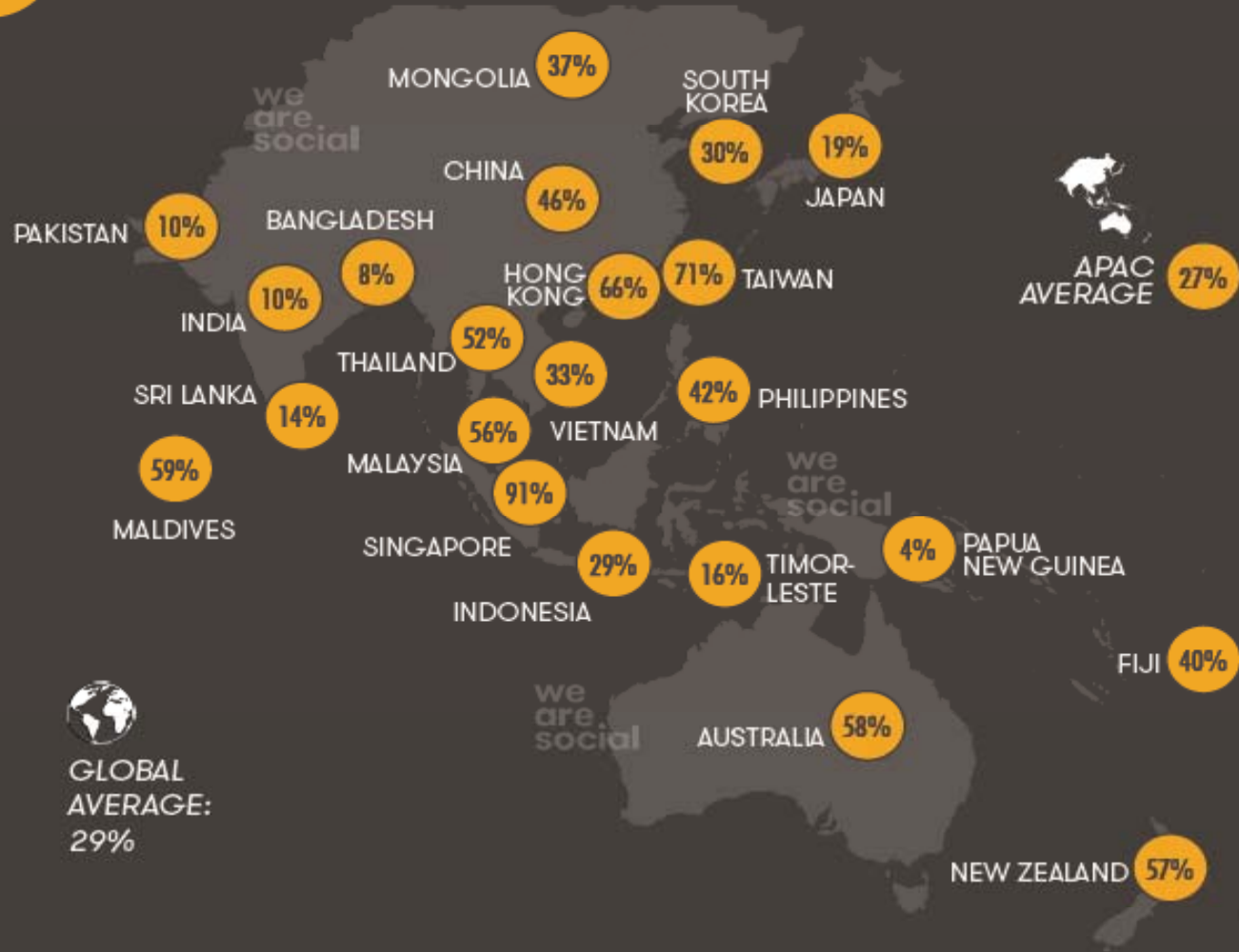
PTA's recent initiatives for local ICT industry Development

Establishment of Internet Exchange Point (IXP)

- Cost and Routing Efficiency at International Bandwidth
- Better user experience
- Local Content
- Local caching of renowned websites like Google and dailymotion

Mobile Apps award

- Mobile apps award for leading apps developed in Pakistan
- Student category
- Professional category

Mobile Apps Lab

- Developed Mobile Apps lab
- Training on Mobile Apps

Local Industry Consultation

- PTA Believes on multi stakeholders model
- Input from ICT and telecom industry

Open Stack for Cloud Computing

- Cooperating with Plumgrid for the open stack for cloud Computer training with the help of ICT R&D Fund

Content and Applications

- Work on all local languages especially on Urdu
- PTA's Urdu version website
- Domain name in all possible local languages like Urdu, Baloch, Pashto, Punjabi, Sindhi, Saraiki and Kashmiri

International Cooperation for Internet Development

ITU / APT / SATRC

- Pakistan became member of ITU in 1947
- Won Council Seats several times
- ITU Centre of Excellence
- IXP

Google / Facebook

- Enhancing cooperation to Bring their business in Pakistan

SATRC

- Regional Cooperation
- Capacity Building

ISoC

- Close coordination
- iNET Pakistan 2015
- Child online protection
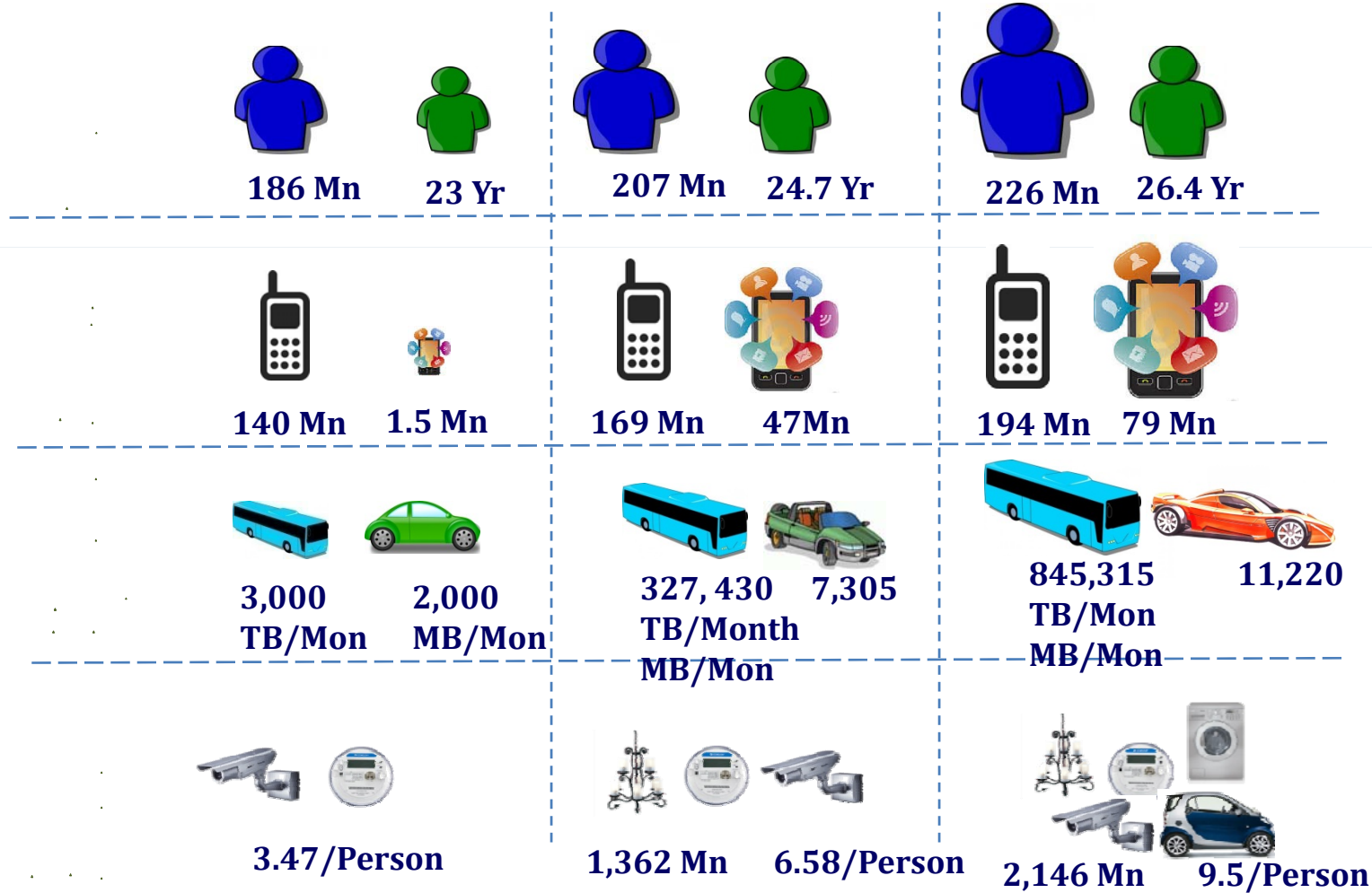- Cooperation in IXP for Pakistan
- Capacity Building

ICANN

- Capacity building of Pakistani technical community on DNSSEC
- Work on local content
- Arabic script including Urdu and all provincial languages

APNIC

- Close coordination for capacity building
- IXP workshop
- Series of trainings on IPv6
- PKNOG

PTA's Vision 2025: Projected Market Growth

186 Mn	23 Yr	207 Mn	24.7 Yr	226 Mn	26.4 Yr
140 Mn	1.5 Mn	169 Mn	47Mn	194 Mn	79 Mn
3,000 TB/Mon	2,000 MB/Mon	327, 430 TB/Month	7,305 MB/Mon	845,315 TB/Mon	11,220
	3.47/Person	1,362 Mn	6.58/Person	2,146 Mn	9.5/Person

Pakistan Telecommunication Authority