



# ITU Regional Forum on Reshaping Policy and Regulatory Landscape for Accelerating Broadband Access

## Role of Multi-stakeholders in Broadband Infrastructure Roll-out

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# Sequence

Pakistan – Brief Overview

Regulatory Policies

- Deregulation Policy 2003
- Cellular Mobile Policy
- Broadband Policy

Current status of Broadband

Multi-stakeholder Initiatives

# Pakistan—Basic Facts



## Geography

- Area 796,096 KMs
- Neighboring countries



## Population

- 190 Million
- 6<sup>th</sup> Largest
- Urban population of 40 %
- Population density 222.6 persons per sq km



## GDP

- Per capita Income : US \$ 1,513
- Services sector share: 58.8 % of total GDP



# ICT Administration

## Ministry of Information Technology (MoIT)

- Issue Policies for Telecom and IT
- For more details, please visit [www.moitt.gov.pk](http://www.moitt.gov.pk)

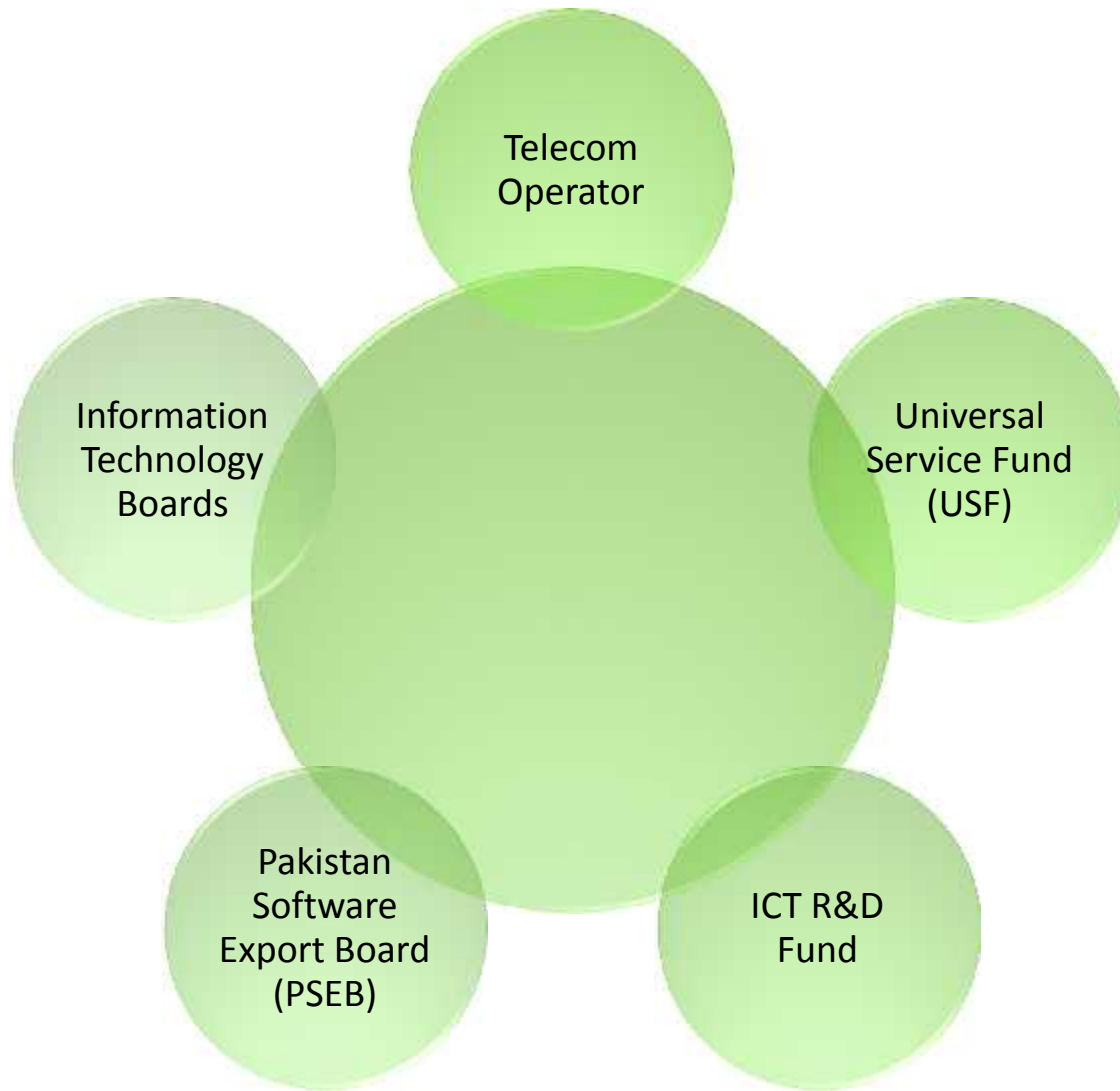
## Pakistan Telecommunication Authority (PTA)

- Licensing of Telecom and IT Services
- Frequency Management
- For more details, please visit [www.pta.gov.pk](http://www.pta.gov.pk)

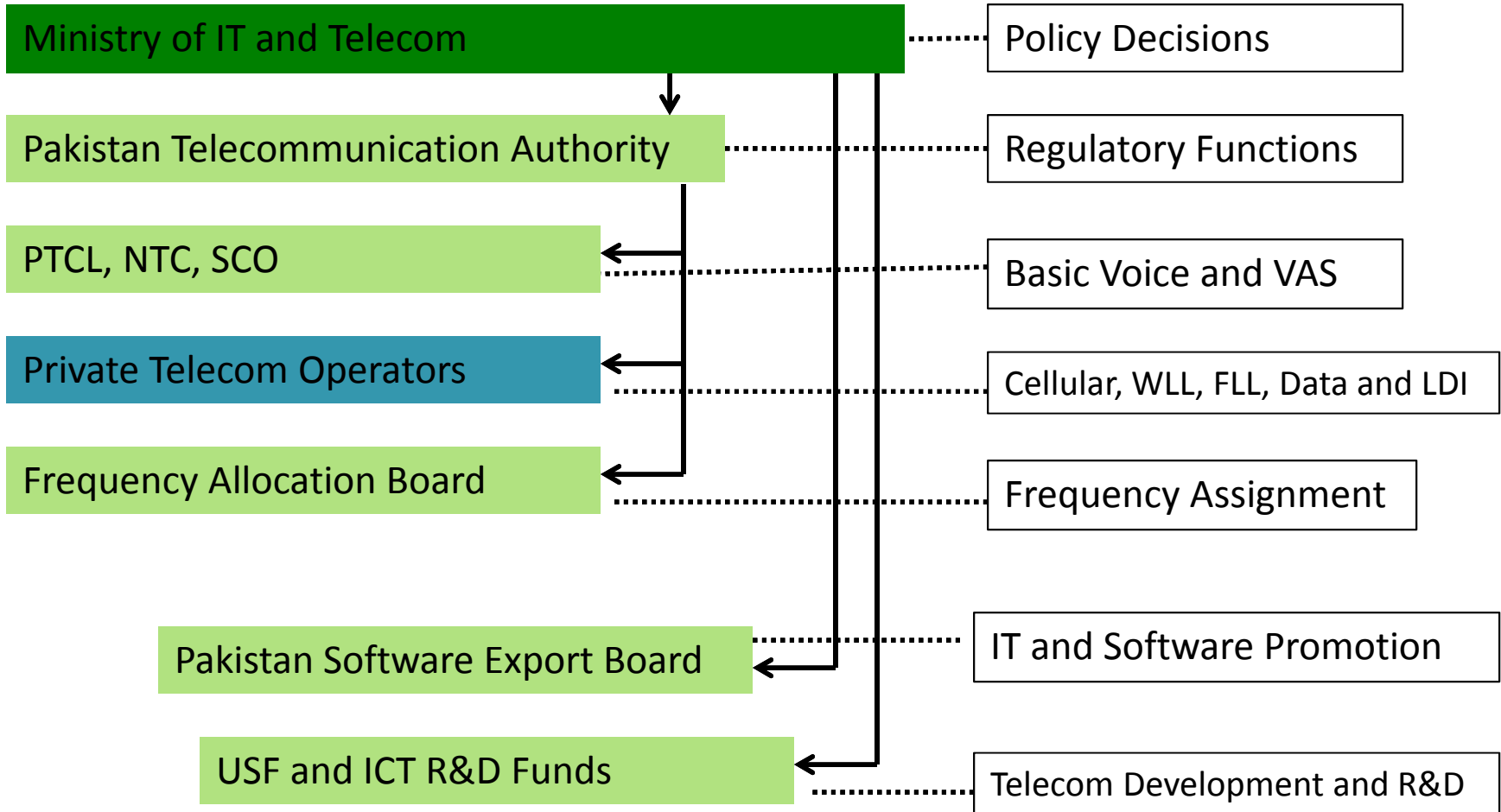
## Frequency Allocation Board (FAB)

- Allocation & assignment of radio spectrum
- Frequency Coordination
- Satellite Filing
- For more details, please visit [www.fab.gov.pk](http://www.fab.gov.pk)

# Stakeholders for BB Infrastructure Development



# Regulatory and Industry Structure





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# Regulatory Policies

## ● Telecom De-Regulation Policy 2003

- Increase service choice for customers of telecommunication services at competitive and affordable rates.
- Promote infrastructure development, especially infrastructure that will increase teledensity and the spread of telecommunication services in all market segments (including voice, data and cellular etc).
- Accelerate expansion of telecommunication infrastructure to extend telecommunication services to un-served and under-served areas.
- Creation of Universal Service Fund and National ICT R&D Fund.



# Regulatory Policies

- Cellular Mobile Policy 2004
  - Issuance of new cellular mobile licenses
  - Renewal of exiting cellular mobile licenses
  - Technology Neutral Licensing
  - License Term – 20 Years
  - Infrastructure sharing
  - National Roaming
  - Support for Mobile Virtual Network Operators (MVNOs)
  - Universal Service and Access Promotion Obligation

# Regulatory Policies

## ● Broadband Policy 2004

- Spread affordable, 'always on,' broadband high speed internet service in the corporate/commercial and residential sectors across Pakistan.
- Encourage the entry and growth of new service providers while stimulating the growth of the existing ones at the same time.
- Encourage private sector investment in local content generation and broadband service provision.
- Non-exclusive, non discriminatory and uniform ROWs and space contracts.

# Regulatory Policies

## ● Telecom Policy 2015

- Fast track processes for rights of way
- Use of utility infrastructure
- Infrastructure sharing
- National Roaming
- Spectrum Trading
- Development of a fiber roll out plan agreed with the sector
- Inclusion of broadband in the set of services to be supported by the USF
- Local Content Generation through ICT R&D Fund

# Sequence

Pakistan – Brief Overview

Regulatory Policies

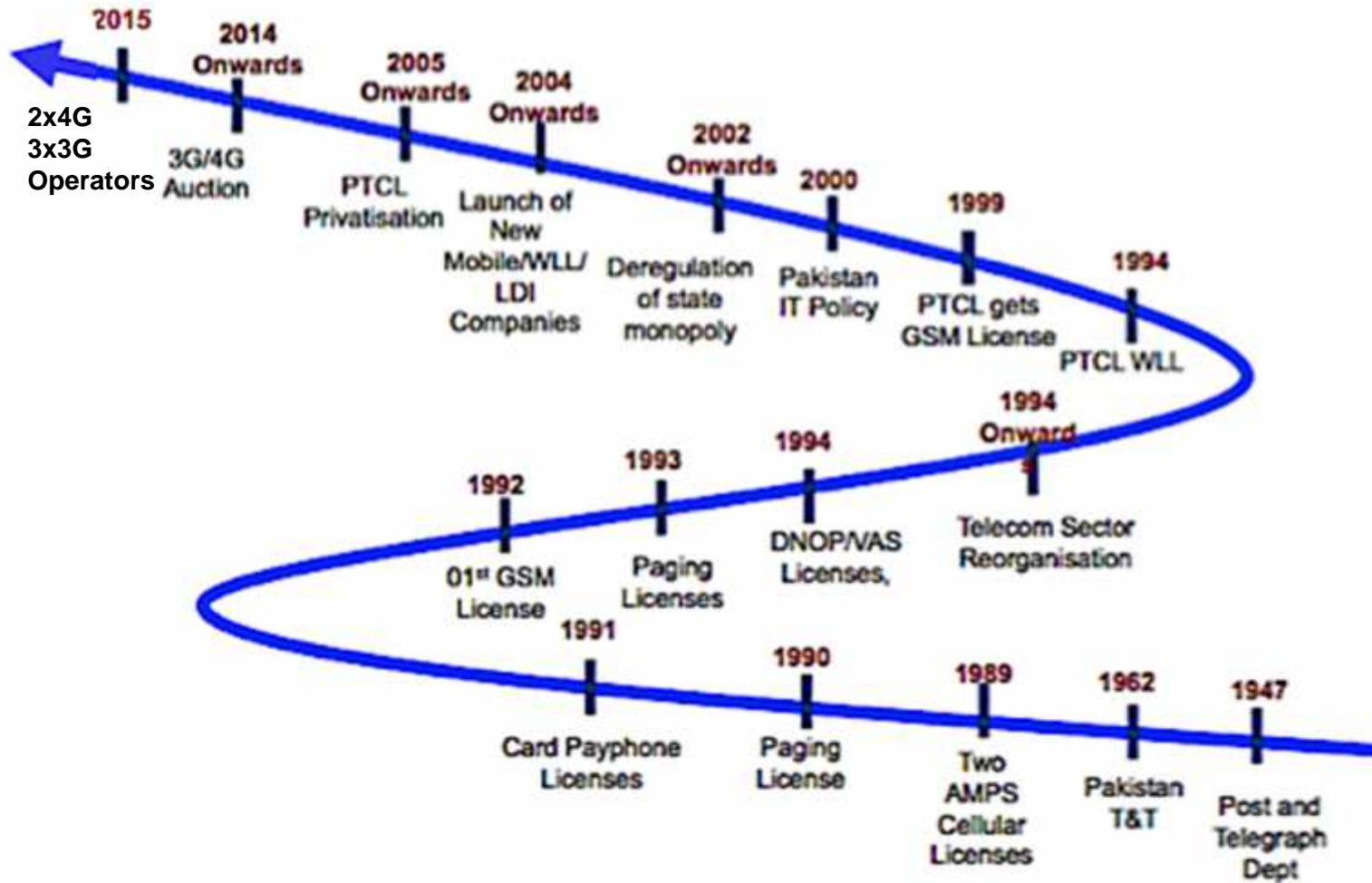
- Deregulation Policy 2003
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# Road to De-Regulation





# Telecom Sector of Pakistan (2015)



Mobile Operators  
5



LDI Operators  
16



FLL  
84  
Licenses &  
38  
operators



WLL  
93  
licenses &  
16  
operators



Infra-structure  
10  
& Tower  
Licenses  
8





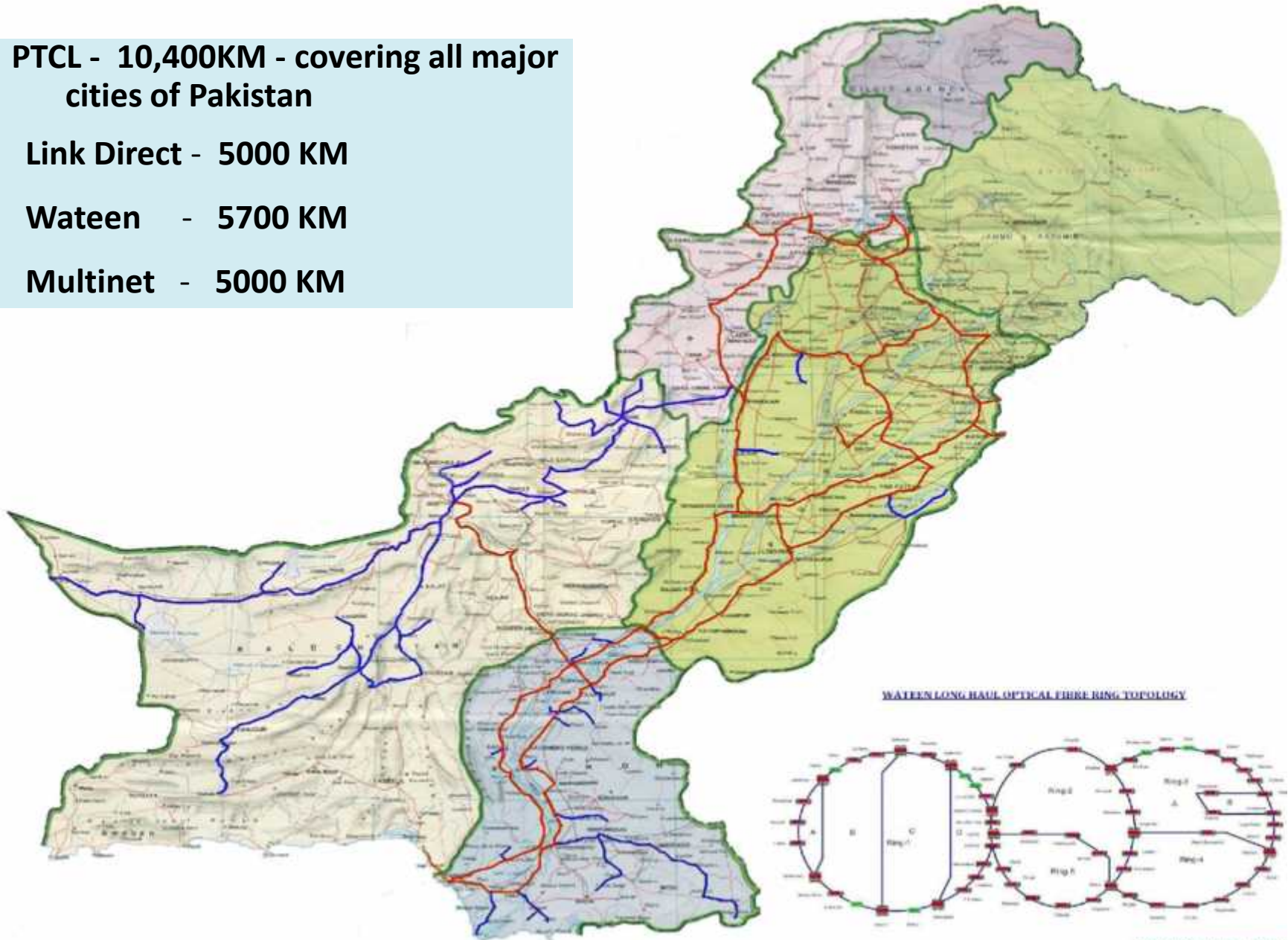
# Long Haul Fiber

**PTCL - 10,400KM - covering all major cities of Pakistan**

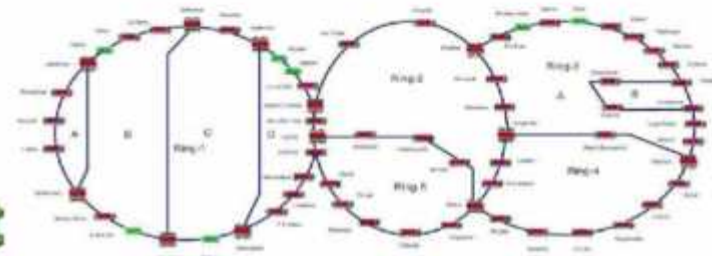
**Link Direct - 5000 KM**

**Wateen - 5700 KM**

**Multinet - 5000 KM**



**WATEEN LONG HAUL OPTICAL FIBRE RING TOPOLOGY**



# International Connectivity

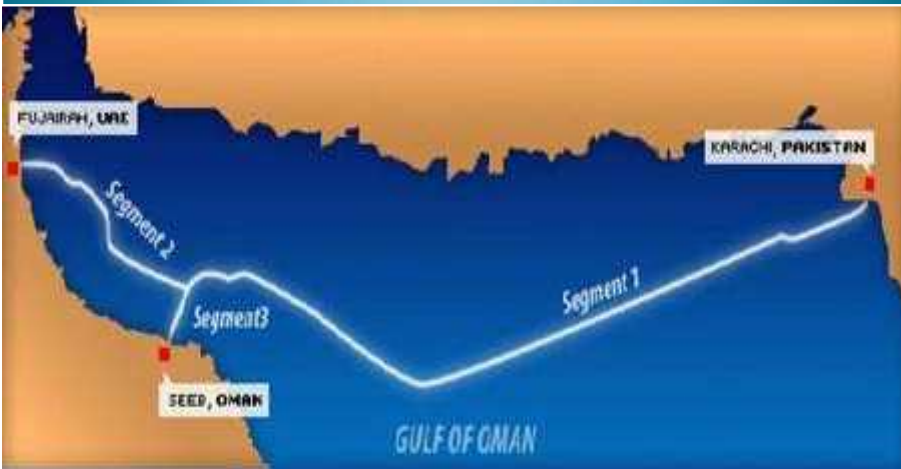
SEA-ME-WE 3



SEA-ME-WE 4



TWA

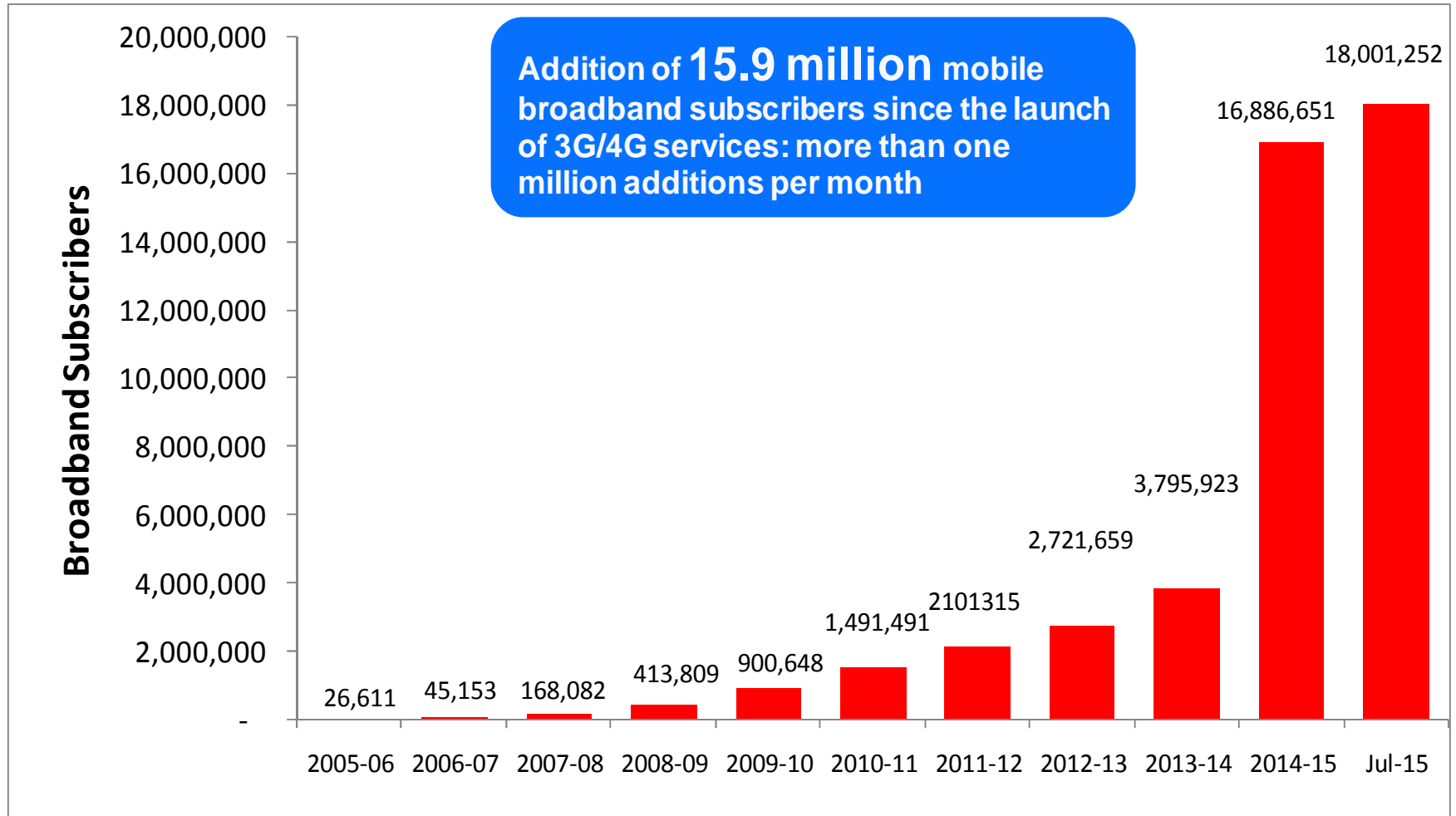


I-ME-WE



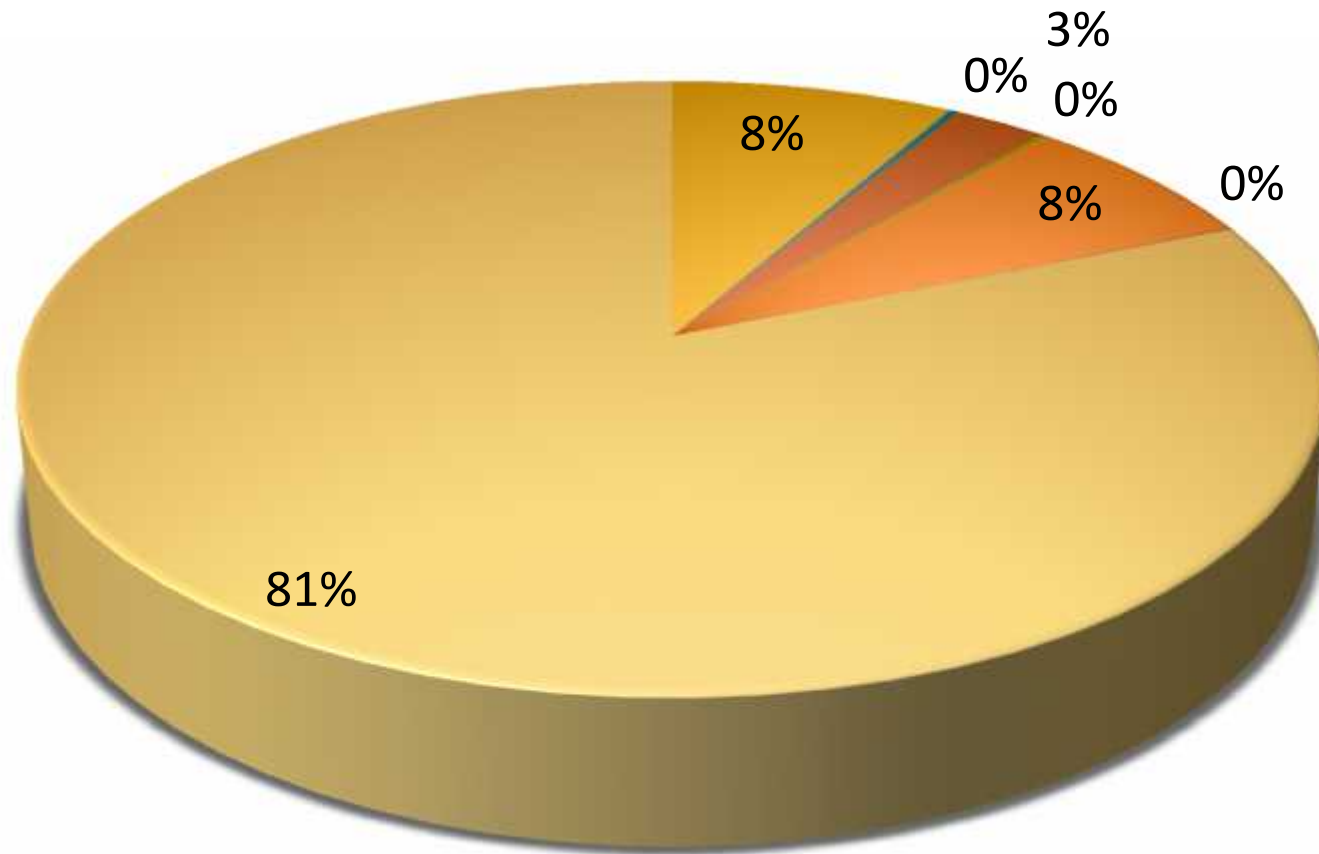


# Exponential Growth in Wireless Braodband



# Broadband Technology Share

■ DSL ■ HFC ■ WiMax ■ FTTH ■ EvDO ■ Others ■ Mobile BB



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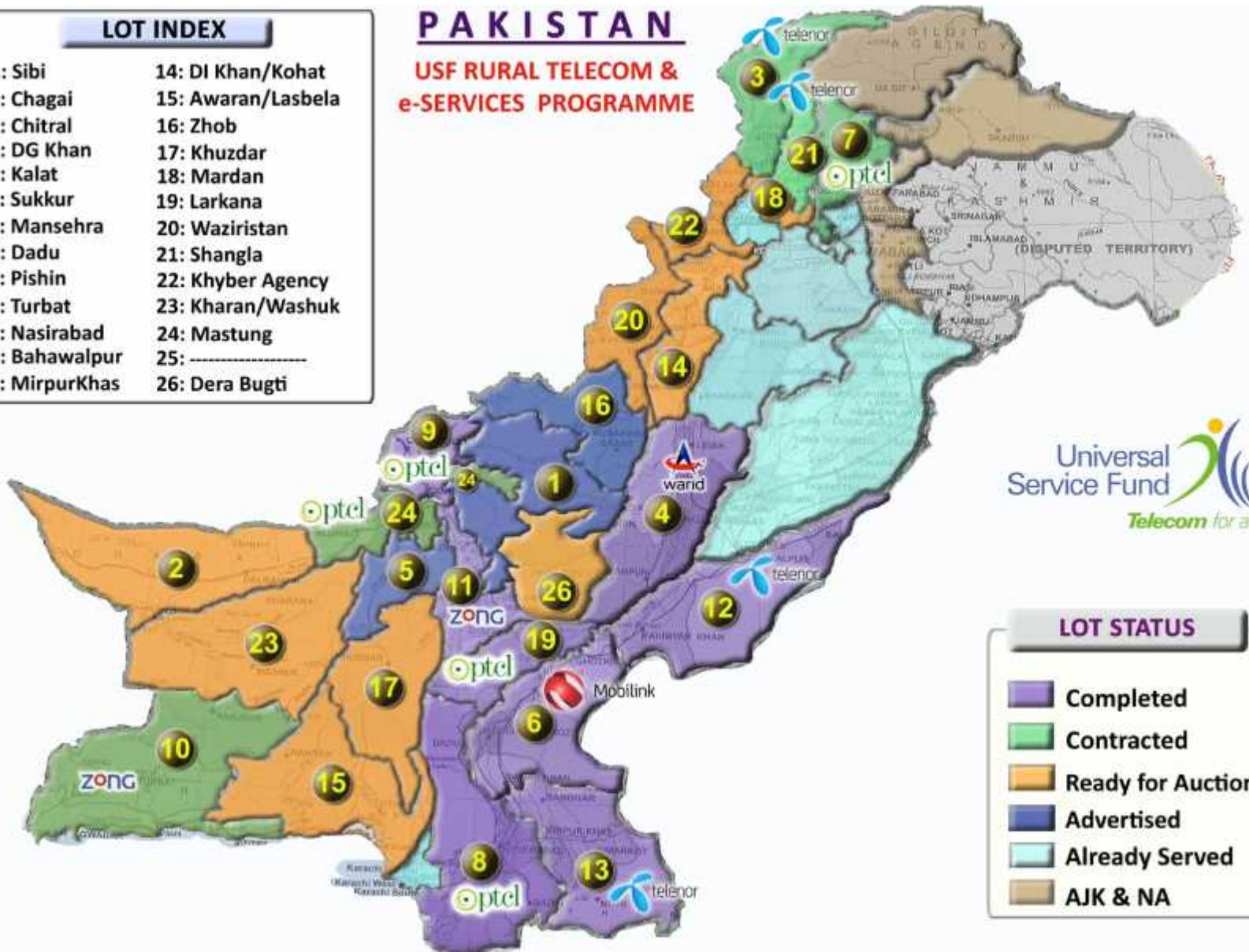
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# Universal Service Fund

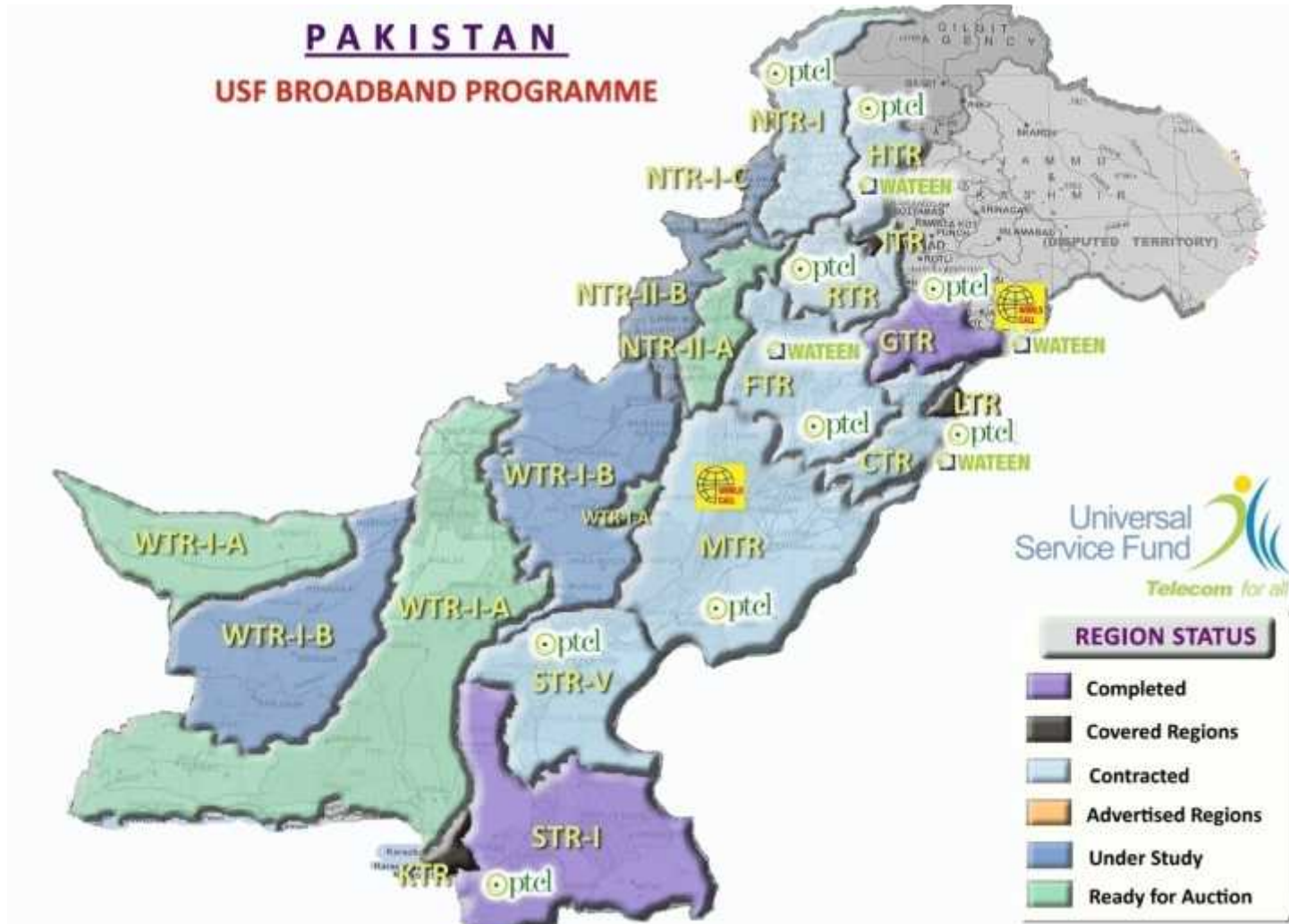
LOT INDEX	
1: Sibi	14: DI Khan/Kohat
2: Chagai	15: Awaran/Lasbela
3: Chitral	16: Zhob
4: DG Khan	17: Khuzdar
5: Kalat	18: Mardan
6: Sukkur	19: Larkana
7: Mansehra	20: Waziristan
8: Dadu	21: Shangla
9: Pishin	22: Khyber Agency
10: Turbat	23: Kharan/Washuk
11: Nasirabad	24: Mastung
12: Bahawalpur	25: -----
13: MirpurKhas	26: Dera Bugti

## PAKISTAN USF RURAL TELECOM & e-SERVICES PROGRAMME



LOT STATUS	
<span style="display:inline-block; width:15px; height:15px; background-color:purple; border:1px solid black;"></span>	Completed
<span style="display:inline-block; width:15px; height:15px; background-color:green; border:1px solid black;"></span>	Contracted
<span style="display:inline-block; width:15px; height:15px; background-color:orange; border:1px solid black;"></span>	Ready for Auction
<span style="display:inline-block; width:15px; height:15px; background-color:blue; border:1px solid black;"></span>	Advertised
<span style="display:inline-block; width:15px; height:15px; background-color:cyan; border:1px solid black;"></span>	Already Served
<span style="display:inline-block; width:15px; height:15px; background-color:tan; border:1px solid black;"></span>	AJK & NA

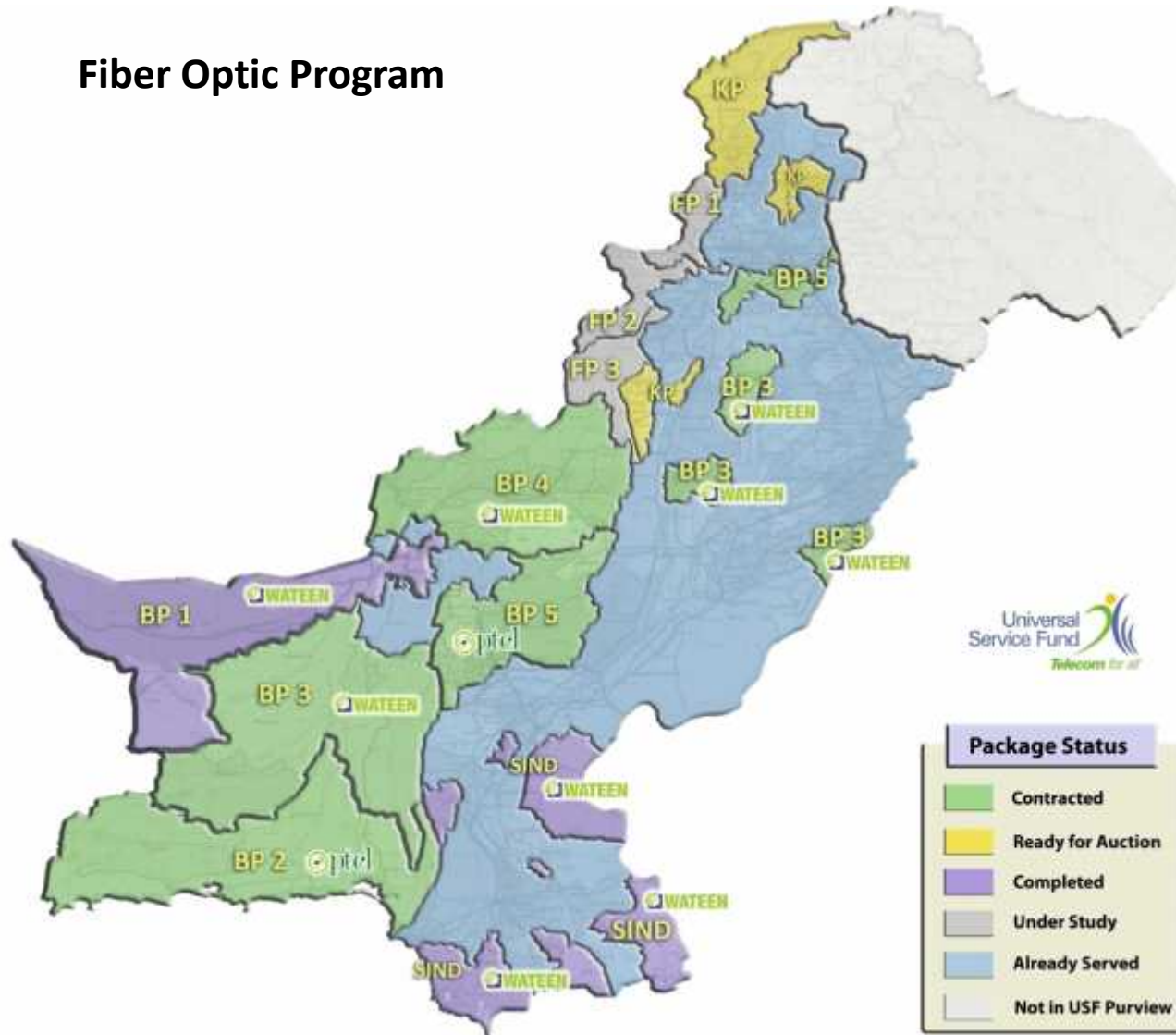
# Universal Service Fund





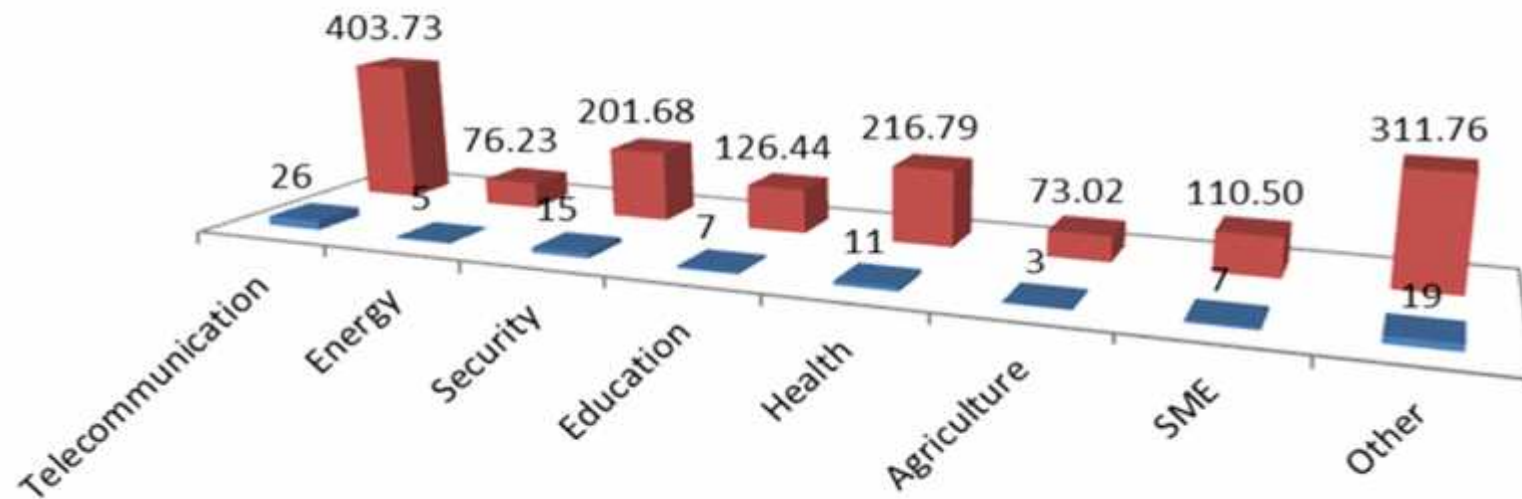
# Universal Service Fund

## Fiber Optic Program



# ICT R&D Fund

1. Design and development of innovative services and management systems for **next generation telecom networks**
2. Leverage ICT to:
  - a. Develop scalable and sustainable solutions to deliver international quality **education**
  - b. Enhance **security for all citizens**
  - c. Improve **productivity and quality of products in SMEs**
  - d. Improve productivity and quality of products in **agriculture**
  - e. Develop scalable and sustainable solutions to deliver a minimum level of **health care** to all citizens



# THANK YOU

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# Exponential Growth in 3G/4G Subscribers

