

# Increasing Fixed Broadband Internet Penetration

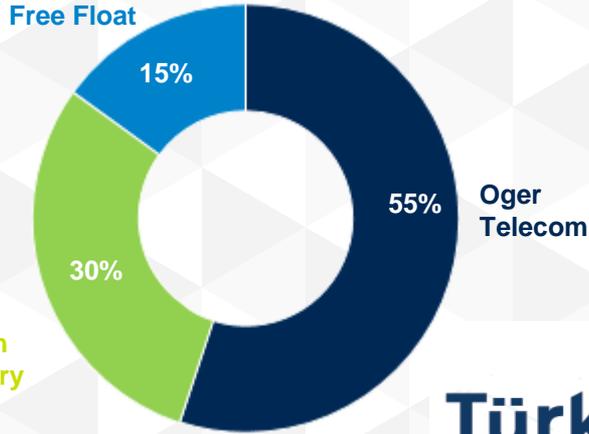
Türk Telekom  
Perspective



# Content

- ▶ **TÜRK TELEKOM GROUP**
- ▶ **TÜRK TELEKOM SERVICES AND PRODUCTS**
- ▶ **FIX BROADBAND**
- ▶ **MOBILE BROADBAND**

# TÜRK TELEKOM GROUP



- Privatized in 2005 and
- IPO'ed in 2008;
- Unifying mobile, broadband, TV and fixed voice brands under single “Türk Telekom” brand in 2016

## Türk Telekom

Ses + Mobil\* + İnternet\* + TV\*



# TÜRK TELEKOM SERVICES AND PRODUCTS



## MOBILE

18,6 Million Subscribers  
3G, 4,5 G



## FIX BROADBAND

8,7 Million Subscribers



## TV

2 Million Subscribers  
Web and Home Services



## FIX VOICE

9,6 Million Subscribers



## CORPORATE DATA SERVICES

Point to Point Network Services  
Leased Line, TTVPN, Metro Ethernet,  
ATM



## CLOUD SERVICES

Security, Sever Storage,  
Measurement, Exchange Services



## DATA/SERVICES

Server Rental/Storage/Back-up/Load  
Balancing/Levelling/Disaster recovery/



## CORPORATE CYBER SECURITY SERVICES

Ddos, Firewall, Antivirus, content filtering,  
anti spam, Other active defense system  
for attacks

# TÜRK TELEKOM'S DIGITAL SERVICES

- Türk Telekom has **40+ mobile applications**, and **200+ value added services**.
- **“Selfy & Prime”** and in near future **“Life is Simple with Internet”** application to increase internet literacy and **Launcher** application to provide exclusive TT branded smartphone usage.



## Turkey's New Generation TV Platform:

### Tivibu GO Launch: 2010

Türk Telekom's TV platform with national and exclusive channels, VoDs, and catchup programs in HD quality



## Turkey's Most Loved Digital Music

### Platform: TT Music Launch: 2008

Turkey's most preferred and loved digital music platform with millions of Turkish and foreign songs to download and to listen in HD quality, and numerous videos



## Turkey's Leader Digital Gaming

### Platform: Playstore Launch: 2011

Turkey's first and leader digital game platform and e-pin sales platform



## Turkey's First Interactive Education

### Platform Launch: 2008

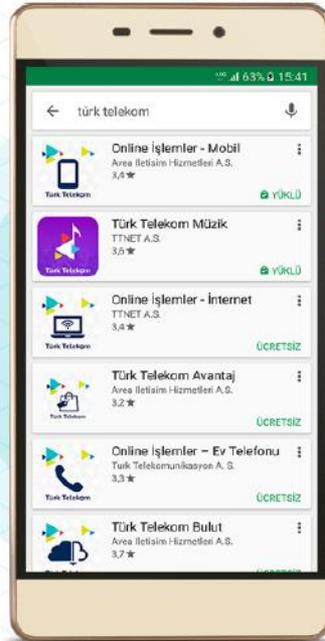
Turkey's biggest online education platforms: Vitamin for pre-school to high grades students, Raunt for uni preparation, ProG for professionals



## Turkey's Widest Wifi Broadband

### Network: TT WiFi Launch: 2006

Turkey's widest broadband network by covering 5K WiFi hotspot points and giving service more 2.5K Turkish Airlines flights



**Türk Telekom Mobile Payment Service;** Mobile Payment is a service that enables Türk Telekom mobile customers to pay easily, quickly and securely via mobile phones.

## Turkey's Real-Time Integrated Sport

### Platform: Tivibuspor Launch: 2010

Türk Telekom's sport platform presents sport news, videos, UEFA matches and instant match video delivery



## Turkey's Online Technology Magazine

### Platform: TT Mobile Magazine Launch: 2013

Turkey's online magazine with a wide selection of technology tips, special devices and mobile application researches



## Turkey's Most Comprehensive Security

### Platform: TT Security Launch: 2009

Turkey's most comprehensive and secure anti-virus and family protection service



## Turk Telekom's Advantageous Cloud

### Solution: Netdisk Launch: 2010

Türk Telekom's cloud storage solution exclusive for Türk Telekom broadband subscribers



## Turkey's First Operator Based OTT

### Messaging Platform: Wirofon Launch: 2008

Türk Telekom's OTT messaging and VoIP platform which enables the usage of Türk Telekom's PSTN minutes on mobile devices.



# TÜRK TELEKOM HIGHLIGHTS



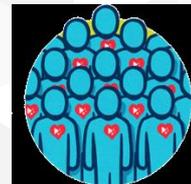
Leading  
**COMPANY  
IN TURKEY**

Offering Integrated  
telecom services



Most valuable telco  
brand for

**9** CONSECUTIVE  
YEARS



**SUBSCRIBERS**

**38,9** mn  
Serving



**CAPEX**  
**TL26bn**

Since privatization  
(2005)



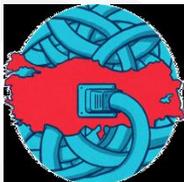
**98%**

Fixed line  
household  
coverage



**75%**

**LTE**  
Population  
Coverage

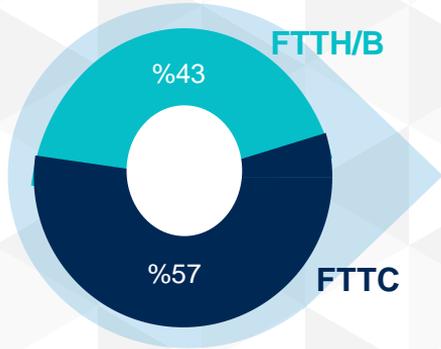


**228K** km  
fiber network in  
**81** cities



**13,9** mn  
**FIBER**  
**HOMEPASS**

# FIX BROADBAND-FIBER



Fiber Homepass (MN)



Fiber homepass includes FTTH/B & FTTC

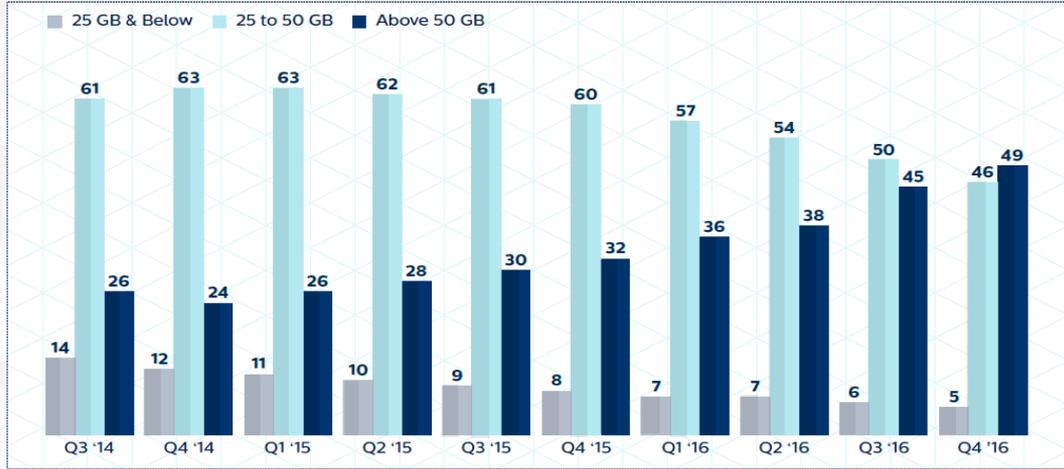
Fiber Subscriber (Thousand)



Fiber subscribers include FTTH/B & FTTC subscribers

# FIX BROADBAND

## Capacity Breakdown (% of Subscribers)



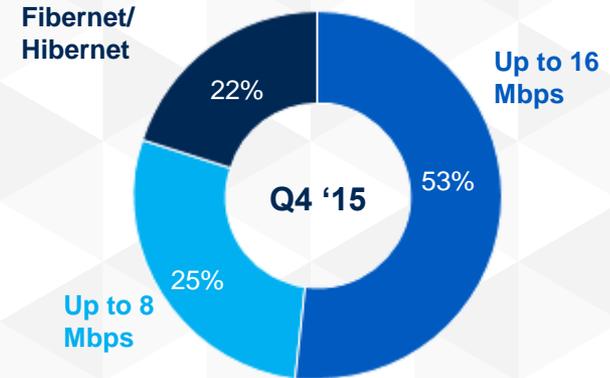
- 8,7 Million Subscribers
- Average speed provided 28,6 MBps in 2016

## Investment (million TL)



\*excluding 4.5G authorization fees

## Speed Breakdown (% of Subscribers)



# MOBILE BROADBAND

## Avg. Monthly Mobile Data Usage (GB per user\* )



\*Türk Telekom smartphone users

Within in the scope of "Tender of 4,5g" held on 26 august 2015,

- Totally 954,678,101 euros paid for different width frequency packages (800 MHz,900MHz, 1800 MHz,2600 MHz )
- More than 14K shooting points broadcasting through the new frequencies obtained in the tender of IMTLTE, have been launched during the 3G and LTE network studies.

**53% of smartphone users on LTE devices**  
**70% of LTE base stations**  
**fiber-connected**

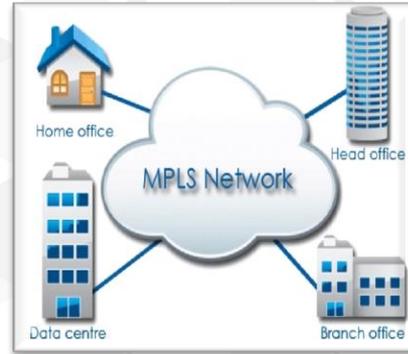
# TURK TELEKOM'S EFFORTS TOWARDS BROADBAND PENETRATION

## Tariffs Arrangements



- Segmented approached based on costumer needs.
- Tariff & services for disadvantaged groups.

## Investments & Infrastructure Projects



- Fixed and Mobile Data Core Network and Broadband Projects
- Fix and Mobile Voice Core Network Projects
- IP/MPLS Network Projects
- Transmission Network Projects

## Internet Houses Project



- Establishment of internet houses with computers and broadband internet access all over the country.
- Use internet free of charge.

## Life's Simpler With The Internet Project



- Increase internet literacy and provide equal access to information.
- Supported by the United Nations Development Program and the Habitat Development and Governance Association

## Internet For Disabled People



- Products and services are being updated appropriately for the use of the disabled
- Problems experienced by the handicapped in the process of accessing the information will be reduce

## Free Internet For Dormitories



- Free Wi-Fi service for dormitories.
- Universal Fund.
- Approximately 30.000 Access Points managed centrally.

## Fatih Project



- Providing broadband access to all schools.
- Run by the Ministry of National Education.
- Supported by the Ministry of Transport, Maritime and Communication.

## Smart Cities Project



- First integrated in Karaman.
- Manage all operations – from traffic and healthcare to public services and energy conservation.

## FiberkenTT Project



- Started in 2010
- Transform the Turk Telekom copper access infrastructure into a fiber optic access infrastructure.

## Ulak Project



- First step towards domestic production in LTE technology.
- Developed by Aselsan, Netaş and Argela
- Supported by Undersecretariat for Defense Industries.

## Milat Project



- Bring LTE and Wi-Fi connection together.
- Reach 1 Gigabits per second.
- Türk Telekom and Korea Telekom cooperation.

## Wimax Project



- Provide voice and internet services with Wireless WiMAX systems.
- Universal fund.

## 5G



- Development of new product and services in 5G technology.
- Türk Telekom and Nokia cooperation.

# SUGGESTIONS

- ▶ **Financial obligations and taxation in the sector must be fully examined, simplified and reduced**
- ▶ **Incentives the investment for rural areas or the areas with the low rate of return of investment**
- ▶ **Facilitating access to broadband services for people with disabilities, low income or social support needs,**
- ▶ **Determination of content and application areas for the development of Turkish I content and applications,**
- ▶ **Extending the use of secure internet applications,**
- ▶ **Give importance to Machine to Machine (M2M), Internet of Things (IoT) and Internet of Everything (IoE) services,**
- ▶ **Dissemination of e-government, e-education, e-health applications,**
- ▶ **Providing a shared economic transition through social media platforms,**
- ▶ **Establishment of a cyber security,**
- ▶ **Development of device promotion models,**
- ▶ **Providing education for internet literacy,**
- ▶ **Implementation of successive and predictive regulatory impact analysis.**

**Thank you.**