

#### Market Trends 2015



- Revenue growth for the sector (after many years of stagnation)
  - 2 Steady growth of fixed broadband
- 3 Significant growth of mobile broadband due to 4G
- Higher substitution of mobile voice and SMS with OTT services
- Number of subscribers to triple play bundles increased 3 times
- 6 IPTV important driver for increased broadband connections
- 7 Fixed telephony subscribers: in decline since 2009

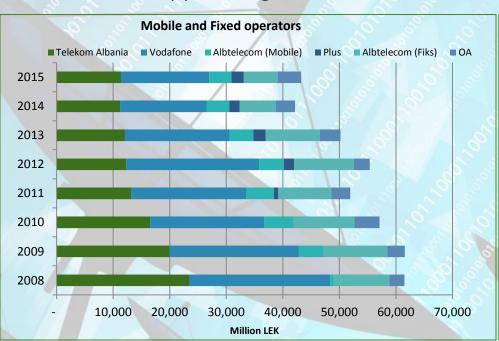
#### **Market TURNOVER 2015**

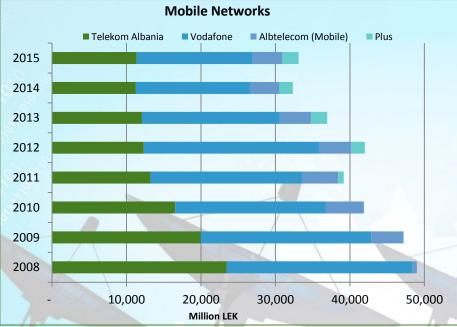


- Total market Turnover: € 309 mil.
  - 2% annual growth
  - Growth after decline since 2009 (exc.2012)
- Main operators revenues stable
- Revenue from mobile v fixed networks: 77% v 23%



- ❖ Vodafone, Telekom, EM: 0-2% increase
- Plus: 20% growth
- Fixed networks: 2% growth
  - ❖ Albtelecom: -4%
  - **❖** AO: +22%





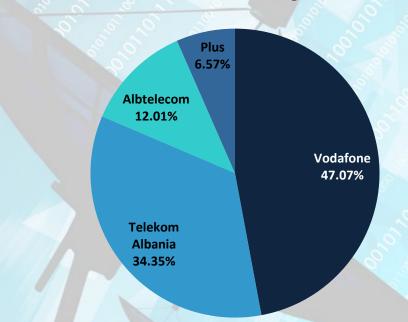
#### Revenue Market Shares



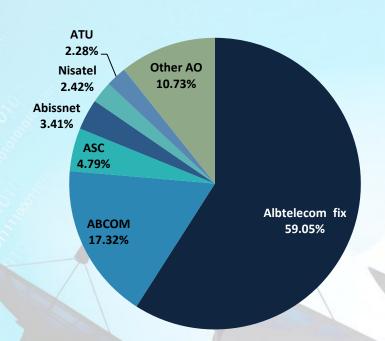
- MNO-s market shares stable in 2014-2015
- 62% of MNO investments in 2015 for broadband

 Albtelecom market share in fixed sector declined from 66% in 2014 to 59% in 2015

#### **Mobile Networks Rev. 2015**



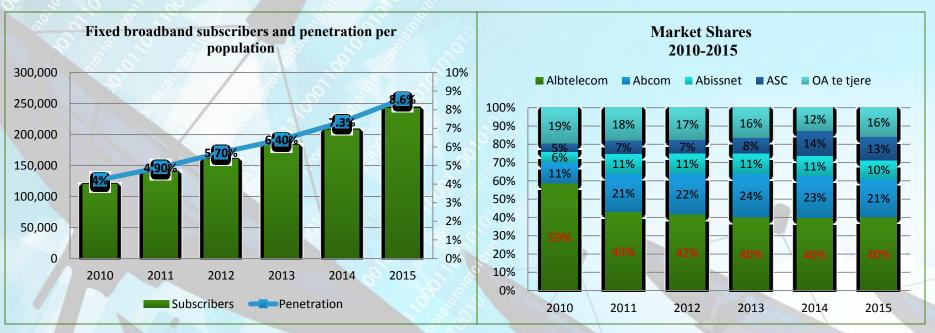
#### Fixed Networks Rev. 2015



#### Fixed Broadband 2015

- End of 2015: 243 thousands subscribers
   (QII\_2016: 255 thousands)
- 2010-2015: steady annual growth 14-17%.
- 8.6% subscribers per population
- 31% subscribers per Household

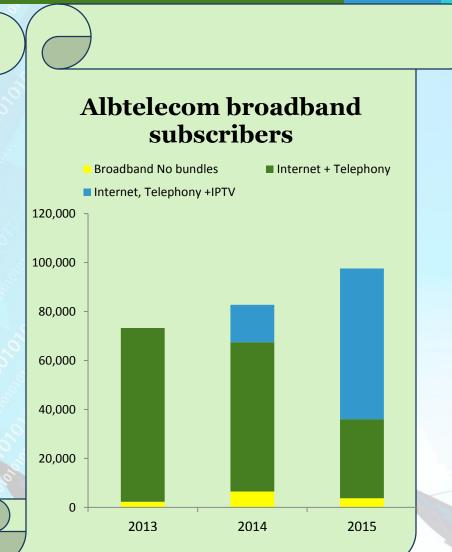
- International Connectivity: 77Gbps (61 Gbps 2014)
- Market shares:
  - Albtelecom 40%
  - Abcom 21%
- Four main operators:
  - 84% of the total market
  - Triple play offers (Internet, telephony, TV)



#### Fixed Broadband and IPTV



- Broadband subscribers: + 17%
- Triple Play (Internet, Tel, +TV (IP/CATV) subscribers: 3 times (from 23 thous. To 69 thous.)
  - Albtelecom: increase 4 times of triple play (with IPTV), and 63% of total broadband subscribers



# Fixed Broadband by Technology

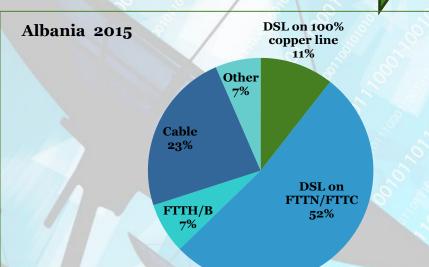


#### Albania

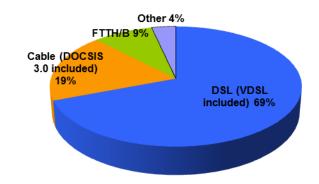
- 1.DSL: 63% (FTTN/C 52%)
- 2. Cable 23%
- 3. Cable DOC SIS 3.0: 14% of total cable
- 4. NGA Subscribers: 63% mostly FTTN/C

#### EU

- 1. DSL: 69% (VDSL included)
- 2. Cable 19%
- 3. Cable DOC SIS 3.0: 80% of total cable
- 4. NGA: 35% mostly VDSL, FTTH/B and Cable DOC SIS 3.0

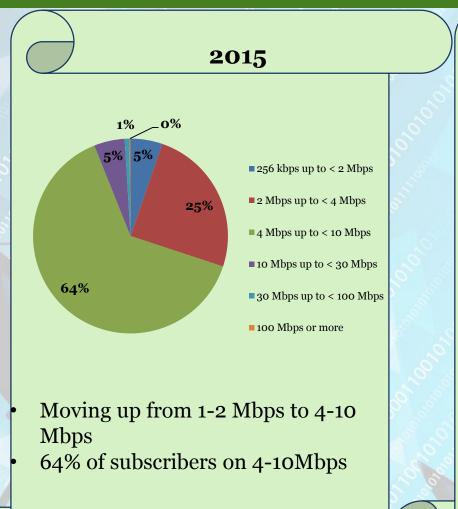




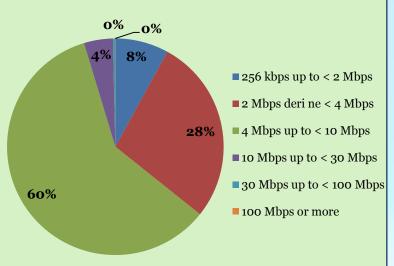


## Fixed broadband by Download Speed





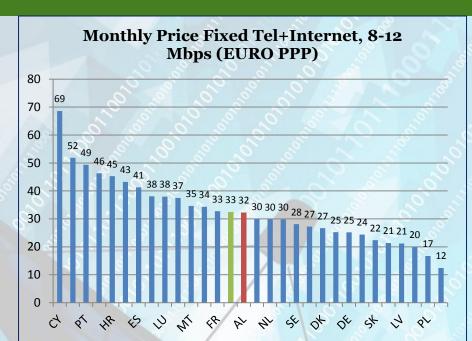


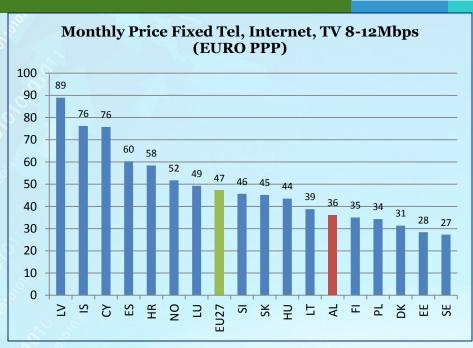


- 256kbps-4Mbps: from 36% in 2014 to 30% in 2015
- Fast (30 Mbps) and ultra fast (100 Mbps): 1% of total connections

#### Broadband Prices (PPP adjusted)





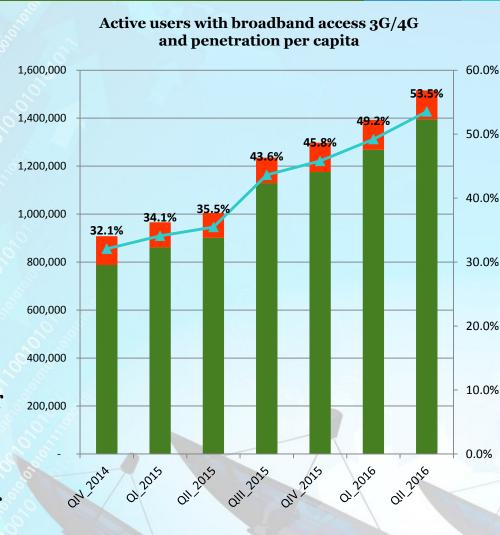


- Bundles of Telephony+Broadband access
  - comparable to EU average for 8-12Mbps
  - Affordable at 5Euro/Month for 1Mbps



#### Mobile Broadband 2015

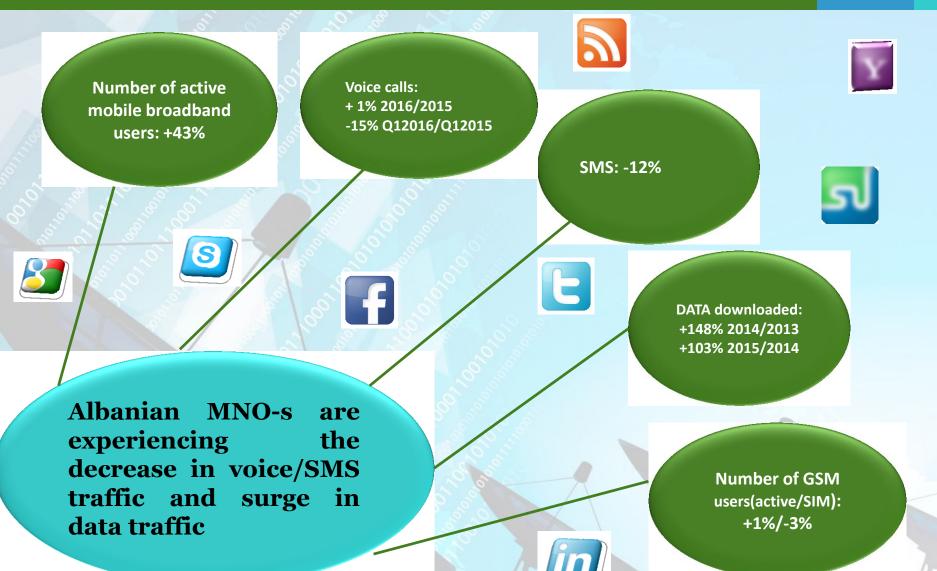
- 4 MNO-s with 3G services
- 3 MNO-s launched 4G services in July-September 2015
- 2 million users of mobile broadband
- 1.4 million active users(1.5 milion Q2 2016)
  - 43% Annual Growth: mostly access from mobile phones
  - o QIII 2015: 23% growth Impact of 4G
- 46% penetration per population for active mobile broadband users(53.3% Q2 2016)
- 550 MB average download per user



Celular Devices USB/Modem —— Penetration per population

#### Impact of OTT

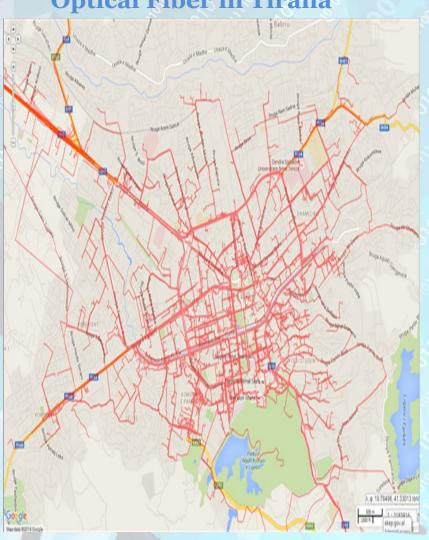




#### Infrastructure



#### **Optical Fiber in Tirana**



- Good coverage in main urban areas with optical fibers: Tirane, Durres, Vlore, Shkoder etc
- Many operators have their own urban/local FO infrastructure
- Inter-urban area only Albtelcom and ATU present

#### Optical Fiber: Interurban

**Optical Fiber: all operators** Приштина DOM: Desan Mi Podgorica Gjakova Баковица Biodya Prizren Приврен Tetovo Тетопо Gostivar Гостивар ational Park ж Мапропо Kruse District Kichevo Дебар Кичево Krusher Крушев Ohrid Охрид Bite Бит C Kastor Ethniko Parko Pindou

Sarande

Corfu

Sidari Yibopi

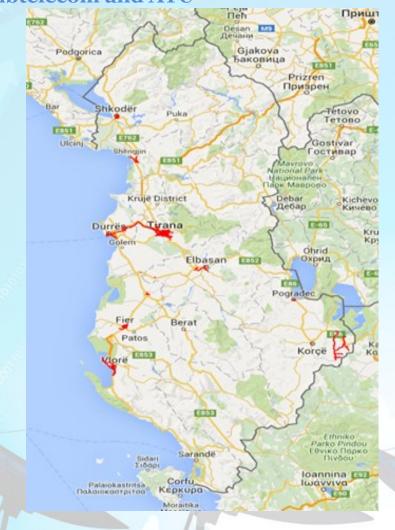
Palatokastritsa.

Εθνικό Παρκο

loannina [22]

Ιωάννινα

Optical Fiber: All operators except Albtelecom and ATU



#### Broadband/Infrastructure Market





- Most fixed operators with their own networks Infrastructure based competition
- LLU not effective
- Bitstream Access:
  - Albtelecom has signed agreements with 4 operators
  - End of QII\_2016 approx.2400 connection
- Passive infrastructure sharing:
  - 924 km access to dark fiber (no change from 2014)
  - o 61 km: access to ducts (19 km in 2014)
  - AKEP approved a Regulation for passive infrastructure sharing in 2015
- MOU for co-investing was signed between three mobile operators and AKEP on December 2015.

# Market Analysis 2014-2016





### Market 3 and 4/2014



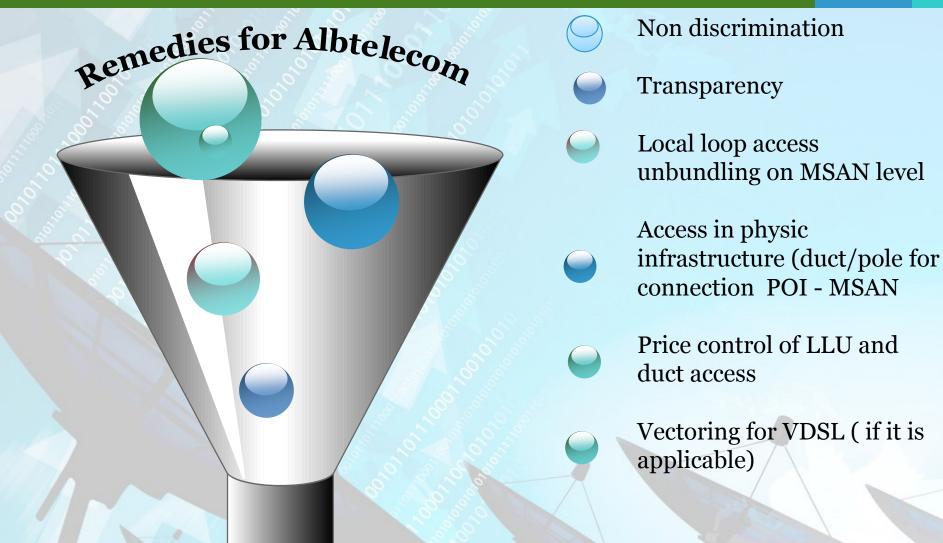


Wholesale central access (WCA)

Wholesale high quality access (WHQA) Wholesale access to passive infrastructure network in national level

#### Wholesale Local Access – 3a





#### Wholesale Central Access – 3b

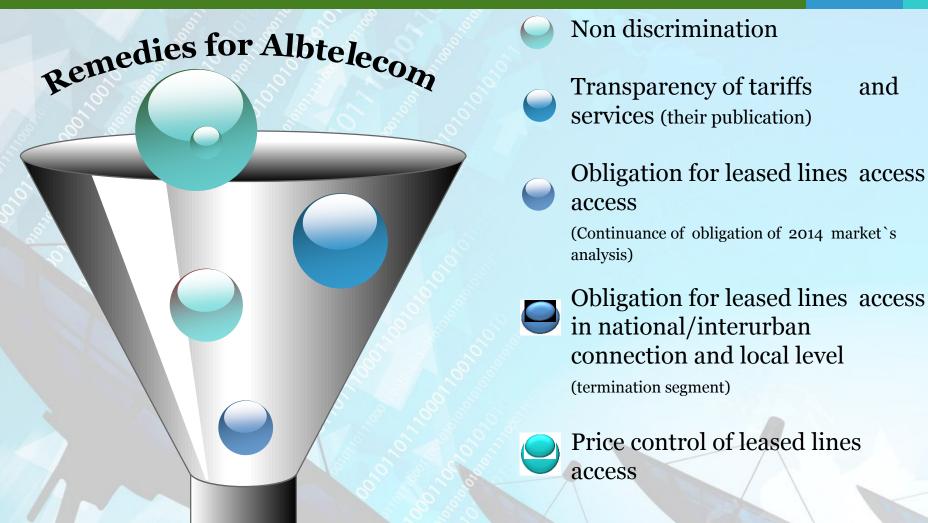




- Non discrimination
- Transparency of tariffs and services (their publication)
- Obligation for Bitstream access (Continuance of obligation of 2014 market's analysis)
- Obligation for access in duct/optic fiber in urban level
  - Price control of Bitstream and duct access

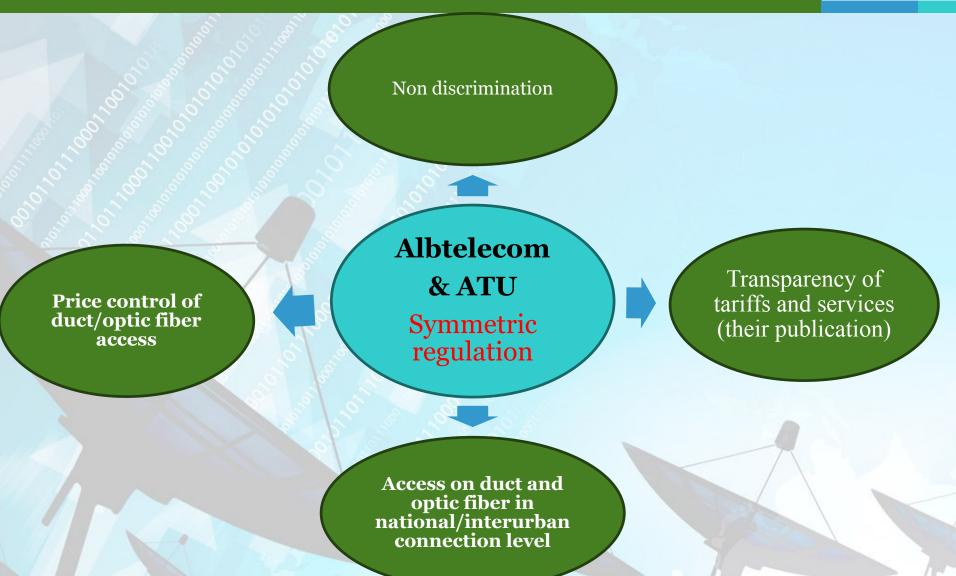
# Wholesale High Quality Access - 4





# Wholesale Access in Passive Infrastructure Network in National Level





#### Market analysis (1/2014)



AKEP on October 2015 approved the final document of the "Analysis of the fixed telephony market: retail markets and wholesale markets of termination, transit and origination". AKEP decided:

- □ Wholesale fixed call termination market
  - Designation of Albtelecom and all AO as SMP
  - o FTRs:
    - from 1.01.2016 symmetric rates between Incumbent and AO and one segment (from two);
    - glide path in three stages 2016-2018.
- □ Retail market of Access (market 1/2007) and wholesale Call origination on fixed networks (market 2/2007):
  - o no longer susceptible to ex-ante regulation (do not meet the 3 criteria test) and no SMP operators.
  - fixed and mobile calls in the same market (fixed calls high degree of substitution from mobile calls).

## Market analysis (2/2014)



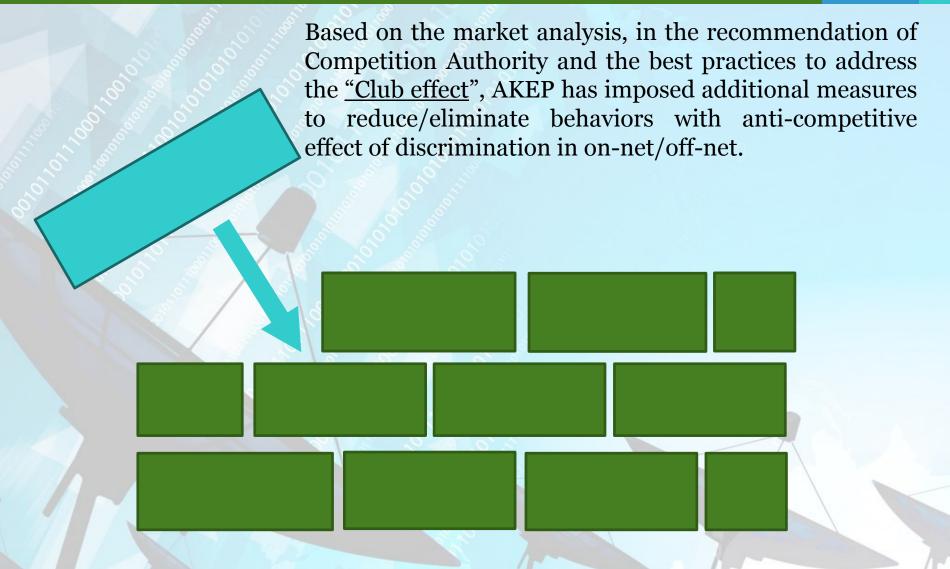
# 4 MNOs SMP Wholesale Mobile Call Termination

- Transparency(RIO publication)
- Non-discrimination
- Access

- Tariff regulation
- Cost orientation

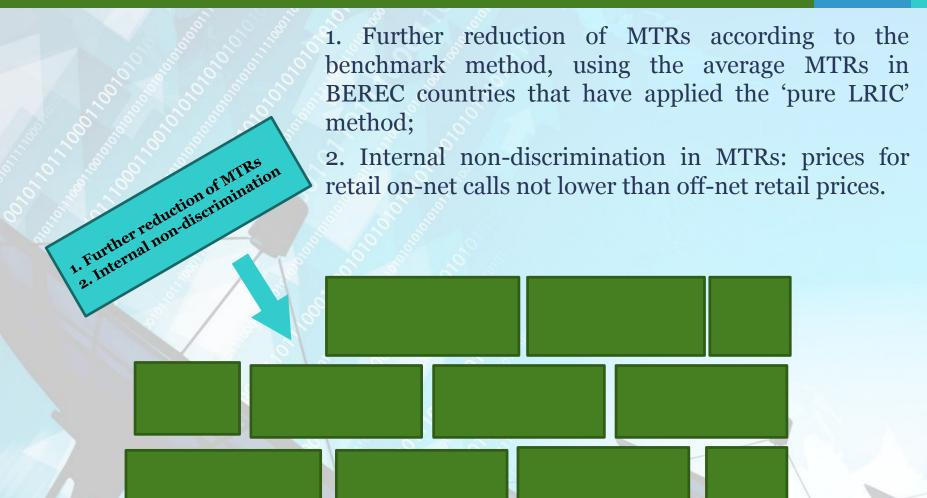
### Market analysis (2/2014)





#### Market analysis (2/2014)





# Structure of Calls Originating From Mobile Phones 2013-QII 2016



