



SABIEDRISKO  
PAKALPOJUMU  
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KOMISIJA

# Recent Market Analysis and Conclusions

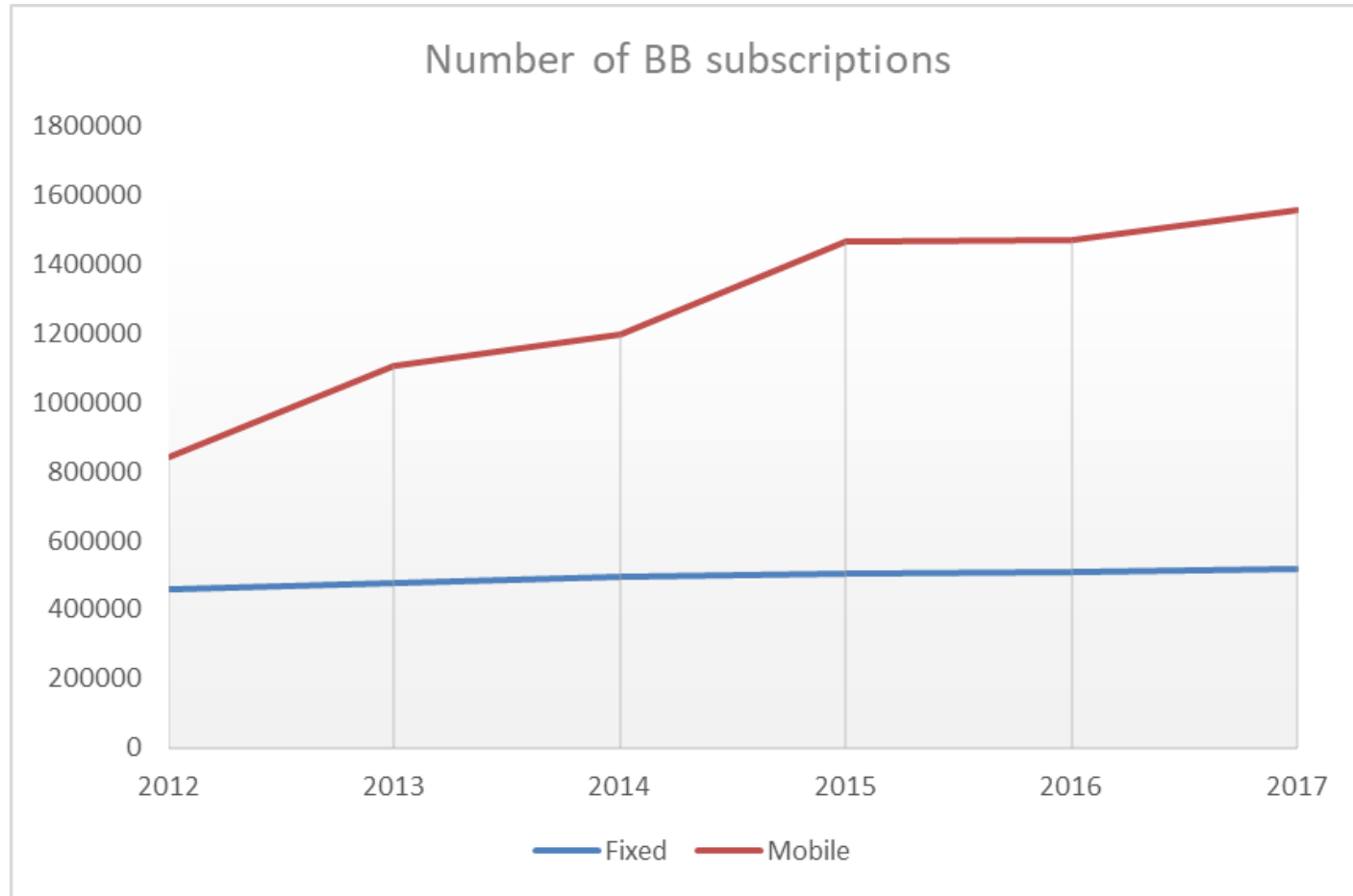
Andrejs Dombrovskis

Baltic Regulators Roundtable | 23 August 2018

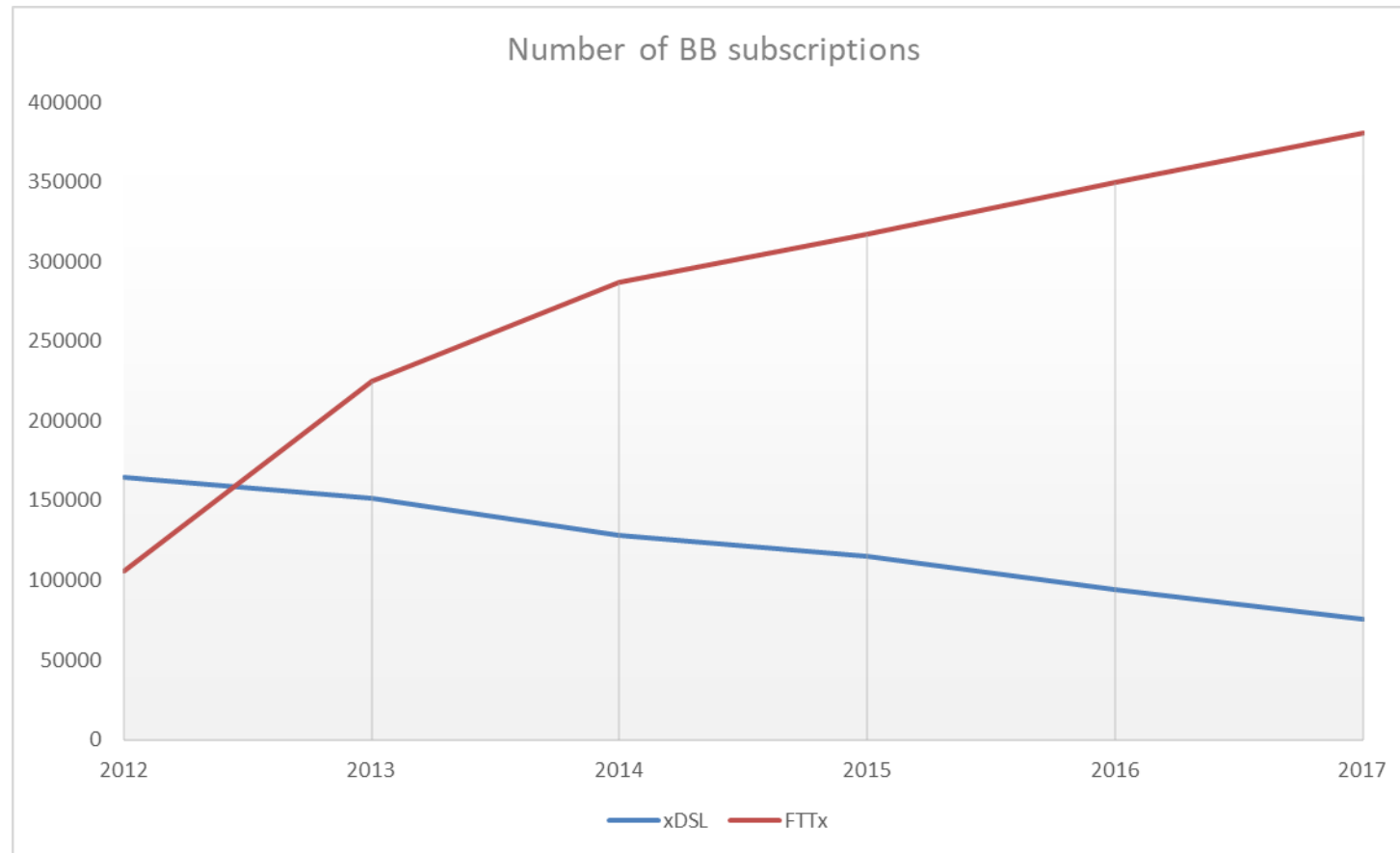


- Review of data collection systems and questionnaires
- Finalised analysis of 4 markets:
  - Fixed termination;
  - Mobile termination;
  - Wholesale local access market;
  - Wholesale central access market;
- Update of market analysis guidelines as per latest draft
- Start of analysis of market for Wholesale high quality access provided at a fixed location

# BB development in Latvia



# Development of copper and fiber networks in Latvia



# Market definition at the retail level

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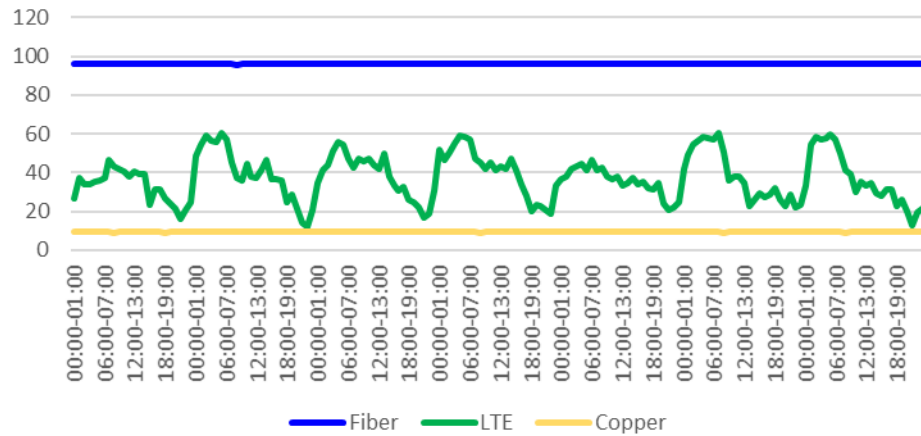


Technologies/network architectures included at the retail level: xDSL, FTTx, DOCSIS, Ethernet LAN, and FWA.

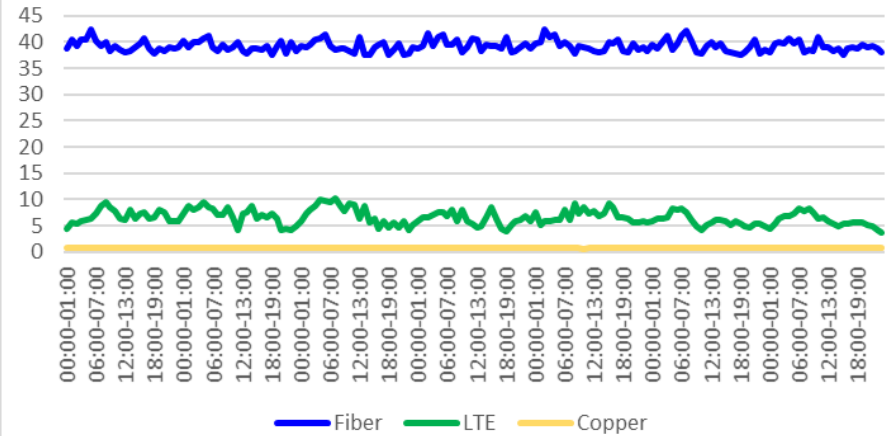
# Quality measurements (1)



### Download speeds, Mbps



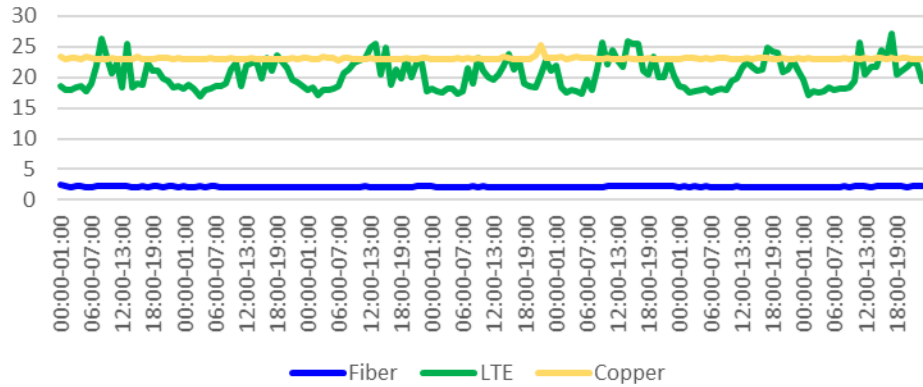
### Upload speeds, mbps



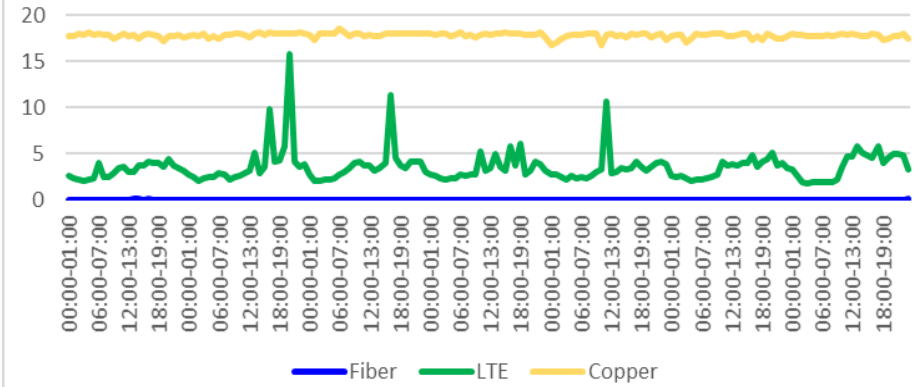
# Quality measurements (2)



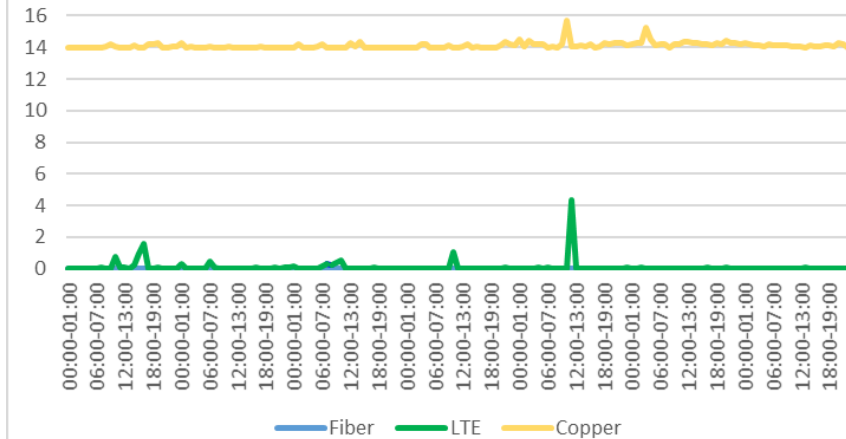
### Latency, msec



### Jitter, msec



### Packet loss, %



# Conclusions and summary - FMS

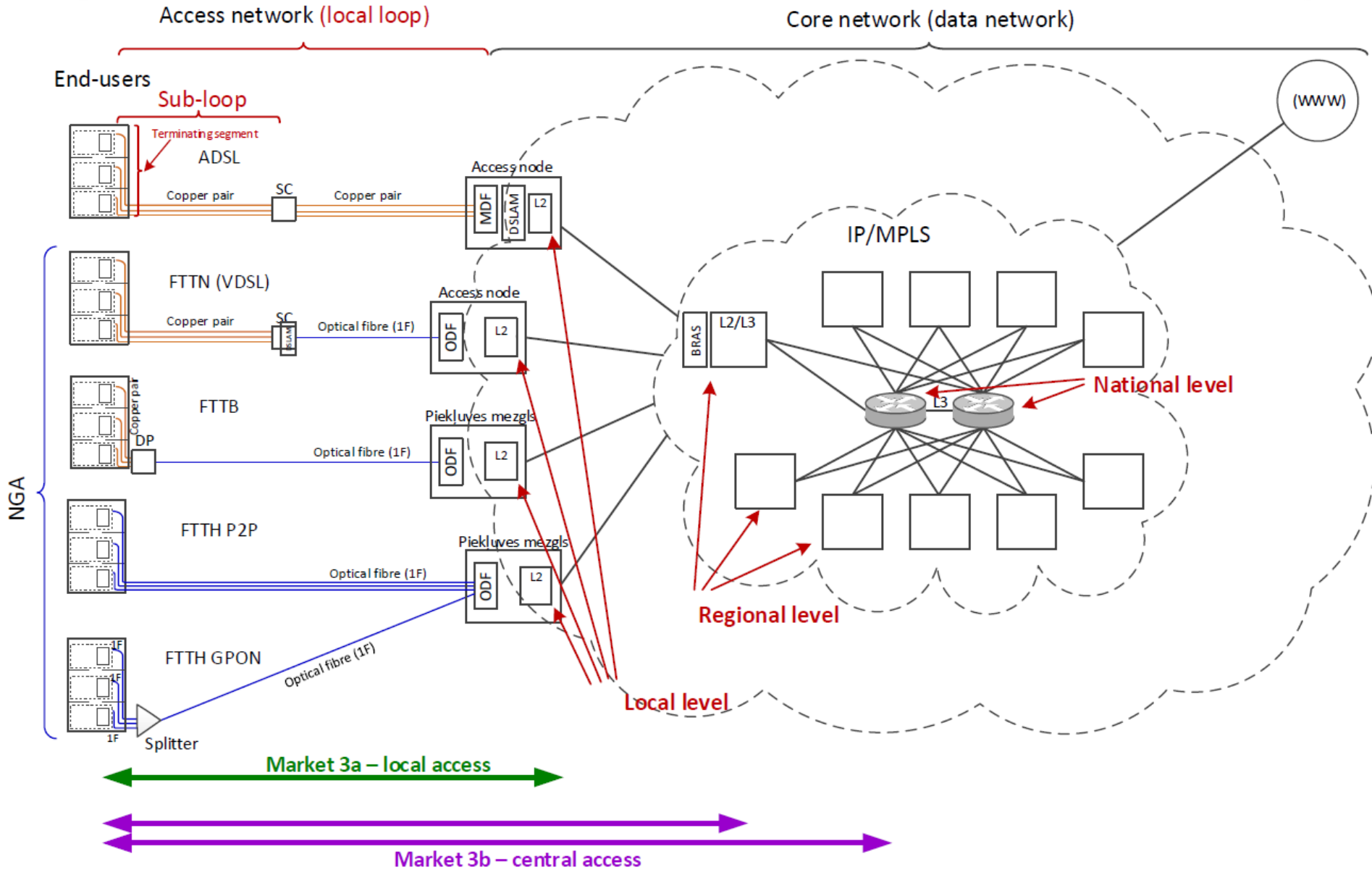


FMS by type of mobile BB:		
Smartphone (limited and unlimited data)	✗	Complimentary due to usage pattern and end-user behaviour
Computer or tablet (limited data)	✗	
Computer or tablet (unlimited data) ?	✗	Rather complement due to quality, prices, bundles, usage trends etc.

Mobile BB at the retail level is not included



# Schematic difference between market 3a & 3b



# Assesment of market shares at retail level assuming absence of markets 3a & b regulation

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Riga

Outside Riga

Latvia, total

Market shares indicates a high level of market power exerted by Lattelecom at retail level (assuming absence of markets 3a & b regulation).

Conclusion – Regulation of market 3a still is necessary



- xDSL and FTTx are included at the wholesale level
- Lattelecom market shares (???) at the wholesale level, barriers to entry and expansion, technological advantages, economies of scale and scope, bundling etc. indicate that Lattelecom has SMP.
- Although regulated and published in the RO, Lattelecom does not effectively provide market 3a services due to lack of demand.
- In this round of market analysis we are planning to maintain and amend existing obligations.

# Summary of obligations imposed (market 3a) on Lattelecom in the previous rounds and obligations to amend in this round



	Obligations: •access, •non-discrimination, •transparency (RO), •price control and cost accounting, •accounting separation	Access point
Copper loop	✓	Access node (MDF) - physical unbundling (except VDSL2 Vectoring)
		Street cabinet - physical unbundling (except VDSL2 Vectoring)
	✓	Access node - Ethernet switch (VULA)
FTTN	✓	Access node - Ethernet switch (VULA)
		Street cabinet - physical unbundling (except VDSL2 Vectoring)
FTTB	✓	Access node - Ethernet switch (VULA)
		Distribution point – physical unbundling of terminating segment
FTTH P2P	✓	Access node (ODF) - physical unbundling
		Distribution point – physical unbundling of terminating segment
	✓	Access node - Ethernet switch (VULA)
FTTH GPON	✓	Access node - Ethernet switch (VULA)
		Distribution point – physical unbundling of terminating segment
Civil engineering infrastructure	✓	Refers to any segment of the network

✓ obligations imposed in the previous rounds of market analysis

✓ obligations planned to be imposed in this round of market analysis

# The main obligations planned to be amended or adjusted in this round of analysis

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- **Civil engineering infrastructure:**

- 1) additional remedy which obliges Lattelecom to install cable under reasonable request of an alternative operator (current obligation states that only altnets can install the cable in the ducts of Lattelecom);

- 2) Additional remedy which obliges Lattelecom to ensure the possibility to install the cable together with practical testing.

- **xDSL un FTTx:**

- 1) withdrawal of physical unbundling in case of VDSL2 Vectoring;

- 2) Imposition of VULA for copper loop and FTTH P2P;

- **Amendment of non-discrimination obligations**

# Non-discrimination obligations in market 3a



	The same IT systems	Comparable IT systems	Online access to information	Online		KPI	SLA	SLG
				Ordering	Delivery/ fault notification /repair			
Coper loop	✗	✗	✓	✓	✓	✓	✓	✓
FTTN	✗	✗	✓	✓	✓	✓	✓	✓
FTTB	✗	✗	✓	✓	✓	✓	✓	✓
FTTHP2P	✗	✗	✓	✓	✓	✓	✓	✓
FTTH GPON	✗	✗	✓	✓	✓	✓	✓	✓
Civil engineering infrastructure	✗	✗	✓ (infr.map)	✓	✓	✓	✓	✓

- ✓ obligations imposed in the previous rounds of market analysis
- ✓ obligations planned to be imposed in this round of market analysis
- ✗ obligations not imposed and are not planned to be imposed in this round of market analysis

# Assesment of market shares at the retail level in the presence of market 3a regulation and assuming absence of market 3b regulation

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Riga

Outside Riga

Latvia, total

Market shares at retail level, assuming absence of market 3b regulation are the same as market shares assuming absence of markets 3a & b regulation because Lattelecom does not provide market 3a services.

Conclusion – Regulation of market 3b still is necessary



- xDSL and FTTx are included at the wholesale level
- Lattelecom market shares (???) at the wholesale level, barriers to entry and expansion, technological advantages, economies of scale and scope, bundling etc. indicate that Lattelecom has SMP.
- Lattelecom provides market 3b services to X alternative operators (BSA at OSI layer 3 national level) – X (copper) access lines - at the end of 2015.
- Latvenergo voluntary provides market 3b services to 4 operators (BSA at OSI layer 3 regional level) – X (FTTH) access lines- at the end of 2015. Lattelecom is one of the X operators who receives BSA from Latvenergo.
- In this round of market analysis we are planning to maintain and amend existing obligations.



# Summary of obligations imposed (market 3b) on Lattelecom in the previous rounds and obligations to amend in this round



	<b>Obligations:</b> •access, •non-discrimination, •transparency (RO), •price control and cost accounting, •accounting separation	<b>Access point</b>
Copper loop	✓	<del>Local</del> , regional, and national level at <del>OSI 2</del> and OSI 3 layer
FTTN	✓	
FTTB	✓	
FTTH P2P	✓	
FTTH GPON	✓	

✓ obligations imposed in the previous rounds of market analysis

— obligations planned to be withdrawn in this round of market analysis

# Non-discrimination obligations in market 3b



		The same IT systems	Comparable IT systems	Online access to information	Online		KPI	SLA	SLG
					Ordering	Delivery/ fault notification /repair			
Regional and national level at OSI layer 3	Copper loop	✗	✗	✓	✓	✓	✓	✓	✓
	FTTN	✗	✗	✓	✓	✓	✓	✓	✓
	FTTB	✗	✗	✓	✓	✓	✓	✓	✓
	FTTHP2P	✗	✗	✓	✓	✓	✓	✓	✓
	FTTH GPON	✗	✗	✓	✓	✓	✓	✓	✓

- ✓ obligations imposed in the previous rounds of market analysis
- ✓ obligations planned to be imposed in this round of market analysis
- ✗ obligations not imposed and are not planned to be imposed in this round of market analysis

# Issues to discuss:



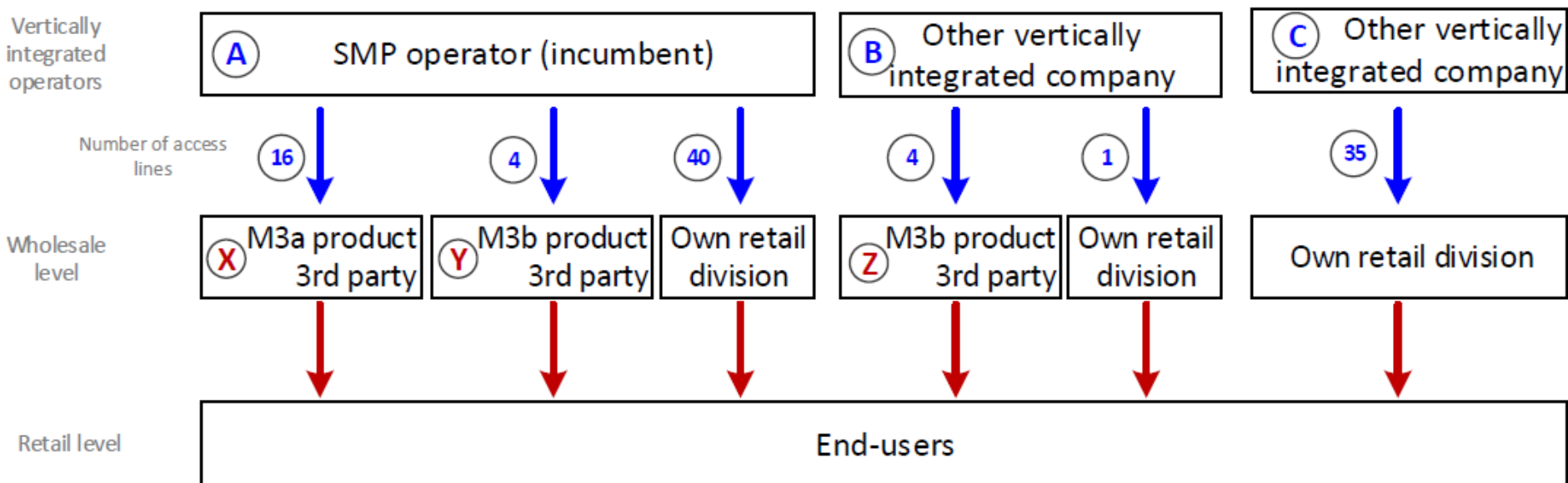
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- **Implementation of the Recommendations:**
  - **EoI, EoO, online tool and technical/economic replicability test according to Recommendation 2013 (2013/466/ES)**
  - **Example of calculation of market shares**
  - **Concluded national consultation, Lattelecom proposes to withdraw regulation**
  - **Almost concluded Community consultation, comments decision – decision corrigendum pending**
  
  - **Further steps:**
  - **Amended reference offers;**
  - **Contracting and implementation ERT**

# Hypothetical example of calculation of market shares (1)



There are **100 active BB connections (end-users)** in a hypothetical country

A, B, C represent vertically integrated operators; X, Y, Z – 3rd party operators who receive wholesale services



1) Market shares at retail level with presence of regulation (in order to assess the impact of Markets 3a & b regulation)

**A – 40%; B – 1%; C – 35%; X – 16%; Y – 4%; Z – 4%**

# Hypothetical example of calculation of market shares (2)

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1) Market shares at retail level assuming absence of Markets 3a & b regulation in order to determine whether it is necessary to examine market 3a

A – 60%; B – 1%; C – 35%; X – 0%; Y – 0%; Z – 4%

2) Market 3a shares at wholesale level

~~A – 100%~~ Including self-supply A – 60%; B – 1%; C – 35%; Z – 4%

3) Market shares at retail level assuming absence of market 3b regulation in order to determine whether ex-ante regulation of market 3b is necessary

A – 44%; B – 1%; C – 35%; X – 16%; Y – 0%; Z – 4%

4) Market 3b shares at wholesale level

~~A – 50%; B – 50%~~ Including self-supply A – 44%; B – 5%; C – 35%; X – 16%