

# VimpelCom

# BROADBAND ANALYST FIELDTRIP

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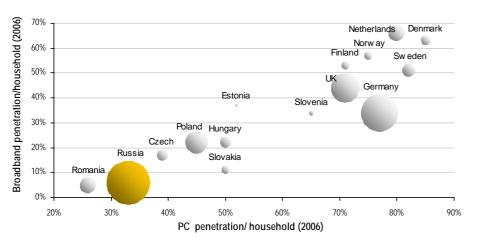


#### Russian Broadband Market



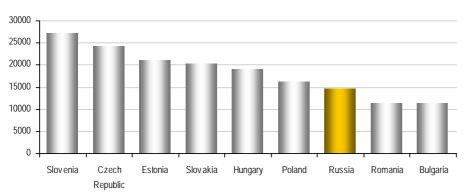
#### Broadband /PC Penetration

#### Households with PC, but without broadband (mln)



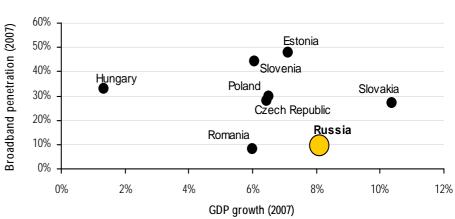
Source: HSBC

#### GDP Per Capita (PPP), \$



16 14 12 10 8 6 4 Slov enia Russia Poland Romania Hungary Czech Slov akia Bulgaria Lithuania Source: HSBC

#### Broadband penetration/GDP Growth rate



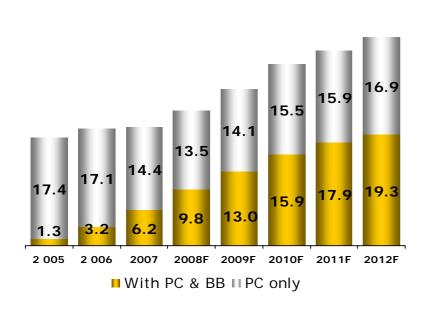
Source: CIA World Factbook Source: HSBC

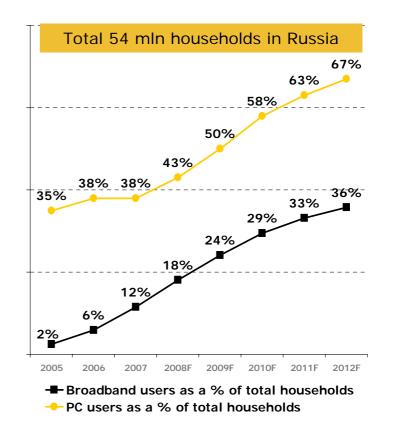
#### Russia: Residential Broadband Market Forecast



Households with PCs and Broadband (mln)

Broadband and PC Penetration (mln)

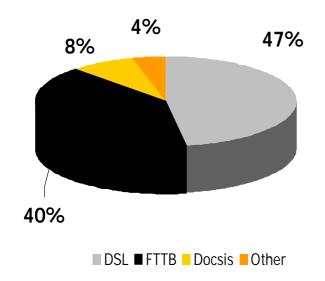




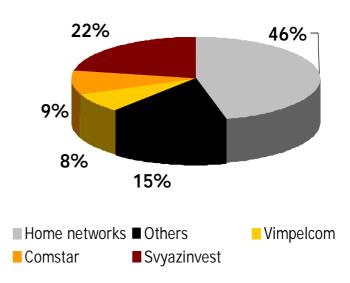
#### Russian Broadband Market



Russian Broadband Market by Technology in 2007



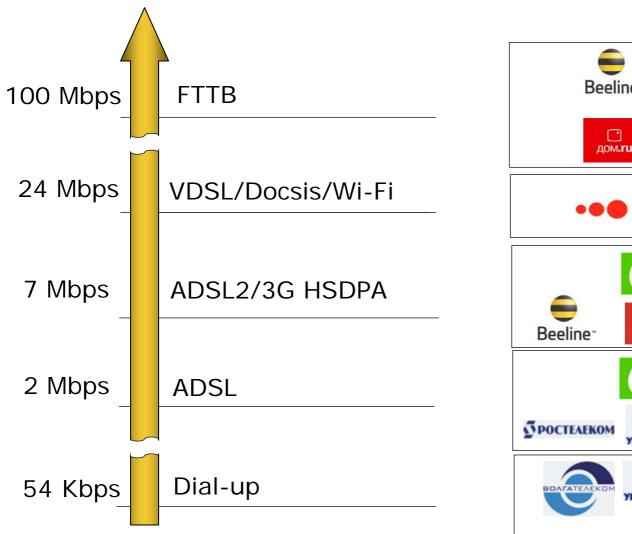
# Russian Broadband Market by Subscribers in 2007



Source: J'Son & Partners

# Internet Providers by Technology







# Why Speed Matters?



100 Mbps_	_	FTTB			
24 Mbps		VDSL/Docsis/Wi-Fi			
7 Mbps		ADSL2/3G HSDPA			
2 Mbps		ADSL			
54 Kbps_		Dial-up			

ВМР	MP3	You Tube	<b>E</b>	HD ready
<1	<1	3	4	10
sec	sec	sec	min	min
<1	5	15	30	1.5
sec	sec	sec	min	hr
1	25	1	2	6
sec	sec	min	hr	hr
3	1	2	6	早
sec	min	min	hr	
25	6	10	早	早
sec	min	min		

#### Press on Broadband





...It's been almost three decades in the making, but fiber to the home (FTTH) is finally emerging into the mainstream and is set to transform the telecom environment.

As demand for bandwidth continues to climb rapidly, the transition to FTTH will ultimately be unstoppable...



...In a worldwide survey by Oxford University and CISCO, the highspeed Internet access of some developed countries of western Europe was outperformed by Russia...

...The only country to have broadband quality that was considered adequate for future Internet applications, such as high-definition video and large file-sharing, was Japan...

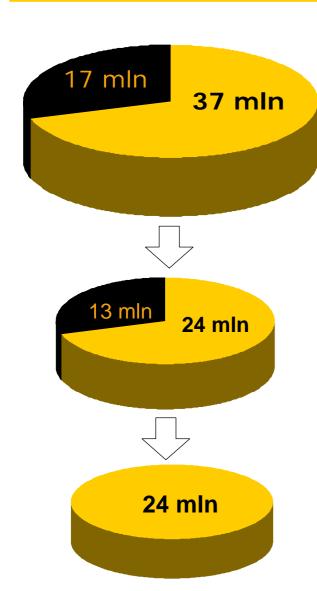


...Average download speeds are adequate for web browsing, e-mail and basic video downloading and streaming.

But we are seeing more interactive applications, more usergenerated content being uploaded and shared, and an increasing amount of high-quality video services becoming available. Thus, we need technologies with higher speed...

#### Addressable Market for FTTB in Russia





All Russian Households – 54 mln

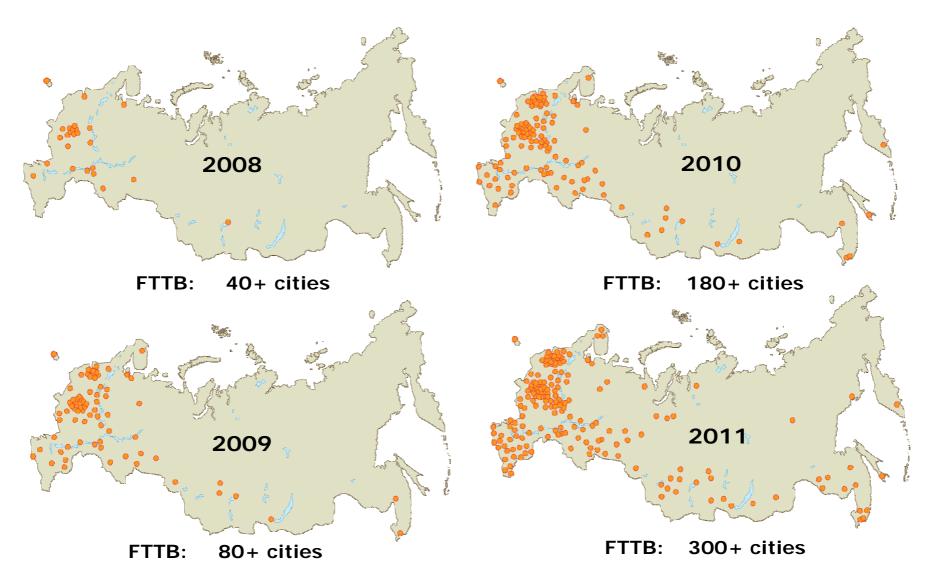
Households based in big cities – 37 mln

Households in big cities based in high-rise apartment blocks – 24 mln

Russian FTTB market

## FTTB Roll-out Plans





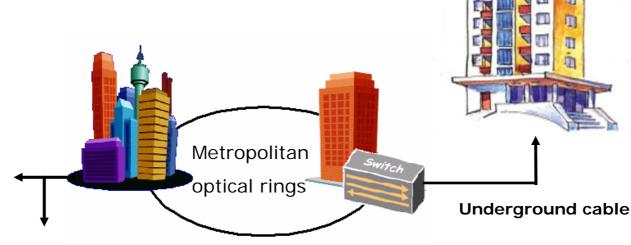
#### Low Cost FTTB Rollout



**Rooftop-to-rooftop connection** 

#### Total costs:

- 1. ~\$3,000 per building
- 2. \$90 per apartment



**Federal Transit Network** 

## Advantages of Integrated Operator





**FTTB** 





FTTB/Wi-Fi/3G



Wi-Fi/3G



FTTB/Wi-Fi/3G



3G

# 24 Hours Around the Clock with Beeline



Matrimonial Duties Watching an HD-movie on IP-TV channel (Beeline free) Downloading full Hitchcock's Having a dinner while your kids anthology from the web are playing on-line PC game while sleeping Answering the emails on the way home Reading the news from the laptop while taking a coffee Busy working day. Checking the mail on your iPhone Phone and PC are always at your hand while in a car

# Live on the bright side! The future is bright!

