## Changing lives through Digital Opportunities

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### VimpelCom: a global communications and technology company





#### Connectivity has been increasing rapidly





#### Mobile technologies are leading the way...



#### Years to reach 1 billion users



## ...bringing significant economic benefits by enabling digital economy





### The majority of the global population remains unconnected





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#### Regional differences remain...





#### However, mobile data traffic is expected to increase across the board

## Monthly mobile data traffic per region (in GB)



2015 2021



#### Cross-border data transfers are surging

#### ME AF oc Regions NA EU AS LA United States and Canada Europe Asia Latin America Middle East Africa Oceania Bandwidth Gigabits per second (Gbps) 500-1.000 < 50 50-100 100-500 1.000-5.000 5.000-20.000 >20.000 2005 2014 45x larger 100% = 4.7 Terabits per second (Tbps) 100% = 211.3 Tbps

Used cross-border bandwidth

Lines represent interregional bandwidth (e.g. between Europe and North America) but exclude intraregional cross-border bandwidth (e.g. connecting European nations with one another).

#### **Regional distribution of global flows**





#### The economic model shows that global flows account for approximately 10 percent of global GDP output





#### The data increase is driven by our changing online behavior

The total tech and media attention up for grabs is enormous: more than half the waking day is spent on tech and media

Average employed adult daily behavior, U.S., 2014, hours: minutes



Sources: Bureau of Labor Statistics, The Telegraph, Edison Research, We Are Social, eMarketer, Nielsen, National Sleep Foundation, Deloitte, SNL Kagan, Sandvine, Ipsos, comScore, Global Web Index, OECD, Activate analysis. Behaviors averaged over 7 days. Related travel time is included within timing reported for daily activities.



#### Video traffic is the main driver of the increase in data traffic





### The competitive landscape is changing

Industry features	Telecom operators	ОТТ
Investment	High pre- investment costs on national scale	Low, scalable software development
Growth	Limited or slowing	Rapid growth using free
Standards	Telecom (ITU)	Internet (IETF)
Employment	National network requires national workforce	Low direct employment needs
Business models	Traditional business models	Disruptive, e.g., free, 'freemium', advertising-based
IP	Legacy switched networks, but moving to IP	All IP-based
Regulation	Heavy, traditional	Little or none



Source: Internal research

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### Value is increasingly found at platform business-models



Source: CB Insights



#### OTTs easily reach users worldwide while telecoms have a local footprint

While OTT providers can easily reach users worldwide, offering similar services with modest budgets,...

Active users Jan 2016: Whatsapp (900 million) Viber (249 million) Skype (300 million)

...traditional operators have to focus on their specific markets with considerable Investments.





### Operators increasingly face revenue and profitability constraints



Source: Ovum, 2012

Source: Strategy Analytics, 2014

#### Some challenges for traditional telecoms operators

- Data traffic is growing exponentially and significant network investments are needed to meet the future demand
- The needed investments can not (yet) be recovered by data revenues and traditional voice revenues continue to shrink
- In addition, OTT players re-shuffle the market balance by focusing on the content offering rather than traffic
- Operator profit margins significantly decrease over time and require innovative solutions to address these challenges









#### Example: Mobile financial services - key enabler of the digital economy



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#### Healthcare

In Ukraine, we provide prenatal and ante-natal care, and emergency first aid applications. In Pakistan we provide a personal safety application, and in Armenia we are developing two mobile apps specifically designed to help disabled children.



Agriculture

VimpelCom provides a portfolio of services for the farmers of Bangladesh. These include a **specialist call center**, and a 'voice-based' virtual agricultural **market place** for buying and selling produce. In Armenia we aim to integrate **digital and agricultural education** at the grass-roots level.



#### Education

developed a pilot We scheme with UNESCO and the Bunyad Foundation to educate rural women, a group mostly excluded from the conventional educational system in Pakistan. Djezzy has launched 'iMadrassa', a new digital tutoring service.



### Response: adapting our operating model





#### Traditional policy topics remain relevant, but...

#### **Traditional Policy Topics**





### ...the policy environment is becoming more complex





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# Outcome-based regulation

Speed of technological change demands forward-looking, principles-based regulations with clear intent, rather than prescriptive regulations

#### **Co-regulation**

Rules and codes developed by the industry, in consultation with the government, and with legislative backing should be considered as alternatives to direct regulation

#### **Self-regulation**

Where appropriate, self-regulation may be adopted, for which industry itself is responsible for enforcement



### Partners for shaping and promoting development of a digital economy

Since all relevant stakeholders are crucial to the success and continuity of the company, the transformation programme is intended to maximize the value for all.

Shaping and promoting development of country's digital economy with Vimpelcom





"Our Vision is for our business to play a key role in the socioeconomic success of the communities where we operate by providing high quality services to our customers, behaving as a responsible corporate citizen, and leveraging our technology to support development."

> Alexey M. Reznikovich Chairman of the Supervisory Board

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