

telenor

Trends of mobile services

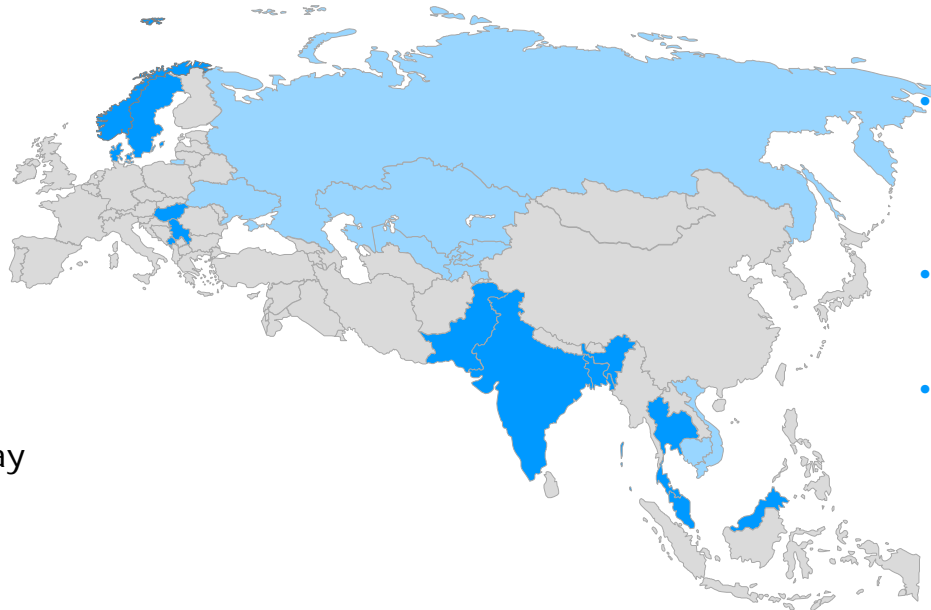
Christopher Laska, CEO Telenor Hungary



nmh NATIONAL MEDIA AND
INFCOMMUNICATIONS
AUTHORITY-HUNGARY

Among the largest mobile operators in the world
More than 200 million mobile subscribers*
Approximately 33 000 employees
Present in markets with 2 billion people

- Mobile operations in 11 markets across the Nordic region, Central and Eastern Europe and Asia
- A stake of close to 40% in VimpelCom Ltd, operating in 10 markets
- Headquartered in Norway



- Among the top performers on Dow Jones Sustainability Indexes
- Revenues 2010: NOK 95 bn
- Listed on the Oslo Stock Exchange

Telenor Group is an international provider of tele, data and media communication services

*111 million customers in consolidated operations and 92 million in VimpelCom Ltd

Telenor Group mobile operations

Nordic

- Norway  
- Sweden  
- Denmark  

Central and Eastern Europe

- Hungary  
- Serbia  
- Montenegro  

Asia

- Thailand  
- Malaysia  
- Bangladesh  
- Pakistan  
- India  

VimpelCom Ltd.

- Russia
- Ukraine
- Kazakhstan
- Georgia
- Uzbekistan
- Tajikistan
- Armenia
- Kyrgyzstan
- Cambodia
- Vietnam

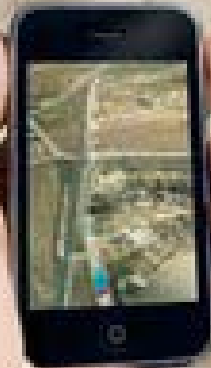
Telenor Group holds 39.6% of the economic ownership in VimpelCom Ltd.



Mobile Trends

Mobile Operator Challenges

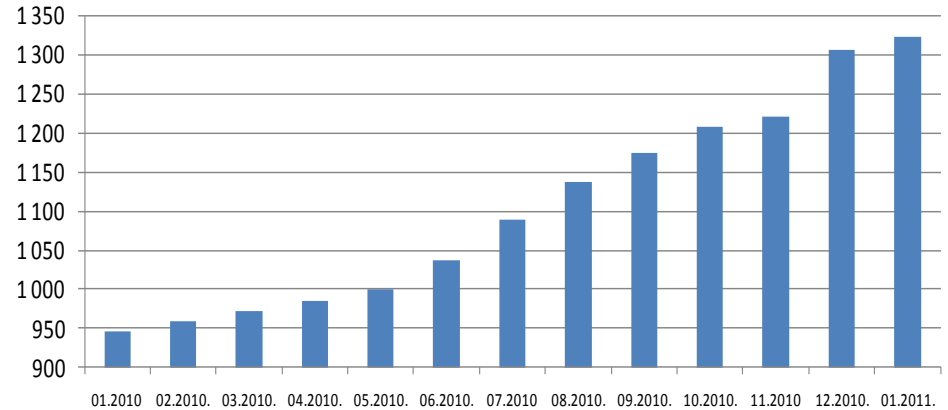
Opportunities and way forward



Rapid mobile broadband growth

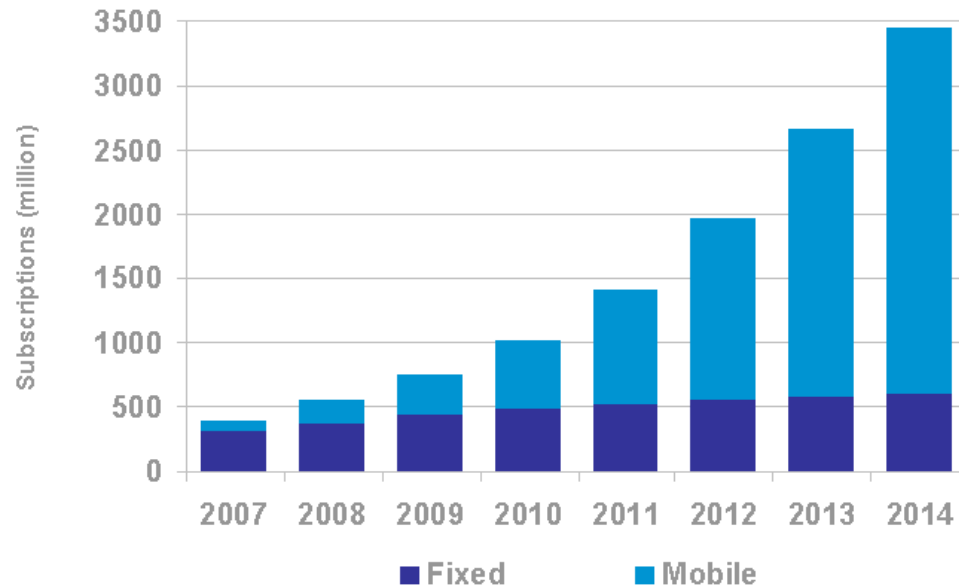
in Hungary 40%
growth in 2011

Number of Hungarian mobile broadband subscribers in thousands



Source: NMHH

Global growth will
average 50% per year
for the next 3 years



Source: Ericson



Device diversification



24 X 515 X



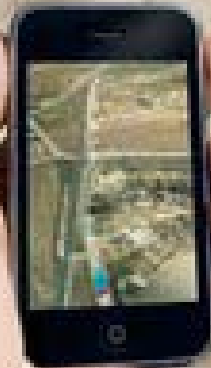
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- New devices drive traffic volumes
- Changing user patterns challenge profitability
- Users demand better network and service quality
- Mobile broadband and open platforms open for OTT services (e.g. VoIP)

Mobile Trends

Mobile Operator Challenges

Opportunities and way forward



Mobile data explosion continues

In Telenor Hungary 140% mobile data traffic growth in 2010

Global mobile data traffic nearly tripled in 2010

Mobile data volume (Tb/month)

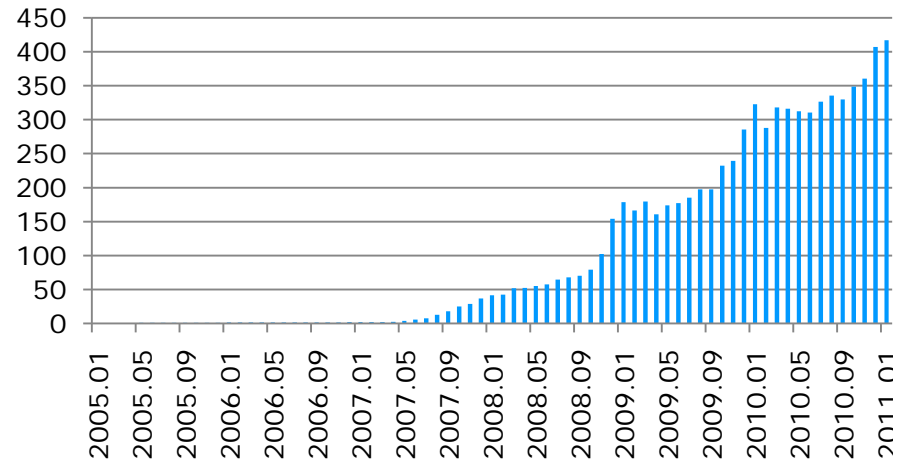
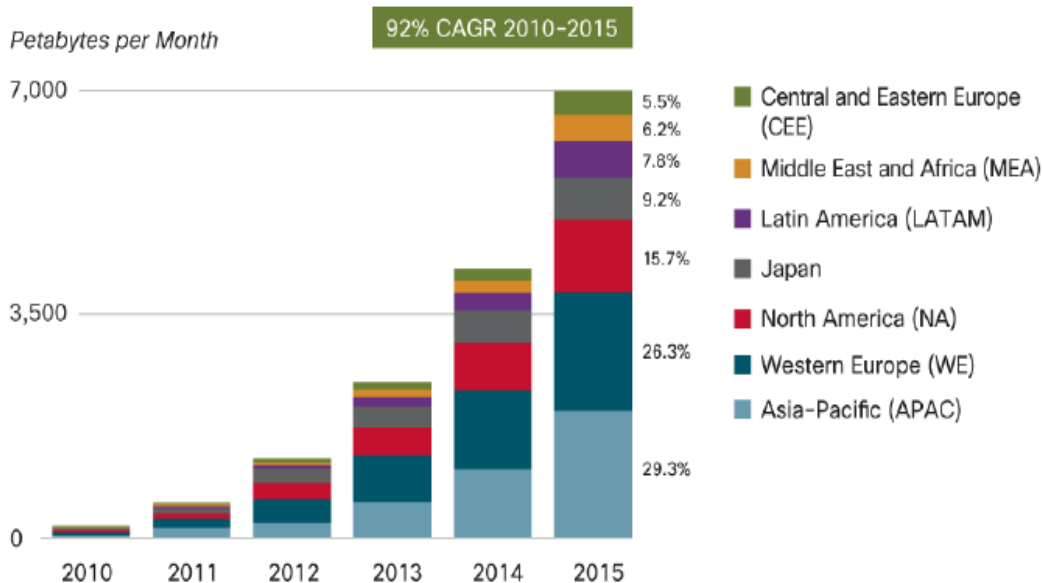


Figure 2. Global Mobile Data Traffic Forecast by Region



By 2015 mobile data traffic will increase 26 fold over 2010

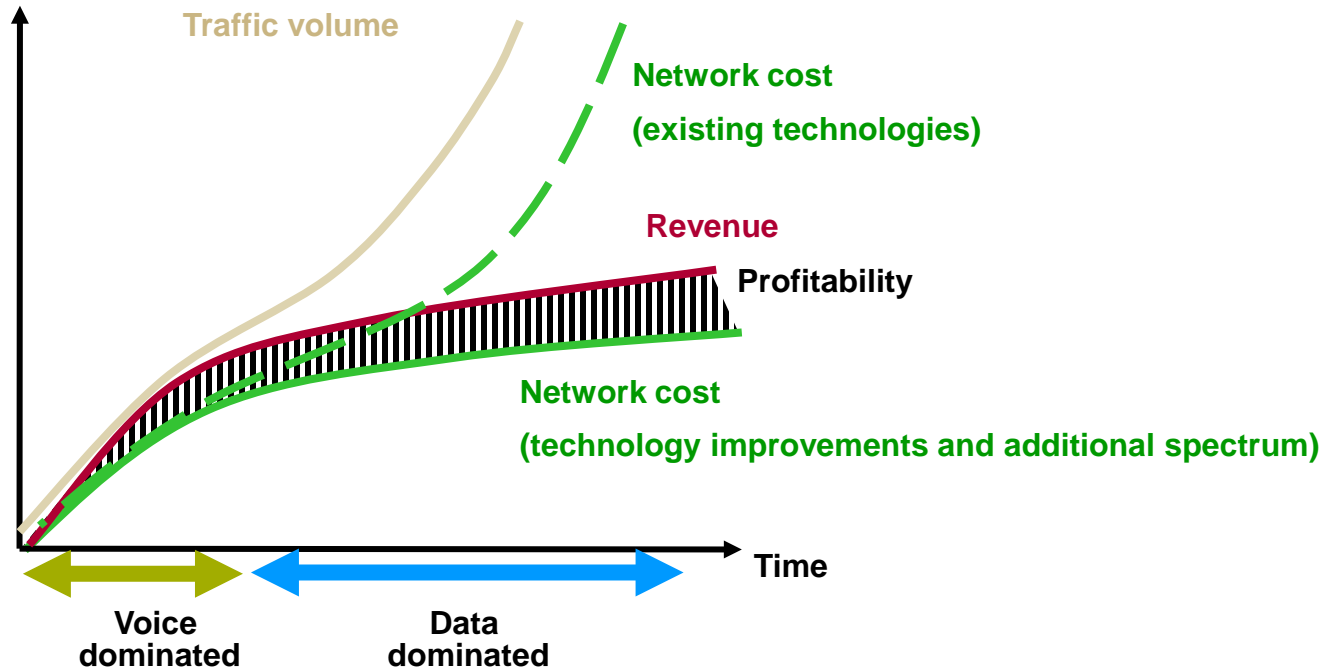
Europe will account for over 30%

2/3 of mobile data traffic will be video by 2015

Source: Cisco VNI Mobile, 2011



Decoupling of revenues and traffic volume

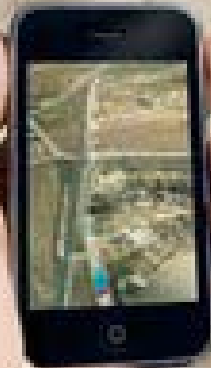


Need better network efficiency and heterogeneous network base

Mobile Trends

Mobile Operator Challenges

Opportunities and way forward



Future mobile data communications demands LTE

GSM
Speech



3G
Small screen
data
Speech



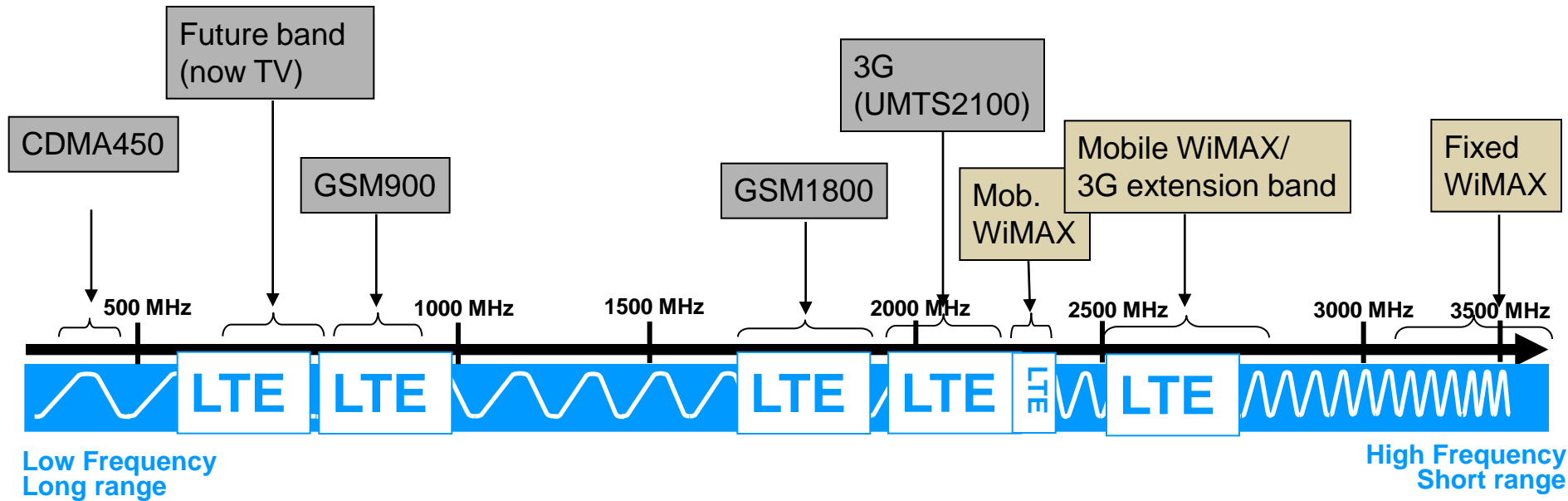
LTE
Large screen
data
VoIP



Mobile voice and data

New standard for
mobile broadband

LTE frequency band availability



Higher frequencies for capacity

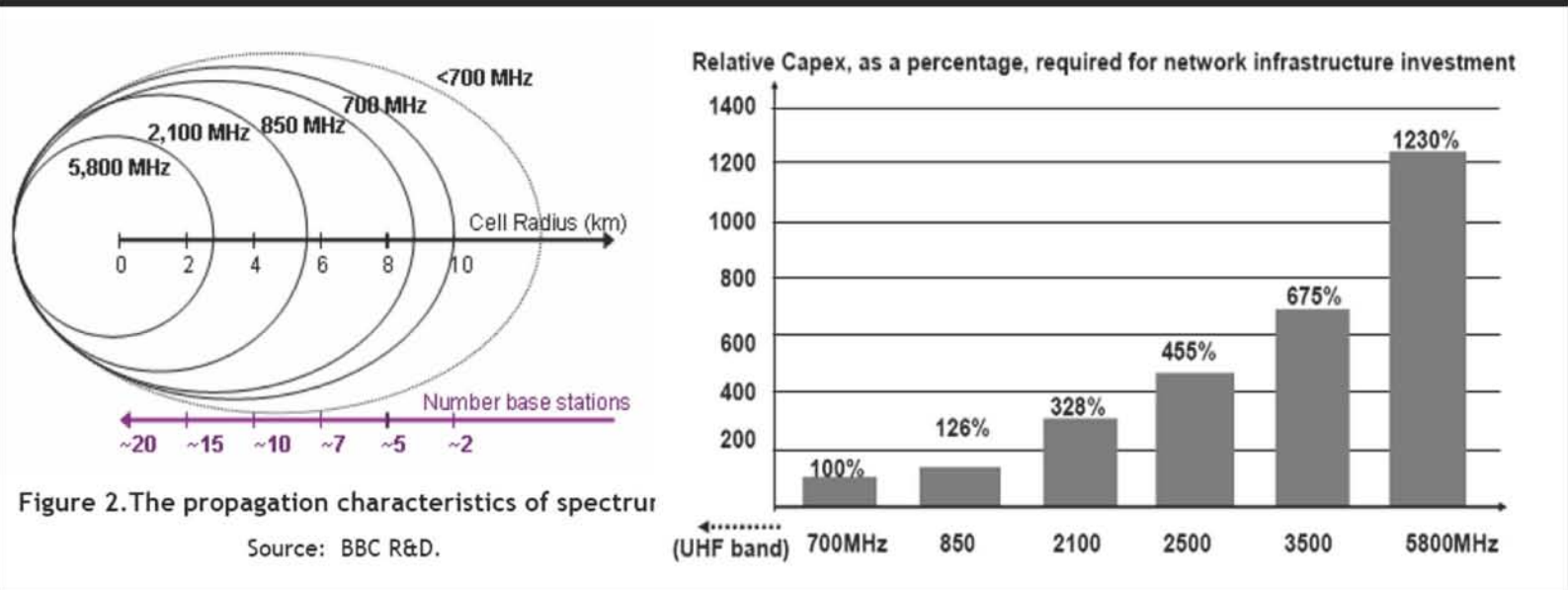
Lower frequencies for coverage and in-building penetration

Coverage of rural areas requires low frequency spectrum



Effect of frequency on range and capex

Coverage of rural areas at about 30% of the cost of 2100 MHz



The need for thousands of extra base station sites removed

The right spectrum policy is key to unleash the mobile broadband potential

- Harmonized release of the 800 MHz band in the EU for wireless broadband by 1 Jan 2013 should be a priority.
- Harmonisation creates economies of scale thereby lowering costs for consumers and facilitates seamless services across borders.
- EU should intensify cross-border coordination efforts towards the countries on its borders.
- Governments should assign harmonised spectrum based on flexible and least restrictive license conditions.
- Ensure transparent and objective spectrum management based on sound and predictable conditions.
- The level of spectrum fees should not be determined by fiscal priorities.

Mobile broadband is part of the solution for Europe

Healthcare



Transportation



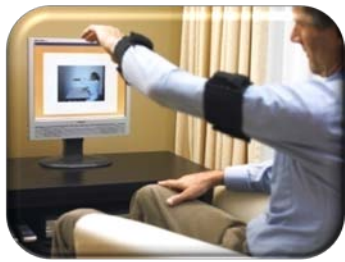
Utilities



Consumer Electronics



Government





Thank you