

telenor

Digital agenda for Southeast Europe – Telenor Serbia perspective
Kjell-Morten Johnsen, CEO, Telenor Serbia
Brussels, December 13, 2011




Serbian telecom market

- Mobile subscriptions: 8.8 million
- Active SIM's penetration: 124%
- No of operators: 3
 - MTS (Telekom Serbia)
 - Telenor
 - VIP (Telekom Austria)

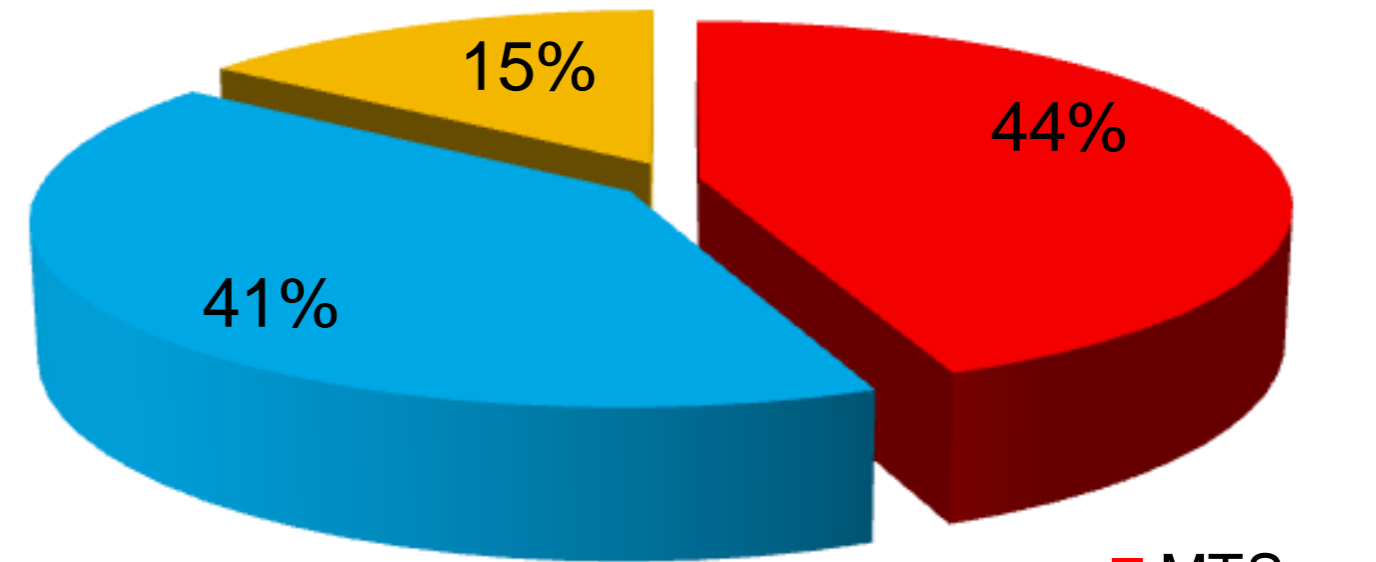
COUNTRY FACTS

Population: 7.1 mill
Capital: Belgrade (1.6 mill)
GDP per capita (2010): \$ 5300



- The first mobile network in Serbia
- Operate under the brand name Telenor since 1 September 2006
- The second largest operator in Serbia: ~3,1mil. customers
- Above 50% market share within business market
- Acquired fixed license in Jan 2010

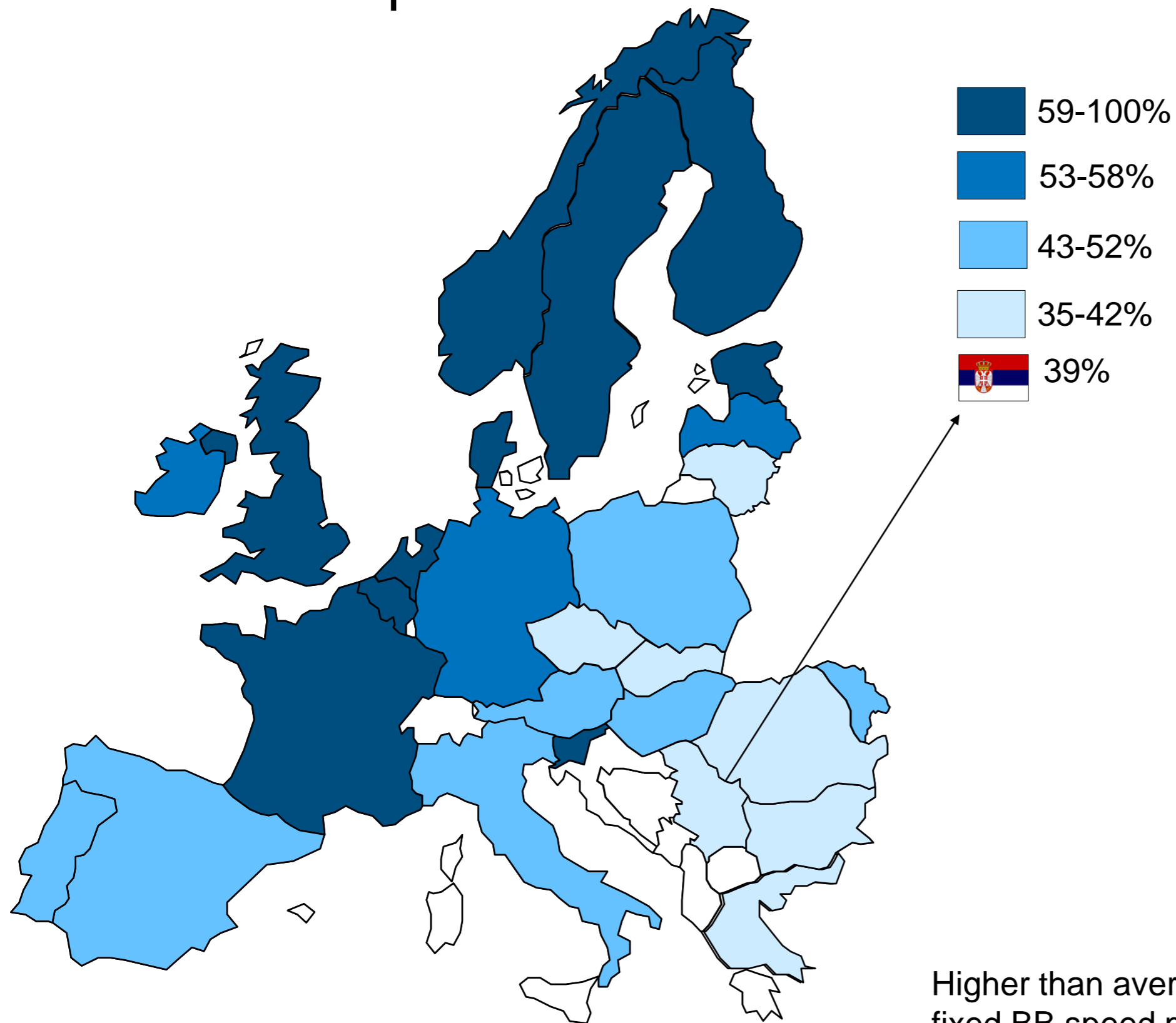
Revenue market share



- MTS
- Telenor
- VIP



BB penetration: Serbia in line with regional peers but behind Central and Western Europe



Sources: EU HH communication survey; RATEL 2010 Report

Higher than average fixed BB speed per HH

What

Telenor mobile broadband's strategy

Ambitions

- Develop the best data network
- Be the most preferred data network
- Achieve industry leading backbone and backhaul

How

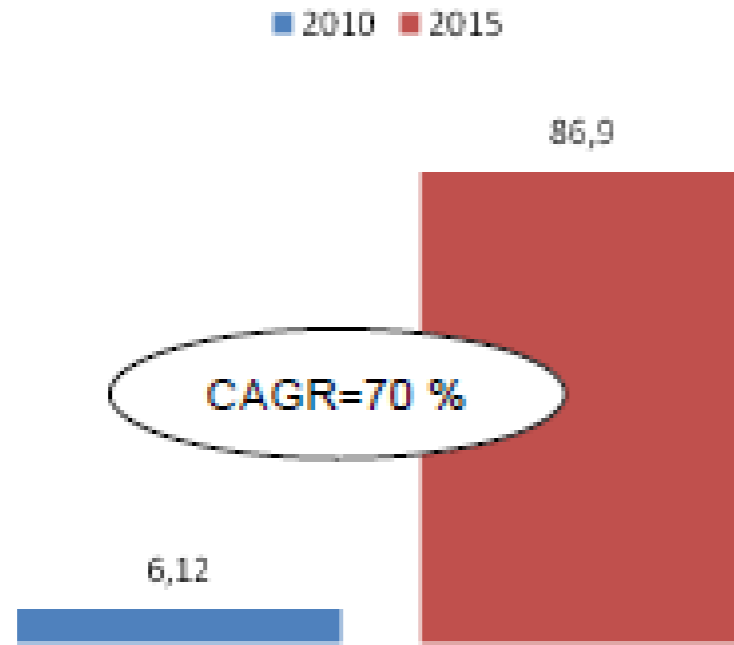
Network renovation

Download speeds around 5 Mbps per user, theoretically 21-28



MBB: Rapid growth of mobile data traffic impose the need for fast speed networks

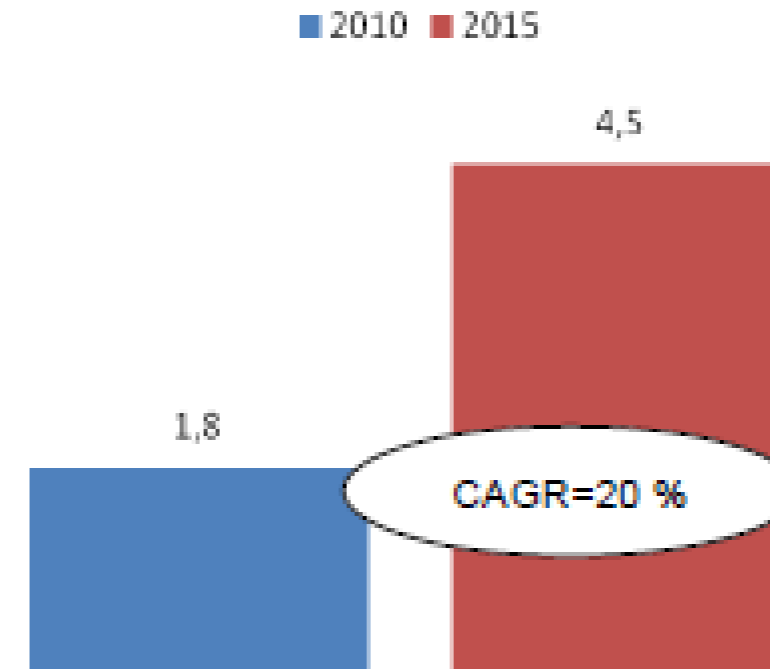
Small-screen average traffic per user/SIM (MB) per month, Telenor Serbia



Cause

- Huge mobile data traffic increase expected in next few years
- Data traffic growth will be mainly generated by laptops, smartphones and tablets
- Share of data within total wireless traffic will exceed 90% by 2015
- Smartphone penetration in Serbia will reach 33% by 2015

Large-screen average traffic per active user (GB) per month, Telenor Serbia



Requirements

- Advocating digital agenda
- Releasing more spectrum for mobile providers
- Net neutrality
- Market liberalization

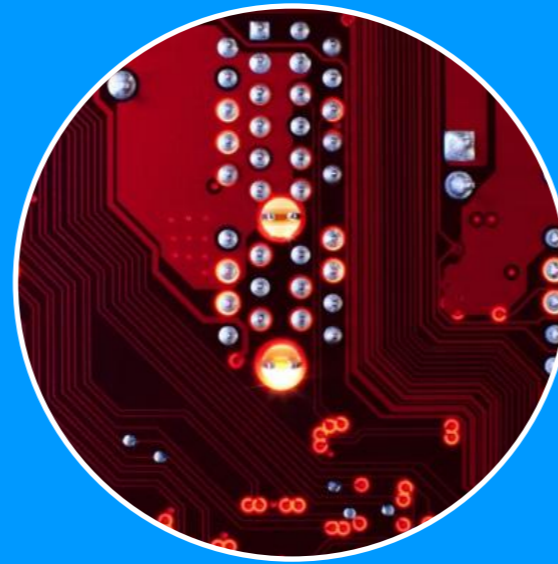
Result

- BB Internet everywhere
- LTE in urban areas
- HSDPA in suburban areas
- Met customer needs

Key challenges for broadband growth in Serbia



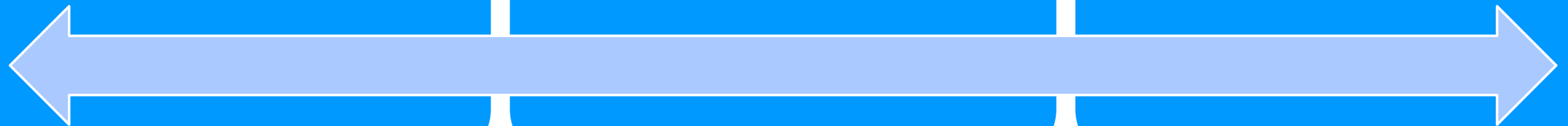
Deployment of infrastructure with focus on non-discriminatory access rights



Access to sufficient amount of spectrum

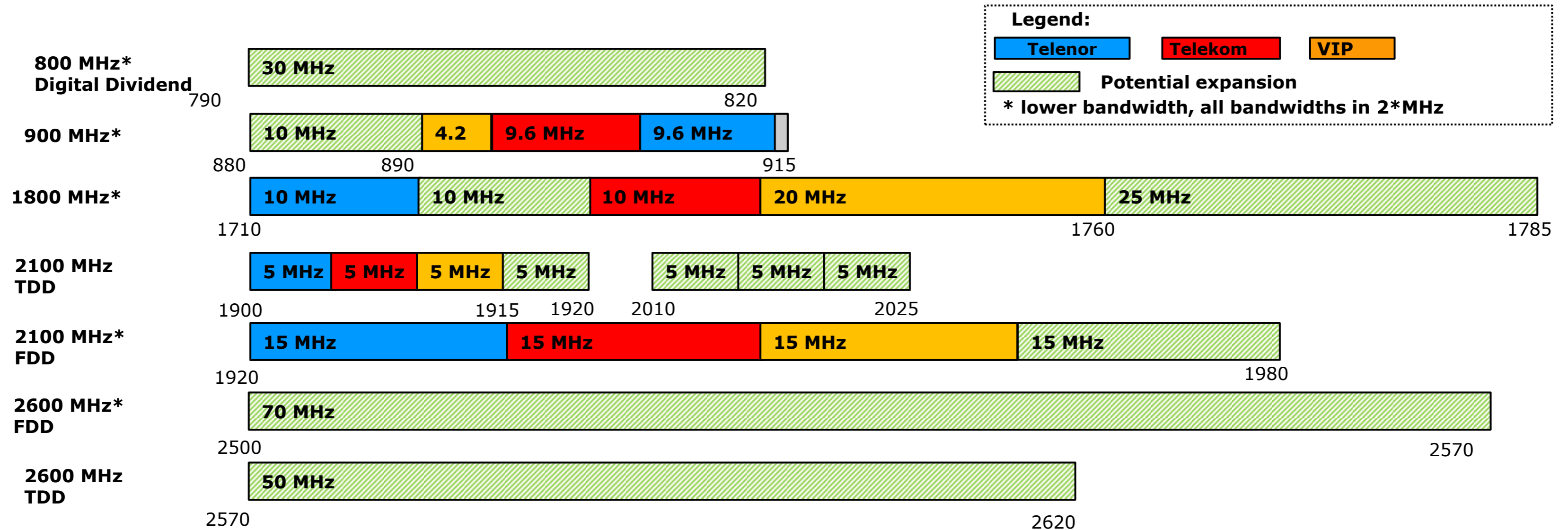


Predictability of regulatory environment in line with EU practice



Current spectrum holdings in Serbia and potential expansion

- Currently, Frequency Allocation and Assignment Plans allow only usage of GSM in 900, 1800 and UMTS in 2100 MHz band



- Serbia's Frequency Allocation Plan is primarily addressing voice era.
- Growth of data traffic should be followed by additional spectrum assignments.



Recommendations for policy environment to stimulate broadband development

Infrastructure based

- Improve conditions for access to existing infrastructure (LLU, ducts) for increasing coverage and QoS
- Provide efficient and predictable regulatory framework for reduction of administrative burden and shorter timeline
- Further liberalization of rights of way on public and private property i.e. laying down fibres/cables and erecting masts

Spectrum based

- Introduction of technology and service neutrality to unleash MBB potential of the existing spectrum holdings
- Releasing unallocated 900 MHz and 1800 MHz resources to efficiently deploy new technologies
- Opening new frequency bands, primarily allocation of 800 MHz, to support coverage, and later 2600 MHz, to secure spectrum for future MBB demand