

# CONFERENCE : REGULATORY ACTIVITY IN THE ELECTRONIC COMMUNICATIONS SECTOR-NEXT GENERATION REGULATION

SEPTEMBER, 2017

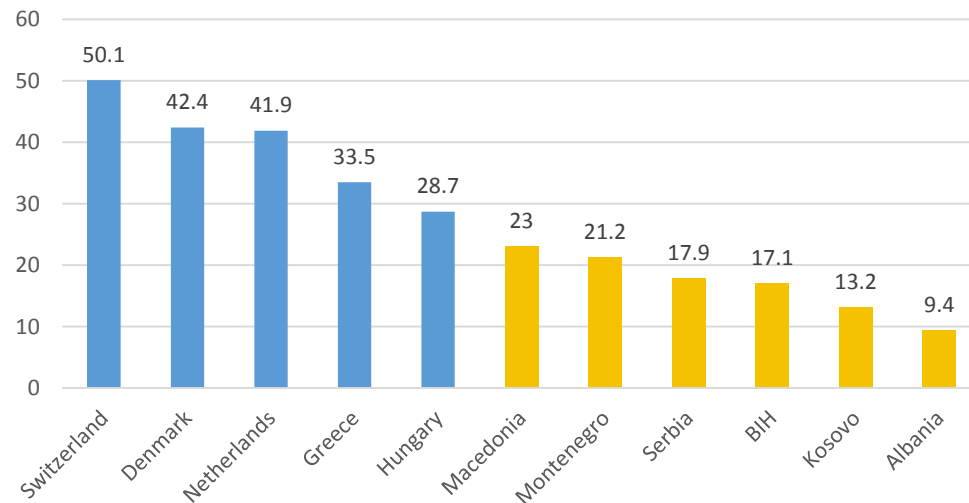
— NETWORLD CONSULTING —

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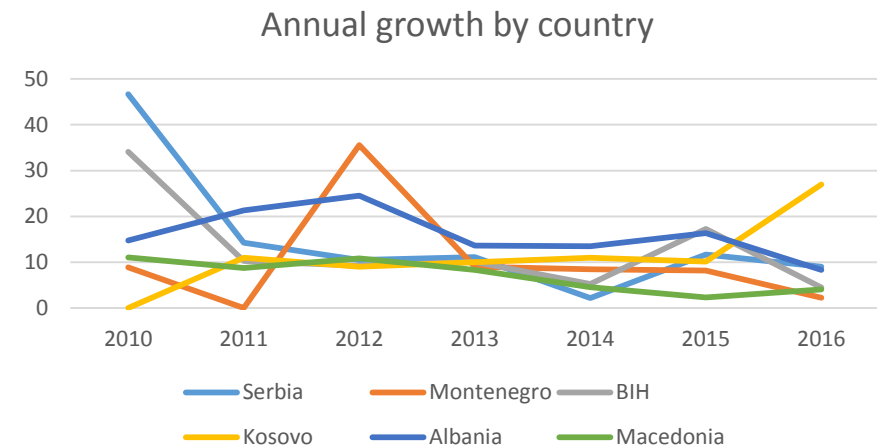
# 1. Level of fixed Broadband penetration

Fixed Broadband penetration in Western Balkans v. selected European countries, 2016



<https://www.budde.com.au/Research/>

Fixed Broadband Penetration Growth Rates in the Region, 2010-2016



Source: <http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx>

*Western Balkans countries did not yet reach the level of broadband penetration of European countries, but penetration growth has already slowed down dramatically. The countries shall look for initiatives on the national and regional levels that would allow them to „catch up“.*

## 2. What will help Broadband networks to develop

- **Involvement of Local Communities and Incumbent operator** into the process of rural infrastructure development is critical;
- Dialog and **collaboration between the Public authorities, Business** and other actors that operate in broadband market is important part.

- **Usage of all possible public Infrastructure** on the Backbone and Access levels to minimize the costs of Deployment;
- **Role of Incumbent operator** is critical as it traditionally has the most developed infrastructure.



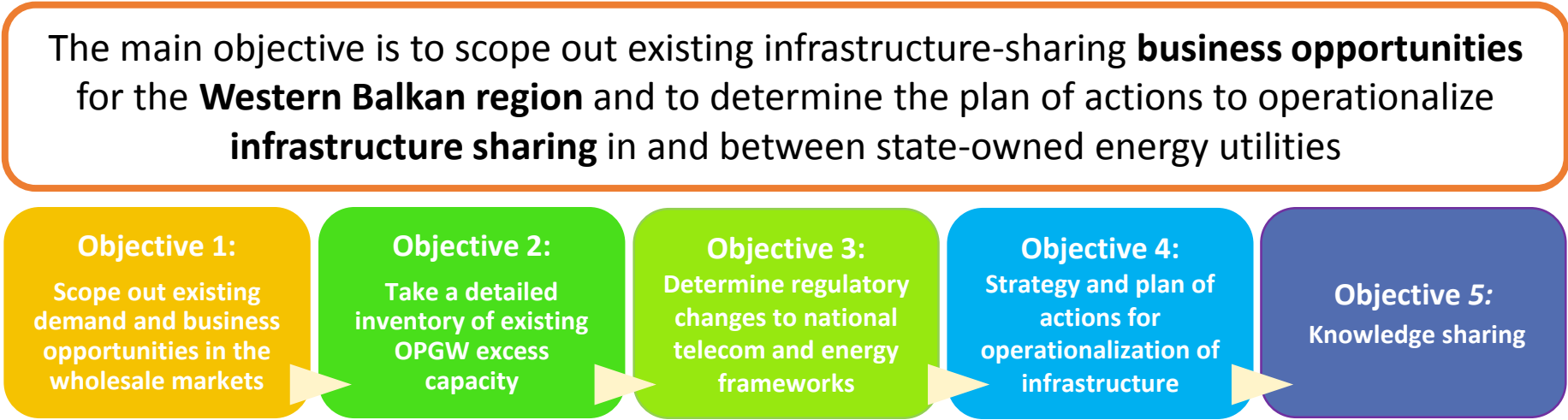
- **Regional angle** is important to attract bigger clients to the region;
- Ability to collaborate and **offer regional infrastructure and services** across the borders is of great value globally;
- The **most successful countries** in EU Digital Agenda indicators are Sweden, Finland and Denmark – **Scandinavian region.**

- Transposition of and **operationalization of Broadband Cost Reduction Directive** (2014/61/EU);
- **Open Access** regulatory principles to embed **the competition that would reach the End User.**

# 3. Digital Balkans Highway – Regional Initiative



- **Digital Balkans Highway** – is one example of a regional Infrastructure Sharing initiative, which was launched in spring 2017 by the World Bank;
- The Initiative **explores a Business rationale for regional OPGW fiber optics infrastructure sharing** across Western Balkan countries and **shall inform next steps in commercializing existing fiber optics infrastructure** to expand and strengthen broadband interconnectivity in the region;
- All Electricity **Transmission System Operators (TSOs)** in Western Balkans **are participating in this initiative**; along **with sector regulators and line Ministries**;
- As a result of this initiative, Regional Infrastructure sharing was included among actions of Trieste Summit’s conclusions.\*



\* - See Action d. under Area V.1.1 of Digital Integration Pillar:  
[file:///C:/Users/WB435331/Downloads/map\\_regional\\_economic\\_area\\_06\\_july\\_2017\\_clean\\_version%20\(1\).pdf](file:///C:/Users/WB435331/Downloads/map_regional_economic_area_06_july_2017_clean_version%20(1).pdf)

# 4. Demand analysis – Business case for Backbone Network

## Potential Customers of the Alternative Fiber Optics Infrastructure

### **NATIONAL Backbone:**

- Banks for storage systems;
- Ministries (especially ministry for defence);
- Academic institutions (Schools, Universities, Institutes, etc.);
- Carriers (mobile and fixed) for main routes and back-up routes.

### **INTERNATIONAL / REGIONAL Backbone:**

- Big international corporations (especially content providers);
- International carriers, who are offering international services for transit and connecting their PoPs;
- Co-location service is always part of the offer;
- Mostly regional solutions are necessary, when connectivity is needed for several countries.

## 5. State owned Telecommunications infrastructure – Advantages and How to Operationalize

Historically, state-owned Utility Companies have considerable fibres optic installations, but how to commercialize those assets?

Infrastructure sharing is the way to make those assets available on the market:

1. **Passive sharing** is usually defined as the sharing of a space or physical supporting infrastructure:

- Physical infrastructure sharing, Dark optical fibre leasing and co-location

2. **Active sharing** requires from Operators to share elements of the active network layer:

- Capacity leasing, Broadband connectivity.

# 5. State owned Telecommunications infrastructure – Advantages and How to Operationalize

## ADVANTAGES OF INFRASTRUCTURE SHARING FOR THE REGION:

- REDUCES CAPITAL EXPENDITURE (CAPEX) FOR NEW BROADBAND DEPLOYMENTS;
- SUPPORTS QUICK ROLLOUT OF THE NETWORK AND THEREBY INFLOW OF REVENUE;
- REDUCES OPERATIONAL COST (OPEX);
- IMPROVES CITIES SKYLINE;
- ALLOWS UTILIZATION OF NATIONAL RESOURCES AND HENCE IMPROVES ECONOMIC EFFICIENCY OF PUBLIC ASSET MANAGEMENT;
- INCENTIVES (HOW TO PUSH THE STATE OWNED COMPANIES TO EFFECTIVE INFRASTRUCTURE SHARING).



# 5. State-owned Telecommunications infrastructure – How to Start?



## **APPOINT THE PROJECT DIRECTOR ON THE LEVEL OF THE COMPANY**

- DIFFERENT ORGANISATION IS NECESSARY, WHILE PROCEDURES ARE DIFFERENT IN A MONOPOLY VS COMPETITIVE ENVIRONMENT;
- SEPARATE UNIT WITH THE SEPARATE ACCOUNTING;
- DAUGHTER COMPANY (REVENUE SHARING MODEL, TRANSFERRING OF THE ASSETS (LIKE MWM NET IN HUNGARY));
- SEPARATE COMPANIES OR ONE COMPANY TO LEASE THE INFRASTRUCTURE OF TSO, RAILWAYS, MOTORWAYS, OTHER STATE COMPANIES AND TO MERGE ALL THE STATE INFRASTRUCTURES UNDER ONE „ROOF“;
- ADVANTAGES/ DISADVANTAGES.

## 6. Specific sector Ex ante regulation in the backbone networks

### IS IT NECESSARY TO REGULATE WHOLESAL BACKBONE NETWORKS?

ACCORDING TO EU RECOMMENDATIONS FROM 2003, THE FOLLOWING RELEVANT MARKETS WERE RECOMMENDED BASED ON THE THREE CRITERIA TEST:

- WHOLESAL TRUNK SEGMENTS OF LEASED LINES;
- IS IT NECESSARY TO INCLUDE DARK OPTICAL FIBRES INTO THE MARKET (MOSTLY NRA ARGUED THAT IT IS NOT THE SUBSTITUTE, HENCE NO NEED TO INCLUDE THEM INTO THE RELEVANT MARKET);
- EFTA / NORWAY IN THE PAST INCLUDED ALSO DARK OPTICAL FIBRES INTO THE RELEVANT MARKET-TRUNK SEGMENTS OF LEASED LINES.

## 7. Dispute resolution

**MOSTLY NRAs ARE RESPONSIBLE FOR THE DISPUTE RESOLUTION PROCEDURE**

**BETWEEN OPERATORS, OPERATORS & LEGAL ENTITIES, AND END USERS & OPERATORS**

IT IS A GOOD PRACTICE IF NRA PROPOSES A MEDIATION PROCEDURE TO THE PARTIES IN THE DISPUTE IN ORDER FOR THEM TO RESOLVE THE DISPUTE BY SETTLEMENT.

CRITICAL ISSUES FOR THE DISPUTES:

- SHARED USE OF ELECTRONIC COMMUNICATIONS INFRASTRUCTURE;
- ACCESS AND INTERCONNECTION;
- DISPUTE RESOLUTION IN CASE OF CROSS-SECTOR DISPUTES, E.G. TSO AND CARRIES.

# Directive 2014/61/EU

MOSTLY NRAs NETWORK OPERATORS (SUCH AS ELECTRICITY, GAS, WATER, TRANSPORT BUT ALSO TELECOMS) ARE REQUIRED TO MEET ALL REASONABLE REQUEST BY TELECOMS COMPANIES FOR ACCESS TO THEIR PHYSICAL INFRASTRUCTURE IN ORDER TO DEPLOY ELEMENTS OF HIGH SPEED ELECTRONIC COMMUNICATIONS NETWORKS (ABOVE 30 MBPS);

EVERY NETWORK OPERATOR PERFORMING DIRECTLY OR INDIRECTLY CIVIL WORKS, EITHER FULLY OR PARTIALLY FINANCED BY PUBLIC MEANS, MEETS ANY REASONABLE REQUEST TO COORDINATE CIVIL WORKS MADE BY UNDERTAKINGS PROVIDING OR AUTHORISED TO PROVIDE PUBLIC COMMUNICATIONS NETWORKS WITH A VIEW TO DEPLOYING ELEMENTS OF HIGH SPEED ELECTRONIC COMMUNICATIONS NETWORKS.

## 8. Co-operation between Sectors (Electronic Communications and others)

**APPROVAL FROM THE MINISTRY RESPONSIBLE FOR THE PRIMARY ACTIVITY OF THE UNDERTAKING TO START AN ELECTRONIC COMMUNICATIONS ACTIVITY;**

**THE INCOME FROM THE ELECTRONIC COMMUNICATIONS ACTIVITY IS ALSO MUCH SMALLER THAN FROM THE PRIMARY ACTIVITY;**

**BROADBAND PENETRATION HAS POSITIVE EFFECTS ON GDP OF THE COUNTRY, AND SUPPORT FOR THE DEVELOPMENT OF ELECTRONIC COMMUNICATIONS BUSINESS IN OTHER SECTORS IS NECESSARY;**

**POSSIBILITY OF OFFERING SMART SOLUTIONS TO END USERS VIA THE ELECTRONIC COMMUNICATIONS NETWORK.**

## 9. Cross-subsidizing

**IT IS CRUCIAL TO SOMEHOW REGULATE THIS ACTIVITY.**

IS A MARKET COMPETITIVE OR NOT WHEN A MARKET STRUCTURE TENDS TOWARDS EFFECTIVE COMPETITION WITHIN A RELEVANT TIME ZONE?

TSO AND OTHER STATE-OWNED COMPANIES, WHICH HAVE ELECTRONIC COMMUNICATIONS NETWORK HAVE NO CAPEX COSTS;

THE PRICE OF THE OPTICAL CABLE DOES NOT DIFFER MUCH DEPENDING ON THE NUMBER OF FIBRES;

THE COSTS TO START LEASING OF THE EXCESSIVE INFRASTRUCTURE ARE LOW;

ON THE OTHER SIDE, OTHER CARRIERS NEED TO CARRY FULL INVESTMENTS TO BUILD THE TELECOMMUNICATION NETWORK.

# Which model for cost-oriented pricing calculation to use

**THE FULLY DISTRIBUTED COST (FDC) APPROACH:** MAKE EACH SERVICE PAY FOR PART OF THE (HISTORIC) COMMON COST.

PROBLEM : AD-HOC DIVISION OF THE COMMON COST. SINCE THE COMMON COST IS LARGE, PRICES CAN BE ``COOKED’’.

**LRIC (OR IC) (SUBSIDY-FREE PRICES):** CONSTRUCT PRICES BY CALCULATING THE LONG-RUN INCREMENTAL COST OF A SERVICE IN A NETWORK DESIGNED TO BE FORWARD LOOKING.

PROBLEM : THE SUM OF THE INCREMENTAL COSTS OF THE SERVICES LEAVES SOME COMMON COST UNACCOUNTED.

## 10. How to increase regional co-operation

THE COUNTRIES OF WESTERN BALKANS ARE SMALL;

INTERNATIONAL CUSTOMERS ARE LOOKING FOR COMPLETE SOLUTIONS;

IF ONE OPERATOR MANAGES THE NETWORKS IN MANY COUNTRIES, IT IS MORE COMPETITIVE, BECAUSE IT IS ABLE TO OFFER THE COMPLETE SOLUTIONS;

OPERATORS ARE LOOKING FOR SYNERGIES, BECAUSE THE WORLD GOES GLOBAL.

NO BORDERS IN IP WORLD;

NECESSARY TO ENSURE INVESTMENTS INTO THE ELECTRONIC COMMUNICATIONS INFRASTRUCTURE, WHICH DEVELOPS NEW SERVICES, NEW JOBS AND, CONSEQUENTLY, DRIVES HIGHER GDP.



# THANK YOU!

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