

REGULATION TO FACILITATE AND STIMULATE THE ROLLOUT OF GIGABIT INFRASTRUCTURE

Vasil Gjatovski
Agency for electronic communications

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POLICY CONTEXT

Digital Agenda for Western Balkans

Roadmap on EU-WB roaming charges reduction

National Operating Broadband Plan

By the end of 2029, anyone can have the opportunity to access the internet through 5G with a minimum speed of internet access of at least 100 Mbps
 By the end of 2029, at least 50% of the total number of household subscriber contracts across the country are for internet access of at least 100 Mbps

Electronic communications Act

Regulation for electronic communications networks (infrastructure)

MARKET CONTEXT

Need for more bandwidth at faster speeds, currently:

- 5G coverage is 26,5% of populated areas (Source: AEK (Q3/2022))
- 467,599 households or 78.11% of the total number of households in RNM have fixed broadband coverage (download with at least 30Mbps and not more than 100 Mbps) (Source: AEK (Q4/2020))

131,627 households or 21.98% of the total number of households are located in rural areas (Source: AEK (Q4/2020))

1

High costs

Total investments in Macedonia were around 53 million € (Source: AEK/2021)

Civil works estimated to represent up to 70% of the total capital expenditure for deployment (on EU level)

2

Cost factors

ECN operators estimate high costs annually for handling multiple paperwork

Delays in obtaining permits and rights of way: can add up to 1-2 year delay, can be up to 10- 20% of costs for base stations

3

Cost reduction

Measures that facilitate access and transparency:

- 10-30% reduction for fixed networks, >30% for wireless networks, including mobile

Coordinating civil works leads to up to 30% savings or even up to 50% if together with other utilities

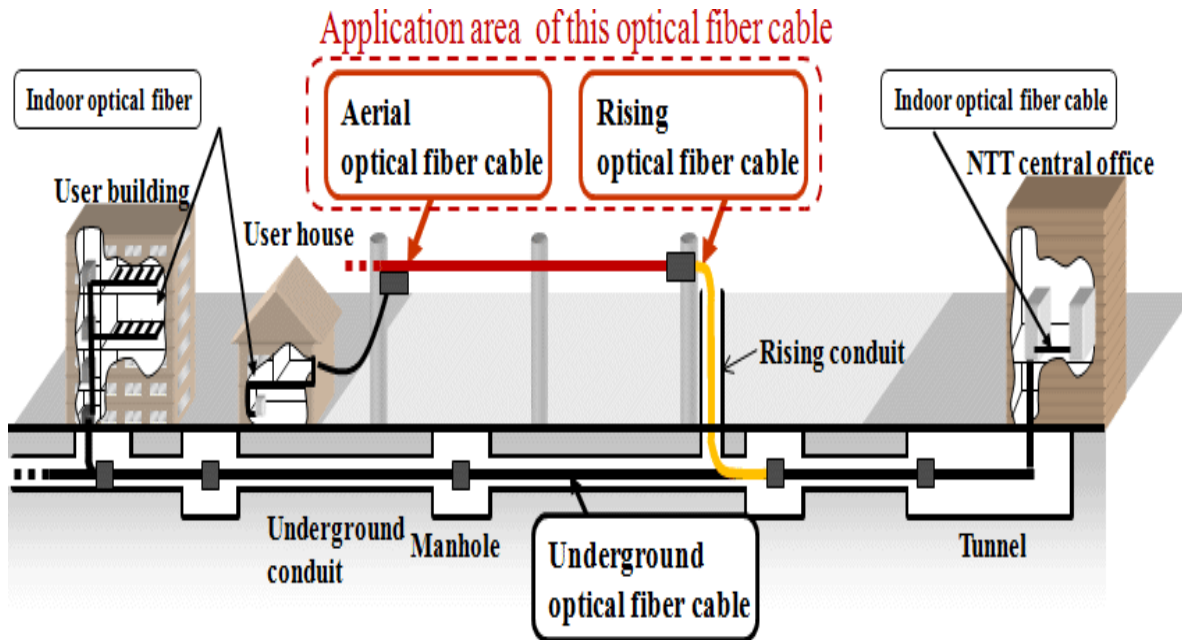
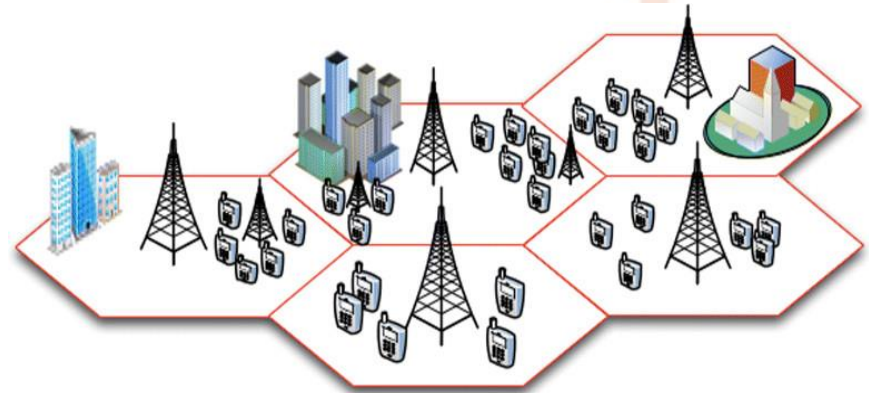
RULEBOOK ON CONSTRUCTION AND ACCESS & USAGE OF PUBLIC ECN AND ASSOCIATED FACILITIES

General provisions		
Construction	In-building physical infrastructure	Civil works
<ul style="list-style-type: none"> - Public radiocommunication networks, including antenna systems - Public cable ECN 	VHCN in-building infrastructure & fiber wiring	<ul style="list-style-type: none"> - Coordination of planned civil works - Transparency on planned civil works
<p>Transparency ECN operators proactively provide minimum information and updates, including georeferenced location, via SIP in electronic format</p> <p>Coverage maps Report and monitoring, via NOBP support system</p>		<p>Goals Joint deployment has a direct impact on cost reduction (as rolling out physical infrastructure can represent up to 70% of the costs of deployment)</p>
Final and transitional provisions		

CONSTRUCTION OF PUBLIC ECN AND ASSOCIATED FACILITIES

Public radio networks and antenna systems:

- National radio frequency plans;
- National standards,
- ETSI standards;
- ITU and CEPT recommendations and decisions



Public cable ECN:

- National standards,
- ETSI standards;
- ITU and CEPT recommendations and decisions

SINGLE INFORMATION POINT (SIP)



Единствена точка за информации

Што е Единствена точка за информации? Агенцијата преку веб страница обезбедува единствена точка за информации со цел заинтересираните страни, покра...

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Преглед на планирани градби

Преглед на планирани градби

...

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ГИС колектор

ГИС колекторот е WEB ГИС апликација која овозможува целосна електронска достава на податоци за новоизградени електронско комуникациски мрежи и прид...

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Систем за поддршка на имплементација на НОБП

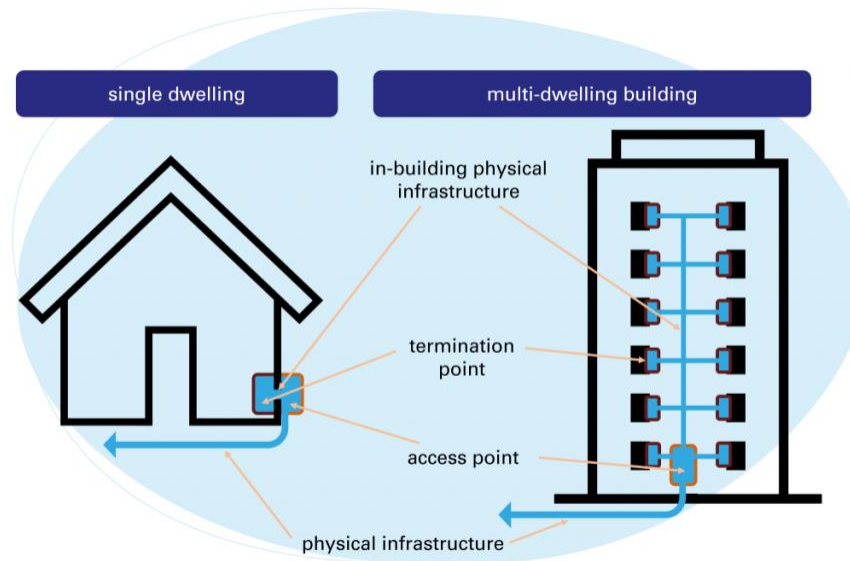
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- ❖ SIP is GIS based digital system established in AEK
- ❖ The entire GIS register is composed of a total of 13 topics levels
- ❖ The GIS register supports the following GIS spatial data formats: ESRI shapefile (shp); MapInfo format (tab); MapInfo Interchange Format (MIF); Autodesk AutoCAD Format (DWG); MicroStation Format (DGN); Drawing Exchange Format(DXF)
- ❖ Bessel's ellipsoid is used to approximate the earth mathematical defined surface and Transversal Mercat Projection for data transformation from an ellipsoid on a flat surface
- ❖ State coordinate system is Gaussian Krieger

In-building physical infrastructure (PI)



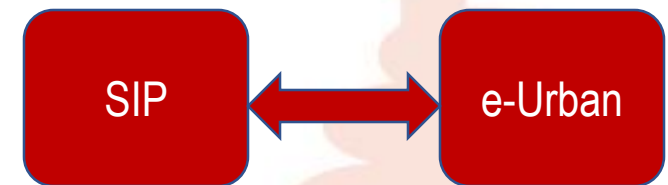
- Right for ECN providers to roll out networks up to the access point;
- PI should be built and designed so that all operators would have access to it;
- PI should be performed in such a way that at least 2 optical fibers from each residential unit or at least 4 optical fibers from business premises will be terminated at an optical distribution unit;
- The optical distribution unit should be located at the concentration point;
- PI should be built from horizontal segments, while on each floor, there should be at least one built-in closet where the vertical and horizontal segments are connected, in order to enable easy interventions, servicing and replacement;
- Dimensions of the PI should enable that connection of all business or residential units in the building not to exceed 70% of the channels in any point. In the vertical segments that are performed with embedded hoses in the walls, at least one spare (unoccupied) hose with an internal diameter of not less than 25 mm should be planned.

ACTIVITIES TO DO TO COMPLETE HARMONIZATION WITH BCRD/GIA

Ministry for transport and communications – Construction Law

PERMIT GRANTING including Rights of Way

- Electronic applications
- Deadlines & tacit approval
- “Permit-free” deployments
- Fees and compensation for damages



!!! To connect SIP in AEK with E-URBANISM in the Ministry

WHY?

Slow & complex permit procedures increase costs and time to deploy

Enhancing transparency and equal treatment of operators

Ensure permit procedures do not entail costs beyond administrative costs