Ministerium
der Deutschsprachigen
Gemeinschaft Belgiens

Ostbelgien

Survey of the roll-out plans of VHC networks in the German-speaking Community

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1. FOREWORD

Digitalisation is a megatrend that affects many areas of economic and social life. Access to efficient digital infrastructures is thus becoming an essential factor that is particularly relevant for the attractiveness and sustainability of rural regions.

The German-speaking Community ("DG") is such a rural region in Belgium. As many other rural regions, the DG lacks a strong digital infrastructure. Large parts of the DG are still considered as "white zones" with a rather poor NGA network coverage that is far from today's needs of business and residential users. A cable-TV DOCSIS network is almost not available.

Due to the low population density and correspondingly high expansion costs a full-scale roll-out of gigabit networks is not economically feasible. Nevertheless the demand for superfast broadband access in the DG is at least as high as in the rest of Belgium. Major parts of today´s superfast broadband demand in the DG are unsatisfied. Furthermore, the situation is unsatisfactory due to the fact that the DG has direct borders with three neighbouring states: Germany, the Netherlands and Luxembourg. Being close to the borders and living in the heart of Europe brings many advantages – but also competition between geographic areas and regions. And in this competition, our region is threatened with a decisive disadvantage compared to our German, Dutch and Luxembourgish neighbours due to an insufficient digital infrastructure.

To overcome this competitive disadvantage and in order to ensure the attractiveness and sustainability of our region, the Government of the DG launched a project for the construction of a passive Fiber to the Home (FTTH) network on its territory.

The aim of this project is to achieve the highest possible coverage with gigabit-capable fibre-optic infrastructure in the DG.

Within the scope of this market survey, the plans of all providers with regard to the construction of VHC networks in the German-speaking Community are to be surveyed.
The following document describes the instructions for participating in the market survey regarding the existing and planned VHC networks in the German-speaking Community over the next three years.

The questionnaires are based on the provisions of the Guidelines of the Body of European Regulators for Electronic Communications ("BEREC") on Geographical surveys of network deployments published in March 2020 as well as the criteria of the BEREC Guidelines on Very High Capacity Networks (hereafter the "VHCN guidelines").

The operator wishing to contribute to the survey must first register in accordance with the procedure described below in order to receive the documents in which to fill in the relevant information.

The deadline for participating in the market survey is 19th August 2022. The result of this public consultation will be published on the websites of the DG.

2. REGISTRATION PROCEDURE

The operator wishing to contribute to the mapping must request the necessary documents by sending an e-mail with the subject: "Geographical Survey FTTH DG" to the address marketsurvey@dgov.be. The request should contain the following information:

- Company name
- Company number
- First and last name of contact person
- E-mail address of the contact person
- Fixed and mobile number of the contact person

It is also necessary to include the authorisation of the legal representative of the company. At the end of the registration process and the internal validation and authorisation checks, the user will be sent and provided with the necessary documents and the password required to create the response files.

3. TYPE OF DATA REQUIRED

The data required for the survey are collected in questionnaires that are provided to the operators in the form of Excel spreadsheets, grouped by municipality. Each file contains the list of citizens' and business addresses compiled by the German-speaking Community with the characteristics of the address (e.g. municipality, street, house number) and a number of columns with information on the expansion projects.

The structure of the questionnaires is as follows:

A	B	C	D	E	F	G	H	I	J
Municipality name DE	Municipality name FR	Postcode	Street	House number	VHCN class	Technology	Maximum download speed	Maximum upload speed	Year of expansion

The data can be divided into two groups:

1) fixed columns relating to the address data supplied by the German-speaking Community
2) columns to be filled in by the operator regarding the existing VHCN infrastructure and the expansion projects

4. FIXED ADDRESS DATA COLUMNS

- Municipality name DE: the name of the municipality in German
- Municipality name FR: the name of the municipality in French

- Postcode
- Street: the name of the street
- House number

5. COLUMNS TO BE FILLED IN BY THE OPERATOR REGARDING EXPANSION PLANS

For each of the addresses, the operator must fill in the following column:

a) VHCN (Very High Capacity Network) class
b) Technology
c) Maximum download speed
d) Maximum upload speed
e) Year of expansion

For this purpose, the following codes are to be used:

a) VHCN class:

Code	VHCN class
1	No VHCN coverage exists or planned
2	FTTH/ FTTB, meeting criterion 3
3	Fibre to the BTS (Base Transceiver Station) (in FWA case)
4	No FTTH/FTTB, but all performance thresholds in criterion 3 of the VHCN guidelines (see 6.) are met (i.e. DOCSIS 3.1)
5	No fibre to the BTS, but all performance thresholds in criterion 4 of the VHCN guidelines (see 6.) are met (in the FWA case)

b) Technology:

Code	Technology
0	Not applicable (No VHCN coverage exists or is planned)
1	No FTTB, but meeting criterion 3 (i.e. DOCSIS)
2	Copper (with VECTORING/GFAST/BONDING permeable technologies meeting criterion 3)
3	Fibre (FTTH/FTTB meeting criterion 3)
4	FWA on licensed frequency with BTS (Base Transceiver Station) connected via Fiber
5	FWA on licensed frequency with BTS (Base Transceiver Station) not connected via Fiber

c) Maximum download speed:

Code	Maximum download speed
1	between 30 and 100 Mbit/s

2	between 100 and 300 Mbit/s
3	between 300 Mbit/s and 1 Gbit/s
4	above 1 Gbit/s

d) Maximum upload speed:

Code	Maximum upload speed
1	between 15Mbit/s and 50Mbit/s
2	between 50 Mbit/s and 150Mbit/s
3	between 150Mbit/s and 500Mbit/s
4	above 500Mbit/s

e) Year of expansion:

Code	Year of expansion
0	Yet existing
1	2022
2	2023
3	2024
4	2025

6. PERFORMANCE THRESHOLDS (ACCORDING TO THE VHCN GUIDELINES OF THE BEREC)

BEREC sets the following criteria for the definition of VHCN networks ("BEREC Guidelines on Very High Capacity Networks"):

Criterion 1:   Any network providing a fixed-line connection with a fibre roll out at least up to the multi-dwelling building.

Criterion 2:   Any network providing a wireless connection with a fibre roll out up to the base station.

Criterion 3:   Any network providing a fixed-line connection which is capable of delivering, under usual peak-time conditions, services to end-users with the following quality of service:

    a. Downlink data rate   ≥ 1000 Mbps

    b. Uplink data rate   ≥ 200 Mbps

    c. IP packet error ratio (Y.1540)   ≤ 0.05%

    d. IP packet loss ratio (Y.1540)   ≤ 0.0025%

    e. Round-trip IP packet delay (RFC 2681)   ≤ 10 ms

f.	IP packet delay variation (RFC 3393)	≤ 2 ms
g.	IP service availability (Y.1540)	≥ 99.9% per year

Criterion 4: Any network providing a wireless connection which is capable of delivering, under usual peak-time conditions, services to end-users with the following quality of service.

a.	Downlink data rate	≥ 150 Mbps
b.	Uplink data rate	≥ 50 Mbps
c.	IP packet error ratio (Y.1540)	≤ 0.01%
d.	IP packet loss ratio (Y.1540)	≤ 0.005%
e.	Round-trip IP packet delay (RFC 2681)	≤ 25 ms
f.	IP packet delay variation (RFC 3393)	≤ 6 ms
g.	IP service availability (Y.1540)	≥ 99.81% per year