AKEP
AUTORITETI I KOMUNIKIMEVE ELEKTRONIKE DHE POSTARE

Fixed Broadband wholesale market analysis

Draft public consultation

Approved by Decision nr.1, dated 10.01.2024

Content

Context and legal basis of the public consultation

Aim of the draft act and the objectives to be achieved

In line with European regulatory practices and national legislation, AKEP decided to undertake a review of the existing ex-ante regulation of wholesale markets in order to adjust its regulatory intervention measures to consider the changes in products and services available as well as the demand and supply substitution dynamics due to technological progress, evolutions in market conditions and regulatory developments.

In accordance with Article 7 of Law nº 9918/2008, of 19.05.2008 on "Electronic Communications in the Republic of Albania", AKEP performs its functions in compliance with the Law and other by-legal acts, as well as in accordance with the national sector policies for the development of the electronic communications, and in compliance with the international agreements. AKEP's interventions are performed in respect of the principle of technological-neutrality and with the objective of promoting effective competition in the provision of the electronic communications networks, electronic communications services, associated facilities and services.

In light of AKEP's competences as prescribed in Article 8 of Law nº 9918/2008, the Authority undertakes measures and defines protective measures on the operators of the electronic communications networks and providers of the electronic communications services for not allowing non-competitive practices. When relevant, AKEP also is competent to designate the undertakings (operators) with significant market power (SMP).

In pursuit of the abovementioned objectives and given AKEP's competences, the Authority undertakes in this document the analysis of the fixed broadband market presented in order to define the relevant markets, assess the conditions of competition in the defined markets, designate an SMP operator and implement regulatory measures if necessary.

Main issues addressed in the document

Wholesale broadband markets have been part of the European Commission's recommendations on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation since 2003. On a national level, based on regulation No. 9, dated 17.07.2009 "On Market Analysis", amended, AKEP conducted the market analysis of the following markets:

- **the market for wholesale local access provided at a fixed location (WLA);**
- **the market for wholesale central access provided at a fixed location for mass-market products (WCA); and**
- **the market for wholesale high-quality access provided at a fixed location (WHQA).**

These markets correspond to the list of relevant markets included is the European Commission's 2014 recommendation of product and service markets within the electronic communications sector susceptible to ex ante regulation as well as the list of markets in which AKEP concluded to the existence of an SMP operator in its market analysis decision n° 2701, dated 22.12.2016.

In addition to the abovementioned markets, AKEP assessed the relevance of imposing ex-ante regulation in **market for wholesale inter-urban passive infrastructure access**.

Presentation of the legal basis and the structure of the public consultation document

1.1 Presentation of facts, actions and procedural matters related to the content of the project

The document "Analysis of broadband wholesale markets - Document for Public Consultation", was drafted in accordance with the provisions of the Law no. 9918, dated 19.05.2008 "On Electronic Communications in the Republic of Albania", amended, regulation no. 9, dated 17.07.2009 "On market analysis" and takes into consideration EU Recommendations and Directives for the regulation of electronic communications markets.

In the document for public consultation, the following aspects are highlighted:

- the legal regulatory basis and practice followed by the EU/BEREC countries and the countries of the region;
- the definition of the relevant markets;
- analysis of competition in the relevant markets and assessment of whether there are operators with significant market power (SMP);
- if necessary, the proposed regulatory measures for entrepreneurs assessed with SMP.

Law No. 9918/2008, in its article 35, provides for the consultation procedure with the interested parties for the market analysis, setting a period of 60 days. At the same time, Article 36 stipulates that AKEP establishes, changes, maintains or removes obligations for SMP after consultation with interested parties.

This document is published on the website of AKEP and the interested parties can send comments regarding the conclusions and proposals of AKEP referring to the public consultation questions, as well as to any other aspect related to this document.

1.2 Structure of the public consultation document

The analysis document for public consultation is structured as follows:

- Executive summary
- Introduction
- Chapter 1: Description of the development of fixed broadband in Albania
- Chapter 2: Analysis of physical infrastructure markets
- Chapter 3: Analysis of markets for network services
- ANNEX – Benchmark of the regulation of wholesale fixed broadband markets in Romania, Montenegro, and France

Executive Summary

The development of a very high-capacity fixed broadband network is one of the main pillars that support the acceleration of the digitalisation of the economy, both nationally and across Europe. In this regard, the Albanian government approved in 2020 the National Plan for Sustainable Development of Digital Infrastructure, establishing the country's objectives in terms of deploying an infrastructure of fast and ultra-fast electronic communications network across the country to build the foundation to achieve a gigabit society in 2025 and beyond.

In establishing this plan, the Albanian government aligns its objectives with the European Union's objectives, which include amongst other things, the availability of ultra-fast broadband (at least 100 Mbps of downlead speed) by 2025 and gigabit connections by 2030. The achievement of these objectives relies of the efficient roll-out of very high-capacity electronic communications networks based on fibre optics. In pursuit of that objectives, multiple national and European legislations and initiatives saw the light of day in the last decade (the European Electronic Communications Code and its planned transposition in Albanian law, the Broadband Cost Reduction Directive and its national equivalent (Law n° 120/2016), etc.).

In line with European regulatory practices and national legislation, AKEP decided to undertake a review of the existing ex-regulation of wholesale markets in order to adjust its regulatory intervention measures to consider the changes in products and services available as well as the demand and supply substitution dynamics due to technological progress, evolutions in market conditions and regulatory developments.

Main developments of the fixed broadband market in Albania

The retail market for broadband fixed access in Albania witnessed an important increase in the volume of lines sold since the last market analysis conducted by AKEP in 2016 as the total number of lines more than doubled (+122%), reaching over 585 thousand active connections by the end of 2022, compared to around 264 thousand connections in 2016. This increase in the number of broadband connections is accompanied by a rise in the national penetration rate as the latter reached 81% of households in 2022, up from 37% in 2016. In addition, Albania improved its position compared to other countries as its 2021 penetration rate fared better than many Eastern European countries behind which it lagged in 2016.

However, this increase in national penetration hides an important digital divide that persists across the territory. On the one hand, the average penetration rate in urban areas remains much higher than in rural areas. On the other hand, within urban areas, the penetration rate in densely populated regions (especially Tirana), remains significantly higher than other less densely populated regions.

In terms of product offerings in the market, as alternative operators gain more and more importance, the share of internet standalone products rose to almost half of the subscriptions in 2022, compared to only 30% in 2016. On the contrary, the share of voice telephony services, often present in the incumbent's bundled offers, continues to decrease.

In terms of technology, the main observed trend is the rise in the share of fibre-based connections that rose from only 11% in 2016 to become in 2022 the main access technology with over 61% of the market. This increase is due mainly to the development of the market as whole (increased penetration rates, etc.), the deployment of full-fibre networks by alternative operators and the migration from older technologies (especially copper) towards fibre. This transition towards fibre, which is expected to continue is the coming years, led to the availability of broadband accesses of higher speeds and better quality. In 2022, the share of fast and

ultrafast broadband connections (i.e., 30 Mbps download speed or higher) represented 51% of the total accesses provided in the market, compared to only 1% in 2016.

Competition between operators has developed in the retail market. Multiple factors show case this development: the overall decreasing trend in retail prices (for a given offer) proposed by the main operators in the market, the convergence of the prices of different providers and, most importantly, the evolutions in the market shares of different operators.

The market share of One Albania decreased by half as it reached only 20% in 2022 compared to 40% in 2017, while Vodafone became the largest operator in the market with 22% of market share[1]. With the development of smaller mostly local operators that have deployed their own network, the combined market share of the six largest operators in Albania decreased from 89% in 2017 to 68% by the end 2022.

Finally, the competitive landscape is different in urban areas compared to rural areas. In the former, the main operators who have the widest geographic network coverage still have a significant presence, despite the gradual loss in their market shares. However, these operators have a scarcer presence in rural areas where small local providers, with quite limited geographic footprint, are usually present.

Analysis of physical infrastructure markets

In assessing the relevance of imposing ex-ante regulation, AKEP started its analysis by considering whether retail markets would be competitive in a situation where there is no wholesale regulation (this is known as the "Modified Greenfield Approach"). In case an intervention is needed, the analysis starts with the most upstream market, in this case: the physical infrastructure market.

In its 2020 Recommendations, the European Commission assessed the relevance of identifying a standalone market for wholesale access to physical infrastructure but finally opted to include access to local physical infrastructure as a remedy of the market for wholesale local access. This choice was motivated by the heterogeneity of physical infrastructure across Member States. Nevertheless, some regulators such as ARCEP[2] in France and Ofcom in the UK, defined a standalone wholesale physical infrastructure market.

In defining the market from a product point of view, AKEP proposes that the relevant market should **include access to inter-urban network of ducts and dark fibre of electronic communications providers**, excluding thus local physical infrastructure (which are considered, in accordance with the current national and European practices, as a potential remedy in other downstream wholesale markets), activated transmission capacities, poles, and physical infrastructure provided by utilities service providers. Given the extent of the current providers' (One Albania and ATU) networks as well as the nature of the demand, the market was defined, from a geographic point of view, as **national**.

In this market, there are two main wholesale service suppliers, One Albania and ATU. Both operators have a quasi-national coverage as their inter-urban networks cover the main highways and they currently propose to access seekers activated transmission capacities as well as dark fibre. Despite the availability of duct space, duct access has not developed as a

[1] According to AKEP's latest market report for the second quarter of 2023, after the integration of One Albania's "HomeNet" subscriptions with the operator's fixed connections, One Albania regained its position as the market leader with 22% of market shares, only 0,5% higher than its closest competitor, Vodafone.

[2] See section **1.9 of the Annex.**

wholesale product despite the enforcement of Law n°120/2016 imposing on network operators to provide wholesale access to access seekers in fair and reasonable conditions, including regarding the price. As for dark-fibre, One Albania remains the main provider in the market with 76% of market shares in 2022 (including both local and inter-urban capacities), while ATU occupies 11% of the market with increasing volumes year on year.

As this market is formally included in neither the European Commission's Recommendations nor the Albanian Regulation n°9, the three-criteria test must be conducted in order to decide whether an ex-ante regulation is warranted in this market. AKEP conducted thus the three criteria test and considered that the market does not pass the test for the following reasons:

- The existing legal and regulatory barriers, especially regarding the complexity of permit granting and the associated administrative processes, does not seems to represent a significant barrier to entry especially with regard to i) the relative streamlined process to obtain permits from the central government compared to local governments for the deployment of local networks (which operators have managed to overcome and deploy their networks locally); ii) the existence of legislative tools (Law n°120/2016) that allow operators to request access to the existing networks of One Albania and ATU in fair and reasonable conditions (to date, no operator has initiated a dispute resolution process in front of AKEP to signal an abusive access refusal from either operators) ; and iii) the availability of space in One Albania and ATU's ducts.
- The absence of structural barriers to entry given the lower capillarity of the backbone network, the existence of opportunities to capture the growing demand for backbone capacities in Albania, especially with the development of mobile (5G) networks (which will require increased backbone capacities to connect base stations) for a new entrant, especially if this entrance is done through the access to the ducts of the current network operators.
- Despite the asymmetry in market shares for dark fibre between One Albania and ATU, there are elements that indicate the existence of a competition between both operators have a comparable geographic coverage and taking into consideration the increasing demand for the services of both operators. In addition, the development of offers from other providers (such as OST, despite the lack of substitutability between passive and active offers) exerts a competitive pressure over both ATU and One Albania to propose competitive offers.
- Given the absence of high and non-transitory barriers to entry and the existing direct competition between One Albania and ATU as well as indirect competition from other network operators such as OST, AKEP believes that ex-post interventions from the Competition Authority (CA), or AKEP in the framework of dispute resolution, should be sufficient to be able to address competition problems that may arise in this market.

Given the above, AKEP proposes that it is not relevant to impose ex-ante regulation in the market for wholesale inter-urban passive infrastructure access.

Analysis of markets for network services

The analysis of retail broadband services products led to the identification of two distinct retail markets: i) residential-grade broadband services and ii) business-grade broadband services. Both markets include broadband connections, either bundled with other services such as TV and voice telephony or offered on a standalone basis, provided via copper (xDSL), optical fibre (FTTX) or coaxial cable (HFC), regardless of the level of speed offered.

This distinction is based on the difference in the nature of demand for residential customers or small/medium business with basic needs, and enterprises or public/private institutions with a need for a higher quality of service (low latency, repair times generally less than 24 hours or 6 hours), symmetric download and upload speeds, redundant connections to minimize the impacts of a breakdown, security services and monitoring services. The demand for the latter category includes also leased lines in case of a multi-site national or international customer.

Regarding the geographical definition of the market, AKEP analysed whether competition conditions are homogenous across 122 local areas. A local area is defined as the urban or the rural part of each of the 61 municipalities of Albania. Due to the availability of data, the analyses focused on the market evolutions between 2021 and 2022.

Despite some observed differences across local areas regarding the number of operators, the size of the addressable market, the number of connections, and the socio-economic differences in the local population, and given the way competition has developed across different areas, AKEP did not identify structural barriers to entry of new competitors in local areas. Moreover, the presence of competitive pressure on local leaders, especially from operators with a wider geographic coverage, and the evolution of the market shares of local leaders between 2021 and 2022 signal a development of competition across the Albanian territory. In addition, the absence of differences in pricing and commercial strategies, especially from operators with a wide geographic coverage, across local areas points out also to homogenous competition conditions. This is confirmed by the comparability of technical functionalities of broadband services in different local areas.

Therefore, AKEP does not believe that a sub-national geographic definition is appropriate as such definition would fail to fulfil the condition of having clear and stable boundaries over time and would entail burdensome analysis and could lead to inefficient market fragmentation. Thus, in line with the European Commission's recommendations 2010/572/EU of 20 September 2010 on regulated access to Next Generation Access Network (NGA), recital 9, AKEP deems relevant to **maintain the definition of the retail market as national, for both residential and business grade fixed broadband services**.

On the retail market for residential grade services, competition has developed a lot since AKEP's latest market analysis decision. As residential accesses represent over 90% of all broadband connections in the country, the competitive trends are very similar to the trends described for the whole market.

Within the retail market for business grade broadband services, AKEP distinguishes between two main products, internet access and leased lines/capacity services. For business grade internet access services, between 2017 and 2022, the incumbent lost 20 percentage points of market share, as it held 16% in 2022. On the contrary, other competitors, such as Vodafone and Abissnet gained market share as they became the leading operators with 26% and 20% of market shares respectively in 2022.

The retail market for leased lines seems to be more volatile than the retail markets for internet access as the market shares of the operators increase and decrease without a specific pattern. This volatility could be caused either by the low volumes of connections in the market and/or by issues related to the quality of data. In any case, One Albania is the main operator of retail leased lines with a market share varying from 42% to 62% over the period between 2017 and 2022.

In order to define the wholesale markets upstream of the identified retail market, AKEP deems relevant to include, within the same market, physical and virtual access products but to distinguish between local and central access products, as well as between activated access

products for the mass-market and high-quality activated access products for larger businesses and private/public institutions.

On the basis of such analysis, AKEP proposes that the following markets, as defined in AKEP's decision N° 2701, dated 22.12.2016 remain relevant:

- **the market for wholesale local access provided at a fixed location (WLA);**
- **the market for wholesale central access provided at a fixed location for mass-market products (WCA); and**
- **the market for wholesale high-quality access provided at a fixed location (WHQA).**

AKEP considered also that all the markets mentioned above are national.

The volume of wholesale access products currently sold in Albania is very low as, by the end of 2022, only 0.1% of retail internet accesses were provided through a wholesale offer. By the end of 2022, there was a total of 578 bitstream accesses, down from 4 633 accesses in 2016. In terms of market share, the accesses sold by the One Albania represented 44% of the total accesses sold in 2022, which represented the incumbent's lowest market share since 2016 compared to 50% of market share for ASC. Regarding wholesale local accesses, no full-ULL access has been sold by any operator in the market since 2018[3].

Similar to the retail market, the wholesale market for leased lines seems to be volatile as the evolution of total volumes does not follow a specific trend. One Albania's wholesale leased lined decreased both in volume and market share between 2017 and 2022 as it dropped from 281 connections (43% of the market) to 166 connections (13% of the market). On the contrary, Vodafone increased both in volume and market share passing from 170 connections (26% of the market) in 2017 to 450 connections (35% of the market) in 2022.

In terms of the number of operators served through the wholesale market, Vodafone was the leading operator with 55 operators-customers in 2022 after a significant increase from only 5 operators-customers in 2021. Abssinet is the second largest provider with 23 operators-customers in 2022 (up from 17 in 2021) and One Albania is the third largest provider with 22 operators-customers in 2022 (down from 27 in 2021).

Based on the above, AKEP observes that the demand for wholesale access services such as bitstream or ULL is either very low or non-existent. In addition, for leased lines, the incumbent's market share is continuously decreasing and represents only a minor part (13%) of the wholesale market as other operators grew based on their commercial wholesale offers. Despite these facts, infrastructure-based competition has developed in the retail market. This indicates that, in absence of a regulation in the wholesale market, consumer harm is unlikely to materialize in the retail market if the ex-ante regulation currently imposed on One Albania are removed.

Therefore, AKEP proposes to lift all regulatory obligations currently imposed on One Albania in the market for wholesale local access provided at a fixed location (WLA); the market for wholesale central access provided at a fixed location for mass-market products (WCA); and the market for wholesale high-quality access provided at a fixed location (WHQA).

[3] Very few partial ULL are provided. According to the operators' data in 2022, only 10 accesses are sold in Albania.

Introduction

As demand for digital technology and internet-based applications rises, the need for fast and reliable electronic communication networks becomes a key factor for economic growth and the digitalization of the economy. In order to prepare and accommodate this digital transition, national and European policies are encouraging the deployment of new generation networks capable of providing Gigabit connections, both for mobile and fixed connections with the deployment of 5G and optical fibre networks respectively.

On a European level, the European Commission has put in motion a plan to achieve the following connectivity objectives by 2025[4]:

- 100 Mbps networks reaching all European households, with the possibility to upgrade those networks to reach much higher speeds;
- Gigabit connectivity connecting all main socio-economic drivers - such as schools, universities, research centres, transport hubs, hospitals, public administrations, and enterprises relying on digital technologies - should have access to gigabit connectivity;
- Uninterrupted 5G coverage should be available in all urban areas and all major terrestrial transport paths to connect people and objects; and
- Access to mobile data connectivity everywhere, in all places where people live, work, travel and gather.

In addition, the European Commission's Digital Decade policy programme sets out the European Union's digital targets for 2030[5] by focusing, amongst other things, on the digitalisation of public services and the development of secure and sustainable digital infrastructure. The latter objective includes a plan to provide a Gigabit connection for everyone in the European Union.

In order to implement such ambitious plans, the European Union introduced various texts that aim to support the roll-out of high-speed telecommunications networks by improving the economic conditions in which such investments are undertaken. Three texts are particularly interesting in that regard:

- **Directive (EU) 2018/19721** of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (EECC)[6]. One of the main features of the EECC is the identification of the objective of promoting connectivity and access to very high-capacity networks as one of the main objectives of economic regulation.

[4] Source: European Commission – link: https ://digital-strategy.ec.europa.eu/en/library/connectivity-european-gigabit-society-brochure#Objectives (last access on 20/11/2023)

[5] Source: European Commission – link: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en#:~:text=Everyone%20should%20have%20access%20to,and%20to%20fair%20working%20conditions.&text=Citizens%20should%20be%20able%20to,control%20over%20their%20own%20data.&text=Digital%20devices%20should%20support%20sustainability%20and%20the%20green%20transition. (last access on 20/11/2023)

[6] Source: European Commission – Link: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32018L1972 last access on 20/11/2023).

- **Directive 2014/61/EU** of The European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks (commonly known as the Broadband Cost Reduction Directive, BCRD)[7] and its proposed modifications by the Gigabit Infrastructure Act[8]. These texts aim to reduce the costs and reduce the cumbersome procedures that might present an obstacle to access physical infrastructure in the objective to deploy very high-capacity networks.
- **The European Commission's recommendation of 17 December 2007** on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation[9](**EC's 2007 Recommendations**).
- **The European Commission's recommendation of 20 September 2010** on regulated access to Next Generation Access Networks (NGA) (2010/572/EU), whose aim is to foster the development of the single market by enhancing legal certainty and promoting investment, competition and innovation in the market for broadband services in the transition NGAs and to set a common approach for promoting the consistent implementation of remedies with regard to NGAs, on the basis of a market analysis procedure.
- **The European Commission's recommendation of 11 September 2013,** on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (2013/466/EU), whose aim is to is to improve the regulatory conditions needed to promote effective competition, enhance the single market for electronic communications networks and services, and foster investments in NGA networks.
- **The European Commission's recommendation of 8 October 2014** on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation[10](**EC's 2014 Recommendations**).
- **The European Commission's guidelines of 7 May 2018** on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services (2018/C 159/01).
- **The European Commission's most recent recommendation of 18 Decembre 2020** on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation[11](**EC's 2020 Recommendations**).

Albanian National objectives and policies on broadband development are aligned with those of the European Union. On one hand, the Albanian government approved on 3 June 2020 the **National Plan for Sustainable Development of Digital Infrastructure, Broadband 2020-**

[7] Source: European Commission – link: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32014L0061 (last access on 20/11/2023)

[8] Source: European Commission – link: https://digital-strategy.ec.europa.eu/en/library/gigabit-infrastructure-act-proposal-and-impact-assessment (last access on 20/11/2023)

[9] Source: European Commission – link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007H0879 (last access on 04/12/2023)

[10] Source: European Commission – link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014H0710 (last access on 04/12/2023)

[11] Source: European Commission – link: https://ec.europa.eu/newsroom/dae/redirection/document/72437 (last access on 20/11/2023)

2025 (hereinafter referred to as “National Broadband Plan”) with an objective to develop **a digital infrastructure of high speed and very high-speed network across the country to build the fundament for a gigabit society.** On the second hand, the promulgation of law No. 120/2016 “On the development of high-speed electronic communications networks and ensuring right of way” aims to facilitate the deployment of very high-capacity networks, including over the physical infrastructure of utilities service providers sharing thus common features with the European BCRD.

In all cases, Albania is collaborating by the European Commission on the implementation of the EECC in the domestic legislation, which will fully align the latter with European Union policies.

In pursuit of the objective of Law no. 9918, dated 19.05.2008 "On Electronic Communications in the Republic of Albania" (amended) hereafter Law 9918 (amended), in its article 1, stipulating that “[*t]he purpose of the law is that through the principle of technological neutrality to promote competition and efficient infrastructure in electronic communications and guarantee appropriate and appropriate services in the territory of the Republic of Albania”*, the National Regulatory Authority, AKEP, decided to undertake a review of the existing ex-regulation of wholesale markets in light of the technological and market developments that occurred in the Albanian telecommunications sector since that previous market analysis established through decision N° 2701, dated 22.12.2016.

In accordance with the regulatory objectives set out in Article 7 of Law no. 9918, dated 19.05.2008, the market analysis process that is carried out considers and attaches special importance to the respect of the principle of technological neutrality and the promotion of effective competition in the provision of electronic communications networks, services, and associated facilities.

More precisely, the aim of the market analysis undertaken by AKEP is to review the competition in the retail markets of electronic communications services in Albania and, in compliance with *Regulation no. 9 of the analysis of markets according to the provisions of point 4 of article 31 (approved by the KD of AKEP with decision No. 747, dated 17.07.2009, as well as amended according to VKD no. 2342, dated 31.07.2013)*, assess whether an ex-ante regulation is warranted in the market listed in this Regulation.

In case such an intervention is warranted, AKEP will determine whether there exists one or multiple operators that hold a significant market power (SMP) in each of the markets and, in such case, determine the appropriate remedies to be imposed on SMP operator(s) to prevent them from abusing this power. In case a market is susceptible to ex-ante regulation but is not included amongst the markets listed in AKEP’s Regulation no. 9, the three-criteria test shall be conducted to assess whether the defined market is relevant for regulatory intervention or not.

This report is structured as follows:

- **Section 1** presents a description of the main developments of fixed broadband in Albania.
- **Section** Error! Reference source not found. studies the relevance of identifying a standalone physical infrastructure market and assess the relevant of imposing an ex-ante regulation on the wholesale market for inter-urban physical infrastructure.
- **Section** Error! Reference source not found. conducts an analysis of retail markets as well as the wholesale markets currently concerned by an ex-ante regulation in Albania.
- The last section of the report provides some concluding remarks.

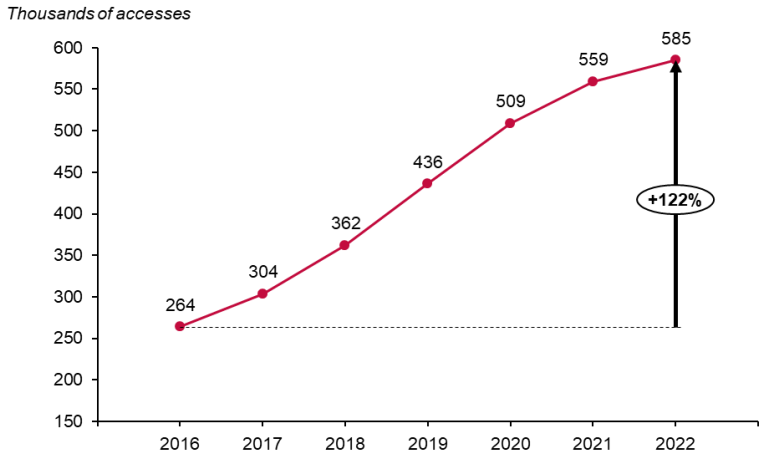
Finally, an annex presenting the results of a benchmark study of the regulation of wholesale fixed broadband markets in Romania, Montenegro, and France is included at the end of the document.

1 Description of the developments of fixed broadband in Albania

This section will study the main developments of the fixed broadband markets in Albania since the previous market analysis decision issued by AKEP in 2016. In particular, this section will address the accessibility of fixed broadband internet services since 2016 (**section 1.1**), the evolution of the penetration of fixed broadband internet services in recent years for both urban and rural areas (**section 1.2**), the different products and services currently provided in the market (**section 1.3**), the technological development of fixed broadband internet services highlighting the development of fibre (**section 1.4**), the development of fast and ultra-fast broadband services (**section** Error! Reference source not found.) the evolution of prices of fixed broadband internet services in Albania (**section 1.6**), and the positioning of telecom operators within the Albanian market (**section** Error! Reference source not found.).

1.1 The development of fixed internet accessibility in Albania

Figure 1 – Volume of fixed broadband accesses in Albania (2016-2022)



Source: AKEP's annual statistics reports

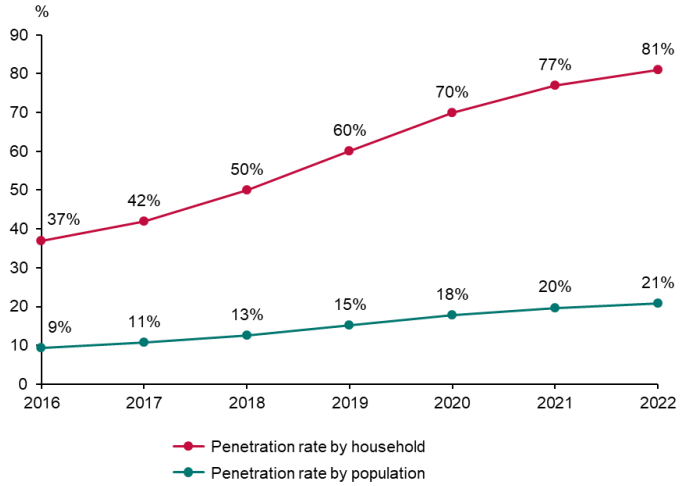
The retail market for broadband fixed access in Albania witnessed an important increase in the volume of lines sold since the last market analysis conducted by AKEP in 2016. As shown in Figure 1, the total number of lines more than doubled (+122%) in the last 6 years as it reached over 585 thousand active connections by the end of 2022, compared to around 264 thousand connections in 2016, representing thus an average annual growth of 14%. This growth continued in 2023 to reach over 603 thousand active lines by the end of the second quarter.

1.2 The improvement of fixed broadband penetration rates and the persistence of a digital divide across and within regions

The development of fixed broadband services in Albania can also be appreciated through the evolution of the penetration of broadband access from fixed networks by households and population.

As shown in Figure 2, less than 40% of Albanian households had access to a fixed broadband services in 2016. This rate rose over the years to reach 81% by the end of 2022[12][13].

Figure 2 - Penetration of broadband access from fixed networks by households and population[14]



Source: AKEP's annual statistical reports based on data collected from the operators

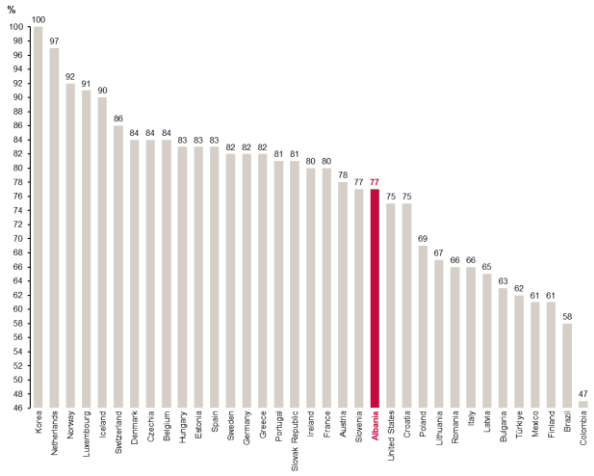
As shown in Figure 3, with 77% penetration rate in 2021, the fixed broadband penetration rate in Albania fared better than some Eastern European countries (Croatia, Poland, Lithuania, Romania and Bulgaria), the United States of America and other Latin Amercian countries, but remained lower than most western European OECD countries.

[12] According to INSTAT's report on the "Use of Information and Communication Technology in the Household, 2023", published on on December 12, 2023, "*90.4% or 660,136 families have access to the Internet with a fixed broadband network (optical or cable network, ADSL, etc.), an indicator which has increased by about 0.1 percentage points*". Source: https ://www.instat.gov.al/media/12854/ict-2023_shqip.pdf (last accessed on 25/12/2023).

[13] It should be noted that, the penetration rate of mobile broadband access with 3G and 4G technologies reached 77% of the population (2,1 million accesses) in 2022, compared to 63% (1,8 million accesses) in 2018. Source: AKEP 2020 annual statistical report, table 1, page 7. Link : https://akep.al/wp-content/uploads/2023/07/R2022_Treguesit-Statistikore-te-Tregut-te-Komunikimeve-Elektronike-DTMRr_.pdf (page 7) (last accessed on 25/12/2023).

[14] Population and household data are based on INSTAT's 2011 Census.

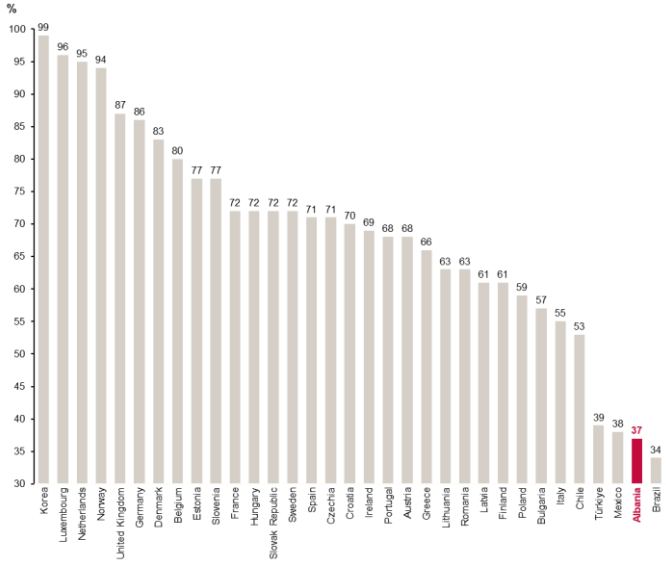
Figure 3 – Fixed broadband penetration rate by households in Albania vs OECD countries in 2021[15]



Source: AKEP data for Albania. For other countries, OECD Households with FIXED broadband Internet access at home: https://stats.oecd.org/Index.aspx?DataSetCode=ICT_HH2 (last access 21/11/2023)

Figure 4 highlights the progress made in Albania in terms of fixed broadband penetration since AKEP's previous market analysis. In 2016, with a penetration rate of only 37%, Albania was lagging behind all European countries for which data are available in OECD databases.

Figure 4 - Fixed broadband penetration rate by households in Albania vs OECD countries in 2016[16]



Source: AKEP data for Albania. For other countries, OECD Households with FIXED broadband Internet access at home: https://stats.oecd.org/Index.aspx?DataSetCode=ICT_HH2 (last access 22/11/2023)

Data collected regularly by AKEP from operators show that a significant digital gap still exists between different regions, as well as between urban and rural areas within regions. By the end

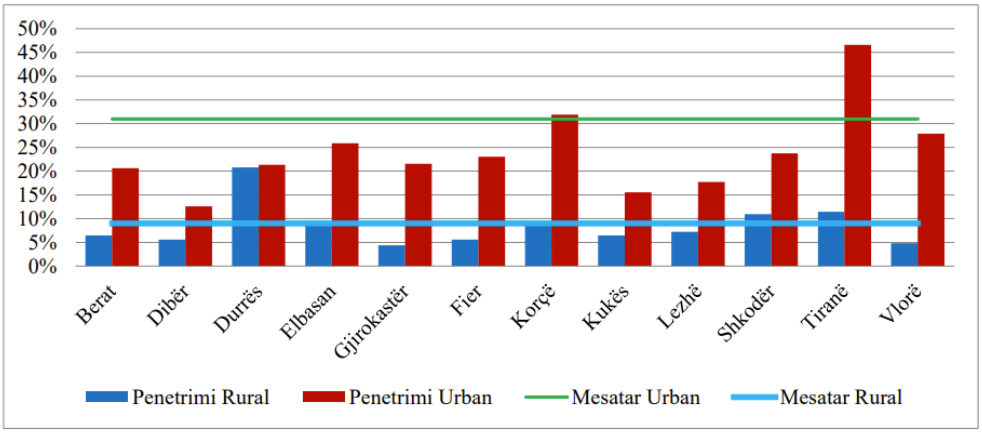
[15] Only countries with available data for 2021 are included in Figure 3.

[16] Only countries with available data for 2021 are included in Figure 4.

of 2022, the capital region of Tirana alone accounted for 45% of retail accesses sold in Albania. Furthermore, around 80% of retail accesses were provided in urban areas that represent 64% of the population[17], while rural areas that represent 36% of the population accounted for only 20% of broadband fixed accesses.

The issue of digial divide between rural and urban areas has been identified in the government's National Broadband Plan[18]in which the government estimated that in 2019 "*almost 90% of the total fixed connections are in urban areas and 10% in rural areas*". The gap between urbain and rural areas has thus been reduced between 2019 and 2022 as the share of connections in rural areas increased from 10% to 20%. Despite this improvement, the digital divide between urban and rural areas remains high.

Figure 5 - Fixed broadband penetration rate by population, by region in 2022



Source: AKEP annual statistics report, 2022 (Figure 9, page 16)

The persistence of such a divide has been also identified by AKEP. As demonstrated in Figure 5 above, the average penetration rate by popoulation in urban areas (31%, represented by the horizontal green line) is more than 3 times higher than in rural areas (9%, represented by the horizontal blue line)[19]. Even within urban areas, there exists a wide gap across regions. For example, the penetration rate by population in the urban areas of Tirana (over 46%) is significantly higher than in urban areas of Dibër (around 13%).

1.3 Overview of the fixed access offers available to end-users

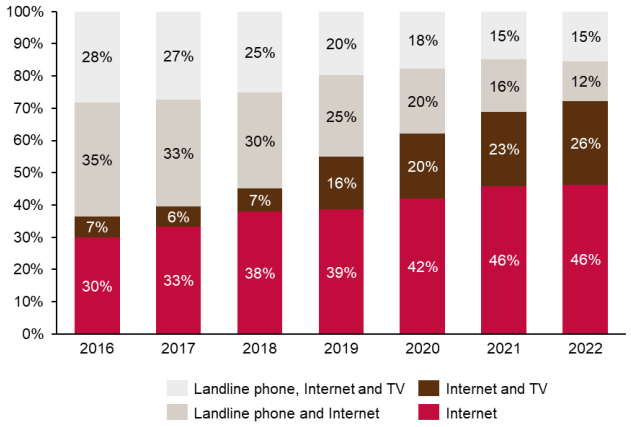
Telecom operators propose several services to their retail customers ranging from standalone internet access services to offers bundling three or four services. As fixed voice telephony decreases in usage and subscription, the share of bundled offers including other services increases in importance overtime.

[17] Source Macrotrends in 2020 : https://www.macrotrends.net/countries/ALB/albania/rural-population#:~:text=Albania%20rural%20population%20for%202021,a%203.16%25%20decline%20from%202020 (last access on 01/12/2023)

[18] See Figure 7 of the National Broadband Plan

[19] According to preliminary estimates, the penetration rate by household in urban areas by the end of the second quarter of 2023 was 87%, compared to 45% in rural areas.

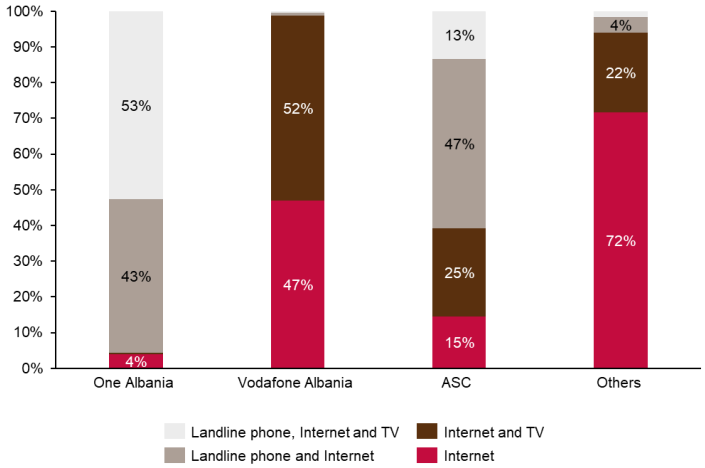
Figure 6 – Share of different bundled and unbundled fixed offers including an internet access service in 2022



Source: AKEP annual statistical reports

Figure 1 shows that offers that exclude voice telephony (i.e., standalone internet access and internet + TV) represented 72% of the total broadband offers in Albania by the end 2022, up from only 37% in 2016. This trend seems to continue as, by the end of second quarter of 2023, the share of offers that exclude voice telephony reached 73%.

Figure 7 – The composition of the operators' fixed services bundles in 2022



Source: AKEP annual statistical reports

Telecom operators are positioned differently regarding the bundles of fixed services currently proposed in the market. As shown in Figure 7, by the end of 2022, One Albania's main product offering remains *triple-play* offers (53%), with the offer bundling voice telephony and internet access the second most subscribed to offer by One Albania's customers (43%). This shows that voice telephony continues to be a structural part of One Albania's offers.

On the contrary, the majority of Vodafone's fixed broadband offers do not include voice telephony as the two main offers subscribed by Vodafone customers are the bundle internet + TV (52%) and standalone internet access (47%).

Albanian Satellite Communications (ASC)'s main offer is the bundle internet + voice telephony, which represents nearly half of the operator's offerings. In addition, 25% of ASC's customers are subscribed to the bundle internet + TV.

For the remaining operators combined, with 72% of total subscriptions, standalone internet access is the main offer to which end-users are subscribing with bundles including voice telephony representing only 6%.

1.4 Technological trends and the rise of fibre as the main access technology in Albania

There exists in Albania a variety of technologies through which fixed broadband services are currently available. The main fixed wireline networks deployed are:

- **copper networks through which operators are providing xDSL services**, which include ADSL, ADSL+, SDSL and VDSL/FTTC technologies. These services are differentiated with regard to the network segment covered by copper lines, the throughput of the access and whether the access allows for symmetrical download and upload speeds or not.
  ADSL services are often provided over copper lines from the central office to the end-user premise. They provide asymmetrical speeds with more download than upload capacities, making it suitable mostly for residential uses. The maximum download speeds provided through ADSL lines are usually limited compared to other technologies (often below 20 Mbps).
  VDSL/FTTC connections, however, rely on copper lines only from the street cabinet to the end-user's premise (covering usually between 500 and 1000 meters) with optical fibre deployed between the central office and the street cabinet. VDSL lines allow for higher speeds than ADSL lines. Such speed depends on the length of the copper terminating segment: the shorter the copper segment, the higher the speeds.
  Finally, SDSL lines provide end-users with symmetrical upload and download speeds, which makes it particularly useful for business uses.
- **optical fibre networks through which some operators are providing FttX services**, which include FttH, FttB and FttO services.
  FttH (Fiber-to-the Home) services are the most common fibre-based services in Albania. These services are provided over a full fibre access network (from the central office to the end-user's premise). There are often based on a GPON network architecture and use a mutualized (Point-to-Multipoint) fibre network to serve end-users. FttH services provide end-users with a throughput significantly higher than copper-based accesses. Currently in Albania, some operators are providing over 1 Gbps (and up to 2.5 Gpbs) connections over FttH.
  FttB (Fiber-to-the-Building) connections are comparable to FttH, except that in-building wirings (the vertical network) are provided over copper.
  Finally, FttO (Fiber-to-the Office) services are often provided over a full-fibre network for business users. In order to address the specific needs of business users (security, higher capacity needs, etc.), FttO services are often provided through a dedicated (Point-to-Point) network.
- **coaxial cable and Hybrid Fiber Coaxial (HFC) networks used to provide both Cable TV and internet access services.** Different cable technologies include DOCSIS.X.[20]. Since the release of the DOCSIS 3.1 specification in 2013, it improved

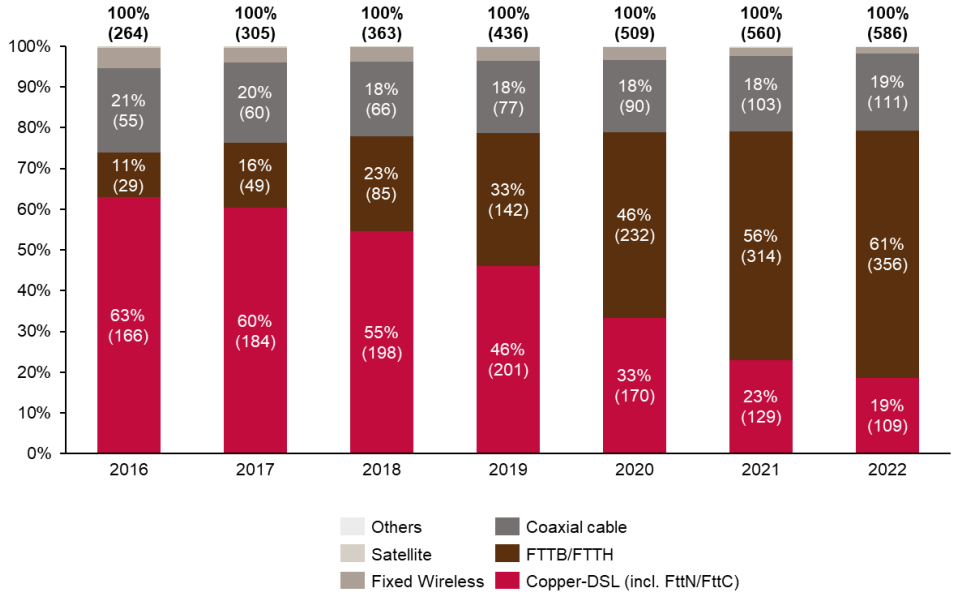
[20] DOCSIS stands for 'Data Over Cable Service Interface Specifications'. It is a globally recognised telecommunications standard which develops and provides for generations of specifications (DOCSIS 1.0, DOCSIS 1.1, DOCSIS 2.0, DOCSIS 3.0, DOCSIS 3.1, etc.).

the capabilities of cable operators across Europe to exert competitive pressure within European telecommunication markets as it can provide over 1 Gbps throughput and it does require major investments to upgrade from previous specifications (DOCSIS 2 and DOCSIS 3.0)[21].

In addition to wireline connections, other wireless connections are also available in the Albanian market. Such products include connectivity services that are provided over radio frequencies (i.e., the network used primarily to provide mobile services) at a fixed locations and satellite connections.

The share of fibre-based connections continues to grow overtime. In 2022, it has become the dominant access technology with 61% of connections provided over FttH/FttB networks, up from only 11% in 2016.

Figure 8 – Share of technologies for broadband access in Albania between 2016 and 2022 (volumes in thousands of accesses are indicated in parenthesis)



Source: AKEP annual statistical reports

Figure 8 shows that the growth of fibre connections from 29 thousand lines in 2016 to 356 thousand lines in 2022 is due to the overall increase in the total number of broadband connections in the market (from 264 thousand lines in 2016 to 586 thousand lines in 2022) and the migration from other DSL to fibre. Indeed, the volume of DSL lines decreased from 201 thousand lines in 2019 (which represented 46% of the market) to only 109 thousand lines in 2022 (which represents 19% of the market). This trend is expected to continue as operators are progressively migrating their accesses to fibre.

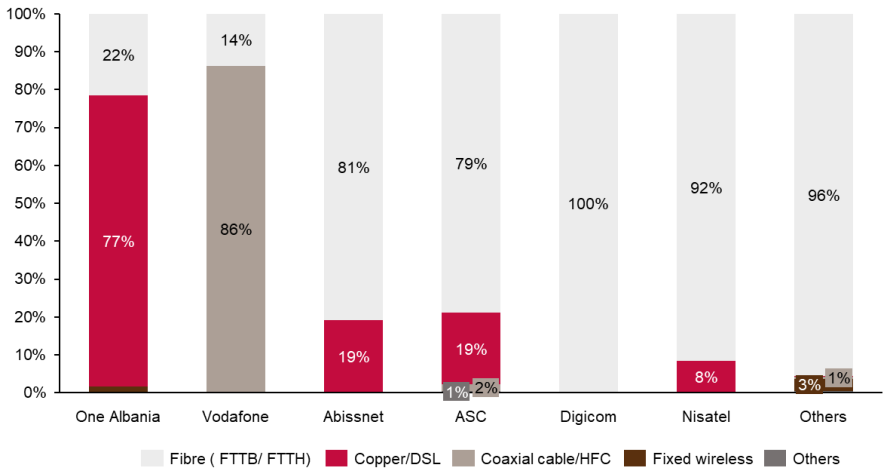
Coaxial cable connections doubled in volume between 2016 (55 thousand lines) and 2022 (111 thousand lines), with a relatively stable share in the total volume of connections ranging from 21% to 18%.

[21] Source: European Commission "Commission staff working document - Digital Economy and Society Index (DESI) 2019" – Section 2, page 43. Link: https://data.consilium.europa.eu/doc/document/ST-10211-2019-ADD-1/en/pdf (last access 25/12/2023).

Fixed broadband connections based on wireless technologies represent a minor part of the total broadband connections. In 2022, fixed wireless and satellite connections represented only 1% of total fixed broadband subscriptions in Albania.[22]

Despite the general tendency of all fixed broadband service providers to prioritise fibre connections and to gradually migrate services provided over other networks to fibre, technological differences in the portfolio of offers currently provided by each operator persist.

Figure 9 - Share of technologies for broadband access by operator in 2022



Source: AKEP annual statistical reports

Figure 9 shows that, One Albania and Vodafone still rely heavily on their historical copper and HFC networks respectively. On the contrary, other operators that deployed their networks more recently offer their services predominantly over fibre.

1.5 The evolutions of broadband speeds and the increase of the share of fast and ultra-fast broadband

With technological progress, especially the roll-out of fibre networks, and the growing need for higher quality internet, connection speeds in the retail market are constantly increasing.

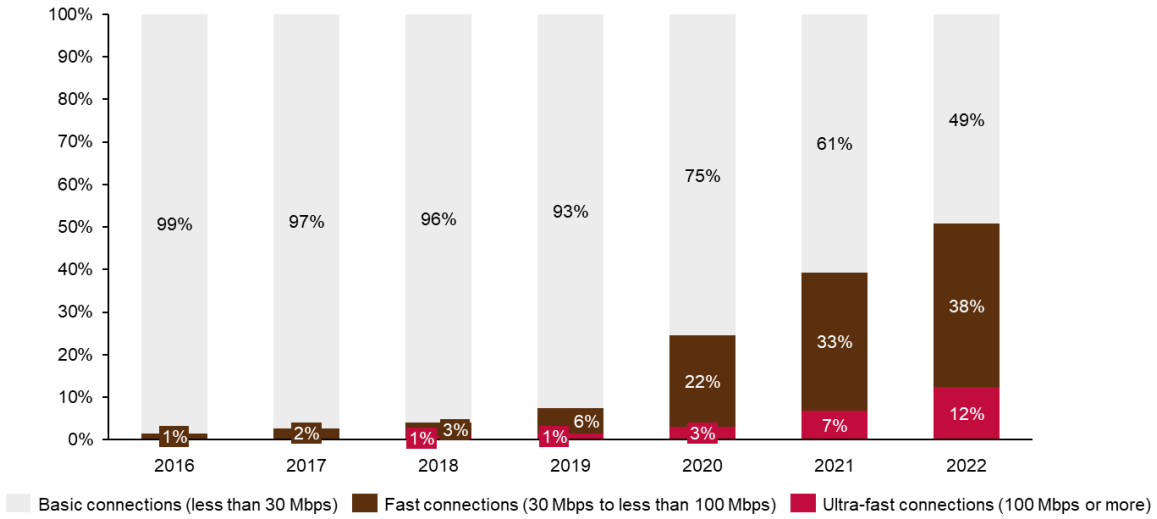
According to the European Commission's standards, broadband connections could be classified into three categories[23]:

- '**Basic broadband**' for download speeds less than 30 Mbps;
- '**Fast broadband**' for download speeds between 30 and less than 100 Mbps; and
- '**Ultra-fast broadband**' for download speeds of 100 Mbps or more.

[22] The share of fixed wireless access has increased starting from the first quarter of 2023 following the the integration of One Albania's "HomeNet" subscriptions with the operator's fixed connections. Despite this increase, the share of wireless fixed connections remains marginal compared to other technologies.

[23] Source: European Commission "Commission staff working document - Digital Economy and Society Index (DESI) 2019" – Section 2, page 6. Link: https://data.consilium.europa.eu/doc/document/ST-10211-2019-ADD-1/en/pdf (last access 22/11/2023).

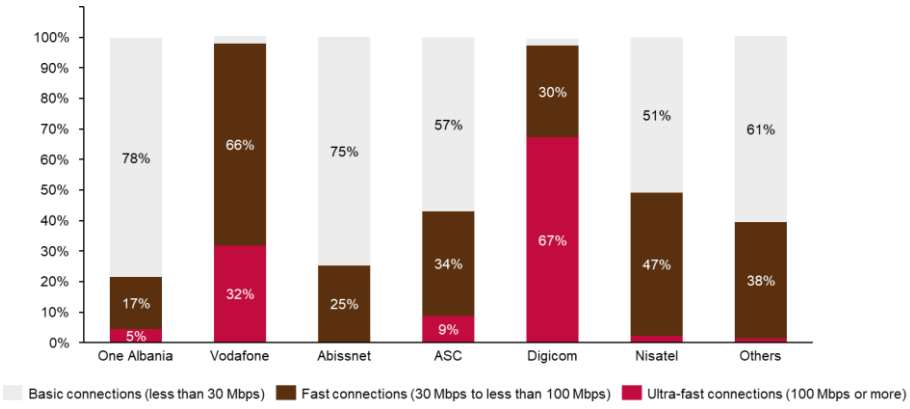
Figure 10 – Broadband categories subscribed by fixed broadband customers in Albania (2016-2022)



Source: AKEP annual statistical reports

Figure 10 shows that the share of fast and ultra-fast broadband connections increased significantly since 2020. In 2016, connections providing 30Mbps or higher represented only 1% while in 2022 this share reached 51%. This trend is expected to accelerate in the upcoming years as download speeds are increasingly becoming a competitive leverage upon which internet service providers rely upon to attract subscribers. Currently, some internet service providers propose residential internet connections with up to 2,5 Gbps download speed.

Figure 11 – Broadband categories subscribed by fixed broadband customers by operator (2022)



Source: AKEP annual statistical reports

In order to illustrate the difference in download speeds currently provided by different retail internet service providers in Albania, Figure 11 present the share of basic, fast and ultra-fast broadband connections currently subscribed by the customers of some of the main broadband service providers in Albania. It should be noted that these results are influenced by the technology upon which each operator provides its services. It is expected to observe that operators that rely on historical network (such as copper/DSL for One Albania) provide a higher share of basic broadband connection than operators that provide their services exclusively

over fibre. This is due to the lower theoretical download speeds that could be provided over copper compared to fibre.

1.6 Overview of the developments of internet prices

The analysis of market prices is a relevant indicator to assess the development of competition in retail markets. This assessment is undertaken both compared to other countries and within Albania between operators and over time.

In order to establish a comparable basis for broadband services in Albania and in other countries, the analysis is conducted by ranges of download speeds. Three ranges are selected based on the availability of the data and the importance of these ranges:

- download speeds from 12 Mbps to less than 30 Mbps, representing 'basic broadband connections;
- download speeds from 30 Mbps to less than 100 Mbps, representing 'fast broadband connections; and
- download speeds from 100 Mbps to less than 200 Mbps, representing 'ultra-fast broadband connections.

Each of the categories listed above are evaluated for i) standalone internet access services and ii) triple-play offers bundling internet access, voice telephony and TV services.

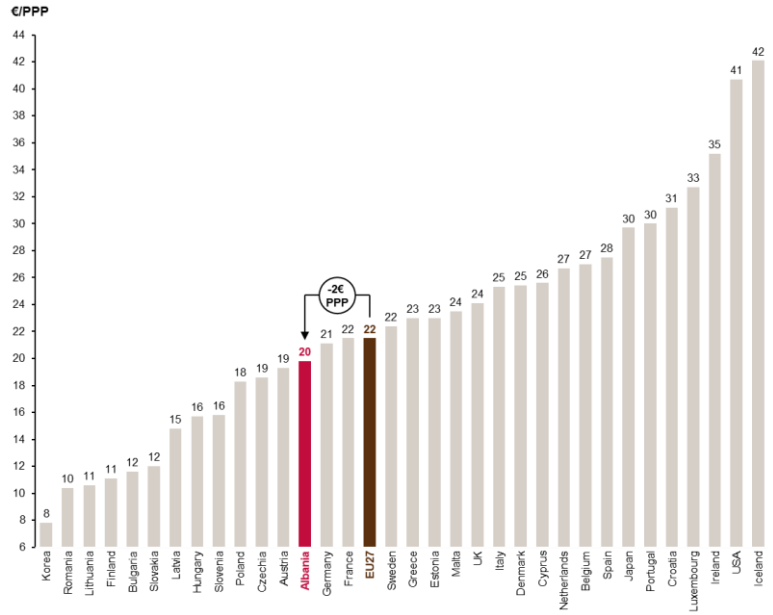
The prices chosen for the comparison correspond to the lowest prices offered in each country in 2021[24]. In the case of Albania, these prices are collected from telecom operators are published in the report entitled "*tarifat e sherbimit nga rrjete fikse dhe internet broadband ne shqiperi*" of December 2021.

Furthermore, to establish a comparable basis for prices, all prices are converted in Euros and corrected for purchasing power parities[25]. For Albania, following this treatment, the exchange rate used in the analysis is 1 EURO = 60,5 LEK.

[24] The choice of 2021 is motivated by the availability of complete data published by the European Commission in its report "Mobile and Fixed Broadband Prices in Europe in 2021".

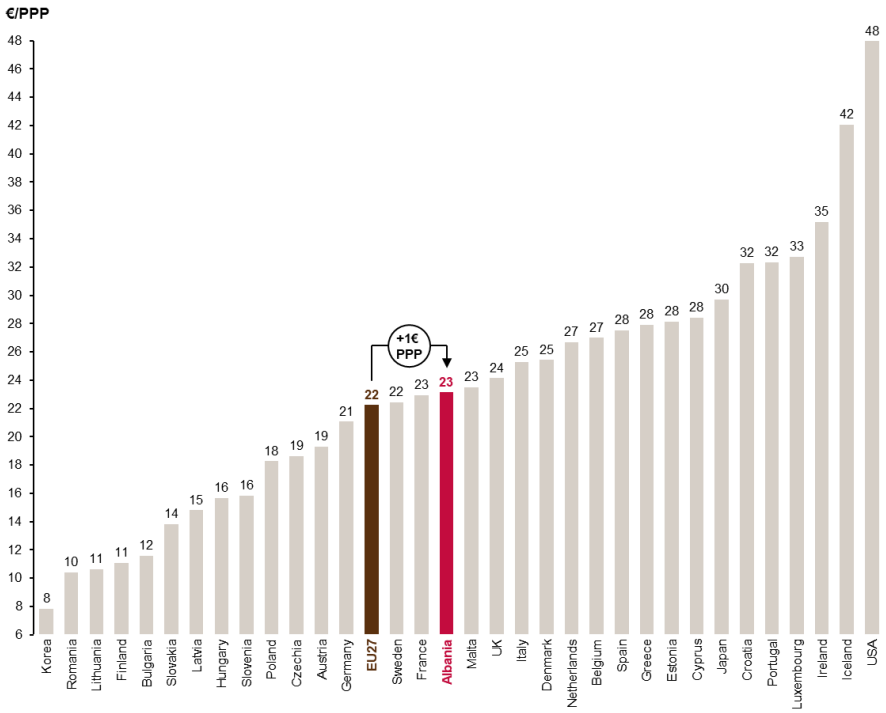
[25] The OECD defines the Purchasing Power Parties (PPP) as "*the rates of currency conversion that equalize the purchasing power of different currencies by eliminating the differences in price levels between countries. In their simplest form, PPPs are simply price relatives that show the ratio of the prices in national currencies of the same good or service in different countries. PPPs are also calculated for product groups and for each of the various levels of aggregation up to and including GDP*". Source: https://www.oecd.org/sdd/purchasingpowerparities-frequentlyaskedquestionsfaqs.htm

Figure 12 – Comparison of monthly fees for standalone fixed broadband access with a download speed between 12 Mbps and less than 30 Mbps in 2021[26]



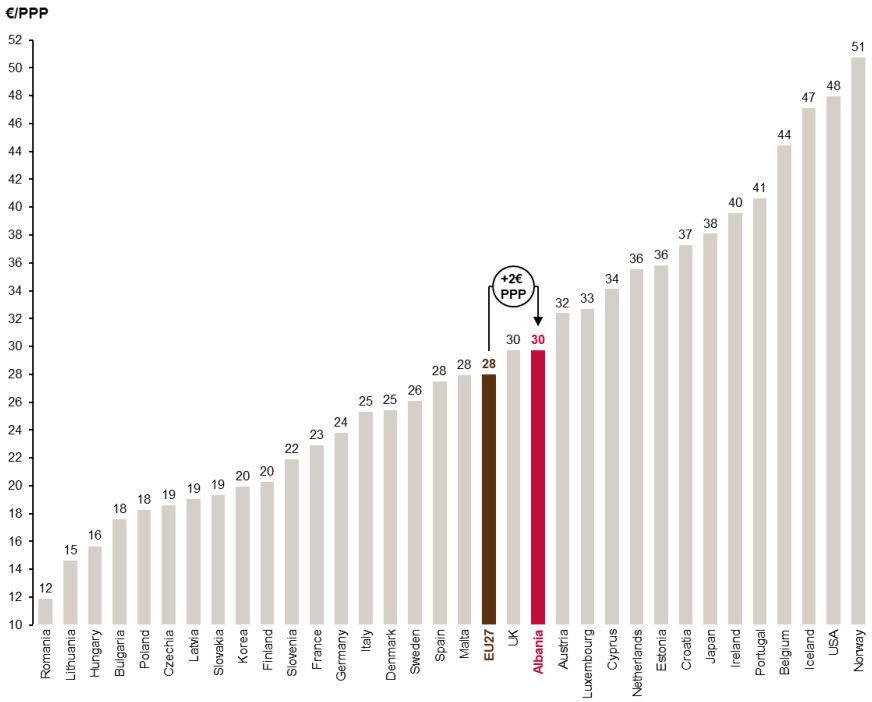
Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report.

Figure 13 – Comparison of monthly fees for standalone fixed broadband access with a download speed between 30 Mbps and less than 100 Mbps in 2021[27]



Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report

Figure 14 – Comparison of monthly fees for standalone fixed broadband access with a download speed between 100 Mbps and less than 200 Mbps in 2021[28]



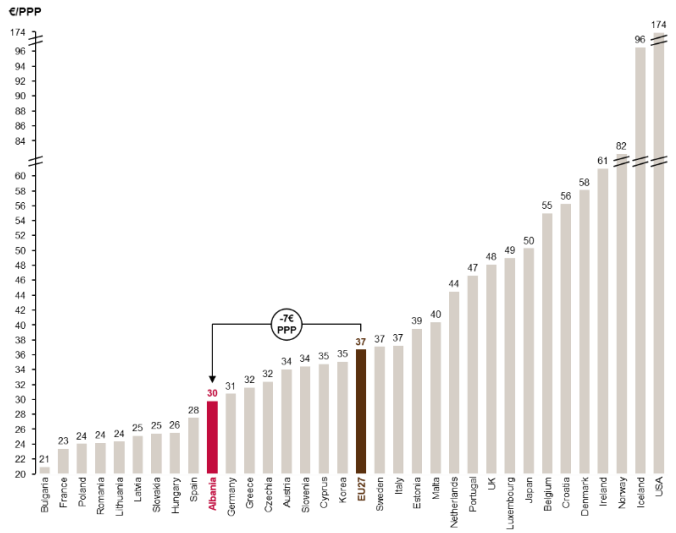
Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report

As shown in Figure 12 to Figure 14, the prices of standalone fixed internet access services are quite close to the average price in the European Union[29], with a difference ranging between -2€/PPP for basic broadband connections to +2€/PPP for ultra-fast broadband connections.

[28] For Albania, the offer taken as a reference was provided by Vodafone. It proposed 100 Mbps download speed and 8 Mbps upload speed at a price of 1 800 LEK/month.

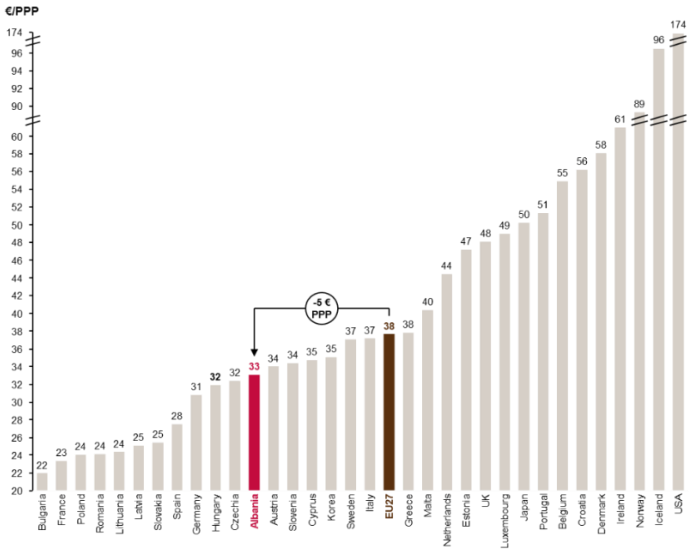
[29] For each category, the average price in the European Union, referred to as "EU27" in each Figure, is calculated as the arithmetic average of the lowest prices in all 27 countries member of the European Union.

Figure 15 – Comparison of monthly fees for triple-play fixed broadband access with a download speed between 12 Mbps and less than 30 Mbps in 2021[30]



Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report

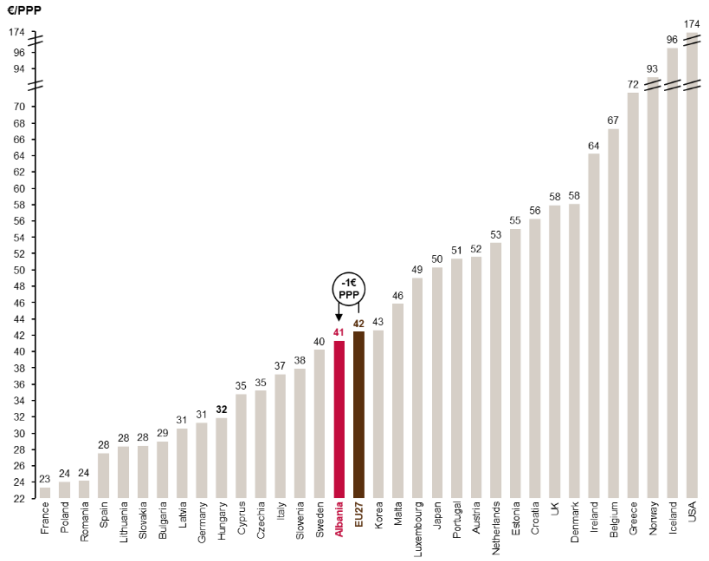
Figure 16 – Comparison of monthly fees for triple-play fixed broadband access with a download speed between 30 Mbps and less than 100 Mbps in 2021[31]



Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report

[30] For Albania, the offer taken as a reference was provided by Albtelecom (now One Albania). It proposed 16 Mbps download speed and 3 Mbps upload speed at a price of 1 800 LEK/month.

Figure 17 – Comparison of monthly fees for triple-play fixed broadband access with a download speed between 100 Mbps and less than 200 Mbps in 2021[32]



Sources: AKEP data collected from operators for Albania. For other countries, the EC's "Mobile and Fixed Broadband Prices in Europe in 2021" report

For bundled offers that include internet access, voice telephony and TV services, Figure 15 to

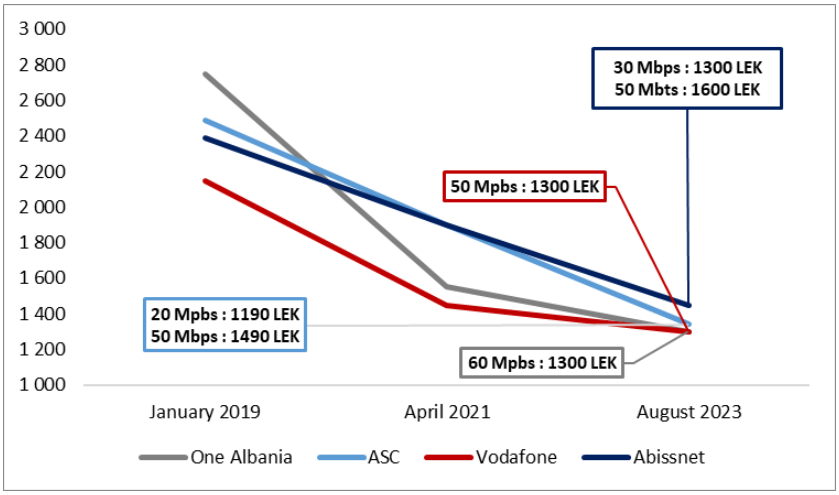
[31] For Albania, the offer taken as a reference was provided by Albtelecom (now One Albania). It proposed 30 Mbps download speed and 5 Mbps upload speed at a price of 2 000 LEK/month.

[32] For Albania, the offer taken as a reference was provided by Albtelecom (now One Albania). It proposed 100 Mbps download speed and 10 Mbps upload speed at a price of 2 500 LEK/month.

Figure 17 show that the prices offered by broadband service providers in Albania are consistently lower than the average prices observed in countries members of the European Union. The difference in prices ranges between -7€ PPP for basic broadband connections to -1€ PPP for ultra-fast broadband connections.

Overall, the prices offered by broadband service providers in Albania are consistent with the level of prices proposed in other countries in the European Union.

Figure 18 – Evolution of the average price (LEK/month) of Internet standalone packages delivering connection speeds between 20 Mbps and 60 Mbps for 24-month commitment.



Source: AKEP's annual statistical reports based on data collected from the operators

To assess the evolution of prices overtime within Albania, the analysis conducted in **Error! Reference source not found.** shows that the prices offered by the largest Albanian operators[33]. This data shows that, during the last 4 years, the prices offered by some of the main operators in Albania remained comparable and tend to converge toward a lower price, probably reflecting more closely the underlying costs of the service.

This analysis shows that, on a national level, there exists a functioning price competition in retail fixed broadband markets.

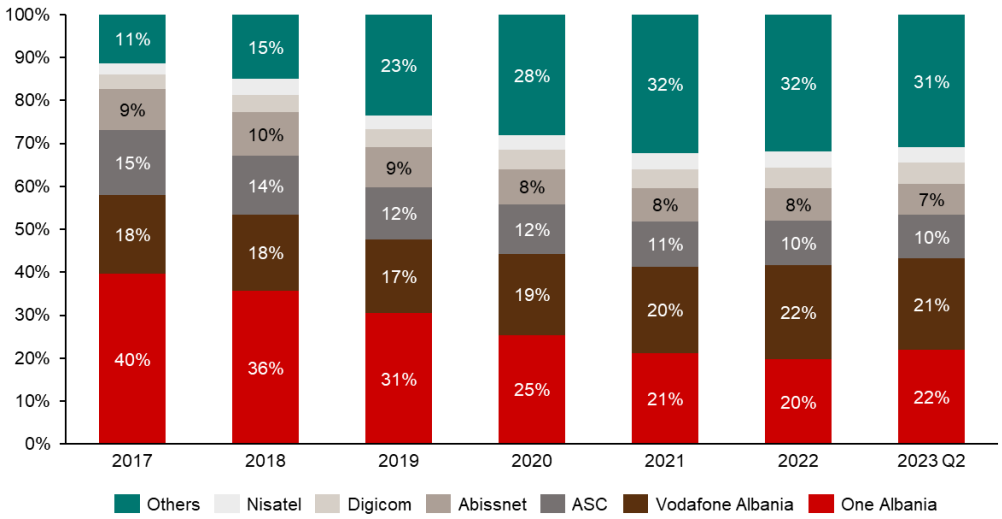
1.7 Development of competition between operators through the analysis of market shares

By the end of 2021, they were a total of 240 licensed fixed operators providing services in Albania[34]. The presence of such large number of active providers in the markets signals low barriers to entry, an important feature of a healthy competition.

[33] The analysis conducted in **Error! Reference source not found.** is undertaken exclusively for standalone internet access services because such offers are common between the largest internet service providers and, as shown in Figure 6, they represent an important growing share of the total broadband services provided in Albania. The choice of the offers proposing 20 Mbps and 60 Mbps is made to capture speeds covering the main categories in terms of volume: basic and fast broadband connections.

[34] Source: AKEP annual report, page 52. Link: https://akep.al/wp-content/uploads/2022/09/Akep-Raport-vjetor-2022_20-shtator.pdf

Figure 19 – Evolution of market shares in Albania between 2017 and the second quarter of 2023



Sources: AKEP data collected from operators

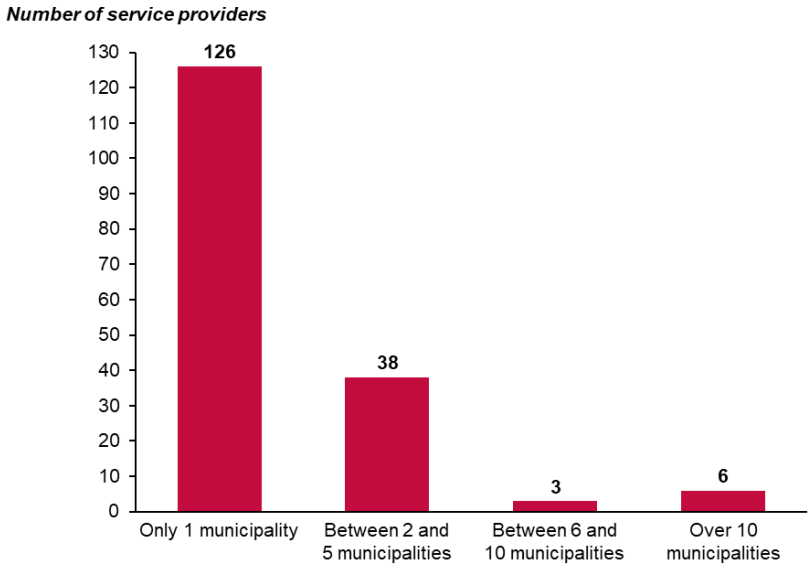
On a national level, competition has developed since AKEP issued its previous market analysis. During the last six years, the market share of the largest operator, One Albania, reduced by half as it reached only 20% in 2022 compared to 40% in 2017. Furthermore, in 2022, and for the first time, One Albania lost its historical position as the market leader as Vodafone became the largest operator in the market with 22% of market share[35].

A main feature of the development of competition in the Albanian market is the rise in importance of small operators. The combined market share of the six largest operators in Albania decreased from 89% in 2017 to 68% by the end 2022. Nevertheless, the growth of the market share of smaller operators seems to have come to a halt since 2022.

Most operators in Albania are of a small size and have a network presence limited to specific geographic areas, especially in urban or in rural areas in the proximity of urban centres. Few of the operators in this market have broad coverage as most of broadband service providers compete in smaller segments and are mainly local providers.

[35] According to AKEP's latest market report for the second quarter of 2023, after the integration of One Albania's "HomeNet" subscriptions with the operator's fixed connections, One Albania regained its position as the market leader with 22% of market shares, only 0,5% higher than its closest competitor, Vodafone.

Figure 20 – Geographic coverage of operators by the number of municipalities as of the second quarter of 2023[36]



Sources: AKEP data collected from operators

Figure 20 show that, with the exception of 9 operators, all fixed broadband service providers are present in less than 6 out of the 61 municipalities of Albania. Only the largest operators (One Albania, Vodafone, ASC, Abissnet, Digicom and Nisatel) provide services in more than 10 municipalities.

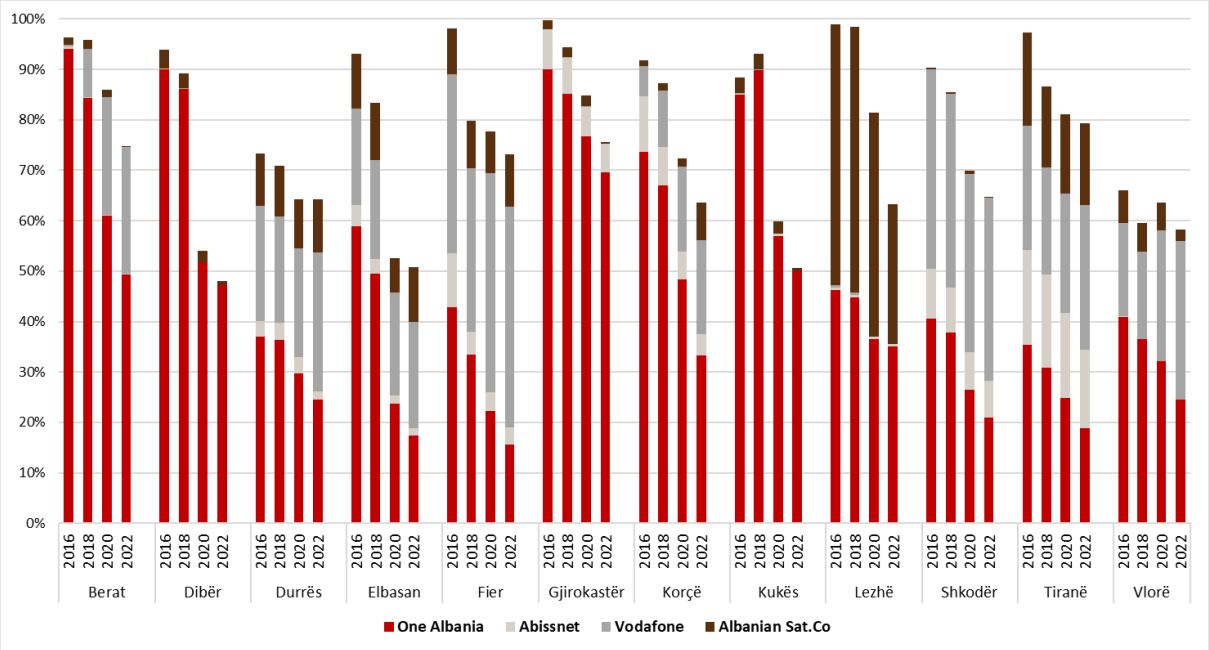
Furthermore, there exists a gap between the geographic coverage of urban and rural areas by the largest operators. Indeed, the networks of these operators cover mostly urban areas and is absent from many rural areas.

Both the limited geographic coverage of most operators and the distinction between urban and rural areas signals that market condition vary across the Albanian territory and that competition is determined, to some extent, locally rather than nationally.

The analysis below aims to assess competition in the retail fixed broadband market at a finer geographic level by distinguishing, within each of the twelve Albanian regions, between urban and rural areas.

Figure 21 – The evolution of the market share of some of the main operators in urban parts of each of region between 2016 and 2022

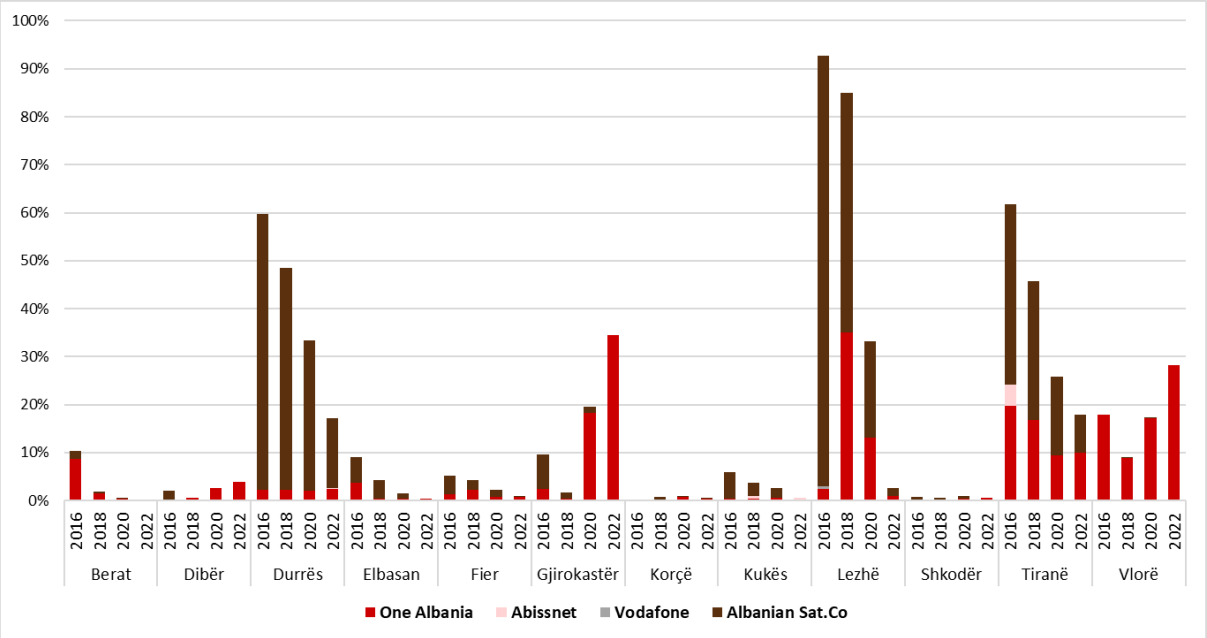
[36] These data are based on the data submitted by operators for the second quarter of 2023. Data for some licensed operators are missing due to reporting issues. However, the operators whose data are missing are mostly small local operators covering either only one municipality or very few municipalities. As such, the observations drawn from Figure 20 remain valid.



Sources: AKEP data collected from operators

Figure 21 shows that the market share of the largest 4 operators in Albania decreased between 2016 and 2022 in the urban areas of all twelve regions. One Albania have lost the most market shares, while Vodafone have increased its market share across many regions especially from 2020 onwards.

Figure 22 – The evolution of the market share of some of the main operators in rural parts of each of region between 2016 and 2022



Sources: AKEP data collected from operators

The market shares of the main operators in rural areas are much lower compared to urban areas. In some regions such as Berat, Dibër, Elbasan, Fier, Korçë, Lezhë and Shkodër they scarcely have any presence in rural areas. End-users in these areas are almost entirely connected by smaller local operators.

In rural areas of Durrës, Lezhë and Tiranë, ASC used to have a high market share in 2016 (up to 90% in Lezhë). However, their market share decreased significantly as ASC currently represents a minor market share (14%,1% and 7% respectively) in these areas.

In 2022, One Albania has a relatively important presence in the rural areas of three regions: Gjirokäster with 35% market share, Tiranë with 10% market share and Vlorë with 28% of market share.

Question 1: Do you have any comment on the analysis of the main developments of fixed broadband presented section 1?

2 Analysis of physical infrastructure markets

The European Commission's SMP Guidelines specify that[37], in conducting a market analysis, national regulatory authorities should start their analysis by considering whether retail markets would be competitive in a situation where there is no wholesale regulation; this is known as the "Modified Greenfield Approach". In case of a failure of competition development in absence of regulation, regulatory authorities would then assess the relevance of introducing ex-ante regulation in the corresponding wholesale markets, starting at the most upstream market.

The most upstream wholesale market is the market for access to physical infrastructure. Indeed, in most cases, all fixed electronic communications services are provided through a common physical infrastructure.

As such, the starting point of this analysis would be the analysis of the physical infrastructure and the assessment of whether it is relevant and/or sufficient to impose ex-ante remedies related to physical infrastructure access in order to address potential competition issues at the retail markets.

In its 2020 Recommendation[38], the European Commission addressed the issue of whether a standalone wholesale market for physical infrastructure access should be identified or, as it is

[37] Source: the European Commission's "Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services", recital 26, link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507(01) (last access on 23/11/2023)

[38] Commission's staff working document, Explanatory Note Accompanying the document Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code.

common in many European countries and currently in Albania; access to physical infrastructure should be considered as a remedy in other markets (such as Wholesale Local Access). While the European Commission did not opt to include a standalone physical infrastructure access in its recommendation due to the diverse characteristics of physical infrastructure networks across Member States, it has recognized the merits of such approach already implemented in countries such as France and the UK. As such, the European Commission left this issue to the appreciation of national regulatory authorities.

In assessing the relevance of imposing ex-ante regulation in the form of a standalone market as part of SMP regulation, regulatory authorities should consider other texts and regulations to assess whether they are sufficient to address competition issues in downstream markets.

To that end, Article 72 of the European Electronic Communications Code gives national regulatory authorities the power to impose obligations on undertakings with significant market power to meet reasonable requests for access, and use of, civil engineering, irrespective of whether the assets that are affected by the obligation are part of the relevant market in accordance with the market analysis. As such, specific physical infrastructure access remedies can be imposed as part of other (more downstream) markets when denial of access, or access given under unreasonable terms and conditions having a similar effect, would hinder the emergence of a sustainable competitive market and would not be in the end users' interest.

Furthermore, to further guide national regulatory authorities in choosing the most appropriate remedies to ensure fair and proportionate access conditions to physical infrastructure, the European Commission identified some situations in which the relying on Article 72 of the European Electronic Communications Code would be considered as a practical and efficient alternative to the delineation of a separate physical infrastructure access (PIA) market. These situations include:

- In the short term, in Member States where infrastructure-based competition is emerging and/or where it is unclear if PIA will play a significant role in driving infrastructure-based competition and new market entry;
- In the longer term, in Member States where a ubiquitous physical infrastructure network owned by a single operator is not present (ex. Germany) or demand for PIA is absent or very limited (ex. Sweden), and therefore a separate PIA market cannot be clearly defined or distinguished;
- Where SMP-based PIA is not or might not be the trigger for deployments, or where it is only imposed to a limited extent, if at all, this approach could be particularly appropriate.

The remaining of this section will be dedicated to the analysis of whether the identification of a standalone PIA market is appropriate is Albania and the relevance of introducing SMP-based obligations to ensure a fair, reasonable, and reliable access to physical infrastructure by network operators for the deployment of very high-capacity networks.

2.1 Market definition

There are several physical infrastructures in the Albania which could potentially support the deployment of telecoms networks by third party access seekers. These vary in the network segment they cover, the extent of their geographic coverage, the topography of the areas they cover, the type of end-users they connect, the way in which they connect to end-users and the main economic activity of the operators in charge of their deployment and maintenance.

2.1.1 Product market definition

The European Commission's SMP Guidelines specifies that, when defining a market, regulatory authorities should group together products and services that are often used by consumers for the same purposes.

The product definition of markets is based on an analysis of:

- **Demand-side substitutability:** two products belong to the same market if they are sufficiently "interchangeable" in terms of use, characteristics, pricing, distribution conditions and the costs of switching from one product to the other.
- **Supply-side substitutability:** this measures the likelihood and ability of an operator not currently present on a given market to enter it rapidly in response to a change in market conditions (especially an increase in prices).

In order to determine the appropriate product market definition, AKEP proposes duct access products provided by electronic communications providers as a focal product and assesses the substitutability between the following:

- Active services and passive infrastructure
- Local and national infrastructure
- Access to ducts and access to dark fibre
- Access to ducts and access to poles

2.1.1.1 Absence of substitutability between active services and passive infrastructure

Access to the passive infrastructure constitutes an input that can be used by network operators to expand their geographic footprint to provide services either to their end-users or provide activated services to other operators. Activated services include leased lines provided over traditional (PDH/SDH) or alternative (Ethernet) technologies, as well as fibre optic lines over DWDM equipment. The higher the operators climb the ladder of investments, the more they tend to prioritise access to passive elements as this offers them greater flexibility and more control over the quality of services, they offer to their customers based on their own active solutions. In addition, this allows them to have a greater ability to adapt to the market conditions.

At the same time, the large differences in access fees to active and passive infrastructure lead to a low level of substitutability. Indeed, developing a network through passive elements requires important investments and sunk costs, while renting activated services are usually associated with recurrent operational costs. Therefore, on the demand side, access to active infrastructure cannot be considered a close substitute for access to passive infrastructure.

On the supply side, a passive infrastructure owner usually has the ability and the economic interest to offer active infrastructure, albeit not without cost to deploy the appropriate active equipment and manage the service. Nevertheless, it is recurrent that network operators who own passive infrastructure invest to develop active services as the latter usually are more profitable. However, the deployment of a passive infrastructure by an operator who provides active services is more difficult. Indeed, the investment to deploy a ubiquitous passive network requires important sunk costs rendering such an investment unlikely to materialise in a reasonably short timeframe. A provider of activated services cannot easily provide passive infrastructure services, especially in the local network segments where the deployment of a

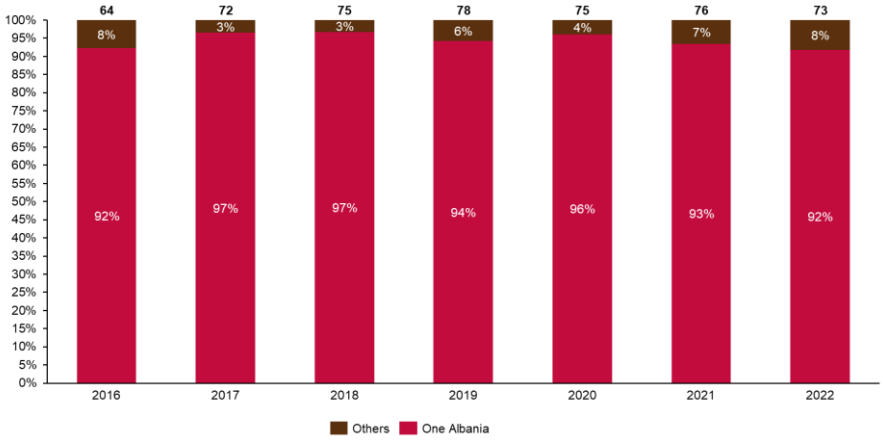
physical infrastructure (especially ducts) is more costly and associated with more administrative complexities.

In conclusion, access to active and passive infrastructure are not part of the same respective market.

2.1.1.2 Absence of substitutability between local and national infrastructure

Network-based competition is developed in Albania, especially in zones where alternative operators are offering their services to end-users. Despite the important increase in the number of retail broadband connections since 2016 (Figure 1), the volume of wholesale duct capacities sold in the market (mainly by One Albania), despite its availability on a regulated basis, did not follow the same trend.

Figure 23 – Length of ducts (in Km) rented on the wholesale market in Albania between 2016 and 2022



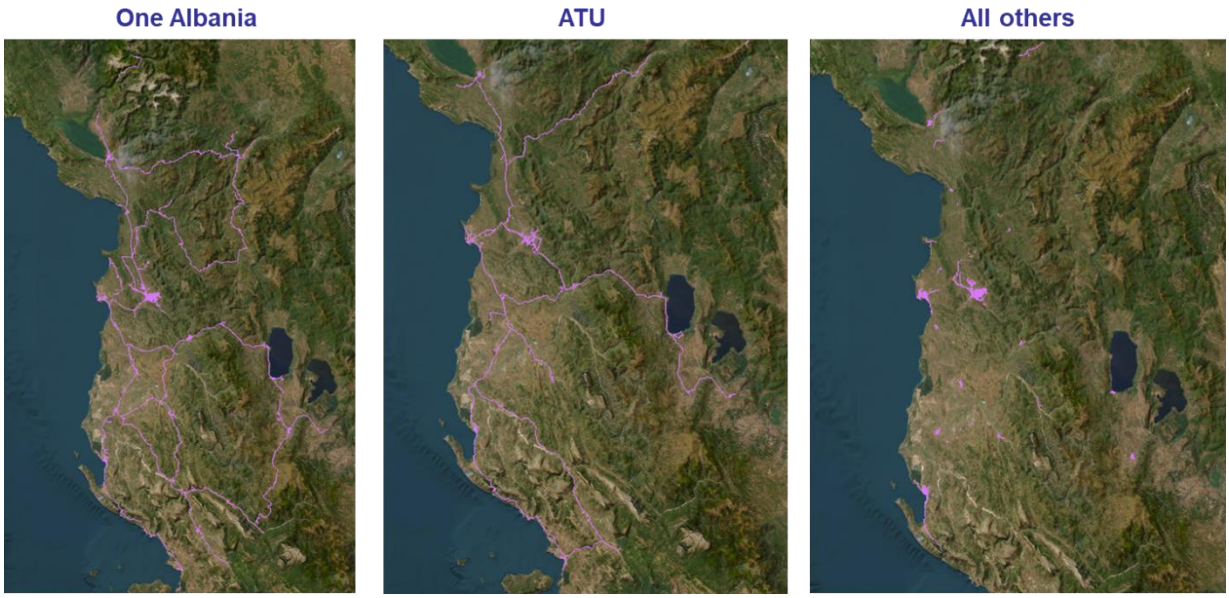
Sources: AKEP data collected from operators

As shown in **Error! Reference source not found.**, after a period of limited growth between 2016 to 2019 (from 64 Km to 78 Km respectively), the overall length of ducts rented in the market seems to have stabilised. One Albania remains the main wholesale duct provider in the country with 92% (67 Km) in 2022, but it provides each year a decreasing volume since 2019. In the second quarter of 2023, the volume of duct access provided by One Albania further decreased to 63 Km.

The absence of a relation between the volume of ducts rented in the market and the overall increase in broadband connections shows that alternative operators usually use their own physical infrastructure to deploy local networks, despite the availability of a regulated local duct access offer from One Albania.

However, the footprint of almost all alternative fixed networks remains limited to local areas such as cities or attractive rural areas. Despite, the important investments made by alternative operators in local networks, the investments in the national/inter-urban backbone network remain limited to only two providers: One Albania and ATU.

Figure 24 – Geographic coverage of the duct networks of One Albania (left), ATU (middle) and all other operators combined (left)



Sources: AKEP ATLAS based on data collected by operators (last accessed on 29/11/2023)

As shown in **Error! Reference source not found.**, the duct networks of One Albania and ATU have a significantly higher geographic coverage of the main inter-urban roads than other operators, whose duct networks exists almost exclusively within cities.

From a supply point of view, AKEP does not consider urban and inter-urban duct networks as substitutable.

On the one hand, there exist differences in the administrative process to deploy a physical infrastructure in local networks and inter-urban/national networks. The former is usually managed by local governments which have their own procedures and time frames for permit granting. While there are efforts to harmonize such procedures and time frames nationally, differences across local government units persist. In addition, each local zone has its own specificities in terms of existing municipal infrastructure to which access conditions may vary. However, granting permits for inter-urban/national networks is usually handled by central government and involves more streamlined procedures. As an illustration, ATU's deployed its inter-urban network mainly based on the Ministry of Public Works and Transport Order no. 120, dated 23.08.2010 granting a permission to ATU for the construction of the fibre optic network in the national axes of the Republic of Albania.

As such, an operator looking to develop a national backbone network will face different administrative procedures than an operator looking to develop a local network.

One the other hand, the cost of developing a national backbone network is different from the cost of developing local networks with ubiquitous geographic coverage due to the difference in network size, the differences in cost that may exist for civil works within cities and across national roads and the nature of costs associated with each network (such as drop cable and

inhouse cabling for local networks) which often constitute a significant share the main cost of deployment[39].

From the demand point of view, access to passive infrastructure in local areas and inter-urban connections serve different purposes. In local areas, duct access is mainly used for the local network and connection to end users, while in inter-urban areas it serves for connection to parts of the network in other geographical areas and/or for core network solutions. Demand-side substitutability is this not established.

In conclusion, access to local and national passive infrastructure are not part of the same market.

2.1.1.3 Substitutability between ducts and dark fibre

AKEP's 2016 market analysis decision included both ducts and dark fibre within the same inter-urban passive infrastructure market. This conclusion was based on the following arguments:

- On the supply side, the biggest costs of the passive infrastructure are the civil works. Once the network is built and ducts are installed, dark fibre or other types of cables can be placed easily and without high additional costs. Therefore, a provider of duct capacity can easily provide dark fibre.

- On the demand side, access to ducts is necessary to lay optical cables that enable technical solutions for the operator's network that benefits from this access. Since dark fibre allows the other operator the configurations and technical solutions necessary for its network, the requesting operator considers access to ducts and access to dark fibre as close substitutes, in the conditions when the rates of the two services do not have large differences.

AKEP believes that the same analysis is valid for both local and inter-urban passive networks and proposes thus to consider dark fibre and duct access as substitutes.

2.1.1.4 Partial substitutability between ducts and poles

Access to ducts and access to poles are two ways to deploy electronic communications cables, including fibre.

On the one hand, ducts are used for laying the infrastructure underground, which is considered the most technically safe, high-quality, and cost-effective method of network deployment. On the other hand, poles are used for aerial cable connections and are associated with lower costs, more frequent technical security problems and faster degradation.

On the demand side, both infrastructures could be considered as substitutable in areas where they are both deployed. Indeed, despite the difference in some of their technical and economical features, they could be considered as substitutable because they both serve the same purpose.

[39] According to the estimation of WIK Consult, drop cable and inhouse cabling represent 39% and 14% respectively of the total cost of deploying an FTTH network, while backbone network represents only 5%. Source: WIK Consult, report "Future electronic communications product and service markets subject to ex-ante regulation", 2018, link: https://www.wik.org/fileadmin/Studien/2020/Studie_Future_electronic_communications_product_and_service_markets_subject_to__exante_regulation_2020.pdf (last access on 01/12/2023).

On the supply side, an operator with a ubiquitous underground network can also offer a network with aerial connections through poles, due to the latter's lower cost and relative easiness of deployment. However, it is difficult for an operator that has an aerial network to easily switch to providing an underground network. Therefore, supply-side substitutability between the two types of passive infrastructure, ducts, and poles, could not be established.

Due to the lack of supply-side substitutability, AKEP proposes to consider ducts and poles as not part of the same market.

2.1.1.5 Absence of substitutability between physical infrastructure networks provided by electronic communications providers and other utility companies and municipalities.

An important development in the European regulatory framework in the electronic communications sector this last decade is the 2014 **Broadband Cost Reduction Directive** (BCRD)[40]. The BCRD provides an alternative for gaining access to physical infrastructure including duct access, other than SMP-regulation, for the deployment of very high-capacity electronic communications networks. One of the main features of BCRD is that it provides network operators the possibility to get access to physical infrastructure of utilities (gas, water, electricity, railways, sewage, etc.) and local municipalities as well as telecommunications operators. The main objective of the BCRD is to reduce the barriers to deployment and infrastructure competition by streamlining processes for rights of way and encouraging co-deployment.

In national legislation, law n°120/2016 has been promulgated to achieve similar objectives. It aims to facilitate and promote the construction of high-speed electronic communications networks, by encouraging the joint use of existing physical infrastructure and a more efficient development of new physical infrastructure. In addition, law n° 120/2016 aims at building high-speed networks at a lower cost, reducing the length and complexity of administrative procedures, as well as ensuring the right of way for the construction of high-speed electronic communications networks.

In the same spirit as the BCRD, this law aims to improve the access conditions to the physical (passive) infrastructure not only of the networks of electronic communications companies, but also other types of physical infrastructure in sectors such as energy, gas, water, and transport, which can be used by electronic communications operators to install high-speed electronic communications networks.

Given the above, it is relevant to analyse whether the access to passive infrastructure of utility companies could be considered as a substitute to the access to physical infrastructure networks provided by electronic communications providers.

While the legal tool allowing for the possibility to use non-telecoms infrastructure to deploy electronic communications networks, its current use in the Albania has not yet developed. On the inter-urban segment, the electricity transmission operator, OST, currently provides wholesale capacity services to a limited number of operators. OST's offering are, however, limited to activated capacity services and do not include neither dark fibre nor duct access.

[40] Directive 2014/61/EU of the European Parliament and of the Council of 15 May 2014 on measures to reduce the cost of deploying high-speed electronic communications networks. Link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0061 (last access on 01/12/2023).

Beyond the issue of the availability of wholesale passive infrastructure offers from utility providers, operators have reported to AKEP that, from a demand perspective, the physical infrastructure of utility companies does not represent, at the current state, a viable substitute for the physical network of telecom operators. Similar observations have been made in countries such as the UK where telecom operators associated access to non-telecom infrastructure with higher costs and greater operational complexities due to the (i) lack of sufficient access points, (ii) restrictive rules for access (in particular for water, gas and electricity physical infrastructure), (iii) unsuitable network design, (iv) hostile environment for network coexistence (sewers), (v) lack of suitable sites for hosting technical facilities, (vi) high costs due to contractual complexities and (vii) costs related to the need to deploy cable ducts for telecoms physical infrastructure inside the non-telecoms infrastructures.

From a supply perspective, the networks of other utilities are not, in most cases, designed specifically to host electronic communications network elements. Therefore, it is not reasonable to expect these operators to introduce significant modifications in their networks to host very high-speed telecommunications networks without incurring a significant cost or impacting their core services. In any case, such modifications are unlikely to occur in a reasonable timeframe.

It is currently possible, according to Law 120/2016, for access seekers to use municipal physical infrastructure to deploy very high-capacity networks. Indeed, many operators are currently using physical infrastructure owned by municipalities or ARSH in order to deploy their fibre network. However, these networks are predominantly local and, given the lack of substitutability between local and national/inter-urban infrastructure (see section 2.1.1.2), the analysis of the substitutability between backbone physical infrastructure and municipal physical infrastructure is not appropriate.

In conclusion, AKEP does not consider the access to passive infrastructure of utility companies and municipalities as a substitute to the access to physical infrastructure inter-urban networks provided by electronic communications providers and proposes thus to not include them within the same market.

Based on the above analysis, the following wholesale product market is identified:

- **Wholesale market for passive access to inter-urban physical infrastructure, which includes both access to duct networks and dark fibre lines**

Regarding wholesale passive access to local duct networks and dark-fibre lines, alternative operators did not rely on the incumbents' physical infrastructure to expand their network and compete in downstream markets. As suggested by the European Commission in its 2020 recommendations, where SMP-based physical infrastructure access is not or might not be the trigger for deployments, it might be more relevant consider access to physical infrastructure as a remedy measure within another market and not as a standalone market.

AKEP considers thus that it is more appropriate to analyse the wholesale passive access to local passive infrastructure within the Wholesale Local Access market as defined in AKEP's 2016 market analysis decision. The analysis of this market will be conducted as part of the analysis if markets for network services (section **Error! Reference source not found.**).

2.1.2 Geographic market definition

Regarding the geographical dimension**, AKEP proposes to define that the wholesale market for passive access to inter-urban physical infrastructure as national**. The

geographic dimension of this market is limited only to the network footprint of the respective operator that owns infrastructure with ducts and/or optical fibre on the axes of national roads or that connect urban areas.

Question 2: Do you agree with the product and geographic market definition proposed by AKEP for Wholesale market for passive access to inter-urban physical infrastructure in section 2.1?

2.2 Overview of the conditions of supply and demand for wholesale backbone capacities

Currently, there is a limited number of service providers that offer wholesale backbone capacities in Albania using their own physical infrastructure. A description of the main providers is provided below:

One Albania

One Albania is the incumbent operator in Albania. It is a vertically integrated operator with a presence in both wholesale and retail markets of electronic communications services. On the retail side, One Albania serves both residential and business customers. For the former, One Albania offers broadband services with different speeds and through multiple mediums, such as the historical copper network, fibre, and other wireless technologies. One Albania's internet access products could be offered as standalone service or bundled with other services such as IPTV and/or voice telephony. For business customers, One Albania offers both dedicated internet services and leased lines. These offers, often provided with a higher quality of service, are proposed at different bandwidth and speeds according to the available technology and the customers' needs.

One the wholesale side, One Albania currently provides a combination of regulated and commercial offers. Regulated offers include access to passive elements of the incumbent's local loop network (local duct access, ULL, etc.), activated bitstream offers for residential uses, and activated leased lines for businesses with a high quality of service. One Albania also offers non-regulated services, such as dark fibre along the national roads for backbone.

In the access network, ONE Albania is present with a fixed (local) access network in all urban areas of the country and in some rural areas, mainly in coastal zones. The incumbent currently possesses the most ubiquitous wireline network covering, by the end of 2022, around 695 thousand households, representing around 92% of the total households in the country[41].

[41] According to INSTAT, the total number of households in Albania stood at 758 973. Link :https://www.instat.gov.al/al/temat/kushtet-sociale/anketa-e-buxhetit-t%C3%AB-nj%C3%ABsive-ekonomike-familjare/publikimet/2023/anketa-e-buxhetit-t%C3%AB-nj%C3%ABsive-ekonomike-familjare-2022/ (last access on 04/12/2023)

Figure 25 – Map of One Albania's optical fibre network in Albania

Sources: AKEP ATLAS based on data collected by operators (last accessed on 29/11/2023)

Error! Reference source not found. shows the current state of One Albania's optical fibre network in Albania. According to One Albania's published information[42], the operator's optical fibre network covers 5 400 Km. It is composed of two main segments: i) the local network and ii) the long-distance network.

One Albania's local network is currently built in two typologies:

- a copper-based network with a Fiber to the Cabinet (FTTC) topology, with a fibre optic segment (owned by One Albania and deployed in its own ducts) from the central office to the street cabinet, and a copper segment from the cabinet to the end-customer's premise. The copper segment of One Albania's FTTC networks covers, on average, about 500 meters and is limited to 1 Km.
- a recently built fibre network with a Fiber-To-The-Home (FTTH) topology. This network is based on GPON technology and recently XGPON. One Albania's FTTH network is still under construction and does not yet have the same ubiquitous coverage of the FTTC network.

One Albania's long-distance network is built entirely with optical fibres with capacities of 96 fibres, and in a few cases 48 fibres, in underground infrastructure built along the main highways. This network is built in ring systems, limiting thus the possibility service interruptions. Interconnection points to One Albania's backbone network are present most urban centres, One Albania owns most of its backbone network, expect for few segments.

Albanian Telecommunication Union (ATU)

ATU is a predominantly wholesale operators with an activity centred around the long-distance network. Following the acquisition of Digicom by ATU in 2019, while both entities remain separate from an operational point of view, ATU started developing its local network by

[42] One Albania's website, link: https://www.one.al/en/One-Network (last accessed on 30/11/2023).

deploying a fibre network in some urban areas. However, ATU's main activity as a wholesale provider remains focused in the long-distance network.

ATU started its activity in Albania in 2010 with The Ministry of Public Works and Transport's Order no. 120, dated 23.08.2010, granting a permission to ATU for the construction of the fibre optic network in the national axes of the Republic of Albania. The initial conditions of this permit stipulated that:

- ATU will build a fibre optic network on the main national road axes;
- ATU will install 6 cables/optical fibres, of which 2 are for use by ATU itself and 4 are free for use by other operators, not connected to ATU;
- ATU pays the Albanian state annual payments of 4% of the income realized from the use of the installed infrastructure;
- Other operators that use free optical cables pay 6% of their income, but not less than 330 thousand euros per year;
- In case of failure of negotiations (3-month deadline) for the price between ATU and the other operator, the dispute will be resolved only by the Court of Tirana.
- The permit term for ATU is 20 years with the right of renewal for another 20 years.

Figure 26 – Map of ATU's optical fibre network in Albania

Sources: AKEP ATLAS based on data collected by operators (last accessed on 29/11/2023)

Since the granting of its permit, ATU expanded its network first by deploying a network of 750 Km of fibre covering the major cities and bordering countries, then by expanding the network to provide connections to mobile base stations and to cover local municipalities. Currently, according to ATU estimations, the operator's optical fibre network covers 2 500 Km.

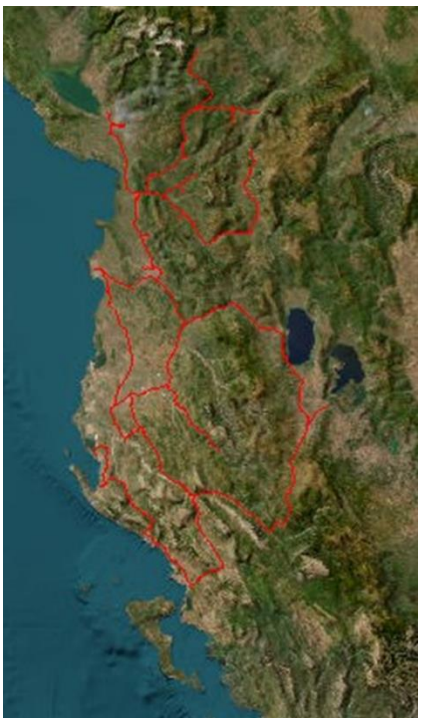
The main wholesale offers currently available for backbone capacities in Albania are activated leased-lines and dark fibre. ATU provides access seekers with interconnection points every 1 km along its network.

Multiple operators currently offer wholesale backbone leased lines offers. The main providers are One Albania, ATU and OST.

OST

OST is a state-owned entity in charge of the electricity transmission network. Alongside its core responsibilities, OST is actively engaged in the electronic communications market, as it provides, since 2021, wholesale data transportation capacities, via activated leased lines provided through a DWDM technology, to both national and international telecom operators.

Figure 27 – Map of OST's optical fibre network in Albania

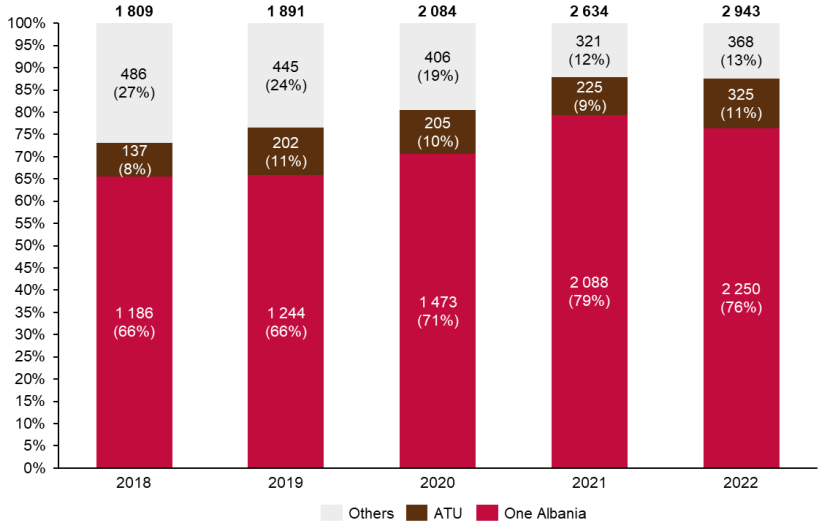


Sources: AKEP ATLAS based on data collected by operators (last accessed on 29/11/2023)

OST has deployed its fibre network alongside the existing electricity transmission network, especially 110 Kv, 150 Kv, 220 Kv and 400 Kv lines. OST has installed around 20 DWDM nodes and is present in 53 stations in which it can provide Layer 2 data services. Overall, OST has deployed 2 000 km of fibre, covering according to OST's estimations, 75% of the Albanian territory.

One Albania and ATU are the main operators that currently provide dark fibre in Albania.

Figure 28 – Volumes of wholesale dark fibre (in km) in Albania 2018-2022



Sources: AKEP data collected from operators

Error! Reference source not found. shows that the interest in dark fibre is increasing in Albania from operators. Between 2018 and 2022, the total volume of dark fibre provided through the wholesale market increased by 63%, from 1 809 km to 2 943 km. This increase is due mainly to One Albania who almost doubled its wholesale dark fibre capacities between 2018 and 2022 and increased its market share by 10 percentage points from 66% to 76%. ATU has also increased its dark fibre capacities from 137 km to 325 km (+137%) between 2018 and 2022 to occupy 11% of market shares.

As shown in **Error! Reference source not found.**, the demand for duct capacities in Albania has not developed in the last few years. One the one hand, One Albania, the main provider of such capacities (with 92% of market shares in 2022), provides a decreasing volume of capacities each year. On the other hand, ATU does not currently provide any duct capacities in the wholesale market. Nevertheless, both operators have free space in their ducts that could be used by other operators either to deploy their own fibre or to rent dark fibre.

Question 3: Do you have any comment on the conditions of supply and demand for wholesale backbone capacities presented in section 2.2?

2.3 The three-criteria test

According to Article 67 of the European Electronic Communications Code and Article 31 et seq. of Chapter VI of Law 9918 in Albania, the national regulatory authority should justify the imposition of ex-ante regulatory obligations if the following three criteria are met:

- **high and non-transitory structural, legal, or regulatory barriers to entry are present;**

- **there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry;**
- **competition law alone is insufficient to adequately address the identified market failure(s).**

The national regulatory authority may not conduct this three-criteria test if the market in question is included in the European Commission's recommendation and presume that these criteria have been met.

Given that the Wholesale market for passive access to inter-urban physical infrastructure (as defined in section Error! Reference source not found.) is part of neither the European Commission's recommendation nor the Albanian law specifying the markets exempted from the three criteria test, the latter is performed below.

2.3.1 Criterion n°1: the presence of high and non-transitory structural, legal, or regulatory barriers to entry

Two main operators are currently present in the wholesale market for inter-urban passive infrastructure. As shown in **Error! Reference source not found.**, **Error! Reference source not found.** and **Error! Reference source not found.**, they both have an extensive national network covering the main inter-urban axes.

The entry to this market for a new competitor wishing to build a network with a comparable geographic coverage might be hindered by legal and regulatory challenges. Indeed, the construction of national networks require the granting of permits and administrative approvals mainly from the central government. Indeed, the entry of ATU in the market in 2010 was facilitated by The Ministry of Public Works and Transport's Order no. 120, dated 23.08.2010. Procuring such permits represents thus the first and main regulatory/legal hurdle that new entrants have to face.

Currently, there exists multiple legal tools and regulatory initiatives that aim to facilitate the deployment of very high-capacity networks in Albania, including in the backbone network.

Law n°120/2016 defines the legal framework concerning the procedures and timeframes for permit granting. In case the central government is the competent authority to allocate right of way permits, the decision to granted or refuse the permit must be made within 30 days within receipt of a complete request (Article 31(4)). This timeframe is in line with Article 7 of the BCRD which states that "*Member States shall take the necessary measures, in order to ensure that the competent authorities grant or refuse permits within four months from the date of the receipt of a complete permit request, without prejudice to other specific deadlines or obligations laid down for the proper conduct of the procedure which are applicable to the permit granting procedure […]"* and is considered thus as reasonable.

Stakeholders voiced their lack of satisfactions regarding the difficulty and complexity of the process of obtaining construction permits, of getting access to and sharing existing infrastructure, which points out to the potential inefficient enforcement of law n°120/2016. Nevertheless, it should be noted that the procedures for network deployment on a local level is different than the procedures for the deployment of a national network. The main difference is that the former is usually handled by local government and the former is handled by central government. Procedures handled by central government are often more streamlined and do not present some of the issues faced by operators in the case of procedures handled by local

government[43]. In spite of the complexities of administrative and permit granting procedures handled on a local level, many operators of different sizes managed to deploy their own network leading to a network-based competition on the retail market. Furthermore, multiple collaborative initiatives between AKEP and both central and local government in order to improve the permit granting procedures and delays are on-going, which signals further improvements in the permit granting process.

As a result of the analysis of all these elements combined, AKEP deems that the existence of high and non-transitory legal and regulatory barriers to entry is not established.

Furthermore, AKEP believes that the market does not present structural barriers to entry. Indeed, the capillarity of the backbone network is often lower than the local network, a segment in which infrastructure-based competition is already developed. This reduced capillarity is often associated with a lower cost of deployment. This view is further supported by the existence of an established regulatory framework that allows the sharing of the physical infrastructure between operators, either through access requests or co-investment agreements. Such regulations, including the Decision n°190/ 2022 modifying the rules for allocating costs related to the coordination of civil engineering work, ensure that the deployment of physical infrastructure (or the usage of existing infrastructure to deploy fibre) are reasonable and fair.

In addition, given the growing demand for backbone capacities in Albania, especially with the development of mobile (5G) networks (which will require increased backbone capacities to connect base stations), a new entrant may capture a part of the existing, as well as new, demand for duct capacities or dark fibre.

In all cases, while duct access is not developed as a product for the core network, this does not necessarily indicate that such access is impossible. Indeed, as mentioned before, evidence indicates that both ATU and One Albania have free capacities in their ducts and they are required, even though they are not designated as SMP-operators in this market, to provide access to their ducts to access seekers under the conditions defined in law n°120/2016.

It is worth noting that no access seeker has initiated a dispute resolution process regarding an abusive refusal to a duct access request in front of AKEP. Therefore, by gaining access to One Albania and/or ATU's duct capacities, an operator can provide a competing wholesale dark fibre offer in a reasonable short period and at a reasonable cost.

As a result of the analysis of all these elements combined, AKEP deems that the existence of high and non-transitory structural barriers to entry is not established.

AKEP considers that the criterion n°1 is not fulfilled.

[43] Such issues could include: the lack of complete inventory of existing passive infrastructure of municipalities for reuse for broadband and the lack of organization from the Local Government Units among the several road construction projects, leading to high delays in permit granting. Source: National Plan for Sustainable Development of Digital Infrastructure, Broadband 2020-2025.

2.3.2 Criterion n°2: there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry;

While there exist two competitors in the market (One Albania and ATU) for inter-urban wholesale passive infrastructure, there exists a significant gap in market shares between both operators. As shown in **Error! Reference source not found.**, in 2022, One Albania's market share represented 76% of the total volume of wholesale dark fibre (local + inter-urban) compared to only 11% for ATU. In addition, among the two competitors, only One Albania provided duct access for other operators (local + inter-urban).

Despite this asymmetry in market shares, there are elements that indicate the existence of competition between both operators. First, as explained in section Error! Reference source not found., the networks of both operators cover the main axes and provide access seekers with a comparable network coverage. Second, the volumes of dark fibre provided by both operators are increasing, which points out that access seekers globally do not strictly prefer the offer of one over the other. This point has been confirmed to AKEP by multiple operators who regard both operators' offers mainly as substitutes and, to some extent, complementary to one another to provide backup in the network segments where both are present and/or to gain complete access in case only one provider is present. Third, the availability of free capacity in ATU's network gives the operator more flexibility in determining its commercial and pricing strategy independently from One Albania. As such, there are evidence of an effective competition between both operators.

Furthermore, the development of activated leased lines products from alternative network operators, such as OST, exert a competitive pressure over both ATU and One Albania to propose competitive offers. Indeed, despite the lack of substitutability between passive and active offers, as well as between offers from telecom operators and utility operators, the existence of an offer from an alternative operator in the market plays an important role in limiting the ability of One Albania or ATU to adopt an anti-competitive behaviour.

As a result of the analysis of all these elements combined, AKEP deems that there is a lack of evidence supporting that the market structure does not tend towards effective competition within the relevant time horizon.

AKEP considers that the criterion n°2 is not fulfilled.

2.3.3 Criterion n°3: competition law alone is insufficient to adequately address the identified market failure(s).

From the characteristics of the market explained above, AKEP deduces that ex-post interventions from the Competition Authority (CA), or AKEP in the framework of dispute resolution, should be sufficient to be able to address the problems of access to the inter-urban passive infrastructure of electronic communications networks in Albania.

In line with the ultimate objective of ensuring the interests of end-users in the retail market, in which an infrastructure-based competition has developed, AKEP believes that introducing ex-ante obligations in a currently unregulated upstream market is not warranted.

AKEP considers that the criterion n°3 is not fulfilled.

Question 4: Do you agree with AKEP's analysis of the three-criteria test for the wholesale market for inter-urban passive physical infrastructure presented in section 2.3?

2.4 Conclusion on the lack of relevance of imposing ex-ante regulation in the wholesale market for inter-urban passive physical infrastructure

In summary, given the absence of high and non-transitory entry barriers, on the tendency towards effective competition and on the sufficiency of competition law by itself to address persistent market failures, AKEP proposes that it is not appropriate to introduce ex-ante regulation in the wholesale market for inter-urban passive infrastructure.

Question 5: Do you agree with AKEP's conclusion regarding the lack of necessity to impose ex-ante regulation in the wholesale market for inter-urban passive physical infrastructure?

3 Analysis of markets for network services

3.1 Market definition

The chief aim of economic regulation is to protect the interests of end-users by preventing economic actors that hold a certain market power from abusing such power to the disadvantage of consumers. As specified in recital 6 of the EC's 2020 Recommendations "[t]*he ultimate objective of regulatory intervention is to produce benefits for end-users in terms of price, quality and choice by achieving sustainable competition at retail level*". For this reason, the identification of markets in which ex ante regulation may be justified starts with the analysis of the competitive landscape in retail markets in order to assess whether in absence of regulatory intervention in upstream wholesale markets competition will develop or not.

3.1.1 Retail market definition

In accordance with European regulatory practices, the starting point of a market analysis is the definition of retail markets from both product (section **Error! Reference source not found.**) and geographic (section **Error! Reference source not found.**) stand points.

3.1.1.1 Product retail market definition

Lack of substitutability between residential grade and business grade services

The retail market for broadband fixed access in Albania is composed of two main segments, the segment of residential grade offers, and the segment of business grade offers.

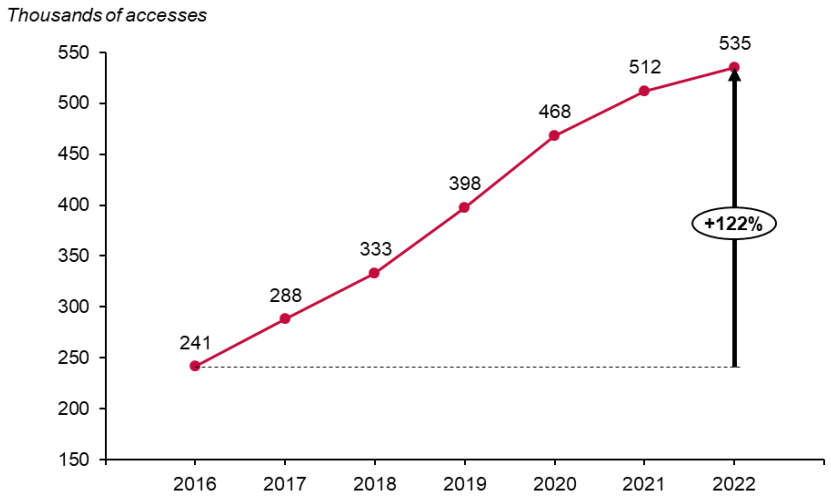
Main features of residential grade retail offers

Residential grade offers are connectivity offers that address the needs of both residential customers and small and medium-sized businesses whose needs are similar to residential customers.

Residential grade offers are often marketed by telecom operators in standard formats. Such formats include standalone internet access, double-play offers (bundling internet access with voice telephony or TV services), triple-play offers (bundling internet access, voice telephony and TV services), and for operators that are fixed and mobile service providers, quadruple-play offers (bundling internet access, voice telephony, TV services and mobile services).

Fixed residential grade service could be provided over multiple mediums (optical fibre, copper, HFC or other wireless technologies) and with different speeds from less than 10 Mbps to over 1 Gbps. These services usually offer asymmetric download and upload speed and with guaranteed repair times of 48 hours to 72 hours.

Figure 29 - Volume of residential grade fixed broadband accesses in Albania (2016-2022)



Source: AKEP's annual and quarterly statistics reports

Over the years, the share of residential grade accesses in the total volume of retail accesses has been stable at around 91%. As observed in **Error! Reference source not found.**, the evolution of residential grade accesses is very similar to the evolution of the whole market (see Figure 1) as the total number of lines increased by 122% since 2016 to reach 535 thousand active connections by the end of 2022.

Main features of business grade retail offers

Depending on their size and the nature of their activities, larger businesses and institutions (banks, hospitals, school, libraries, ministries, etc.) have specific connectivity needs that are not addressed by residential grade offers. Therefore, telecom operators have developed offers that address the needs of these customers. Business grade offers are often accompanied by a higher quality of service (low latency, repair times generally less than 24 hours or 6 hours), symmetric download and upload speeds, redundant connections to minimize the impacts of a breakdown, security services and monitoring services.

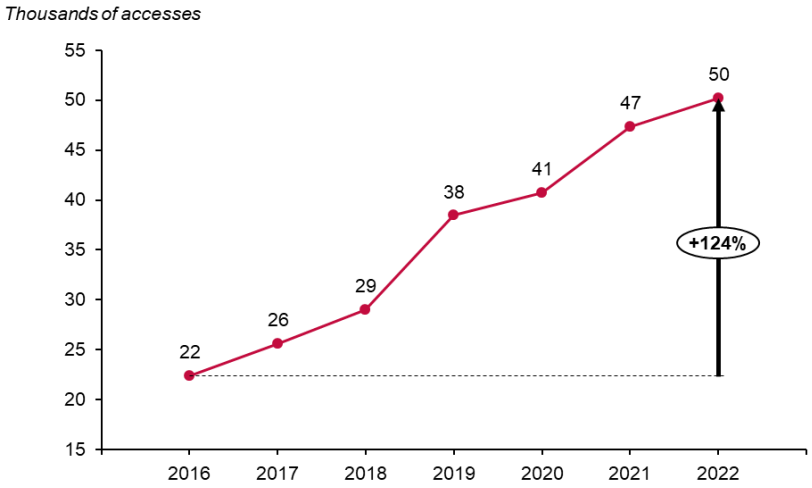
In addition to the higher quality of service, business grade offers include other services such as leased lines and dedicated connections between the sites of an enterprise, virtual private networks, and other auxiliary services such as hosting and colocation. Such services are not

proposed to residential customers or small businesses that have limited connectivity needs that are fulfilled through residential grade offers.

Furthermore, business grade services are often sold via dedicated sales channels and processes (e.g., calls for tenders, etc.) and employ specific resources for customer support and care services (e.g., by designating a dedicated account manager, etc.)

Moreover, unlike residential grade offers where both prices are contractual terms are predefined by the operator and are rarely modified, the prices and contractual terms of business connections are often negotiated bilaterally on a deal-by-deal basis and are subject to important variations.

Figure 30 - Volume of business grade fixed broadband accesses in Albania (2016-2022)



Source: AKEP's annual statistical reports based on data collected from the operators

During the period between 2016 and 2021, as shown in **Error! Reference source not found.** above, the share of business grade accesses grew to 50 thousand accesses up from 22 thousand accesses. Over the whole period, the share of business grade accesses in the total volume of retail accesses has been stable at around 9%.

From a supply point of view, the provision of business-grade services by a residential-only operator requires an investment in human and logistical resources, as well as organisational changes, in order to add to be able to provide competitive business grade offers.

Moreover, the services required by large accounts are often more technologically advanced than residential grade offers and require adaptations of both the technologies and the infrastructure used to provide such services. For example, some critical applications of large businesses require dedicated capacities, often with redundancy options, and cannot be provided over shared or mutualized capacities as it is the case for residential grade services.

Moreover, large businesses often require their provider to provide upper-layer services (up to the application layer) along with their connectivity needs as a packaged offer. This requires the development of a variety of know-hows within the operator that goes beyond the competences required to provide residential grade services.

Therefore, due to the lack of substitutability from both demand and supply points of view, AKEP deems that retail residential grade services (which includes services for

both residential customers and small/medium-sized business with similar needs as residential customers) and retail business grade services are not part of the same market.

Substitutability between different wireline technologies

As demand for internet-based applications increases; the need for high-speed reliable broadband connections grow. As shown in Figure 8, the share of fibre connections in total broadband connections is growing continuously and rapidly as it represented 61% in 2022 compared to only 11% in 2016. This growth is fuelled by development of new networks as well as the migration from other technologies to fibre.

From a demand perspective, despite their inferior maximum theoretical capacities, copper-based connections present similar characteristics in terms of usage as fibre connections. Therefore, AKEP considers that the conditions to establish demand-side substitutability between copper-based connections and fibre-based connections are satisfied.

The modernisation of coaxial cable networks is enabling the main cable operator, Vodafone, to use its cable network to provide fast and ultra-fast broadband accesses to its customers. As shown in Figure 9, by relying mostly on its HFC network, Vodafone established itself as one of the main broadband service providers in the country. This indicates that, much like copper networks, HFC-based connections present similar characteristics in terms of usage as fibre connections. AKPE considers thus that both technologies are substitutable from a demand perspective.

From a supply perspective, all network operators in Albania are investing in deploying their optical fibre networks. On the one hand, One Albania and Vodafone, who currently rely on their historic copper and cable networks respectively, are deploying their fibre networks and are gradually replacing their copper and cable connections with fibre. Both operators have stated their intention to switch to a full-fibre network in the coming years. On the other hand, other operators who started deploying their network in recent years have deployed their networks fully with fibre. Some operators still have marginal volumes of accesses based on copper or coaxial cable. However, many of them have communicated to AKEP their plans to migrate these connections to fibre in the coming months. These trends show that, from a supply-side, there exists a substitutability between fibre and both copper and coaxial cable.

Therefore, AKEP deems that wireline technologies are substitutable from both supply and demand perspectives and correspond thus to the same product market.

Substitutability between basic, fast and ultra-fast broadband connections

Broadband products currently offered in the Albanian market represent a continuum on the spectrum of network speeds. Operators that rely on copper network still offer basic broadband connection in addition to fast and ultra-fast connections offered through the fibre network.

Despite the important difference in speed, basic connections remain suitable for most uses and is comparable in performance and the quality of service provided through fast connections. Similarly, the latter are comparable to ultra-fast connections. Therefore, from a demand perspective, there exists a chain of substitution between basic, fast and ultra-fast connection that supports their placement within the same market.

We note, however, that the limited theoretical speeds available through copper accesses might not remain suitable for many uses in case of a significant increase in capacity demand in the coming years. This is possible due to the increase in data traffic and the development of more

data-intensive usages (video-on-demand, virtual reality, etc.) in the future. Nevertheless, the impact of this fact is limited as many DSL customers have already alternative fibre offers available.

From a supply perspective, as all operators are increasingly relying on fibre network, they can all offer comparable connection speeds to their customers. Even operators with older technology networks have deployed fibre in parallel to their existing networks. Most providers can thus provide higher network speeds in a relatively short-time and without incurring significant additional costs.

Therefore, AKEP deems that basic, fast and ultra-fast broadband connections are substitutable from both supply and demand perspectives and correspond thus to the same product market.

Lack of substitutability between different wireline and wireless technologies

Fixed wireless broadband access and satellite-based access are alternative access technologies currently available in Albania to provide fixed broadband. Figure 8 shows that the share of these technologies is marginal (around 1% by the end of 2022) as operators use such technologies as a last-resort options in case of the absence of wireline alternatives.

Fixed broadband wireless accesses are much more limited in capacity than connections based on fibre. With the development of more performant wireless technologies, speeds available from wireless technologies such as 4G and 5G could represent a potential alternative to wireline networks, especially copper. However, there exists a number of factors that renders the substitutability between both types of networks less likely, at least in the foreseeable future.

Unlike wireline networks, it can be difficult to guarantee the quality of service to end customers using radio frequencies, given their sensitivity towards weather conditions, climatic disturbances, and physical obstacles. In addition, the use of wireless solutions, especially for businesses, require specific upstream feasibility studies leading to extended delays in the implementation of the service.

From a supply perspective, wireless and wirelines services constitute two solutions fundamentally different from a technological point of view as they rely on distinct active and passive networks. A such, an operator offering only wireless services cannot switch to wireline services neither quickly nor without incurring important costs. This applies as well to an operator offering only wireline services and wishes to provide wireless services.

Therefore, AKEP deems that fixed wireless broadband services are not substitutable to fixed wireline services. In all cases, given the low share of wireless broadband connections in Albania and their usage as a last resort option, the exclusion of such services from the scope of the market definition does not have a significant impact.

In light of the above, from a product point of view, AKEP identifies two retail markets:

- **Broadband retail market for residential grade services** addressing residential users and small and medium sized businesses with connectivity needs comparable to residential users; and
- **Broadband retail market for business grade services** addressing larger businesses and public institutions in need for specific connectivity products often coupled with a high-quality of services.

Both markets include broadband connections, either bundled with other services such as TV and voice telephony or offered on a standalone basis, provided via copper (xDSL), optical fibre (FTTX) or coaxial cable (HFC).

Question 6: Do you agree with the product definition of retail broadband services proposed by AKEP in section 3.1.1.1?

3.1.1.2 Geographic retail market definition

The European Commission's SMP Guidelines specifies that, before undertaking the assessment of competition, markets should be defined geographically[44]. By assessing substitutability and market conditions, the geographic definition of the market encompasses areas in which the conditions of competition are sufficiently homogeneous so that areas exhibiting different competition conditions are placed in separate markets.

According to regulatory practices in the European electronic communications sector, the geographic definition of markets is determined based on the area covered by a network[45] and the existence of legal and other regulatory instruments[46].The markets defined through the geographic analysis could be local, regional, national, or international. In all cases, the chosen level of geographic market should ensure that markets: *"(a) are of an appropriate size, i.e. small enough to avoid significant variations of competitive conditions within each unit but big enough to avoid a resource-intensive and burdensome micro-analysis that could lead to market fragmentation, (b) are able to reflect the network structure of all relevant operators, and (c) have clear and stable boundaries over time.*"

In order to assess whether and to which extent competition conditions for broadband services vary across the Albanian territory, AKEP used the administrative unit of "municipality" as a basis for its analysis. The choice of this unit, instead of others such as the network coverage of the incumbent operator or different network topologies, is motivated by the fact retail competition is mainly driven by inter-platform competition (i.e., most operators deploy their networks using their own infrastructure) and do not rely heavily on wholesale products. Another advantage of the choice of the municipality as a basic unit for the analysis is the availability of both socio-economic and sector-specific data that are necessary to evaluate the conditions of competition on a sub-national level.

Conscious of the possible heterogeneity in the competition conditions within each municipality, AKEP has made a further distinction between urban and rural areas. **A "local area" is thus**

[44] Source: the European Commission's "Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services", recital 46, link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507(01) (last access on 23/11/2023)

[45] As specified in the European Commission's SMP Guidelines, this area corresponds in practice to the limits of the area in which an operator is authorised to operate.

[46] Such as authorisations or licences limited to a specific area.

defined as a rural or urban area of an administrative municipality[47]. However, the availability of data on urban and rural areas is both limited in time and in scope as it is available only for some sector-specific data in 2021 and 2022. The following analysis will thus be conducted using the most granular data available.

In assessing the homogeneity of competitive conditions, in accordance with BEREC's guidelines[48], the following criteria shall be considered:

- The barriers to entry into the market: the aim is to determine whether if demand increases new entrants will find it profitable to enter the market to benefit from larger economies of scale.
- Competitive pressure on the largest operator: this analysis takes also into account the number and the size of the competitors and their geographic presence across the territory.
- The market shares of the operators within each area and their evolution in the last two years.
- Price differences between areas and whether operators that are present in multiple areas apply different pricing strategies depending on the area.
- Other aspects that may derive from relevant competitive differences between the geographical areas (e.g., marketing strategies and functionalities of the offers).

No evidence to structural barriers to entry in local areas as the number of competitors increases in most areas

Based on data collected by AKEP from operators in 2021 and 2022, AKEP observes that the number of competitors present in each local area is generally increasing as the number of local areas with only one provider decreased and the number of local areas with more than three providers increased.

Table 1 – Summary of the share of local areas depending on the number of service providers

	1 provider	2 providers	3 providers	More than 3 providers
2021	18%	17%	19%	47%
2022	11%	19%	14%	56%

[47] 61 administrative municipalities are included in the analysis. Within each municipality, a distinction between rural and urban areas is made. Therefore, a total of 122 local areas were available for the analysis. In 2022, zero access has been reported in the following areas: Skrapar (Rural), Dropbull (Urban), Dropbull (Rural) and Libohovë (Rural). Therefore, (122-4)118 local areas are included in the analysis. In 2021, a total of 117 local areas are included in the analysis as there exists 5 local areas with no reported access: Skrapar (Rural), Devoll (Rural), Dropbull (Urban), Libohovë (Rural) and Këlcyrë (Rural). The absence of data for these local areas may be due to the quality of data collected by AKEP from operators.

[48] Source: BEREC "*BEREC Common Position on geographical aspects of market analysis (definition and remedies)*", link: *BEREC Common Position on geographic aspects of market analysis (definition and remedies) (europa.eu) (last access on 24/11/2023)

Source: AKEP's annual statistical reports based on data collected from the operators

In 2022, only 13 local areas (11%) had only one broadband service provider compared to 22 (18%) in 2021. Amongst these 13 areas, One Albania is the unique provider in only 4 local areas, while the remaining 9 local areas have local providers with a presence in a very limited number of areas (only two to four local areas).

Furthermore, between 2021 and 2022, the number of local areas covered by more than three service providers increased from 55 (47%) to 66 (56%).

In local areas with multiple service providers, the competition pressure is generally high. On average, across all local areas with at least one broadband connection, there are five retail service providers in each local area. This average is only slightly higher in urban areas (5,5) than in rural areas (4,5). However, there exist important disparities between local areas. For example, in 2022, 33 operators provided broadband services in the urban parts of Tiranë, which is significantly higher than the national average.

Due to the limited economies of scale, it is common to expect economic barriers to entry to be higher in rural areas compared to urban areas. However, as explained above, there are only few (lightly populated) local areas with only one fixed broadband provider. In addition, AKEP observes that the average number of operators in a local area is high (5 operators) and 70% of local areas have three or more providers.

In local areas where competition is the least developed, the size of the market is often very small. In local areas with only one broadband service provider, the total number of connections vary from 45 to 644 connections. However, as the penetration of fixed broadband services progresses, competition in such areas might develop in the coming years with the potential increase in demand. Between 2021 and 2022, the overall number of accesses increased in 63%. As the development of fixed broadband services in Albania progresses (see section 1.1), this trend is expected to continue in the coming years.

In most local areas, the leading operator is under credible and growing competition pressure from other operators

As the number of competitors grows, the pressure on local leaders grows as well. Indeed, between 2021 and 2022, the number of operators has increased in 2022 in 45% of local areas.

To appreciate whether there exists a credible competitive pressure on local leaders, it is relevant to analyse the size and the geographic coverage of the operators challenging the local leader. In 56% of local areas, there exists at least one challenging operator with a wider geographic coverage (in number of local areas) than the local leader.

As demonstrated in Figure 20, only six operators are present in ten municipalities or more (these six operators are hereinafter referred to as "the main operators"). Despite their relatively extensive geographic coverage, these operators including the incumbent, are market leaders in a limited number of local areas. This means that there is often a big operator in a challenging position that exert a pressure on the local leader.

Moreover, in areas where one of the main operators is a local leader, they are usually under competitive pressure from other operators with a comparable geographic coverage. By the end of 2022, only three operators in the whole market were leaders in five local areas or more.

Table 2 – Operators as market leader in five local areas or more as of 2022

Operator	N° of urban local areas as a leader	Incl. over 50%	Incl. over 80%	N° of rural local areas as a leader	Incl. over 50%	Incl. over 80%
One Albania	26	23	10	7	5	4
Vodafone	9	3	0	0	0	0
ASC	5	1	1	0	0	0

Source: AKEP's annual statistical reports based on data collected from the operators

With a presence in a total of 93 (79%) of municipalities in 2022, One Albania is the operator with the widest geographic coverage. Nevertheless, One Albania is the leader in only 33 in local areas (28%), amongst which 26 are urban and 7 are rural. In those urban areas, One Albania had more than 50% of market shares in 23 urban local areas and over 80% of market shares in 10 urban local areas. In rural areas, One Albania had more than 50% of market shares in five local areas, four out of which the market share of the incumbent exceeded 80%.

In 2022, Vodafone was the leading operator in 9 urban local areas, out of which the operator's market share exceeded 50% in three local areas. Although it is the leader in five local areas, ASC occupied more than 50% of market share is only one local area, an area in which the operator's market share exceeded 80%.

Therefore, the largest operator in each of the remaining 71 (60%) local areas are leaders in a more restricted number of local areas (between 1 and 4).

The fact that operators with a wide geographic coverage are leaders in a limited number of local areas points out to the absence of structural barriers to entry in the market. Indeed, despite the relatively important disparities in the geographical coverage between broadband providers in Albania, operators with the widest coverage are often the challengers in local areas, which indicates that local challengers exert a credible competitive pressure on local leaders.

As competition grows, local leaders are losing market shares especially in areas where they held more than 50% of market share

To further appreciate the credibility of the competitive pressure exerted by challenging operators, it is relevant to analyse the evolution in time of the market share of the local leader. Between 2021 and 2022, AKEP observes that the market share of local leaders decreased in 56% of local areas (59% of urban areas and 53% of rural areas). In areas where the local leader held 50% or more of market share in 2021, the leader's market share decreased in 72% of local areas (75% of urban areas and 69% of rural areas).

Despite some differences in prices across local areas, the pricing strategy of operators do not vary significantly based on geographic criteria

Furthermore, the analysis of the prices of fixed broadband services across local areas provides useful insight to assess whether the conditions of competition are homogenous.

Data collected from the websites of operators in preparation of this decision led to conclude that there exist some differences in prices between local providers. For example, for basic broadband connections (i.e., less than 30 Mbps), the price provided by the main operators averaged around 1 200 LEK, while other local leaders offered prices that range from 1 200

LEK up to 2 000 LEK, with most operators offering between 1 200 LEK and 1 600 LEK. Similarly, for the lowest ultra-fast broadband connections (i.e., 100 Mbps), the price provided by the main operators ranged between 1 300 LEK and 1 700 LEK, while other local leaders offered prices that range from 1 500 LEK up to 5 000 LEK. Nevertheless, these results should be interpreted with caution. Indeed, the level of download speed might vary from an operator to the other affecting the comparability between prices (this is the case for the basic broadband connections), these data are based on public information that might not be up to date and the underlying technology upon which the service is provided might not always be the same.

To appreciate whether retail prices are comparable across areas, AKEP considered i) the geographic coverage of operators that often compete with each other; ii) the level of prices of these operators and iii) whether these operators apply different prices depending on the geographic area.

First, in 2022, the network of the main operators covered 95 (81%) local areas, amongst which 93 are covered by the incumbent. These operators exert a competitive pressure in most of the areas in which they are present as their combined market share exceeds 20% in 87 (74%) local areas. Second, Figure 18 shows in that the prices offered by some of the two main operators who have the biggest geographic coverage and the highest market shares are, to a large extent, comparable across close speeds. Third, operators with a wide geographic coverage tend to apply the same retail prices for all their customers (especially residential customers) regardless of the area in which they are located[49].

Therefore, there are evidence pointing out that price conditions are homogenous across a large part of the local areas (81%) in which at least one of the main operators in providing services, especially in areas where such presence exerts a competitive pressure on the local providers.

In general, there are elements supporting that the possibility of diverting from the prices of the main operators is, in practice, limited. First, the prices are usually determined in areas where competition is the most developed. Thus, whenever an operator with a wide national coverage is present in a local area, local operators with limited geographic coverage take their competitors' nationally determined prices into account when forming their own prices in order to remain competitive. Second, in local areas where all competitors are local providers (i.e., none of the main operators is present), the latter also consider the nationally determined prices as any important increase in their local prices will attract new entrants and jeopardize their market position. Third, operators with wide geographic coverage are absent mostly in areas with low population density and lower purchasing power. In such areas, local operators' ability to deviate from nationally determined prices is limited by the limited purchasing power of local population. Forth, while wireless broadband was deemed not substitutable with fixed broadband (section Error! Reference source not found.), mainly for the lack of supply-side substitutability, mobile offers and other wireless technologies exert some competitive pressure on local providers especially in rural areas, limiting thus their ability to deviate from nationally determined prices. Finally, any deviation from the national prices might be related to the underlying cost of services (in case of satellite connections for example) and not the product of an abusive behaviour from local operators.

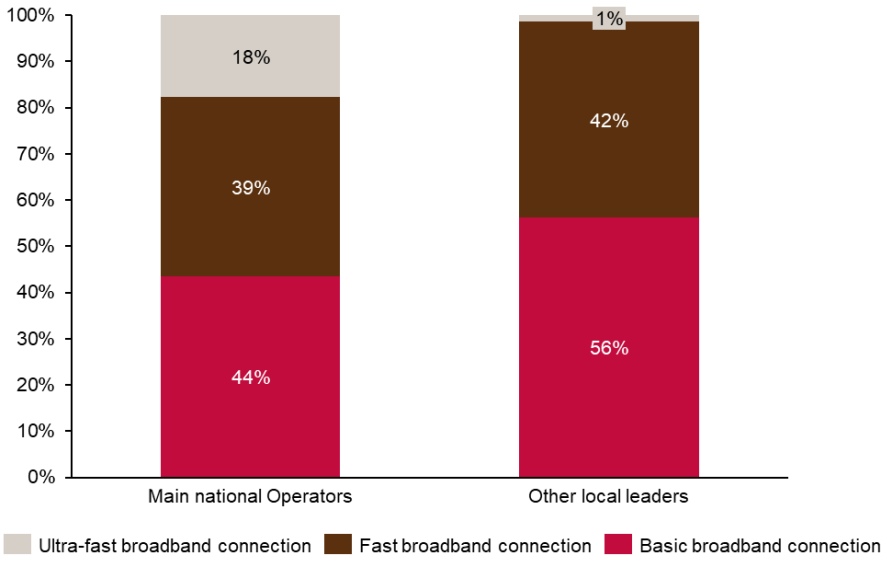
[49] Some operators might adjust their prices locally by applying price reductions as limited offers. However, these adjustments are done occasionally and are valid only for a limited period.

Despite some of the observed differences in prices across local areas depending on whether one of the main operators is present or not, AKEP believes that the pricing strategy of operators do not vary significantly across the Albanian territory.

The operators' commercial strategies and the technical features of their services do not vary significantly depending on the local area

In addition to the above, other elements point out to the absence of heterogeneity in the conditions of competition across local areas in Albania. For instance, the marketing and sales strategy of operators with a wide geographic coverage does not seem to vary depending on the location. Indeed, in addition to nationally determined prices, operators usually offer the same quality of service and employ the same resources to market their offers in all the local areas in which they are present.

Figure 31 – Different download speeds offered by the main operators and the local leaders.



Source: AKEP's annual statistical reports based on data collected from the operators

Other important factors to consider are the technical characteristics of the service. A survey of the services currently provided by most operators in Albania shows that local leaders with a limited geographic coverage offer generally broadband speeds comparable to those offered by main operators. **Error! Reference source not found.** shows that basic broadband connections remain the main categories for both the main national operators (combined) and the other local leaders (combined), and the share of fast broadband connections is comparable. The main difference however is that the main national operators offer more ultra-fast broadband connections than the others.

The general tendance towards more competitive local markets and the homogeneous pricing and commercial strategies supports a national definition of retail broadband markets

To summarize, AKEP observes some differences across local areas regarding the number of operators, the size of the addressable market, the number of connections, and the socio-economic differences in the local population. However, despite these differences and given

the way competition has developed across different areas and the expansion trends of the network of many broadband service providers, AKEP did not identify structural barriers to entry of new competitors in local areas. Moreover, the presence of competitive pressure on local leaders, especially from operators with a wider geographic coverage, and the evolution of the market shares of local leaders between 2021 and 2022 signal a development of competition across the Albanian territory. In addition, the absence of differences in pricing and commercial strategies, especially from operators with a wide geographic coverage, across local areas points out also to homogenous competition conditions. This is confirmed by the comparability of technical functionalities of broadband services in different local areas.

Given the continuous evolution of competition in most local areas and the homogeneity of competition conditions across the Albanian territory, AKEP does not believe that a sub-national geographic definition is appropriate as such definition would fail to fulfil the condition of having clear and stable boundaries over time. Furthermore, AKEP believes that a sub-national definition of the market would entail burdensome analysis and could lead to inefficient market fragmentation.

Therefore, AKEP proposes to maintain the definition of the retail market as national, for both residential and business grade fixed broadband services. This national definition is particularly relevant for the business market due to the nature of the demand. Indeed, businesses often require multi-sites services that rely on a wide geographic availability of services[50].

Question 7: Do you agree with the geographic definition of retail broadband services proposed by AKEP in section 3.1.1.2?

3.1.2 Wholesale market definition

3.1.2.1 Wholesale product market definition

As established by the European Commission in its recommendations for relevant markets susceptible for ex-ante regulation[51], in order to supply fixed broadband services, a suitable communication channel is required that is capable of passing data in both directions and at rates that are appropriate for the service demanded. In practice, operators have the choice between building and providing their services over their own network and/or obtaining access to an already existing infrastructure from other operators through a wholesale offer.

[50] A similar analysis has been conducted by the regulatory authority in Romania in 2020. This analysis led to a conclusion similar to the one proposed by AKEP in this document. For more details, see **section 0 of the Annex**.

[51] Commission's staff working document, Explanatory Note Accompanying the document Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, section 4.1.2, page 40.

Different network levels for wholesale access products and the currently defined markets

Access to the network can be granted at several network level. Historically in Europe, new entrants tended to rely on the incumbent's existing ubiquitous network by seeking access at higher network level (through a central/bitstream access for example) in order to serve a wide customer base dispersed geographically. As the new operator builds his customer base, it seeks access to lower network level (through a local access) in order to have more control over the quality of service and the costs of its services.

Wholesale broadband access may be granted at central or local level. In its latest market analysis, and in line with the 2014 Recommendations of the European Commission, AKEP defined in 2016 three wholesale markets:

- **the market for wholesale local access provided at a fixed location (WLA);**
- **the market for wholesale central access provided at a fixed location for mass-market products (WCA); and**
- **the market for wholesale high-quality access provided at a fixed location (WHQA).**

The following analysis will assess whether the revision of the product definition of these markets is warranted in light of the latest technological developments in the telecommunications sector.

On the absence of need for re-assessing the product characteristics and boundaries of the wholesale access markets

On the relevance of maintaining physical and virtual accesses within the same market

In its 2016 market analysis, AKEP analysed the relevance of distinguishing between physical and virtual access products and concluded that such distinction is no longer relevant, placing thus both types of accesses within the same market. AKEP deems that such conclusions remain relevant for the next regulatory cycle.

In its analysis of the main technological developments trends within the European electronic communications sector, the European Commission noted that observed trends such as the decreasing usage of physical access and the generalisation of wholesale access based on Virtual Unbundling Local Access (VULA) are likely to continue in the foreseeable future. The European Commission expects thus virtual access to become the main wholesale access product and physical access to diminish in importance.

As long as virtual access provides similar capabilities to physical access, both types of access shall be included in the same market. This approach is consistent with the analysis of most national regulatory authorities in Europe who opted to include both physical and virtual access within the same wholesale local access market[52].

[52] Commission's staff working document, Explanatory Note Accompanying the document Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, section 4.1.2, page 44.

In defining wholesale access markets, AKEP relied on the following criteria:

- the actual location of the point of handover: mainly by distinguishing between access provided locally from access provided at a higher network level;
- the topology and core transmission features of the wholesale products, in particular regarding network contention: and
- the degree of flexibility the network control leaves to the access seekers for differentiating its retail offers.

On the relevance of maintaining separate product markets for local and central access products

The question as to whether the market should be defined narrowly (local) or more broadly (local and central) should be based on a number of factors such the degree of virtualisation of wholesale access products, the technical specifications of wholesale local access and wholesale central access products, the observed patterns of wholesale and retail demand substitution. For all the factors mentioned above, especially those related to the technical specifications of wholesale products, AKEP does not observe any significant change since the previous market analysis that warrants the modification of the conclusion that local and central wholesale access products remain complements rather than substitutes.

Indeed, as regulated wholesale products currently provided in the market are based on One Albania's copper network, the network level at which the traffic is handed over remains a differentiating factor between local and central wholesale access products. Indeed, wholesale central access services allow operators to serve a wider geographic area and establish a presence in the market, without incurring restrictively high costs.

Moreover, wholesale central access products currently available in the market do not provide the access seeker with uncontended capacities equivalent to those obtained through local access products.

Furthermore, in order to consider both local and central access products as substitutes, the access seeker needs to have sufficient control over the transmission network, operational and business processes as well as the ancillary services and systems in order to gain sufficient control over the quality of service provided to end-users. With the development of new generation networks, especially through fibre networks by alternative operators, there is a growing number of operators that invest in such capacities. However, the economic viability of such investments remains limited to certain geographic areas. As such, the access seeker's control over the transmission network, operational and business process as well as the ancillary services and systems remains partial.

For the reasons detailed above, AKEP proposes that maintaining the distinction between local and central wholesale access products is relevant for the next regulatory cycle.

On the relevance of maintaining separate product markets for mass market and high-quality access products

With the development of very high-capacity network generally, residential grade products are becoming increasingly performant, especially in terms of available capacity. This improvement led to the emergence of trend within the European Union of businesses customers relying on

mass-market broadband infrastructure[53]. In Albania, as explained in section **Error! Reference source not found.**, some small and medium sized businesses use residential grade broadband services for their connectivity needs.

Nevertheless, the co-existence of both business-grade and residential-grade services is likely to persist in the future as the latter remain insufficient to satisfy the needs of large businesses and institutions for higher reliability, lower redundancy, and higher quality of service. In addition, residential-grade services remain inadequate to serve some specific needs such as establishing connections between the geographically dispersed sites of national and international business customers.

Furthermore, on a network level, accesses provided to big businesses and institutions often rely on a different network architecture (e.g., Point-to-Point) than residential grade services (e.g., Point-to-Multi-Points), limiting thus both supply-side and demand-side substitutability between residential grade and business grade services.

For the reasons detailed above, AKEP deems that maintaining the distinction between residential grade and business grade services access products is relevant for the next regulatory cycle.

In light of the above, from a product point of view, AKEP proposes to maintain the same wholesale markets as defined in AKEP's 2016 market analysis decision.

3.1.2.2 Wholesale geographic market definition

Despite the existence of observed variations in competition across different geographic areas as shown in section Error! Reference source not found., AKEP maintains a national definition of all three wholesale access markets identified. This choice is motivated by the extensive coverage of the incumbent's network which covers in 2022, according to the operator's reporting to AKEP, 93 out of the 122 local areas as defined in section Error! Reference source not found..

Question 8: Do you agree with the product and geographic definition of wholesale network access services proposed by AKEP in section 3.1.2?

[53] Commission's staff working document, Explanatory Note Accompanying the document Commission recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code, section 4.1.2, page 44.

3.2 Assessment of competition in the relevant retail and wholesale markets

3.2.1 Assessment of competition in retail markets

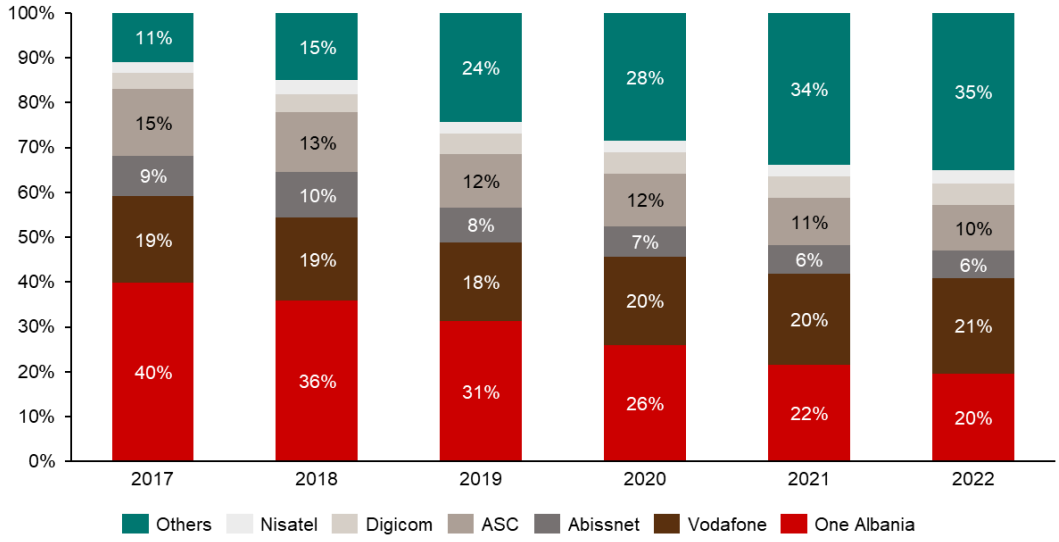
Considering AKEP's proposed analysis on the relevant retail markets definition from both product (Error! Reference source not found.) and geographic (Error! Reference source not found.) perspectives, AKEP identifies two retail markets:

- **A national retail market for residential grade broadband services; and**
- **A national retail market for business grade broadband services.**

The following sections aim to assess the competition in these two markets.

3.2.1.1 Competition in the retail market for residential grade broadband services

Figure 32 – Market shares (in volumes) in the retail market for residential grade broadband services (2017-2022)



Source: AKEP's annual statistical reports based on data collected from the operators

Error! Reference source not found. shows the evolution of market shares of operators between 2017 and 2022 for residential internet access services. AKEP observes a similar trend to Figure 19 with a reduction by a half of One Albania's market share, reaching 20% in 2022 down from 40% in 2017, the rise of Vodafone as the operator with the largest of market share and the increase of the market share of smaller operators.

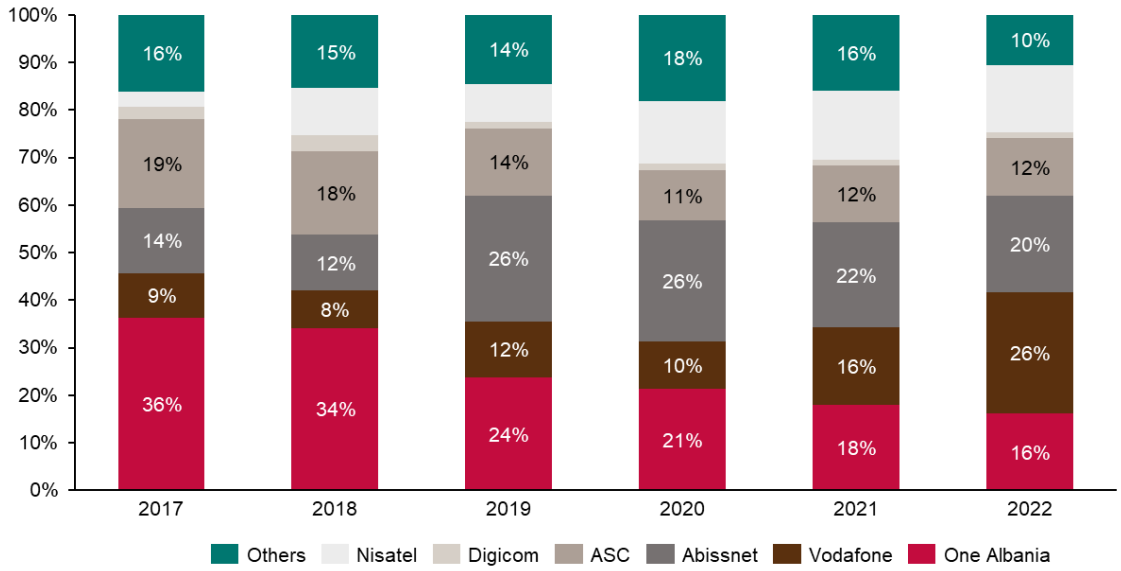
Considering the evolution of competition in the market during the last 6 years, AKEP considers the retail market for residential grade broadband services to be sufficiently competitive.

3.2.1.2 Competition in the retail market for business grade broadband services

Within the retail market for business grade broadband services, AKEP distinguishes between two main products, internet access and leased lines/capacity services.

The internet access services included in this market are sold to non-residential customers, including private businesses and public institutions. They include the contracts concluded by operators and customers on within the framework of a business agreement.

Figure 33 – Market shares (in volumes) in the retail market for business grade internet access services (2017-2022)



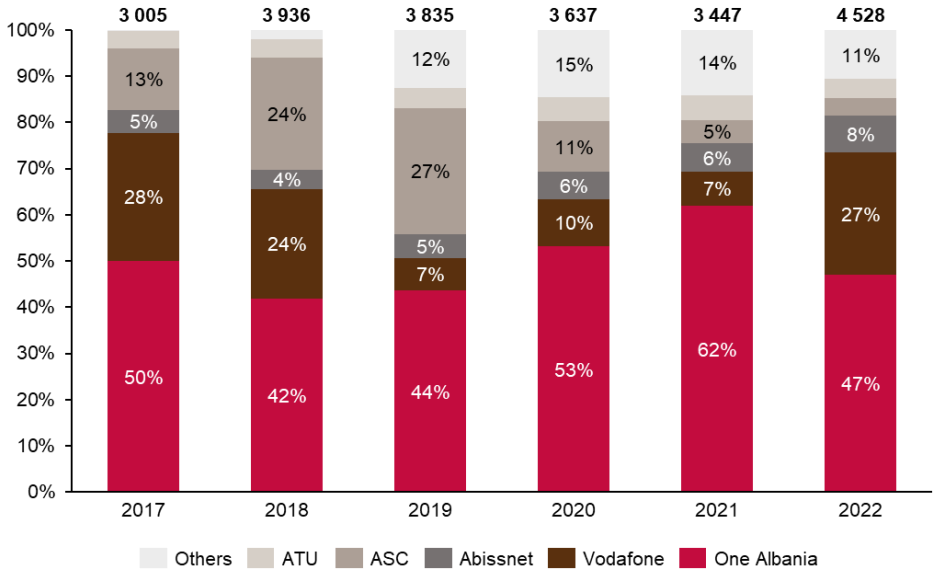
Source: AKEP's annual statistical reports based on data collected from the operators

For business grade internet access services, based on data collected by AKEP from the operators between 2017 and 2022, the incumbent lost 20 percentage points of market share, as it held 16% in 2022. On the contrary, other competitors, such as Vodafone and Abissnet gained market share as they became the leading operators with 26% and 20% of market shares respectively in 2022.

Considering the evolution of competition in the market during the period between 2017 and 2022, AKEP considers the retail market for business grade internet services to be sufficiently competitive.

Leased lines/capacity services include the capacity reserved by an operator on its network to connect two or more locations through a physical or virtual connection, which provides guaranteed or dedicated capacity between two points at any time. Capacities are included regardless of the technology used, such as traditional lines, Ethernet, etc.

Figure 34 – Market shares (in volumes) in the retail market for leased lines (2017-2022)



Source: AKEP's annual statistical reports based on data collected from the operators

Based on the data collected from the operators by AKEP, the retail market for leased lines seems to be volatile as the market shares of the operators increase and decrease without a specific pattern. This volatility could be caused either by the low volumes of connections in the market (maximum of 4 528 connections in 2022) and/or by issues related to the quality of data. In any case, according to the data at our disposal, One Albania is the main operator of retail leased lines with a market share varying from 42% to 62% over the period between 2017 and 2022.

It is worth noting that One Albania's leased lines are predominantly national as the operator provides very few international connections. While the overall volumes of international connections are low (total of 114 connections in 2022), Vodafone is the largest provider providing close to 90% of international leased lines in Albania.

In terms of the number of businesses connected by each operator, Vodafone was the leading provider in 2022 with 150 customers, after a significant increase compared to the 85 customers the operators served in 2021 (+76%). This increase in customer base is also reflected in the increase of the operator's market share in volume of connections in 2022 compared to 2021 (Error! Reference source not found.) One Albania was the second operator with 105 customers in 2022, up from 85 customers in the previous year (+24%).

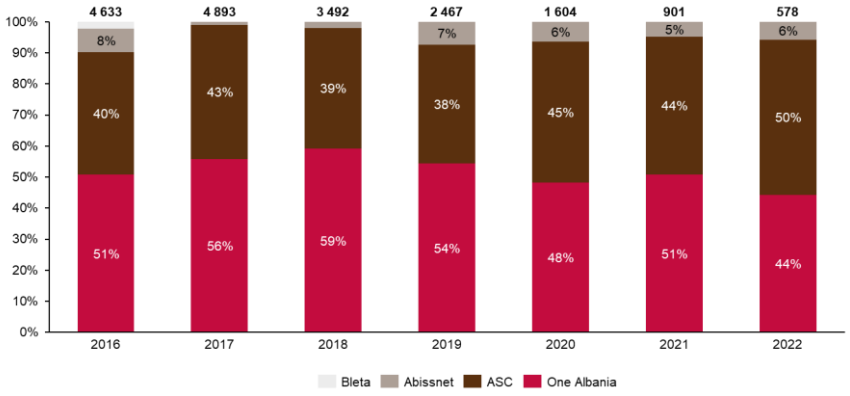
Total revenues generated from retail leased lines offers are generally increasing. By the end of 2022, all operators combined reported LEK 345 M, up from LEK 234 M in 2017 (+47%). The incumbent, One Albania, remains the largest operator in the market as his market share in value reached 57 % in 2022, down from 60 % in 2017.

Overall, the volatility of the data does not allow AKEP to draw a specific conclusion regarding the status of competition for retail leased lines. Nevertheless, no specific issue related to competition is *a priori* identified especially in light of the growth observed for Vodafone in 2022.

Question 8: Do you agree with the assessment of competition in retail broadband markets undertaken by AKEP in section 3.2.1?

3.2.2 Assessment of competition in wholesale markets

Figure 35 – Volumes of wholesale bitstream accesses sold in Albania (2016-2022)



Source: AKEP's annual statistical reports based on data collected from the operators

The volume of wholesale access products currently sold in Albania is very low. By the end of 2022, there was a total of 578 bitstream accesses, down from 4 633 accesses in 2016. In terms of market share, the accesses sold by the One Albania represented 44% of the total accesses sold in 2022, which represented the incumbent's lowest market share since 2016. With 50% of market share, ASC was in 2022 the largest bitstream access provider in Albania.

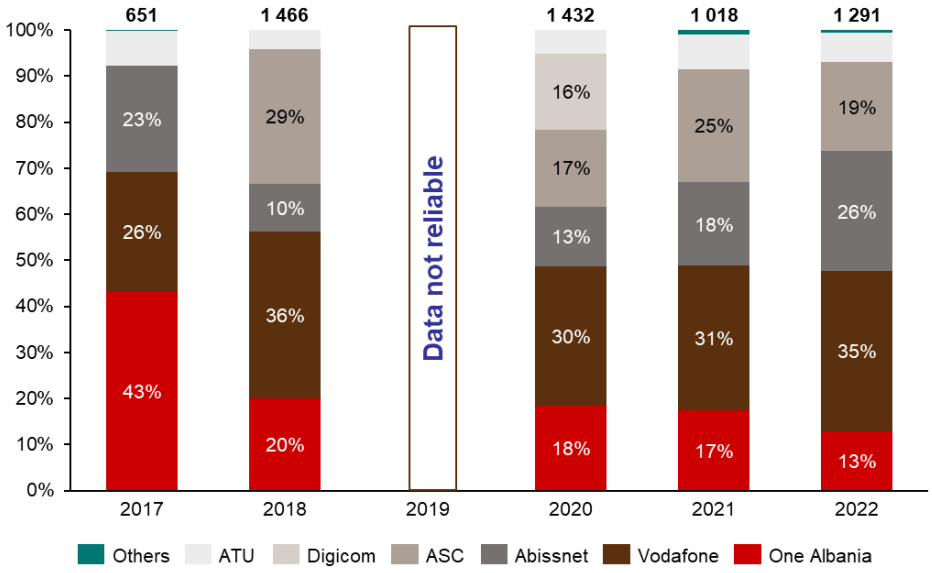
Regarding wholesale local accesses, no full-ULL access has been sold by any operator in the market since 2018[54].

To put these volumes in perspective, the total number of retail internet accesses sold in 2022 was 586 thousand accesses. Thus, only 0.1% of retail internet accesses were provided through a wholesale offer.

Total revenues generated from wholesale bitstream offers are also very low. By the end of 2022, all operators combined reported only LEK 4,2 M, down from LEK 29,2 M in 2018.

[54] Very few partial ULL are provided. According to the operators' data in 2022, only 10 accesses are sold in Albania.

Figure 36 – Volumes of wholesale leased lines accesses sold in Albania (2017-2022)



Source: AKEP's annual statistical reports based on data collected from the operators

Similar to the retail market, the wholesale market for leased lines seems to be volatile as well. In terms of volumes, there was a significant increase between 2017 and 2018 as the total number of leased lines provided on the wholesale market reached1 466, up from 651(+125%). However, the volumes decreased by 29% (from 1 432 to 1 018) between 2020 and 2021 before increasing again in 2022 by 27% to reach 1 291 leased lines.

In 2021 and 2022, wholesale leased lines represented 30% and 29% respectively of the total retail leased lines. Once again, this share is volatile across the observed period as it represented 21% in 2017, 37% in 2018 and 39% in 2020.

One Albania's wholesale leased lined decreased both in volume and market share between 2017 and 2022 as it dropped from 281 connections (43% of the market) to 166 connections (13% of the market). On the contrary, Vodafone increased both in volume and market share passing from 170 connections (26% of the market) in 2017 to 450 connections (35% of the market) in 2022.

In terms of the number of operators served through the wholesale market, Vodafone was the leading operator with 55 operators-customers in 2022 after a significant increase from only 5 operators-customers in 2021. Abssinet is the second largest provider with 23 operators-customers in 2022 (up from 17 in 2021) and One Albania is the third largest provider with 22 operators-customers in 2022 (down from 27 in 2021).

Question 9: Do you agree with the assessment of competition in wholesale broadband markets undertaken by AKEP in section 3.2.2?

3.2.3 Identification of operators with a Significant Market Power (SMP)

In accordance with the European Commission's SMP guidelines, in order to determine whether a wholesale market warrant introducing or maintaining ex-ante regulation, the national regulatory authority should determine whether the underlying retail market(s) is (are) prospectively competitive in absence of wholesale regulation based on a finding of single or collective significant market power, and thus whether any lack of effective competition is durable[55].

To this aim, AKEP analysed whether, in absence of SMP regulation in the identified wholesale markets, a risk of consumer harm due to a lack of competition in either the retail market for residential grade broadband services or the retail market for business grade broadband services would emerge.

3.2.3.1 No consumer harm has been identified due to a lack of competition in case of the removal of SMP regulation in wholesale markets upstream of the retail market for residential grade broadband services

As demonstrated in section Error! Reference source not found., the volume of accesses sold on the wholesale market in Albania is very low. Indeed, despite the availability of a regulated access from One Albania, bitstream accesses decreased from 4 633 accesses in 2016 to only 578 accesses in 2022. In addition to such low volumes, One Albania is no longer the main provider of wholesale bitstream accesses in Albania. Moreover, the demand for ULL accesses disappeared from the market since 2018. Despite the absence take-up of regulated products, an infrastructure-based competition has developed.

In order to expand their networks, Albanian operators deploy their own network using their own infrastructure, even for the most capital-intensive parts on the network (i.e., the local physical infrastructure) where they rely mostly on their built ducts and poles, financed by each operator separately or jointly through joint investments agreements[56].

As such, given the developments of the sector since the last market analysis decision in 2016 (see **section 1**), AKEP deems that both wholesale local and central access markets play a very minor role, if any, in the development of the Albanian electronic communications sector. Therefore, the removal of ex-ante regulation from these markets is not likely to lead to any consumer harm or hinder the development of competition in the retail market for fixed residential grade broadband services.

3.2.3.2 No consumer harm has been identified due to a lack of competition in case of the removal of SMP regulation in wholesale markets upstream of the retail market for business grade broadband services

Although One Albania still an important presence in the retail market of leased lines, at the wholesale level One Albania is no longer the largest provider as its market share dropped to

[55] Source: the European Commission's "Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services", recital 16, link: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018XC0507(01) (last access on 23/11/2023)

[56] Data collected by AKEP from the operators shows that the volumes of ducts (in km) rented by One Albania to other operators is decreasing since 2019, despite the important growth of the total number of broadband accesses as shown in Figure 1.

13% for leased capacities in 2022, down from 43% in 2017. In addition, there exists other operators who have developed competing wholesale offers and they became the market leader, both in terms of the volume of accesses sold and the number of operators-customers served.

While One Albania how still possess the most ubiquitous network in Albania, alternative operators do not seem to be dependent on wholesale offers from the incumbent to compete on the retail level as competing wholesale offers emerged in the market. As alternative operators continue to build their own networks locally, especially in urban areas where the economic activity is concentrated and most businesses with strict quality of service needs are implemented, business operators seem to have found alternatives to One Albania's wholesale offers. Hence, the observed decrease in volumes, market shares and in the number of customers for the incumbent since the previous market analysis.

Therefore, in AKEP's opinion, the removal of ex-ante regulation from the market for wholesale high-quality access provided at a fixed location is not likely to lead to any consumer harm or hinder the development of competition in the retail market for fixed business grade broadband services.

Question 10: Do you agree with AKEP's conclusion on the absence of operators with significant market power (SMP) in the identified wholesale markets?

3.3 The removal of existing ex-ante obligations currently imposed on One Albania

Given the conclusion reached by AKEP in section Error! Reference source not found. regarding the lack of necessity to impose ex-ante regulation in the market for wholesale local access provided at a fixed location, the market for wholesale central access provided at a fixed location for mass-market products and the market for wholesale high-quality access provided at a fixed location, AKEP proposes to remove the existing regulatory obligations currently imposed on One Albania on the basis of AKEP's previous market analysis decision in 2016.

Question 11: Do you agree with AKEP's conclusion on the relevance of lifting ex-antre regulatory obligations currently imposed on One Albania?

Concluding remarks

In this document, AKEP analysed the main development of fixed broadband markets in Albania since the previous market analysis decision in 2016. AKEP observes that the market saw an important growth as the number of fixed broadband accesses more than doubled in the span of the last 6 to 7 years. This growth, characterized by important disparities between rural and urban areas that persists, is fuelled by the development of infrastructure-based competition. Indeed, alternative operators have invested in developing their own networks, using their own physical infrastructure locally, to provide their services. As a result, fibre/FTTH connections become the main access technology in Albania at the expense of historical copper networks.

As alternative operators developed their network, they became more competitive in the retail market as the market share of established operators, including the incumbent continue to decrease. Another important consequence of the development of infrastructure-based competition is the decrease in the volume of connections sold through the wholesale market. By the end of 2022, about 0,1% of internet access services sold in the retail market were procured through a wholesale bitstream market. Even for the small volume of accesses sold in the wholesale market, the majority are sold by alternative operators on a commercial basis.

Therefore, despite the quasi-absence of take-up in regulated products, retail competition has developed. As such, lifting existing regulatory obligations is unlikely to any consumer harm has due to a lack of competition in case of the removal of SMP regulation in the upstream wholesale markets. Following the same logic, the development of retail competition has occurred in spite of the absence of regulation in other wholesale markets.

As such, AKEP proposed to:

- **Lift the ex-ante regulatory obligations currently imposed on One Albania in the market for wholesale local access provided at a fixed location (WLA);**
- **Lift the ex-ante regulatory obligations currently imposed on One Albania in the market for wholesale central access provided at a fixed location for mass-market products (WCA);**
- **Lift the ex-ante regulatory obligations currently imposed on One Albania in the market for wholesale high-quality access provided at a fixed location (WHQA); and**
- **Refrain from imposing ex-ante regulation in the wholesale market for passive access to inter-urban physical infrastructure.**

Question 12: Do you have any other comments that you would like to communicate with AKEP regarding the proposed broadband wholesale market analysis?

Annex: Benchmark of the regulation of wholesale fixed broadband markets in Romania, Montenegro, and France

In the context of market analysis, it is important to rely on what has been done in terms of regulation in other countries in order to learn lessons and apply them to the case of Albania. This is why we have chosen to establish a benchmark concerning the regulations that have been applied in other European countries. These are therefore countries which have carried out an analysis based on the application of the relevant European texts and their transposition into national law (The European Electronic Communications Code, the Broadband Cost Reduction Directive 2014/61/EU and its review since 2020, the European Commission's recommendations and guidelines, etc.)

The countries included in this study are Romania, Montenegro and France. Each one of these countries has been selected for distinct reasons but based on the shared objective of relevance with the Albanian electronic communications sector.

The case of Romania is quite atypical since it is one of the rare countries where none of the wholesale markets are regulated. This is an interesting case because as in Albania, the fixed telecommunications market is marked by an environment of strong competitive pressure where the incumbent operator has less market power than the leading alternative operator. There is also a developed infrastructure-based competition and a strong presence of local operators. Also fixed telecommunications is an example of Romanian success, the price of internet being among the lowest in the world. The decision to lift the regulation is also interesting in the case of our study in Albania, since the incumbent is today overtaken by alternative operators.

Montenegro was chosen for very different reasons. It is in fact the similarities from the point of view of economic development and the geographical proximity which make Montenegro an interesting case study within the framework of the benchmark. Furthermore, these two countries are candidates for European integration, the direction of the political decisions of these two countries must thus go in the direction of that of the EU.

France was chosen for the establishment of local geographic regulation by distinguishing different zones by their density and with an in-depth study and the test of the 3 criteria carried out on the infrastructure market physical. These analyses are relevant for assessing the regulations to be proposed for Albania.

Executive Summary of the benchmark

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Romania

1.1 Introduction

According to the CEE's Digital Decade Country Report 2023[57], which examines a set of criteria for digital transformation, connectivity is the area in which Romania scores best. 96% of Romanian households already have access to Gigabit/FTTP networks, well above the EU average (73% for VHCN coverage and 56% for FTTP coverage). However, 5G coverage stands at 27%, well below the European average of 80%.

1.1.1 Reason for choosing Romania

Beyond the similarities in development and geographical proximity with Albania, what motivates Romania's presence is the similarity of the fixed access market between this country and Albania:

- There is strong infrastructure-based competition in both retail markets.
- The market in rural areas is very heterogeneous with many local operators as in Albania. Over 500 operators had a fixed access network in Romania in 2019[58].
- The incumbent operator (Telekom Romania Communications SA) held a relatively small market share in 2019 (19%), which is quite close to One Albania's current market share (21%).

The choice of Romania is therefore determined by market similarities.

1.1.2 The market and the regulator

In Romania, the regulator is called ANCOM (Romania's National Authority for Communications Management and Regulation).

In Romania, unlike in other EU member states, the market leader for broadband Internet access services to fixed points is not the incumbent, but the fiber optic and coaxial cable network operator RCS & RDS SA. The latter had a market share of 52% in mid-2019, followed by Telekom Romania Communications SA with 19% (respectively 22% if we take into account the combined share of the Telekom Romania Communications SA and Nextgen

[57] Link : https://digital-strategy.ec.europa.eu/en/library/country-reports-digital-decade-report-2023

[58] Market Report 2020 page 72

Communications SRL, which belongs to Orange SA at more than 50%.). The third operator is UPC Romania SA, which at the same date held a market share of almost 12%.

1.1.3 Summary of the market regulation

In 2020, ANCOM has announced that no regulation is required for the wholesale market for fixed-location broadband Internet access services in Romania. The regulator's position is based on an analysis of market developments between 2015 and 2019, which concludes that the retail market for fixed broadband Internet access services is competitive, with no specific regulation required for the upstream wholesale markets. Motivated by an insignificant use of the incumbent's local loop, ANCOM concluded that no regulation is required on the markets for local access at a specific location and, respectively, on the market for central access provided at a specific location for mass-market products.

The Authority continues to monitor market developments, particularly as regards Internet access services with speeds in excess of 100 Mbps. In its decision, ANCOM specified that it will also pay particular attention to geographical variations in operators' pricing strategies, in order to assess the need to define relevant sub-national markets, while monitoring potentially significant changes that would require a more detailed product market definition, in particular the ability of competing operators to compete effectively with RCS&RDS in the high-speed Internet access service segments.

ANCOM also announced that no regulation is required for the high-quality internet access services.

1.2 Markets 3A & 3B: Wholesale local and central access provided at a fixed location (2020)

In the notified draft market analysis, ANCOM finds the retail market for fixed broadband internet access services to be competitive and therefore did not consider necessary to formally define or analyse the corresponding relevant wholesale markets.

1.2.1 Product Dimension

ANCOM defines the relevant product market at retail level as the market for the provision of fixed broadband internet access services.

The market comprises the supply of asymmetric broadband internet access services over copper, coaxial cable, UTP/FTP cable, optical fibre and wireless technologies, irrespective of the contention ratios or the transmission speeds, provided to end users (both businesses and natural persons), at fixed locations.

Most users enjoy internet access services with maximum download speeds of 30 Mbps and above (84 % of the lines), and even 100 Mbps and above (72 % of the lines). ANCOM finds that the market is characterized by a chain of substitutability, which leads to competitive constrains on all transmission speeds.

1.2.2 Geographical Dimension

On the geographic scope of the retail market, ANCOM considers the market to be of national dimension. The geographic analysis undertaken by ANCOM, based in particular on the number of networks present in the different municipalities of the country and the degree of overlap between the different network shows that in almost all urban municipalities at least three

operators have deployed their own infrastructure, while in many rural areas, end users are often much more limited in terms of choice and available speeds. However, the regulator considers that the structure and competitive situation of the Romanian market regularly change and that the market continues to grow, which makes impossible the delimitation of consistent and stable boundaries between sub-national areas. Moreover, ANCOM indicates that tariffs available in rural areas are in average similar to prices in the rest of the country.

1.2.3 Significant Market Power Operators on the market

ANCOM concludes that no operator holds individual SMP on the retail market. The regulator reached this conclusion after analysing a series of factors, including: the market share and the evolution of the market structure, barriers to entry and expansion, low switching costs, control of not-easily-duplicated infrastructure, a high degree of product innovation and differentiation, and indirect competitive constraints from other markets, in particular the mobile broadband access.

With regard to market shares, ANCOM notes that in Romania, the leader in the market for broadband internet access at a fixed location is not the incumbent (Telekom Romania Communications), but the operator of fibre and coaxial cable networks, RCS & RDS, which has reached a market share in number of connections of 52.18% in mid-2019, compared to the 21.57% for the incumbent. The market share of RCS & RDS has regularly increased (from 47% in 2015 to 52% in 2019), while the market shares of Telekom Romania Communications have decreased (from 25% in 2015 to 19% in 2019). The next largest competitor is UPC Romania/Vodafone with a market share 13.31%, while other operators accounted together for less than 13% of the market.

The market share based on revenues of RCS & RDS has shrunk between 2015 and 2019 (undisclosed data).

ANCOM indicates that the market volume is increasing constantly, for most of the important operators, indicating that the market is far from saturation. According to ANCOM, there is a favourable context for competition since commercial agreements for network access have been concluded between Orange Romania and Telekom Romania Communications, and between Vodafone Romania and RCS & RDS.

With regards to barriers to entry and expansion, ANCOM considers that such barriers have been significantly reduced over time and are expected to be lower over the time horizon of the analysis, especially in urban areas, where ANCOM indicates that demand is large enough to support the deployment of multiple access networks.

With regards to the infrastructure controlled, ANCOM points out that Telekom Romania Communications owns the fixed network with the largest coverage (almost 93 % of the population), while RCS & RDS covers 74 % of the population. ANCOM also points out to the presence in many municipalities of smaller operators, which have a limited client base and network footprint, but which contribute to the significant degree of infrastructure competition in many parts of the country.

Moreover, ANCOM considers that there is a high degree of product innovation and differentiation evidenced by a wide range of products, various service speeds and various offers comprising competitive prices. The regulator further indicates that the tariffs for internet access services provided at fixed location have stagnated between 2015 and 2019, while the quality of the services has improved considerably. ANCOM also assessed whether the two main providers, RCS & RDS and Telekom Romania are susceptible of having joint SMP and

concluded that the criteria for finding collective dominance (e.g., coordination incentives, market transparency and deterrence mechanism) are not met.

ANCOM has also indicated, in its reply to the request for information of the European Commission, that RCS & RDS has very recently taken the control of the network assets and the client base of one of its competitors, and that this operation will increase its network coverage and market share, in particular in rural areas.

1.2.4 Remedies

As the market for retail fixed broadband internet access services was found to be competitive in the absence of ex ante regulation of the wholesale markets, no obligations are to be imposed.

1.2.5 Comment of the European Commission

In its letter to ANCOM of 18/11/2020, about the Draft market analysis documents, the European Commission stressed the following points:

First, the European commission takes into account the arguments of the ANCOM for lifting regulations on Wholesale Local and Central access market. In particular that the market is characterised by the presence of a large number of operators with own end-to-end network infrastructure, resulting in significant and sustainable infrastructure competition.

On the product dimension, the commission observes that although the Romanian market is characterized by the widespread availability and take-up of high-speed broadband services, that the different segments of the market in terms of speed are characterized by different leaders in terms of market shares, with Telekom Romania being the market leader for speeds between 2 and 30 Mbps, while RCS & RDS is clearly leading on the segment between 30 Mbps and 100 Mbps, and above. The European commission has asked ANCOM to frequently follow the evolution of the market conditions, in particular behaviour of the customer changing for the highest download speed, which would break the substitution chain.

Considering the geographical dimension of the market, the European Commission notes that there are strong differences in terms of access to connectivity between areas, and especially between rural and urban areas. The European Commission asked to ANCOM to continue to monitor closely the evolution of competitive conditions throughout the country in order to potentially be able to delimit sub-national. In that regard a particular attention should be paid to the evolution of the pricing strategy of the main operators which would lead to significant differences in the prices between areas characterized by the presence of multiple networks, on the one hand, and areas where infrastructure competition is unlikely to emerge in the coming years on the other hand.

1.3 Market 4: High quality access wholesale market (2021)

1.3.1 Product dimension

ANCOM identifies the following relevant product market corresponding to high-quality electronic communications services provided to end-users: The market for high-quality electronic communications services, which includes the following services, regardless of the capacities offered/available and the transmission medium used:

- analog and digital leased lines with “classic” interfaces (leased lines with “classic” interfaces - IT)
- digital leased lines with “alternative” interfaces (IA) (mainly Ethernet)
- VPN type services which use dedicated/guaranteed/symmetric connections on an operator's network as access links (guaranteed VPN)

1.3.2 Geographical dimension

Considering the necessary conditions to be met for the definition of geographic markets at the subnational level, ANCOM considers that, both in the present and in the time horizon of the analysis, the existence of such situations does not determine differences sufficiently relevant, coherent and stable over time with regard to the conditions of competition between rural and urban areas or between different geographical units considered (localities/counties) to justify the definition of geographical markets at a narrower level than the national level.

1.3.3 Significant Market Power Operators on the market

Over the time horizon of the analysis, the market for high-quality electronic communications services delivered at fixed points does not exhibit characteristics indicating that a provider has significant individual power. Thus, it cannot be demonstrated that, in this market, there is a supplier which behaves independently of its competitors, its customers and consumers. This is demonstrated by the following market indicators:

- In 2020, the individual market shares of the main operators, both in terms of total number of circuits/connections and in terms of revenue, were less than 31% and it is unlikely that, assuming the same trends persist, as expected, a vendor of such services would significantly exceed the 40% market share over the time horizon of the market analysis.
- The market is dynamic and growing, with sales volumes of high-quality services increasing for all major providers.
- Alternative providers have made significant investments in fibre optic networks and have available capacity to provide higher quality services to third parties (both retail and wholesale).
- Barriers to market entry and development are moderate, particularly in developed rural environments and urban areas, where most retail market demand for higher quality services comes from. ANCOM does not expect this situation to change significantly during the period under review of this market, recalling that, they were 18 new suppliers between 2017 and 2020.
- In the retail market for high-quality fixed-point services, there is sufficient countervailing power on the part of customers to be able to counter the manifestation of any abusive behaviour on the part of any supplier.

1.3.4 Remedies

As the market for retail high quality fixed broadband internet access services was found to be competitive in the absence of ex ante regulation of the wholesale markets, no obligations are to be imposed.

Montenegro

1.4 Introduction

Fixed networks are particularly developed in Montenegro. Indeed, the penetration rate reached 86.7% in 2020 (total number of lines/ number of households). In Albania, this figure was 70%[59] in 2020.

1.4.1 Reason for choosing Montenegro

The main reason why Montenegro was selected is the structural resemblance with Albania in terms of economic development, geography, size and European accession policy.

- Montenegro (13,812 sq.km) twice as small as Albania (28,749 sq.km) but their surface area remains comparable.
- Montenegro has been a candidate for membership of the European Union since 2010.
- The GDP per capita is comparable between these two countries: $6,500 for Albania and $9,500 for Montenegro.
- These are neighbouring countries.

1.4.2 The market and the regulator

The Regulatory Authority for Electronic Communications, Postal and Press Distribution (EKIP) is an independent administrative authority of Montenegro responsible for regulating electronic and postal communications and press distribution.

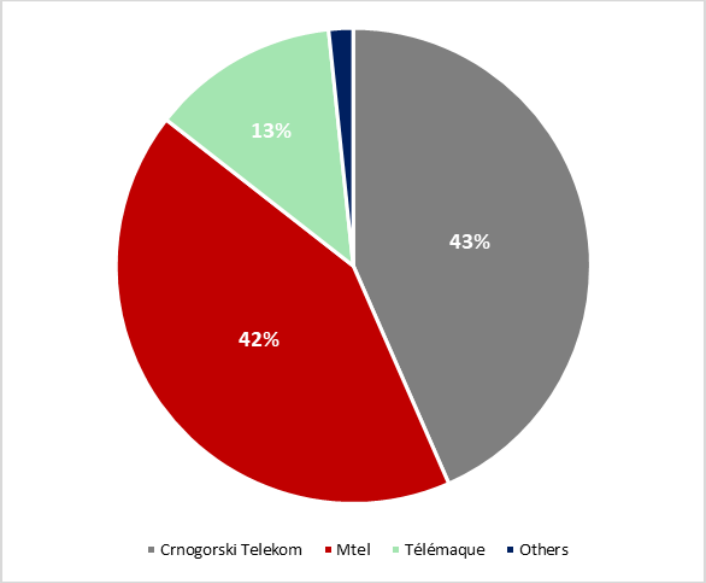
Regarding the different technologies, 40% of internet lines are made of fibre in 2020. Copper and coax cable lines represented respectively 31% and 26%. This is a proportion similar to Albania at that time with fibre lines reaching 46%, copper lines 33% and coax cable lines 18%.

At the end of 2020, 11 operators provided high-speed Internet access service at retail on the fixed network in Montenegro. The incumbent is: Crnogorski Telekom, current leader on the retail market with 43,4% followed by Mtel with 42,1%.

The graph below shows the market shares on the lines in Montenegro in Q4-2021. We see that there are two operators which share 85% of the market.

[59] Figure 8, page 17. Link : https://akep.al/wp-content/uploads/2021/08/R2020_Treguesit-Statistikore-te-Tregut-te-Komunikimeve-Elektronike-DTMRR.pdf

Figure 37 - Retail market share in Montenegro



Source : Montenegro regulation report 2022[60]

1.4.3 Overview of the market regulation

The purpose of the February 2021 market analysis is to analyse the key elements of four draft decisions on “asymmetric” regulation:

- The market for wholesale local access provided at a fixed location (3a)
- The market for Wholesale central access provided at a fixed location (3b)
- The market for wholesale high-quality (business-grade) activated products (4)

1.5 Market 3A: Wholesale local access provided at a fixed location

1.5.1 Product dimension

The authority analyses substitution at the level of supply and demand.

On the demand side, the Authority concludes that the demand for wholesale local access services provided at a fixed location arises from the demand for broadband Internet access services provided at the retail level, which relies on fibre, copper or cable accesses. All three technologies have thus been included in the same market.

On the supply side, the Authority observes that only Crnogorski Telekom offered wholesale access services to the unbundled local loop based on copper and fibre in order to provide broadband access services at the retail level. Despite the implementation of all regulatory

[60] Page 22
Link :https://ekip.me/media/documents/general/1654498025_Analiza%20tr%C5%BEi%C5%A1ta%20veleprodajnog%20lokalnog%20pristupa%20koji%20se%20pru%C5%BEa%20na%20fiksnoj....pdf

obligations and opportunities in accordance with the concept of the investment scale, potential or new operators were not interested in leasing wholesale inputs from Crnogorski Telekom.

Thus, the Authority concludes that the relevant wholesale market for local access provided at a given location, during the relevant period, includes the following services:

- unbundled local loop and sub-loop access service based on copper
- fibre-based unbundled local loop access service
- Crnogorski Telekom network physical infrastructure access service

1.5.2 Geographical dimension

EKIP analysed the prices in the market and concluded that both wholesale and retail prices for access to the related broadband services are uniform throughout the territory of Montenegro.

Based on the above, and on the analysis carried out, the Authority considers that the relevant wholesale market for local access, which is provided at a given location, has a national scope, that is, the **relevant geographic market is the territory of Montenegro**.

1.5.3 Significant Market Power Operators on the market

The operator Crnogorski Telekom was declared SMP in the 2017 market analysis.

The market development dynamics have not changed from the previous market analysis, and it remains that Crnogorski Telekom is the sole wholesale provider in the country. Barriers to market entry are still high and overwhelming.

1.5.4 Remedies

The following remedies were imposed on Crnogorski Telekom:

- Obligation to provide information
- Non-discrimination obligation
- Obligation to keep separate accounts
- Obligation to access and use network elements
- Obligation to control prices and maintain cost accounting

1.6 Market 3B : Wholesale central access provided at a fixed location

1.6.1 Product dimension

Conclusion on substitution on the demand side – at the retail level

The Authority concludes that the demand for wholesale central access services provided at a fixed location for mass market products stems from the demand for retail broadband Internet

access services based on fibre, copper, or cable. In line with the conclusion for market 3a, all three technologies are placed within the same market.

Conclusion on supply side substitution – at wholesale level

The Authority concluded that the relevant market for wholesale central access provided at a specified location for mass market products includes the following services:

- Binary flow with the following implicit support points
- Crnogorski Telekom's broadband access service , access point at the IP level (layer 3 access), access point at the Ethernet level (layer 2 access), access point at the WCA level whether it is a copper pair, fibre optic or hybrid access technology.

1.6.2 Geographical dimension

The prices of wholesale access as well as the prices on the retail market for access to the related **broadband are uniform throughout the territory of Montenegro.**

The Authority considers that the relevant market for wholesale central access, which is provided at a specified location for products intended for the mass market **is national**. The above conclusion is based on the fact that Crnogorski Telekom offers a valid service that is part of the relevant market throughout the territory of Montenegro.

1.6.3 Significant Market Power Operators on the market

The authority is based on the following criteria:

- ▷ Market participation of the operator in the relevant market
- ▷ Control an infrastructure whose size cannot be easily doubled
- ▷ Economies of scale
- ▷ Lack of compensatory purchasing power
- ▷ Degree of vertical integration

The Authority has determined that there is no effective competition in the relevant market mentioned. In addition, the Authority has established that Crnogorski Telekom has significant market power and a dominant position in this market, which allows it to act independently of competition and end-users of the services.

1.6.4 Remedies

The following remedies were imposed on Crnogorski Telekom:

- ▷ Obligation to publish data
- ▷ Obligation to ensure non-discrimination
- ▷ Obligation to keep separate accounts
- ▷ Obligation to access and use network elements
- ▷ Obligation to control prices and maintain cost accounting.

1.7 Market 4 : High quality access wholesale market

1.7.1 Product dimension

EKIP considers that wholesale operators can provide leased lines and/or portions of leased lines. The precise combination of these two products depends on the price ratio of these services, which is why, in the event that a hypothetical monopolist raises its price, these two services would be mutually competitive. The Authority therefore considers that, from the point of view of demand, leased lines and parts of leased lines constitute a single market.

The Authority also concluded that the service dimension of the relevant market on the demand side also includes the high-quality access services that operators provide for their needs. With regard to the offer aspect, the Authority considers that operators which provide a high-quality access service for their own needs, that is to say to their end users, may begin to provide a high-quality wholesale access service in a short period of time in the event of an increase in the price of a hypothetical monopolist.

Based on the above, the Authority has determined that the relevant market for high-quality wholesale access provided at a specified location includes electronic communications services offered to the public:

- High quality wholesale access services;
- High quality access service that operators provide to their needs (self-supply).

1.7.2 Geographical dimension

Operators provide public electronic communications services under the same conditions throughout Montenegro and the legal and regulatory framework for electronic communications is the same throughout the territory of Montenegro.

The Authority concludes that the relevant market in the **geographical dimension** for the high-quality wholesale access service provided at a given location is **national.**

1.7.3 Significant Market Power Operators on the market

The market share of Crnogorski Telekom in the wholesale market for high-quality fixed-location access increased from 64% in the first half of 2018 to 52% in 2020. A gradual decrease in market share is observed throughout the period observed, but this same fact **does not exclude the existence of significant market power.**

The SMP Status implies:

- Market participation of the operator in the relevant market
- Control of an infrastructure the size of which cannot be easily doubled
- Economies of scale
- Lack of compensatory purchasing power
- Degree of vertical integration

The Authority considers Crnogorski Telekom, a vertically integrated operator, to hold a significant market power in the market for high-quality wholesale access provided in a fixed position.

1.7.4 Remedies

The following remedies were imposed on Crnogorski Telekom:

- Obligation to publish data
- Obligation to ensure non-discrimination
- Access to and use of network elements
- Price control and accounting separation

France

1.8 Introduction

Fixed Internet in France has undergone a remarkable evolution since its introduction into French homes in the 1990s, transforming the way people communicate, work and access information. This technology is now essential for the French. In 2022, 92.5% of households hosted at least one people between 16 and 74 years are connected by a fixed internet access.

1.8.1 Reason for choosing France

The main reason why France was chosen in the benchmark is the structure and precision of the geographic analysis carried out by the regulator. Indeed, based on the differences in competition conditions in different geographic zones, the regulatory authority retained a national definition of the market but applied geographically different remedies. Also, the regulation of physical infrastructure market as a standalone market another feature worth studying.

1.8.2 The market and the regulator

In France, **the regulator is the Regulatory Authority for Electronic Communications, Posts and Press Distribution (ARCEP).** It is an independent French administrative authority responsible for regulating electronic and postal communications and press distribution.

In France, four operators provide 96% of fast and ultra-fast broadband connections: Orange, Bouygues Telecom, SFR and Free.

At the end of 2020, Orange, the incumbent operator, held 39% of the broadband retail market. Its main competitors are Free and SFR (resp. 21.9% and 21.2% of the retail market). Arrived in 2009 in the fixed market, Bouygues Telecom attracts 4.2 million customers (13.7%).

1.8.3 Overview of the market regulation

To meet the objective of the end of the copper cycle and the promotion of the competition, ARCEP identifies 4 relevant markets that could be subject to asymmetric regulation:

- The wholesale access to local physical infrastructure
- The market for wholesale local access provided at a fixed location (3a)
- The market for Wholesale central access provided at a fixed location (3b)
- The market for wholesale high-quality (business-grade) activated products (4)

1.9 The wholesale access to local physical infrastructure

1.9.1 Product dimension

With regard to the product dimension of the relevant market, ARCEP **includes in the market** offers for access to **underground civil engineering infrastructure (ducts) and** offers for the provision of **pole access from operators and local authorities**. To this end, ARCEP assessed the substitutability between the offers of pole access, ducts, visitable galleries of sewerage networks and other underground infrastructure networks:

Pole access: There is substitutability with the offers of access to civil engineering infrastructure because in some cases these poles are privileged by the operators. These two products are in direct competition because they have the same usage and there are no specific constraints to use one over the other. Therefore, they are in the same market.

Local authorities: There is substitutability with the incumbent's offers of access to civil engineering infrastructure because it represents an alternative whenever the communities have deployed such networks. These ducts allow a private use of the public infrastructure provide a similar usage of the civil engineering of Orange.

Occupation of visitable galleries of sewerage networks: Lack of substitutability with offers of access to civil engineering infrastructure due to the saturation of certain galleries, security measures and high maintenance costs.

Other underground infrastructure networks: Lack of substitutability with the offers of access to civil engineering infrastructure (non-reachable sanitation networks, electrical networks, district heating networks, rail networks, water, and gas networks) because of the conditions of access and management, but also because of the lack of capillarity.

Scope of the wholesale market for access to physical civil engineering infrastructures
ARCEP considers that the offers for the provision of pole access and the offers for access to underground civil engineering infrastructures available for the deployment of local loop and backhaul networks are substitutable.

1.9.2 Geographical dimension

With regard to the geographic dimension of the relevant market, **ARCEP has adopted a national dimension**. Orange is present throughout the country and the demand from alternative operators is national. In addition, Orange is often the only provider for operators wishing to deploy optical local loops or backhaul networks to connect to them. So, the national

scale would make it possible to homogenize the conditions of competition.

1.9.3 The 3 criteria-test to validate the relevant market of ex-ante regulation

The first criterion is the presence of high and not temporary barriers to entry.
With 560,000 km of underground ducts and 13 million poles, Orange is a major player in physical infrastructure. In addition, infrastructure costs can account for more than 80% of the total cost of deploying fixed networks. It would be very difficult for an operator to reproduce this infrastructure built when Orange had a monopoly on fixed access. **So, the first criterion is validated.**

The second criterion is used to determine whether the structure of a market presupposes a move towards effective competition within a given period.
There is currently no physical infrastructure of civil engineering alternative to that of Orange allowing the deployment of local loop and backhaul networks in economically viable conditions and in a way that exerts competitive pressure on the incumbent's physical infrastructure. **So, the second criterion is validated.**

The last criterion lies in the inability of competition law alone to remedy these market failures.
However, despite the application of Directive 2014/61/EU (Purpose was to reduce the cost of deploying high-speed electronic communications networks) and of competition law, the Authority considers that ex ante intervention makes it possible to implement tools, so that competition law does not have to remedy some market failures on its own. **So, the third criterion is validated.**

Thus, the 3 criteria test is verified.

1.9.4 Significant Market Power Operators on the market

Orange is a leading operator on the civil engineering market with, in 2021, 420,250 km of local loop cables were deployed in civil engineering. As of June 30, 2020, on Orange's poles, more than 275,000 km were deployed by alternative operators for their fibre deployments, an increase of 51% in one year.

Furthermore, there is no sign of potential competition for Orange on these essential infrastructures at the national level and, in all cases, it would be technically difficult, economically unsustainable and in an unsuitable time frame to replicate an infrastructure at this scale.

Thus, **ARCEP considers that Orange** has and will have a **significant influence on this market**.

1.9.5 Remedies

The following remedies were imposed on Orange:

- Obligations to grant reasonable requests for access to civil engineering infrastructure

- Obligations to accommodate reasonable requests for access to resources and services associated with the wholesale provision of access to physical civil engineering infrastructure
- Obligations of non-discrimination and reproducibility
- Transparency and disclosure of access information
- Quality of service
- Tariff control obligations
- Cost accounting and accounting separation obligations

1.10 Market 3A: Wholesale provision of local access in a specified position

1.10.1 Product dimension

In order to delineate the market of wholesale local access, ARCEP studied the degree of substitutability between:

- The different modes of unbundling;
- Local loop access and sub-loop access;
- access with standard or enhanced quality of service.

ARCEP concluded that **local access offers to the copper local loop, whether such access is to the copper local loop or the copper sub-loop, regardless of the unbundling mode, with or without enhanced quality of service, are substitutable.**

In terms of technologies, ARCEP concluded that the offers of access to the copper local loop and the optical local loops are substitutable.

In addition, the authority concluded on:

- **Lack of substitutability** of local access and central access offers to wireline local loops
- **Lack of substitutability** of access offers to local copper or fibre optic loops and access offers to coaxial terminating local loops
- **Lack of substitutability** of access offers to local wireline loops and access offers to other (mainly wireless) networks

1.10.2 Geographical dimension

The authority retains a **national dimension.**

The analysis of the authority initially focuses on the definition of areas of similar competition based on the density of households, population; and the economic incentives of deployment of the fibre (FttH) networks. Four categories of zones have been identified:

- **Private zones:** zones in which population density is the highest and private operators have the economic incentives to deploy their own FttH network using private funding. There is a full infrastructure-based competition in these zones.
- **AMIII zones[61]:** zones in which population density is less high. In this zones, private operators deploy their networks mainly on based on co-investment agreements via which only one operator deploys its network (network operator) and other (commercial) operators can have access to such network either through co-investments agreements (by groups of 5% of lines or through wholesale line rental agreements. Network operators in AMII zones are engaged to achieve network deployment by 2022.
- **AMEL[62]:** zones with socio-economic and investment conditions comparable to AMII zones, but with less density and lower economies of scale. The deployment of FttH network in these zones is done through the same mechanisms as the AMII zones. The main difference resides in the targeted dates to achieve dull FttH deployment. In AMEL zones, network operators are engaged to achieve network deployment by 2025.
- **RIP zones[63]:** mostly rural areas in which the economic viability of network deployment is not guaranteed. In these zones, the roll-out of FttH is subsidized by local government. The choice of the network operator that deploys the network is done locally through calls for tenders managed by local government.

Then, an analysis is carried out based on the following criteria to judge the competitive situation between these different previously established areas:

- **Criterion 1:** the proportion of premises served in the area by at least three FttH commercial operators.
- **Criterion 2:** the share of retail fibre subscribers among subscribers to fast and ultra-fast speed wired solutions.
- **Criterion 3:** the share of lines of alternative operators whose services dependent on Orange's infrastructure, all technologies combined, for the residential market.
- **Criterion 4:** the share of high-quality access marketed by alternative operators on the retail market for businesses that are dependent on Orange's local loop infrastructure.

The cumulative analysis of the four criteria shows that no area of the territory is distinguished by sufficiently different competitive conditions. The various areas still appear to be dependent on Orange's infrastructure to date.

Moreover, the authority recalls that **the delimitation of the market is not an end in itself but a tool to assess market power and ultimately the need for ex ante regulation**.

[61] AMII = « Appel à Manifestation d'Intention d'Investissement »

[62] AMEL = « Appel à Manifestation d'Engagements Locaux »

[63] RIP = « Réseaux d'initiative publique »

It should be also noted that, even in areas **where an optical local loop has been deployed by a third party, Orange remains a major player thanks to the unavoidable nature of its copper local loop.**

The Authority notes that the operators' demand for wholesale local access offers is national. Indeed, the unbundling of the local loop is used by Orange's competitors in almost all the territory.

Therefore, the authority retains a **national dimension.**

1.10.3 Significant Market Power Operators on the market

Copper local Loop access
The copper local loop market is significant as 85% of the wholesale access that alternative operators benefit from copper pair unbundling offers. Moreover, Orange holds 99.9% of the access.

Access to the local fibre loop
The premises for which Orange operates the FttH network represent 59% of the total number of premises eligible for FttH on 31 December 2022. ARCEP estimates that, at the end of the next regulatory cycle, the share of premises for which Orange operates the FttH network should fall slightly, while remaining above 50%.

In addition, Orange's structuring position on loop infrastructures are difficult to replicate under current market conditions at reasonable costs.

ARCEP considers thus that Orange has a significant influence on the relevant wholesale market for local access in a specified position.

1.10.4 Remedies

The following remedies were imposed on Orange:

- Obligations to accommodate reasonable requests for access to the copper local loop and copper sub-loop
- Obligations to grant reasonable requests for access to FttH networks owned or managed
- Obligations to accommodate reasonable requests for access to resources and services associated with the wholesale provision of local access in a specified position
- Obligations of non-discrimination and reproducibility
- Transparency and disclosure of access information
- Quality of service
- Tariff control obligations
- Cost accounting and accounting separation obligations

1.11 Market 3B: Wholesale provision of central access in a specified position

1.11.1 Product dimension

First, ARCEP states that there is no substitutability between high-quality and residential-grade access products. Offers to enterprises contain guarantees and high-quality service features that are not necessary for residential customers.

In order to delineate the market outline of the wholesale central access, the Authority has studied the degree of substitutability between different products and concludes on:

- **Substitutability between the different traffic delivery interfaces.** The IP and Ethernet interfaces, through different technologies allow to offer a central access offer high and very high speed delivered at the sub-national level. Therefore, it is appropriate to include access offers delivered on all IP and Ethernet interfaces in the same fast and ultra-fast central access wholesale offers delivered at the sub-national level.
- **Substitutability between accesses established on copper support, optical fibre and coaxial cable**. Indeed, retail offers based on these underlying wholesale offers are very largely similar, both in terms of services available to the end user (internet, telephony, television) and in terms of rates.
- **Partial substitutability of central access offers based on wired access and based on wireless access**. The retail offers based on these underlying wholesale offers are very largely similar, both in terms of services available to the end user (internet, telephony, television) and in terms of rates, offers based on fast and ultra-fast wired central access. However, the use of access offers based on these technologies in order to meet the fixed uses of a large number of end users can face problems of saturation of radio resources implemented.
- **Lack of substitutability of local access offers and central access to wired local loops.** Firstly, there are differences between the features of local access offers and central access offers. Secondly, the use of local access offers, and the use of central access offers are associated with distinct economic models.
- **Lack of substitutability of central access offers and wireless access offers.** wireless and wireline links are not substitutable because these two solutions are based on very different technical solutions and whose deployment requires significant investments.

1.11.2 Geographical dimension

Much like the market for local access, the analysis of the authority initially focuses on the definition of areas of similar (Private, AMIII, AMEL, RIP).

Then, an analysis of the following four criteria is carried out to assess the competitive situation between these different previously established areas:

- **Criterion 1:** the proportion of premises for which there are at least two unbundling operators offering bitstream on the copper network.

- **Criterion 2:** Orange's market share in the wholesale market for central access, all technologies combined.
- **Criterion 3:** the share of premises accessible by at least two bitstream offers on FttH alternatives to Orange, particularly for companies.

Given the disparities in competition observed and in accordance with the recommendation «relevant markets», it seems that, in addition to very dense areas, two geographic markets can be distinguished: AMII areas on the one hand and public initiative areas (AMEL and RIP) on the other hand. The conditions of competition in these two markets appear insufficient. **There are therefore 3 relevant geographic markets: dense areas, AMII areas and public initiative areas (AMEL and RIP).**

1.11.3 Significant Market Power Operators on the market

In the previous round, the Authority had determined that **Orange did not exert a significant influence in very dense areas**. This analysis is still valid.

The analysis is made distinctly between the markets of the AMII zones (Markets 3B.1) and those of the AMEL and RIP zones (markets 3B.2):

In the fourth quarter of 2021, Orange's market share was between 35-40% of the total central access sold on the wholesale market in market 3B.1 and 60-65% of the total central access sold on the wholesale market in market 3B.2.

Moreover, it is difficult to imagine that it is economically viable for an operator to reproduce this infrastructure. The authority identifies Orange's vertical integration, the existence of economy of scale and the lack of potential competitors to Orange in these markets prevents the emergence of effective competition within a reasonable timeframe.

Orange has a significant influence on the relevant markets "3B.1" and "3B.2" for the wholesale supply of central access in a specified position to the mass market delivered at the sub-national level, covering all AMII zones and all less dense areas of public initiative (AMEL and RIP).

1.11.4 Remedies

The following remedies were imposed on Orange:

- Obligation to grant reasonable access requests
- Obligation to provide access under non-discriminatory conditions.
- Obligation of transparency and publication concerning access
- Tariff control obligation
- Quality of Service obligations

1.12 Market 4: High quality access wholesale market

1.12.1 Product dimension

ARCEP considers that all high-quality activated wholesale access offers for the connection of corporate sites or network elements, with quality-of-service requirements distinct from mass-

market offers, characterized by a guaranteed speed and a repair time less than or equal to 4h, belong to the same market, whether based on the local copper or optical loop, whether the delivery interface used is traditional or alternative, and regardless of the proposed speed.

The scope of the market thus identified excludes the following wholesale offers:

- passive (local) access offers to wireline local loops because the use of passive access offers and the use of high-quality activated access offers are associated with distinct economic models and differences exist between functionalities.
- mass-market activated (central) access offers (wholesale supply market of central access in determined position to the mass market) because these offers do not respect the guaranteed speed and maximum guaranteed recovery time of 4 hours.
- wireless access offers because these offers do not respect the guaranteed speed and maximum guaranteed recovery time of 4 hours (GTR).

1.12.2 Geographical dimension

ARCEP starts from an analysis of the wholesale market at the municipality level. These municipalities are then grouped by density (very dense areas, RIP, AMII, etc.) since similar competitive pressures are exerted in these areas.

Then the 4 criteria are tested:

- **Criteria 1**: Concerning the share of high-quality access by alternative operators to the Orange local loop infrastructure-dependent business market.
- **Criteria 2**: Regarding the share of high-quality access by alternative operators via the activated wholesale market.
- **Criteria 3**: Concerning Orange's wholesale market shares, all technologies combined.
- **Criteria 4**: Regarding eligibility for at least one high-quality activated wholesale access offer on FttH networks alternative to Orange.

At the end of this analysis, although some areas have specificities for one or the other of the criteria presented, the ARCEP considers such differences do not warrant a definition of a subnational market.

With regard to Orange in particular, as an incumbent operator, it has its own access and backhaul infrastructure in almost all the national territory. Through this network, Orange is able to offer high-quality activated access in similar conditions throughout the country, although with some restrictions in terms of eligibility, usually in the less-dense areas. Thus, it can be considered that Orange's high-quality activated access offer is national and relatively homogeneous.

On the demand side, a structural part of the demand of third-party operators is national.

In view of this prospective analysis, the Authority therefore adopts the definition of a national market.

1.12.3 Significant Market Power Operators on the market

The wholesale market for high-quality activated access is made up of both copper and optical fibre offers. In the copper segment of activated wholesale offers, Orange holds more than ¾ market share. Regarding fibre, Orange holds 20% of the wholesale offers activated.

In the high-quality activated fibre access segment, Orange's fibre infrastructure is used to build 35% to 40% of all retail access.

1.12.4 Remedies

The following remedies were imposed on Orange:

- Obligation to grant reasonable access requests
- Obligation of non-discrimination and reproducibility
- Obligation of transparency and publication concerning access
- Quality of service obligations
- Tariff control obligation
- Cost accounting and accounting separation obligations

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