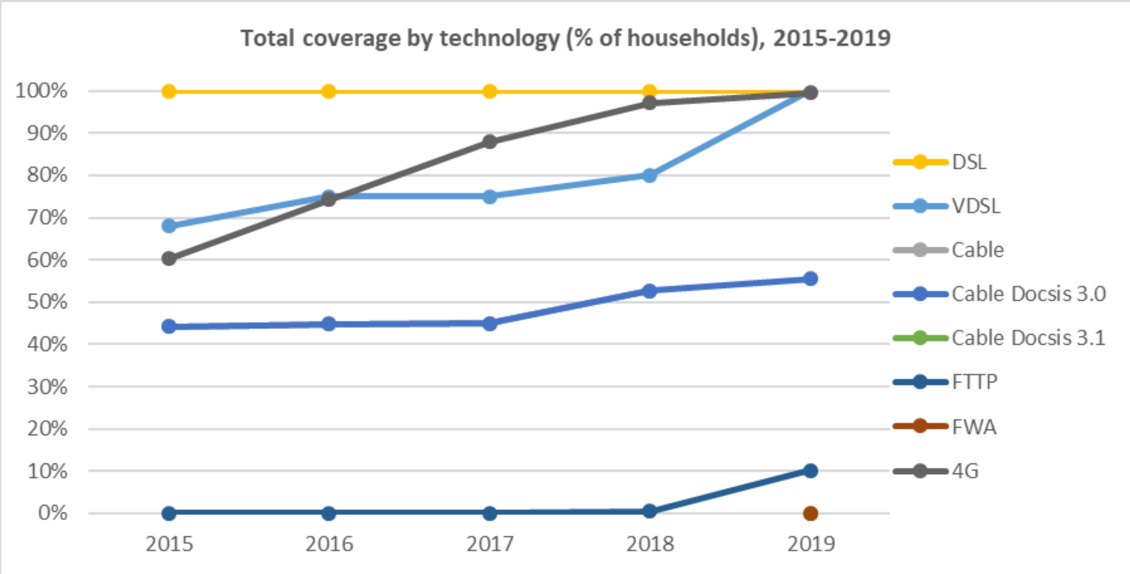
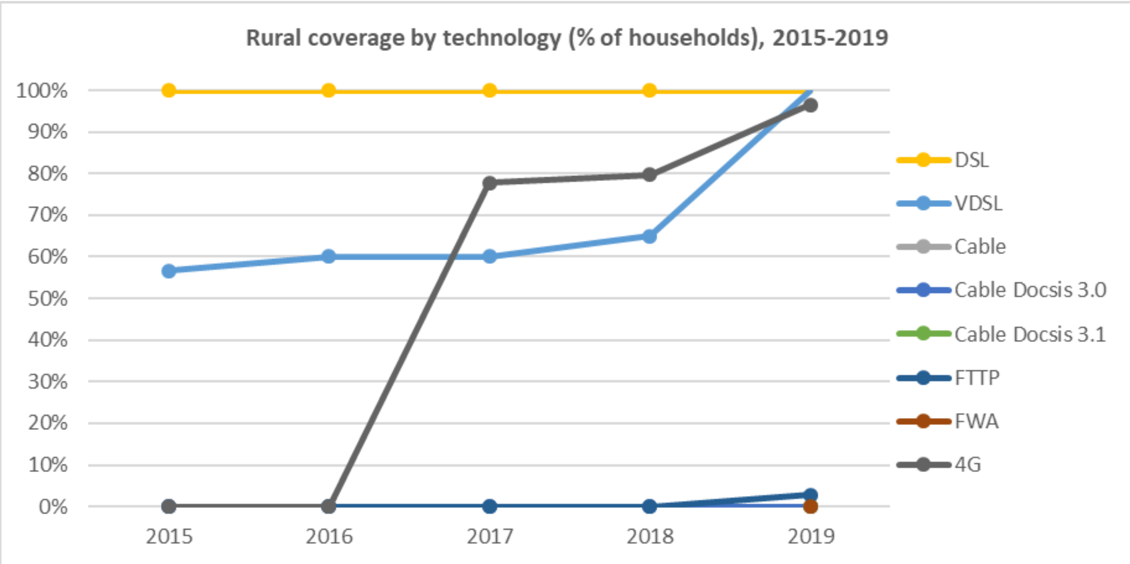
Cyprus





Source IHS and Point Topic, Broadband coverage in Europe studies

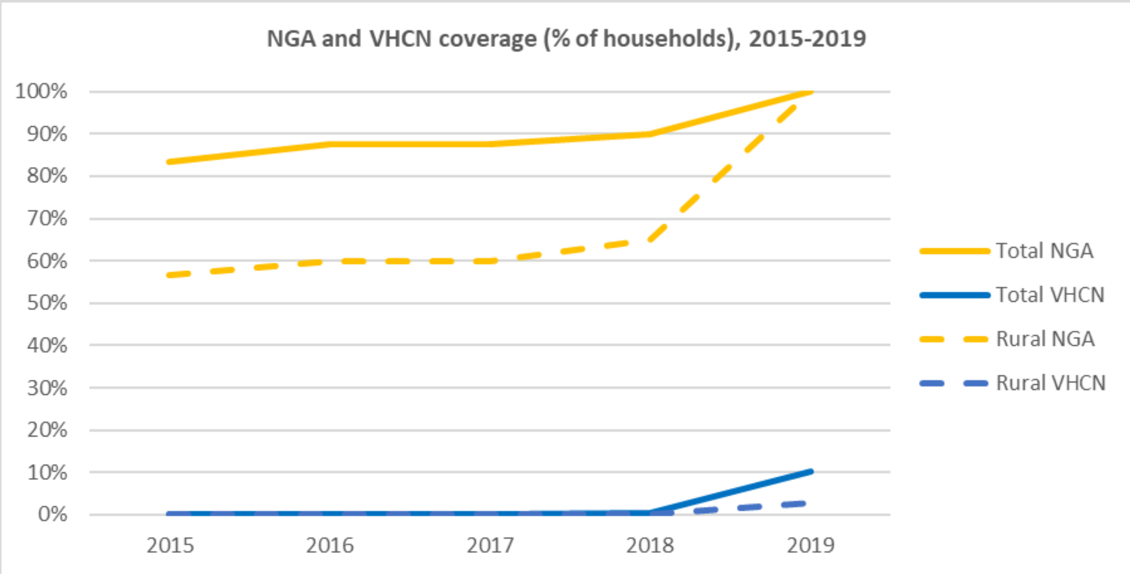
Cyprus has reached comprehensive coverage for DSL and VDSL (100% for both, versus the EU averages of 91% and 59% respectively), and high coverage levels for cable Docsis 3.0 (56%, above the EU average of 46%) and 4G (99.6%, above the EU average of 99.4%[1]). However, it lags behind in cable Docsis 3.1 (no coverage, versus an EU average of 19%) and fibre to the premises (FTTP) (10%, far below the EU average of 34%).

On rural coverage Cyprus outperforms the EU in DSL and VDSL (100% for both, versus the EU averages of 81% and 42% respectively). However, it lags behind in cable (no coverage for either Docsis 3.0 or

[1] The 4G coverage indicator used in the country chapters differs from the DESI indicator for 4G coverage. The former is an aggregate indicator, i.e. measuring the coverage of all operators together. The latter is an average indicator, i.e. the sum of all coverages divided by the number of operators. Because of this difference, the two indicators produce different results for Cyprus. According to the present (aggregate) indicator, Cyprus outperforms the EU. However, according to the same DESI indicator, Cyprus lags behind the EU (94% versus 97%).

3.1, versus the EU averages of 11% and 4% respectively), 4G (96%, just short of the EU average of 97%) and FTTP (3%, far below the EU average of 29%).

Cyprus has made strong progress in next generation access network (NGA) coverage, reaching 100% (versus an EU average of 59%). The difference is even more remarkable in rural coverage (100% in Cyprus, versus an EU average of 51%). However, despite its considerable progress in very high capacity network (VHCN) coverage, Cyprus lags behind the EU, standing at 10% compared to 0.5% a year ago (versus the EU average of 46.5% compared to 29% a year ago). This lag is greater in rural areas, where coverage stands at 3% compared to 0% a year ago (versus the EU average of 24% compared to 14% a year ago).



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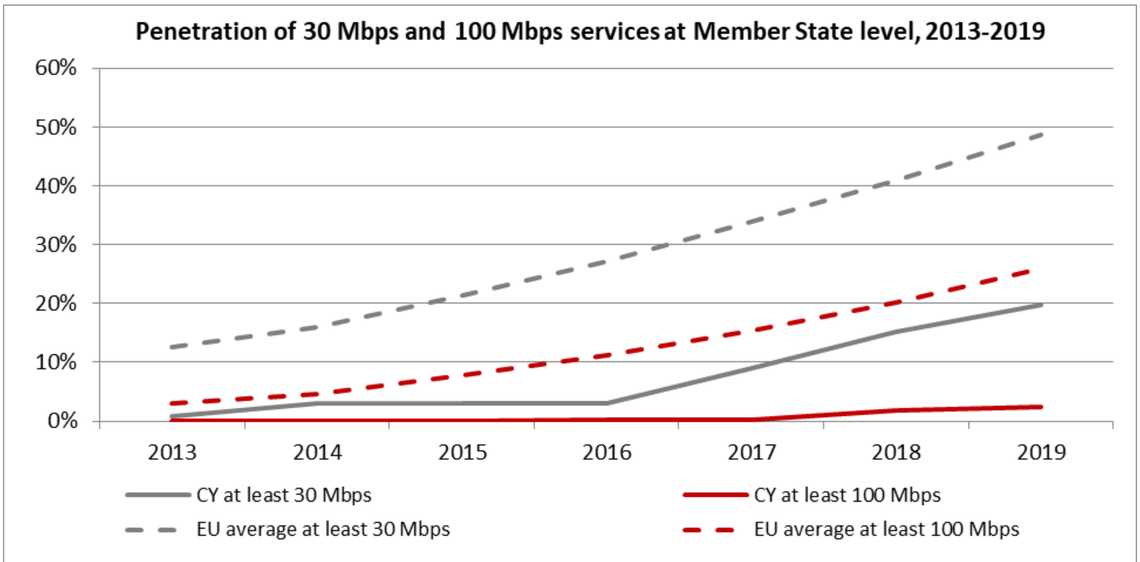
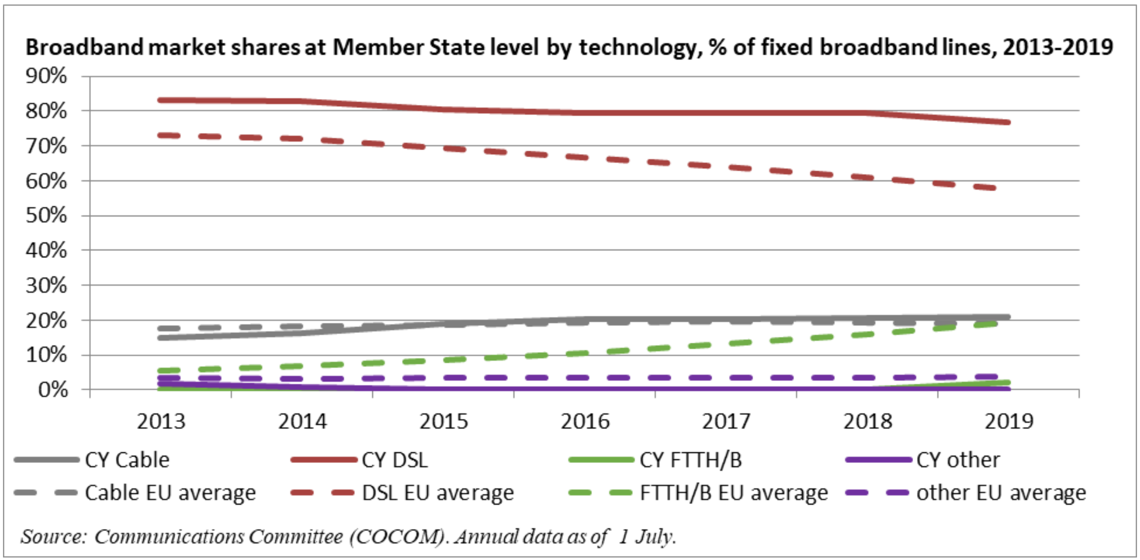
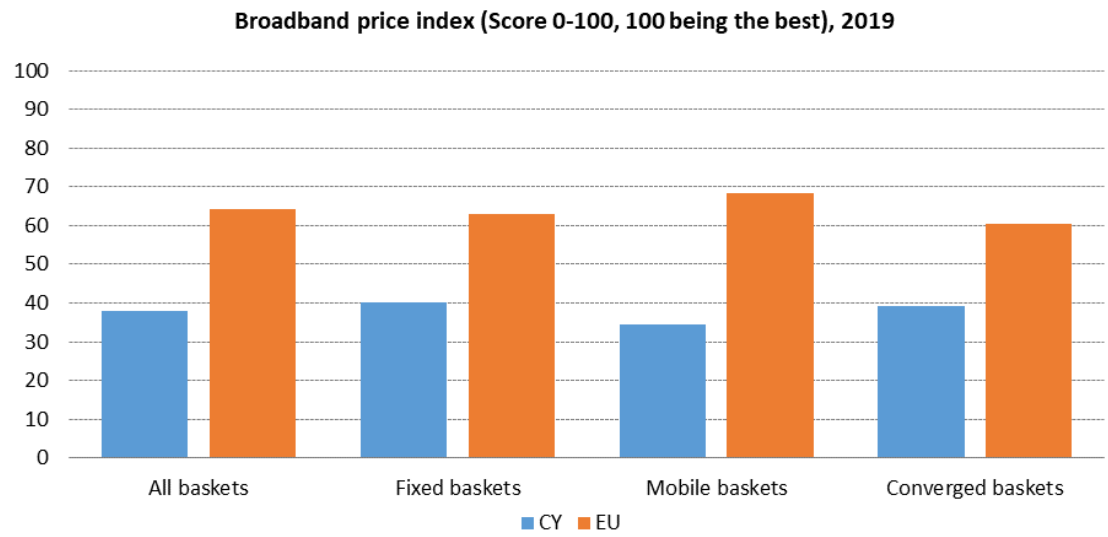


Source: Communications Committee (COCOM). Annual data as of 1 July.

In the fixed market, Cyprus slightly outperforms the EU on broadband penetration per household (87% compared to the EU average of 78% – data as of July 2019). DSL remains the predominant technology for the delivery of broadband access services, albeit slightly decreasing (77% as of July 2019, compared to 79% a year ago). The main competition comes from cable, which accounts for around 21%, and has been practically stable over the past 3 years. FTTH/B is only now picking up, reaching 2.2%. Fast penetration (at least 30Mbps) and ultrafast penetration (at least 100Mbps) are picking up, reaching

20% and 2.4% respectively in July 2019 (up from 15% and 1.8% a year ago), but Cyprus is lagging further behind the EU average (49% and 26% respectively). Cyprus significantly outperforms the EU on mobile broadband penetration (117 subscriptions per 100 people as of July 2019 compared to 110 a year ago, and versus the EU average of 100).





Source Commission services based on Empirica (Retail broadband prices studies)

Broadband prices in Cyprus are higher than the EU average, as reflected in the pricing indicators. In baskets that include fixed broadband access the difference is relatively small at low speeds, but increases rapidly as the speed increases. For internet only access, Cyprus is 11% more expensive than the EU average for speeds below 12 Mbps, but is 53% more expensive for speeds in the 30-100 Mbps bracket and five times more expensive for speeds above 200 Mbps.

The difference becomes less prominent, as the number of services included in the basket increases. For example, in the 30-100 Mbps band, Cyprus is 53% more expensive for single play baskets (only internet access), 24% more expensive for double play baskets (internet access and fixed telephone) and 17% for triple play baskets (internet access, fixed telephone and TV). A similar trend is observed, though a bit less clearly, for converged baskets that include fixed and mobile internet.

Prices for mobile broadband services are also higher in Cyprus than in the rest of the EU. This difference peaks for the basket with 5GB allowance. For mobile broadband only, access prices in

Cyprus are more than double the EU average (except for the 0.5 GB allowance). For mobile broadband and mobile telephony the difference ranges from below 10% (0.5 GB allowance and 30 calls) to 100% (5 GB allowance with 30 calls).

1. Progress towards a Gigabit Society[2]

All major operators in Cyprus actively invest in ultra-high speed networks. In 2019, the incumbent operator, CYTA, started to deploy a G-PON fibre-to-the-home (FTTH) network as part of a ten-year €100 million investment plan, meant to cover mainly urban areas. According to the Cypriot authorities, CYTA is ahead of schedule on its plan for 2019 and has already covered more than 61,000 premises. Thanks to the fibre installation, CYTA is now also offering higher speed products of up to 300 Mbps (1Gbps for businesses).

The cable operator, Cablenet, already covers more than half of the premises in Cyprus with a DOCSIS 3.0 network. Cablenet has announced that all new installations will be fibre based. It is currently deploying a FTTH access network in a suburb of Nicosia (targeting 5,000 premises) and plans to deploy FTTH access networks in Pafos (2020) and Paralimni (2021). Primetel and EPIC (ex. MTN Cyprus) also plan to deploy their own fibre networks.

Following CYTA's announcement on the deployment of a fibre network, all three operators expressed interest in co-investments. Discussions are ongoing but it is not clear if they will lead to any agreement.

National authorities recognise the persisting digital divide in Cyprus and seek to reduce it and accelerate digitalisation. To that end, they are preparing a new national broadband plan for 2021-2025, aiming to have it ready by mid-2021. The new NBP will include ultrafast broadband projects in underprivileged socioeconomic areas and their surroundings, especially rural and suburban areas. It will also include measures to increase the demand for ultrafast broadband connections and encourage investment in VHCNs.

Ongoing demand-side Government measures include the Pilot Voucher Scheme that subsidises new subscriptions (or upgrades) for speeds of 100 Mbps and above for 12 months. Even though it is a pilot programme with limited budget and no major impact on the connectivity statistics, this subsidy clearly raises the public's interest in ultrafast broadband connections and gives them the chance to experience the benefits of ultrafast speeds. According to the Cypriot authorities, this measure seems to have encouraged operators to accelerate their investments in VHCN infrastructure. The scheme was extended for another year, following operators' requests.

Market players are looking forward to the 5G auction, planned for 2020. However, they express concern on the permit granting process - especially the involvement of local authorities, and on the impact of a recent campaign against the installation of new antennas. Under pressure from this campaign, several local authorities have declared their opposition to the installation of additional antennas. Market players worry that this could pose a substantial hurdle to the expansion of their wireless networks and their ability to deploy 5G and achieve the coverage required in the upcoming auction.

2. Market developments

In 2019, the biggest change in the Cypriot market was the granting of a new mobile license to Cablenet, through an auction procedure in June. Cablenet already operated as a mobile virtual network operator

[2] It is noted that statements regarding planned or potential State aid measures record intentions declared by Member States and do not pre-judge or pre-empt the assessment of such measures by the Commission under the relevant state aid rules. The DESI report is not meant to provide any assessment of the compliance of such measures with state aid rules and procedures.

(MVNO) and has therefore already been providing mobile services. Cablenet has published a request for proposals (RFP) to the other three mobile operators for radio access network (RAN) sharing agreements as well as an RFP to equipment suppliers for building a new RAN.

In addition, following its acquisition by Monaco Telecoms, MTN's name was changed to EPIC.

Operators focus on bundling to gain a competitive advantage. They seek to offer packages that combine fixed telephony, mobile communications, broadband internet and pay TV with prime content, especially football. As a result, 88% of fixed broadband subscriptions are part of a bundle and of these, around 40% comprise three or four services, including a pay TV component. Given the importance of prime time content, two operators have agreed to exchange TV content.

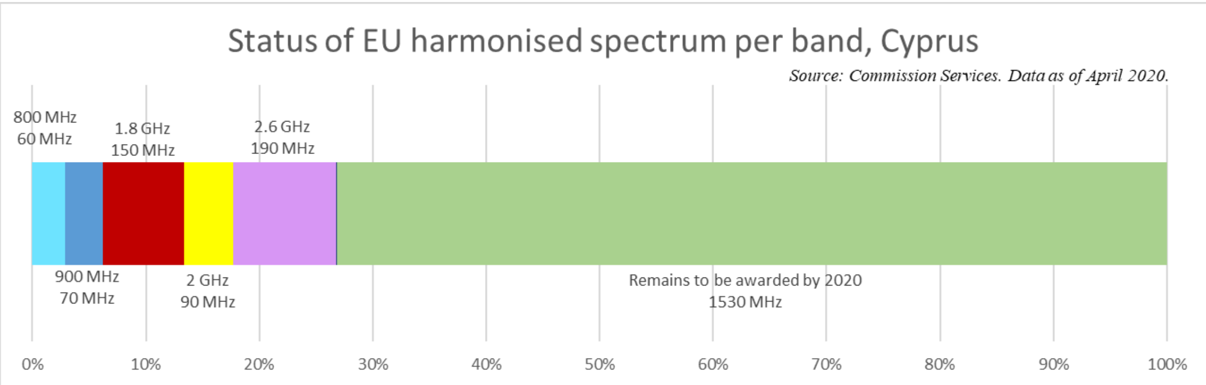
CYTA continues to dominate both the fixed and mobile market but its market shares are eroding due to increasing competition.

Cypriots often use over-the-top (OTT) services. According to a survey carried out for the Office of Electronic Communications & Postal Regulations (OCECPR) in May 2019, 75% of mobile subscribers send messages and 70% make calls using OTTs. The number of calls made through OTT services are around 14% of the total number of fixed and mobile calls. Based on the quality of the service and the usage pattern, as indicated in the consumer survey, OCECPR has concluded that OTTs do not constitute a substitute to fixed or mobile telephony but rather a complementary service.

The Competition authority notes a decrease in cases in the electronic communications market.

3. Regulatory developments

3.1. Spectrum assignment



Overall, Cyprus has awarded 26.8% of the total 2,090 MHz harmonised spectrum for broadband[3]. The awarded spectrum is in the 800 and 900 MHz and the 1.8, 2 and 2.6 GHz bands. The spectrum that remains to be awarded is mainly in the 700 MHz and the 3.4-3.8 band. Finally, according to Cypriot authorities, there is lack of demand for the remaining spectrum in the 1.5, 2[4] and 26 GHz band.

The Department of Electronic Communications (DEC) is moving forward with the auction of 5G spectrum, seeking to award the rights of use before the end of 2020. The auction will include the 3.4-3.8 GHz band and the 700 MHz band, but not the 26 GHz band since the market has shown no interest so far. The DEC's intention is to break the auctioned spectrum into four pieces. The contest was

[3] The 5G spectrum readiness indicator is based on the amount of spectrum already assigned and available for use for 5G by 2020 within the '5G pioneer bands' in each EU Member State. For the 3.4-3.8 band this means that only licences aligned with the technical conditions annexed to Commission Decision (EU) 2019/235, are considered 5G-ready. On the contrary, the percentage of harmonised spectrum takes into account all assignments in all harmonised bands for electronic communications services (including 5G pioneer bands), even if this does not meet the conditions of the 5G readiness indicator.

[4] In the 2 GHz band, 90 MHz have been awarded while for the remaining 30 MHz there is a lack of demand.

scheduled to start during the 2nd quarter of 2020, but the launch of the auction process was postponed due to the COVID-19 outbreak. A new date has not yet been set, but the Cypriot authorities intend to re-evaluate the situation and resume the procedure as soon as the conditions associated with the outbreak allow.

Regarding the availability of the bands, the 3.4-3.8 GHz band is currently free of use. For the 700 MHz band, the Ministry had reached an agreement with Velister, to free this band completely by September 2020. However, Velister informed the DEC that it faces major difficulties to migrate its existing DTV transmissions out of the 700 MHz band before the agreed deadline, due to the COVID-19 outbreak. This is mainly due to the acquisition of the required new equipment, which needs to be tested by the manufacturer, imported and installed. At the writing of this report, the DEC was evaluating the situation and expected to extend the deadline. Interference from the areas which are not under the effective control of the Republic of Cyprus in the 700 MHz band continues. However, Cypriot authorities are confident that such interference will cease by September 2020, because of a parallel migration from TV to mobile telephony use.

In June 2019, Cablenet obtained a new mobile license by auction. It was assigned 2x10 MHz in the 800 MHz band, 2x20 MHz (FDD) and 15 MHz (TDD) in the 2.6 GHz band.

3.2. Regulated access (both asymmetric and symmetric)

In 2019, the OCECPR notified the market for wholesale call termination on individual public telephone networks provided at a fixed location and the market for wholesale voice call termination on individual mobile networks (markets 1 and 2 of the 2014 Recommendation[5] respectively), the market for access and call origination on public mobile telephone networks (ex-market 15 of the 2003 Recommendation[6]) and the market for broadcasting transmission services to deliver broadcast content to end-users (ex-market 18 of the 2003 Recommendation).

Performing the three criteria test, OCECPR concluded that ex-market 15 is not susceptible to ex-ante regulation and that the regulatory obligations should therefore be lifted. This is mainly because increasing the number of MNOs to four (with the addition of Cablenet) is expected to make the market competitive.

However, OCECPR concluded that the other three markets are susceptible to ex-ante regulation, and it imposed nearly identical remedies to the previous notification (transparency, non-discrimination, accounting separation, access to and use of specific network facilities, price control and cost accounting).

OCECPR does not plan any additional notifications for 2020. The market for wholesale high-quality access provided at a fixed location (market 4 of the 2014 Recommendation) was notified in 2018 and is planned for notification in 2021. The market for wholesale high-quality access provided at a fixed location (market 3a of the 2014 Recommendation) and the market for wholesale central access provided at a fixed location for mass-market products (market 3b of the 2014 Recommendation) were notified in 2017. For markets 3a and 3b, OCECPR had obtained an extension due to delays in the

[5] Commission Recommendation 2014/710/EU of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services.

6 Commission Recommendation 2003/311/EC of 11 February 2003 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.

implementation of the incumbent's FTTP network that had consequently delayed the activation of the remedies imposed during the last round of market analysis, thus rendering an earlier notification premature.

Already since 2018, OCECPR had approved the prices of CYTA for access to its network (VULA product) also in view of its fibre investment. Operators complained that the cost of connecting at the Local Point of Handover was excessive. CYTA responded with a commercial offer (not submitted to OCECPR for approval), which aggregated traffic, allowing operators to interconnect at regional level.

In 2019, the regulator dealt with three dispute resolution cases. The first one concerned the broadband cost reduction directive (BBCRD). Specifically, an operator requested information on the location and availability of the poles and ducts of the Electricity Authority of Cyprus (EAC). EAC did not reply in a timely manner, so the mobile operator requested that OCECPR resolve the dispute. OCECPR issued a decision in November 2019, ordering EAC to provide all the requested information. The second case concerned a similar request by the same operator, this time for information about physical infrastructure on the CYTA network, notably its location and routes, as well as its type, current use and availability. The Commissioner issued a decision on 9 August 2019 ordering CYTA to provide all the requested information. The third case involved a request by the same operator for information on the CYTA network. This case mostly concerned the access directive and to a lesser degree the BBCRD. The Commissioner's decision is pending.

4. End-user matters

OCECPR developed a new, interactive tool (cyCompare[7]) that allows consumers to compare the retail product (fixed and mobile) tariffs of the different operators. This will cover all retail products (fixed and mobile).

a. Complaints

In 2019, OCECPR received around 160 complaints most of which concerned pricing and billing (60) and to a lesser extent the availability of service (mainly broadband) and contractual terms.

This is considerably less than in 2018 (420 complaints, the vast majority of which concerned subscription to multimedia services). In late 2018, the Commissioner adopted a new process, requiring that the customer's mobile operator verify that the customer explicitly agrees to a multimedia subscription before the multimedia service provider can add the new subscriber to its database. This has practically eliminated complaints on premium rate services.

b. Open internet

Two zero rated practices observed by OCECPR since 2018 were terminated in 2019, on 1 April and 16 June respectively, as their business case diminished. OCECPR also observed a case of traffic management practice in the form of a fair-use policy on a monthly basis. Specifically, when consumption reaches a monthly data cap (relatively small volumes both for download/upload stream), the ISP may limit the access rate of the user for the rest of the month. OCECPR assessed the practice and requested action from the ISP in order to ensure compliance with Regulation 2015/2120 and Decree 72/2017.

[7] http://cycompare.ocecpr.org.cy/

OCECPR has developed a new measurement tool (cyNettest[8]) that allows consumers to measure and thus evaluate the performance of their broadband services. The App is also available for Android and IoS devices.

c. Roaming

OCECPR investigated a case in which SIM cards issued by an operator registered in another Member State for M2M communication were acquired through an intermediate seller and offered for internet access by a company in Cyprus. As there was no M2M limitation and no agreement with mobile operators in Cyprus, this constituted a possible infringement of Regulation (EU) 2015/2120. The Commissioner, after consulting with the NRA of the operator issuing the SIM cards, and the mobile operators in Cyprus, ordered the company to withdraw the SIM cards from the Cypriot market, and applied all relevant legal measures under national legislation in order to resolve the case. There have only been a few complaints about the high charges for tourists unintentionally using the services of mobile operators active in the area of the Republic of Cyprus which is not under the effective control of the Government of the Republic of Cyprus.

d. Emergency communications – 112

The deployment of the European emergency number '112' service was awarded to a consortium of companies that also took responsibility for e-call deployment. A smartphone application has been developed and deployed successfully. It enables user location and allows voice-based two-way communication - though not text-based, which would be necessary for communicating with hearing or speaking impaired people.

In 2019 the emergency SMS to 112 was also deployed but restricted to one network. According to the Cypriot authorities, extending it to users of all networks is being planned for the first half of 2020.

The Commission is currently assessing how emergency communications and the 112 number is working in Cyprus, particularly the insurance of equivalent access for disabled end-users.

e. Universal service

There were no new developments or changes in scope of the universal service (which includes access to fixed telephony, special retail packages to end-users with disabilities and/ or low income, electronic directory services) or the designation process. Broadband is currently not included in the universal service, but it will be once the European Electronic Communications Code (Directive 2018/1972) has been transposed into national law.

5. Other issues

A new law was approved in early 2020, creating a Deputy Ministry of Research, Innovation and Digital Policy[9]. The new Deputy Ministry began operating on 1 March 2020, with the DEC transferred to it. The Commissioner advises the Deputy Minister on issues relating to electronic communications.

The Deputy Ministry (DEC) and OCECPR are working on transposing the Code. The draft law by DEC has been put in public consultation from 18 October to 27 November 2019. The comments received have been analysed and a final draft version has been prepared. The draft law by OCECPR is currently under preparation. The two draft laws will be submitted to the legal service for vetting, with a view to adopting them by the end of 2020.

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[8] http://www.ocecpr.org.cy/el/content/cynettest-systima-ektimisis-poiotitas-eyryzonikon-syndeseon#English_Version

[9] In Cyprus it is not possible to create new Ministries due to constitutional restrictions. Deputy Ministries can be created and report directly to the President of the Republic.

6. Conclusion

Cyprus is making progress on rolling out VHCNs, as all main operators are seeking to deploy fibre networks. In parallel, the new national broadband plan (scheduled for adoption by mid-2021) includes measures to expand VHCNs in digitally excluded rural areas. The uptake of high-speed broadband continues to face significant challenges, such as a lack of demand and operators' uncompetitive retail pricing structures.

Market players seem keen to invest in new networks and launch 5G services. National authorities have set concrete targets for awarding 5G spectrum and have taken the necessary steps to free the 700 MHz band. However, operators express concerns on the permit granting process, in particular for wireless networks, especially when local authorities are involved.