



## EUROPEAN COMMISSION

Brussels, 6.6.2017  
C(2017) 3657 final

<p>In the published version of this decision, some information has been omitted, pursuant to articles 30 and 31 of Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...]</p>		<p style="text-align: center;">PUBLIC VERSION</p> <p>This document is made available for information purposes only.</p>
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Subject: **State aid SA.41065 (2016/N) - National Programme for broadband aggregation infrastructure - Croatia**

Dear Sir,

### 1. PROCEDURE

- (1) After pre-notification discussions, Croatia notified the above measure to the Commission on 28 December 2016 under Article 108(3) TFEU. The Commission requested additional information from Croatia on 14 February and on 24 April 2017. Croatia submitted the requested information on 7 March 2017 and on 11 May 2017.
- (2) The Croatian authorities have provided a language waiver and agree that the decision be adopted in English as the authentic language.

### 2. THE CROATIAN BROADBAND MARKET

- (3) As stated in the Commission Decision in State aid case SA.38626 (2015/N), approved on 25 January 2016<sup>1</sup>, and as confirmed by the 2017 Digital Economy

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<sup>1</sup> [http://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=3\\_SA\\_38626](http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_38626)

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and Society Index (DESI 2017)<sup>2</sup>, the Croatian broadband market is characterised by low coverage and take-up as well as high prices when compared to the EU average. In terms of connectivity, Croatia ranks 28th amongst the 28 Member States and is still far from achieving the Digital Agenda for Europe 2020 targets and the network modernisation required by the 2025 goals of the Communication on Connectivity for a Competitive Digital Single Market - Towards a European Gigabit Society<sup>3</sup>. Only 60% of Croatia is covered with fast broadband (Next Generation Access networks offering at least 30 Mbit/s download speeds), compared to 76% on EU average.

- (4) According to the 2014 EU Report on Implementation of the EU regulatory framework for electronic communications<sup>4</sup> the Croatian broadband market is dominated by the incumbent operator, Hrvatski Telekom (HT) and has undergone substantial consolidation. Hrvatski Telekom had a 49% market share of fixed broadband in July 2016 (considering only Hrvatski Telekom<sup>5</sup>). If Iskon and Optima Telekom (that are owned and controlled by Hrvatski Telekom<sup>6</sup>) are taken into account, the market share was 71% at the end of 2015. Existing networks are predominantly copper with a majority of connections based on xDSL. Cable networks offer higher data rates but their share of the broadband market does not exceed 12.4%<sup>7</sup>.
- (5) There is unequal fixed broadband penetration throughout Croatia (connectivity is particularly limited in rural areas) but on average only 10% of households subscribe to a fast broadband connection<sup>8</sup>. This is very low compared to an EU average of 37%. Ultra-high speed broadband (at least 100 Mbit/s) subscriptions represent only 0.62% of all fixed broadband subscriptions, considerably below the EU average of 15.5%. In addition, Croatia is the country with the most expensive standalone fixed broadband subscription in the EU, costing as much as 2.9% of the average gross income (compared to an EU average of 1.2% of the average gross income).
- (6) According to the *Ordinance on the manner and conditions for provision of electronic communications networks and services*<sup>9</sup>, broadband operators are

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<sup>2</sup> <https://ec.europa.eu/digital-single-market/en/scoreboard/croatia>

<sup>3</sup> [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=17182](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=17182)

<sup>4</sup> European Commission DG CNECT; Country report Croatia 2014, [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=6444](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=6444)

<sup>5</sup> [http://ec.europa.eu/newsroom/document.cfm?doc\\_id=40880](http://ec.europa.eu/newsroom/document.cfm?doc_id=40880)

<sup>6</sup> NRA Annual Report for 2015 - <https://www.hakom.hr/default.aspx?id=512>

<sup>7</sup> 2016 European Digital Progress Report, Croatia telecom factsheet, [http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc\\_id=15752](http://ec.europa.eu/newsroom/dae/document.cfm?action=display&doc_id=15752)

<sup>8</sup> Digital Economy and Society Index 2015, Country Profile, Croatia; <https://ec.europa.eu/digital-agenda/en/scoreboard/croatia>

<sup>9</sup> OG 154/2011, 149/2013, 82/2014, 24/2015. The ordinance is also available on the NRA's web site: [http://www.hakom.hr/UserDocsImages/2015/propisi\\_pravilnici\\_zakoni/Nesluzbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst%20Pravilnika%20iz%20%C4%8Di.%2034.pdf](http://www.hakom.hr/UserDocsImages/2015/propisi_pravilnici_zakoni/Nesluzbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst%20Pravilnika%20iz%20%C4%8Di.%2034.pdf)

obliged to regularly report data on actual broadband speeds achieved in their networks, in accordance with the methodology set out in the Ordinance. The operators' measurements are aggregated by the NRA and available on its website<sup>10</sup>. Average broadband connection speeds provided by access networks in the areas targeted by the notified backhaul scheme are rather low, with 96,4% of connections offering speeds below 10 Mbps. However data on the distribution of broadband speeds collected by the NRA during Q2 of 2015<sup>11</sup> show that in areas with NGA coverage above the national average, customers to a larger extent subscribe to broadband connections with higher speeds.

- (7) Croatia is running a number of projects in the field of digital skills and eGovernment. The digitisation of companies is also progressing<sup>12</sup>. It follows from the EU reports on Croatia of 2016 and 2015 that, as for the use of internet services, Croatia's performance is still below the EU average. One fifth of SMEs in Croatia sell online. Croatia intends to improve the competitiveness and efficiency of enterprises through ICT by supporting initiatives aimed at digitisation of business services and products. If it is implemented in a timely way, the proposed strategy is considered by the EU Reports to have the potential to have a positive impact on the Integration of digital technologies by Croatian business. In Digital public services, Croatia's performance is below par, but making good progress. This is partly attributed to a central e-citizens' web portal, set up by the Croatian government, into which all web pages of all state administration bodies will be integrated. Through that platform all e-services of all governmental institutions can be reached. Croatia plans the development of further e-applications in the following areas: e-Construction, e-Land management, e-Justice, e-Health, e-Tourism, e-Culture and e-Inclusion. Further implementation of the eGovernment strategy has the potential to significantly boost the eGovernment landscape in Croatia.<sup>13</sup> According to the *Education and Training Monitor - Croatia 2015*, Croatia lags behind on the digitisation of teaching practices. A series of initiatives are under way to mitigate this, such as a revision of the National Curriculum Framework for education. Since ICT skills are an important element of the 2014-2020 Structural and Investment Funds, Croatia will support different projects aiming to increase qualification levels of the adult labour force and set up increasing skills and qualifications in priority fields such as tourism, agriculture, engineering, and information technology, including basic skills in ICT.<sup>14</sup>

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<sup>10</sup> The most recent data is available for the 2nd half of 2014: [http://www.hakom.hr/UserDocsImages/2015/komunikacijske\\_mreze\\_i\\_usluge/2.%20polugodi%C5%A1te%202014.-Izvje%C5%A1%C4%87e%20kakvo%C4%87i%20usluge%20%C5%A1irokopojasnog%20pristupa%20internetu%20u%20nepokretnoj%20mre%C5%BEi.pdf](http://www.hakom.hr/UserDocsImages/2015/komunikacijske_mreze_i_usluge/2.%20polugodi%C5%A1te%202014.-Izvje%C5%A1%C4%87e%20kakvo%C4%87i%20usluge%20%C5%A1irokopojasnog%20pristupa%20internetu%20u%20nepokretnoj%20mre%C5%BEi.pdf).

<sup>11</sup> Data on broadband speeds are available on the NRA's web site - <http://bbzone.hakom.hr/hr-HR/StatistickiPrikaz#sthash.yrPdQsa.dpbs>.

<sup>12</sup> Croatia is investing more than 300 million Euros of funding provided by the ERDF (supplemented by national co-financing) to support access and use to Information and Communication Technologies. This covers actions to support both access and backhaul networks together with other ICT infrastructures and public digital services.

<sup>13</sup> EDPR report 2016 and DESI country profile: <https://ec.europa.eu/digital-single-market/en/node/66894>

<sup>14</sup> <http://public.mzos.hr/Default.aspx?sec=2525>

- (8) These projects and initiatives rely on the availability of sufficient connectivity. The Commission decision in State aid case SA.38626 (2014/N) already approved EUR 252 million of public support to promote the deployment of NGA broadband networks with a download speed of at least 40 Mbit/s and an upload speed of at least 5 Mbit/s in areas of Croatia that are currently un- or underserved with such broadband infrastructure; "white NGA areas". In addition it is expected that private investment will amount to EUR 120 million during the implementation of the scheme.
- (9) According to the 2015 EU Report on Croatia, regulation does not seem to have ensured an adequate price level for broadband services. The 2015 EU Report states as possible reasons for the low take-up (subscriptions) the lack of investment in fixed broadband infrastructure, insufficient e-skills among citizens and the very high cost of broadband subscriptions.<sup>15</sup> According to the 2015 EU Report, policy measures have improved the regulatory framework, but a low level of competition holds back further development of the digital economy. The 2015 EU Report finds that Croatia has made some progress with respect to broadband as far as administrative and financial decisions are concerned, but challenges remain as regards availability of fast broadband infrastructures and making internet access more affordable. According to the 2015 EU Report, greater competition in the market could reduce the costs of the internet for citizens and encourage greater take-up.<sup>16</sup>
- (10) According to EU reports<sup>17</sup>, connectivity is one of the key areas for improvement for Croatia, and measures to increase rural broadband connectivity are considered to be of utmost importance. Croatia sits at the very bottom of the EU ranking (rural fixed broadband coverage is 81.5% of households against 90.6% EU average). This is mainly driven by indicators concerning high speed fixed broadband, where Croatia is far below the EU average, both in terms of availability of high-speed fixed broadband and its take-up. Fixed broadband is available to most households, yet 30% of them do not subscribe to it. The EU reports underline the absence of a large scale alternative cable infrastructure which has affected the competitive dynamics and features of high speed broadband investments. As a consequence of the introduction of advanced cable (and recently FTTH – fibre to the home) services in urban settlements, higher speeds are available there, while average broadband connection speeds in the areas targeted by the backhaul scheme are rather low, with 96,4% of connections of speeds below 10 Mbps.

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<sup>15</sup> Country Report Croatia 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances (COM(2015) 85 final), part of the Results of the European Semester 2015; [http://ec.europa.eu/europe2020/pdf/csr2015/cr2015\\_croatia\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_croatia_en.pdf)

<sup>16</sup> Country Report Croatia 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances (COM(2015) 85 final), part of the Results of the European Semester 2015; [http://ec.europa.eu/europe2020/pdf/csr2015/cr2015\\_croatia\\_en.pdf](http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_croatia_en.pdf)

<sup>17</sup> EDPR report 2016 and DESI country profile: <https://ec.europa.eu/digital-single-market/en/node/66894>

### 3. EU POLICY AND THE RATIONALE OF THE INTERVENTION

- (11) The Commission, in September 2016, adopted a set of initiatives and legislative proposals to place the EU at the forefront of internet connectivity<sup>18</sup>. In order to address future broadband needs, the Commission proposes that by 2025 all schools, transport hubs and main providers of public services as well as digitally intensive enterprises should have access to internet connections with download/upload speeds of 1 Gigabit of data per second. In addition, all European households, rural or urban, should have access to networks offering a download speed of at least 100 Mbps, which can be upgraded to 1 Gigabit and all urban areas as well as major roads and railways should have uninterrupted 5G wireless broadband coverage, starting with a fully-fledged commercial service in at least one major city in each EU Member State by 2020.
- (12) In order to progress towards the achievement of the connectivity goals of the "Digital Agenda for Europe" for 2020, the new Broadband targets for 2025<sup>19</sup>, and the Croatian Broadband Strategy<sup>20</sup>, Croatia aims to deploy a passive backhaul network which allows for the provision of minimum 100 Mbit/s symmetrical down- and upload speed, providing at least 48 fibres for each backhaul route, with a possibility of providing up to 96 fibres. The Croatian authorities consider that the proposed network offering access to passive infrastructure would support competition on infrastructure, not only on services.
- (13) According to the Croatian authorities, a detailed analysis of future needs and demands<sup>21</sup> indicates that the average used broadband speeds in Croatia would be higher than 50 Mbit/s by the end of 2017 (in areas where adequate NGA networks capable of delivering these speeds or higher will be available). Public institutions and SMEs, as more demanding users, are expected to require even higher speeds, around or above the 100 Mbit/s threshold.
- (14) Since the incumbent is the major operator offering communication services in rural and suburban areas, and in the target areas of the scheme the only operator offering such services, public administration offices would have to rely on the incumbent, which does not offer *dark fibre* services, but only active *leased lines* services, which are all based on users sharing capacity on a network controlled by the incumbent.
- (15) The Croatian authorities find that the situation described above creates an unsatisfactory market outcome for Croatian suburban and rural areas, and results in disparities among urban and rural areas of Croatia. In case of absence of a public intervention, of which the proposed backhaul scheme is part, these discrepancies would eventually become even more pronounced, causing uneven regional development of Croatia. The Croatian authorities have provided data to

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<sup>18</sup> [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=17182](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=17182)

<sup>19</sup> <https://ec.europa.eu/digital-single-market/en/broadband-europe>

<sup>20</sup> Adopted in July 2016.

<sup>21</sup> <http://mppi.hr/default.aspx?id=421>.

show that there is consumer demand for better broadband networks.<sup>22</sup> These data were part of the document on the scheme subject to a second public consultation in Q4 of 2016. According to the Croatian authorities, the incumbent did not directly address or challenge these demand projections.

- (16) The Croatian authorities consider that the lack of adequate communication infrastructure and services for public institutions in rural and suburban areas is an obstacle for successful implementation of several national strategies that aim to introduce and develop public e-services. The Croatian authorities are of the view that public services such as e-government, e-health and e-schools cannot be technically and efficiently provided through the existing network. In its *Strategy for development of public services 2015-2020*<sup>23</sup>, Croatia states its intention to further develop electronic public services (e-government services). In this context, an important strategic measure is the consolidation and modernisation of the government's IT resources, which are currently mainly based on incoherent IT solutions, scattered throughout Croatia in central, regional and local offices of public administration. Without an NGN network properly serving NGA networks in NGA white areas, it would not be possible to use the planned e-services.
- (17) The Croatian authorities underline that public intervention in the areas concerned would result in socio-economic benefits largely for SMEs, of which nearly one fifth sell online, increasing SMEs' productivity and creating additional employment. This would also enable SMEs in the areas concerned to acquire affordable and quality high speed broadband connections, instead of expensive leased lines. Public intervention in the areas concerned would also decrease regional discrepancies between rural/suburban and dense urban areas of Croatia, enabling uniform development of all regions of Croatia and consequently helping to combat depopulation of rural areas.

#### 4. DETAILED DESCRIPTION OF THE MEASURE

- (18) Suburban and rural areas of Croatia, which are targeted by this scheme, currently lack NGA networks. Existing broadband networks in these areas are based on copper pairs, mostly supporting only basic broadband speeds. Speeds of around 30 Mbit/s are available only in limited areas adjacent to existing copper exchanges, as a result of DSLAM upgrades carried out by the incumbent. The planned deployment of NGA networks in these areas requires the creation of additional capacities in the backhaul network.
- (19) The notified measure (in the following "the proposed scheme" or "the scheme") is one of two recent programmes for high speed broadband development in Croatia. The proposed scheme aims to construct a publicly owned, passive NGN (next generation network) backhaul infrastructure, i.e. ducts, in this case dark fibre and co-location facilities. The other programme covers NGA networks (access infrastructure) and was declared compatible with the internal market by the

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<sup>22</sup> Section 1.7 of the main document on the scheme as notified to the Commission on 28 December 2016, and confirmed by EU Reports 2016; EDPR report 2016 and DESI country profile: <https://ec.europa.eu/digital-single-market/en/node/66894>

<sup>23</sup> *Strategija razvoja javne uprave za razdoblje od 2015. do 2020. godine* (OG 070/2015): <https://uprava.gov.hr/UserDocsImages/Istaknute%20teme/Strategija%20razvoja%20javne%20uprave%20za%20razdoblje%20od%202015%20%20do%202020%20%20godine.pdf>

Commission on 25 January 2016 (State aid case SA.38626). Thus, the proposed scheme aims to support the development of uniform NGN backhaul at national level, in parallel with the implementation of the National Programme for broadband access infrastructure concerning NGA networks,.

- (20) The proposed scheme will be implemented in parallel with and during the same time period (from Commission approval until 31 December 2023) as the NGA scheme which was approved by the Commission on 25 January 2016. The implementation of the schemes will be coordinated at national level by the competent authority for each scheme (for the NGA scheme subject to SA.38626 this is the NRA, for the NGN scheme subject to this decision this is CAP, see recital (29). The present decision deals only with the NGN scheme.
- (21) **Objective:** The purpose of the scheme is to provide sufficient NGN backhaul capacity to serve the access networks in white NGA areas approved by the Commission in State aid SA.38626. It will not serve access networks in grey NGA areas. The objective of the access scheme is to have covered, by 2023, an additional 25% of the Croatian population. Projections foresee 306 000 new NGA connections in 2023 and 340 000 NGA connections in 2025<sup>24</sup>. The analysis carried out for the Croatian authorities concludes that by 2021 a majority of backhaul links will require capacities higher than 1 Gbit/s (82,9%), in 2025 a majority of links will require capacities higher than 5 Gbit/s (58,9%), and in 2030 and 2035 half of backhaul links will have to support capacities higher than 10 Gbit/s (47,6% and 51,7%, respectively). To achieve those levels will require the deployment of significant additional backhaul capacities.
- (22) **Duration:** The measure covers the time period from the Commission approval until 31.12.2023, which is the last date on which aid can be granted under the measure. The Croatian authorities have committed to respecting the standstill obligation and will not implement the scheme prior to the approval of the Commission.
- (23) **Legal basis:** the measure is based on the Electronic Communications Act (ECA), which is an umbrella act regulating the electronic communications sector in Croatia.<sup>25</sup> Based on the ECA, implementing rules laying down detailed rules for the specific parts of the electronic communications sector have been adopted. The following implementing rules are of relevance to the NGN backhaul scheme:
- Regulation on the criteria for the development of electronic communications infrastructure and other associated facilities<sup>26</sup>, laying down the rules for planning the electronic communications infrastructure in spatial (physical) planning procedures;

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<sup>24</sup> On the assumption that penetration of NGA services will reach average maximum of 70% for households (private users), 99% for enterprises (business users) and 100% for public users, within a maximum period of 5 years following the deployment of NGA networks.

<sup>25</sup> Electronic Communications Act, OG 73/2008, 90/2011, 133/2012, 80/2013, 71/2014, [http://www.mppi.hr/UserDocsImages/ZEK2008-2014%20RED-T%2018-6\\_14.pdf](http://www.mppi.hr/UserDocsImages/ZEK2008-2014%20RED-T%2018-6_14.pdf)

<sup>26</sup> Regulation on the criteria for the development of electronic communications infrastructure and other associated facilities, Government Of The Republic Of Croatia, OG 131/2012, [http://narodne-novine.nn.hr/clanci/sluzbeni/2012\\_11\\_131\\_2798.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2012_11_131_2798.html)

- Order on manner and conditions of access to and shared use of electronic communications infrastructure and other associated facilities<sup>27</sup>, laying down the modalities and rules for the access to, and sharing of, ducts, poles, antenna masts, as well as buildings and other associated facilities and equipment between multiple operators;
  - Order on technical requirements for cable ducts<sup>28</sup>, laying down the technical conditions for planning, building and maintaining cable duct systems.
- (24) **Budget and financing instruments:** The overall estimated (maximum) budget of the measure is EUR 101.4 million, of which EUR 86.2 million, or 85%, will be funded by ERDF<sup>29</sup> and the remaining EUR 15.2 million, or 15%, by national funds. The annual budget of the scheme amounts to EUR 14.5 million for the period 2017-2023. In its Operational Programme under the Investment for Growth and Jobs Goal - Competitiveness and Cohesion 2014-2020 on Croatia<sup>30</sup>, the Commission found that the investment subject to this decision contributes to the Union strategy for smart, sustainable and inclusive growth and the achievement of economic, social and territorial cohesion, subject to State aid approval.
- (25) **Aid amount and intensity:** The maximum aid intensity is 100%.
- (26) **Target areas:**<sup>31</sup> Based on the results of public consultations, the scheme aims to provide backhaul to serve 540 settlements (25 % of the Croatian population), mostly located in suburban and rural areas. These 540 settlements make up the initial target areas of the measure and consist of mostly grey NGN areas, where the incumbent, Hrvatski Telekom, is currently offering NGN services. The remaining target areas are made up of white NGN areas, where no NGN network is currently in place or planned to be deployed in the next three years. In addition to the initial target areas, during the second public consultation in Q4 of 2016, an additional 5 823 smaller settlements also mostly located in suburban and rural areas (25.2% of the Croatian population) were identified as settlements without NGA networks (NGA white, which are all located within the NGA white target areas of SA.38626) and without connection to an NGN backhaul infrastructure

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<sup>27</sup> Ordinance on manner and conditions of access to and shared use of electronic communications infrastructure and other associated facilities, OG 136/2011, 44/2012, 75/2013, [http://www.hakom.hr/UserDocsImages/2013/propisi\\_pravilnici\\_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst\\_Pravilnik%20o%20na%C4%8Dinu%20i%20uvjetima%20pristupa%20i%20zajedni%C4%8Dkog%20kori%C5%A1tenja%20eki%20i%20dr.%20povezane%20opreme.pdf](http://www.hakom.hr/UserDocsImages/2013/propisi_pravilnici_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst_Pravilnik%20o%20na%C4%8Dinu%20i%20uvjetima%20pristupa%20i%20zajedni%C4%8Dkog%20kori%C5%A1tenja%20eki%20i%20dr.%20povezane%20opreme.pdf)

<sup>28</sup> Ordinance on technical requirements for cable ducts OG 114/2010, 29/2013, [http://www.hakom.hr/UserDocsImages/2013/propisi\\_pravilnici\\_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst\\_Pravilnik%20o%20tehni%C4%8Dkim%20uvjetima%20za%20kabelsku%20kanalizaciju.pdf](http://www.hakom.hr/UserDocsImages/2013/propisi_pravilnici_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst_Pravilnik%20o%20tehni%C4%8Dkim%20uvjetima%20za%20kabelsku%20kanalizaciju.pdf)

<sup>29</sup> European Regional Development Fund.

<sup>30</sup> CCI 2014HR16M1OP001.

<sup>31</sup> The terms "settlements" and "target areas" are used interchangeably.



(NGN white). These settlements are included in the target area of the scheme, albeit with lower priority for construction of NGN infrastructure.<sup>32</sup>

(27) Only the incumbent, Hrvatski Telekom, currently operates a backhaul network in the target areas:

a) In [...] % of the initial target areas there is no fibre backhaul. The incumbent uses copper and/or microwave links to reach these settlements with backhaul connections.

b) In [...] % of the initial target areas there is a fibre-based backhaul network. The incumbent informed the authorities that no NGN capable active Ethernet equipment is installed on its spare backhaul connections in relation to this group of target areas. The incumbent has not reported any plans to install on commercial terms in the next three years the necessary equipment to handle the estimated increase of traffic after deployment of the planned NGA networks.

c) In the remaining [...] % of the initial target areas, there is a fibre-based backhaul network and the incumbent has informed the Croatian authorities that only [...] spare dark fibres on these backhaul connections can be used for the purpose of backhauling traffic from NGA networks. However, the incumbent also reported that in these areas it does have NGN capable active Ethernet equipment installed. It nevertheless states that that equipment does not have sufficient capacities to handle the estimated increase of traffic after deploying NGA networks. The incumbent has not reported any plans to install on commercial terms in the next three years the necessary equipment to handle the estimated increase of traffic after deploying the planned NGA networks.

d) The additional smaller settlements have neither NGA networks nor NGN backhaul infrastructure and are located within the NGA white target areas of SA.38626, where the incumbent has not reported any investment plans in the next three years.

(28) The planned NGN backhaul infrastructure will serve all settlements in the NGA white areas targeted under the approved NGA. The targeted settlements either completely lack an NGN backhaul connection (NGN white areas) or have an insufficient backhaul connection as explained above in recitals (26) and (27) (NGN grey areas). Settlements with a population above 1 000, and settlements which are administrative centres of local municipalities (even if smaller than 1 000 inhabitants) will be prioritised.

(29) **Beneficiary of the scheme:** Implementation of the scheme and operation of the infrastructure will be managed by the public undertaking "Odašiljači i veze d.o.o." (*Transmitters and Communications Ltd.*; OiV), acting as the government's *manus longa*. OiV is a limited liability public undertaking responsible for relay and transmission of radio and television programmes on behalf of others, registered at a commercial court. The company is fully controlled and owned by the State, represented by the Minister of the Sea, Transport and Infrastructure,

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<sup>32</sup> The NGN backhaul infrastructure will be extended to the abovementioned additional smaller settlements as a result of technical coordination with the NGA networks to be deployed in these settlements, or by using surplus revenues.

also making up the general assembly. Its main business activities are *inter alia*: Providing access and shared use of electronic communications infrastructure and associated facilities, leasing of electronic communications networks and lines, analogue FM radio broadcasting, digital television terrestrial broadcasting (DVB-T), satellite services, private mobile network services, multimedia services, professional engineering services. All business activities are wholesale except for 7 business users, which use OiV's leased line service for private needs (retail), mainly as backup links. The revenue from this amounts to 0.85% of OiV's total revenue. OiV has not been designated as having significant market power (SMP) on any market susceptible to ex ante regulation by the NRA. OiV operates a fibre optic backbone network (between major cities) and runs a unification project of fibre-optic infrastructure in companies in which the government has a majority ownership (the UFOI project). In 2015, OiV's revenues amounted to around EUR 30.6 million. According to the Croatian authorities, OiV is the only public entity with the necessary competence to run the implementation of the scheme.

- (30) OiV will create a separate organisational unit to manage the implementation of the scheme. *The designated State aid granting authority*, which will coordinate and monitor the implementation of the scheme, including the management of expenditure borne by OiV related to the implementation of the NGN backhaul scheme, is the Ministry of the Sea, Transport and Infrastructure (MMPI), named Competent Authority for the Programme (CAP). The Croatian authorities want to maintain a maximum public control of the implementation and infrastructure in order to create as many pro-competitive effects as possible on the broadband market in Croatia, especially in suburban and rural areas of Croatia. OiV will act under the control of the Croatian government, represented by CAP. It will be in charge of the infrastructure development and maintenance on behalf of the authorities. OiV will not be active at retail level within the scheme and will not be able to generate profits within the scheme. OiV will also keep accounting separation between the operations of the network and its other activities. OiV will not be allowed to commercially exploit backhaul dark fibres within the scheme.
- (31) OiV's role will be to manage the whole scheme on behalf of the government. This includes the development of the infrastructure as well as the management of the resulting infrastructure within the operation phase (e.g. selection of operators willing to lease fibres jointly with CAP, managing a database of the infrastructure, managing and supervising the maintenance of the infrastructure), whereas related maintenance and repair services will be tendered out. In view of the selection of external contractors through public procurement procedures for the provision of works and services in the design, build and operation phases, selection criteria will be jointly defined by CAP and OiV and the final selection decision will be taken by CAP.
- (32) ***Detailed mapping and coverage analysis, consultation with stakeholders:*** The Croatian authorities undertook a *mapping exercise*, i.e. a centralised inventory of existing backhaul infrastructure, in Q2 of 2014. A *first public consultation* on the NGN backhaul scheme was conducted between 8 and 30 September 2014 by the Ministry of the Sea, Transport and Infrastructure, under the Electronic Communications Act. Following the public consultation the mapping exercise was supplemented with data provided by the incumbent and the second largest operator, VipNet. After the first public consultation, the proposed scheme was redrafted and a revision of the mapping exercise was initialised in April 2016. Because of the redrafting of the scheme and the time lapse since the first

consultation, the Croatian authorities conducted a *second public consultation* during September and October 2016. In both public consultations all documents related to the NGN backhaul scheme were made accessible on the ministry's web page for at least 30 days. All potential stakeholders were invited to comment on the planned measure. In addition, notifications on launching the public consultations were submitted to operators on the market.

- (33) The Croatian authorities have verified that no commercial operator is willing or able to bid for the whole project due to its size. The incumbent has not proposed to run the State aid project, but has instead proposed an upgrade of its own network with State aid. The second largest operator in the Croatian broadband market, VipNet, [...]. The Croatian authorities confirmed that VipNet has taken the same stance in contacts with them.
- (34) During the first public consultation the ministry received comments from four different parties: one regional government, Primorsko-goranska, the two largest operators (the incumbent Hrvatski Telekom, and VIPnet) and the government agency APPP (agency for public private partnership, which has since been absorbed into the Agency for Investments and Competitiveness). During the second public consultation, the ministry received comments from five different telecom operators (the incumbent Hrvatski Telekom, VIPnet, Tele2, Univerzalne telekomunikacije and Fortis projekt). All comments were analysed and a summary table was published on the ministry's website.<sup>33</sup> Summaries of the comments and submissions received from all parties during both consultations have been submitted to the Commission together with an indication from the Croatian authorities of what comments have been taken into account.
- (35) The incumbent, Hrvatski Telekom, claimed that the Croatian authorities are incorrect in considering that the incumbent's existing backhaul capacities are insufficient to meet projected needs, and alleged that the authorities overestimated the future capacity needs. The incumbent further claimed that its network – with a minor upgrade – would be suitable for achieving capacities comparable to a new passive fibre infrastructure. The incumbent has however declared no interest in investing its own money in the target area in the next three years, but instead proposed that State aid be used to finance that upgrade of its own backhaul infrastructure, which it claims would be significantly less costly (estimated by the incumbent in a letter to the Croatian authorities following the first public consultation at HRK 120 million, or approximately EUR 16 million) than the scheme proposed by the Croatian authorities<sup>34</sup>. The incumbent admitted that such an upgrade would be necessary in order to fulfil the objectives of the scheme. The proposed upgrade would offer only active-layer access (which implies no dark fibre access), creating no infrastructure competition. In sum, the incumbent's alternative proposal would imply that State aid (albeit of a lower amount than the proposed scheme) is attributed directly to the incumbent.
- (36) The Croatian authorities have informed the Commission that during neither of the public consultations has the incumbent provided complete and exact information

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<sup>33</sup> [http://www.mppi.hr/UserDocsImages/ELKOM%20JS%20ONP%20Primjedbe%2020-3\\_14.pdf](http://www.mppi.hr/UserDocsImages/ELKOM%20JS%20ONP%20Primjedbe%2020-3_14.pdf) and <https://esavjetovanja.gov.hr/ECon/EconReport?entityId=3947>

<sup>34</sup> Proposal for concept of cooperation - document submitted by Hrvatski telekom to the Croatian Government on 31.10.2014.

on its existing backhaul network. The Croatian authorities have refuted the claim of overestimated future needs by referring to the studies it bases its decision on.<sup>35</sup> The Croatian authorities also rejected both the basis for the calculation of the cost of an upgrade and the claim that the necessary capacities could be achieved by such an upgrade. According to the Croatian authorities, upgrading the incumbent's network would not solve the current issues of low take-up and high prices, and dominance of the incumbent in the market place.

- (37) The Croatian authorities have provided an analysis of the growth of required capacities on access and backhaul networks for the next 20 years, covering the time period 2016 to 2035. The main parameter determining the required backhaul capacity is the sum of maximum bandwidths (speeds) of individual NGA connections in the access networks (approved under State aid decision SA.38626). The analysis is based on a number of general parameters, NGA networks implementation parameters, NGA networks demand parameters, and NGA networks speed assumptions. All parameters and underlying assumptions are laid out in the main document of the scheme<sup>36</sup> which also contains a comparison between the estimated aggregated backhaul capacities in 2014 and projected requirements in 2025 and 2035. Depending on the county, the increase is estimated at approximately 10- to 40-fold in the time period 2014 to 2025 and 14- to 63-fold in the time period 2014 to 2035. The Croatian authorities have also provided a more detail estimation of the capacities needed per individual backhaul link using the NGN backhaul topology used in the preliminary mapping exercise.
- (38) According to the incumbent the proposed scheme does not comply with the obligation of technological neutrality set out in point 78(e) of the Broadband Guidelines 2013, given that it requires fibre-optic cables as the designated technology. The incumbent also claims that the possibility for other operators to use the regulated service of active layer bitstream access on its backhaul network proves that the proposed network based on lease of dark fibre is unnecessary.
- (39) The Croatian authorities have rejected the claim that the possibility for operators to use active layer access on the incumbent's (upgraded) network renders the proposed network unnecessary. Instead they pointed to a number of technical reasons why even an upgraded incumbent network would not suffice. This is due to lesser quality of old fibre, compatibility issues of technologies and active network equipment, but most importantly the fact that an upgrade of the incumbent's infrastructure would make all alternative operators dependent on the incumbent, which would fully control transmission capacities. The Croatian authorities have further stated that if all operators were to depend on active access to the incumbent's backhaul infrastructure, all operators would have to adapt to the network interfaces, technologies and capacities that the incumbent would make available in the active layer. This would diminish the flexibility of alternative operators' business models of investment into NGA networks. It would also have negative effects on competition, reinforcing the dominance of the

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<sup>35</sup> <http://mppi.hr/default.aspx?id=421> and Chapter 1.7 of the main document on the scheme as notified to the Commission on 28 December 2016.

<sup>36</sup> Section 1.7 of the main document on the scheme as notified to the Commission on 28 December 2016.

incumbent and making alternative operators dependent on access at the active layer of the incumbent's backhaul network with no alternative available.

- (40) The incumbent also claimed that the Croatian authorities wrongly concluded that there is a market failure on the wholesale market for leased lines and challenged the authorities' calculation of the costs for alternative operators which, in the absence of a new network, would need to use the incumbent's leased lines in order to supply their next generation access networks with appropriate capacities. The incumbent stated that because the NRA has regulated access charges to the incumbent's backhaul network there is no market failure. According to the incumbent, costs were overstated due to the fact that only regulated Ethernet charges were taken into account and not regulated xWDM charges, which are lower. The Croatian authorities took this remark into account and the notified scheme contains a calculation including both charges. The Croatian authorities nevertheless concluded that the revised calculation shows that the costs for alternative operators for use of the incumbent's backhaul network exceed expected income.<sup>37</sup> The Croatian authorities have pointed out that there exists a capacity bottleneck which has resulted in high prices and low take-up as shown by EU Reports (chapter 2 of this decision). They state that it has not been possible to address that situation via regulation.
- (41) VipNet, the second largest operator, expressed serious concern as regards the incumbent's proposal that State aid instead be used to upgrade the incumbent's own backhaul infrastructure. VipNet considered that using State aid to finance the upgrading of the backhaul network of a vertically integrated incumbent with a dominant position in the market would prevent vital infrastructure market competition and be a serious threat to fair competition. VipNet considered that the Croatian authorities' proposal for a backhaul scheme is the only sustainable solution to provide sufficient and high quality capacities. It criticised the incumbent's proposal to place active equipment within the incumbent's network with limited availability of fibre-optic capacities, over a free-standing, publicly owned passive backhaul infrastructure as critically threatening long-term sustainability. VipNet also pointed out that the incumbent's network was built around 15 years ago, whereas the expected longevity of fibre-optic cables is around 20 years. This they consider endangers a long-term technical sustainability of the incumbent's backhaul network, irrespective of technological solution implemented on it.
- (42) VipNet also stated that the proposed scheme is essential to connect the NGA access and core networks on equitable market terms. VipNet firmly supported the scheme which it considered to be a long-term sustainable solution that will ensure sufficient capacities and quality for all NGA investors. VipNet also claimed that the scheme would enhance competition in a wholesale market where currently only limited Ethernet services are made available by only one market player on what VipNet considered to be unfavourable market conditions, giving an advantage to the incumbent, as it would be very costly for alternative operators to depend on the incumbent for backhaul services needed to connect their NGA networks. VipNet suggested that 96 fibres be installed on routes where demand for higher capacity is foreseen, in order to ensure long-term needs for NGN

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<sup>37</sup> The authorities' calculation and reasoning is laid out in Section 1.6.3.3 of the main document on the scheme as notified to the Commission on 28 December 2016.

capacity and considering the marginally increased cost of this. The Croatian authorities have modified the scheme accordingly. In their submissions during and after the public consultations on the backhaul scheme<sup>38</sup>, alternative operators VipNet and Amis Telekom<sup>39</sup> described the Croatian backhaul network wholesale market as the incumbent holding a firm monopoly position, as the owner of the existing backhaul network and the only operator offering backhaul network services. They underlined the high prices of the incumbent's backhaul network leased line services (confirmed by a benchmarking analysis submitted by the Croatian authorities<sup>40</sup>), and the incumbent's high market share in the retail broadband market in suburban and rural areas (i.e. in all areas for which other operators would have to rely on the incumbent's backhaul network),<sup>41</sup> leading to a situation where alternative operators can competitively offer their broadband services only in large urban areas. They also pointed out the absence of sufficient capacities in the incumbent's backhaul network, which to a large extent lacks dark fibre backhaul services.

- (43) Both VipNet and Amis Telekom, and also the third Croatian mobile operator Tele2, were of the opinion that the proposed concept of a new, publicly owned backhaul scheme is the first and necessary prerequisite for enhanced competition in the fixed telecom market outside large urban areas in Croatia. Both VipNet and Amis Telekom suggested that they have not been able until now to plan their broadband investments outside large urban areas, due to inherent obstacles caused by the incumbent's backhaul network. The alternative operators were of the view that implementation of the proposed scheme will fundamentally change the current pattern in the market, characterised by what they consider a de facto monopoly of the incumbent outside large urban areas. After that, demand from other operators for the backhaul network capacities will emerge, not only from operators currently active in the market, but also from new operators in the market (whose entry has until now been constrained by limited competitive prospects). The alternative operators considered that implementation of the scheme is a pre-condition for the increase of operators' demand for backhaul network capacities, which will, all together, increase investments by all operators in the market and enable introduction of advanced NGA based services outside large urban areas.
- (44) Tele2 supported the proposed scheme and considered that the construction of a fibre network infrastructure is a prerequisite for further development of new

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<sup>38</sup> Letters from VipNet and Amis Telekom to the Croatian authorities and replies to the public consultations on the scheme were shared with the Commission.

<sup>39</sup> In 2015, VipNet acquired Amis Telekom.

<sup>40</sup> The Croatian authorities have submitted a study showing that the Croatian incumbent's Ethernet leased line charges are several times higher than is the case for identical services in the UK and the Netherlands.

<sup>41</sup> According to the Croatian NRA's data for 2013, the market share of HT (including operators Iskon and Optima Telekom, which are owned and/or controlled by HT), in the retail fixed broadband market was 79,22% (the share is even higher in suburban and rural areas of Croatia, as VipNet (whose retail fixed broadband market share was 14,84%) operates its cable network only in major urban areas), [http://www.hakom.hr/UserDocsImages/2014/izvjesca\\_i\\_planovi/Godisnje\\_izvjesce\\_HAKOM\\_za\\_2013-20140714.pdf](http://www.hakom.hr/UserDocsImages/2014/izvjesca_i_planovi/Godisnje_izvjesce_HAKOM_za_2013-20140714.pdf).

generations of electronic communications infrastructure, such as 5G and electronic communications services. In this context, Tele2 pointed out that it is essential to create market conditions that will not lead to market failure or limit competition in the electronic communications sector. The two remaining operators, Univerzalne telekomunikacije and Fortis projekt, submitted the requested information on investment plans regarding infrastructure, and data on existing infrastructure.

- (45) The NRA issued an opinion on the proposed scheme on 21 December 2016,<sup>42</sup> stating that the proposed backhaul network along with the approved NGA schemes in NGA white areas would contribute to the development of efficient competition both at wholesale and retail levels and it would also contribute to the public interest by allowing all end-users in those areas high-speed internet access in line with the Digital Agenda targets.
- (46) **Competitive selection process:** The scheme is based on a public ownership model. External contractors will provide the necessary works, services and goods for the construction and maintenance of the scheme. OiV will be responsible for carrying out all procurement procedures within the scheme. OiV will prepare award decisions within these procurement procedures, whereas CAP will take the final decision appointing the winning bid in each procurement procedure. Criteria for each public procurement procedure will be defined jointly by CAP and OiV. All public procurement criteria will be based on selecting the economically most advantageous offer.
- (47) In all cases of procurement of external services, works or equipment, the scheme must comply with all relevant public procurement regulations laid down by the Public Procurement Act<sup>43</sup>. All relevant information in the course of the public procurement procedures, including the notifications on initiating the procurement procedures, will be published in the Electronic Public Procurement Classifieds of the Republic of Croatia (EPPC)<sup>44</sup>, as well as on the OiV and CAP websites, in order to ensure the highest possible level of transparency of programme implementation. All public procurements with an estimated value exceeding the relevant EU thresholds will be published in the Supplement to the Official Journal of the EU<sup>45</sup>. All competitive selection processes under the scheme will be carried out in line with the spirit and the principles of EU public procurement rules. The Croatian authorities point out that it follows from the mapping exercises and public consultations undertaken both for the National Broadband Plan<sup>46</sup> and the scheme subject to this decision, that there are currently no adequate fibre communication services offered in the market in suburban and rural areas of Croatia (target areas of the NGN backhaul scheme) able to meet the needs for

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<sup>42</sup> Reference: class 344-03/16-01/103, Reg. No.530-06-2-1-16-2.

<sup>43</sup> OG 120/2016, [http://narodne-novine.nn.hr/clanci/sluzbeni/2016\\_12\\_120\\_2607.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2016_12_120_2607.html)

<sup>44</sup> Electronic Public Procurement Classifieds of the Republic of Croatia, Official Gazette <https://eojn.nn.hr/Oglasnik/>

<sup>45</sup> Supplement to the Official Journal of the EU (Tenders Electronic Daily - TED) <http://ted.europa.eu/TED/main/HomePage.do>

<sup>46</sup> See footnote 1.

advanced interconnection of public institutions (both considering aggregation and access parts of network). This is an obstacle for the full implementation of the *Strategy for development of public services 2015-2020* and the *e-Croatia 2020 strategy*.<sup>47</sup>

- (48) ***Choice of network operator and obligations imposed on it***: The operation of the infrastructure will be directly attributed to OiV with the decision-making powers reserved for CAP. The backhaul dark fibre infrastructure will be offered to all operators in the market through long-term leasing agreements (commonly referred to as dark fibre *Indefeasible Rights of Use – IRU*)<sup>48</sup>, by which operators will be granted exclusive rights to use a certain number of backhaul dark fibres. The dark fibre IRU service provided at the passive infrastructure level allows operators to deploy their own technological solutions on an active network layer and thus to design and customise their networks according to the needs of end-users and services provided. Several operators will be able to lease dark fibre in parallel. The grant of dark fibre IRUs (i.e. selection of operators of the network) will be subject to a competitive selection procedure. CAP will define the conditions for leasing the infrastructure and the related fees.
- (49) In the initial selection procedure for granting IRUs, CAP will ask operators to express their interest in leasing the backhaul infrastructure indicating the area(s) and number of dark fibres. In order to avoid too much concentration in the market, 8 fibres will be set as a maximum per operator. In case the interest of operators exceeds the available number of dark fibres offered in a particular area, the selection procedure shall give priority to operators which require higher numbers of fibres (up to the maximum of 8 fibres), offer longer leasing periods, or offer to pay higher IRU fees. An additional number of fibres per operator can also be offered by CAP on routes where more than 48 fibres were installed. For these routes the maximum number of fibres leased per operator will be adjusted proportionally to the increase in the number of fibres installed on a particular route.
- (50) In case the interest of operators is lower than the number of dark fibres available in a particular area, IRUs will be granted to all operators that expressed an interest, and IRU fees will amount to the minimum fees for each area. After the completion of the initial selection procedure for granting IRUs, CAP shall conduct *additional* selection procedures for granting IRUs for a particular area whenever (a) one or more operators express the interest in leasing dark fibres in a particular area, and there are available dark fibres, (b) one or more operators that have already been granted IRUs in a particular area express interest in leasing additional amounts of dark fibres (or where the predefined amount of fibres per operator exceeds the predefined maximum), and there are available dark fibres, or (c) an IRU contract for any operator expires or is terminated. The additional selection procedure for granting IRUs shall be identical to the initial selection procedure. When an operator requests to lease additional dark fibre capacities, above the predefined maximum per operator, CAP is entitled to assess whether

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<sup>47</sup><https://uprava.gov.hr/UserDocsImages//Istaknute%20teme//Strategija%20razvoja%20javne%20uprave%20za%20razdoblje%20od%202015%20%20do%202020%20%20godine.pdf> and <https://uprava.gov.hr/drzava-bez-papira-e-hrvatska/14401>

<sup>48</sup> IRUs (contracts on indefeasible rights of use, which is the exclusive right to use a certain number of backhaul dark fibres).



this could negatively impact competition in the market. In this assessment, CAP shall consult the NRA. CAP may subsequently decide not to grant IRUs for additional amounts of dark fibres above the predefined maximum per operator.

- (51) **Technological neutrality:** Fibre-optic infrastructure is the chosen technology as this, at the current stage of technological development, is the only technology capable of sustaining the qualitative and quantitative needs set out by the Croatian government for the backhaul network. Indeed, the proposed NGN backhaul infrastructure is considered to be the only technology that will allow the development of the NGA networks already approved by the Commission in SA.38626 (2014/N) and which are technologically neutral. The business model of the proposed scheme consists of parallel lease of backhaul dark fibres to all operators in the market on equal terms. Operators using leased dark fibres (passive infrastructure) on a passive layer are responsible for the implementation of data transmission on an active network layer, which they may customise fully to their own preferences and capacity needs.
- (52) **Effect on competition:** The Croatian authorities consider that the passive fibre-optic backhauling infrastructure offering capacities on the wholesale market to all operators interested in providing services on NGA networks, has a particularly positive effect on the competitiveness in the market, since it allows all operators to compete at infrastructure level, ultimately increasing the quantity and quality of broadband services available for end-users. The Croatian authorities also underline that the implementation of a passive fibre-optic backhaul infrastructure significantly increases the availability of new services (lease of dark fibres on the backhaul network), introduces significant amounts of additional capacity and increases competition (the wholesale business model for operating the backhaul dark fibre infrastructure ensures equal treatment and opportunities for all operators in the market).
- (53) **Role of the National Regulatory Authority (NRA):** The Croatian NRA will have several roles within the scheme. The NRA will be consulted by CAP when setting IRU fees, prior to all IRU selection procedures. The NRA opinion is binding on CAP. CAP shall also consult the NRA when defining or updating an IRU contract template, which includes all leasing conditions related to dark fibre. The NRA will furthermore be consulted by CAP when assessing whether the granting of additional dark fibres per operator (above the predefined maximum) could have a negative impact on competition in the market.
- (54) The NRA will also issue a binding opinion on wholesale tariffs and conditions set by CAP for other services to be supported by the scheme. These services include leasing of space in backhaul and transitional nodes (colocation of equipment) and leasing of free space within ducts. All disputes between access seekers (IRU lessees) and OiV will be resolved by the NRA, according to the procedure defined in the Electronic Communications Act and relevant orders. Under the Electronic Communications Act, all new infrastructure built must be reported to the NRA within 30 days of the start of operations.
- (55) **Use of existing infrastructure and wholesale access:** In order to reduce the implementation costs of the scheme, any possibility of using existing electronic communications infrastructure where this can serve the needs of the scheme will be thoroughly analysed in the implementation phase of the scheme. This concerns mainly existing infrastructure of cable ducts on backhaul routes where there is

free space for placing fibre-optic cables with the capacity required by the scheme. Given the availability of existing cable duct systems in the Croatian market, the scheme could rely on free space within cable ducts owned by public companies (available within the UFOI project, see recital (29) as well as on free space within cable ducts managed by the incumbent. Within the UFOI project, the government has access to free electronic communications infrastructure capacities owned by public companies in the section of the existing UFOI routes reaching the targeted settlements, which will facilitate the operational implementation of the scheme and will generally reduce investment costs.

- (56) Rules for the use of existing infrastructure are set out in the *Order on manner and conditions for access to and shared use of electronic communications infrastructure and other associated facilities (OG 36/16)*. The Order contains *inter alia* rules for sharing of cable ducts and buildings. All disputes among operators relating to implementation of this Order shall be resolved by the NRA.
- (57) The Croatian government plans to offer dark fibres in eight areas of Croatia. IRU contracts within the scheme will be offered for all backhaul routes reaching targeted settlements in a particular area of Croatia. Granting of IRUs on a regional basis will enable smaller operators (e.g. regional ones) to bid for IRUs, avoiding that large operators in the market are favoured, which is likely if IRUs were granted on a national basis. The precise geographical scope of each area will be determined during the implementation of the scheme. The IRU areas will be similar in size to the extent possible, with respect to the number of potential users that are to be covered with NGA networks (i.e. users in NGA white areas).
- (58) Initially up to 8 dark fibres per operator will be offered in each area (a higher number of dark fibres can be offered on routes where more than 48 fibres were installed (see recital (49)). This will ensure that up to 5 operators can simultaneously use dark fibres on backhaul routes in each area. The remaining 8 dark fibres within the cable will be kept as a technical reserve. CAP will regularly monitor the interest of operators for IRUs in all areas. If during several consecutive years less than five operators are interested in IRUs in a particular area, CAP may decide that more than 8 dark fibres per operator be offered in that area, always retaining the same amount of dark fibres as technical reserve.
- (59) In conformity with points 78(g) and 80(a), first paragraph, of the Broadband Guidelines 2013, OiV must ensure full and effective unbundling and provide full open access to the subsidised network (including, but not limited to, access to ducts, dark fibre, street cabinets and unbundled access to fibre) on equal and non-discriminatory terms for at least 7 years. Such access shall apply to the entirety of the subsidised network, including the parts of such a network where existing infrastructure has been used. If, at the end of the 7 year period, the operator of the infrastructure in question is designated as having significant market power in the market concerned, the access obligation may be extended. Full access, without limitation in time, is always to be guaranteed to all new and existing infrastructure of the subsidised network.
- (60) **Other wholesale services:** Besides the lease of dark fibres, the leasing of space in backhaul and transitional nodes for hosting operators' equipment (colocation of equipment) and leasing of free space within ducts constructed within the scheme will also be offered. The services will be offered to all operators, including those who lease dark fibres. Technical rules and conditions for the services will be

defined based on the Order for shared use of electronic communications infrastructure<sup>49</sup>.

- (61) OiV will, on behalf of CAP, manage the provision of all wholesale access services towards operators in the market, and prepare the conclusion of service (leasing) contracts with operators which will be submitted to CAP for approval.
- (62) **Wholesale access pricing:** IRU fees are to be paid by operators through recurring charges. CAP shall consult the NRA before setting the minimum IRU fee for a particular area. The NRA opinion is binding. As dark fibre tariffs have not been regulated by the NRA, IRU fees will be set on the basis of national and EU benchmarks in the corresponding market, taking into account the minimum leasing period of 10 years. The IRU fees set for each area will correspond to minimum fees that operators will have to pay for use of the backhaul infrastructure depending on the leasing period. IRU contracts signed with selected operators shall follow a template with conditions predefined by CAP, with the opinion of the NRA, before the start of the initial granting procedure. The IRU contract template shall be made publicly available on CAP's and OiV's websites.
- (63) The wholesale tariffs for lease of space in backhaul and transitional nodes (colocation of equipment) and lease of free space within ducts shall be determined by CAP after consultation with the NRA, whose opinion is binding on CAP.
- (64) The wholesale tariffs and conditions for provision of services will be set by CAP. CAP shall seek the NRA's opinion on the proposed tariffs and conditions before they are set. After the initial determination of wholesale tariffs and conditions, CAP shall analyse them at least once a year in consultation with the NRA. If necessary, the tariffs and/or conditions shall then be adjusted to reflect market situation and/or changes in regulated tariffs. OiV shall publish reference offers for colocation and ducts access services, defining technical and other conditions for these services, as well as wholesale tariffs. The reference offers shall be updated each time the conditions and/or tariffs are modified. The reference offers shall be made publicly available at CAP's and OiV's websites.
- (65) **Monitoring and clawback mechanism:** OiV as the direct beneficiary of the scheme is subject to a non-profit obligation, which makes clawback superfluous. OiV shall keep separate accounting for all activities related to the implementation of the scheme. CAP will monitor all OiV's expenditure related to its role in the implementation of the scheme. CAP will determine a balance of revenues and expenditures incurred by the scheme for each consecutive year in which the infrastructure implemented by the scheme has been operational. CAP will be required to reinvest the surplus revenues collected by the end of each year if the cumulative balance exceeds HRK 15 million (approximately EUR 2 million). The surplus revenues may be invested in expansion of existing backhaul routes and nodes, or construction of new backhaul nodes and routes to other settlements

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<sup>49</sup> Ordinance on manner and conditions of access to and shared use of electronic communications infrastructure and other associated facilities, OG 136/2011, 44/2012, 75/2013, [http://www.hakom.hr/UserDocsImages/2013/propisi\\_pravilnici\\_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst\\_Pravilnik%20%20o%20na%C4%8Dinu%20i%20uvjetima%20pristupa%20i%20zajedni%C4%8Dkog%20kori%C5%A1tenja%20eki%20i%20dr.%20povezane%20opreme.pdf](http://www.hakom.hr/UserDocsImages/2013/propisi_pravilnici_zakoni/Neslu%C5%BEbeni%20pro%C4%8Di%C5%A1%C4%87eni%20tekst_Pravilnik%20%20o%20na%C4%8Dinu%20i%20uvjetima%20pristupa%20i%20zajedni%C4%8Dkog%20kori%C5%A1tenja%20eki%20i%20dr.%20povezane%20opreme.pdf)

within the target areas of State aid decision SA.38626. CAP will determine the location of the expansion of the infrastructure. For this purpose, CAP may also consult operators on the market.

(66) ***Transparency and reporting:*** In order to ensure transparency of the implementation of the scheme, CAP will establish a website dedicated to the scheme. This website will contain all information related to the implementation of the scheme and will be regularly updated. CAP will also regularly collect all information related to the implementation of the scheme from OiV. The website will contain following data and information:

- the full text of the approved scheme;
- aid amount spent under the scheme;
- detailed technical data on built backhaul routes and locations of backhaul/transitional nodes;
- information on operators using the infrastructure (IRU lessees) per area, with number of dark fibres leased, IRU fees concluded and leasing period;
- information on planned and concluded IRU granting procedures, with relevant selection criteria;
- the full text of the IRU contract template;
- the full text of the reference offer for colocation and ducts access services.

(67) Detailed technical data on backhaul routes and locations of backhaul/transitional nodes will be prepared by OiV in a suitable geospatial electronic format (e.g. WFS), and all operators in the market will get online access to these data.

(68) In order to fulfil its reporting obligations to the European Commission under point 78(k) of the Broadband Guidelines 2013, CAP will regularly and at least every two years report all relevant information on the implementation of the scheme to the European Commission. Such reports will at least contain information on

a) amounts of State aid granted,

b) basic information on the operation of the scheme (length of the backhaul routes built, number of targeted settlements covered, number of nodes, number of backhaul fibres lessees in all areas),

c) disputes, if any, concerns regarding the project, how they were resolved,

d) award criteria used in tender procedures and the weighting of the criteria used in the evaluation of the bids,

e) market concentration at network level (if the incumbent is the main or sole beneficiary) and the degree of presence of alternative operators,

f) list of projects carried out – if different than what was foreseen before the implementation, motivate,

g) any complainants regarding the implementation of the network,

h) open access obligations imposed on the aid beneficiary: Number of requests for access (for passive infrastructure), type of operators wishing to connect, access granted (for passive infrastructure), type of operators, access refused, reasons, access conditions (type of access, list of access products offered, type of technology used to connect to the network), description of retail services provided by the wholesale operator, if any, any disputes, concerns regarding access to the network, how they were resolved.

- (69) ***Fair and non-discriminatory treatment:*** The passive network infrastructure of the scheme will be designed and built by the Croatian government and retained in permanent public ownership, pursuant to the national *Act on management and disposal of assets owned by Republic of Croatia*<sup>50</sup>. All works related to the design and construction of the network will be subject to public procurement procedures. After completion of the construction of the infrastructure, its capacities will be offered to all operators in the market on equal terms through a competitive selection procedure. By offering, on a wholesale basis, access to the backhaul dark fibre infrastructure to all operators in the market, the dark fibre IRU service provided at the passive infrastructure level allows operators to deploy the technological solutions of their choice on an active network layer.

## 5. ASSESSMENT OF THE MEASURE

### 5.1. EXISTENCE OF AID

- (70) According to Article 107(1) TFEU, "*any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market*". It follows that in order for a measure to qualify as State aid, the following cumulative conditions have to be met: 1) the measure has to be granted from State resources, 2) it has to confer an economic advantage on undertakings, 3) the advantage has to be selective, and 4) the measure has to distort or threaten to distort competition and affect trade between Member States.
- (71) ***State resources:*** The measure is partially financed from the national budget and thus by State resources (see recital (24) above).
- (72) ***Selective economic advantage:*** In geographic areas where no commercial investment in the near future is envisaged, whether the incumbent is already present (NGN grey areas), or not (NGN white areas), the public undertaking's activity cannot be perceived as being carried out on market terms. Rather, the public undertaking constructs and exploits the passive infrastructure in the interest of the public good with a view to attracting and supporting broadband investments in those areas. Even in geographic areas where the incumbent is already present, the proposed scheme aims to meet projected needs which the current network, even if upgraded using State aid, cannot meet. Instead of acting like a private market investor, the public undertaking activity fulfils the wider policy interest of Croatia to increase NGA broadband access for the whole of the

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<sup>50</sup> Act on management and disposal of assets owned by Republic of Croatia, OG 94/2013, [http://narodne-novine.nn.hr/clanci/sluzbeni/2013\\_07\\_94\\_2121.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2013_07_94_2121.html)

Croatian population. In line with the functional character of the notion of 'economic activity' in Article 107(1) TFEU, it is irrelevant whether the recipient of the funds is an entity with a separate legal status or an integrated part of the State administration.<sup>51</sup> The public operation of a broadband network, even if limited to a passive network infrastructure, is an economic activity within the meaning of Article 107(1) TFEU.<sup>52</sup>

- (73) The scheme is *selective* in that it is addressed to undertakings active only in certain specific sectors (provision of broadband services), to the exclusion of other electronic communications services and other economic activities.
- (74) Third party providers of broadband services will be able to access the network on non-discriminatory terms and they will therefore also indirectly benefit from the State resources (see recital (69)).
- (75) *Distortion of competition:* The intervention of the State alters the existing market conditions. It will create the availability of passive infrastructure which would not be provided under normal market conditions. In addition, the offer of lease of passive infrastructure to several operators simultaneously creates a new, competitive wholesale market. The measure will alter the conditions of competition between wholesale operators who are likely to use the services of the planned network and the incumbent in the targeted areas, and also affect the conditions of competition with regard to operators elsewhere in Croatia and the EU. The improved broadband infrastructure and additional wholesale capacity provided by the scheme therefore distort competition.
- (76) *Effect on trade:* Insofar as the intervention affects providers of electronic communications services from other Member States, the measure has an effect on trade. The markets for electronic communication services are open to competition between operators and service providers, which generally engage in activities that are subject to trade between Member States.

### Conclusion

- (77) The Commission concludes that the notified measure constitutes State aid within the meaning of Article 107(1) TFEU. It is necessary to consider whether the measure can be found to be compatible with the internal market.

## **5.2. COMPATIBILITY ASSESSMENT**

- (78) The Commission has assessed the compatibility of the measure on the basis of Article 107(3)(c) TFEU and in the light of Sections 2.5, 3.2, 3.4 and 3.5 of the Broadband Guidelines 2013.<sup>53</sup>

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<sup>51</sup> Case C-188/85, Commission v. Italy, ECR 1987 p. 2599, paragraph 13; see also, with further references in this regard, judgment by the General Court, Freistaat Sachsen and Land Sachsen-Anhalt v Commission, T-455/08, ECLI:EU:T:2011:117, paragraphs 88 and 89.

<sup>52</sup> Judgment by the General Court, Freistaat Sachsen and Land Sachsen-Anhalt v Commission, T-455/08, ECLI:EU:T:2011:117, paragraph 90 and following.

<sup>53</sup> EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, OJ C 25 of 26.1.2013, p. 1.

- (79) As explained in point 33 and following of the Broadband Guidelines 2013, for aid to be found compatible with the internal market pursuant to Article 107(3)(c) TFEU, the following conditions must be fulfilled:
1. The aid must contribute to the achievement of objectives of common interest
  2. Absence of market delivery due to market failures or important inequalities
  3. The aid must be appropriate as a policy instrument
  4. The aid must have an incentive effect
  5. The aid is limited to the minimum necessary
  6. Negative effects must be limited
  7. The aid measure must be transparent
- (80) If these conditions are fulfilled, the Commission balances the positive effects of the aid measure in reaching the objective of common interest against its potential negative effects. The Commission will examine each of these elements below.

5.2.1. *The aid contributes to the achievement of objectives of common interest and eliminates market failures*

- (81) In 2016, the Commission adopted a set of initiatives and legislative proposals to place the EU at the forefront of internet connectivity. The "Europe 2020" strategy for more growth, the "Digital Agenda for Europe", and the Common EU broadband targets for 2025<sup>54</sup> all address future broadband needs.
- (82) In its Europe 2020 strategy<sup>55</sup> the Commission defined the Flagship Initiative "A Digital Agenda for Europe", which aims *"to deliver sustainable economic and social benefits from a Digital Single Market based on fast and ultra fast internet and interoperable applications, with broadband access for all by 2013, access for all to much higher internet speeds (30 Mbps or above) by 2020, and 50% or more of European households subscribing to internet connections above 100 Mbps."* In pursuing this aim, *"at EU level, the Commission will work [...] to facilitate the use of the EU's structural funds in pursuit of this agenda"*, and *"at national level, Member States will need [...] to draw up operational high speed internet strategies, and target public funding, including structural funds, on areas not fully served by private investments."* Key Action 8 of the Digital Agenda calls upon Member States *"to use public financing in line with EU competition and State aid rules"* in order to meet the coverage, speed and take-up targets. In its Communication *Connectivity for a Competitive Digital Single Market – Towards a European Gigabit Society*<sup>56</sup> on common EU broadband targets for 2025, the Commission proposes that by 2025 all schools, transport hubs and main providers

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<sup>54</sup> <https://ec.europa.eu/digital-single-market/en/broadband-europe>

<sup>55</sup> EUROPE 2020 - A strategy for smart, sustainable and inclusive growth, COM(2010) 2020, 3.3.2010, page 12.

<sup>56</sup> [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=17182](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=17182)

of public services as well as digitally intensive enterprises should have access to internet connections with download/upload speeds of 1 Gigabit of data per second. In addition, all European households, rural or urban, should have access to networks offering a download speed of at least 100 Mbps, which can be upgraded to 1 Gigabit and all urban areas as well as major roads and railways should have uninterrupted 5G wireless broadband coverage, starting with a fully-fledged commercial service in at least one major city in each EU Member State by 2020.

- (83) The Commission notes that, at a general level, backhaul infrastructure is necessary for operators to provide access services to end customers. The investments in NGA networks in white NGA areas are dependent on a backhaul network as an essential input resource that transfers customers' traffic from NGA networks to operators' national core networks and global internet network.
- (84) Current backhaul capacity leaves no room for meeting future needs. In line with the targets mentioned above, the proposed scheme seeks to ensure that network capacity is created in order to allow operators to respond to demand from citizens and business end-users. Moreover, since meeting those targets implies the deployment of NGA networks in white NGA areas (pursuant to the decision in State aid case SA.38626), it is important to ensure that the backhaul network is capable of providing the necessary capacities to meet the demands of access seekers and that it is not a barrier to development of the access network.
- (85) A well targeted State intervention in the broadband field contributes to the objective of common interest of bridging the "*digital divide*" that sets apart areas or regions within a country where affordable and competitive broadband services are on offer and areas where such services are not.
- (86) The scheme aims at ensuring that passive NGN (backhaul) infrastructure exists with sufficient capacities to meet future needs and demand in line with the abovementioned targets. More specifically, the planned deployment of NGA access networks within the framework of the scheme authorised under case number SA.38626 requires sufficient capacities upstream in the backhaul network in order to deliver more advanced broadband services to the white NGA target areas.
- (87) The State intervention in the present case aims to address a market failure. The current backhaul infrastructure is insufficient. The incumbent is dominant in several related markets, i.e. the access and backhaul infrastructure as well as for the provision of most of the retail services to end consumers. It controls most of the backhaul infrastructure in the target areas. In parts of the target areas there is no fibre network at all, in other parts there is a fibre network but no active equipment in place allowing other operators to share the capacities of the network. Finally, there are parts where there is a fibre network with active equipment installed, but an insufficient number of fibres are available to adequately serve the NGA networks to be built in NGA white areas. The market has failed to deliver a solution to that lack of capacity since no operator has expressed interest in investing commercially in infrastructure in the target areas (recitals (35)-(44)).
- (88) According to point 37 of the Broadband Guidelines 2013, a market failure exists if markets, left to their own devices, fail to deliver an efficient outcome for society. This may arise, for instance, when certain investments are not being



undertaken even though the economic benefit for society exceeds the costs. In such cases, the granting of State aid may produce positive effects and overall efficiency can be improved by adjusting the economic incentives for firms. In the broadband sector, one form of market failure is related to positive externalities. Such externalities arise where market players do not internalise the whole benefit of their actions. For example, the availability of broadband networks paves the way for the provision of more services and for innovation, both of these are likely to benefit more people than the immediate investors and subscribers to the network. The market outcome would therefore generate insufficient private investment in broadband networks.

(89) In order to assess market failure, a distinction can be made between the types of areas that may be targeted (white, grey or black based on the existing or planned infrastructure in the area). In line with point 73 of the Broadband Guidelines 2013, that distinction is also relevant when assessing next generation networks, whether backhaul or access.

(90) The proposed scheme covers both white and grey NGN areas and will serve white NGA areas.

(a) *NGN white areas:*

(91) In these areas the proposed scheme addresses a market failure as they fulfil the criteria in point 75 of the Broadband Guidelines 2013, where there is no fibre NGN infrastructure available and where there are no plans by private investors to roll out such infrastructure in the near future. By offering backhaul infrastructure to all operators in the market, the measure will contribute greatly to achieving the objectives of the Digital Agenda and increasing competition in the Croatian broadband market, and therefore to achieving an objective of common interest.

(b) *NGN grey areas:*

(92) In these areas, an NGN infrastructure already exists. The Commission must verify that, despite the presence of an existing operator, the proposed intervention by the State is needed (point 76 of the Broadband Guidelines 2013). The explanations given in point 67 of those Guidelines are also relevant to the assessment of the grey NGN areas in the present case. Point 67 of the Broadband Guidelines 2013 states that the mere existence of one network operator in a target area does not necessarily imply that no market failure or cohesion problem exists. If that operator has market power it may provide citizens with a suboptimal combination of service quality and prices. If, in addition, there are only limited prospects that alternative operators enter the market, the funding of an alternative infrastructure could be an appropriate measure.

(93) The scheme aims to remedy a market failure that persists even in the grey NGN areas because, as described in recital (87) above, the backhaul capacities actually offered are not sufficient to meet the future needs of citizens and professional users, particularly in view of the deployment of NGA networks in NGA white areas (point 68 of the Broadband Guidelines 2013) and no other operator is in a position to fill that need because of the incumbent's dominance in the market, i.e. its control over the access and backhaul infrastructure.

In accordance with point 69 of the Broadband Guidelines 2013, the analysis regarding the intervention in grey areas must show, that i) no appropriate and affordable service exists which meets the citizens' or professional users' needs, and that ii) no other measure, in particular ex ante regulation, could be used to reach the same objective. To that end, the Commission considers it appropriate to examine the entry barriers for alternative operators before describing the market failure that has led to an absence of appropriate and affordable services and the reasons why regulation is ineffective in the circumstances of the present case. As shown below, the Commission concludes that even in the grey NGN areas the proposed scheme addresses a market failure which, if left uncorrected, will severely hamper the achievement of the objectives of the Digital Agenda.

*i. Barriers to entry are high*

- (94) Investment in NGA networks in white NGA areas is dependent on a backhaul network as an essential input resource that transfers customers' traffic from NGA networks to operators' national core networks and global internet network.
- (95) Currently, operators have to rely on the incumbent and are faced with very high costs. Alternative operators have to share transmission capacity on the active layer via services which are entirely controlled by the incumbent. In view of the future connection of NGA networks, the pricing structure of the incumbent's backhaul services is such that alternative operators face high prices for transmission services if they use the incumbent's backhaul services, which would disadvantage them in relation to the incumbent (recitals (39)-(40)). What is more, it follows from the mapping exercise and the first public consultation that the capacities currently available in the incumbent's existing backhaul network are not sufficient to handle future needs, and in particular the estimated increase of traffic in the backhaul network following the deployment of NGA networks as approved by SA.38626 (recitals (32)-(45)). If operators were instead to invest in adequate NGN capacities, this would entail significant additional fixed costs. No alternative operator has declared an interest in investing in backhaul infrastructure in the target areas, in spite of the existing capacity constraints (recitals (32)-(45)).

*ii. There are no appropriate or affordable services available*

- (96) Prices for access to broadband infrastructure and retail services depend on various factors, as average income which drives overall demand, availability of adequate infrastructure and competition. Generally speaking, given that the average income in Croatia is below the EU average, one would expect that retail prices should be below EU average. Instead, EU reports show that compared to the EU average, prices for broadband services are very high in Croatia, whereas take-up rates are very low and Croatia ranks amongst the lowest of Member States in the European comparative scores, DESI. (chapter 2 of this decision).
- (97) Such high retail prices are the result of a lack of competition in the retail market in the target areas. To compete on the downstream retail market, competitors to the incumbent depend on access to the backhaul network. However, dark fibre access is not regulated. Given the capacity constraint in the NGN network, the monopoly provision of such infrastructure and the lack of regulation, access prices to the backhaul network in grey target areas are very high. This hampers the development of competition in the retail market and results in high retail prices.

- (98) Operators, including the incumbent, agree that there are not sufficient capacities on the incumbent's backhaul network in parts of the target areas for competitors to lease capacity and develop their business, such as serving NGA networks to be built in white areas (recitals (41)-(44)). The intervention areas are clearly indicated following a mapping and consultation exercise, as described in recitals (26) and (32).
- (99) An adequately dimensioned backhaul infrastructure is a necessary prerequisite for the deployment of access networks. The two schemes notified by Croatia (concerning the backhaul and the access networks, respectively) are interdependent and both are necessary in order to enable the Croatian authorities to reach their goals in terms of coverage.
- (100) It can be concluded from the foregoing considerations that the infrastructure will be deployed in areas where the general market conditions are insufficient.
- (101) Existing infrastructure is technically insufficient to meet the future needs and demand (recitals (26)-(27) and (36) and (37)), and market prices and offers cannot improve by virtue only of market forces (i.e. no private investment is envisaged which would lead to sufficiently improved access conditions) and that, through the proposed scheme, capacity will be increased to an extent necessary to meet projected needs and enhance the competitive situation in the Croatian broadband market.<sup>57</sup>
- (102) The Commission finds that the Croatian authorities have demonstrated an absence of affordable or adequate services in grey areas as regards backhaul services in Croatia. It is expected that the planned development and connection of NGA networks in white NGA areas will exacerbate the situation.
- iii. No other measure, in particular ex ante regulation, could be used to reach the same objective*
- (103) An adequately dimensioned backhaul infrastructure is a necessary prerequisite for the deployment of access networks. The two schemes notified by Croatia (concerning the backhaul and the access networks, respectively) are interdependent and both are necessary in order to enable the Croatian authorities to reach their goals in terms of coverage.
- (104) Alternative operators argue that there is not sufficient capacity on the incumbent's backhaul network in the target areas. The limited amount of available capacity [...] does not allow granting access to all potentially interested operators. Active access (bitstreaming) only allows other operators to provide similar services to those of the incumbent and thereby prevents these from offering innovative services. In addition, in parts of the target areas, where the incumbent has not

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<sup>57</sup> See, for example, State aid case SA.37183 (2015/NN) – France – Plan France très haut débit ([http://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=3\\_SA\\_37183](http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_37183)). In that case, the Commission approved an NGN network in white and grey NGN areas where there were no or insufficient capacities to meet projected needs at reasonable access prices and conditions. A fibre NGN network was considered necessary in order to achieve the required capacities, and was considered technologically neutral as it allowed operators seeking access to apply their technology of choice to the network.

installed any active equipment, access is currently foreclosed and the incumbent has only proposed to install such active equipment if it were to receive State aid. As a result, competitors lack capacity to develop their own business, and to serve NGA networks to be built in white NGA areas (recitals (41)-(44)). The incumbent has admitted that an upgrade of its existing infrastructure would be necessary in order to fulfil the objectives of the scheme (recital (35)).

- (105) Regulation can be an effective remedy in cases where for instance prices must be set at an appropriate level to ensure competitive access conditions. However, where capacity is lacking, regulation falls short as it cannot oblige operators to invest. Since there is a capacity constraint in the NGN infrastructure, ex ante regulation cannot alleviate the problem. Regulation can improve access conditions, however it cannot ensure an increase in investment to increase the capacity of existing infrastructure.
- (106) It follows from the foregoing considerations that there are high market entry barriers for alternative operators in the Croatian backhaul infrastructure market and no affordable or adequate NGN services are offered to satisfy the needs of citizens or business users. Since the basic problem is the capacity constraint, ex ante regulation cannot ensure required third party access to the backhaul infrastructure. The limited amount of available capacity [...] does not allow granting access to all potentially interested operators.
- (107) In conclusion, and on the basis of the detailed analysis set out above, State intervention is needed in the target areas, including the grey NGN areas, which are therefore eligible for State support within the meaning of the Broadband Guidelines 2013.

#### 5.2.2. *The aid is an appropriate policy instrument*

- (108) As follows from the factual situation regarding connectivity, prices, take-up rates and availability in the Croatian broadband market, as mentioned in the EU Reports (chapter 2 of this decision), the Croatian authorities have not managed to remedy the market failure through regulation. No operator, including the incumbent, is interested in making new NGN investments in the targeted areas without public funding.
- (109) The Croatian authorities have verified that no commercial operator is willing or able to bid for the whole project due to its size (recital (33)). The second largest operator in the Croatian broadband market, VipNet, [...]. The incumbent has instead proposed the funding should directly go into an upgrade of its own network. Under these circumstances, it is unlikely that a tender procedure would generate sufficient competition for the construction of an NGN infrastructure. As a result, the public ownership model was chosen.
- (110) The scheme will address the capacity constraint by building separate NGN infrastructure. By establishing a second NGN infrastructure it also addresses the problem of market power in the bottleneck NGN infrastructure. The Croatian authorities will create and maintain a public infrastructure accessible to any broadband operator. The public company OiV will carry out the administration of the publicly owned network, including management of access requests by commercial operators. OiV will prepare decisions for CAP, which has the decision-making powers under the scheme, while respecting the opinions of the NRA. All other works and services within the scheme will be subject to tendering

(recitals (18), (21), (29)-(31), (46)-(50)). The NRA will be consulted with regard to determining wholesale access prices and conditions and is consulted in case of disputes between access seekers and the subsidised infrastructure operator (recitals (53)-(54)).

- (111) The type of public model chosen does not involve selecting a third party operator to deploy and operate the subsidised network. This situation is different from the case envisaged in point 78(c) of the Broadband Guidelines 2013, which targets investors who are in competition for State funding for the realisation of a broadband network. In such cases a competitive selection procedure prevents a disproportionate distortion of competition by pre-selecting the beneficiary or giving preference to one operator over others. In line with footnote 96 of the Broadband Guidelines 2013, this financing model includes a number of features designed to safeguard the current levels of competition achieved in particular as a result of the liberalisation of the sector: a) the project must be limited to the territory of the contracting authorities b) the operator must not generate any profit, c) the operator may not engage in activities at retail level, d) the operator must keep separate accounts, and e) the operator must grant access to the network at wholesale level. Thus, under the public model, the need to prevent unnecessary distortion of competition is ensured through the pro-competitive use of the subsidised infrastructure: the obligation for the public owner to grant access at fair, transparent and non-discriminatory conditions to the infrastructure is complemented by the fact that the role of the public owner in this model is merely to organise and manage access to the infrastructure by any third-party operator interested in using it. Croatia fulfils all the conditions listed above (see recitals (29)-(31) and (59)).
- (112) In view of these circumstances, State aid and the proposed public operator model is an appropriate instrument to achieve the set objectives.

#### 5.2.3. *The aid has an incentive effect*

- (113) Under point 45 of the Broadband Guidelines 2013 on the incentive effect of the measure, the question whether the broadband network investment concerned would not be undertaken within the same timeframe without any State aid needs to be examined. Since no operator has shown an interest in investing commercially in the target areas within the next three years, it can be concluded that the investment would not be made within the same timeframe without the aid, which produces a change in the investment decisions of operators and therefore has an incentive effect.

#### 5.2.4. *Proportionality - The aid is limited to the minimum necessary*

- (114) Croatia has designed the measure in such a way as to minimise the State aid involved and potential distortions of competition arising from it. In this respect, the Commission notes the following necessary conditions in the design of the measure (cf. points 78 – 80 of the Broadband Guidelines 2013):
- (a) *Detailed mapping and coverage analysis, consultation with stakeholders:* as described in recitals (32)-(45) the Croatian authorities have demonstrated that they have conducted a thorough analysis of the existing broadband infrastructures (as well as investment plans for the next three years) in order to identify the areas where public intervention is necessary. This analysis and its results are based on public consultations involving all stakeholders and published on a central online portal, ensuring a high degree of transparency.

As a result, public funds will be used only where it is necessary because there is no interest in commercial NGN deployment. This will contribute to minimising any risk of crowding out private investments and distorting competition vis-à-vis existing operators.

- (b) *Competitive selection process*: The public financing at issue does not involve selecting a third party operator to deploy and operate the subsidised network. In line with footnote 96 of the Broadband Guidelines 2013, this financing model includes a number of features designed to safeguard the current levels of competition achieved in particular as a result of the liberalisation of the sector: a) the project must be limited to the territory of the contracting authorities, b) the operator must not generate any profit, c) the operator may not engage in activities at retail level, d) the operator must keep separate accounts, and e) the operator must grant access to the network at wholesale level. The need to prevent unnecessary distortion of competition is ensured through the pro-competitive use of the subsidised infrastructure: the obligation for the public owner to grant access at fair, transparent and non-discriminatory conditions to the infrastructure is complemented by the fact that the role of the public owner in this model is merely to organise and manage access to the infrastructure by any third-party operator interested in using it. Therefore, as mentioned before (see recitals (111) and (112)), the Commission considers that the financial model chosen ensures a pro-competitive use of the envisaged infrastructure.
- (c) *Most economically advantageous offer*: Pursuant to the Broadband Guidelines 2013, the award criteria are set out in the call for tender and the awarding authority specifies in advance the relative weight of each of the criteria. There is an exception to this rule: in the case of direct attribution of the management of the scheme to a public operator, OiV, no tender is carried out (recital (48)). However, as mentioned before, the financing model at issue includes a number of features designed to safeguard the current levels of competition also at the level of managing the infrastructure. On the basis of predefined and published technical specifications, the bidders offering the best value for money in tender procedures carried out by OiV on behalf of the government for the construction and maintenance of the infrastructure are to be selected (recitals (46) and (47)).
- (d) *Technological neutrality*: Fibre is, at the current stage of development, the only technology that can meet the foreseeable demand for capacity in a backhaul network. The proposed scheme is neutral with respect to access in that it does not select, give preference to or exclude any technological solution that any operator using dark fibre infrastructure can implement on the active network layer. By contrast, if all operators were to depend on active access to the incumbent's backhaul infrastructure, all operators would have to adapt to the network interfaces and technologies of that party, reinforcing the dominance of the incumbent (recitals (39) and (51)). The passive fibre-optic infrastructure is, due to the extremely high data transmission capacity of an optical fibre as a physical data transmission medium, able to support a number of currently available transmission technologies on an active network layer, as well as expected new transmission technologies that will be available on the market during the life-span of this passive fibre-optic infrastructure. The positive effects on competition the proposed network is expected to have is an objective of common good which follows from the specific model of infrastructure lease to several operators in parallel, which can only be

achieved through dark fibre. That said, the proposed fibre based NGN backhaul infrastructure is considered to be the only technology which provides sufficient capacity, speed and reliability to develop the NGA networks approved by the Commission in SA.38626 (2014/N).

- (e) *Use of existing infrastructure*: The Croatian authorities will set up a database gathering information on existing infrastructure that may be used for building the NGN backhaul network, including conditions and prices for access (recitals (31), (62)-(64)).
- (f) *Wholesale access*: in conformity with points 78(g) and 80(a), first paragraph, of the Broadband Guidelines 2013, OiV must ensure full and effective unbundling and provide full open access to the subsidised network (including, but not limited to, access to ducts, dark fibre, street cabinets, bit-stream and unbundled access to fibre) on equal and non-discriminatory terms for at least 7 years (recital (59)). Such access shall apply to the entirety of the subsidised network, including the parts of such a network where existing infrastructure has been used (recital (59)). If, at the end of the 7 year period, the operator of the infrastructure in question is designated as having significant market power in the market concerned, the access obligation may be extended. Full access, without limitation in time, is always to be guaranteed to all new and existing infrastructure of the subsidised network. The NRA is tasked with settling conflicts regarding access prices and conditions and the NRA is to be consulted on any draft contract between a selected operator and any access seeker, allowing it to assess concrete wholesale access price and conditions (recitals (53) and (54)).
- (g) *Price benchmarking*: IRU fees will be set by CAP based on national and EU benchmarks in the corresponding market. The NRA must be consulted with the objective to keep prices at a reasonable and non-discriminatory level and its opinion is binding on CAP (recitals (62)-(64)).
- (h) *Monitoring and claw-back provision*: By ensuring that the beneficiary of the scheme, OiV, is non-profit making and that any surplus be reinvested in the scheme as described in recitals (recitals (29)-(31) and (65)), the Croatian authorities ensure that the recipient of the aid will not benefit from overcompensation and will minimise *ex post* and retroactively the amount of aid initially awarded, in line with the conditions set out in footnote 113 of the Broadband Guidelines 2013.
- (i) *Transparency and reporting*: As explained in recitals (66)-(68), the measure ensures that the interested public and the Commission have easy access to all relevant acts and information about aid awarded under the scheme. The aid beneficiary will be obliged to provide entitled third parties with comprehensive and non-discriminatory access to information concerning infrastructure deployed as a result of the measure (recitals (66)-(68)). The Croatian authorities confirmed that from the moment the network is put into use and for the duration of the measure, the State aid granting authority will report all necessary information on projects to the European Commission (recitals (66)-(68)).
- (j) *Fair and non-discriminatory treatment*: In line with point 80(b) of the Broadband Guidelines 2013, the public ownership model as described, the access and pricing conditions and the high level of transparency, monitoring and control ensure that the subsidised infrastructure enables competing operators to provide competitive and affordable services to end-users.

### 5.2.5. *Negative effects are limited*

- (115) As regards *the NGN white target areas of the scheme*, the design of the measure and its compliance with the conditions of point 78 of the Broadband Guidelines 2013, are unlikely to have a crowding-out effect on private investments. In the white areas no operator is willing to invest in NGN infrastructure without State aid in the next three years. The proposed NGN network will provide significant new capacities, full and open access to passive infrastructure, and will be able to meet the needs following the construction of NGA networks in white NGA areas. The subsidised infrastructure therefore brings about significant new capabilities in terms of broadband service availability and capacity. Negative effects, if any, are expected to be limited.
- (116) As regards *the NGN grey target areas of the scheme*, there are negative effects for the incumbent, which is present in these target areas. The incumbent offers NGN services, but its current backhaul capacity leaves no room for meeting future needs, in particular following the construction of the NGA networks in white areas approved by State aid decision SA.38626. However, the incumbent has not declared an interest in investing its own money in the areas concerned in the next three years, but has instead proposed that State aid be spent on upgrading its network.
- (117) However, an upgrade of the incumbent's existing backhaul infrastructure with State aid would sustain the incumbent's market dominance and control of backhaul network resources reaching rural areas. The market dominance would consequently be extended to NGA networks as other operators would not be able to use the backhaul network in a technically efficient and cost efficient manner. If State aid were used to upgrade the incumbent's current backhaul network, no dark fibre services would be offered (recital (35)). And yet, point 80(a) of the Broadband Guidelines 2013, requires that access must be granted not only to active but also to passive network infrastructure. Alternative operators would have to rely on shared capacities in the active layer, entirely controlled by the incumbent. This would not introduce additional capacities in the market in terms of availability of new services<sup>58</sup> that could enhance competition among operators, enabling them to plan, use and optimise their backhaul routes with more flexibility, considering both technical and financial aspects. For its own purposes the incumbent would be in a position to use any other technology or capacity deployed over other backhaul fibres that would not be used for the scheme.
- (118) Using State aid to upgrade the incumbent's backhaul network would sustain and increase the incumbent's dominance in the backhaul market, extending it also to the fixed broadband market in rural and suburban areas and, overall, to the whole national fixed telecom market. The NGN backhaul scheme would in that case have significant negative effects on the competition in the market.
- (119) It follows from the above that the incumbent's proposal for upgrading of its existing backhaul infrastructure has significant technical and financial disadvantages. It would not fulfil the requirement of step change, as the incumbent has not made any commitments e.g. as regards capacities (recitals (35) and (39)). The incumbent has only offered to provide active access (bitstreaming)

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<sup>58</sup> See point 51 of the Broadband Guidelines 2013 on *step change* requirements.



and not infrastructure access as required by the Broadband Guidelines 2013 (recital (35)). Furthermore, it currently has a monopoly position in NGN in the target areas and has not offered a solution to address this market failure (chapter 2 of the decision).

- (120) The Commission concludes that the measure has negative effects limited to the incumbent. The incumbent's proposal would admittedly avoid those negative effects. However, it does not suffice to bring the necessary capacities to the market and would further increase the incumbent's dominance in the market and alternative operators' dependency on the incumbent. Granting State aid directly to an incumbent would be in contradiction with the spirit of EU State aid rules, and the Croatian authorities have shown that conducting a tender for the construction and operation of the network would not be possible, considering that the market players have informed the authorities that they would not be able to bid for such a contract due to its size.
- (121) On the basis of the foregoing considerations, the Commission considers that while the proposed scheme will have negative effects, they will be confined to the incumbent. The extent of those negative effects will therefore be considered in the final balancing test in order to verify whether the positive effects of the proposed scheme outweigh its negative effects.

#### 5.2.6. *Transparency*

- (122) As explained in recitals (66)-(68), the measure ensures that the interested public and the European Commission have easy access to all relevant acts and information about the aid. Recital (114) (h) records the compliance of the measure with the requirements set out at point 78 of the Broadband Guidelines 2013 in that respect. As a result, it appears that aid will be awarded in a transparent manner.

#### 5.2.7. *Overall balancing – the positive effects of the aid measure are expected to outweigh its potential negative effects*

- (123) Building NGN networks can in principle produce distortions of competition, in particular when the measure targets grey NGN areas, where the incumbent is already present. Compliance with the conditions set out in sections 3.4 and 3.5 of the Broadband Guidelines 2013 and assessed above ensures that the negative effects on competition are minimised. But it must nevertheless be verified that the overall balance of the effects of the measure is positive. The "step-change" that is achieved in terms of broadband availability as a result of the subsidised network is particularly important in that regard.
- (124) In the present case, a step change is achieved in the first place as a result of the significant additional capacity that will be created on the backhaul network. Increasing available capacity on the backhaul network will require significant investment and bring significant new capabilities to the market since without an upgrade at that level of the network, deployment of access networks will be severely restricted.
- (125) In addition, the intervention is pro-competitive, as it addresses the NGN bottleneck problem by creating a second competing infrastructure. By providing additional infrastructure capacity, competing operators are expected to lease dark

fibre, thereby creating a new layer of competitive wholesale services. As a result, competition should increase, uptake should rise and prices should fall<sup>59</sup>.

- (126) The measure will have negative effects on the incumbent in the grey areas.
- (127) The distortion of competition is limited to a minimum by concentrating backhaul infrastructure roll-out to target areas serving white NGA areas. Furthermore, all operators, including the incumbent, will be able to benefit from non-discriminatory access to the new infrastructure (see recital (59)).
- (128) In the second place, that new infrastructure will serve to enable the deployment of NGA networks in the white areas targeted by the access scheme (approved by the Commission in July 2016 under case number SA.38626). In the context of that scheme, the Croatian authorities have committed to providing 100 Mbit/s symmetrical speeds (that is, both upload and download).
- (129) An adequate NGN network is a necessary precursor to any deployment of NGA networks. The development of the services provided over NGA networks has a positive influence on the development of digital services, including public e-services, leads to lower retail prices of fixed broadband services and increases competition among operators in the market. In addition to providing significantly increased backhaul transmission capacity, the measure will not only provide the necessary capacity to meet future needs, but also add a new layer of wholesale services through the lease of dark fibre to several operators in parallel. The public ownership and the attribution of leasing contracts on the basis of a competitive selection procedure will break the alternative operators' dependence on the incumbent that the proposed upgrading of the incumbent's network would only reinforce. Thus, the Commission concludes that, in view of the specific situation of the Croatian market mentioned before, the positive effect of the proposed scheme on competition outweighs the negative effects for the incumbent.
- (130) What is more, the Commission notes that, as the bulk of the fixed costs are attributed to the installation of ducts, comparatively little additional cost arises from adding further dark fibre in the network. Although there is uncertainty about the increase in future demand, it is therefore justified even at this stage to deploy a relatively large number of dark fibres.
- (131) From the point of view of effect on trade, there does not appear to be any significant negative spill-over on other Member States. Through the measure, foreign operators get increased access to the Croatian market. The measure is designed in a way that does not distort competition or adversely affect trading conditions to an extent contrary to the common interest and is in line with the objectives of Article 107(3)(c) TFEU.
- (132) Thus, in view of the specific situation of the Croatian market, the Commission concludes that the proposed scheme will have a positive effect on competition.

#### 5.2.8. *Conclusion*

- (133) The Commission concludes, based on the assessment of the proposed scheme, which includes grey NGN target areas, that no adequate broadband services are

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<sup>59</sup> According to para (81) of the 2013 Broadband Guidelines, State aid projects aimed at the funding of backhaul networks open for access to all operators and technologies exhibit especially pro-competitive features.

offered to satisfy the future needs and demand of citizens or business users, and that on balance, the positive effects on competition in the market outweigh the distortive effects the measure may have for the incumbent. The Commission further concludes that the compatibility criteria set out in the Broadband Guidelines 2013 are met. The notified State aid measure is compatible with the internal market pursuant to Article 107(3)(c) TFEU.

## 6. CONCLUSION

The Commission has accordingly decided:

- not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

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For the Commission

Margrethe VESTAGER  
Member of the Commission

