

BEREC Report on the implementation of Regulation (EU) 2015/2120 and BEREC Open Internet Guidelines 2021

This report covers the period from 1 May 2020 to 30 April 2021.

30 September 2021

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Executive Summary

This report gives an overview of the activities of the NRAs¹ in the course of implementing the Open Internet provisions of Regulation (EU) 2015/2120² and associated BEREC Open Internet Guidelines³. This report reflects the fifth year of the application of the Regulation, covering the period from 1 May 2020 to 30 April 2021. BEREC has gathered information from 28 NRAs via an internal questionnaire. NRAs also published national reports on the fifth year of application of the Regulation⁴. To this information, descriptions of publicly known open internet cases or investigations that arose throughout the 12-month reporting period have been added. However, this report does not in any case constitute an exhaustive description of the current actions in the field of open internet.

The information in this report is organised according to the provisions of the Regulation. The report shows that NRAs have actively implemented the Regulation. It is evident that during the fifth year of the application of the Regulation, the adoption of monitoring methods has increased as compared to the previous years. Moreover, quite a few NRAs have dealt with zero-rating and traffic management cases⁵ and a handful of formal decisions were reached.

Concerning Article 3 of the Regulation regarding end-users' rights to open internet access, information requests to Internet Service Providers (ISPs), the analysis of complaints or end-user reports and market surveys without requesting information from ISPs (e.g. checking ISPs' offers on their web pages) were almost equally used by most NRAs. Moreover, the majority of NRAs indicated that they combined all the above three sources of information to monitor the commercial and technical conditions related to the provision of internet access services (IAS). Zero-rating offers were identified by almost all (25) NRAs, with music/video streaming and social networking the most frequently mentioned types of applications being zero-rated. All but one (27) NRAs monitored traffic management practices in one or another way, as more and more NRAs have realised the importance of compliance with the Regulation in this area. According to most NRAs, monitoring activities have become an ongoing activity and the interaction with the ISPs evolves year after year.

Concerning Article 4 on monitoring ISPs' compliance to transparency and contractual terms, most (24) NRAs applied multiple methods and often more than two. The top three activities used by NRAs to assess the ISPs' compliance with Article 4 were formal and informal requests for information from the ISPs, analysis of end-users' reports and complaints, as well as market

¹ NRA is used in this report as reference to the National Regulatory Authority in the meaning of Article 5(1) of Regulation (EU) 2015/2120 as they have been designated by the national legislator. These do not fully correspond to the NRAs that are BEREC members and observers. See Question 1 below.

² This report refers as "the Regulation" to the open internet rules contained in Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile communications networks within the Union.

³ The 2016 BEREC Guidelines on Net Neutrality were applicable until 11 June 2020 and replaced by the 2020 BEREC Guidelines on Open Internet published on 11 June 2020. This report refers to "BEREC Guidelines".

⁴ The annual country reports on Open Internet are available via the official EU link: <https://digital-strategy.ec.europa.eu/en/library/annual-country-reports-open-internet-national-regulatory-authorities-2021>

⁵ In cases that internet service providers (ISP) names have already been made public, ISP names are also mentioned in this report. In all other cases, ISP names are not disclosed.

surveys without requesting information from ISPs. National specifications in relation to the different types of speed-related information required under Article 4 – maximum, normally available and minimum speed were set in 17 out of 28 of the Member States. Even though ISPs have included the required speed information in their contracts, in 15 Member States, it is only after the NRA's intervention that this information complies with the Regulation (the definitions in the contracts tend to be vague and unclear). A great majority of NRAs (23 out of 28) monitor end-user complaints regarding the performance of the IAS, while two thirds of the NRAs (18 out of 28) offer an IAS quality monitoring mechanism to consumers.

Concerning Article 5, the answers to the questionnaire indicated that most NRAs (23 out of 28) are monitoring the availability of high-speed internet access service, with the most popular approaches being either through information requests from ISPs or through analysis of complaints and end-user reporting. Technical network monitoring follows closely in third place.

Since its joint statement, on 19 March 2020, with the European Commission on how network operators cope with the increased demand on network capacity, BEREC has continued to collect data from NRAs on how the crisis is impacting internet capacity. During the entire reporting period 33 NRAs have shared their data.

Finally, while the body of the Implementation Report reflects the actions of the last 12 months (thus the most recent reporting period), Annex I describes the relevant national rules, regulations and specifications in force, internet access quality monitoring tools provided and Open Internet Regulation related court proceedings based on the NRA responses to questions 10, 14, 15, 19, 22, 25 and 31⁶.

⁶ This part hosts the actions taken by NRAs, since the entry into force of the Regulation, to the extent that they are relevant to record in the overview provided in this report.

1 Covid-19 crisis

On 19 March 2020, BEREC (in a joint statement⁷ with the European Commission) committed to a special reporting mechanism (SRM) to ensure regular monitoring of the internet traffic situation in each Member State, in order to respond swiftly to possible capacity issues that could follow from increased internet usage due to Covid-19 containment measures.

During the entire reporting period (i.e. since BEREC first published a report on how the Covid-19 crisis is impacting internet capacity etc.), 33⁸ NRAs have shared their data about the impact of the crisis on electronic communications networks and the actions taken so far in their respective Member States. The SRM summarises the status of internet capacity and the actions taken by different NRAs. All iterations of the SRM published by BEREC are available on the BEREC website⁹.

In general, three phases in the evolution of internet traffic have been observed during the crisis: a sharp increase in its early weeks, a subsequent stabilisation and, through the latter part of 2020 and into 2021, a decrease from the peak (experienced early in the crisis). NRAs are monitoring the situation and are collecting data from ISPs and other market players about the status of their networks, but are doing so with different regularity.

Since the previous version of this implementation report¹⁰ (published on 1 October 2020 and covering the period 1 May 2019 – 30 April 2020), multiple iterations (typically on a monthly basis through the second half of 2020) of the SRM have been published by BEREC. The most recent summary report in the framework of the SRM¹¹ (in the period 1 May 2020 – 30 April 2021), published on 6 April 2021, covered the first quarter of 2021 and noted that while internet traffic on fixed and mobile networks (generally across all reporting Member States) have increased during the Covid-19 crisis, no major congestion issues have ever been reported.

This is highlighted in the data collection exercise that BEREC carried out regarding the status of networks across Europe. NRAs were asked to provide a response on the overall status of telecommunications networks in their respective countries, based on a 'traffic light' categorisation¹². That information was then visualised¹² by BEREC and published in its regular

⁷ Joint Statement from the Commission and the Body of European Regulators for Electronic Communications (BEREC) on coping with the increased demand for network connectivity due to the Covid-19 pandemic, https://berec.europa.eu/eng/document_register/subject_matter/berec/others/9236-joint-statement-from-the-commission-and-the-body-of-european-regulators-for-electronic-communications-berec-on-coping-with-the-increased-demand-for-network-connectivity-due-to-the-covid-19-pandemic

⁸ The following NRAs have contributed so far to the information gathering exercises: AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, and SK.

⁹ https://berec.europa.eu/eng/news_and_publications/whats_new/

¹⁰ https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/9440-berec-report-on-the-implementation-of-regulation-eu-20152120-and-berec-net-neutrality-guidelines

¹¹ https://berec.europa.eu/eng/news_and_publications/whats_new/8224-berec-publishes-the-first-summary-report-in-2021-on-the-status-of-internet-network-capacity-regulatory-and-other-measures-in-light-of-the-covid-19-crisis

¹² Green: Networks are working well, Covid-19 is not creating issues for the availability or general quality of IAS. No exceptional traffic management measures justified. Yellow: Covid-19 is causing limited congestion issues affecting the general quality of IAS (e.g. with 1 or 2 ISPs or networks). Exceptional traffic management measures might be possible, but would require close scrutiny of the NRA under OI Regulation. Red: Severe and/or widely spread network congestion issues due to Covid-19 affecting the general quality of IAS and exceptional traffic management measures are likely justified and/or used.

'Summary Reports on the status of internet capacity, regulatory and other measures in light of the Covid-19 crisis'.

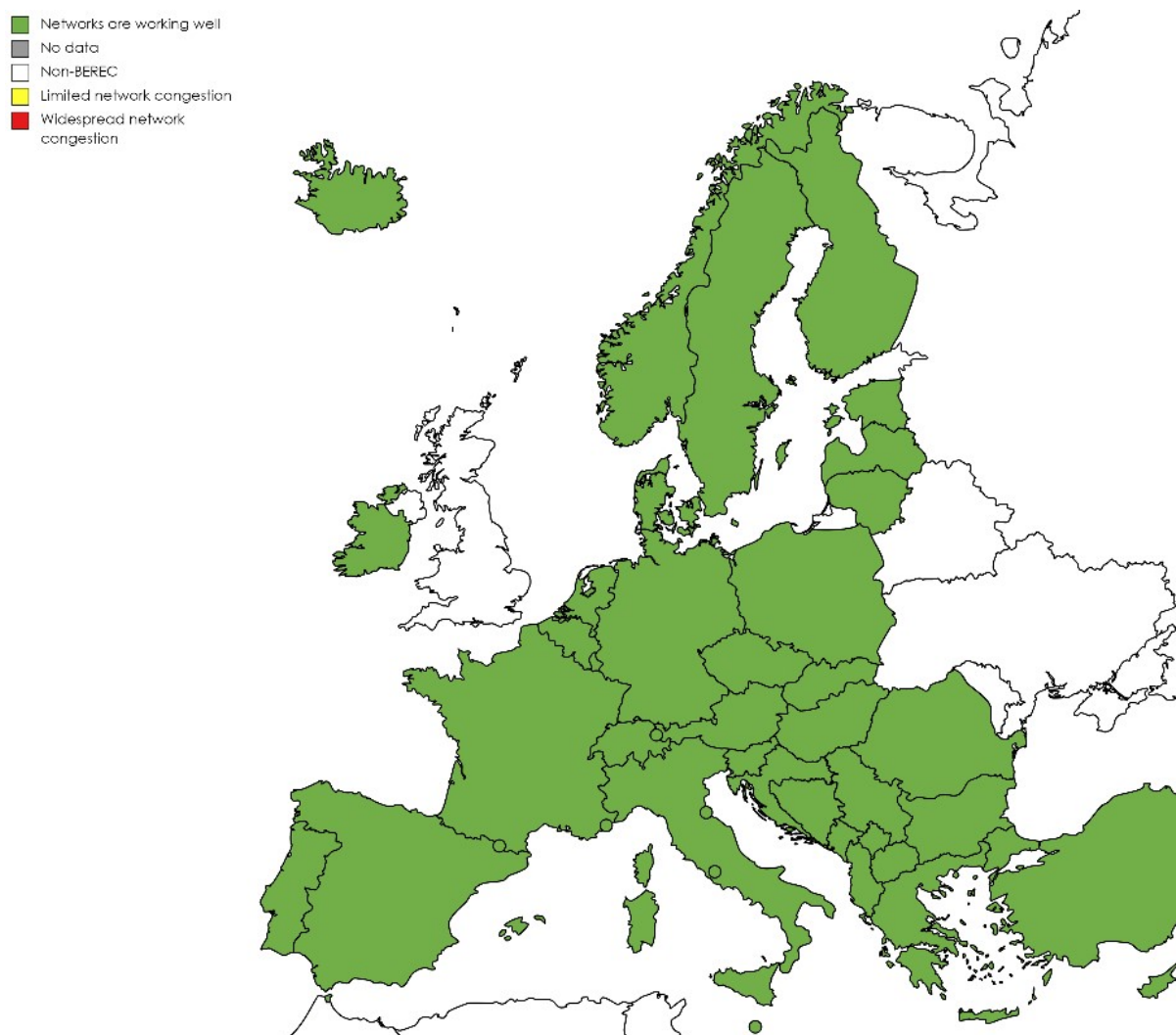


Figure 1 Status of networks (based on information submitted by NRAs, 30 April 2021)

2 General questions

Question 1. Which types of activities has your NRA engaged in during 2020/21 in order to implement the Regulation (EU) 2015/2120? Please provide a brief account of:

- i. internal activities (e.g. preparing new internal procedures, dedicating teams / FTE, etc.)
- ii. external activities (e.g. press-release, meetings with stakeholders or ISPs, drafting national guidelines on enforcement policy, stimulating self-assessment or internal compliance by ISPs, adopting administrative orders/decisions or imposing administrative fines
- iii. any other actions of note:

As summarised in Table 1 below, 26 NRAs reported information on internal activities. Actions identified by NRAs included:

- setting-up, dedicating and training interdisciplinary teams of lawyers, economists, consumer protection experts, technical IT and telecommunications experts; development of internal monitoring capability;
- drafting of or contributing to national secondary legislation; providing new/revised national law/regulations regarding QoS (Quality of Service) parameters for IAS; setting-up/maintaining a special website on Open Internet;
- supervision and monitoring activities of compliance with the provisions of the Regulation; investigations on IAS provider compliance related to Article 4 of the Regulation; coordinating with other bodies/agencies; analysis of traffic management and zero-rating practices; information requests from ISPs; checking relevant information on the ISP's websites and in contracts; analysis of complaints;
- setting-up/providing national measurement systems and infrastructure to check and to test measurement and visualise selected qualitative parameters of the IAS (QoS and speed); conduction of technical monitoring of IAS parameters; providing/preparation of national certified measurement tools.

Concerning external activities, 23 NRAs reported to have been involved in such activities. Examples of activities were:

- holding meetings and workshops with stakeholders (on issues such as 5G, fixed wireless accesses (FWA) and slicing, Covid-19 crisis, and revised BEREC Guidelines);
- participating in relevant legislative processes; assisting the government in open internet related European Court of Justice (ECJ) cases and in preparing written observations to the ECJ; participating in the BEREC Open Internet Working Group;
- monitoring and handling complaints and inquiries from end-users; questionnaires and data collection from ISPs (on issues such as traffic management, zero-rating, "unlimited" internet tariff plans, QoS parameters, free choice of terminal equipment in case of FWA services, port blocking measures); technical monitoring; monitoring and

undertaking an assessment of IAS on trains; conducting formal investigations (amongst others on QoS parameters, contracts and terms of providers; providing a tool which enables comparison of offers of individual providers of electronic communications services in terms of prices and quality of the services of mobile calls, SMS, data, mobile internet, internet at a fixed location and pay TV);

- updating the unofficial translation of the BEREC Guidelines;
- providing measurement tools for end-users; providing a special version of a measurement tool for schools, in order to assess the quality of mobile broadband in schools and to provide clarification as to the type of services that can be used satisfactorily; undertaking drive tests;
- issuing administrative decisions; providing guidance on Article 4 of the Regulation; imposing administrative fines due to non-compliance with the Regulation; adopting a general act on IAS and related end-users' rights; public consultation on new regulations on service quality requirements and summary guidelines for electronic communications service contracts;
- Covid-19 crisis: monitoring possible effects on networks and providing guidance; coordination and cooperation with ISPs; providing guidance to ISPs;
- issuing press releases; giving interviews; website on open internet; social media presence (in connection with open internet); publications and brochures in connection with open internet.

In addition, eight NRAs stated that they undertook some other actions¹³:

- organising a conference on QoS parameters of IAS to raise legal and technical awareness of both IAS providers and end users;
- requiring information from stakeholders; market supervision activities; websites surveys; online platform to help end-users alert the NRA on potential infringement of the OI Regulation;
- issuing opinions of non-compliance related to Article 4 transparency obligations and the annual OI report;
- enhancements to/improvements on the existing open internet (crowdsourcing) monitoring tools (including detection of traffic management) for end-users; upgrade of a traffic management detection application;
- continuation of an IPv6 task force to accelerate the transition to IPv6;
- undertaking a study on Video on Demand (VoD) services, in order to update knowledge on the technical requirements of these services and to use it in dealing with any routing constraint in telecom operators' networks.

¹³ Note that these *other actions* (partly) overlap with *internal* and *external activities*.

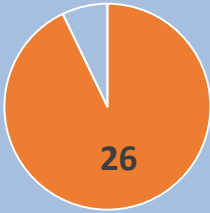
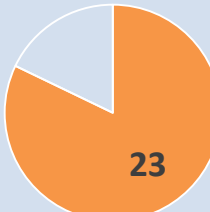
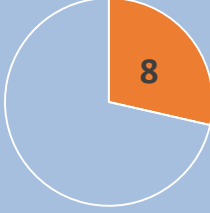
Approach	Member States	Number of NRAs taking the approach
Internal activities (e.g. preparing new internal procedures, dedicating teams / FTE, etc.)	AT, BE, CY, CZ, DE, DK, EE, EL, ES, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK	 <p>26</p>
External activities (e.g. press release, meetings with stakeholders or ISPs, drafting national guidelines on enforcement policy, stimulating self-assessment or internal compliance by ISPs, adopting administrative orders/decisions or imposing administrative fines etc.)	AT, BE, CZ, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, LU, LV, MT, NL, NO, PT, RO, SI, SK	 <p>23</p>
Any other actions of note ¹⁴	BG, CZ, EL, ES, FR, IE, PT, RO	 <p>8</p>

Table 1. Activities to implement the Regulation during 2020/21

¹⁴ Note that these *other actions* (partly) overlap with internal and external activities.

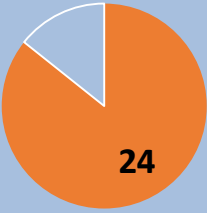
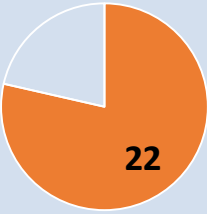
3 Article 3(1) and 3(2)

Question 2.a. What approach have you taken to monitor the commercial and technical conditions related to the provision of internet access services:

- i. market survey without requesting information from ISPs (e.g. checking the relevant information on the ISP's web pages, such as the general terms and conditions);
- ii. information request from ISPs;
- iii. analysis of complaints and end-user reporting;
- iv. technical network monitoring;
- v. other, please specify.

Question 2.b. Is there any change compared to the previous period? If yes, please provide details.

27 NRAs used one or more of the above-mentioned techniques to monitor the commercial and technical conditions related to the provision of IAS (see Table 2 below). While the majority of NRAs undertook an analysis of complaints and end-user reports (25), a market survey (24), information requests to ISPs (22) or all of the above, a smaller number of NRAs (12) used technical network monitoring tools.

Approach	Member States	Number of NRAs taking the approach
Market survey without requesting information from ISPs (e.g. checking the relevant information on the ISPs' web pages, such as the general terms and conditions)	AT, BE, BG, CY, CZ, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LU, LV, MT, NL, NO, PT, SE, SI, SK	 24
Information request from ISPs	AT, BE, CY, CZ, DE, DK, EL, ES, FI, FR, HR, IE, IT, LU, LV, MT, NL, NO, PT, RO, SI, SK	 22

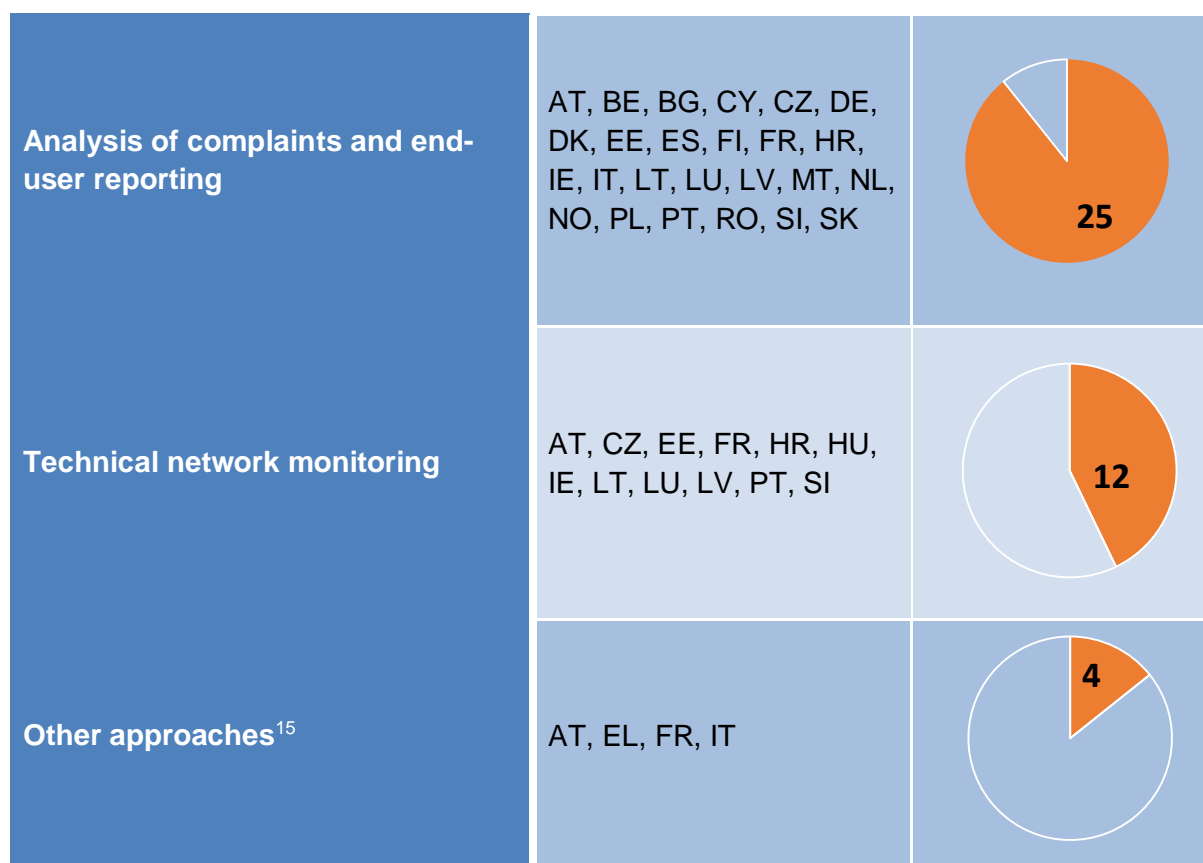


Table 2. Approaches to monitor commercial and technical conditions

Four NRAs (AT, EL, FR, IT) responded that they also applied other approaches. Examples of alternative approaches by NRAs are¹⁶:

- marketing and sales audit;
- providing a platform for end-users to report problematic situations with ISPs; conciliation body for end-users;
- providing a traffic management application for end-users to detect potential traffic differentiations or port blockings implemented by ISPs;
- initiating supervisory procedures;
- review of new or adapted terms and conditions of ISPs, which they have to notify to the NRA.

Four NRAs (CZ, EL, FR, IT) responded that there are changes compared to the previous reporting period.

¹⁵ Note that these *other approaches* (partly) overlap with the approaches under i. to iv.

¹⁶ Note that these *other approaches* (partly) overlap with the approaches under i. to iv.

Question 3. Pursuant to Article 3(1) have you completed any formal assessment of ISP restrictions on the use of technically compliant terminal equipment? Y/N

If yes, briefly describe the practice and the conclusions of the assessment (and enforcement action taken where applicable)?

10 NRAs (BG, CY, CZ, EL, ES, HR, IT, LT, SI, SK) conducted formal assessments of ISP restrictions on the use of technically compliant terminal equipment, as shown below:

NRA	Assessment
BG	In the NRA's annual questionnaire to ISPs, there are questions regarding the use/restrictions of technically compliant terminal equipment. The NRA has not identified practices, which are contrary to the provisions of the Regulation.
CY	According to the provisions of the Regulation (as interpreted in BEREC Guidelines BoR (16) 127), as adopted in national secondary legislation (Decree 72/2017), ISPs are required to report on restrictions on the use of technically compliant terminal equipment. The NRA's main findings were that most of the ISPs offer their services accompanied with their own terminal equipment in order to provide support and bundled services (telephony, internet, TV). The provision of obligatory equipment by the ISPs is justified and in line with the provisions of the Regulation and the Decree. It is noted that end-users retain the right granted to them by Law 112 (I) / 2004 & Regulation 2015/2120 to use their own terminal equipment and, but at the same time the provision of Article 6 (2) of Decree 72/2017 allows the providers through their contracts to provide information to their subscribers regarding the technical parameters (including the terminal equipment used) which may affect the quality of the service provided.
CZ	<p>As a part of supervisory activities, it has been found out that ISPs offer terminal equipment in form of a lease or purchase, which is not an offer of the so-called mandatory terminal equipment in violation of the Regulation. The contracts' terms and conditions include a list of technical parameters that the terminal equipment must meet, which helps end-users to make an informed decision when choosing their own terminal equipment.</p> <p>Several cases of suspected possible restriction of end-users' rights concerning the choice of their own terminal equipment were investigated by the NRA, but no breach of the Regulation has been detected.</p>
EL	<p>A new case was investigated regarding terms restricting tethering in subscriber contracts: The ISPs responded that tethering was not applied in practice and the only restrictions concern data sharing between different SIM cards. The terms were clarified and the case was concluded.</p> <p>Clarifications were also sent to ISPs that there should not be restrictions on the use of mobile SIM cards in other terminal equipment, including 4G routers. The ISPs responded that no such restrictions are in place. However, there exist</p>

	<p>restrictions on the use of SIM cards intended solely for 4G routers in other mobile devices.</p> <p>A new case is under investigation regarding the restriction on the use of third party VoIP modems by one ISP. The case is related to the definition of the network termination point (NTP) by EETT and there have been consultations with all ISPs, as well as a public consultation. A relevant public consultation took place in the previous months, and the final decision is still pending.</p>
ES	<p>Some ISPs seemed to restrict the use of routers other than the ones supplied by the ISP. Eventually, information provided by them proved that end-users could use equipment of their choice. No enforcement action was taken.</p>
HR	<p>The NRA undertook a formal assessment of one (mobile) tariff offer in which the bandwidth for the IAS was throttled if the end-user changes location (the maximum available speed the end-user gets only in a predetermined certain area (home area), while when the location is changed (away from the specified area) the maximum speed is up to 2 Mbit/s). Also, the ISP didn't allow the use of the SIM card in mobile devices; usage was only allowed in mobile cellular routers (mobile hotspot).</p> <p>The NRA decided that this traffic management practice constitutes an infringement of Article 3(3) third subparagraph of the Regulation and ordered the ISP to stop the practice. Regarding the usage of terminal equipment, HAKOM also decided that such practice constitutes a violation of end-users' right to use terminal equipment of their choice according to Article 3(1).</p> <p>The ISP has not challenged the NRA's decision before the Croatian courts.</p>
IT	<p>In October 2020, the NRA concluded a new assessment on the free choice of terminal equipment in the case of FWA services, according to the Regulation and taking into account the new BEREC Guidelines.</p> <p>The NRA decided to fine an ISP, in April 2021, for incorrect implementation of the Resolution n. 348/18/CONS (Resolution n. 121/21/CONS), because in some cases the ISP was preventing the subscription of FTTH offers without the inclusion of the terminal equipment provided in bundle. The same conduct of the same ISP was already fined in 2020 (Resolution n. 135/20/CONS). The NRA surveyed the application of Article 5 paragraph 1 of the Resolution n. 348/18/CONS (according to which the ISPs, in case they included a mandatory modem for a fee in their offers, were demanded to offer the users an option to discharge the contract without penalties or to turn the offer into one without modem costs), and of the Resolution n. 34/20/CONS (according to which ISPs providing a modem free of charge in their offers shall make it optional).</p>
LT	<p>A mobile ISP was formally addressed regarding limitations of terminal equipment in its terms of service providing IAS. It was established, that technically no limitations of terminal equipment were present, only terms of service were written non-compliant to the Regulation. The ISP was ordered to adjust its terms of service accordingly.</p>

SI	IPTV services work on propriety set-top box. Some OTT video services can be used by using an app. ISPs provide access to the internet using their own modem/router. End-users can use their own router (ISP router is configured in switched mode).
SK	All ISPs in the fixed network and some in the mobile network offer their terminal devices for rent or sale, with the possibility of using own terminal equipment of end-users based on ISP recommendations to maintain compatibility with the IAS offered. Set-top boxes for IPTV are usually part of the supplied TV service.

Table 3. Assessments of ISP restrictions on the use of terminal equipment

Question 4.a. What types of zero-rating services exist in your country?

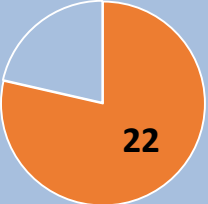
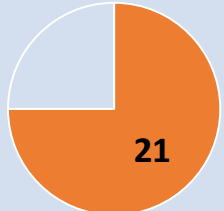
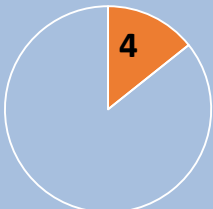
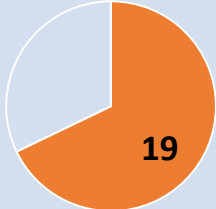
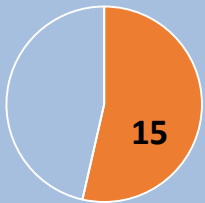
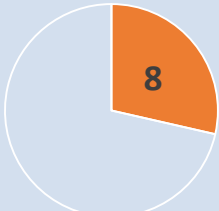
- i. None
- ii. Music streaming services
- iii. Video streaming/IPTV services
- iv. Gaming
- v. Social media services
- vi. Voice and short messages
- vii. Cloud services
- viii. Email services
- ix. Other _____

Question 4.b. Is there any change compared to the previous period? If yes, please provide details.

There were no zero-rating services identified by three NRAs (CY, FI, IE), while one or more zero-rating services were reported by all other 25 NRAs (see also Table 4 below). As was the case last year, zero-rating of music streaming services (22), video streaming/IPTV services (21), social media services (19) and voice and short messages (15) were the most often identified examples.

Examples of other zero-rating services mentioned by NRAs include:

- Covid-19 initiative: temporary zero-rating to facilitate education and ensure the flow of information;
- maps and navigation services (including network traffic control apps from ISPs);
- ISPs' own webpages and services;
- speed measurement tool;
- tele-education/e-learning;
- access to e-papers.

Type of zero-rating service	Member States	Number of NRAs reporting
Music streaming services	AT, BE, BG, CZ, DE, DK, EE, EL, ES, HR, HU, IT, LT, LU, MT, NL, NO, PT, RO, SE, SI, SK	 22
Video streaming / IPTV services	AT, BE, BG, CZ, DE, DK, EL, ES, FR, HR, HU, IT, LT, LU, MT, PL, PT, RO, SE, SI, SK	 21
Gaming	AT, DE, PT, SK	 4
Social media services	AT, BE, CZ, DE, DK, EL, ES, HR, HU, IT, LT, LU, LV, PL, PT, RO, SE, SI, SK	 19
Voice and short messages	AT, BE, CZ, EL, ES, HR, HU, IT, LT, LV, PL, PT, RO, SI, SK	 15
Cloud services	AT, CZ, EL, IT, PL, PT, RO, SK	 8

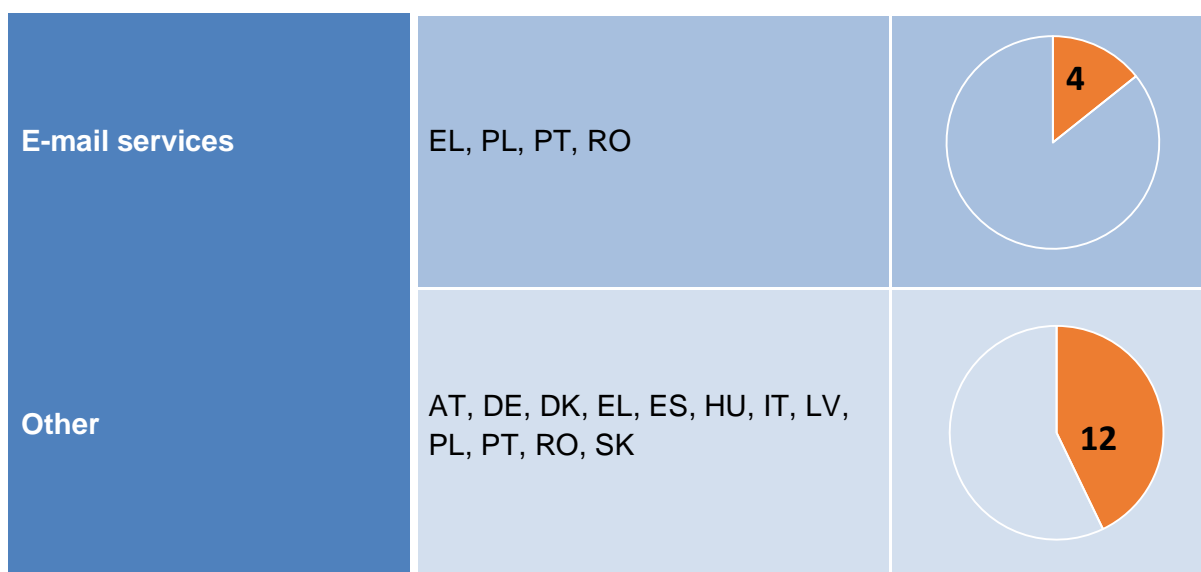


Table 4. Type of zero-rating services

12 NRAs (AT, BG, CZ, DE, DK, EE, EL, ES, FR, IE, IT, RO) responded that there are changes compared to the previous reporting period. Examples include:

- further ISPs provide zero-rating;
- some ISPs stopped providing/offering zero-rating (among others due to new tariffs with increased data volumes or unlimited data volumes);
- an ISP offers zero rating of his own services (music, video and TV);
- zero-rating of tele-education and distance learning platforms (some only for a certain-time);
- a limited number of Covid-19 related websites were zero-rated;
- zero-rating of speed measurement apps.

Question 5. Pursuant to Article 3(2) have you performed any formal assessments of agreements on commercial and technical conditions as well as commercial practices such as zero-rating or traffic price discrimination practices? Y/N

If yes, briefly describe the practice and the conclusions of the assessment (and enforcement action taken where applicable).

Nine NRAs (AT, BE, CY, DK, ES, FI, IT, MT, NO) said they had undertaken one or more formal assessments of agreements on commercial and technical conditions as well as commercial practices such as zero-rating or traffic price discrimination practices.

The following case descriptions (Table 5) serve as examples involving these practices as they were analysed and reported by NRAs.

Member State	Case description
AT	<p>ISPs are asked twice a year to provide data on their zero rating products (monthly data). Regarding tariffs with included zero-rating on each tariff they are asked, amongst others: how many people use the zero rating products, how many users use more (non zero-rated) data than included in the tariff, how much data is, on average, included in the tariff, how much data is, on average, consumed, how much data is consumed, on average, for zero rated services.</p> <p>If more than one category is part of a zero rating offer (e.g. audio-, video-, social- and chat-services) also consumed data per category is asked.</p> <p>Furthermore, ISPs are asked to provide information on the standard wholesale contract, the average length of the wholesale contract to materialise (from contact to inclusion in the product), whether technical changes have been necessary and whether there are exclusionary agreements between the ISP and the wholesale partner.</p> <p>In Austria, three ISPs provide zero-rating products: A1 Telekom Austria AG (including its sub-brands Kurier mobil, Krone mobile, Educom, Yesss! und Georg), Hutchison Drei Austria GmbH and T-Mobile Austria GmbH.</p> <p>In summary, it can be said for the Austrian market that the availability of zero-rating offers continues to increase, but that there is also a trend towards flat rates. For comprehensive information see RTR's Net Neutrality Report 2021:</p> <p>https://www.rtr.at/TKP/was_wir_tun/telekommunikation/weitere-regulierungsthemen/netzneutralitaet/nn_reports.en.html</p>
BE	<p>BIPT has assessed multiple zero-rating offers on the basis of recurring quarterly data and enticed three ISPs to take actions to preserve competition and innovation in this domain, which they eventually did. In essence, the three ISPs involved opened up their zero-rating platforms to CAPs competing with the CAPs to which a zero-rating has been granted. The result of these actions were considered satisfactory, so the cases opened did not culminate in the formal publication of a BIPT decision on the website of BIPT.</p>
CY	<p>According to the provisions of the Regulation (as interpreted in the BEREC Guidelines), ISPs reported to OCECPR on their agreements on commercial and technical conditions and commercial practices. Following an assessment of ISPs' reports, OCECPR concluded that the agreements on commercial and technical conditions and commercial practices performed by ISPs do not constitute an infringement of the</p>

	Regulation. As mentioned in question 4a no zero rating services exist in Cyprus, therefore no specific assessment was made especially for zero rating services.
DK	ISPs were asked to provide data on how they treat zero rated services (if offered) compared to non-zero rated services. DEA is assessing the data and no conclusions were reached yet.
ES	An ISP adapted its offers to European Court of Justice's criteria about zero rating (15 September 2020). Another ISP retired one offer because it was not aligned with the ECJ decision. An administrative procedure is open against another ISP for the same matter (still not finished).
FI	TRAFICOM, the Consumer Ombudsman and FiCom negotiated updated industry-wide general terms and agreements for the communication services, which were updated at the end of 2020.
IT	<p>In February 2021, AGCOM initiated a formal monitoring on commercial and technical conditions as well as commercial practices in the Italian market. According to the new BEREC Guidelines, AGCOM has launched a request for information to mobile and fixed operators in order to verify the case of differentiated QoS level practices as well as to consider whether any commercial practice of providers of internet access services limited the exercise of the rights of end-users laid down in Article 3(1) and thus circumvented provisions of this Regulation safeguarding open internet access. Until now, AGCOM concluded a first round of inquiries and is carrying out a deep analysis on the input obtained from ISPs.</p> <p>Moreover, AGCOM conducted a specific surveillance activity started from consumer complaints, regarding the unavailability of a public IP address for FWA connections provided by one operator. The operator introduced the possibility of receiving a public IP address after AGCOM's intervention (April 2021).</p>
MT	<p>In line with its decision concerning the zero-rating offers by GO plc, MCA keeps track of a number of key market figures on a quarterly basis and reassesses the offer.</p> <p>The Authority notes that while there has been an increase in the uptake of the offers, such uptake is not deemed to have had an impact on either competition at the service provider level or at the content provider level.</p> <p>The Authority also observes shifts in market shares of the three main providers which may also reflect on the uptake of these offers. Such shifts are typically part of the natural market dynamics.</p>

NO	Assessments were made in connection with the work on the annual NN national report, resulting in high-level conclusions and no concrete enforcement actions.
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Table 5. Article 3(2) case descriptions

4 Article 3(3)

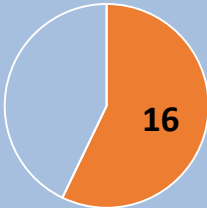
Question 6.a. If you started any monitoring of traffic management practices by ISPs, what approach have you taken?

- i. market survey without requesting information from ISPs;
- ii. information request from ISPs;
- iii. analysis of complaints and end-user reporting;
- iv. technical monitoring;
- v. other, please specify.

Question 6.b. Is there any change compared to the previous period? If yes, please provide details.

27 NRAs (AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LU, LV, MT, NL, NO, PL, PT, RO, SE, SI, SK) used one or more of the above-mentioned approaches to monitor traffic management practices. As presented in Table 6 below, NRAs often used more than one of these techniques to monitor traffic management practices. 16 NRAs undertook a market survey without requesting information from ISPs. 23 NRAs reported that they had submitted information requests to ISPs, while 20 NRAs had analysed complaints and end-user reports. Technical monitoring is up and running in nine Member States.

Other solutions included publication of a guidance about traffic management practices by ISPs, providing an “alert platform” for end-users and a traffic management application to help detect any possible traffic management measure.

Approach	NRAs	Number of NRAs taking the approach
Market survey without requesting information from ISPs	AT, BE, CY, CZ, EE, EL, ES, FI, FR, HU, IE, IT, MT, PT, SE, SI	 <p>16</p>

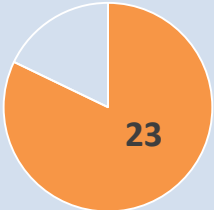
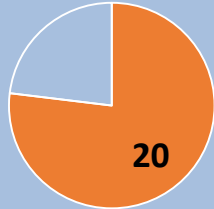
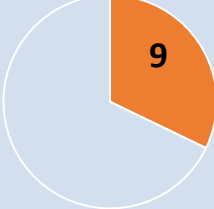
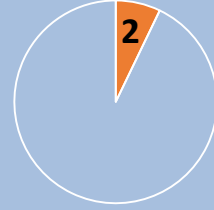
Information request from ISPs	AT, BG, CY, CZ, DE, DK, EL, ES, FI, FR, HR, IE, IT, LU, LV, MT, NL, NO, PL, PT, SE, SI, SK	 <p>23</p>
Analysis of complaints and end-user reporting	AT, BG, CY, CZ, DE, DK, ES, FI, FR, HR, HU, IE, IT, LV, MT, NL, PL, RO, SI, SK	 <p>20</p>
Technical network monitoring	AT, CZ, FR, HR, HU, IE, LV, NL, SI	 <p>9</p>
Other	FR, NL	 <p>2</p>

Table 6. Approaches regarding monitoring of traffic management practices

Three NRAs (CZ, EE, IE) stated that there has been a change compared to the previous reporting period.

Question 7. Pursuant to Article 3(3) subparagraphs 1 to 3, have you completed any formal assessments of an ISP's traffic management practices? Y/N

If yes, briefly describe the practice and main conclusions of the assessment (and enforcement action taken where applicable).

10 NRAs (BG, CY, ES, FR, HR, IT, MT, NO, SE, SK) pointed out that they had completed formal assessments of traffic management practices, as outlined in Table 7 below.

Member State	Main findings
BG	The assessment of traffic management practices is based on the information provided by ISPs with annual questionnaires. No practices in contradiction to the requirements of the Regulation were identified.
CY	According to the provisions of the Regulation (as interpreted in the BEREC Guidelines), ISPs reported to OCECPR on traffic management practices. Following an assessment of the report OCECPR concluded that all traffic management practices used by ISPs do not constitute an infringement of the Regulation.
ES	Two operators are under investigation to determine whether the practice of using an adaptive bitrate system for file compression is according to the new paragraph 77a of the 2020 BEREC Guidelines. Three other operators are under investigation, about practices to avoid network congestion and security. The procedure is still not finished.
FR	End-users reported that some services or applications were not accessible because of new potential port blocking practices from one ISP. Arcep opened an informal dialogue with the concerned ISP, which is still assessing possible solutions to remove these constraints. Arcep is also assessing possible traffic management practices in internet offers on trains. No conclusion has been reached so far and Arcep is currently monitoring the case.
HR	<p>HAKOM made a formal assessment of one mobile ISP tariff offer in which the bandwidth for internet access was throttled if an end-user changes his/her location (the maximum available speed which the end-user will have the possibility to use in a predetermined area (home area), while when he/she leaves the specified area the maximum speed is up to 2 Mbit/s). Also, the ISP did not allow the use of SIM cards in mobile devices; usage was only allowed in mobile cellular routers (mobile hotspot).</p> <p>HAKOM decided that this traffic management practice constitutes an infringement of Article 3(3)¹⁷ of the Regulation and ordered the ISP to stop the practice. Regarding the usage of terminal equipment, HAKOM also decided that such practice constitutes a violation of end-users' right to use terminal equipment of their choice according to Article 3(1). For the moment, the ISP has not presented a legal challenge to HAKOM's decision.</p>
IT	In October 2020, AGCOM conducted specific surveillance activity on traffic management practices adopted by one operator, which was initiated by a user complaint. Such practices consisted of limiting speeds for some

¹⁷ Third subparagraph.

	<p>services (e.g. file transfer). The operator ended these practices after AGCOM's intervention.</p> <p>In February 2021, AGCOM sent a new questionnaire to ISPs. Until now, AGCOM has concluded a first round of inquiries and is carrying out a deep analysis on the input obtained from ISPs.</p>
MT	For the past years, the authority was using a questionnaire to probe on various issues related to Net Neutrality. The same procedure was applied this year. The main providers are largely compliant with the provisions of the regulations pending some clarifications.
NO	Nkom has initiated (as yet not completed) dialogue with an ISP regarding the extent to which a DNS-based security filter is compliant with the security provisions in Article 3(3) (b) of the Regulation.
SE	PTS initiated a supervision in April 2020 regarding the traffic management measure of Teracom Mobil AB after it was noted that the company's specific contractual conditions could indicate that the company does not handle all traffic equally. The company's specific contractual terms state that the company may restrict user's access to and use of the service if these deviate from what the company perceives to be responsible use. In the specific contractual terms, the company states examples of use that are not regarded as responsible use. Based on the response provided by Teracom Mobil AB, PTS assessed that no traffic management measures or restrictions on end-user's choice of terminal equipment that are incompatible with the Regulation were current. Therefore, PTS decided to dismiss the case.
SK	ISPs use practices imposed by European or national legislation. The provisions of the Act No.171/2005 Coll. on gambling games, the Act No.166/2003 Coll. on the Protection of Privacy against the Unauthorized Use of Technical-Intelligence Measures, child protection platform – for blocking of inappropriate content are complied with in practice. The list of prohibited websites is compiled and published by the Regulatory authority on its website https://www.urhh.sk/web/guest/zoznam-zakazanych-sidel .

Table 7. Main findings of traffic management practices

Question 8. Did you conduct any research or survey on port blocking practices by ISPs?
Y/N

If yes, please briefly describe significant findings.

11 NRAs (AT, BG, EL, ES, HR, IE, IT, LV, MT, PL, SI) surveyed port blocking practices by ISPs. The information provided in Table 8 below summarises the results of the surveys carried out by those NRAs.

Member State	Main findings
AT	<p>ISPs are obliged under the Austrian Telecommunications Act to notify their Terms and Conditions (T&Cs) to RTR before they start a new communication service. Changes of T&Cs must also be notified. Thus, RTR may come across issues of port blocking when checking the T&Cs. Since 2012, RTR offers the RTR-NetTest (https://www.netztest.at), a crowd-sourced open data and open source measurement tool which allows for the measuring of different QoS-parameters, including blocking of UDP and TCP ports. The results of several million tests can be downloaded at https://www.netztest.at/en/Opendata.</p> <p>Those test results are used within the framework of monitoring activities according to the OI Regulation.</p>
BG	<p>CRC continues to assess traffic management practices based on the information provided by ISPs with annual questionnaires. Some access providers block certain ports to maintain the integrity and security of the network, terminal equipment, and end users, to protect against DDoS attacks and SPAM. ISPs apply traffic management practices in accordance with the Regulation and the BEREC Guidelines.</p>
EL	<p>All ISPs apply port blocking, either permanent or on a need basis, in order to prevent cyberattacks (spamming, phishing etc.).</p>
ES	<p>Most operators block some ports (mainly port 25) to avoid spam and security problems.</p>
HR	<p>HAKOM monitors port-blocking practices of major ISPs. Based on the response from a survey among ISPs, and according to the HAKOMetar Plus, measurement results on port blocking practices showed that ISPs do not use permanent port-blocking, just temporarily, justifying it with the security exception (malware, spoofing, preventing DDoS attacks, etc.).</p>
IE	<p>The content blocking information gathering exercise mentioned above contained port blocking within its scope. This exercise had not concluded at the end of the period in question.</p>
IT	<p>In February/March 2021, AGCOM sent a set of questions to the main ISPs. AGCOM has concluded so far, a first round of inquiries. It is assessing and carrying out an analysis on the input obtained from ISPs.</p>
LV	<p>13% of all Internet service providers have indicated that they apply port blocking. The most frequently blocked ports are: 25, 137-139, 445. These ports are blocked due to security reasons.</p>

MT	Port blocking is used by providers; however, providers have all justified such actions for network security measures.
PL	Most ISPs do not apply TCP or UDP port blocking practices. ISPs who apply this practice block ports for incoming internet traffic. The following ports are blocked: 21 (TCP), 22 (TCP), 23 (TCP), 25 (TCP), 53 (TCP, UDP), 80 (TCP), 110 (TCP), 123 (UDP), 137 (UDP), 138 (UDP), 139 (UDP), 443 (TCP), 445 (TCP), 587 (TCP), 8080 (TCP), 135-139(TCP, UDP), 161 (TCP, UDP), 162 (TCP, UDP). In isolated cases (2 ISPs), ISPs block all ports for incoming internet traffic. 25 (TCP) port is blocked for outgoing Internet traffic. These ports are blocked in order to ensure integrity and security of the network and services provided by means of the network and end users' terminal devices.
SI	Operators block some ports due to security reasons (preserving the integrity and security of the network and services provided via that network). Fixed networks: SMTP (port 25) outbound traffic; NetBIOS (ports: 135-139,445), inbound and outbound; DNS (port 53): inbound. Some operators also block: Skun Trojan (port 19), SNMP (port 161/162). Restriction (port blocking) is enabled only for users with dynamic IP address. Users with static IP address have transparent access. Mobile networks: Some operators block only incoming traffic to port 53 (DNS), port 123 (NTP), port 19 (chargen). Two large operators block all incoming traffic to all ports. It is assumed that mobile terminals usually do not offer any services. Restriction can be removed by changing a subscription package and replacing dynamic IP with a static IP address.

Table 8. Main findings of port blocking practices

5 Article 3(5)

Question 9.a. What approach have you taken to monitoring services other than internet access services (called specialised services below)?

- i. market survey without requesting information from ISPs (e.g. checking ISP's offers on their web pages);
- ii. information request from ISPs;
- iii. analysis of complaints and end-user reporting;
- iv. technical network monitoring;
- v. other, please specify.

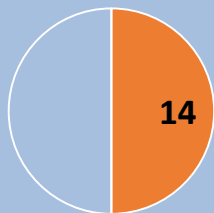
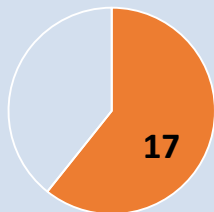
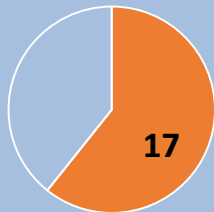
Question 9.b. Is there any change compared to the previous period? Y/N

If yes, please provide details.

As shown in Table 9 below, only four NRAs (LT, LU, NL, SE) did not monitor specialised services in the reporting period, while most NRAs (24) used one or more of the above-mentioned approaches to monitoring specialised services. More than half of them (17) sent information requests to ISPs and undertook an analysis of complaints and end-users reporting, while some of them (14) performed a market survey without requesting information from ISPs. Only two NRAs used technical network monitoring tools.

Furthermore, two NRAs mentioned other approaches:

- **FI:** TRAFICOM updated its guidance and informed ISPs and other stakeholders of those updates.
- **FR:** End-users can report issues on the new version of Arcep's online alert platform - "J'alerte l'Arcep" - and they can use the last version of the traffic management application "Wehe" to detect potential traffic differentiations or port blockings implemented by their ISPs.

Approach	NRAs	Number of NRAs taking the approach
Market survey without requesting information from ISPs (e.g. checking ISP's offers on their web pages)	AT, BE, CY, CZ, EE, EL, ES, FR, HR, HU, IT, MT, PT, SI	 14
Information request from ISPs	AT, BG, CY, CZ, DK, EL, ES, FR, HR, IT, LV, MT, NO, PL, PT, SI, SK	 17
Analysis of complaints and end-user reporting	AT, BE, BG, CY, CZ, DE, ES, FR, HR, IE, IT, LV, MT, PT, RO, SI, SK	 17

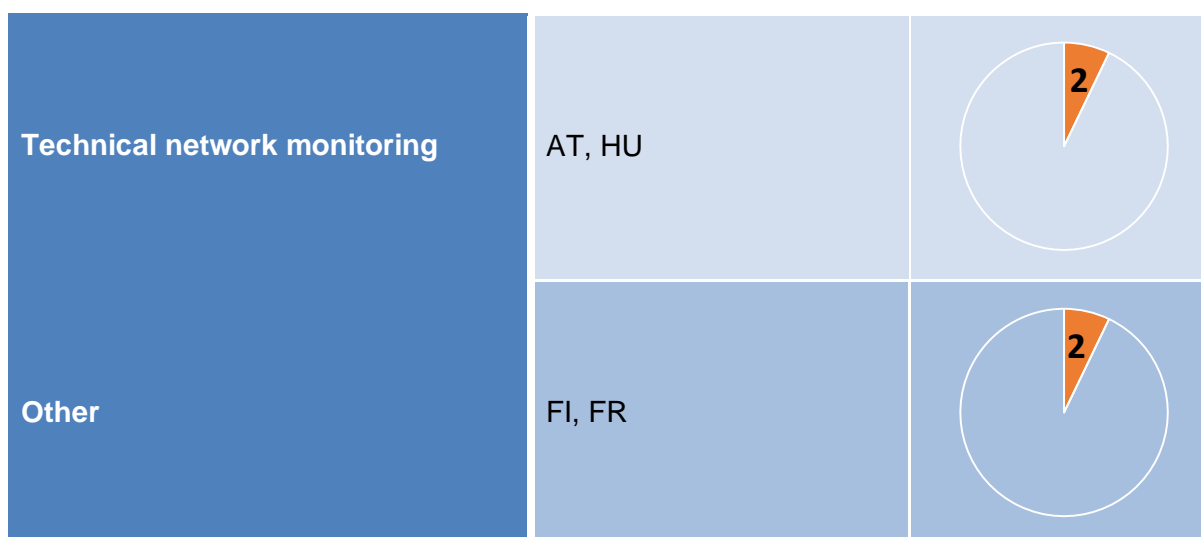


Table 9. Approaches regarding monitoring of specialised services

Nine NRAs (AT, CZ, EE, EL, ES, FI, NL, SI, SK) responded that there are changes compared to the previous reporting period.

Question 10. Is there an NRA or national interpretation of or guidance on “services other than internet access services”, which has not yet been mentioned in the BEREC NN Questionnaire of 2020? Y/N

If yes, please provide any information and examples other than the ones mentioned in BEREC Guidelines (VoLTE, IPTV).

None of the countries nor NRAs provided new guidance on specialised services in the reporting period. One NRA (FI) updated its existing guidance to comply with the updated BEREC Guidelines and another NRA (AT) stated that the definition in the BEREC Guidelines is adequate, concluding that no further NRA or national interpretation is necessary.

Question 11. Have you completed any formal assessments of the provision of specialised services by ISPs? Y/N

If yes, briefly describe the practice and the conclusions of the assessment (and enforcement action where applicable)

Four NRAs (CY, CZ, SI, SK) completed a formal assessment of the provision of specialised services. The information provided in Table 10 below summarises the results of the assessments carried out by those NRAs.

Member State	Main findings
CY	According to national secondary legislation (Decree 72/2017), ISPs reported to OCECPR on specialised services. No new services were reported in this reporting period. OCECPR maintained its previous decision that the existing specialised services offered by ISPs does not constitute an infringement of the Regulation.
CZ	Regarding the provision of specialised services, there has been a growing trend in take-up of these services, in particular of IPTV. End users are usually informed through contract terms and conditions about the possible effects of using specialised services on the IAS, which is reflected in a relatively low number of complaints (single digit number of cases) about specialised services.
SI	Based on questionnaire responses, only VoIP and IPTV traffic are treated as specialised (managed) services.
SK	ISPs offered the IPTV, VoLTE, VPN, VoIP, VoD, and SVoD (Subscription Video on Demand) services that could meet the criteria for the specialised services. The traffic for these services can be optimised in the network to provide services of the required quality.

Table 10. Main findings of the provision of specialised services

6 Article 4

6.1 Article 4(1) – Approach to monitoring and enforcing compliance

Question 12.a. What approach have you taken to monitoring and enforcing ISPs' compliance with their transparency obligations set out in Article 4?

- i. market survey without requesting information from ISPs (e.g. checking the applicable "terms and conditions"),
- ii. (formal or informal) information request from ISPs,
- iii. analysis of complaints and end-user reporting,
- iv. other

Question 12.b. Is there any change compared to the previous period? If yes, please provide details.

As presented in Table 11 below, most NRAs (24) used more than one approach to monitoring and enforcing ISPs' compliance with their transparency obligations and all NRAs use at least one approach: 21 NRAs undertook a market survey without requesting information from ISPs, 23 submitted information requests to ISPs and 23 analysed complaints and end-users' reports.

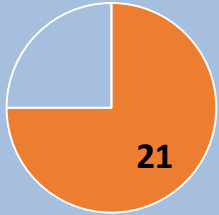
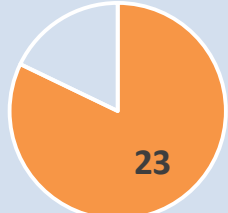
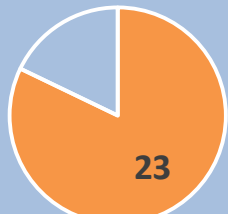
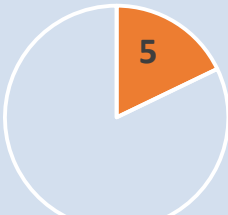
Approach	NRAs	Number of NRAs taking the approach
Market survey without requesting information from ISPs (e.g. checking ISP's offers on their web pages)	AT, BG, CY, CZ, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LU, LV, MT, NL, NO, PT, SI	 21
Information request from ISPs	AT, BE, BG, CY, CZ, DE, DK, EL, ES, FI, HR, IE, IT, LU, LV, MT, NL, NO, PL, PT, RO, SI, SK	 23
Analysis of complaints and end-user reporting	AT, BE, BG, CY, CZ, DE, EE, EL, ES, FI, FR, HR, IE, IT, LV, MT, NL, PL, PT, RO, SE, SI, SK	 23
Other	AT, DE, IT, LT, PT	 5

Table 11. Approaches regarding monitoring and enforcing ISPs' compliance with their transparency obligations set out in Article 4

Furthermore, five NRAs (AT, DE, IT, LT, PT) performed other recurring activities in the reporting period:

- **AT:** ISPs are obliged under the Austrian Telecommunications Act 2003 (TKG 2003) to notify their terms and conditions to RTR before they start a new communication service or change existing services. The transparency obligations of the Regulation are also checked within this framework. RTR is entitled to object to specific clauses within eight weeks if they do not meet certain legal standards.
- **DE, LT and PT:** NRAs re-examined the contractual terms of the ISPs.
- **IT:** AGCOM published statistical comparative values of ISPs' QoS results reached in the past years and continued its surveillance activity on service charters and general conditions contents.

Seven NRAs (AT, BE, CZ, EL, LU, PT, SI) pointed out that there was a change compared to the previous period, as detailed in Table 12 below:

NRA	Description of the change performed
AT	RTR performed a market survey without requesting information from ISPs.
BE	Following the reference, in the annual report of the Office of the Ombudsman for Telecommunications for 2019, to consumer complaints related to "unlimited" offers, BIPT initiated an investigation, questioning the major ISPs about the Fair Use Policy (FUP) applied in relation to those offers.
CZ	When the General Authorisation came into effect, CTU launched an inspection of more than 2,000 ISPs, in January 2021. This inquiry focused on the inclusion of mandatory content of contract related to speeds pursuant to Article 4(1)(d) of the Regulation in the providers' contract terms, on the provision of information on remedies available to end-users in the event of a continuous or regularly recurring discrepancy from the actual performance of the IAS pursuant to Article 4(1)(e) of the Regulation and also on compliance with the obligations arising from the above-mentioned General Authorisation specifying the method of setting individual speeds and their discrepancies. CTU approached the ISPs, in the form of individual consultations, to help them to achieve compliance in regards the General Authorisation. In cases where the inspected entities did not respond to the results of the performed inquiry and deficiencies persisted in the contract terms, they were sent, in more than 300 cases, a request to rectify the identified deficiencies.
EL	Added analysis of user complaints.
LU	Some ISPs were not compliant with the provisions of Article 4(1). Following ILR's request, they made changes to be compliant with the Regulation.
PT	ANACOM sent communications, in May 2019, to the main ISPs, to alert them to the need to ensure compliance with the requirements related to transparency measures on data transmission speeds. Since then, ANACOM has been monitoring the changes gradually implemented by ISPs in their websites and contracts and interacting with them. This process has been concluded in August 2020. During the reporting period, ANACOM also started to monitor the information on speeds published on the websites of the smaller ISPs. As a result, communications were sent to 15 ISPs at the end of July 2020, in which a special warning was issued regarding the obligation foreseen in Article 4(1)(d) of the Regulation. Several ISPs have subsequently adapted their websites. However, for most of the ISPs the process is still ongoing.
SI	Based on analysis and a market survey carried out, some smaller ISPs will have to adapt the content of their websites to present the necessary information more clearly.

Table 12. Changes compared to previous reporting periods

Question 13. Have you completed any formal assessments of the ISPs' contract conditions and their compliance with requirements set out in Article 4(1) sub a-e? If yes, please describe the main findings. [Note: detail of compliance in relation to speeds' information requested below under Q16, 17]

13 NRAs (AT, BG, CY, CZ, EL, HR, IE, LU, MT, NO, PL, RO, SK) have completed a formal assessment of the ISPs' contract conditions and their compliance with Article 4(1) subparagraphs 1 a-e of the Regulation. The main findings are outlined in Table 13 below.

Member State	Main findings
AT	<p>ISPs are obliged under the Austrian Telecommunications Act to notify their terms and conditions (T&Cs) to RTR before they start a new communication service. Changes of T&Cs must be notified as well. RTR is entitled to object specific clauses within 8 weeks if they do not meet particular legal standards. This is an on-going measure.</p> <p>As far as mobile services are concerned, the (often significant) deviation between the estimated maximum speed for 3G, 4G and 5G connections set out in the T&Cs of the contracts and the realistically achievable speeds in the mobile networks is still an issue.</p>
BG	<p>The monitoring activities carried out by the NRA revealed a need for greater precision of the content of the contracts and of the general conditions regarding speeds, but at this stage no additional actions were deemed necessary as small deviations in the implementation of the Regulation were observed.</p>
CY	<p>OCECPR found that ISPs comply with the requirements set out in Article 4(1), subparagraphs 1 a-e, after an assessment made following submission of the ISPs' contracts to OCECPR, according to the provisions of the Regulation and the Decree.</p>
CZ	<p>The NRA concluded, in an initial inquiry, that the new mandatory items required under the conditions of the General Authorisation had been correctly implemented in the contract documentation by only 4% of internet access service providers, accounting for 55% of the end-users. However, following CTU's additional inspection activities, it was revealed that more than 77% of the internet access service providers inquired had already brought their contract terms and conditions into compliance with the conditions of the General Authorisation, representing more than 97% of end-users using internet access services.</p>
EL	<p>EETT monitored the transparency obligations several times within each reporting period and any shortcomings were addressed. Transparency was generally at a satisfactory level.</p>

HR	HAKOM checked, as a regular action, if the terms and conditions that the providers are obliged under the Croatian Telecommunications Act (ZEK) to notify to HAKOM before they launch a communication service to meet the particular standards set out in the ZEK and the compliance with the provisions of the Regulation.
IE	ComReg has continued the analysis of IAS providers' contractual conditions and compliance with the requirements set out in Article 4(1), subparagraphs 1 a-e, for the smaller market players.
LU	ILR initiated an assessment of the transparency in contracts. Some preliminary findings revealed, for instance, that the definition of "normally available speed" has been adjusted by one operator and that there is a lack of transparency regarding the net neutrality rules.
MT	Monitoring new offers is an ongoing procedure to ensure that no infringements are carried out.
NO	Nkom has initiated a dialogue with an ISP regarding the obligation to provide clear and comprehensive explanation of QoS parameters in accordance with Article 4(1)(b) of the Regulation. The ISP was requested to specify more detailed information regarding differentiated speed for different mobile internet access service subscriptions.
PL	As a result of the formal inspection of the 10 largest ISPs, UKE intends, in 2021, to inspect 16 smaller, local ISPs in order to check contractual transparency.
RO	ANCOM continued to monitor the information included in the contracts concluded with the end-users by the smaller ISPs (in terms of number of clients and turnover) concerning the fixed IAS. The analysis conducted by ANCOM revealed that the information mostly missing from the contracts is the one which refers to the speeds and the remedies offered to consumers in case of discrepancies observed.
SK	ISPs' contracts are mostly compliant with the transparency requirements set out in the Regulation (resp. 91%/ 91%/ 60%/ [80%-100%]/ [91%-100%] for Article 4(1), subparagraphs 1 a-e).

Table 13. Main findings of the ISPs' contract conditions

Question 14.a. Have any national specifications been set in relation to the different types of speeds laid out in Article 4(1) sub d?

Question 14.b. Were requirements:

- imposed by NRA or other competent Authority?

- agreed upon by market players?

Question 15. Are these requirements or the NRA's opinion/recommendation legally binding?

During the reporting period, national specifications have been set or amended by three NRAs (CZ, FI, HU) as shown in Table 14 below.

Member State	Action taken
CZ	The NRA imposed binding definitions of QoS parameters for both fixed and mobile IAS.
FI	TRAFICOM included FWA and hybrid connections to its Opinion on how ISPs should indicate the internet speeds on their contracts and aligned the guidance with the updated BEREC Guidelines ¹⁸ .
HU	NMHH amended the QoS regulations that came into force at the end of December 2020. These regulations bring the speed values into line with the requirements of the Regulation, both in terms of content and definition. NMHH gave service providers a six-month grace period to transpose the new rules into commercial contracts. The Authority plans to carry out a comprehensive inspection after the expiry of the grace period.

Table 14. Actions taken with regard to setting national speed specifications

In the case of an internet access service at a fixed location, the value of the normally available speed may not be newly set at a value lower than 60% of the value of the advertised speed and must be available for 95% of the time during one calendar day. The minimum speed must not be set at a value lower than 30% of the value of the advertised speed. The advertised speed itself must not be greater than the maximum speed.

In the case of a mobile internet access service, the advertised speed must not be higher than the estimated maximum speed.

In addition, one NRA (**FR**) mentioned that the transposition of the Directive 2018/1972, establishing the European Electronic Communications Code, into the national legislation is under way. The adoption of Executive Order n° 2021-650 is seen as a first step in the legislative procedure, which will be completed by additional legal references. An article has already been proposed in the French Consumer Code (Art. L. 224-42-3), specifying the transparency requirements expected from an ISP when providing an IAS. These transparency

¹⁸https://www.traficom.fi/sites/default/files/media/regulation/Verkkoneutraliteettikannanotto-mobiililaajakaistaliittymista_EN.pdf

requirements should be further detailed in ministerial decrees, which should include the list of expected information and how it should be published.

A comprehensive overview of national specifications, applicable in the Member States, and information if these are legally binding or informal can be found in Annex I.

Question 16. To the extent, your NRA has reviewed the terms and conditions in ISP contracts, did ISPs define in their contracts minimum, maximum, advertised and normally available upload and download speeds of the internet access service in the fixed network?

In the majority of Member States (23) (AT, BE, BG, CY, CZ, DE, EL, ES, FI, HR, IE, IT, LT, LU, LV, MT, NL, NO, PL, PT, RO, SI, SK), ISPs have provided speed definitions in their contracts. Only in five Member States (DK, EE, FR, HU, SE) those definitions were not provided.

In particular, in 15 Member States (AT, BG, CY, CZ, DE, EL, ES, FI, HR, IE, MT, NO, PT, SI, SK), all major ISPs defined in their contracts minimum, maximum, advertised and normally available speeds. In three Member States (LT, LV, RO), although the information was provided in a general manner, there was still some missing or inconsistent information. Main findings of NRA assessments are summarised in Table 15 below.

Member State	Main findings
DE	Providers typically mention in their terms and conditions concrete figures for the respective speeds or mention a percentage of the maximum speed. The advertised speed typically equals the maximum speed.
EL	Fixed ISPs have incorporated minimum, maximum and normally available speeds in consumer contracts following the entry into force of national provisions on November 25, 2020. Speeds are provided per area and access technology. There is an ongoing investigation to examine conformance in more detail.
ES	The analysis of the contractual speeds conducted by CNMC, concluded that for FTTH, the minimum speed is between 75% and 90% of maximum and the normally available speed is close to 100%. For DSL, the minimum speed is between 10% and 65% of the maximum speed and normally available is between 37% and 65% of the maximum speed.
IT	Minimum speed requirements have been set and the corresponding value is specified in contracts.
LU	The NRA asked an operator to modify the definition of the normally available speed in its contracts according to the definitions provided by the BEREC Guidelines.

Table 15. Main findings of the ISP contracts regarding definition of speeds

Some NRAs stated that the speed information improved, in comparison with the previous year (EL, ES, HR, PL, PT, RO) mostly as a result of the NRA's intervention.

Regarding those Member States where speed definitions were not provided:

- In **FR**, ISPs only defined the theoretical maximum speeds that they provide for the fixed IAS, in accordance with a 2013 ministerial decree.
- In **HU**, the amended QoS regulations came into force at the end of December 2020. The regulator gave service providers a six-month grace period to transpose the new rules into commercial contracts.

Question 17. To the extent your NRA has reviewed contracts of mobile ISPs, did they define in their contracts advertised and estimated maximum upload and download speeds of the IAS in the mobile network?¹⁹

Please briefly explain the main findings.

If available, please provide information regarding contractual conditions, such as under which the estimated maximum speed can be achieved (NN guidelines examples of “realistic usage conditions”¹⁵³).

The information on reviewing activities with regard to mobile ISP contracts carried out by nine NRAs, in the reference period, is summarised in Table 16 below.

NRA	Activities
AT	As an ongoing measure, RTR reviews the terms and conditions and the changes to the terms and conditions that the ISPs are obliged to notify to the NRA. Within this framework also the transparency obligation of the OI Regulation are checked.
DE	Providers typically mention in their terms and conditions concrete figures for the respective mobile speeds.
EL	Mobile ISPs provide speed estimates per area and technology following the entry into force of the national provisions on 1 March 2021. The speed estimates are given in ranges and are publicly available through interactive maps on the ISPs' websites. There are no advertised speeds in mobile.

¹⁹ Remarks provided in this section only relate to countries where the NRA has reviewed the terms and conditions in contracts of fixed network ISPs.

ES	The download speeds observed by the NRA after the analyses of the contracts were, for 4G technology, from 75 to 150 Mbit/s, whereas for 3G technology, from 21 to 84 Mbit/s.
HR	ISPs are in compliance with the Regulation, as they define in the contracts the estimated maximum download and upload speed in a geographical manner using mobile internet access service coverage maps with estimated speed values of network coverage in all locations for different network technologies.
LV	As in previous years, SPRK has concluded that mobile operators publish on their website information on the maximum and average connection speed values that can be achievable with different mobile technologies.
PT	As a result of the communications sent by ANACOM to the main ISP and subsequent interactions, all these ISPs defined, in their websites and contracts, the different speeds of the IAS in the mobile network.
SI	All major ISPs defined in their contracts the evaluated maximum and advertised upload and download speeds of the IAS. The speed is defined based on the contractual package.
SK	According to the outcome of information requests of selected ISPs, all of them defined in their contracts estimated maximum upload and download speeds.

Table 16. Main findings of contracts of mobile ISPs

Also, the situation on the market regarding the content of the contracts of the mobile ISPs has not changed compared to the assessment made by seven NRAs (BG, DE, HR, LT, LV, NO, SK) in the previous reporting period.

Definitions provided (completely/widely)

In 19 Member States – where NRAs have reviewed the mobile ISPs' contracts – these speeds are defined in contracts (AT, BG, CY, CZ, DE, EE, EL, ES, FI, HR, IT, LT, LV, MT, NO, PL, PT, SI, SK).

Four NRAs (BG, CY, EL, FI) provided the following information as outlined in Table 17 below:

Member State	Information on contractual conditions
BG	In their contracts, mobile internet access providers declare that the advertised and maximum speeds are equal. The maximum download and upload speeds are defined in the contract for each generation of mobile network: 2G/3G/4G.
CY	OCECPR's main finding is that mobile ISPs defined, where applicable in their contracts, the advertised speed in percentage to the estimated maximum speed.

EL	Detailed specifications for the inclusion of speeds in ISPs' contracts have been defined in EETT's Decision 876/7B/17-12-2018. These specifications have to be implemented by 1 March 2021 for mobile networks.
FI	The conclusion of the NRA was that the ISPs follow the guidance and have even set the minimum speed for the mobile connections.

Table 17. Information on contractual conditions

Realistic usage conditions

In some Member States (AT, BG, IE, LV, MT, PT, SI), ISPs mention in their terms and conditions factors impacting the available speed. Reference is made to factors such as the device, network coverage, radio signal quality, network load and number of users in any given location, time of day, geographical factors, weather conditions, type of technology, density of the building (and where the ISP is located), the used materials, distance between receiving terminal and transmitting antenna.

In other Member States (BE, FI, IT), the measures that have been taken in the previous years by the NRAs are still in force, verified by the NRAs and applied by the ISPs.

Overall assessment of answers provided to Questions 16 and 17

In general, the answers to Questions 16 and 17 show that for a given Member State, speeds were contractually defined – respectively not defined – by both fixed and mobile ISPs.

Question 18. Have you completed any formal assessment of the ISPs' obligation to publish, according to Article 4(1), subparagraph 2, the information referred to in Article 4(1), subparagraphs 1 a-e? Y/N

If yes, please provide details.

14 NRAs (AT, BG, CY, CZ, EE, EL, ES, IE, IT, MT, PL, RO, SI, SK) completed formal assessments of the ISPs' obligation to publish the information referred to in Article 4(1), subparagraphs 1 a-e. Four NRAs (EL, ES, PL, RO) reported the following incremental information for this reporting period as outlined in Table 18 below.

Member State	Main findings
EL	A case regarding sync speeds was investigated, where an ISP was offering guarantees on modem sync speeds, which created confusion with respect to the guarantees on actual speed in the frame of the Regulation. The ISP was asked to provide clarity on the terms of the sync speed guarantee in the contract and in commercial communications, and to

	explicitly declare that this guarantee is different from the guarantee on the actual speed in the Regulation.
ES	A fine was imposed to one operator, because it did not publish the different type of speed in mobile networks according to Article 4(1) of the Regulation.
PL	Inspection and monitoring activities indicate that mobile ISPs indicate the required information in contractual documents.
RO	Following the complaints received, the NRA analysed the information published on the website of one ISP and, taking into account that the information on the speeds and the procedure the subscriber has to follow in order to measure them was missing, imposed remedies in this regard.

Table 18. Main findings regarding transparency of information

Question 19. Have you imposed additional transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e? Y/N

If yes, please provide details of the requirements.

Two NRAs (EL, NO) imposed in the reporting period additional transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e, as summarised in Table 19 below.

NRA	Additional transparency requirements
EL	Apart from the requirements on contractual speeds (EETT Decision 876/7B/17-12-2018), the remaining requirements entered into force on 5 June 2020. The transparency requirements for contractual speeds entered into force on 25 November 2020 for fixed networks, and 1 March 2021 for mobile networks.
NO	Nkom conducted a dialogue with an ISP regarding the obligation to provide clear and comprehensive explanation of QoS parameters. More specifically, how network congestion may affect performance for end-users with different IAS subscriptions, each with a different level of QoS (cf. BEREC Guideline 34b)

Table 19. Additional transparency requirements

More information on the measures taken by the NRAs that are still in force today are set out in Annex I of this report.

6.2 Article 4(2) – Procedures for end-user complaints

Question 20.a. Have ISPs established “transparent, simple and efficient procedures to address end-user complaints...” according to Article 4(2)? Y/N

If yes: What kind of procedures have there been established by ISPs (e.g. hotlines, complaint templates)?

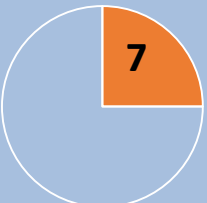
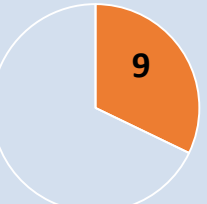
Question 20.b. Is there an industry wide approach in relation to these procedures? Y/N

If yes, was this approach:

- i. imposed or facilitated by the NRA,
- ii. prescribed by national legislation,
- iii. voluntarily agreed upon by the market players,
- iv. other _____

All the 28 NRAs responded that they have established “*transparent, simple and efficient procedures to address end-user complaints...*” according to Article 4(2) of the Regulation.

Regarding the industry-wide approach, 19 NRAs (AT, CY, CZ, DE, DK, EL, FR, HR, HU, IE, IT, LV, MT, NO, PL, RO, SE, SI, SK) replied positively, while 9 (BE, BG, EE, ES, FI, LT, LU, NL, PT) mentioned that this is not the case. More details are outlined in Table 20 below.

Industry-wide approach	Member State	Number of NRAs taking the approach
Imposed or facilitated by the NRA	AT, CY, DE, IE, IT, RO, SI	
	AT, CY, CZ, EL, HR, HU, LV, SI, SK	

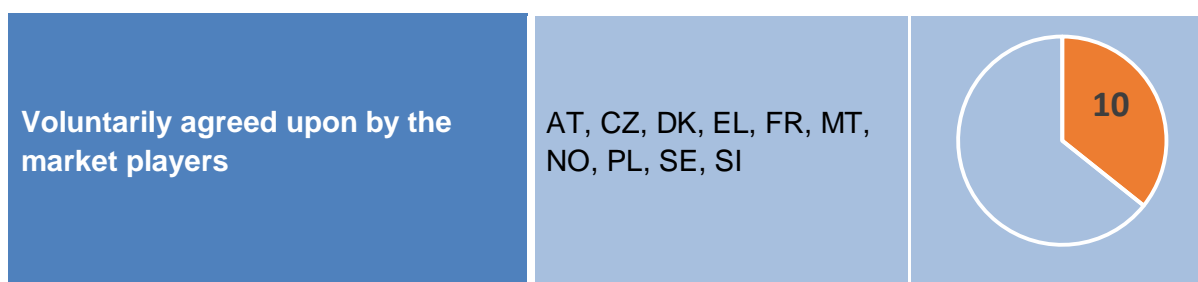


Table 20. Industry wide approach regarding procedures for end-user complaints

6.3 Article 4(3) – Additional transparency requirements

Question 21. Did you nationally (e.g. NRA, Ministry) provide guidance or impose additional transparency or information requirements on ISPs following the enforcement of the Regulation? Y/N

If yes, please provide details of the requirements.

According to Article 4(3) of the Regulation, Member States could introduce additional monitoring, information and transparency requirements. Out of the 8 Member States which responded positively to this question, in 5 of them (AT, BG, DE, EL, IT) these measures have been taken in previous years by the NRAs and are still in force, verified by the NRAs and applied by the ISPs. Only three MSs (DK, RO, SI) introduced new guidance or requirements in the current reporting period, as outlined in Table 21 below:

NRA	Measures taken
DK	Following experience from last year, the NRA has issued a guidance to the ISPs regarding the transparency measures for ensuring open internet access in Article 4(1)-(2). The paper did not impose additional requirements.
RO	ANCOM published guidelines aimed to provide a common understanding of the implementation of Article 4(1)(d) provisions. The guidelines are intended for ISPs and include instructions on how end-users could measure the actual data transfer rates, the conditions to be met when performing the measurements, the tool used for that propose etc.
SI	Providers must publish information about: <ul style="list-style-type: none"> • possible data cap related to certain package, • possible limitation about using certain terminal equipment, • specialized services and their impact on internet access, • estimated peak hour in the network, • hyperlink to AKOS Test Net measurement tool,

	<ul style="list-style-type: none"> • hyperlink to General Act on internet services, • port blocking and traffic management and their impact on internet access services, • publishing of interactive map of radio coverage for mobile networks, • possible security risk without proper protection.
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Table 21. Additional monitoring, information and transparency requirements

6.4 Article 4(4) – Monitoring mechanism

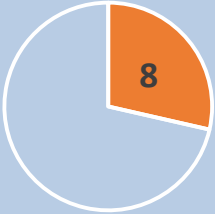
Question 22. Is there an NRA or national interpretation of “significant discrepancy, continuous or regularly recurring”? Y/N

If yes, how are these terms interpreted?

If yes, was the definition:

- i. imposed by the NRA (e.g. using Article 5(1)),
- ii. voluntarily agreed upon by the market players
- iii. other _____

Regarding Article 4(4) of the Regulation, the same 12 Member States (BG, CY, CZ, DE, EL, ES, HR, IT, MT, PL, RO, SI) as last year reported that competent authorities provided national interpretation of “*significant discrepancy, continuous or regularly recurring*” regarding the actual performance. The different approaches used are outlined in Table 22 below.

Approach	Member State	Number of NRAs taking the approach
Definition imposed by the NRA	CY, CZ, EL, ES, HR, MT, PL, SI	 8
Definition voluntarily agreed upon by the market players	---	

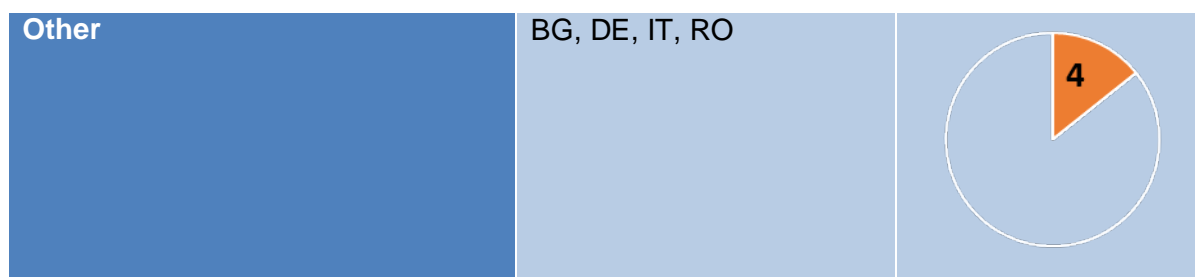


Table 22. Different approaches of significant discrepancy interpretations

CZ has a new legally binding definition based on a new legislation, which replaced the previous non-binding definition. CTU issued a General Authorisation which, defined continuous or regularly recurring discrepancies as follows:

- For the internet access service at a fixed location, significant continuous discrepancy from the normally available speed shall mean a continuous decrease in the actually achieved speed below the defined value of the normally available speed in an interval longer than 70 minutes. Regularly recurring discrepancy from the normally available speed shall mean a discrepancy at which the actually achieved speed decreases at least three times below the defined value of the normally available speed in an interval longer than or equal to 3.5 minutes in a time range of 90 minutes.
- For the mobile internet access service, significant continuous discrepancy from the advertised speed shall mean a continuous decrease in the actually achieved speed below 25% of the value of the advertised speed in an interval longer than 40 minutes. Regularly recurring discrepancy from the advertised speed shall mean a decrease in the actually achieved speed below 25% of the value of the advertised speed in an interval longer than or equal to 2 minutes in a time range of 60 minutes.

All the other 11 responding NRAs mentioned that they do not provide any new additional guidance or national interpretation (but the national interpretations adopted in the previous years are still valid), or they do not provide them at all. The full list of material interpretations of the terms can be seen in the Annex I.

Question 23. Do you collect or monitor the number of end-user complaints? Y/N

If yes, what was the level of end-users' complaints about the performance of the internet access service, relative to contracted parameters (speeds or other QoS parameters)?

Most of the responding NRAs (23) (AT, BE, BG, CY, CZ, DE, DK, EL, ES, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI) have reported that they are monitoring the number of end-user complaints, whereas five NRAs (EE, FI, FR, NO, SK) indicated not doing so.

Based on the data collected, end-user complaints are usually related to discrepancies between actual and contractual speed, as well as other QoS parameters, as set out in Table 23 below.

Member State	Information related to NN complaints
AT	<p>The total number of requests submitted for conciliation was 247, of which 162 requests were related to the quality of mobile networks and 85 requests regarded the quality of fixed networks.</p> <p>In addition to conciliation proceedings, there was a large number of general inquiries including net neutrality issues.</p>
BE	<p>Complaints are handled by the Ombudsman for Telecommunications: this year no complaints have been submitted to the BIPT nor have there been requests for input on complaints submitted to the Office of the Ombudsman for Telecommunications or the Minister for Telecommunications.</p>
BG	<p>Most of the consumer complaints are about discrepancies between the contracted speeds of the IAS and the performance of the IAS and/or about interruptions of the IAS.</p>
CY	<p>Few complaints relative to QoS parameters, mainly fixed broadband connections.</p>
CZ	<p>User complaints are in the order of several tens, mostly related to the issue of non-compliance with the agreed quality parameters specified in the contract, or the inclusion of such quality parameters of the internet access service in the contract, which are not in accordance with the issued General Authorisation.</p>
DE	<p>Around 1,800 complaints (concerning the speed of the IAS) in total, increasing since last year, out of which about 630 substantiated complaints fulfilling the criteria regarding the scope and type of measurements for the verification process using the NRA's broadband monitoring mechanism. 115 consumers addressed issues in a dispute settlement.</p>
EL	<p>The number of complaints to EETT is very low. However, it should be noted that EETT acts as a 2nd or 3rd level for the resolution of complaints. Complaints are first addressed to the ISPs, and in case of a dispute, they are addressed to dispute resolution bodies (e.g. the Hellenic Consumers' Ombudsman). Only subscribers who are not satisfied with the treatment of their complaint address themselves to EETT.</p>
ES	<p>139 complaints (0.62% of the total amount).</p>
HR	<p>26 complaints regarding internet QoS in fixed networks, 25 complaints regarding internet QoS in mobile networks, 55 complaints (via <i>HAKOMetar</i> certified tool) regarding achieving minimum speed.</p>
HU	<p>Only received a few reports from end-users concerning mobile operators' violations of the net neutrality rules of the Regulation.</p>

IE	Approximatively 4% of all complaints within the period relate to Net Neutrality issues.
IT	Complaints mostly related to minimum speed.
LV	7 complaints were received about the quality of internet services.
MT	13 complaints regarding discrepancies between the contracted speed and the actual speed performance of the service.
NL	ACM logged 46 complaints in total of which 42 were about internet speeds.
PL	261 complaints regarding performance of the IAS (QoS), including 156 regarding mobile and 105 regarding fixed networks.
PT	449 complaints regarding service faults/malfunctioning, 318 complaints regarding internet speeds below what is advertised/subscribed and 8 complaints regarding Fair use policies and traffic shaping.
RO	7% of the total number of complaints concerning electronic communications services.
SE	27 complaints concerning speeds.
SI	3% of all user complaints.

Table 23. Level of end-user complaints about the performance of internet access services

Question 24. Have specific additional remedies been introduced for consumer redress in relation to non-conformance of IAS with the contract terms (e.g. legal action before courts and/or NRA, right to early termination, compensation)? Y/N

To foster end-user rights, in the reporting period one NRA (AT) introduced additional remedies for end-user complaints in case of non-conformance of IAS with the contract terms, compared to the seven NRAs (EL, ES, HR, IT, LV, SE, SI) that have already done it in the previous years. 20 of the responding NRAs (BE, BG, CY, CZ, DE, DK, EE, FI, FR, HU, IE, LT, LU, MT, NL, NO, PL, PT, RO, SK) did not introduce any specific remedy, as general national legislation already covers non-conformance with the contract terms.

Question 25. Do you currently provide any IAS quality monitoring tool for consumers to use? Y/N

- If yes, briefly describe this tool, and say whether you consider it as certified according to Article 4(4) and in line with BEREC Guidelines, para. 161.

- If not, please outline any plans you may have for setting up such a tool.
- Is this tool used by the NRA to investigate any potential deviations in speeds or any other contractual parameter or – beyond the scope of Article 4(4) – for detecting infringements of the Regulation (e.g. throttling, blocking)?

Six NRAs (BG, CZ, FI, FR, IT, PL) reported measurement tool related actions or plans:

- **BG** and **FI** are developing their own measurement tool with a deadline for the implementation set respectively at the end of 2021 and in early 2022.
- **CZ** started the process of transferring the measurement tool under the CTU's administration and perform its certification.
- **FR** specified an Application Programming Interface (API) for QoS measurement tools which is currently being developed by the operators and will be deployed soon.
- **IT**, besides the already available measurement tools, released a new web-based speed test that allows users to perform quick measurements of the QoS of their connection.
- **PL** released a new version of monitoring/assessment mechanism that increases the maximum measured speed from 1 Gbit/s to 2.5 Gbit/s, increases the availability of applications for various operating systems (Windows and Mac OS), introduces the option of automatic sequential measurements and the English language version of the application and website, and makes possible the exclusion of the registration obligation for measurements of an informational nature only.

For further details regarding NRA measurement tools, please refer to Annex I of this report.

7 Article 5(1)

Question 26. Did you impose any QoS requirements on any ISP under the Regulation (EU) 2015/2120 (other than definition of contractual speeds)?

If yes, which requirements were imposed?

None of the responding Member States introduced any QoS requirements (other than definition of contractual speeds).

HU introduced latency, jitter and packet loss in the modified QoS regulation, but their use remains voluntary.

Question 27.a. What approach have you taken to measure the **availability of high-quality internet access services**:

- i. market survey without requesting information from ISPs,
- ii. information request from ISPs,
- iii. analysis of complaints and end-user reporting
- iv. technical network monitoring
- v. other, please specify _____

Question 27.b. Is there any change compared to the previous period? Y/N

23 NRAs (AT, BE, BG, CY, CZ, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LT, MT, NL, PL, PT, RO, SI, SK) are monitoring the availability of high-speed internet access service. The NRA responses suggest that the most popular approaches to measuring the availability of high-quality internet access services are still through information requests from ISPs and through analysis of complaints and end-user reporting (see Table 24 below). Six NRAs (AT, EE, EL, LV, PL, SI) reported changes in their approaches, most of them adding new ones, compared to the previous years.

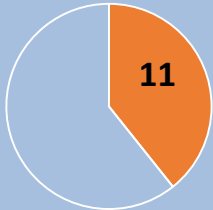
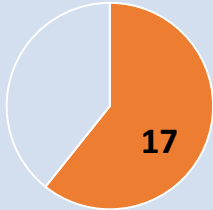
Approach	NRAs	Number of NRAs taking the approach
Market survey without requesting information from ISPs (e.g. checking ISP's offers on their web pages)	AT, BG, CY, CZ, EE, HU, IE, IT, LT, MT, PT	 11
Information request from ISPs	AT, BE, BG, CY, DK, EE, EL, FI, FR, HR, IE, IT, MT, NL, PL, SI, SK	 17



Table 24. Approaches regarding the availability of high-quality internet access services

BG published a survey on the satisfaction of the end users with the IAS offered through fixed and mobile networks.

IT reports the extension of their drive test campaigns for mobile IAS quality measurement with an experimental campaign which targets 5G networks, following the results of a specific technical board composed of the NRA, the independent body that carries out the measurements, the Ministry, the operators, the consumer associations, and University experts.

Beside on the above-mentioned approaches, one NRA (DE) indicated that it uses a broadband measurement mechanism, while another NRA (PL) purchases reports from the tests carried out by end-users via the www.speedtest.pl tool.

Question 28. If you performed measurements of internet access service quality, please report the main findings in relation to the provisions of the Regulation.

13 NRAs (AT, BE, CZ, EL, FR, HR, HU, IT, LT, LV, NO, PT, SI) reported that they perform some form of measurements of internet access service quality, either for the fixed or for the mobile networks, or for both. This includes measurements by NRAs themselves, as well as measurements obtained from crowdsourced measurement applications and tools.

Eight NRAs (EL, FR, HR, HU, LT, LV, NO, PT) indicated that there has been an overall increase in network speeds and capacity or at least that there has been no degradation compared to the previous reporting period. This increase has been attributed to the expansion of next generation networks, as well as the broader use of LTE technology (in mobile

networks) and the network upgrades that resulted from the Covid-19 crisis, among other reasons.

Question 29. Have you taken any other steps to ensure compliance with **Articles 3 and 4** according to **Article 5(1)** not mentioned elsewhere in this questionnaire? Y/N

If yes, which?

Only one NRA (IT) has taken additional steps to ensure compliance with the above Articles. In particular, **IT** reported that they use a tool that allows users to investigate deviations between minimum QoS contractual parameters with effective measurements and allows them to complain and, if QoS is not met again after 45 days, to break the contract without penalties. Moreover, AGCOM has regional probes (based on the same measurement algorithm) that test the two most popular profiles of operators with more than 500 users in a region and publish these measurements every six months.

8 Article 6

Question 30. What rules on penalties to infringements of **Articles 3, 4, and 5** pursuing to **Article 6** of Regulation (EU) 2015/2120 do you apply?

All (28) NRAs may impose penalties in cases of infringements of the abovementioned Articles, which in many cases is proportionate and may amount to a maximum of 10% of the most recent annual turnover of an undertaking.

In AT, the Austrian Telecommunication Act is currently under review, so there may be changes regarding the height of the penalties that can be imposed in future.

In PT, on 4 August 2020, the Decree Law n.º 49/2020 (<https://data.dre.pt/eli/dec-lei/49/2020/08/04/p/dre>) was approved, establishing the new sanctioning regime applicable to breaches of the OI Regulation in the context of Open Internet.

Question 31. Have there been any court proceedings about any of your NN cases?

Six NRAs (AT, BG, DE, HU, IT, RO) reported some progress in Open Internet Regulation related court proceedings in the past 12 months, as outlined in Table 25 below.

Member State	Court proceedings
AT	<p>Legal action against the decisions of the Telekom-Control-Commission was taken regarding the decisions:</p> <ul style="list-style-type: none"> - R 3/16 (from 18 December 2017): prohibition of prioritising a VoD service due to the lack of a “special service” within 3 years; free allocation of public IPv4 upon customer request; increase period for disconnecting IP connections from 24 hours to 31 days → Decision pending. - R 5/17 (from 18 December 2017): prohibition of the use of “traffic shaping” for an additional package in which audio and video streaming services are provided with a zero rating. → Decision pending - S 5/19, S 6/19, S 7/19, S 8/19, S 10/19, S 13/19: an access block to the website is not admissible in the absence of an injunction claim based on copyright and such a block breaches the provisions of the Regulation. → The decisions are final. <p>For comprehensive information see "RTR Net Neutrality Report 2021" and the NN Website on decisions:</p> <p>https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/netzneutralitaetsbericht/NNBericht2021.de.html</p> <p>https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/netzneutralitaetsbericht/NNBericht2021.en.html</p>
BG	<p>During the reported period, one of the ongoing court proceedings, regarding an appealed penalty notice, issued by the Chairman of the CRC, finished and CRC's penalty notice was confirmed.</p>
DE	<p>StreamOn/Vodafone Pass: No change compared to the previous reporting period, except the fact that the ECJ decided to rule on the preliminary rulings without an oral procedure.</p>
HU	<p>In two previous cases (Telenor - My chat and Telenor - My Music), the NRA has established that these offers violate Articles 3(2) and 3(3) of the Regulation and mandated Telenor Hungary to bring these offers into compliance. Following a preliminary ruling from the European Court of Justice, the national court gave its judgments and dismissed the actions brought by Telenor Hungary against the decisions of the NRA. In practice the offers have already been discontinued by Telenor Hungary.</p>
IT	<p>With sentences no. 1200/2020 and no. 1201/2020, the Lazio Regional Administrative Court confirmed the lawfulness of the provision of art. 5, paragraph 1 of resolution no. 348/18/CONS. The sentences were appealed to the Council of State. The judgment is still pending.</p>
RO	<p>Telekom Romania case: The decision on the suspension has become final. Regarding the annulment of the ANCOM Decision (no. 669/2018), at the last appearance in Court, in April 2021, the Court maintained its pronouncement.</p>

Table 25. Court proceedings on open internet

Annex I: Summary of the national rules, guidance, measurement tools and court cases

Annex I describes the relevant national rules, regulations and specifications in force, internet access quality monitoring tools provided and Open Internet Regulation related court proceedings based on the NRA responses to questions 10, 14, 15, 19, 22, 25 and 31.

Question 10. Is there an NRA or national interpretation of or guidance on “services other than internet access services”, which has not yet been mentioned in the BEREC NN Questionnaire of 2020? Y/N

If yes, please provide any information and examples other than the ones mentioned in BEREC Guidelines (VoLTE, IPTV).

EL: EETT has introduced national measures (EETT Decision 876/7B/17-12-2018) that oblige ISPs to provide contractual information about the quality requirements of the specialised services and the potential impact to the subscriber’s IAS. EETT also stipulates that ISPs should ensure the network has sufficient capacity, so that the provision of specialised services to a subscriber does not impair the quality of other subscribers in the network. A quality impairment exists when there is continuous or repeated performance decrease with respect to a previous level of performance, or when it can be proven that this reduction is statistically significant ($\alpha \leq 0.05$).

NL: ACM published an explanatory document on traffic management²⁰.

Question 14. Have national specifications been set in relation to the different types of speeds laid out in Article 4(1) sub d?

Were requirements:

- imposed by NRA or other competent Authority?
- agreed upon by market players?

Question 15. Are these requirements or the NRA’s opinion/recommendation legally binding?

Specifications set:

National specifications in relation to different types of speeds have been set in 17 MSs (AT, BE, BG, CY, CZ, DK, EL, FI, HR, HU, IT, LV, MT, NL, RO, SI, SK). There is a variety of

²⁰ The document can be consulted under the following link: <https://www.acm.nl/sites/default/files/documents/2020-01/traffic-management-voorlichtend-document.pdf>

institutional settings on how specifications are set. In almost all (14) cases (AT, BE, BG, CY, CZ, EL, FI, HR, LV, MT, NL, RO, SK, SI), this involved activities by the NRA, taking the form of recommendations, secondary legislation or decisions. In one case they were agreed upon by market players (DK), but there are also cases where the agreement by market players comes along with legally binding specifications (HU, IT).

10 NRAs (BE, BG, CY, EL, FI, HR, IT, LV, SI, SK) used percentage values by defining minimum and normally available speeds as a percentage of the maximum speeds, as presented in Table 26 below.

Member State	Specification of speeds by the use of percentages	Achievability of speeds
BE	Normally available upload and download speed: speed the end-user can expect during at least 95% of the time.	<ul style="list-style-type: none"> • Minimum upload and download speed: speed below which the ISP will never go, except in case of interruption of the connection. • Maximum upload and download speed: speed the end-user may expect to receive in principle at least once a day.
BG	The normally available speeds should be 80% of maximum speed.	Normally available speed should be available 80% of the time over 24 hours.
CY	<p>ISPs are obligated to specify in their contracts:</p> <ul style="list-style-type: none"> • as far as fixed networks are concerned, minimum, standard and maximum speed, in percentage of advertised speed. • as far as mobile networks are concerned, where applicable, the advertised speed, in percentage to the estimated maximum speed. 	ISPs are required to set the time periods within the day in which maximum speed is achieved, the periods expected to reach normally available speed, and the periods when speed may be limited to the minimum.
EL	ISPs can perform individual measurements at subscriber connection or aggregate measurements over a geographical area (e.g. municipality, or area defined by local exchange). The measurement sample should not be older than 1 year and estimates should be defined by confidence intervals with confidence level	<p>Peak hours from 19:00 to 23:00 for residential users, and from 09:00 to 17:00 for non-residential (business) users.</p> <p>ISPs are free to provide different intervals for peak hours, based on the actual usage of their networks.</p>

	<p>≥ 95%. Based on the measurement sample, the minimum, maximum and normally available speeds are defined as follows:</p> <ul style="list-style-type: none"> • Minimum speed 5% of measurements during peak hours • Maximum speed 95% of measurements during non-peak hours • Normally available speed 50% of measurements during peak hours 	
FI	<p>Requirements set for subscriptions with the maximum speed ≤ 100 Mbit/s:</p> <ul style="list-style-type: none"> • Minimum speed must be at least 70% of maximum speed • Normally available must be at least 90% of maximum speed 	Normally available speed should be achieved 90% of the time during each four-hour period.
HR	<ul style="list-style-type: none"> • Minimum speed ≥ 70% of max. speed • Normally available speed: not specified because of the high threshold for minimum speed 	
IT	<p>Minimum speed/maximum speed: 95- and 5-quantile (respectively) of the speeds measured in a time interval (6 months for statistical comparative values / 24 hours for single users' lines) Measures are sampled every 15 minutes. Also average and standard deviations are calculated and published.</p>	Maximum speed is defined based on actual measurements, therefore it is achievable.
LV	<p>Minimum speed: ≥ 20% of maximum speed</p>	
SI	<ul style="list-style-type: none"> • Minimum speed must be at least 50% of the maximum and at least 25% of the maximum inlet and outflow speed using FWA access. 	<ul style="list-style-type: none"> • Normally available speed: at least 90% of the time of the day outside peak hours

	<ul style="list-style-type: none"> Normally available speed must be at least 80% of the maximum incoming and outgoing connection speed. In the case of FWA access, the normally available speed must be at least 50% of the maximum speed. 	<ul style="list-style-type: none"> Maximum speed: achievable at least once per day Minimum speed lowest actual data transfer speed from the server or to the server (except for network failures)
SK	<ul style="list-style-type: none"> Minimum speed: $\geq 40\%$ of maximum speed Normally available speed: $\geq 90\%$ of maximum speed Advertised speed: recommended to be applied so that it allows to evaluate advertised speed against real performance of internet access service 	<ul style="list-style-type: none"> Normally available speed: 90% of any continuous 4-hour measurement period Maximum speed: at least once between 00:00 and 24:00

Table 26: Specification of speeds by the use of percentages and achievability of speeds

Legally binding or informal:

In 13 of the 17 countries that have set national specifications, the requirements or NRAs' opinion/recommendation were legally binding (BE, CY, CZ, DK, EL, HR, HU, IT, LV, MT, NL, RO, SI). In the remaining countries (AT, BG, FI, SK), the specifications or requirements were not legally binding.

Question 19. Have you imposed additional transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e? Y/N

If yes, please provide details of the requirements.

6 NRAs (BG, DE, EL, IT, NO, SI) have imposed additional transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e. Further information is summarised in Table 27 below.

In AT, as a measure that the NRA performs on a continuous basis, RTR has informal discussions with the ISPs regarding transparency requirements in the context of the open internet.

Member State	Additional transparency requirements
BG	In the CRC's Position, the Commission expressed its view about publishing the information referred to in art. 4(1)b, regarding the consequences of IAS' speed reduction when the data cap is exceeded. The Position of CRC elaborates what this information should include and the way it should be presented in the contracts/ General conditions and on the ISP's website.
DE	The ordinance for framework provisions on the promotion of transparency, publication of information and additional facilities for cost monitoring on the telecommunications market has entered into force on 1 June 2017. From that date on, the ordinance obliges fixed and mobile ISPs to provide more transparency when offering internet access services.
EL	The EETT Decision 876/7B/17-12-2018 includes more detailed transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e. Apart from the requirements on contractual speeds, the remaining requirements entered into force on 5 June 2020. The transparency requirements for contractual speeds will enter into force on 25 November 2020, for fixed networks, and 1 March 2021, for mobile networks.
NO	Monitoring activities indicated that some ISPs needed to improve their speed information regarding fixed internet access services. Stakeholder dialogue and subsequent monitoring showed clear improvements.
SI	Based on the General Act (legally binding since autumn 2019), the NRA requires ISPs to communicate to end-users the information regarding speeds on monthly bills, user portals or any other adequate transparent way that allows the user to get acquainted with this information at any time and in each billing period.

Table 27. Introduction of additional transparency requirements

Question 22. Is there an NRA or national interpretation of “significant discrepancy, continuous or regularly recurring”? Y/N

If yes, how are these terms interpreted?

If yes, was the definition:

- i. imposed by the NRA (e.g. using Article 5(1)),
- ii. voluntarily agreed upon by the market players
- iii. other _____

12 NRAs (BG, CY, CZ, DE, EL, ES, HR, IT, MT, PL, RO, SI) gave a material interpretation of “significant discrepancy, continuous or regularly recurring”, as can be seen in Table 28 below.²¹

Member State	Interpretation
BG	<ul style="list-style-type: none"> • Significant continuous discrepancy – two consecutive weeks in one billing period; • Regularly recurring discrepancy – more than one temporary discrepancy; • A temporary discrepancy – three consequent days in one billing period.
CY	Non-compliance if results of measurements over three consecutive days show that the speed received by the end-user is less than or equal to 80% of the minimum or normally available speed specified by the ISP.
CZ	<ul style="list-style-type: none"> • For the internet access service at a fixed location, significant continuous discrepancy from the normally available speed shall mean a continuous decrease in the actually achieved speed below the defined value of the normally available speed in an interval longer than 70 minutes. Regularly recurring discrepancy from the normally available speed shall mean a discrepancy at which the actually achieved speed decreases at least three times below the defined value of the normally available speed in an interval longer than or equal to 3.5 minutes in a time range of 90 minutes. • For the mobile internet access service, significant continuous discrepancy from the advertised speed shall mean a continuous decrease in the actually achieved speed below 25% of the value of the advertised speed in an interval longer than 40 minutes. Regularly recurring discrepancy from the advertised speed shall mean a decrease in the actually achieved speed below 25% of the value of the advertised speed in an interval longer than or equal to 2 minutes in a time range of 60 minutes.
DE	Non-conformity regarding fixed download speeds if one of these cases occurs:

²¹ See the 2020 iteration of this report, which illustrates those cases where there was already such an interpretation, https://berec.europa.eu/eng/document_register/subject_matter/berec/reports/8256-report-on-the-implementation-of-regulation-eu-20152120-and-berec-net-neutrality-guidelines

	<ul style="list-style-type: none"> • 90% of the contractually agreed maximum speed is not achieved at least once at each of at least two measurement days; • the normally available speed is not achieved in 90% of the measurements; • the speed falls below the contractually agreed minimum speed at each of the two measurement days. <p>By measuring with the broadband monitoring mechanism, the following requirements need to be considered:</p> <ul style="list-style-type: none"> • At least 20 measurements must be performed; • The measurements must be taken on at least two separate days; • The number of measurements is to be spread equally over the two days, so that at least 10 measurements are taken on a specific day; • The measurements must be taken using a LAN connection; • The measurements are to be carried out using the installable version of the NRA's broadband monitoring mechanism.
EL	A continuous or regularly recurring discrepancy is considered to exist when it occurs in two out of at least three measurement samples, taken by the ISP in consecutive days.
ES	There has to be a breach of either minimum or normally available speed. It has to be “continuous”.
HR	Non-compliance regarding fixed download speed if the results of at least three tests conducted in a period of five consecutive days (at least one test must be carried out every 24 hours) shows that speeds are below 70% of maximum/advertised speed. Tests are carried out by means of a certified tool for broadband speed tests prepared by the NRA.
IT	A continuous or regularly recurring discrepancy is considered to exist when minimum contractual speed is not met twice in 45 days. In such a case, the current Regulation lets users terminate the contract without additional costs. In order to check minimum speed reached by a user, the user has to run a free software (Ne.me.sys), certified by ISCOM, for 24 hours. Ne.me.sys samples measurements every 15 minutes. Minimum speed is calculated as the 95-quantile of measurements in the interval.

MT	<ul style="list-style-type: none"> • "significant discrepancy": this definition is implicit as any connection performing below the stated ISP's information regarding speed is considered as discrepant; • "regularly recurring": no interpretation published.
PL	<p>As part of a certified mechanism to measure regularly recurring significant discrepancies of service quality, there should be at least six certified measurements carried out at intervals of 30 minutes, in two daily cycles with an interval of less than seven days between them.</p>
RO	<p>For the fixed internet access service:</p> <p>In the guidelines issued, ANCOM has established the conditions that must be met and the procedures that a user must follow in order to ascertain on one hand the significant discrepancies and on the other hand the continuous or regularly recurring discrepancies.</p> <p>In order to ascertain significant discrepancies, the user must perform, under certain conditions, at least six measurements during 24 hours, of which at least one measurement must be performed in the 23:00-07:00 timeframe. Measurements must be carried out at intervals of at least one hour apart. A discrepancy is considered significant, if at least one of the following cases occurs:</p> <ul style="list-style-type: none"> • the minimum speed is not achieved for at least two measurements; • at least half of the measurements performed by the user do not exceed 50% of the normally available speed indicated in the contract. <p>In order to ascertain continuous or regularly recurring discrepancies between contractual speeds and the actual performance of the internet access service, the user has to perform measurements, under certain conditions, for at least 5 days (of which at least one weekend day) during a maximum of 30 consecutive days, performing at least 6 measurements per day, of which at least one measurement per day in the 23:00-07:00 timeframe. Measurements must be carried out at intervals of at least one hour apart. A discrepancy is considered continuous or regularly recurring, if at least one of the following cases occurs:</p> <ul style="list-style-type: none"> • the minimum speed is not achieved for at least two measurements; • at least half of the measurements do not achieve the normally available speed; • no measurement achieves the maximum speed. <p>For mobile internet access service:</p> <ul style="list-style-type: none"> • ANCOM has established a procedure that a user must follow in order to ascertain significant, continuous or regularly recurring

	<p>discrepancies between the contractual speeds and the real performance of the internet access service. Thus, the user will have to perform measurements, under certain conditions, for at least five days (of which at least one must be a weekend day) during a maximum of 30 consecutive days, performing at least six measurements per day, of which at least one measurement per day in the 23:00-07:00 timeframe. Measurements must be carried out at intervals of at least one hour apart. A discrepancy is considered significant, continuous or regularly recurring, if at least half of the measurements performed are below certain values, assumed by ISPs in their contracts. These values are calculated according to a series of rules established in the guidelines developed by ANCOM.</p>
SI	<ul style="list-style-type: none"> • Minimum speed: at least one of the correctly performed measurements, regardless of the time of the day, falls at the specified minimum speed. • Normally available speed: the average of all correctly performed measurements outside the peak hours is lower than the contractually agreed normally available speed (the measurement with the highest and lowest speed are excluded from the calculation).

Table 28: Interpretation of terms

Question 25. Do you currently provide any IAS quality monitoring tool for consumers to use? Y/N

- If yes, briefly describe this tool, and say whether you consider it as certified according to Article 4(4) and in line with BEREC Guidelines, para. 161.
- If not, please outline any plans you may have for setting up such a tool.
- Is this tool used by the NRA to investigate any potential deviations in speeds or any other contractual parameter or – beyond the scope of Article 4(4) – for detecting infringements of the Regulation (e.g. throttling, blocking)?

For monitoring the performance of their internet access services, end-users can use the measurement tools made available by 18 NRAs (AT, BE, CY, CZ, DE, DK, EL, HR, HU, IT, LT, LU, NO, PL, PT, RO, SI, SK).

All the reported monitoring tools measure the speed of end-users' individual internet access service in fixed and/or mobile networks. The monitoring mechanisms may also allow users to measure the QoS parameters (generally: latency, jitter, packet loss). Five NRAs (AT, HR, HU, LU, SI) reported their measurement tool can go beyond the scope of Article 4(4) by detecting infringements e.g. throttling, blocking.

Out of the 18 measurement tools provided by NRAs, those in AT²², CY, DE, HR, IT, PL, RO were considered as certified tools²³, according to Article 4(4) and paragraph 161 of the BEREC Guidelines.

Question 31. Have there been any court proceedings about any of your NN cases?

Six NRAs reported that there had been court proceedings on net neutrality in their Member States, as outlined in Table 29 below.

Member State	Court proceedings
AT	<ul style="list-style-type: none"> • A1 Telekom Austria AG appealed against decision R 3/16 of the regulatory authority: <ul style="list-style-type: none"> ○ Prohibition of prioritising a VoD service for lack of a specialised service, within three years; ○ Free assignment of public IPv4 at customer demand; ○ Increase in period for disconnecting IP connections from 24 hours to 30 days. • A1 Telekom Austria AG appealed against decision R 5/17 of the regulatory authority: <ul style="list-style-type: none"> ○ Prohibition of applying traffic-shaping to an add-on package with zero-rated audio and video streaming services. <p>The decisions of the Austrian NRA are available at: https://www.rtr.at/en/tk/nn_procedures</p>
BG	During the reported period, one of the ongoing court proceedings, regarding an appealed penalty notice, issued by the Chairman of the CRC, finished and CRC's penalty notice was confirmed.
DE	<p><i>StreamOn</i>: The Administrative Court of Cologne ruled in its interim proceedings (11 November 2018) that BNetzA is not hindered to enforce its decision of 15 December 2017, forbidding the video throttle contained in the zero-rating offer <i>StreamOn</i>.</p> <p>Telekom has appealed the interim ruling. The Higher Administrative Court finally confirmed in the interim proceedings (12 July 2019) that BNetzA's decision has to be executed immediately. Deutsche Telekom deactivated its video throttling on 9 August 2019.</p>

²² RTR-NetTest is the technical basis for the certified measurement. In order to qualify legally as a certified measurement certain preconditions must be fulfilled. Detailed information can be found here: <https://www.netztest.at/en/ZertMessung?step>

²³ AT, HR, IT and PL do not consider the certification valid for mobile access.

	<p>The Administrative Court of Cologne has suspended the main proceedings and addressed the ECJ (preliminary ruling) for a clarification whether (inter alia) the throttling of video streaming is in line with Art. 3 (3) and the principle of equal treatment. The ECJ will pronounce its judgement on 2 September 2021.</p> <p><i>Vodafone Pass</i>: There were no court rulings in administrative court proceedings against BNetzA's decisions. However, there was one court ruling in civil proceedings: A consumer association sued Vodafone for various clauses in the T&Cs of Vodafone Pass. On 8 May 2019, the district court of Duesseldorf ruled inter alia that the clauses used are misleading insofar as it is not obvious for the end-user that (e.g.) voice- or video telephony is not zero-rated. Regarding tethering, the court argued that counting data consumed by tethering against the data allowance does not constitute a violation of Article 3(1).</p> <p>The District Court of Duesseldorf has passed the issue of tethering to the ECJ (preliminary ruling) requesting clarification whether there is a violation of Art. 3 because zero rating of applications in Vodafone Pass applies only when a mobile device is used. The ECJ will pronounce its judgement on 2 September 2021.</p>
HU	<p>In two previous cases (Telenor - My chat and Telenor - My Music), the NRA has established that these offers violate Articles 3(2) and 3(3) of the Regulation and mandated Telenor Hungary to bring these offers into compliance. Following a preliminary ruling from the European Court of Justice, the national court gave its judgments and dismissed the actions brought by Telenor Hungary against the decisions of the NRA. In practice the offers have already been discontinued by Telenor Hungary.</p>
IT	<p>On 2 August 2018, AGCOM published a decision stating that end-users have the right to freely choose their broadband router (AGCOM Resolution n. 348/18/CONS). According to AGCOM, ISPs cannot require end-users to rely exclusively on the router supplied by the ISP itself. This decision was appealed and the appeal procedure is pending.</p>
NL	<p>T-Mobile introduced a zero-rating offer, which resulted in legal proceedings. The result was that ACM found the offer to be in line with the Regulation. An NGO attempted to appeal this decision, but the court decided that ACM was correct in its assessment that the offer was allowed.</p>
RO	<p>ANCOM concluded that a certain traffic management practice constitutes an infringement of Article 3(3) third subparagraph of the Regulation and ordered that ISP to stop the practice. The ISP challenged ANCOM's decision in front of the Romanian Courts and asked for both the suspension and the annulment of the decision. For the moment, the Courts ruled in favour of the suspension of the decision (the decision is not final and ANCOM has appealed it) until a decision is taken by the Courts on the annulment of ANCOM's decision.</p>

	<p>On 23 November 2018, the court approved the suspension of the execution of the measures disposed in ANCOM Decision no. 669/2018 (which stated that a certain TM practice constitutes an infringement of Article 3(3) third subparagraph of the Regulation) until the final settlement of the action for annulment of the decision. The sentence remained final on 12 December 2019, following the rejection of the appeal filed by ANCOM. Regarding the trial on the merits (the annulment of ANCOM Decision no. 669/2018) it was suspended on 6 May 2020, as a result of the prolongation of the state of emergency regarding Covid-19. The next term is on 1 July 2020.</p>
<p>SE</p>	<p>The ruling pertains to two mobile offers from Telia on 18 April 2016, “Free surf on social media” (<i>Sociala</i>) and “Free surf listening” (<i>Lyssna</i>).</p> <p>In summary, PTS has found in its supervision that Telia, in connection with the two offers, is applying traffic management measures in violation of Article 3(3) of the Regulation. Telia was instructed by PTS to discontinue the traffic management in due course, when the end-user is still able to use the specified services and applications included in each of the offers, whilst other data usage is blocked.</p> <p>The decision of PTS was appealed to the Administrative Court of Stockholm, which on 28 September 2018 rejected the appeal. The ruling has taken legal effect.</p> <p>In light of the court ruling, Telia has adjusted the offer, in making all applications treated equally when the data volume included in the subscription is consumed.</p>

Table 29: Court proceedings on net neutrality

Annex II: Abbreviations for countries

Throughout the report, Eurostat country codes are used as abbreviations for the names of the Member States²⁴. The country codes and the respective names of the NRAs are shown in the following table.

Albania	AL	AKEP	Lithuania	LT	RRT
Austria	AT	RTR	Luxembourg	LU	ILR
Belgium	BE	BIPT	Malta	MT	MCA
Bulgaria	BG	CRC	Montenegro	ME	EKIP
Croatia	HR	HAKOM	North Macedonia	MK	AEC
Cyprus	CY	OCECPR	Norway	NO	NKOM
Czech Republic	CZ	CTU	Poland	PL	UKE
Denmark	DK	DEA	Portugal	PT	ANACOM
Estonia	EE	ECSTRA	Romania	RO	ANCOM
Finland	FI	TRAFICOM	Serbia	RS	RATEL
France	FR	ARCEP	Slovakia	SK	RU
Germany	DE	BNETZA	Slovenia	SI	AKOS
Greece	EL	EETT	Spain	ES	CNMC
Hungary	HU	NMHH	Sweden	SE	PTS
Ireland	IE	COMREG	Switzerland	CH	BAKOM
Italy	IT	AGCOM	The Netherlands	NL	ACM
Latvia	LV	SPRK			

Table 30. Country codes

²⁴ The Eurostat country codes are available via the official link: http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Country_codes

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