BEREC
Body of European Regulators for Electronic Communications

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BEREC Report on the implementation of the Open Internet Regulation

2 October 2025

Contents

Executive Summary

This report gives an overview of the activities of the NRAs[1] in the course of implementing the Open Internet Regulation (OIR) (Regulation (EU) 2015/2120)[2] and associated BEREC Open Internet Guidelines[3]. This report reflects the ninth year of the application of the OIR, covering the period from 01 May 2024 to 30 April 2025. BEREC has gathered information from 30 NRAs[4] via an internal questionnaire. Descriptions of publicly known open internet cases or investigations that arose throughout the 12-month reporting period have been added to this information. However, this report does not constitute an exhaustive description of the current actions in the field of open internet, which are described in further details in the NRAs' annual reports on implementing the OIR.

The information in this report is organised according to the provisions of the OIR. For the preparation of this year's iteration, the internal questionnaire had 27 questions covering all the relevant aspects of the OIR. As the OIR is not directly applicable for ME[5], their replies were treated separately throughout the report, but included in the tables and figures.

Overall, monitoring and enforcement activities carried out by the NRAs over the last nine years have led to a consistent and harmonised application of the OIR, guaranteeing the freedom to innovate and protecting the end-users' rights.

NRAs take the following recurring actions, concerning **Article 3** of the OIR relating to end-users' rights to open internet access:

- information requests to ISPs,
- analysis of complaints or end-user reports,

[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.

[2] This report refers as "the OIR" 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 when they were replaced by the 2020 BEREC Guidelines on Open Internet published on 11 June 2020 which were updated and published on 09 June 2022 (BoR (22) 81). This report refers to "BEREC OI Guidelines".

[4] AT, BE, BG, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IE, IT, LI, LT, LU, LV, ME, MT, NL, NO, PL, PT, RO, SE, SI, SK

[5] ME is not an EU/EFTA Member State. However, in accordance with Article 35(2) of the Regulation (EU) 2018/1971, BEREC aims to facilitate the participation of third-country national regulatory authorities with primary responsibility in the field of electronic communications, provided that such countries have entered into relevant agreements with the European Union. As a candidate for EU membership, ME is eligible to participate in BEREC as a non-voting participant. Having been involved as an observer since 2011, Montenegro signed a new Agreement with BEREC on 9 June 2023. In this context, Montenegro has submitted a voluntary and non-binding application of the OIR, which is reflected in the present document.

- market surveys which do not involve requesting information from ISPs (e.g., checking ISPs' offers on their web pages).

These three actions continue to be used on an equal basis by most NRAs. Moreover, the majority of NRAs indicated that they combined all three of the above sources of information *to monitor the commercial and technical conditions* related to the provision of internet access services (IAS).

Three years since the European Court of Justice (ECJ) issued three important rulings (C-34/20 – Telekom Deutschland, C-854/19 – Vodafone and C-5/20 – Vodafone) regarding violations of the European Union (EU) OI rules, *zero-rating services* were reported by 10 NRAs. Nevertheless, in almost all of these countries, the services are provided based on the exceptions from Article 3(3) whilst in only in three countries, NRAs reported possible commercial zero-rating offers as part of legacy offers which are being phased out.

Regarding *traffic management practices*, almost all NRAs monitored these practices in one way or another, with analysis of end-user complaints (23) and information requests from ISPs (21) being the most common mentioned. Market surveys without requesting information from ISPs (16) follow in third place.

Concerning **Article 4** of the OIR on *monitoring ISPs' compliance with transparency and contractual terms*, most NRAs applied multiple approaches and often more than two. The top three activities used by NRAs to assess the ISPs' compliance with Article 4 were market surveys without requesting information from ISPs (21), analysis of end-user reports and complaints (21) and formal and informal requests for information from the ISPs (20). Also in the reporting period, 17 NRAs did a review of contracts, and they generally found that ISPs provide a definition of speeds in their contracts. Moreover, two NRAs reported that ISPs offered new contracts for hybrid services[6] in their countries. A great majority of NRAs (25 out of 30) monitor end-users' complaints regarding the performance of the IAS, while two thirds of the NRAs (22 out of 30) offer an IAS quality monitoring mechanism to consumers.

Concerning **Article 5** of the OIR on supervision and enforcement, the answers to the questionnaire indicated that most NRAs (24 out of 30) are monitoring the availability of high-speed IAS, with the most popular approaches being either through analysis of complaints and end-user reporting (17) or through information requests from ISPs (15). Technical network monitoring (10) follows in third place.

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 OIR-related court proceedings.

[6] Hybrid internet access services use a combination of technologies.

1. Article 3(1) to (3) – End-users' rights, agreements, traffic management

Question 1.a. Is there any change compared to the previous reporting period regarding to the **approach** you have taken **to monitor the commercial and technical conditions** related to the provision of internet access services (IAS)?

If *yes*, please provide details.

Question 1.b. Please specify what **approach** you have taken **to monitor the commercial and technical conditions** related to the provision of internet access services (IAS), in the reporting period:

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.

Regarding the approach taken by NRAs to monitor the commercial and technical conditions of IAS provisions, all but one of the responding NRAs (29) reported that there is no change compared to the previous reporting period.

ME, instead, reported changes due to the Law on electronic communications that entered into force in October 2024.

In order to monitor the commercial and technical conditions of IAS provisions, there are three main approaches adopted out of which at least one is applied by all NRAs: market survey without requesting information from ISPs (25 NRAs), information request from ISPs (25 NRAs) as well as analysis of complaints and end-user reporting (26 NRAs). Technical network monitoring (9 NRAs) is an approach used less than others. Also, ME reported using all these approaches in their monitoring activities. Further details are shown in the figure below:

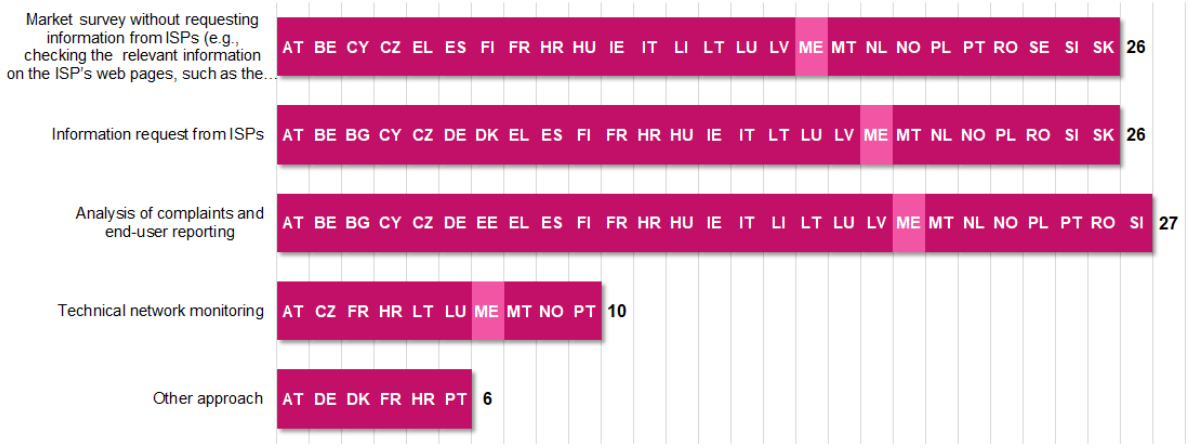

Figure 1. Approaches to monitor the commercial and technical conditions

In addition, six NRAs (AT, DE, EL, FR, HR, PT) also applied other approaches to monitor such commercial and technical conditions, as described in the following table:

NRA	Other approaches
AT	ISPs are obliged under the Austrian Telecommunications Act to notify their terms and conditions (T&Cs) to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. This is an on-going measure. Within this framework, the transparency obligations of the OIR are also checked and this enables RTR to monitor the commercial and technical conditions related to the provision of the IAS as well.
DE	Reacting to media reports on net neutrality.
DK	Monitoring is primarily based on answers from the ISP's collected for the annual report on the Danish supervision of the OIR as forwarded to BEREC each year.
FR	End-users can report issues on the online alert platform "J'alerte l'Arcep" and they can use the latest version of the traffic management application "Wehe" to help them detect potential traffic differentiations or port blockings implemented by their ISP.
HR	An end-user survey and on-site audits at points of sale were undertaken.
PT	Inspection actions were undertaken.

Table 1. Other approaches used to monitor commercial and technical conditions

Question 2. Pursuant to article 3(1), have you completed any **formal assessment** of **ISP restrictions on the use of technically compliant terminal equipment**, in the reporting period?

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

In the reporting period, seven NRAs (BG, CY, CZ, EL, HU, IT, SK) conducted formal assessments of ISP restrictions on the use of technically compliant terminal equipment, as described in the table below:

NRA	Formal assessment of ISP restrictions
BG	CRC collects information on ISP restrictions on the use of technically compliant terminal equipment through an annual questionnaire. The outcome is that no restrictions are applied by ISPs regarding the use of technically compliant terminal equipment.
CY	According to the provisions of the OIR (as interpreted in the BEREC OI Guidelines) as adopted in national secondary legislation (Decree 72/2017[7]), ISPs are required to report restrictions on the use of technically compliant terminal equipment. Following the collection of ISPs' reports, OCECPR's main findings were that most of ISPs offer their services accompanied with their own terminal equipment to be able to provide support and bundled services (telephony, internet, TV), or to avoid any modification that affects the speed provided. Based on ISPs' explanation, the provision of obligatory equipment by the ISPs is justified and compliant with the provisions of the OIR and the Decree. End-users have the right under Law 24(I)/2022 and OIR to use their own terminal equipment, but at the same time the provision of Article 6(2) of Decree 72/2017 allows providers to inform subscribers about technical parameters, including terminal equipment, that may affect service quality.
CZ	CTU continued its monitoring to ensure whether end-users' rights to use a terminal equipment of their choice according to Article 3(1) of the OIR are not being restricted. This was done through regular inspections, targeted requests for information and monitoring the nature of complaints. In the reporting period, there were three cases recorded of suspected restrictions on the free choice of terminal equipment. In only one case the inspection found that the use of a subscriber's chosen terminal device was restricted, including firmware updates, which required the service provider's cooperation. This restriction was assessed as an infringement of Article 3(1) of the OIR, leading to administrative proceedings against the ISP.
EL	Regarding possible violation of Article 3(1) of the OIR, a formal request for information was sent to ISPs regarding the restrictions they set on the usage of SIM

[7] Available at https://ocecpr.ee.cy/sites/default/files/ec_decree_networkneutrality_gr_kdp-72-2017_03-03-2017_ac.pdf

	cards in 4G/5G/FWA and hybrid routers. The outcome is that no restrictions are applied on the usage of physical mobile SIMs in access routers. Some restrictions do exist on the usage of the SIMs in FWA and hybrid routers (those supplied by the operators to customers with special terms) on cell phones.
HU	NMHH has checked certain tariffs intended to be used with smartwatches (e.g. for staying in contact with children or elderly persons), because there were indications that these tariffs may violate the freedom of the end user to use the terminal equipment of their choice. Conclusion of this review is expected during the 2025-2026 reporting period.
IT	Based on reports received from end users, an assessment was conducted regarding the technical characteristics of the Optical Network Terminal (ONT) devices supplied by some operators for FTTH connections when using a free modem. An infringement procedure was initiated against one operator for failing to ensure that users with a nominal connection speed of 2.5 Gbps could achieve that performance with their own routers: these users were provided with an external ONT capable of a maximum speed of only 1 Gbps, thereby limiting their maximum speed compared to those using the operator-provided router. Additionally, AGCOM, following a technical working group's collaboration with the operators, modified existing processes regarding the technical and commercial conditions for the provision of ONT devices for FTTH services offered by a wholesale operator (Decision no. 7/25/CIR).
SK	ISPs offer their terminal equipment for rent or sale, with the possibility of using end-users' own devices based on ISP recommendations to ensure compatibility with the IAS provided. Set-top boxes for IPTV are usually part of the TV service provided, while, for some types of technology, it is necessary to use the ISPs' equipment (e.g. ONT for GPON).

Table 2. Information on formal assessments of ISP restrictions on the use of technically compliant terminal equipment

Question 3. Has the **location of the Network Termination Point (NTP)** been formally determined in your country or has there been a legislative process to impose the access of free modems?

If *yes*, please provide details (e.g., when has the location of the NTP been determined or the access of free modems been imposed? Were BEREC's NTP Guidelines taken into consideration (both in case of determination of the location of the NTP or legislative process)? Is it location A, B or C (if necessary, depending on the type of network)? Links to relevant documents).

If *no*, please provide information if there are discussions or plans to specify the location of the NTP in your country and the reasons for this.

During the reporting period, none of the countries determined a new location for the NTP. For the previous definitions, please refer to Annex I.

Regarding the discussions or plans to specify the location of the NTP, in IT, AGCOM has initiated a procedure and a public consultation aimed at defining the NTP for IAS in fixed networks. This effort aims at reassessing the current restrictions on FTTH and FWA networks, particularly concerning the ONT (Optical Network Termination) device for FTTH technologies and the transceiver device for FWA technologies, while considering technological and market developments.

By contrast, 10 Member States (BG, EE, FR, LI, LT, LV, MT, PT, RO, SE) indicated that there are no plans to formally determine the location of the NTP.

Question 4.a. Are there still any types of **zero-rating services** available in your country on 30.04.2025?

If *yes*, please provide details. (e.g., What types of zero-rating are? Does any ISP still offer to conclude new contracts with zero-rating based on article 3(2)? Are there any plans to stop selling/marketing and/or to terminate existing contracts? If yes, until when?)

Question 4.b. Is there any change compared to the previous reporting period?

If *yes*, please provide details. (e.g., offers voluntarily stopped by ISPs or as imposed by the NRA, type of services added to or removed from the offers)

Question 4.c. Are any of the before-mentioned zero-rating services based on article 3(2)?

If *yes*, please provide details.

Question 4.d. Are any of the before-mentioned zero-rating services based on the exemptions from article 3(3)?

If *yes*, please provide details.

Nine NRAs (BE, EL, FR, HU, IE, IT, PL, PT, RO) and ME reported that, at the end of the current reporting period, there were some types of zero-rating services available in the respective national markets (see details in the table below):

NRA	Details on zero-rating services
BE	Emergency communications and public warning systems, volume and/or time consumption monitoring and communication of information based on the Roaming Regulation.
EL	Zero-rating offers can be permitted only based on the exceptions explicitly defined in the OIR. These exceptions are tele-education sites of the Ministry of Education, account balance information and data renewal pages of the mobile operators,

	internet-based speed metering applications (upload and download) and emergency communications services.
FR	Discussions are ongoing between Arcep and an ISP concerning the offer of a zero-rated live TV streaming service for mobile.
HU	The NRA has information that some MNOs may zero-rate access to their customer care facilities and/or to certain speed testing services.
IE	Required zero-rating for web pages containing operator roaming information, as mandated by BEREC's Retail Roaming Guidelines[8].
IT	No commercial zero-rating offers are present on the market. Some providers still zero-rate the data traffic of customer care apps.
ME	There are packages that include a specific amount of data intended exclusively for the use of applications like YouTube and Max. Once this data allowance is used up, any further traffic is deducted from the user's main internet package.
PL	On 20 May 2024, UKE issued post-audit recommendations for telecommunications companies to address irregularities related to Article 3 of the OIR. First, the recommendations required companies to discontinue the conclusion of agreements and the use of standard contracts covering services billed in the zero-rating model within 30 days. Second, they must amend the zero-rating clauses in contracts already in force so that, no later than 24 months after the recommendations' delivery date (i.e. end of May 2026), the operators will no longer provide any zero-rated services under internet access agreements concluded before the end of the initial 30-day period. The 24-month window was set to ensure that contracts with zero-rated services expire naturally, as these agreements cannot exceed a duration of 24 months, thereby aligning with Article 3(3) of the OIR.
PT	ANACOM approved on 01 March 2023 the final decision on zero-rating and similar offers in Portugal[9]. According to this decision: a) ISPs had to cease zero-rating and similar offers not compliant with Article 3(3) of the OIR, for new contracts by 31 March 2023; b) existing contracts with zero-rating offers had to be phased out by 14 July 2023, unless end users with ongoing loyalty periods chose to maintain their offers until the end of the loyalty period. Therefore, on 30 April 2025, there may still exist a few zero-rating and similar offers for contracts currently in execution, considering that the loyalty period can go up to two years.
RO	No more commercial zero-rating offers. Netograf (Romanian measurement tool) and some emergency applications are still zero-rated.

Table 3. Details on zero-rating services

[8] BEREC Guidelines on Regulation (EU) 2022/612 and Commission Implementing Regulation (EU) 2016/2286 (BoR (22) 174)
[9] Available at https://www.anacom.pt/render.jsp?contentId=1742492

Three NRAs (FR, PL, PT) reported that at least some of the above-mentioned zero-rating services are assessed on the basis of **Article 3(2)** of the OIR.

Two NRAs (CZ, RO) responded that there are changes compared to the previous reporting period, as detailed in the table below:

NRA	Changes compared to the previous reporting period
CZ	CTU continued to focus on the business practices of ISPs, including zero-rating practices. In February 2025, Act No. 23/2025 Coll. was approved, amending the Electronic Communications Act. This amendment provides an exemption under Article 3(3)(a) of the OIR for emergency communications made via data streams. Its purpose is to promote alternative methods of emergency communication, e.g. with the use of applications, and to allow the free use of such applications for end-users without counting the data consumed towards the data limit of the IAS. This part of the amendment will come into force in July 2025.
RO	All operators gradually phased out all their commercial zero-rating offers.

Table 4. Changes compared to the previous reporting period on zero-rating services

Six NRAs (BE, CZ, EL, HU, IE, RO) reported that there are zero-rating services based on the exemptions from **Article 3(3)** of the OIR (see the table below for more details):

NRA	Services based on the exemptions from Article 3(3)
BE	Regulation (EU) 2022/612[10] obliges operators to give roaming customers certain information free of charge: articles 13 and 15 require a no-cost webpage on chargeable and emergency services, while article 14 mandates free access — potentially via a zero-rated app — to data-usage details. BIPT has not yet formally verified this.
CZ	See the response above (in Table 4) on legislative amendment regarding the emergency communication carried through data flow.
EL	The zero-rating of tele-education web pages and services of the Ministry of Education are explicitly allowed by the national OI Regulation.
HU	In preliminary discussions, at least one MNO has pointed out that zero-rated access to customer care services may be handled similarly to offering toll-free access to their customer services call centre from within their own network, the latter of which is mandatory according to national legislation.
IE	The required zero-rating for web pages containing operator roaming information, as mandated by BEREC's Retail Roaming Guidelines.

[10] Regulation (EU) 2022/612 of the European Parliament and of the Council of 6 April 2022 on roaming on public mobile communications networks within the Union

RO	The national QoS measurement tool (Netograf) is zero-rated by means of an ANCOM Decision.

Table 5. Details regarding services based on the exemptions from Article 3(3)

Question 5. Pursuant to article 3(2), have you performed any **formal assessment** of **agreements on commercial and technical conditions as well as commercial practices** such as application-agnostic differentiated pricing, in the reporting period?

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

In the reporting period, five NRAs (AT, CY, CZ, MT, NO) performed formal assessments of agreements on commercial and technical conditions as well as commercial practices such as application-agnostic differentiated pricing (see the table below):

NRA	Conclusions of the assessments
AT	ISPs are obliged under the Austrian Telecommunications Act to notify their terms and conditions (T&Cs) to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. This is an on-going measure. Within this framework also the transparency obligations of the OIR are checked and this enables RTR to monitor agreements on commercial and technical conditions as well as commercial practices on an ongoing basis.
CY	According to the provisions of the OIR (as interpreted in BEREC OI Guidelines), ISPs reported to OCECPR regarding their agreements on commercial and technical conditions, as well as their commercial practices. Following the assessment of ISPs' reports, OCECPR concluded that the agreements on commercial and technical conditions and on commercial practices performed by ISPs do not constitute an infringement of the OIR.
CZ	CTU continued to monitor and assess selected business practices of ISPs including zero-rating practices, among others, by monitoring the published contractual ISPs' T&Cs.
MT	One provider of eSIM services was suspected to provide a zero-rating offer. The T&Cs and marketing information was analysed, and the provider was asked for details of traffic management and zero-rating policies applied. Once it was confirmed that no zero-rating was in effect, MCA instructed the provider to revise the language in the T&Cs and other marketing materials to accurately reflect the traffic management practices in place.
NO	Assessments were made in connection with the work on the annual OI report, resulting in high-level conclusions and no concrete enforcement actions.

Table 6. Conclusions of the assessments on commercial practices

Question 6.a. Is there any change compared to the previous reporting period regarding to the **approach** you have taken **to monitor the traffic management practices** of ISPs?

If *yes*, please provide details.

Question 6.b. Please specify what **approach** you have taken **to monitor the traffic management practices** of ISPs, in the reporting period:

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.

No NRA reported a change in the approach taken to monitor the traffic management practices of ISPs compared to the previous reporting period. The most widely used approach was the analysis of complaints and end-user reporting (22 NRAs) followed by information requests (20 NRAs) and market surveys (15 NRAs). Also, ME reported all the 3-above approaches in their monitoring activities.

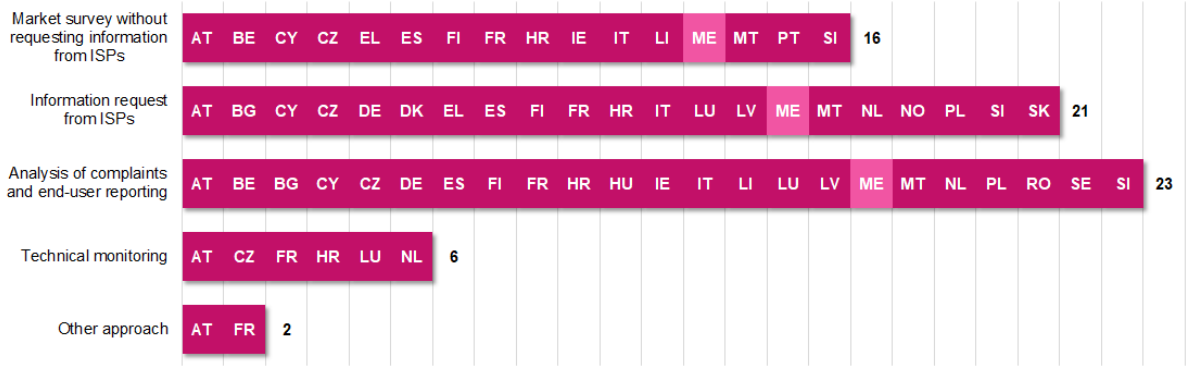

Figure 2. Approaches to monitor traffic management practices

Two NRAs (AT, FR) specified which additional approaches they have undertaken during the reporting period.

NRA	Additional approaches
AT	ISPs are obliged under the Austrian Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. This is an on-going measure. Within this framework also the

	transparency obligation of the OIR are checked and this enables RTR to monitor the traffic management practices of ISPs as well.
FR	End users can report issues on the online alert platform "J'alerte l'Arcep" and they can use the traffic management application Wehe to help them detect potential traffic differentiations or port blockings implemented by their ISP.

Table 7. Additional approaches used by NRAs

Question 7. Pursuant to article 3(3) subs. 1 to 3, have you completed any **formal assessment** of an ISP's **traffic management practices**, in the reporting period?

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

Nine NRAs (AT, BG, CY, CZ, EL, FR, IT, NL, SK) provided details regarding formal assessments of ISPs' traffic management practices. While no formal assessment was done, DE pointed out some activities which were undertaken.

NRA	Formal assessments of traffic management practices
AT	RTR had a number of formal proceedings in regard to supervisory procedures relating to website blocking due to copyright issues, due to the EU sanctions against Russia and non-allocation of (at least) dynamic IPv4-adresses. Most of the procedures were dropped as no breach of Article 3 of the OIR was identified. However, some procedures identified a violation of Article 3 due to dangers of overblocking of unrelated content when IP-blocking is performed. Although some of the ISPs ended these measures, other rights-holder appealed to the Austrian Federal Administrative Court. During the appeal procedure, the Austrian Federal Administrative Court referred three out of eight similar cases to the European Court of Justice for preliminary proceedings, in particular regarding the question whether IP-blocking is in compliance with the law of the European Union. However, the rights holder withdrew the appeal in the national appeal procedure, resulting in termination of the proceedings. This is why, the preliminary questions of the Austrian Federal Administrative Court became obsolete. Consequently, the European Court of Justice removed the joint cases C-832/24 to C-834/24 from the register of the Court of Justice and the decisions of the Austrian Telekom-Control Commission (TKK) have taken legal effect.
BG	CRC collects information regarding traffic management with a dedicated questionnaire on an annual basis. The conclusion is that the traffic management applied from ISPs is in line with Article 3(3) subs. 1-3 of the OIR.
CY	According to the provisions of the OIR (as interpreted in BEREC OI Guidelines), ISPs reported to OCECPR on traffic management practices. Following an

	assessment of the reports, OCECPR concluded that any traffic management practices used by ISPs do not constitute an infringement of the OIR.
CZ	During the reporting period, CTU received four complaints related to Article 3(3) of the OIR. Out of these, two complaints related to suspected restrictions on the speed of the IAS provided, and two were complaints of different treatment of the traffic. Based on these complaints, four inspections were carried out to ensure compliance with Article 3(3) of the OIR. In one case, it was found that a provider carried out targeted speed restrictions in the download direction after a certain period of full loading on the IAS. Based on this finding, CTU initiated an administrative procedure which has been ongoing by the end of the reporting period. In the second case, the inspection did not reveal any misconduct. As regards the different treatment of traffic, an inspection was carried out focusing on both the mobile IAS and the IAS at a fixed location. The inspection concerning the mobile IAS found that there was a dual provision of quality of the mobile IAS in terms of download and upload speeds and the data traffic was managed dependently in terms of the NetTest and SpeedTest (Ookla) measuring applications. Based on this finding, an administrative procedure will be initiated. In addition, an inspection is underway concerning the fixed IAS, which has not yet been completed by the end of the reporting period.
DE	BNetzA has received eight consumer requests which asked BNetzA to order "network blocking" during this reporting period. The inquiries mainly concerned deletion or blocking of fake shops, internet forums with infringing content, or typo-squatting web pages. The BNetzA pointed out the lack of jurisdiction for DNS blocking. Furthermore, the consumers were informed about possibilities how to achieve their aims (e.g. notifying the hosting provider and asking for deletion of the website). The procedure varies from case to case. BNetzA also provides general information on its homepage[11]). Moreover, BNetzA still assesses recommendations of the "Clearingstelle Urheberrecht im Internet" regarding domains which contain copyright infringing content (e.g. movies, gaming) and monitors that the blocking of websites due to copyright infringements is in line with the OI rules. BNetzA has also initiated proceedings against a company that uses an unlawful clause in its general T&Cs. The decision was contested end of March 2025 and is currently in court. It concerns a clause that penalises individual users of a contract in an overloaded cell if they have previously made heavy use of their unlimited tariff. In BNetzA's view, this is a violation of Article 3(3) sub. 1 of the OIR.
EL	A formal request for information was sent to the ISPs regarding the exception (b) of Article 3(3) of OIR, on the use of Domain Name/URL blocking as a security measure for the protection of networks/services and end-user equipment. The investigation for the assessment of the measure is ongoing.

[11] Available at https://www.bundesnetzagentur.de/654104

FR	Arcep is still assessing possible traffic management practices. No conclusion has been reached so far and Arcep is currently monitoring the case
IT	In the previous reporting period, an information request was sent to the main operators regarding traffic management practices as reported in Article 3(3) subs. 2 and 3. The request regarded fixed, FWA and mobile networks. After a first analysis of the responses received, a further information request was sent to some of the respondents, in April 2024, to gather some additional information. During the reporting period, AGCOM completed the analysis of the feedback on these requests for further investigation, without identifying any issues.
NL	Ongoing investigation of commercial traffic shaping in the context of in-flight Wi-Fi.
SK	ISPs follow practices imposed by European or national legislation. In exceptional cases and based on a decision by a state-authorized body, such as a court, traffic can be blocked in accordance with such an order/request.

Table 8. Formal assessments of ISP's traffic management practices

Question 8. In the reporting period, have you conducted any **research or survey** on **port blocking practices** by ISPs?

If *yes*, please briefly describe the main findings.

Seven NRAs (AT, EL, HR, MT, NL, PL, SK) primarily monitor activities through annual surveys. Most results indicate that port blocking is only performed for reasons of network security and integrity.

NRA	Port blocking practices
AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. Thus, RTR may come across issues of port blocking when checking the T&Cs. Occasionally, ISPs or end-users contact the NRA and enquire if the blocking of a certain port is in line with the OIR.
EL	Use of port blocking has been reported for fixed and mobile networks in all operators' answers to the annual questionnaire which EETT circulated regarding the year 2024. Where automatic port blocking is used, it is reported as being temporary. Two fixed operators reported use of permanent manual port blocking. There does not seem to be a set of ports uniformly blocked by all ISPs. Main purposes: preventing DDoS attacks, preventing spam and phishing messages that target private data, preventing port scans and amplifications attacks, preventing unauthorized access to networks and services.
HR	HAKOM monitors port-blocking practices of major ISPs. Gathered response from conducted survey among ISPs and according to the HAKOMetar Plus measurement

	results on port blocking practices showed that ISPs do not use permanent port-blocking measures, just temporarily justify it with the security exception (malware, phishing, spoofing, preventing DDoS attacks, etc.). No new ports were reported to be blocked in comparison to previous years.
MT	Providers were asked to declare any active port blocking which applied in the network along with reason for doing so. All active port blocking is justified for network security reasons.
NL	ACM has been in contact with ISPs in response to reports from customers about port blocking which end users needed for services such as email or VoIP. In some cases, blocking ports is necessary for network security or to prevent abuse, and is therefore permitted. The interventions resulted in ports being unblocked or in customers being given clear explanations about permissible blocking conditions.
PL	Some ISPs (6 out of 27 surveyed) informed UKE about blocking ports. 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.
SK	ISPs block port 25, which is traditionally used to transport emails in unencrypted form. Blocking selected communication ports for residential customers in order to protect their communication devices; blocking does not affect service provision. Blocking the management of dynamic IP address ports that can be exploited to take control of customer premises equipment for remote access in broadband networks.

Table 9. Port blocking practices

2. Article 3(5) – Specialised services

Question 9.a. Is there any change compared to the previous reporting period regarding to the **approach** you have taken **to monitor services other than IAS (called "specialised services"** below)?

If *yes*, please provide details.

Question 9.b. Please specify what **approach** you have taken **to monitor the specialised services**:

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.

In the reporting period, in general, there was no change to the previous reporting period regarding the approach of the NRAs to monitor the specialised services. However, one NRA (LU) pointed out that there was a change when compared to the previous reporting period. LU stated that they paused this activity in the reporting period but resumed it in May 2025.

Many NRAs applied at least one of the following approaches to monitoring specialised services: market survey without requesting information from ISPs (13), information requests from ISPs (17) and analysis of end-user complaints (19). ME also reported using these three approaches. Additionally, two NRAs performed technical network monitoring.

Two NRAs indicated different approaches. BE is responding to ad hoc questions for verification by ISP. DK's approach is primarily based on answers from the ISPs collected for the annual report on the Danish supervision of the OIR.

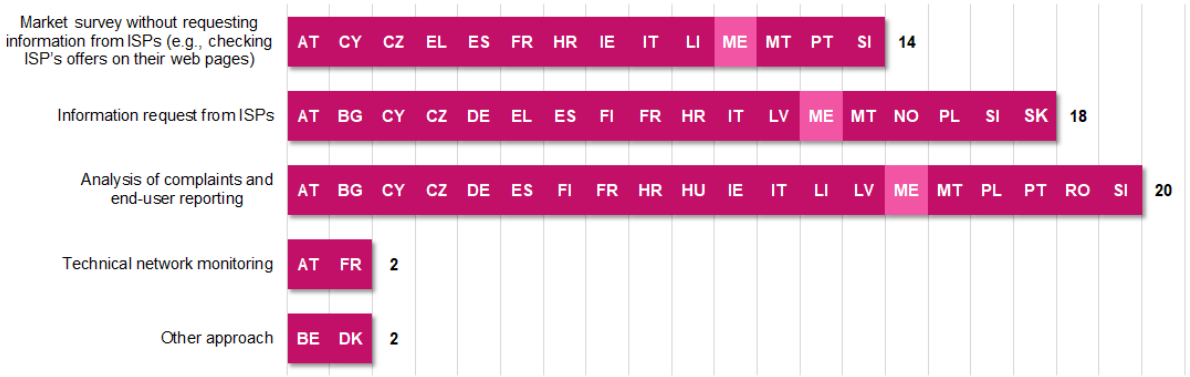

Figure 3. Approaches to monitor specialised services

Question 10. In the reporting period, have you completed any **formal assessment** of **the provision of specialised services** by ISPs?

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

Three NRAs (CY, DK, IT) have completed a formal assessment of the provision of specialised services by ISPs. The details can be found in the following table:

NRA	Assessment of specialised services
CY	According to the provisions of the OIR (as interpreted in BEREC OI Guidelines), as adopted in national secondary legislation (Decree 72/2017), ISPs reported to OCECPR on specialised services. Following the assessment of ISPs reports,

	OCECPR concluded that provision of the type of specialised services offered by ISPs does not constitute an infringement of the OIR.
DK	In the annual report on the Danish supervision of the OIR, ADG assesses that there are no issues related to the Danish ISPs' provision of specialised services.
IT	In the previous reporting period, an information request was sent to the main operators regarding the specialised services offered and the related optimisation measures, according to Article 3(5) of the OIR. After an initial analysis of the responses received, a further information request was sent to a respondent, in April 2024, to gather some additional information. During the reporting period, AGCOM completed the analysis of the feedback received, without identifying any issues.

Table 10. Assessment of specialised services

3. Article 4(1) – Approaches to monitoring and enforcement compliance

Question 11.a. Is there any change compared to the previous reporting period regarding to the **approach** you have taken **to monitor and to enforce ISPs' compliance with their transparency** obligations set out in article 4?

If *yes*, please provide details.

Question 11.b. Please specify what **approach** you have taken **to monitor and to enforce 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, please specify.

In the reporting period, in general, there was no change to the previous reporting period regarding the approach of the NRAs to monitor and enforce ISPs' compliance with their transparency obligations. However, two NRAs (LU, PT) pointed out a change when compared to the previous reporting period. LU stated that they paused this activity in the reporting period but resume it in May 2025. PT analysed the contractual T&Cs used by the main ISPs, including a new ISP, in their contracts and monitored the information published on their websites, requesting when needed the amendment of the information published in accordance with the requirements set out in Article 4(1), subs. a-e, of the OIR.

As shown in the figure below, most NRAs used one or more approaches to monitor and to enforce ISPs' compliance with their transparency obligations set out in Article 4 of the OIR: market surveys without requesting information from ISPs (20 and ME), information requests to ISPs (20) and analysis of complaints and end-users' reports (21).

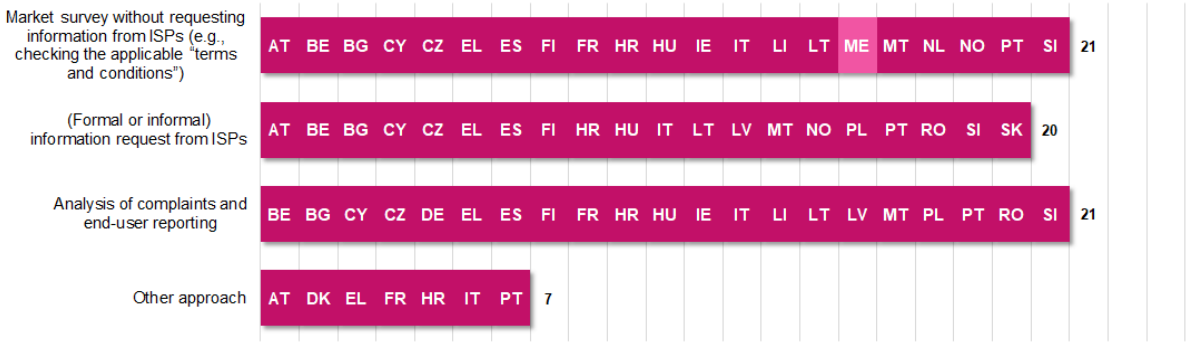

Figure 4. Approaches regarding monitoring and enforcing ISPs' compliance with their transparency obligations set out in Article 4 of the OIR

Furthermore, seven NRAs (AT, DK, EL, FR, HR, IT, PT) mentioned other approaches, as detailed in the table below:

NRA	Description of other approaches
AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. This is an on-going measure. Within this framework also the transparency obligation of the OIR are checked. RTR is entitled to object to specific clauses within 6 weeks if they do not meet particular legal standards.
DK	In 2024, 44 ISPs were requested to inform ADG how they comply with Article 4 of the OIR.
EL	Audits at points of sale of ISPs' commercial products/offers.
FR	Article 45 of the Executive Order n°2021-650 published the 26 May 2021 adds Article L224-27-1 to the French Consumer Code, which mentions that operators must comply with the transparency measures of Article 4(1) of the OIR.
HR	On-site audits at points of sale.
IT	Publishing statistical comparative values of ISPs' QoS results. Also, AGCOM runs a surveillance activity on service and general conditions contents.
PT	In the reporting period, ANACOM analysed the contractual T&Cs used by the main ISPs, including a new ISP, in their contracts and monitored the information published on their websites, requesting when needed the amendment of the information

	published in accordance with the requirements set out in Article 4(1), subs. a-e, of the OIR.

Table 11. Description of other approaches to monitor ISPs' compliance with the transparency obligations

Question 12. In the reporting period, have you completed any **formal assessment** of the **ISPs' contract conditions and their compliance with requirements** set out in article 4(1), subs. a-e?

If *yes*, please describe the main findings.

In 12 Member States (AT, BG, CY, CZ, DK, EL, HR, IE, IT, LI, NL, SK), a formal assessment of the ISPs' contract conditions and their compliance with requirements set out in Article 4(1) subs. a-e was completed by the respective NRAs in the reporting period (see the table below). No formal assessment was carried out in 17 Member States (BE, DE, EE, ES, FI, FR, HU, LT, LU, LV, MT, NO, PL, PT, RO, SE, SI) as well as in ME.

NRA	ISPs' contract conditions
AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. This is an on-going measure. Within this framework also the transparency obligations of the OIR are checked. RTR is entitled to object to specific clauses within 6 weeks if they do not meet particular legal standards.
BG	CRC collects such information with a dedicated questionnaire on annual basis. ISPs declare that speeds and traffic management rules are described along with a short explanation in contracts. Some of the ISPs declare that information for speeds is also part of contract summaries.
CY	ISPs have submitted their contracts to OCECPR, according to the provisions of the OIR and the Decree. Further to OCECPR's assessment of the contracts, ISPs comply with the requirements set out in Article 4(1) of the OIR.
CZ	Within its supervisory activities, CTU focused on the fulfilment of the requirements concerning transparency and disclosure of both pre-contractual information under national law and mandatory information under Article 4(1) subs. a-e of the OIR. For this reason, it monitored whether ISPs comply with the requirements laid down for the content, form and manner of publication of such information. During the reporting period, CTU carried out an inspection to examine how information on the change of ISPs is implemented in the contractual T&Cs. This nationwide inspection was carried out on 240 selected providers. A total of 211 providers were fined in follow-up administrative proceedings.

DK	In 2024, an assessment revealed that some ISPs in Denmark did not fully comply with the information requirements specified in Article 4 of the OIR. The percentages of ISPs meeting each requirement ranged from 46% to 77%. A review of the responses revealed that the low compliance rate was due to an inappropriate design of the NRA's questionnaire. In 2025, the questionnaire will be improved.
EL	A letter was sent to an operator to correct a sentence in the contractual conditions regarding subscriber compensations.
HR	Since operators in Croatia are obliged under the Croatian Telecommunications Act (ZEK) to notify their T&Cs to HAKOM before they launch a communication service, HAKOM regularly checks if they meet particular legal standards set out in the ZEK and in compliance with the OIR. Changes of previously approved T&Cs must be notified as well. Transparency is generally at a satisfactory level.
IE	One MVNO was found to not have the necessary information, but this has since been remedied.
IT	AGCOM currently verifies contractual conditions and operators' terms of service, publishing them on its web site[12].
LI	The information on minimum, typical and maximum throughput as well as data volume restrictions and other performance indicators were verified in assessments with internet service providers in our market. For this purpose, we developed a checklist for providers to ensure that all consumer contracts comply with the requirements of the new legislation. Subsequently, all providers amended their terms and conditions accordingly and made them available to the authority.
NL	Ongoing investigation of commercial traffic shaping in the context of in-flight Wi-Fi.
SK	ISPs' contract conditions comply with requirements Article 4 of the OIR.

Table 12. Main findings of assessing the ISPs' contract conditions

Question 13.a. In the reporting period, have **any new national specifications** been set or changed in relation to the **different types of speeds** laid out in article 4(1), sub. d.?

If *yes*, please provide details.

Question 13.b. Were these requirements:

i. imposed by the NRA or another competent Authority?
ii. agreed upon by market players?
iii. legally binding?

[12] Available at https://www.agcom.it/la-carta-dei-servizi

In the reporting period, new national specifications of the different types of speeds were set by one Member State (EL) and were imposed by the respective NRA. Further information is outlined in the table below:

NRA	National specifications
EL	As of 26 February 2025, according to the new national OI Regulation published in the Gov. Gazzete, OJ 1282/B/26-2-2024, the following additional requirements entered into force regarding the maximum download/upload speeds in mobile networks: The operators are obliged to provide updated data per area on their online speed maps with respect to the definition of the seven new classes of the maximum speed and, also, they are obliged to update their online maps, if needed, every 6 months.

Table 13. National specifications of speeds set in the reporting period

For further details regarding the NRAs' existing national specifications in relation to the different types of speeds, please refer to Annex I of this report.

Question 14. In the reporting period, has your NRA reviewed **the terms and conditions in ISP contracts for IAS in the fixed networks**? Please also consider hybrid services (see also Q16).

If *yes*¸ did ISPs **define** minimum, maximum, advertised and normally available upload and download speeds?

Please briefly explain the main findings.

In the reporting period, the T&Cs in ISPs' contracts for **fixed** networks were reviewed in 16 Member States (AT, BG, CY, CZ, DK, FI, HR, HU, IE, IT, LI, MT, NO, PT, SI, SK), while in 13 Member States (BE, DE, EE, EL, ES, FR, LT, LU, LV, NL, PL, RO, SE) NRAs did not carry out such a review. ME also did not carry out such a review.

An overview of the main findings of these revisions is shown in the table below. In general, the contracts contain information on normally available, minimum, maximum and advertised upload and download speeds in 15 Member States (AT, BG, CY, CZ, DK, FI, HR, HU, IE, IT, LI, MT, PT, SI, SK), while in one Member State (NO), the ISPs provided information about the speed parameters to varying degrees. This information is based on a review of the T&Cs of the ISPs, overall, the minimum, maximum, advertised and normally available upload and download speeds are defined and if there are definitions or recommendations of the NRAs, they are in line with these.

NRA	Definition of speeds in fixed contracts

AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. Within this framework also the transparency obligation of the OIR are checked. In this regard, RTR checks if the providers stick to the terminology as used in the OIR. RTR is entitled to object to specific clauses within 6 weeks if they do not meet particular legal standards. This is an on-going measure.
BG	Defined speeds are in line with the OIR and CRC's Position (Decision No. 170/18.04.2019).
CY	ISPs defined in their contracts minimum, maximum and normally available upload and download speeds of IAS in the fixed network as described in answers provided to Question 13.
CZ	Within its supervisory activities, CTU focused on the fulfilment of the requirements concerning transparency and disclosure of both pre-contractual information under national law and mandatory information under Article 4(1) subs. a-e of the OIR regarding both the IAS at a fixed location and the mobile IAS.
DK	The review assessed whether ISPs defined minimum, normally available, maximum, and advertised upload and download speeds in their contracts. The main findings indicate that there is a varying degree of compliance among ISPs regarding the inclusion of these speed definitions in their contracts. Specifically, 74% of ISPs provided a clear and understandable explanation of the minimum, normally available, maximum, and advertised upload and download speeds.
FI	Based on informal discussions with an operator they changed their FWA speed definitions to be in line with Traficom’s guidance.
HR	Based on the conducted review of the T&Cs in ISP contracts, HAKOM conclude that ISPs are in compliance with the OIR.
HU	Review of T&Cs is an on-going activity, which is conducted not just as a targeted measure but also in individual cases based on end-users’ complaints.
IT	Following the publication of the guidelines for the application of resolution no. 156/23/CONS, operators have published, for all fixed network offers (including FWA), marketed as of the date the resolution came into effect, the normally available speeds and maximum speeds in addition to the already published minimum speeds. With regard to speeds, the guidelines establish the following definitions: • Minimum speeds: 95th percentiles of the data transmission speeds in download/upload measured during the entire observation period, meaning the measured values for which 95% of the transfer speeds recorded during the observation period are greater than these values. • Normally available speeds: 75th percentiles of the data transmission speeds in download/upload measured during the entire observation period, meaning the measured values for which 75% of the transfer speeds recorded during the observation period are greater than these values. • Maximum speeds: the maximum values of the data transmission speeds in download/upload measured during the entire observation period.

LI	Minimum requirements are fulfilled.
MT	ISPs indicate their speeds using the Typical Speed Range (TSR) in accordance to MCA decision published in 2016.
NO	Nkom has observed that the operators provide information about the speed parameters to varying degrees. Nkom will do an assessment of whether there is a need for regulatory follow-up.
PT	The main ISPs defined, in their websites and contracts, the different speeds of the IAS in the fixed network. In general, ISPs provide information on minimum, normally available, maximum and advertised, download and upload, speed of the IAS, as well as an explanation for each type of speed.
SI	Based on AKOS' survey, all major and large majority of small ISPs define in their contracts the minimum, maximum, advertised and normally available upload and download speeds of the IAS.
SK	According to outcome of the information request of selected ISPs, all of them defined in their contracts minimum, maximum, advertised and normally available upload and download speeds.

Table 14. Main findings of assessing fixed ISPs' contracts regarding definition of speeds

Question 15. In the reporting period, has your NRA **reviewed the terms and conditions in ISP contracts for IAS in the mobile networks**? Please also consider hybrid services (see also Q16).

If *yes*, did they **define** advertised and estimated maximum upload and download speeds?

Please briefly explain the main findings.

If available, please provide information regarding contractual conditions, such as examples of "realistic usage conditions" under which the estimated maximum speed can be achieved (paragraph 153 of BEREC OI Guidelines).

In the reporting period, the T&Cs in ISPs' contracts for **mobile** networks were reviewed in 15 Member States (AT, BG, CY, CZ, DK, HR, IE, IT, LT, MT, NL, NO, PT, SI, SK), while 14 NRAs (BE, DE, EE, EL, ES, FI, FR, HU, LI, LU, LV, PL, RO, SE) did not review the T&Cs. Also, ME did not review the T&Cs.

Of those who reviewed the T&Cs of the ISPs, in 12 Member States (AT, BG, CY, CZ, DK, HR, IT, MT, NO, PT, SI, SK), the advertised and estimated maximum upload and download speed have been defined in the T&Cs. In two Member States (LT, NL), the ISPs did not define these.

An overview of the main findings of these revisions is shown in the table below. Most contracts contain information on advertised and estimated maximum upload and download speeds. The revision of T&Cs by the NRAs focused on a wide variety of topics.

NRA	Definition of speeds in mobile contracts
AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. Within this framework the transparency obligations of the OIR are also checked. In this regard RTR checks if the providers stick to the terminology as used in the OIR. RTR is entitled to object specific clauses within 6 weeks if they do not meet particular legal standards. This is an on-going measure.
BG	Defined speeds are in line with the OIR and CRC's Position (Decision No. 170/18.04.2019).
CY	OCECPR has reviewed the contracts of mobile ISPs. The main finding is that ISPs defined, where applicable, in their contracts the advertised speed, in percentage to the estimated maximum speed. Following an assessment of the reports, OCECPR's main findings were that an ISP use some practices which may constitute infringement of the provisions of the OIR. OCECPR informed the ISP concerned that their practices may constitute an infringement and requested further action in order to ensure compliance with the provisions of the OIR and Decree 72/2017.
CZ	Within its supervisory activities, CTU focused on the fulfilment of the requirements concerning transparency and disclosure of both pre-contractual information under national law and mandatory information under Article 4(1) subs. a-e of the OIR regarding both the IAS at a fixed location and the mobile IAS.
DK	The review assessed whether ISPs defined minimum, normally available, maximum, and advertised upload and download speeds in their contracts. The main findings indicate that there is a varying degree of compliance among ISPs regarding the inclusion of these speed definitions in their contracts. Specifically, 74% of ISPs provided a clear and understandable explanation of the minimum, normally available, maximum, and advertised upload and download speeds.
HR	Mobile ISPs are in compliance with the OIR. ISPs defined in their contracts advertised and estimated maximum upload and download speeds of the IAS (estimated maximum speeds are made available in a geographical manner providing mobile IAS coverage maps with estimated speed values of network coverage in all locations for different network technologies).
IT	With the resolution n. 23/23/CONS, Agcom has introduced in Italian regulation the estimated maximum and advertised download and upload speeds of the IAS in the case of mobile networks. Estimated maximum speeds shall be indicated for each technology, together with coverage maps (with a resolution of at least 100 meters) for each network technology. Advertised speeds are the speeds that the operator uses in the commercial communications, including advertising and marketing, and are the speeds that the operator is realistically able to provide to its users, under conditions of normal use, in the national territory.
MT	Providers indicate the speeds attainable through the network and the limitations available to the subscriber to achieve such speeds.
NO	ISPs defined the required speed parameters.

PT	The main ISPs defined, in their websites and contracts, the different speeds of the IAS in the mobile network. In general, ISPs provide information on estimated maximum and advertised, download and upload, speed of the IAS, as well as an explanation for each type of speed.
SI	All major ISPs defined in their contracts evaluated maximum and advertised upload and download speeds of the IAS. Speed is defined based on contractual package.
SK	According to the outcome of an information request sent to selected ISPs, all of them defined in their contracts estimated maximum upload and download speeds.

Table 15. Main findings of assessing mobile ISPs' contracts regarding definition of speeds

Information regarding contractual conditions, such as examples of "realistic usage conditions" under which the estimated maximum speed can be achieved (paragraph 153 of the BEREC OI Guidelines) were provided by seven Member States (BG, DE, FI, FR, MT, PT, SI) as described in the table below:

NRA	Main findings
BG	The estimated maximum speed is specified separately for different network technologies with a note that it is in ideal conditions. General T&Cs contain a text like this: "The speed and quality of IAS depend on the type of technology, the type of device used, the coverage and the network load, the simultaneous use of the service by several devices, architectural and geographical features."
DE	While BNetzA did not carry out an overall market monitoring of T&Cs in ISP contracts regarding mobile networks, BNetzA has initiated proceedings against a company that uses an unlawful clause in its general T&Cs. The decision was contested at the end of March 2025 and is currently in court. It concerns a clause that penalises individual users of a contract in an overloaded cell if they have previously made heavy use of their unlimited tariff. In BNetzA's view, this is a violation of Article 3(3) sub. 1 of the OIR.
FI	Information can be seen in Traficom's Opinion on speeds[13].
FR	ISPs only define the theoretical maximum speed for their mobile access offers in their mobile contracts, that is the maximal reachable speed for a given access technology (2G, 3G, 4G and 5G).
MT	Realistic usage conditions are provided indicating typical types of activities e.g. video streaming at different qualities etc.
PT	The main ISPs provide the definition of estimated maximum speed and identify the factors that might affect that speed, in accordance with paragraph 153 of the BEREC OI Guidelines.

[13] Available at https://www.traficom.fi/sites/default/files/media/regulation/Verkkoneutraliteettikannanotto-mobiililaajakaistaliittymista_EN.pdf

SI	Estimated maximum speed is defined as a speed which is achievable based on contractual package, current radio signal quality, current available resources in the cell, terminal equipment, current used access mobile technology (2G, 3G, 4G, 5G).

Table 16. Main findings of assessing mobile ISPs' contracts regarding examples of "realistic usage conditions"

Question 16. In the reporting period, have any ISPs offered **new hybrid services** in your country (as specified in paragraph 141.b. of BEREC OI Guidelines)?

If *yes*, please provide details.

In two Member States (DK, PT), new hybrid services were offered in the reporting period (see the table below), while in the rest of the Member States (AT, BE, BG, CY, CZ, DE, EE, EL, ES, FI, FR, HR, HU, IE, IT, LI, LT, LU, LV, MT, NL, NO, PL, RO, SE, SI, SK) and ME, no new hybrid services are available.

NRA	Information on new hybrid services
DK	Fixed Wireless Broadband is used in several rural areas.
PT	The major ISPs in Portugal offer hybrid services namely in areas not covered by VHCN (Fiber or Docsis3.1). These offers include wireless (LTE) technologies for the provision of IAS at a fixed location.

Table 17. Main findings on information on hybrid services

Question 17. In the reporting period, have you completed any **formal assessment of the ISPs' obligation to publish**, according to article 4(1), sub. 2, the information referred to in article 4(1), subs. 1 a-e?

If *yes*, please provide details.

Formal assessments of the ISPs' obligation to publish information according to Article 4(1) of the OIR were carried out in seven Member States (AT, BG, CY, CZ, IT, NL, SK), in one Member State (DE) ad hoc actions took place, while in rest the of 21 Member States no formal assessment was completed (BE, DK, EE, EL, ES, FI, FR, HR, HU, IE, LI, LT, LU, LV, MT, NO, PL, PT, RO, SE, SI). Also, no formal assessment was completed in ME. A detailed overview is shown in the table below:

NRA	Transparency of information
AT	ISPs are obliged under the Telecommunications Act to notify their T&Cs to RTR at the start of a new communication service. Changes of T&Cs have to be notified as well. Within this framework also the transparency obligations of the OIR are checked. In this regard RTR checks if the providers stick to the terminology as used in the OIR. RTR is entitled to object to specific clauses within 6 weeks if they do not meet particular legal standards. This is an on-going measure.
BG	With the annual questionnaire, ISPs provide links to their web sites where information is published. CRC checks the links for availability of that information and its content.
CY	According to the provisions of the OIR (as interpreted in BEREC OI Guidelines), as adopted in national secondary legislation (Decree 72/2017), ISPs reported to OCECPR on their obligation to publish according to Article 4(1), sub. 2, the information referred to in Article 4(1), subs 1 a-e. Following an assessment of ISPs' reports, OCECPR found out that ISPs comply with the relevant legislation.
CZ	Within its supervisory activities, the CTU continued to monitor the fulfilment of the requirements concerning transparency and disclosure of both pre-contractual information under national law and mandatory information under Article 4(1)(a) to (e) of the OIR and their compliance with Article 4(1)(d) and (e) of the OIR and the General Authorisation VO-S/1/08.2020-9 specifying the method of designating individual speeds and their discrepancies.
DE	No formal assessments conducted. But in individual cases, ISPs' publicly available information was reviewed following consumer reports. This particularly affected new market entrants. In addition, sporadic checks were conducted to ensure the availability of the necessary information on the telecommunications companies' websites.
IT	AGCOM monitors and publishes data on the contractually promised download speeds for fixed networks. These values are published on a web page where users can compare the offers[14].
NL	Ongoing investigation of commercial traffic shaping in the context of in-flight Wi-Fi. One ISP did not display speeds in T&Cs, but it committed to introduce speeds after the NRA's intervention.
SK	According to outcome of information request of selected ISPs: • 77% of ISPs complied with contract conditions set out in article 4(1)a • 100% of ISPs complied with contract conditions set out in article 4(1)b • 63% of ISPs complied with contract conditions set out in article 4(1)c • 100% of ISPs complied with contract conditions set out in article 4(1)d • 100% of ISPs complied with contract conditions set out in article 4(1)e

Table 18. Main findings regarding transparency of information

[14] Available at https://www.misurainternet.it/confronto_banda_minima/

Question 18. In the reporting period, have you imposed **any new additional transparency requirements** or **changed the existing ones** regarding the publication of information referred to in article 4(1), subs. 1 a-e?

If *yes*, please provide details of the requirements.

In three Member States (AT, EL, IT), additional transparency requirements were imposed, as outlined in the table below:

NRA	Additional transparency requirements
AT	On an informal level, transparency requirements are regularly discussed with ISPs: • RTR had bilateral meetings with ISPs, which also cover issues regarding the OIR and the accompanying BEREC OI Guidelines. • Also, the regular exchange between ISPs and RTR concerning different matters of telecommunications including OI is on-going. Within this forum, RTR presents latest developments regarding OI to the ISPs and ISPs are welcome to present their views.
EL	As of 26 August 2024, according to the new national OI Regulation published in the Gov. Gazzete, OJ 1282/B/26-2-2024, the following additional requirement applies: the operators are obliged to inform the consumers on the actual speeds for fixed and mobile networks before concluding a contract. This includes all sales channels, both offline and online in which case the operators have to make available an appropriate web page within their websites.
IT	Resolution no. 106/25/CONS, among other provisions, introduces a classification system for mobile offers using 5G technology, aimed at ensuring greater transparency for end users. This system is designed to help users make informed choices intuitively and involves the use of labels that indicate the characteristics of the service offered, particularly any speed limitations. A green label will indicate 5G offers provided without contractual speed limitations imposed by the operator. Yellow and red labels will be used to signal the presence of speed limits, with yellow for download limits equal to or greater than 20 Mbps and red for limits below 20 Mbps. Within these labels, the value of the applied speed limit will be clearly indicated, making the actual maximum achievable speed immediately understandable to the user.

Table 19. Additional transparency requirements imposed in the reporting period

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

Question 19. In the reporting period, have ISPs established new or adapted the existing "**transparent, simple and efficient procedures to address end-user complaints** of end-users relating to the rights and obligations laid down in Article 3 and paragraph 1" according to article 4(2)?

If *yes*, please provide details (e.g., hotlines, complaint templates, additional channels that can be used to report complaints etc.) specifying if there is an industry-wide approach in relation to these procedures and the basis on which they have been set (e.g., imposed or facilitated by the NRA, prescribed by national legislation etc.)

Two NRAs (IT, PL) reported that ISPs established new, or adapted the existing, "*transparent, simple and efficient procedures to address end-user complaints…*" according to Article 4(2) of the OIR. More details on this aspect are summarised in the table below:

NRA	Details on the procedures for end-user complaints
IT	AGCOM has updated customer assistance rules for electronic communications through resolution no. 255/24/CONS, aiming to ensure maximum accessibility, transparency and traceability of complaints, and service quality. These NRA-imposed rules mandate a traditional telephone channel (available weekdays 08:30-21:30 for consumer services) alongside optional digital channels, explicitly requiring operators to provide a dedicated Interactive Voice Response (IVR) option for submitting complaints at the first level. Customers have the right to file complaints via telephone, registered letter, or available digital channels, and must receive an identification code for their complaint, and the resolution time for complaints has been reduced to 30 days, with mandatory minimum quality standards set for telephone assistance response times.
PL	One of the ISPs indicated that during the reporting period, the existing procedures for handling complaints were updated and improved. The path of transferring information between departments was shortened, categories of reports were introduced in internal systems to improve search and handling, and a new template was developed for the department dealing with complaints. Another ISP reported that the call centre's complaint intake scripts were modified so that faults would be immediately directed to personnel responsible for the relevant access technology. This adjustment aimed to enhance the efficiency of the complaint-handling process.

Table 20. Details on the procedures to address end-user complaints according to Article 4(2) of the OIR

Question 20. Do you **collect or monitor end-user complaints about the rights and obligations laid down in Article 3 and article 4(1)**? (Please see Q22 about complaints related to the quality of IAS).

If *yes*, what are the typical issues end-users complain about? (Please state the number or percentage, if available.)

25 responding NRAs (AT, BE, BG, CY, CZ, DE, EE, EL, ES, FR, HR, HU, IE, IT, LI, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI) declared they collect or monitor end-user complaints about the rights and obligations laid down in Article 3 and Article 4(1) of the OIR. The following table reports a detailed description of the typical issues of end-users' complaints, collected by NRAs.

NRA	Details on the received end-users' complaints
AT	Within the framework of the conciliation body of RTR, complaints from end users are dealt with. Only to a very small extent are these complaints related to questions of net neutrality, in particular concerning the network termination point or rather "router freedom". Proceedings in which inadequate service provision (quality issues) by an ISP is brought forward, make up the largest proportion.
BE	BIPT is not a body that handles individual complaints. End-user complaints are in principle handled by the Ombudsman for Telecommunications. BIPT does receive reports, as a signal, on the basis of which (among other things) it decides to intervene in order to structurally solve shortcomings on the market with regard to the law and the interests the BIPT must defend. Complaints typically concerned the quality of IAS, including speeds and access to certain websites. One complaint alleged discrimination by an ISP of services provided by a video game streaming service.
BG	The total number of complaints is 211 for all fixed and mobile IAS. The complaints are mostly for fixed service. Typical issues are speed lower than the contractual one, interruptions, unacceptable quality or missing of the service at all.
CY	Mainly quality of service, pricing, technical issues.
CZ	CTU regularly assessed the complaints and enquiries of end-users. The total number was 66 complaints, which represents a 57% increase compared to the previous reporting period. The increasing number and structure of these received suggestions is influenced by CTU's ongoing education of end users. Of the total number of complaints received, 81% concerned non-compliance with the quality parameters of the IAS agreed in the contract or service malfunctions and outages. The ISPs' failures were not always proven following CTU's investigations. In the reporting period, CTU also received a total of seven complaints concerning compliance with Article 3(1) and (3) of the OIR. Details can be found in answers to Questions 2 and 7.

DE	Consumer complaints are recorded by BNetzA. In 2024/2025, BNetzA received 380 complaints related to this topic.
EE	In the reporting period ECPTRA did not receive any complaints of this type from end-users.
EL	Consumers mainly complain about connection speeds and poor quality.
ES	227 claims (2.16% of total claims) received in Telecomm Users Agency (Ministry of Digital Transformation). Typical issues are blocking of websites due to copyright claims based on Article 3(3) of the OIR and speed.
FR	On "J'alerte l'Arcep", 99 alerts over the period, relating to the obligations mentioned in Articles 3 and 4 of the OIR out of more than 61,000 alerts received over the period. These alerts don't constitute formal complaints but only reports from users.
HR	Complaints are related to bill correctness, number portability, fault repair, QoS.
HU	These types of complaints remain rare, so it is hard to categorise them.
IE	The majority of net neutrality queries relate to slow IAS speeds, this comprises 4% of all contacts.
IT	The number of those complaints, in relation to other issues like, for example billing, is quite low.
LI	No complaints in the market.
LT	Typical issues in end-user complaints are: consequences of contract termination, payments for services, changes to terms of service in contracts. In total, 95 complaints about IAS were received in the reporting period.
LU	Information on end-user complaints is provided in the annual report on mediation[15]. See Question 22 for further details.
LV	Complaints received in 2024 divided by categories: invoices (32%), service quality (8%), contracts (38%) and other different cases (22%).
MT	MCA is able to handle complaints related to this section of OIR. No such complaints were registered during the year 2024/2025.
NL	Discrepancies between advertised and delivered (actual) speeds.
PL	End-users most frequently reported that their internet connections failed to achieve the minimum, normally available, maximum, or advertised download and upload speeds as specified in their contracts with ISPs. Additional issues raised included frequent connection drops, poor coverage, and low data throughput within the data transmission service. The majority of complaints concerned the quality of services in mobile networks, representing approximately 43% of all submissions, while just over 27% of the reports referred to the quality of fixed-line network services.
PT	In the reporting period, there were 361 complaints directly submitted to ANACOM about IAS (an increase of 22.8% compared to the previous reporting period but in line with the global increase of 20.8% in the number of complaints related to all electronic communications services), which represents 14% of the overall

[15] Available at https://www.ilr.lu/wp-content/uploads/publication/ILR_Juridique_Rapport-dactivite-annuel-du-service-de-mediation-2024_20250514.pdf

	complaints regarding electronic communications services. Based only on the complaints' descriptions, these complaints focused on: • Service faults/malfunctioning: mentioned in 81% of IAS complaints; • Internet speeds below what is advertised/subscribed: mentioned in 18% of IAS complaints; • Traffic shaping: mentioned in 1% of IAS complaints. Most of these complaints are about fixed IAS.
RO	Approximatively 1% of the total complaints received regarding electronic communication services are in relation to the quality of the IAS. Typical issues are: download speeds for both fixed and mobile IAS, poor mobile internet coverage resulting in lower transfer speeds.
SE	PTS does not collect complaints specifically related to the articles mentioned. Rather, PTS has a general e-service where consumers can lodge questions, opinions and complaints.
SI	End-user complaints are monitored in a way that the need to start formal procedure could be detected. AKOS does not have specific statistics of each type of complaints, however there are only few complaints that regard to relevant Articles. Most of them are about connection not reaching the contracted speed.

Table 21. Details on the received end-users' complaints

5. Article 4(4) – Monitoring mechanisms

Question 21. In the reporting period, is there any change regarding NRA's or national interpretation of "**significant discrepancy, continuous or regularly recurring**" as stipulated in article 4(4)?

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, please specify.

In the reporting period, no NRA changed the existing interpretation or adopted a new interpretation of "significant discrepancy, continuous or regularly recurring".

Question 22. Do you **collect or monitor the number of end-user complaints about the performance of the IAS**, relative to contracted parameters (speeds or other QoS parameters)?

If *yes*, what was the level of end-user complaints received during the reporting period?

25 NRAs (AT, BE, BG, CY, CZ, DE, EE, EL, ES, HR, HU, IE, IT, LI, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK) have collected and monitored the number of end-user complaints related to the performance of the IAS in the reporting period. Additional information on this matter is summarised in the table below:

NRA	Information related to end-user complaints about the performance of the IAS
AT	Within the framework of the conciliation body of RTR, complaints from end-users are dealt with. Only to a very small extent are these complaints related to questions of net neutrality, in particular concerning the network termination point or rather "router freedom". Proceedings in which inadequate service provision (quality issues) by an ISP is brought forward, make up the largest proportion. What is striking, however, is a decline in these complaints over the last four years, in particular in the fixed networks, although they went up slightly this year and mobile networks decreased further. Overall, however, these are only isolated cases in end-user arbitration. It can be assumed that the Austrian providers comply with their obligations under the OIR towards their end-users. Numbers regarding OI-complaints (usually on the contractual internet speed/quality): mobile networks: 68 complaints; fixed networks: 39 complaints.
BE	BIPT is not a body that handles individual complaints. End-user complaints are in principle handled by the Ombudsman for Telecommunications. BIPT does receive reports, as a signal, on the basis of which (among other things) it decides to intervene in order to structurally solve shortcomings on the market with regard to the law and the interests the BIPT must defend. 3 complaints were received regarding internet speeds.
BG	The number of complaints regarding mobile IAS has slightly decreased. Complaints regarding fixed IAS have doubled as one of the major operators has acquired several other operators, one of which with a significant number of subscribers. The complaints are due to connecting subscribers to the new network or a change in service provision technology and a longer fault repair time.
CY	OCECPR received only few complaints relating to QoS parameters in the reporting period. These mainly concerned fixed broadband connections. The usual issue was that consumers could not receive the advertised speeds of their contracts either because there was a technical limitation from ISPs' side or due to incorrect performance measurements from the consumer side.
CZ	CTU regularly assessed the complaints and enquiries of end users. The total number was 66 complaints, which represents a 57% increase compared to the

	previous reporting period. The increasing number and structure of these received suggestions is influenced by CTU's ongoing education of end-users. Of the total number of complaints received, 81% concerned non-compliance with the quality parameters of the IAS agreed in the contract or service malfunctions and outages.
DE	BNetzA particularly monitors the number of complaints from end users regarding the speed of their internet connections. So far, BNetzA has received around 2,800 complaints and inquiries per year. A slight increase in the number of cases has been observed. Statistical analysis of complaints is difficult because most consumers mix problems or report several at once (e.g., billing issues, technical malfunctions, problems with terminal devices). BNetzA addresses sustained end-user complaints (i.e., complaints for which no resolution can be found between the end-user and the ISP) with the provider, particularly end-user complaints regarding speed. If the cases are sufficiently substantiated, BNetzA forwards them to the affected companies. In most cases, the providers have proposed a solution, thus finding a solution in the interests of both parties. Furthermore, it is still possible to use the dispute resolution procedure at BNetzA. Consumers' legal remedies are governed by general civil law. In addition, end-users' legal remedies can be found in the consumer protection provisions of the German Telecommunications Act.
EE	The number of QoS complaints is low, about 10 complaints per year. Most complaints are related to mobile data services.
EL	The total number of complaints about IAS performance reported by the major ISPs was 271,663 (215,875 for fixed IAS and 55,788 for mobile IAS). Note that those numbers correspond to the period from 01 January 2024 to 31 December 2024 and mainly refer to speeds.
ES	23 claims (0.22% of total claims) received in Telecomm Users Agency (Ministry of Digital Transformation). Speed is the typical issue.
HR	HAKOM acts as a 2nd level for the resolution of complaints (complaints are first addressed to the ISPs). During the reporting period, HAKOM received 34 complaints regarding internet QoS in fixed network and 39 complaints regarding internet QoS in mobile network. In most complaints about mobile IAS related to service quality, was found that the main reason is poor network coverage. In the reporting period, 79 end-user complaints regarding achieved minimum speed were submitted through HAKOMetar certified tool towards ISPs.
HU	Such complaints are rare in practice. Most subscribers in these cases complain about low speeds, intermittent connection failures and the failure of the ISP to properly handle the fault reports they have submitted.
IE	Approx. 4% of all complaints within the reporting period relate to net neutrality issues.
IT	AGCOM monitors the end-user complaints sent through the NeMeSys certified measurement tool and those sent directly to AGCOM by end-users. They mostly concern guaranteed speeds.
LI	No complaints received during the reporting period.
LT	15 complaints received (compared to 32 last reporting period).

LU	ILR received 3 complaints related to a discrepancy of the provided speeds.
LV	QoS of fixed IAS (2% of total complaints), QoS of mobile IAS (3% of total complaints).
MT	6 complaints concerning internet faults and 3 complaints related to internet speeds.
NL	23 end-user complaints were received about the performance of the IAS, related to contracted parameters
PL	276 complaints received – main issue is quality of services (mobile and fixed-line networks).
PT	361 complaints received about IAS which represents 14% of the overall complaints regarding electronic communications services. Out of these, based only on the complaints' descriptions, these complaints focused on: service faults/malfunctioning (81%), internet speeds below what is advertised/subscribed (18%) and traffic shaping (1%). Most of these complaints are about fixed IAS.
RO	Approx. 50 complaints, for both fixed and mobile services.
SE	PTS does not collect complaints specifically; it has a general e-service for lodging questions, opinions and complaints.
SI	AKOS dealt with 38 disputes concerning significant permanent or regularly recurring discrepancies between the contracted and actual speeds. In terms of the total number of disputes, these disputes represent less than 6.3% of all disputes brought before the NRA.
SK	Only few complaints, most of them about connection not reaching contracted speed.

Table 22. Level of end-user complaints about the performance of IAS

Question 23. In the reporting period, have there been any updates regarding your **IAS quality monitoring tool** for consumers or any respective measurement tool projects?

If *yes*, please provide details.

12 NRAs (AT, BE, CZ, DE, IE, IT, LT, LU, PL, PT, RO, SI) reported updates regarding their IAS quality measurement tool as summarised in the table below. For further details regarding NRAs' existing measurement tools, please refer to Annex I of this report.

ME provided a link to a tool[16] developed by EKIP, which allows users to measure the speed and quality of their broadband internet connection and collects related information.

[16] Available at: https://nettest.ekip.me/en/test

NRA	Information related to IAS quality monitoring tool
AT	RTR is regularly updating the monitoring tool and its website and collaborating with other NRAs who have similar tools (based on the source code of RTR-NetTest). RTR also provides a Desktop-App[17].
BE	The tool was discontinued; BIPT is currently in the process of replacing it.
CZ	In the reporting period, CTU has focused on developing and innovating tools for end-users. The functionalities of the visualisation portal ("VPortal") have been improved and now offer easier access to information on the quality and availability of services, including the addition of new functionality for measuring mobile coverage during a drive, which allows for a more detailed assessment of coverage in specific locations. A detailed video tutorial shows users how to use this comprehensive visualisation tool effectively. In addition, the measurement technology by EXFO (manufacturer) has been extended to include a measurement tool for measuring the quality parameters of very high-capacity networks according to the ITU-T Y.1540 standard.
DE	BNetzA conducted a consultation for a new tool to verify claims for reductions in mobile telecommunications (from July 2024 to August 2024)[18]. Adoption of a national interpretation of "significant discrepancy, continuous or regularly recurring" as stipulated in Article 4(4) concerning mobile networks and application of a new measurement tool is planned end of Q3/Q4 2025. Final detailed information will be available in the next year's iteration of this report.
IE	ComReg has commenced development of a project to deploy an IAS quality monitoring tool.
IT	The certified measurement tool Ne.Me.Sys has been updated taking into account the definition of the speeds as detailed in the new national Guidelines (minimum, normally available and maximum speeds, see Question 14), and to measure FWA lines. The tool has been certified to measure lines with speeds up to 5 Gbps.
LT	New measurement tool was introduced for the public, based on RTR-Netztest open-source measurement tool. It replaced the OOKLA-based measurement tool that was used for many years before.
LU	The apps have been updated to improve compliance pursuant to accessibility rules. Furthermore, the colour code used in the heat maps has been updated to better reflect changes in technologies that IAS end-users subscribed to.
PL	In 2024, the President of UKE has not extended the certificate for the PRO Speed Test measurement mechanism[19], which was used to monitor the quality of IAS and allowed for the determination of improper performance of the contract and the pursuit of consumer claims against the service provider. UKE is working on the

[17] Available at https://www.rtr.at/TKP/service/rtr-nettest/help/Desktop_App.en.html
[18] Available at https://www.bundesnetzagentur.de/DE/Fachthemen/Telekommunikation/Breitband/Breitbandgeschwindigkeiten/start.html
[19] Available at https://pro.speedtest.pl

	implementation of a new certified measurement system. The planned implementation of the new system will take place after the current reporting period
PT	In 2024, ANACOM implemented a mechanism for collecting information on coverage (e.g. location, ISP, type of network), with the purpose of disseminating information on the coverage of mobile networks, through the statistical processing of the data collected.
RO	The main updates refer to the replacement of the platform's old (out of support) hardware, updating of technologies and software used in the implementation of Netograf applications and the optimisation of the modules through which ANCOM periodically publishes aggregated statistics on measurements.
SI	In 2024, AKOS replaced all existing servers that are part of the AKOS' Test Net measurement system with new ones, thereby increasing reliability and performance. The NRA continued to develop the AKOS Test Net measurement system with a view to making it as compatible as possible with the tools of other national regulators. To this end, it modified, upgraded, updated, and standardised the source code of the AKOS Test Net measurement system so that it is now essentially identical to the source code of RTR. The AKOS Test Net mobile applications were also upgraded, updated and standardised with the RTR code. In 2024, more than 1 million measurements were performed with the AKOS Test Net measurement system on various connections. The NRA continued to upgrade the AKOS Test Net measurement system into a comprehensive solution for monitoring and measuring all types of broadband connections. It continued to develop software (client) that end-users can install on their personal computers and use to perform measurements (Windows, MacOS and Linux operating systems).

Table 23. Information related to IAS quality monitoring tool for consumers

6. Article 5(1) – Supervision and enforcement

Question 24.a. Is there any change compared to the previous reporting period regarding to the **approach** you have taken **to measure the availability of high-quality IAS** (see recital 19 of the OIR)?

If *yes*, please provide details.

Question 24.b. Please specify what **approach** you have taken **to measure the availability of high-quality IAS**:

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.

As shown in the figure below, the NRAs' responses suggest that the most popular approaches to monitoring the availability of high-quality IAS are still through analysis of end-user complaints (17) and through information requests from ISPs (14). Furthermore, several NRAs also did technical network monitoring (10) as well as conducting a market survey without requesting information from ISPs (9). Also, ME mentioned requesting information from an ISP as their approach for monitoring the availability of high-quality IAS.

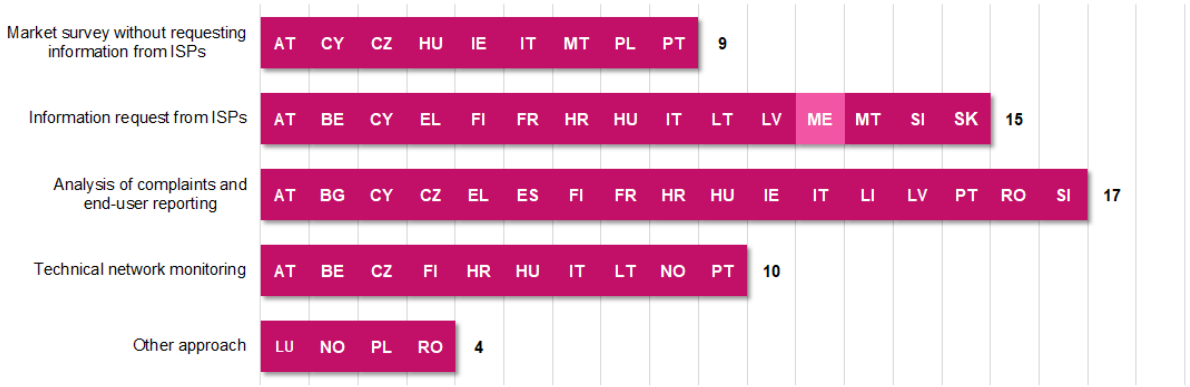

Figure 5. Approaches to monitor the availability of high-quality IAS

Four NRAs (LU, NO, PL, RO) indicated a different approach as shown in the table below:

NRA	Other approaches
LU	Use of a crowdsourced tool measuring speed as well as QoS parameters.
NO	Nkom has applied BEREC's method for assessment of general quality of IAS to evaluate the general quality of IAS for 4G and 5G networks combined in Norway.
PL	The President of UKE, as every year, purchased a specially prepared Report on measuring the quality of IAS, together with analysis and source data for April 2025, and with a comparative analysis of source data for April 2025 in relation to data for April 2024.
RO	ANCOM monitors the availability of high-quality of the IAS provided by ISPs as follows:

	• annually, provides a report on the quality of the IAS (comprising both administrative and technical parameters) aimed to highlight the evolution of quality from year to year; • publishes half-yearly and annual statistics[20] on the quality of the fixed and mobile internet service in Romania; • provides a map of the quality of fixed and mobile internet services in Romania based on the valid quality measurements performed by end-users on the Netograf platform[21].

Table 24. Different approaches to monitor the availability of high-quality IAS

Question 25. If you performed measurements of IAS quality during the reporting period, please report the main findings in relation to the provisions of the OIR.

During the reporting period, 17 NRAs (AT, BE, BG, CZ, DE, EL, FI, FR, HR, HU, IT, LT, LU, NO, PL, PT, RO) presented results from these measurements.

Based on the answers received, there seems to be a positive development of IAS speeds in both fixed and mobile networks in many countries.

NRA	Main findings of measurements of IAS quality
AT	RTR offers since 2012 the RTR-NetTest[22], a crowd-sourced open data and open-source measurement tool which allows measuring different QoS-parameters, including blocking of UDP and TCP ports. Within the framework of monitoring activities according to the OIR, the results of several million tests[23] are used. Documents and reports of RTR use data of these measurements on a regular basis (e.g. “Internet Monitor”, which monitors the development of IAS in Austria[24]). RTR-NetTest data also include information about the various technologies being used for internet access in Austria. Distinctions are made between 3G (UMTS, HSPA), 4G (LTE), 5G (NR) as well as based on measurements of various fixed and network technologies. These measurements were taken with the aid of a browser or app (for Wi-Fi) and have been aggregated under the heading of (W)LAN. 5G achieves significantly higher download speeds than other mobile telecommunications standards. Comparing the first quarters of 2024 and 2025, similar values were recorded for 3G, 4G and 5G: for 3G,

[20] Available on www.netograf.ro
[21] Available at www.netograf.ro/map/fix and www.netograf.ro/map/mobil
[22] Available at https://www.netztest.at
[23] Available to download at https://www.netztest.at/en/Opendata
[24] See https://www.rtr.at/TKP/aktuelles/publikationen/Uebersichtseite.de.html

	the median download speed in the first quarter of 2025 was 6 Mbps, for 4G 55 Mbps and for 5G 197 Mbps. For (wireless) LAN, median figures rose instead by 25%, from 51 Mbps in the first quarter of 2024 to 64 Mbps in the first quarter of 2025. The key figures presented in the Net Neutrality Report 2025[25] by RTR can be understood as revealing a basically positive development in the availability of non-discriminatory IAS during the reporting period. Download and upload speeds have also seen further improvements in the reporting period. It can be concluded that the availability of non-discriminatory IAS at levels of quality that reflect advances in technology (requirement in Article 5(1) of the OIR) was ensured in Austria over the period between 01 May 2024 and 30 April 2025.
BE	BIPT performs some drive tests measurements (QoS-2) on mobile networks, but not in the context of the provisions of the OIR. The drive and train tests are aimed at measuring the QoE indicators of the different mobile networks in Belgium. Results of the drive tests are currently under review.
BG	Drive tests for QoS of mobile IAS (5G and LTE). Measurements were carried out in 27 main (district) cities and 11 (with 4 more than the previous year) other settlements of different sizes and also along the main national roads. The results show the availability of service with higher speeds for big cities and the provision of 5G service for 2 settlements where such service was missing in the previous year. There is an increase in the speeds on roads, but there is a decrease in them on highways.
CZ	The main finding for the monitored period is the increase in an average performance of the IAS at a fixed location, where the services' performance reached in download the average value of 98.96 Mbps, which is an increase of 8 Mbps compared to the previous period. Moreover, in the last two quarters (Q4/2024 and Q1/2025) the performance of services in download crossed the 100 Mbps boundary, which indicates the continuously increasing quality of the IAS at a fixed location in the Czech Republic. In January 2025, CTU carried out a continuous measurement of the coverage of the Czech motorway network by signals of mobile radio communication networks GSM, LTE and 5G in all available frequency bands. The measured data shows that in more than 98% of the measured sections of the Czech motorway network, download speed higher than 5 Mbps is available. In February 2025, in cooperation with Správa železnic, an inspection measurement of the coverage of the transit railway corridors of the TEN-T network in the Czech Republic with mobile radio signals (2G, 4G and 5G) of all available frequency bands was carried out in order to determine the current state of coverage of the mentioned liner structures, including tunnels. The measured data shows that in more than 97% of the sections (250 metres) of the railway corridors in the Czech Republic, download speed higher than 5 Mbps is available.

[25] Available at https://www.rtr.at/TKP/aktuelles/publikationen/publikationen/netzneutralitaetsbericht/nnbericht2025.html

DE	End-user measurements are covered in annual reports. A reporting period runs from October in one year to September in the following year. Fixed broadband connections: In the period from October 2023 to September 2024, the proportion of users across all bandwidth categories and providers whose fixed broadband connection had a download speed at least half their contractually agreed maximum speed was 86.5% (2022-2023: 85.5%); the proportion of users whose connection had a speed equivalent to or higher than their contractually agreed maximum speed was 45.2% (2021-2022: 43.5%). The results differ especially with respect to bandwidth classes and providers. Based on the speeds measured as a percentage of the contractually agreed speeds, upload performance was on a similar level compared with the download performance. Looking at providers' latency times the best results were achieved especially in higher bandwidth classes. Low latency plays a particularly important part in performance for video calling and online gaming. Mobile broadband connections: Compared to the previous year, significant methodological adjustments were required in the mobile communications sector. These changes now allow a technology-specific evaluation, distinguishing between 4G and 5G. Across bandwidth classes up to 200 Mbps, 5G generally delivers better results compared to 4G. In the higher classes, 5G significantly outperforms 4G due to the absence of contractual limitations. In some cases, measured 5G data rates substantially exceed the estimated maximum speeds specified in user contracts. Based on the speeds measured as a percentage of the contractually agreed estimated maximum speeds, upload performance was similar to download performance. The latency measured on mobile broadband connections was noticeably higher than on fixed broadband connections.
EL	Country-level results for the actual internet speeds achieved with fixed broadband connections are derived from user measurements conducted and collected via EETT's online platform “YPERION”[26]. The measurement period is from 1 January 2024 to 31 December 2024. Mean download speed: 110.94 Mbps (+44.25%), Mean upload speed: 25.18 Mbps (+100%) Median download speed: 70.42 Mbps (21.04%), Median upload speed: 9.62 Mbps (+12.65%)
FI	Traficom has performed regional measurements on specific locations based on end-user complaints.
FR	For fixed IAS, Arcep initiated a co-construction approach with the measurement ecosystem stakeholders (ISPs, measurement tools, academics, and consumer associations) to enhance the quality of measurement tools accessible to end users and currently on the market. The API project and the code of conduct for measurement tools are part of this new form of fixed internet access quality monitoring.

[26] Available at https://www.hyperiontest.gr

	For mobile IAS, Arcep's monitoring system focusses on the issues of coverage and QoS. In 2023, the quality measurement of mobile internet access in the country has evolved to better reflect the user experience. Arcep defined thresholds of quality (3, 8 and 30 Mbps), and measured the level of completion of each of these thresholds, for each IAS, and declines the data according to the type of areas (dense, intermediate, rural).
HR	In Croatia, end users can check the IAS speeds by using two tools HAKOMetar (fixed network) and HAKOMetar Plus (mobile/WLAN network). According to the conducted individual measurements, results show that the vast majority of the users who have performed the measurements using HAKOMetar are achieving at least minimum speeds stipulated by the Ordinance. Also, in 2025, HAKOM performed measurements of mobile IAS QoS by drive-tests. The measurement campaign covered 31 cities and 3,800 km of roads and highways in Croatia, that is, the area where more than 50% of the total population or approximately two million inhabitants live. The measurements showed that the performance of Croatian mobile networks is still very high and that operators continued to invest in development and increased transmission capacities and quality while simultaneously investing in new technologies. The measurement report on the QoS in mobile networks is available on the HAKOM website[27].
HU	The crowd-sourced broadband quality measurement system of NMHH[28] continues to regularly collect data based on hardware-based measurements. The measurement boxes have been placed on volunteering subscribers' premises. Additionally, software-based measurements may be conducted by any internet user. The results of these activities indicate that the quality of IAS in Hungary is generally stable.
IT	Fixed IAS quality is measured in each Italian region with probes measuring the profiles corresponding to the most common offer and the one with the highest number of activations in the previous 12 months. Data are aggregated and published every six months and yearly[29] . Mobile IAS quality is measured with drive test campaigns. In 2024, the last measurement campaign for mobile networks involved 45 cities with static and dynamic measures and included 5G networks. Results for the official campaign are published on the website[30]. Users can also verify the QoS measured in the nearest measurement point to their address using a web GIS application.
LT	Mobile data speeds continue to increase (+35% compared to the previous year), mainly due to deployment of 5G. Average mobile download speed measured in 2024 was 191 Mbps. Some areas still lack the level of coverage by high-quality IAS that

[27] See https://www.hakom.hr/UserDocsImages/2025/izvjesca_i_planovi/HAKOM_neovisno_mjerno_izvjesce_kvalitete_pokretnih_javnih_mreza_20250624.pdf?vel=14493311
[28] Available at www.szelessav.net
[29] See https://www.misurainternet.it/valori_statistici/
[30] See www.misurainternetmobile.it

	main cities enjoy. Fixed broadband coverage growth to rural or remote areas is limited.
LU	The measurement results indicate a continued positive development of IAS speeds for mobile and fixed networks in the market.
NO	The measurement results indicate a continued positive development of IAS speeds for mobile and fixed networks in the market.
PL	The analysis and findings indicate that over the years analysed, there is a clear upward trend in the area of data transmission speed in both directions – downloading data and sending data (upload). At the same time, there has been a steady downward trend in this ping ratio. This applies to both mobile users and browser applications.
PT	From 1 May 2024 to 30 April 2025, ANACOM published several quarterly reports based on the main results of the tests ran by NET.mede users[31] . Specifically, during 2024, NET.mede users ran around 516,000 tests on the speed of IAS (less 147,000 tests compared to 2023), via web browser or the NET.mede application. Around 65% of the tests in 2024 were carried out on fixed mobile accesses and 26% on mobile accesses, while the remainder came either from accesses identified as non-residential, from foreign operators or undefined. Regarding the results of the tests carried out, through a web browser or the NET.mede application, in half of the tests (median) it was found: • a download speed of 196 Mbps or more, in fixed residential accesses, and of 19 Mbps or more, in mobile accesses; • an upload speed of 98 Mbps or more, in fixed residential accesses, and of 9 Mbps or more, in mobile accesses; • a latency of 12 milliseconds (ms) or less, in fixed residential accesses, and of 34 ms or less, in mobile accesses. Compared to 2023, there is thus an overall improvement, both in fixed and mobile accesses, with increases in download and upload speeds, plus in the median latency.
RO	The tests performed on Netograf indicate that, in 2024, Romanian end-users experienced increasing mobile download and upload speeds, compared to 2023. The average download speed for mobile internet increased from 39 Mbps in 2023 to 58 Mbps in 2024. The average download speed for fixed internet was 284 Mbps in 2024.

Table 25. Main findings of measurements of IAS quality

[31] Available at https://www.anacom.pt/render.jsp?categoryId=337754&tab=&a=367635&b=&c=

7. Article 6 – Penalties

Question 26. In the reporting period, were there any changes in the rules on penalties to infringements of articles 3, 4, and 5 pursuing to article 6 of the OIR you apply?

If *yes*, please provide details.

In the reporting period, PL reported changes in the rules on penalties for violations of the OIR which are now regulated in the Electronic Communications Law replacing the former Telecommunications Law. Pursuant to Article 444(1)(91) of the Electronic Communications Law – the Act of 12 July 2024 – anyone who does not comply with the obligations stated in Articles 3, 4 and 5(2) and Article 5a of the OIR is subject to the financial penalty. The financial penalty is imposed by the President of UKE in an administrative decision after completion of the administrative proceeding.

8. Other relevant information

Question 27. Related to the OIR, regarding the reporting period, are there any **other relevant information** (not mentioned before) that you would like to share? Have there been any of the following?

i. new court proceedings;
ii. NRA's regulatory decisions;
iii. updates to cases reported previously;
iv. internal or external implementation actions;
v. guidance (of e.g. NRA, ministry) on additional transparency or information requirements on ISPs;
vi. any additional remedies for consumer redress in relation to non-conformance of IAS with the contract terms;
vii. other, please specify.

Court proceedings

In the reporting period, AT reported a *new court proceeding*: In 2022, a rights holder requested ISPs to implement among others IP-blocking for certain websites. The Telekom-Control Commission (TKK) decided that those IP-blockings infringe Article 3(3) of the OIR due to

dangers of overblocking of unrelated content when IP-blocking is performed. The rights holder appealed to the Austrian Federal Administrative Court. During the appeal procedure, the Austrian Federal Administrative Court referred 3 out of 8 similar cases to the European Court of Justice for preliminary proceedings, in particular regarding the question whether IP-blocking is in compliance with the law of the European Union. However, the rights holder withdrew the appeal in the national appeal procedure, resulting in termination of the proceedings. This is why, the preliminary questions of the Austrian Federal Administrative Court became obsolete. Consequently, the European Court of Justice removed the joint cases C-832/24 to C-834/24 from the register of the Court of Justice and the decisions of the TKK have taken legal effect.

Also, RO reported a brief *update of* their *court proceeding* on the Telekom RO Mobile "Bonus Net Nelimitat" case: ANCOM has submitted written observations before the Court of Justice of the European Union (case C-367/24) and the parties are waiting for the Court's Judgement. For other details, please see Annex I.

Other actions

LI reported that with the introduction of their new Communications Act and the revision of the regulations, consumer protection has been improved, e.g.:

- More transparent terms and conditions;
- Separate summary of the most important contract points;
- Providers must provide information before automatic contract renewal;
- Maximum contract term of 24 months;
- Notice period of 1 month after automatic contract renewal;
- Improved procedure for changing providers.

In the reporting period, ILR sent again a questionnaire to the major ISPs to gather information on the transition from IPv4 to IPv6 in LU.

In the context of the EU sanctions to ban Russian media outlets, Traficom updated again its guidance for ISPs in FI.

In FR, Arcep noticed the emergence of offers that give to subscribed customers' priority over others on the network. In their opinion, this could raise in the near future questions related to the OIR, especially regarding Articles 3(2) and 4(1).

As a general practice, BEREC and its NRAs continued sharing information between NRAs.

Annex I: Summary of 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 OIR-related court proceedings based on the NRA responses to the questions 3, 13, 18, 21, 23 and 27.

Question 3. Has the **location of the Network Termination Point (NTP)** been formally determined in your country or has there been a legislative process to impose the access of free modems?

If *yes*, please provide details (e.g., when has the location of the NTP been determined or the access of free modems been imposed? Were BEREC's NTP Guidelines taken into consideration (both in case of determination of the location of the NTP or legislative process)? Is it location A, B or C (if necessary, depending on the type of network)? Links to relevant documents).

If *no*, please provide information if there are discussions or plans to specify the location of the NTP in your country and the reasons for this.

In 11 Member States (BE, CY, DE, DK, EL, FI, HR, LI, NL, SI, SK), NRAs conducted formal assessments of the location of the Network Termination Point (NTP), as described in the table below:

NRA	Formal assessments
BE	In September 2023, BIPT decided formally that NTPs on copper, coax and fiber networks are located on point A for IAS. As a consequence, from 1st November 2024 on, customers will be able to buy and use their own modem. BIPT's decision[32] is based on the BEREC NTP Guidelines[33]. Television and telephony services were excluded from the decision.
CY	The NTP has been determined before 1st May 2022. According to Law 24(I)/2022, NTP means the physical point at which an end-user is provided with access to a public electronic communications network, and which, in the case of networks involving switching or routing, is identified by means of a specific network address, which may be linked to an end-user's number or name. It is located in point A for all technologies.

[32] Available at: https://www.bipt.be/consumers/publication/decision-of-26-september-2023-regarding-the-identification-of-the-network-termination-point-for-broadband-services-and-tv-services

[33] BEREC Guidelines on Common Approaches to the Identification of the Network Termination Point in different Network Topologies (BoR (20) 46) (hereinafter referred to "BEREC NTP Guidelines"):

DE	The NTP has been determined before 1st May 2022 and can be read in Article 73 Paragraph 1 of the Telecommunication Act[34] (TKG). NTP location is A for fixed line networks. For mobile networks, it is the air interface. These stipulations carry over legal provisions dating from 2016 which in effect already took into account criteria now contained in the BEREC NTP Guidelines. Article 73 Paragraph 2 TKG states that the BNetzA may grant exceptions from these provisions for specific network topologies or technologies, but not individual networks. In this case, the NRA must take account of the BEREC NTP Guidelines. Currently, proceedings are ongoing with regard to the NTP of FTTH GPON networks.
DK	The NTP was already determined in 2000 at point A for all technologies (Danish Act no. 418 on competition and end-users' rights at the telecom market from 31 May 2000)[35]. The current legislation, Consolidated Act N. 955 of 17 June 2022 on Electronic Communications Networks and Services[36], also refers to this definition.
EL	EETT issued a new Regulation[37] for the NTP (published in Gov. Gazzette 7271/B/31-12-2022, entered in force on 1st October 2023) which defines the NTP location for the fixed service at point A according to the BEREC NTP Guidelines with the exception of FTTH networks where the NTP is defined after the ONT. In cases where the ISP provides terminal equipment with built-in ONT, and in order to ensure the end-user's right of free choice of the router, the end-user may request the provision and installation of discrete ONT equipment.
FI	The NTP was defined in the Regulation 65 A/2014 M, which came into force on 17 December 2014. That Regulation has since been replaced by newer versions and currently the NTP is located at point A for all technologies (as defined in Chapter 2, Section 4 of the Regulation 65 E/2022[38]).
HR	HAKOM has defined the NTP at point A for all network topologies, excluding FTTH for which it was defined at point B starting from 1st January 2024. The BEREC NTP Guidelines were taken into consideration. (Article 30 of the Ordinance on manner and conditions for the provision of electronic communications networks and services[39]).
LI	The NTP is defined in Article 3 paragraph 1 of the Ordinance of 14 January 2025[40] on electronic communications networks and services (VKND)[41], LGBl. 2025 No.52. The location itself is not determined in detail.

[34] Available at https://www.gesetze-im-internet.de/tkg_2021/__73.html
[35] See the Danish Act n. 418, section 3, subsection 3: https://www.retsinformation.dk/eli/lta/2000/418
[36] See the Consolidated Act N. 955 of 17 June 2022 on Electronic Communications Networks and Services, Section 2 (8): https://eng.sdfi.dk/Media/638022868804652495/Act%20on%20Electronic%20Communications%20Networks%20and%20Services_oct2022.pdf
[37] Available at https://www.eett.gr/anakinosis/kanonismos-gia-to-simeioy-termatismoy-diktyoy-statheris-ypiresias/.
[38] Available at https://www.finlex.fi/data/normit/48858/M_65_E2022_M_EN.pdf
[39] Available at https://narodne-novine.nn.hr/clanci/sluzbeni/2023_07_86_1346.html
[40] Available at https://www.gesetze.li/konso/2023216000
[41] Available at https://www.gesetze.li/konso/2025052000

NL	The NTP is located at point A for every technology. The BEREC NTP Guidelines have been taking into account. ACM has issued guidelines in 2021[42].
SI	The NRA issued a decision[43] on 10 May 2023, specifying that the NTP is located at point B according to the BEREC NTP Guidelines.
SK	The Act No. 452 of 2 November 2021 on electronic communications states in Article 2 (6) that "network termination point means the physical point at which a subscriber is provided with access to a public network, and which, in the case of networks involving switching or routing, is identified by means of a specific network address, which may be linked to a subscriber's number or name".

Table 26. Information on formal assessments of location of the NTP

Of the remaining NRAs that indicated that they did not take a formal decision, four NRAs (AT, EE, IT, LT) did investigate the possibility of formally specifying the location of the NTP but decided not to do so as the current situation seems to satisfy the customers. Further information is provided in the table below:

NRA	No formal decision taken
AT	There has been an evaluation regarding the determination of the NTP in 2023. Currently, the NTP is either in the wall of the end-users or the router provided by the ISP. Due to Article 3(1) of the OIR, end-users have the right to use their own router and this is why, they can use the bridge modus of the router provided by the ISP, thereby it only has a modem function. WLAN, Firewall etc. are deactivated and end-users can plug in their own router. During the evaluation, RTR discussed the question of the NTP definition with ISPs and other stakeholders. RTR also analysed national end-user complaints and requests as well as international practice. The ISPs stated that there are only a few people who want to use their own router and there are only a few complaints about this issue. Nevertheless, transparency regarding this issue is key and some ISPs have improved the information on their websites. RTR is monitoring the situation, in case the interest in having a router different from the one that an ISP is offering increases, a re-evaluation can take place.
EE	There are no discussions or plans to specify the location of the NTP. The end point is specified in the communications services contract. In general, end users are free to choose modems and routers as long as they are compatible with the ISP's network.
IT	For fixed networks, AGCOM has not explicitly defined the NTP. However, the decision no. 348/18/CONS is imposing that the end-users have the right to freely choose every equipment used for internet connection that is installed in their premises and that needs electrical power, including the broadband router. This decision prohibits the

[42] Available at https://www.acm.nl/nl/publicaties/acm-publiceert-de-beleidsregel-handhaving-besluit-eindapparaten

[43] Available at https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2023-01-1696/splosni-akt-o-lokacijah-omreznih-prikljucnih-tock

	ISPs to enter into agreements with end-users or to adopt commercial practices that restrict that right. For technical reasons, the ONT/SFP for FTTH and the modem in case of fixed wireless access (FWA) connections are still subject to exemptions and can be provided by the network operators.
LT	There was no need to formally define the NTP, but generally it is considered at point A according to the BEREC NTP Guidelines.

Table 27. Information on NRAs' approaches to define the NTP

Question 13.a. In the reporting period, have **any new national specifications** been set or changed in relation to the **different types of speeds** laid out in article 4(1), sub. d.?

If *yes*, please provide details.

Question 13.b. Were these requirements:

i. imposed by the NRA or another competent Authority?

ii. agreed upon by market players?

iii. legally binding?

Specifications set

National specifications in relation to different types of speeds have been set in 17 Member States (AT, BE, BG, CY, CZ, DK, EL, FI, HR, IT, LT, LV, MT, NL, RO, SI, SK). There is a variety of institutional settings on how specifications are set. In 16 cases (AT, BE, BG, CY, CZ, DK, EL, FI, HR, LT, LV, MT, NL, RO, SK, SI), this involved activities by the NRA, which takes the form of recommendations, secondary legislation or decisions. In four cases, they were agreed upon by market players (DK, EE, IT, MT), but there are also cases where the agreement by market players comes along with legally binding specifications.

13 NRAs (BE, BG, CY, EL, FI, HR, IT, LT, LV, NL, MT, SI, SK) used percentage values by defining minimum and normally available speeds as a percentage of the maximum speeds, as presented in the table below:

NRA	Specifications 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.	• 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	According to the provisions of the Regulation, as adopted in national secondary legislation (Decree 72/2017) the speed values to be included in the contract, including information published on the ISP's website, is presented as follows: • 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.	In relation to the provision of broadband internet access from a fixed network, 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 one year and estimates should be defined by confidence intervals with confidence level ≥ 95%. Based on the measurement sample, the minimum, maximum and normally available speeds are defined as follows: • 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. The updated national OIR (issued by EETT on 26 February 2024) defines that the realistic maximum download/upload speeds achievable in mobile networks	Peak hours from 19:00 to 23:00 for residential users, and from 09:00 to 17:00 for non-residential (business) users. ISPs are free to provide different intervals for peak hours, based on the actual usage of their networks.

	can belong to 7 new speed classes (categories), namely: • ≥ 1 Gbps; • ≥ 300 Mbps < 1 Gbps; • ≥ 100 Mbps < 300 Mbps; • ≥ 30 Mbps < 100 Mbps; • ≥ 10 Mbps < 30 Mbps; • ≥ 2 Mbps < 10 Mbps; • ≥ 128 Kbps < 2 Mbps. The speed classes are common for download and upload, and will enter into force on 26 February 2025 (the operators have to update per area their online speed maps with these new classes). The realistic speeds refer to measurements conducted outdoors by users not moving on a vehicle.	
FI	Requirements set for subscriptions with the maximum speed ≤ 100 Mbps: • 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	• Minimum speed ≥ 70% of max. speed • Normally available speed: not specified because of the high threshold for minimum speed	
IT	For fixed networks: • Minimum speeds: 95 quantiles of download/upload data transmission speeds measured during the entire observation interval, i.e. the measured values for which 95% of the transfer speeds recorded during the observation period are greater than these values; • Normally available speeds: 75 quantiles of download/upload data transmission speeds measured during the entire observation interval, i.e. the measured values for which 75% of the transfer speeds recorded	The measurement time interval is 6 months for statistical comparative values and 24 hours for single users' lines. Measures are sampled every 15 minutes.

	during the observation period are greater than these values; • Maximum speeds: maximum values of download/upload data transmission speeds measured during the entire observation interval. Average and standard deviations are also calculated and published.	
LT	• Minimum speed is such speed that ensures the provision of IAS; • Normally available speed is calculated as 80th percentile of all speed values measured; • Maximum speed is calculated as 95th percentile of all speed values measured.	
LV	<u>Fixed network:</u> • maximum (advertised) speed; • normally available speed must be at least 70% of maximum (advertised) speed and not less than the minimum speed value set by the NRA; • minimum guaranteed speed must be at least 20% of maximum (advertised) speed and not less than the minimum speed value set by the NRA. <u>Mobile network:</u> • maximum (advertised) speed; • minimum guaranteed speed must be not less than the minimum broadband IAS connection speed value set by the NRA, at the fixed-service receiving location within the ISP's designated coverage area in the mobile network, within the end-user's premises or household, if the IAS is provided using a router-modem.	<u>Fixed network:</u> • Normally available speed must be accessible to the end-user at least 95% of the time within a 24-hour period. • Minimum speed for the fixed network should be at least 6 megabits per second for download speed and at least 2 megabits per second for upload speed. <u>Mobile network:</u> • Minimum guaranteed speed for both download and upload directions, at the fixed-service receiving location within the ISP's designated coverage area in the mobile network, within the end user's premises or household, using a router-modem, should be at least 2 megabits per second. Minimum guaranteed speed must be accessible to the end-user at least 95% of the time within a 24-hour period. In other cases, ISPs determines the minimum guaranteed speed value.
NL	ISPs are obligated to specify in their contracts internet speeds on fixed networks: • Minimum speed;	• The measured speed can never be below the minimum speed, except if a situation occurs as described in

	• Normally available speed; • Maximum download speed.	Section 7.1a of the Dutch Telecommunications Act. • The normally available speed must be reached in at least eight out of ten measurements of an IAS that an end-user conducts in a single week. The measurements should be spread out evenly across at least three days in said week and can be done at any given time during the day, but that no more than one measurement per hour can be counted. • At least 90% of the maximum speed is reached in one of the ten measurements that an end-user conducts in a single week.
MT	All fixed broadband ISPs are obliged to include in their contracts a metric termed Typical Speed Range (TSR).	An NRA decision published in 2016 defines the TSR as a metric with which the ISP indicated the expected performance of a fixed broadband connection. The TSR is expressed as a range between two figures - the minimum and maximum speeds. Therefore, a broadband connection is expected to perform within the declared TSR. The Decision also states that in those cases where the headline speed includes a numerical figure to describe speed, the IAS provider is expected to provide a connection which can physically achieve the stated headline speed. The same rules apply to broadband services which are marketed as fixed, even if these are offered through mobile infrastructure.
SI	• Minimum speed must be at least 50% of the maximum and at least 25% of the maximum inlet and outflow speed using FWA access; • Normally available speed must be at least 80% of the maximum incoming and outgoing connection speed. In the case of FWA access, the normally	• Normally available speed: at least 90% of the time of the day outside peak hours; • 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).

	available speed must be at least 50% of the maximum speed.	
SK	• Minimum speed: ≥ 40% of maximum speed; • Normally available speed: ≥ 90% of maximum speed; • Advertised speed: recommended to be applied so that it allows to evaluate advertised speed against real performance of IAS.	• Normally available speed: 90% of any continuous 4-hour measurement period; • Maximum speed: at least once between 00:00 and 24:00.

Table 28. Specifications of speeds by the use of percentages and achievability

Legally binding or informal

In 11 of the 17 Member States (BE, CZ, DK, EL, HR, IT, LV, MT, NL, RO, SI) that have set national specifications, the requirements or NRAs' opinion/recommendation were legally binding. In the remaining Member States (AT, BG, CY, FI, PL, SK), the specifications or requirements were not legally binding.

Question 18. In the reporting period, have you imposed **any new additional transparency requirements** or **changed the existing ones** regarding the publication of information referred to in article 4(1), subs. 1 a-e?

If *yes*, please provide details of the requirements.

Eight NRAs (AT, BE, BG, DE, EL, IT, LT, SI) have imposed additional transparency requirements regarding the publication of information referred to in Article 4(1), subparagraphs 1 a-e, as summarised in the table below:

NRA	Additional transparency requirements
AT	• On an informal level, transparency requirements are regularly discussed with ISPs. • RTR had/has bilateral meetings with ISPs, which also cover issues regarding the OIR and the accompanying BEREC Guidelines. • Also, the regular exchange between ISPs and RTR concerning different matters of telecommunications (including OI issues) is ongoing. Within this forum, RTR presents the latest developments regarding OI to the ISPs, and ISPs are welcome to present their views. • Furthermore, there are some non-binding templates/recommendations for ISPs, available on RTR's website.

BE	On 23 February 2022, BIPT published guidelines on the use of the term “unlimited internet” in commercial communications of ISPs. BIPT acknowledges that a fair use policy (FUP) can define the limits of the “fair use” to guarantee high-quality internet to all of the network’s customers. BIPT, however, finds that ISPs may only use the term “unlimited” for tariff plans where the data volume allows most of the customers to access to the internet without speed restrictions. BIPT thinks that for fixed internet the limit in the FUP should be set at a monthly data volume of at least 3 terabytes, while in the case of mobile internet this is 300 gigabytes. The matter of transparency is also dealt with by the BIPT Guidelines. These Guidelines state that in pre-contractual and contractual documents and on the ISP website clear, easy to understand and to access, precise and up-to-date information needs to be given on the FUP and on what the FUP means in practice. In addition, the Guidelines state that if the FUP is applied, only speed reductions are admissible, not blocking the “unlimited” IAS offer. Finally, there is a review clause in the Guidelines to adjust the thresholds where appropriate.
BG	In its Position, CRC expressed its view about publishing the information referred to in Article 4(1) (b) of the OIR, 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 ISPs’ websites.
DE	The ordinance for framework provisions on the promotion of transparency, publication of information and additional facilities for cost monitoring on the telecommunications market entered into force on 1 June 2017. From that date on, the ordinance obliges fixed and mobile ISPs to provide more transparency when offering IAS.
EL	As of 26 August 2024, according to the updated national OI Regulation issued by EETT and published in the Gov. Gazzete (OJ 1282/B/26-2-2024), the following additional transparency requirement applies: the operators are obliged to inform the consumers on the actual speeds for fixed and mobile networks before concluding a contract. This includes all sales channels, both offline and online. In the latter case the operators have to make available appropriate web page within their sites.
IT	AGCOM (by virtue of a competence attributed by the Decree Law of 16 October 2017, n. 148 art. 19 quinquiesdecies), adopted a resolution (n. 292/18/CONS) regarding the definition of the technical characteristics and the corresponding names of the various types of physical infrastructure used for the provision of telephone services, television networks and electronic communications. With this provision, AGCOM proposed some transparency measures in the broadband and ultra-broadband retail offers, requiring the operators to make clear the physical architecture through which the respective fixed access services are offered, as well as the quality of service that the user could experience. The definitions and technical characteristics of the access network architectures are introduced at the same time (see Question 14).

LT	In connection to transposing the EECC into national law, new rules for publication of QoS parameters were approved. For the IAS, operators must publish not only the information about QoS parameters referred to in Article 4(1), subparagraphs 1 a-e of the OIR, but also latency, jitter and packet lost ratio.
SI	Based on the General Act (legally binding since autumn 2019), AKOS 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 29. Introduction of additional transparency requirements

Question 21. In the reporting period, is there any change regarding NRA's or national interpretation of "**significant discrepancy, continuous or regularly recurring**" as stipulated in article 4(4)?

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, please specify.

13 NRAs (BG, CY, CZ, DE, EL, ES, HR, IT, LV, MT, PL, RO, SI) gave a material interpretation of "*significant discrepancy, continuous or regularly recurring*", as can be seen in the table below:[44]

NRA	Interpretation
BG	• 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	• For the IAS 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

[44] 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

	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 IAS, 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 at least five times below 25% of the value of the advertised speed for an interval longer than or equal to 2 minutes in a time range of 60 minutes.
DE	Legal basis entitling the consumer to reduce the contractually agreed fee (§57 (4) TKG); interpretation by binding notice by BNetzA (according to §57 (5) TKG). The binding notice specifies the non-conformity regarding fixed down- and upload speeds if one of these cases occurs: • 90% of the contractually agreed maximum speed is not achieved at least once at two out of three measurement days; • the normally available speed is not achieved in 90% of the measurements; • the speed falls below the contractually agreed minimum speed at least two out of three measurement days. • By measuring with the broadband monitoring mechanism, the following requirements need to be considered: • 30 measurements must be performed; • The measurements must be taken on three separate days with at least one day without measurements in between those days • The number of measurements is to be spread equally over the three measuring days, so that 10 measurements are taken on a specific day; • Measurements can be conducted not closer than every five minutes, between the fifth and sixth measurement of a day there has to be a break of at least three hours • The 30 measurements have to be conducted within 14 days; • 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	According to the updated national open internet regulation, there is a change in the threshold value below which the speed discrepancy is considered to be significant: regarding the FTTH/FTTB technology, significant discrepancy is defined to occur when the realistic minimum subscriber's speed is less than 90% of the minimum contracted speed (DL/UL) instead of less than 80% which was used previously.
ES	There has to be a breach of either minimum or normally available speed. It has to be "continuous".
HR	If an end user complains about broadband speed on a fixed electronic communications network, the end user must submit to the operator 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) which shows that speeds is below 70% of maximum/advertised speed. Tests are carried out by means of a certified tool HAKOMetar for broadband speed tests prepared by the Agency. The results of the tests represent adequate proof in the procedure for the resolution of complaints made by end users.
IT	The regulation for fixed networks (Resolution n. 156/23/CONS) allows end users to ask for compensation if contractual IAS speeds are not met. To verify speeds, end-users must utilise the certified free measurement software Ne.Me.Sys. This software tests the line speed every 15 minutes over a 24-hour period. If contractual speeds are not achieved on two separate occasions within 30 days, end users will have the option to terminate their contract without incurring additional costs. This regulation was developed in consultation with a technical committee comprising operators, consumer associations, and the Ministry, and was subsequently approved by the NRA.
LV	<u>Fixed networks:</u> • maximum (advertised) speed; • normally available speed, which is available to the end-user no less than 95% of the time per day and whose value is not lower than 70% of the maximum (advertised) connection speed and is not lower than the minimum broadband IAS determined by the SPRK connection speed value in a fixed electronic communications network; • minimum guaranteed speed, the value of which is at least 20% of the maximum (advertised) connection speed specified in the contract and is not lower than the minimum broadband IAS connection speed value determined by the SPRK in a fixed electronic communications network and which describes the lowest speed that can be available to the end user during peak hours. <u>Mobile networks:</u> • maximum (advertised) speed, which describes the maximum speed actually available to the end user; • minimum guaranteed speed, the value of which is no less than 95% of the time per day is not lower than the minimum broadband IAS connection speed value determined by the SPRK in a mobile electronic communications network at the fixed service receiving location in the coverage area specified by the operator in the end-user's premises or household, if the IAS is provided through a router-modem. A mobile ISP shall determine the minimum guaranteed speed if he provides the IAS to the end-user in another way. If any of the above-mentioned conditions are not fulfilled during emergency measurements, it is considered that there is a significant discrepancy in the quality of the IAS.
MT	• “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	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. (This definition was valid until 31 October 2024, as the President of UKE has not extended the certificate for the PRO Speed Test measurement mechanism.)
RO	<u>For the fixed IAS:</u> In the guidelines issued, ANCOM recommended 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. 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: • 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. To ascertain continuous or regularly recurring discrepancies between contractual speeds and the actual performance of the IAS, 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: • 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. <u>For mobile IAS:</u> ANCOM established a procedure that a user must follow in order to ascertain significant, continuous or regularly recurring discrepancies between the contractual speeds and the real performance of the IAS. 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.

SI	• 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 30. Interpretation of terms

Question 23. In the reporting period, have there been any updates regarding your **IAS quality monitoring tool** for consumers or any respective measurement tool projects?

If *yes*, please provide details.

21 NRAs (AT, BG, CY, CZ, DE, DK, EL, FI, HR, HU, IT, LT, LU, ME, NO, PL, PT, RO, SE, SI, SK) provide an IAS quality monitoring tool and in 10 Member States (AT, BG, CY, CZ, DE, FI, HR, IT, PL, RO) and ME, it is considered a certified monitoring mechanism according to Article 4(1) (d) of the OIR.

NRA	Name of the tool	URL	Certified
AT	RTR-Netztest / RTR-NetTest	https://www.netztest.at https://www.rtr.at/TKP/service/rtr-nettest/help/Desktop_App.en.html	Yes
BG	CRC nettest	https://nettest.crc.bg/#/home	Yes
CY	cyNettest	https://cynettest.ee.cy/ https://ocecpr.ee.cy/el/content/cynettest-systima-ektimisis-poiotitas-eyryzonikon-syndeseon#English_Version	Yes
CZ	NetTest	https://nettest.cz/en/	Yes
DE	Breitbandmessung	https://breitbandmessung.de	Yes
DK	Tjekditnet (Ookla)	https://tjekditnet.dk/	No
EL	HYPERION	https://hyperiontest.gr	No
FI	Bittimittari.fi	www.bittimittari.fi/en	Yes
HR	HAKOMetar HAKOMetar Plus	https://hakometarplus.hakom.hr/home	Yes
HU	Szelessav	http://szelessav.net/en/internet_speedtest	No
IT	Ne.Me.Sys/Misura Internet	https://misurainternet.it	Yes
LT	matuok.lt (Ookla)	http://matuok.lt	No
LU	checkmynet.lu	https://checkmynet.lu/	No
ME	EKIP NetTest	https://nettest.ekip.me/en/test	Yes

NO	Nettfart	https://nettfart.no/en/test	No
PL	PRO Speed Test	https://pro.speedtest.pl/	Yes[45]
PT	NET.mede	https://netmede.pt/	No
RO	Netograf	https://www.netograf.ro/#/	Yes
SE	Bredbandskollen	http://www.bredbandskollen.se/	No
SI	AKOSTestNet	https://akostest.net	No
SK	Meracinternetu/ MobilTest	https://www.meracinternetu.sk	No

Table 31. IAS quality monitoring tools provided by NRAs

All of the above-mentioned IAS quality monitoring tools can measure download and upload speeds as well as latency. Additionally, many tools allow to perform measurements of jitter (17 out of 21) and packet loss (13 out of 21). With some of these tools (7 out of 21), end-users can also check if any ports are blocked. All but one tools are available as a browser version. The majority of these tools (17 out of 21) are provided as an Android or iOS app, while some (8 out of 21) also consist of installable clients.

NRA	DL speed	UL speed	Latency (ping)	Jitter	Packet loss	TCP/UDP port blocking	Web browser	Android app	iOS app	Installable client
AT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
BG	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
CY	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
CZ	Yes	Yes	Yes	No	No	No	Yes	Yes	No	No
DE	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
DK	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No
EL	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
FI	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No
HR	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
HU	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
IT	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes
LT	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No
LU	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

[45] This was valid until 31 October 2024, as the President of UKE has not extended the certificate for the PRO Speed Test measurement mechanism

ME	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
NO	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
PL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes[46]
PT	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
RO	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
SE	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No
SI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
SK	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No

Table 32. Indicators measured with the tool and supported platforms

Question 27. Related to the OIR, regarding the reporting period, are there any **other relevant information** (not mentioned before) that you would like to share? Have there been any of the following?

i. new court proceedings;

ii. NRA's regulatory decisions;

iii. updates to cases reported previously;

iv. internal or external implementation actions;

v. guidance (of e.g. NRA, ministry) on additional transparency or information requirements on ISPs;

vi. any additional remedies for consumer redress in relation to non-conformance of IAS with the contract terms;

vii. other, please specify.

NRA	Court proceedings
AT	Please see chapter “Measures in accordance with Article 5(1)” in RTR’s Net Neutrality Report 2025 (and also in the past OI reports). The list of all cases and

[46] This was valid until 31 October 2024, as the President of UKE has not extended the certificate for the PRO Speed Test measurement mechanism

	court proceedings (including a brief overview)[47] and the links to the individual decisions[48] can be found on the RTR website. • While Hutchison Drei Austria GmbH ("Drei") advertised maximum speeds of 10 Mbps and 40 Mbps for fixed and/or mobile IAS on its website, the actual speed available was only half as fast according to the T&Cs of the contract. The Association for Consumer Information (VKI) therefore filed a lawsuit on behalf of the Ministry of Social Affairs for misleading advertising. The Austrian Supreme Court (Oberster Gerichtshof – OGH) clarified: Even indications that the speeds are maximum values ("up to" information) do not eliminate the misleading effect.
DE	StreamOn: 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 throttling contained in the zero-rating offer StreamOn. Telekom DE 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. Telekom DE deactivated its video throttling on 9 August 2019. The Administrative Court of Cologne 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 article 3(3) of the OIR and the principle of equal treatment. The ECJ pronounced its judgment on 2 September 2021, as already outlined in Chapter 1 of this Report. Following this ruling, BNetzA prohibited the marketing of the zero-rating option and terminated the existing customer contracts. Vodafone Pass: 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 Düsseldorf 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) of the OIR. The District Court of Düsseldorf passed the issue of tethering to the ECJ (preliminary ruling) requesting clarification whether there is a violation of article 3 of the OIR because zero-rating of applications in Vodafone Pass applies only when a mobile device is used. The ECJ pronounced its judgment on 2 September 2021. Following this ruling BNetzA prohibited the marketing of the zero-rating option and terminated the existing customer contracts. Vodafone has withdrawn the appeal at the District Court of Düsseldorf. *Freedom to use terminal equipment:* In May 2023, the German Federal Court of Justice ruled on Article 3(1) of the OIR more precisely regarding the right to use

[47] Available at https://www.rtr.at/TKP/was_wir_tun/telekommunikation/weitere-regulierungsthemen/netzneutralitaet/nn_reports.en.html
[48] Available at https://www.rtr.at/TKP/was_wir_tun/telekommunikation/weitere-regulierungsthemen/netzneutralitaet/nn_procedures.en.html

	terminal equipment of one's choice. The case originated in civil legal proceedings. The German consumer protection association (vzbv) had sued Telefonica Germany GmbH for the use of a clause in its general terms and conditions according to which customers were not allowed to use LTE routers in its unlimited data plans of mobile tariffs. Hence, according to the terms and conditions, SIM cards of these mobile tariffs should not be used as substitute for fixed tariffs at home. In parallel, BNetzA had ordered the ISP (and other ISPs) not to use this clause.
IT	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. With sentences n. 1200/2020 and n. 1201/2020, the Lazio Regional Administrative Court confirmed the lawfulness of the provision of article 5, paragraph 1 of resolution n. 348/18/CONS. The sentences were appealed to the Council of State. On 2 August 2021, the Council of State rejected the request to modify the previous decision n. 1200/2020. On 11 January 2024, the Council of State rejected the request to modify the previous decision no. 1201/2020.
RO	ANCOM concluded that a certain traffic management practice constitutes an infringement of Article 3(3) third subparagraph of the OIR 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. In the first instance, the Bucharest Court of Appeal decided to suspend the ANCOM decision until the ruling on the substance on its annulment. ANCOM appealed the ruling of the Appeal Court on the decision suspension. However, the appeal was rejected on 12 December 2019 by the decision of the High Court of Cassation and Justice, Administrative and Fiscal Contentious Section, and thus the decision on the suspension has remained definitive. Regarding the cause which concerns the annulment of the ANCOM President's Decision n. 669/08.08.2018, on which the Bucharest Court of Appeal, Administrative and Fiscal Contentious Section VIII, was to issue the ruling on the substance, after several deferrals of the ruling, on 26 May 2021, the Court decided to annul the above-mentioned decisions. ANCOM appealed the Court decision regarding the annulment of the ANCOM President's Decision no. 669/08.08.2018. The case reached the High Court of Cassation and Justice in Romania (ICCJ), the last level of jurisdiction in this case. As a result of Telekom RO Mobile's request, ICCJ considered necessary to address a preliminary question to the ECJ, to clarify the interpretation of the provisions of Article 3 of the OIR. The case was registered under Case C-367/24. More precisely, the ICCJ decided, in April 2024, to ask the ECJ to answer the following question: "*Article 3 of the* [OIR] *is to be interpreted as meaning that a tariff option launched by a telecommunications service company that allows end customers who have accessed it to use free of charge all video streaming services, regardless of the content providers from which they originate and regardless of whether or not they have the quality of content partners of the telecommunications service company, without the volume of data consumed through the use of these services being*

	included in the volume of data provided monthly by the mobile phone tariff, but with a bandwidth limitation for this type of content, is compatible with the obligations arising from these provisions?" ANCOM has submitted written observations before the ECJ, therefore a ruling of the Court is expected in the next period.

Table 33. Court proceedings related to the OIR

Annex II: Abbreviations for countries

Throughout the report, Eurostat country codes are used as abbreviations for the names of the Member States[49]. The country codes and the respective names of the NRAs are shown in the following table.

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

Table 34. Country codes and NRAs

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

Annex III: List of figures and tables

Figures

Tables