

Report on comparison tools and accreditation



9 March 2023

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Executive summary

Article 103[2] of the EEC (European electronic communications code) provides that regulatory authorities shall ensure that end-users have access free of charge to at least one independent comparison tool. The tool must enable end-users to compare and evaluate different IASs (Internet Access Services) and publicly available NB-ICSs (Number Based Interpersonal Communications Services), and, where applicable, publicly available NI-ICSs (Number-Independent Interpersonal Communications Services), concerning prices and tariffs of services and the quality-of-service performance.

These independent comparison tools must also meet other requirements, as set by Article 103[3] of the EEC. The fulfilment of these requirements is a necessary condition to obtain the certification by the national regulatory authority.

In this context, the aim of the report is to offer insights on the independent comparison tools which enable consumers (and other end users, if so required by Member States) to compare and evaluate IAS and publicly available NB-ICS as set out in Article 103[2] of EEC and, where applicable, publicly available NI-ICS.

The report also captures details of the certification process within each Member State that is, upon request, available to the providers of an independent comparison tool that meet the requirements set out in Article 103[3] of the EEC.

While several Member States have already put in place comparison tools and/or certification processes, BEREC has never collected information on this issue since the requirement that end-users have access free of charge to at least one independent comparison tool which enables them to compare and evaluate different offers is a new provision set out in the EEC. Therefore, this exercise has not been undertaken previously by BEREC.

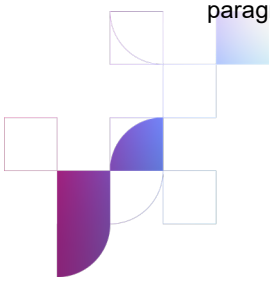
In the light of the above, on 10 June 2022, BEREC circulated a questionnaire among 36 countries aimed at gathering information from NRAs to offer insights on the comparison tools which enable end-users to compare and evaluate different IAS and publicly available NB-ICS as set out in Article 103[2] of the EEC. Twenty-seven responses were received in total.¹

The results of the questionnaire are shown in this report, which is divided into four sections.

Section 1 explains the context and policy principle behind the EEC rules regarding independent comparison tools.

Section 2 concerns the independent comparison tools, looking at characterizing the ones that are already in place and the ones that will be implemented in each country. This section focuses on the way comparison tools were implemented, the services and products that are covered, including bundles, the mechanism of comparison (prices and tariffs, speed, quality

¹ AT, BE, BG, CY, CZ, DE, DK, EL, ES, FR, HR, HU, IE, IT, LI, LT, LV, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK. ME has not answered to the questionnaire, therefore it is not included among the respondents, but it has provided a brief description of the implementation of the tool, reported in a footnote in the corresponding paragraph of the report.



of service performance, and technology of Internet access), and on the challenges of implementing comparison tools and the compliance with the EECC.

Section 3 assesses the situation regarding certification processes and details the few existing ones, covering namely the requirements, costs, lessons learned, and compliance with the EECC.

Section 4 highlights the main features of the implementation of independent comparison tools in Europe and draws some concluding remarks. In particular:

- 15 countries have an independent comparison tool available; in 8 of them the tool is fully compliant with the provisions of Article 103 of the EECC.
- In all these 15 countries, the tool allows at least the comparison of mobile IAS.
- In 12 countries, the comparison tool is able to compare and evaluate offers which include bundles of services or products.
- Independent comparison tools are usually available only to consumers.
- The prices and charges included in the comparison tools are mostly recurring charges and consumption-based charges. Other charges frequently included in comparison tools are those related to the prices for activating the service and the prices of SIM cards.
- In 11 countries, the comparison tool takes into account the speed of Internet access.
- In six countries, the comparison tool is able to compare and evaluate offers also taking into account the technology of Internet access, while five countries are considering this option in future implementations.
- In 11 countries, more than 75% of the market (in terms of offers) is covered by the comparison tool.
- In only three countries, the comparison is possible at the sub-national level (e.g., regions, metropolitan areas, municipalities, etc.) and in two countries, it is possible at the streets and single premises level and in one country using zip codes.
- Most mentioned challenges in the implementation of independent comparison tools are the data collection and the design and testing of the algorithm used to order the offers.
- Among the most mentioned criteria on which to base the comparison are price, data amount, duration of the contract, technology, location, SMS package, and voice package.

Certification processes for independent comparison tools still need to be put in place in most countries. Only 5 countries have a certification process in place, in 3 of them, this process is already fully compliant with Article 103 of the EECC.



1 The policy principle

The comparability of offers is a huge challenge for national regulatory authorities. As is well known, the structure of the markets for electronic communication services is characterized by a high number of companies providing differentiated services in terms of prices, quality and other characteristics. Furthermore, these companies usually bundle their services with other services (such as network configuration and optimization services, specialized assistance, IT security, *etc.*) or products (such as smartphones or wi-fi routers). Consequently, the total cost of the service can significantly affect the monthly expenditure for consumers and their demand to subscribe to a new service or their choice to switch providers.

In such a complex decision-making context, the full transparency of contractual conditions, even when implemented in clear and understandable language, could not be sufficient to enable consumers to choose the provider that really meets their needs. In this perspective, the Directive (EU) 2018/1972 (EECC) provides that national regulatory authorities, in addition to guaranteeing access to transparent and updated information, are to ensure “*end-users to assess the merits of different providers of internet access services and interpersonal communications services*” by means of “*independent comparison tools such as websites.*”²

In general, comparison tools can be operated by private undertakings or by or on behalf of regulatory authorities. In both cases, comparison tools “*should be operated in accordance with specified quality criteria including the requirement to provide details of their owners, provide accurate and up-to-date information, state the time of the last update, set out clear, objective criteria on which the comparison will be based, and include a broad range of offers covering a significant part of the market.*”³

Regulatory authorities should guarantee the quality and independence of the information reported in the comparison tools. To this end, they can either realize – or commission – a comparison tool or define an accreditation procedure for third-party undertakings if specific reliability requirements are met.

More precisely, Article 103[2] of the EECC provides that national regulatory authorities shall ensure that end-users have access free of charge to at least one independent comparison tool. The tool must enable end-users to compare and evaluate different IASs (Internet Access Services) and publicly available NB-ICSs (Number Based Interpersonal Communications Services), and, where applicable, publicly available NI-ICSs (Number-Independent Interpersonal Communications Services), with regard to prices and tariffs of services and the quality-of-service performance.

The European Commission recognizes the importance of quality of service that, together with prices and tariffs, represent necessary elements to be considered in order to ensure an effective comparison among services. At present, it is not possible to compare offers based on their respective prices alone. The download and upload speed for internet access services

² See recital 267 of the EECC.

³ See recital 268 of the EECC.



and the other quality parameters published pursuant to Article 104 of the EECC represent essential elements that must be considered for the purpose of comparison.

In addition to quality performance, the independent comparison tool must meet other requirements. According to Article 103[3] of the EECC, the tool shall:

- (a) be operationally independent from the providers of the services, thereby ensuring that those providers are given equal treatment in search results;
- (b) clearly disclose the owners and operators of the comparison tool;
- (c) set out clear and objective criteria on which the comparison is to be based;
- (d) use plain and unambiguous language;
- (e) provide accurate and up-to-date information and state the time of the last update;
- (f) be open to any provider of IASs or publicly available ICSs making available the relevant information, and include a broad range of offers covering a significant part of the market and, where the information presented is not a complete overview of the market, a clear statement to that effect, before displaying results;
- (g) provide an effective procedure to report incorrect information;
- (h) include the possibility to compare prices, tariffs, and quality of service performance between offers available to consumers and, if required by Member States, between those offers and the standard offers publicly available to other end-users.

The fulfilment of the above requirements is a necessary condition to obtain the certification by the national regulatory authority.⁴

2 The independent comparison tool

2.1 Implementation

According to the results of the questionnaire, that was circulated within Member States on 10 June 2022, an independent comparison tool is available in 15 countries.⁵ In five of these countries, this tool is developed (in-house) by the NRA.⁶ In six countries the development of the tool has been commissioned to a third party by the NRA.⁷ One country has certified a tool who is developed by an independent provider.⁸ There are three countries where the tool is

⁴ See Article 103[3] of the EECC.

⁵ BE, BG, CY, CZ, DK, EL, HR, IE, MK, MT, NO, PT, RO, RS, SI. In ME it is available a free of charge and transparent web application to help users choose electronic communication services: an interactive tool ("Calculator") for fixed, mobile and Internet access services, as well as TV and radio programmes and bundles (<http://kalkulator.ekip.me/potrosnja>).

⁶ BG, HR, MT, RS, SI.

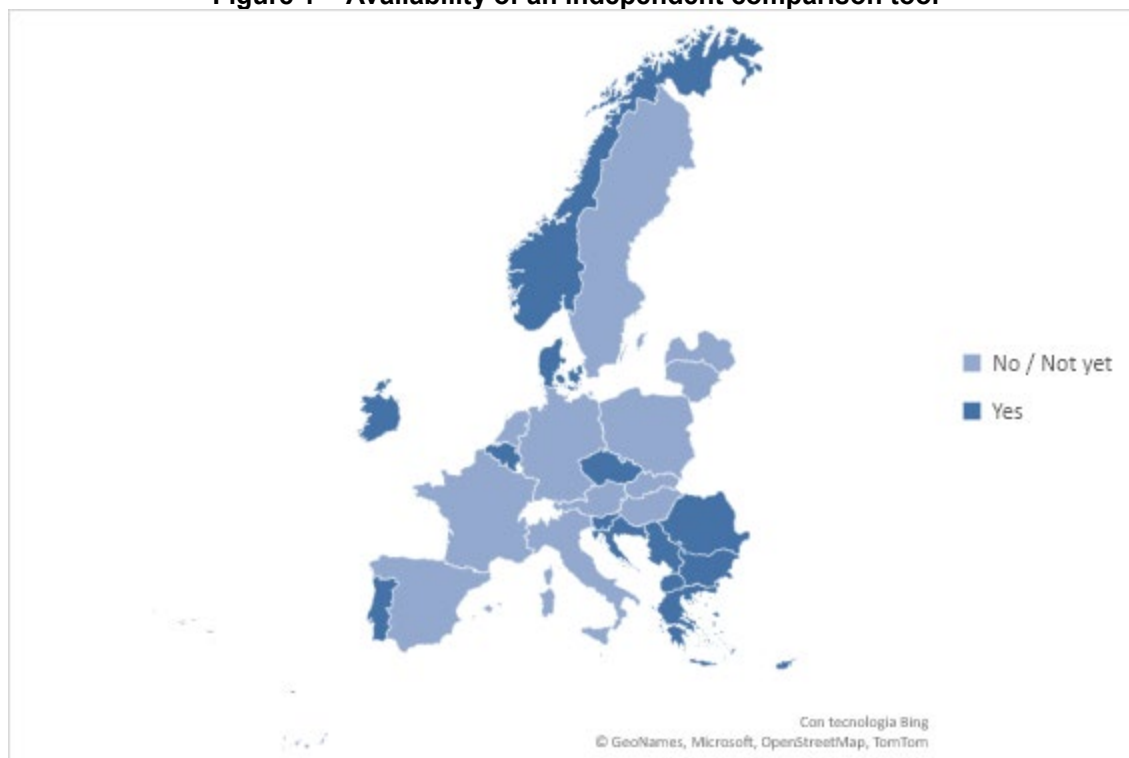
⁷ BE, CY, CZ, EL, IE, MK.

⁸ NO.



implemented in a different way: in Romania, the tool was developed by an IT company designated by public auction, the tool is operated and managed by the NRA; Denmark mentioned that the market provides comparison tools; and, in Portugal, the NRA developed a tool, but contracted a supplier for the technical development.

Figure 1 – Availability of an independent comparison tool



In all the countries where an independent comparison tool is already implemented, the tool is accessible through a website.⁹ In two countries an additional application for smartphones is available.¹⁰

In 13 countries, the comparison tool has not yet been implemented.¹¹ In Lithuania and Italy, the tool will be developed by the NRA. In Italy, the NRA has already developed a prototype for the comparison tool. Currently, it is accessible only to consumer associations and providers of telecommunication services for testing purposes. Lithuania decided to have two separate comparison tools: one for the comparison of quality of service, and the other for price comparison.

In Hungary and Slovakia, the development of the tool will be commissioned to a third party by the NRA, and the Netherlands and France plan to certify tools which are developed by independent providers. In Spain, the Ministry of Economic Affairs and Digital Transformation

⁹ For an overview of all the websites, please see Annex 3.

¹⁰ CY, MK.

¹¹ AT, DE, ES, FR, HU, IT, LI, LT, LV, NL, PL, SE, SK.

guarantees the development of the comparison tool. Austria is checking if the four comparison tools that are already available in their country fulfill the criteria of Article 103 of the EECC.

In some countries, the decision on how to implement the comparison tool has yet to be made.¹² In Latvia, the tool will be either developed by the NRA or development will be commissioned to a third party. In Poland, the process of EECC implementation is still ongoing. At this stage, according to the draft of a bill, the President of UKE will be able to certify a price comparison tool provided by a third party that meets the criteria set out in the EECC. In case of a lack of a certified price comparison tool, the President of UKE will create its own price comparison tool. The comparison tool can be developed by the NRA or by a third party.

In most countries (where the tool has not been implemented yet), the tool will be accessible through a website.¹³ In Germany, an app will also be available. The other countries currently have no information on how the tool will be accessible.¹⁴

2.2 Services and products covered

Comparison of services

There is a difference in what kind of services are evaluated by the comparison tools. Still, in all 15 countries where the comparison tool is available, the tool includes the comparison of mobile IAS, and in 14 countries it includes the comparison of mobile NB-ICS. Only in Cyprus, the comparison tool also includes the NI-ICS. Cyprus explained that the user of the comparison tool can insert specific criteria for the products/offers that they would like to view, and the tool provides all available relevant offers. The products/offers are presented based on the criteria chosen by the user. In the table below, you can see what kind of services can be compared and evaluated by the currently available comparison tools. In two countries, the tool also provides comparison of other services: in Portugal and the Czech Republic, there is also the option to compare TV services.

Table 1 – Services compared and evaluated by the tool

Country	Mobile IAS	Fixed IAS	Mobile NB-ICS	Fixed NB-ICS	NI-ICS	Other
BE	√	√	√	√		
BG	√	√	√	√		
CY	√	√	√	√	√	
CZ	√	√	√	√		√
DK	√	√	√			
EL	√	√	√	√		
HR	√	√	√	√		
IE	√	√	√	√		

¹² DE, LI, SE.

¹³ DE, FR, HU, IT, LT, LV, NL, SK.

¹⁴ ES, LI, PL, SE.

Country	Mobile IAS	Fixed IAS	Mobile NB-ICS	Fixed NB-ICS	NI-ICS	Other
MK	√	√	√	√		
MT	√	√	√	√		
NO	√		√			
PT	√	√	√	√		√
RO	√	√	√	√		
RS	√					
SI	√	√	√	√		
Total	15	13	14	12	1	2

In five countries where the tool is not implemented yet, the services that will be compared and evaluated can be: mobile IAS, fixed IAS, mobile NB-ICS, fixed NB-ICS.¹⁵ In Lithuania, only the mobile and fixed IAS is compared in quality comparison tool.¹⁶ According to the draft of a bill, Poland is planning to additionally compare the NI-ICS, but only if it will be possible to compare them by price, tariff, and quality of service. Other countries have no information about this yet.¹⁷

Comparison of bundles

Nowadays, many services are presented as a bundle (for example, telephony, television and Internet). Bundles could make it more difficult for consumers to compare prices. In three countries the comparison tool can only compare stand-alone services.¹⁸ In 12 countries the comparison tool is able to compare and evaluate offers which include bundles of services or products.¹⁹ To be more specific, eight of the 12 countries indicated that the tool can compare bundles of services (not products). In most countries, the tool can compare fixed and mobile telephony, IAS, and TV services. In Malta, the tool can compare fixed Internet, TV and telephony. In Denmark, the tool compares mobile NB-ICS, mobile IAS, as well as music and streaming services.

Five countries where the comparison tool can compare bundles of services and products provided details on how this tool works. Cyprus explained that the tool evaluates bundles based on criteria selected by the user. In Ireland, the tool provides a variety of mobile handsets, associated with mobile tariffs. In Bulgaria, the comparison tool compares all kinds of services with a product included, but it only compares the price of the bundles, and it does not compare the characteristics of the product (smartphone, router, etc.). In Portugal, the most

¹⁵ DE, FR, HU, IT, NL.

¹⁶ The assumption taken, that network coverage granting IAS also grants possibility for interpersonal communications.

¹⁷ ES, LI, LV, SK, SE. Other: HU pay TV services, bundles of services and/or products containing IAS and/or NB-ICS and/or pay TV. AT: they have to fulfill the criteria of Art 134 Telecommunications Act 2021. Mobile IAS, fixed IAS, mobile NB-ICS, fixed NB-ICS are expected to be covered. NIICS will probably not be included.

¹⁸ CZ, NO, RS.

¹⁹ BE, BG, CY, DK, EL, HR, IE, MK, MT, PT, RO, SI.



relevant components of the different products cannot be compared in the tables of results, but they are available on the pages of details of each tariff plan. In Romania, end-users can set up the desired criteria and/or usage pattern for each service (of the bundle) and the comparison tool will return the best prices for the bundles that met all those criteria.

Out of the 13 countries that have not implemented the tool yet, five countries mentioned that the tool will also be able to compare bundles.²⁰ In Germany, the NRA has still to decide which tariff types should be included in the comparison tool (simple tariffs, double/ triple/ quadruple play). In this respect an update may be necessary from time to time, depending on how customer demand develops. Lithuania specified that the tool will compare bundles of services, specifically IAS and fixed/mobile voice telephony. In Italy, the tool will most likely compare and evaluate every kind of bundle of services and products. Consumers will select their choice of products and services and the tool will filter and rank the offers taking into account the preferences specified by consumers. In the Netherlands, the tool may also compare services and products, for example, IAS and TV and/or telephone deals or a deal for NB-ICS with a smartphone. Hungary also gives the example of mobile NB-ICS and handsets (mostly smartphones). The other countries do not have that information at the moment.²¹

Availability of the tool

In all 15 countries that have a comparison tool in place, the tool allows the comparison and assessment of offers available for consumers. In Greece and in North Macedonia, the tool also allows the comparison of offers available respectively for (non-residential) businesses and micro and small enterprises. In Belgium, the tool will allow the comparison and assessment of offers available for microenterprises. In Bulgaria, the offers are divided into three categories: offers for private users, offers for business users, and offers for users with disabilities. In Romania, the price comparison tool includes all standard offers (i.e., excluding customized offers which are part of individual negotiations) irrespective of whether they are addressed to customers or business users.

Among the 13 countries where the tool is not implemented yet, some do not have information on the availability of the tool,²² but eight countries answered that the tool will be available for consumers.²³ In Germany and Italy, the tool will be also available for micro and small enterprises and non-profit organisations.

2.3 Mechanism of comparison

Prices and tariffs

²⁰ DE, HU, IT, LT, NL.

²¹ ES, FR, LI, LV, PL, SK, SE.

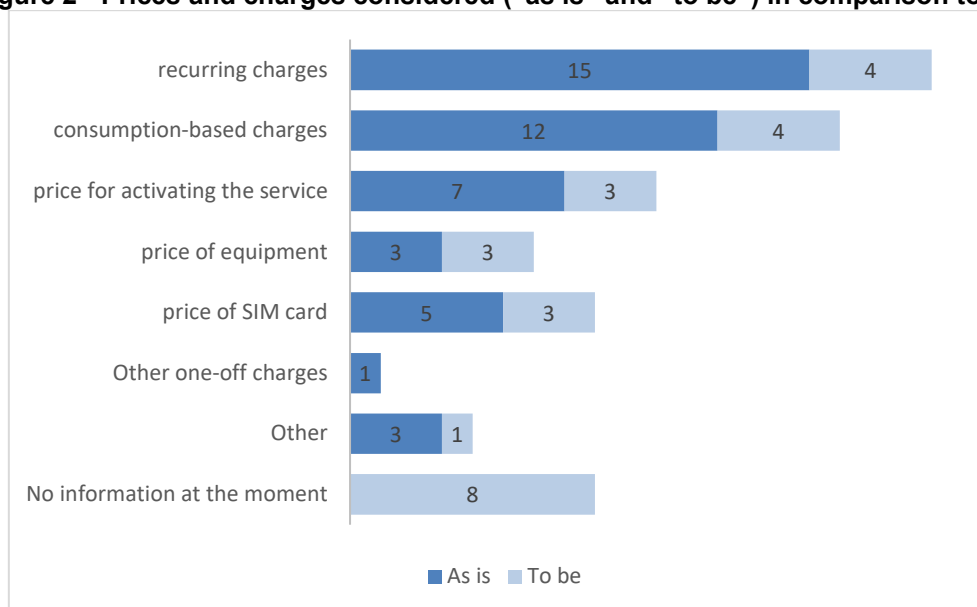
²² ES, LI, PL, SE.

²³ DE, FR, HU, IT, LT, LV, NL, SK.



From the answers to the BEREC questionnaire, it emerges that the prices and charges included in the comparison tools already in place are mostly recurring charges and consumption-based charges (see “as is” in Figure 2).²⁴

Figure 2 - Prices and charges considered (“as is” and “to be”) in comparison tools



In the 13 countries that are planning to implement the comparison tool,²⁵ only four of them are considering recurring charges and consumption-base charges (see “to be” in Figure 2).²⁶

Table 2 and Table 3 show the prices and charges considered in the 15 countries that already have an independent comparison tool in place and in the 13 countries that are planning to implement it, respectively.

Table 2 - Prices and charges considered in comparison tools

Country	Recurring charges	Consumption-based charges	Price for activating the service	Price of equipment	Price of SIM card	Other one-off charges	Other
BE	√	√	√		√		
BG	√	√				√	
CY	√	√	√	√	√		
CZ	√	√	√				√
DK	√						
EL	√	√					
HR	√	√					
IE	√	√	√	√	√		
MK	√	√					
MT	√						√

²⁴ BE, BG, CY, CZ, DK, EL, HR, IE, MK, MT, NO, PT, RO, RS, SI.

²⁵ AT, DE, ES, FR, HU, IT, LI, LT, LV, NL, PL, SE, SK.

²⁶ DE, HU, IT, LT.

Country	Recurring charges	Consumption-based charges	Price for activating the service	Price of equipment	Price of SIM card	Other one-off charges	Other
NO	√	√	√	√	√		
PT	√	√	√	√		√	√
RO	√	√			√		
RS	√						
SI	√	√	√				
Total	15	12	7	4	5	2	3

Table 3 – Prices and charges that will be considered in comparison tools

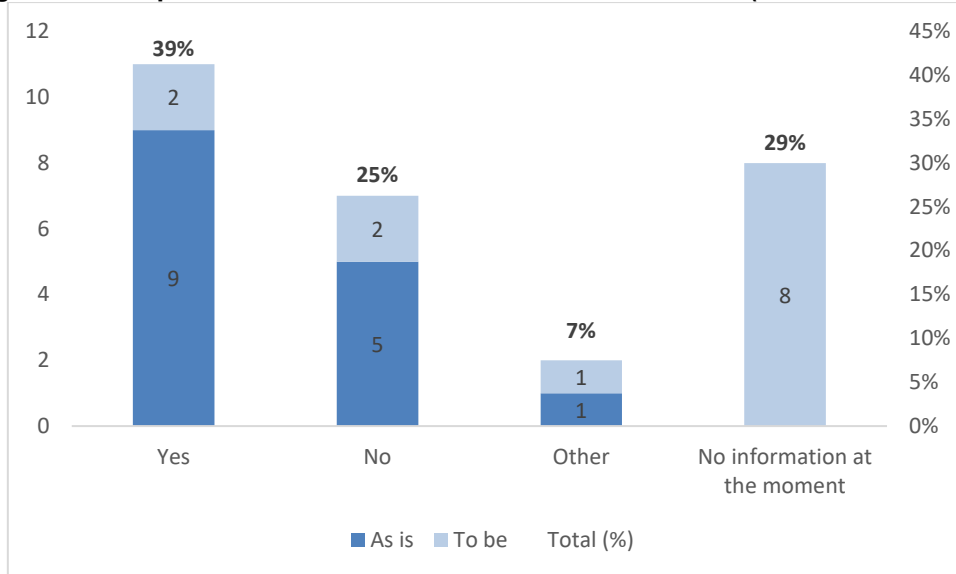
Country	Recurring charges	Consumption-based charges	Price for activating the service	Price of equipment	Price of SIM card	Other one-off charges	Other	No information due to June 2022
AT							√	
DE	√	√	√	√	√			
ES								√
FR								√
HU	√	√	√	√	√			
IT	√	√	√	√	√			
LI								√
LT	√	√	√					
LV								√
NL								√
PL								√
SE								√
SK								√
Total	4	4	4	3	3	0	1	8

As for price discounts, nine countries have implemented this feature in the comparison tool,²⁷ while two countries are considering to implement it.²⁸

²⁷ BE, BG, CY, CZ, EL, IE, MT, PT, RS.

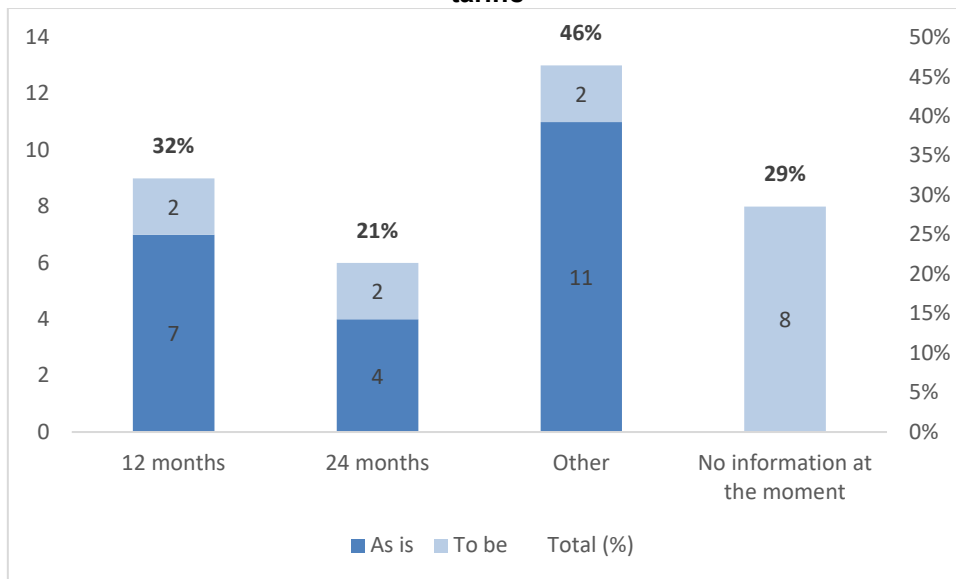
²⁸ FR, IT.

Figure 3 - Comparison tools that take into account discounts (“as is” and “to be”)



The following figure shows the period of evaluation of prices and tariffs considered by the comparison tools.

Figure 4 - The period considered by the comparison tool to compare and evaluate prices and tariffs

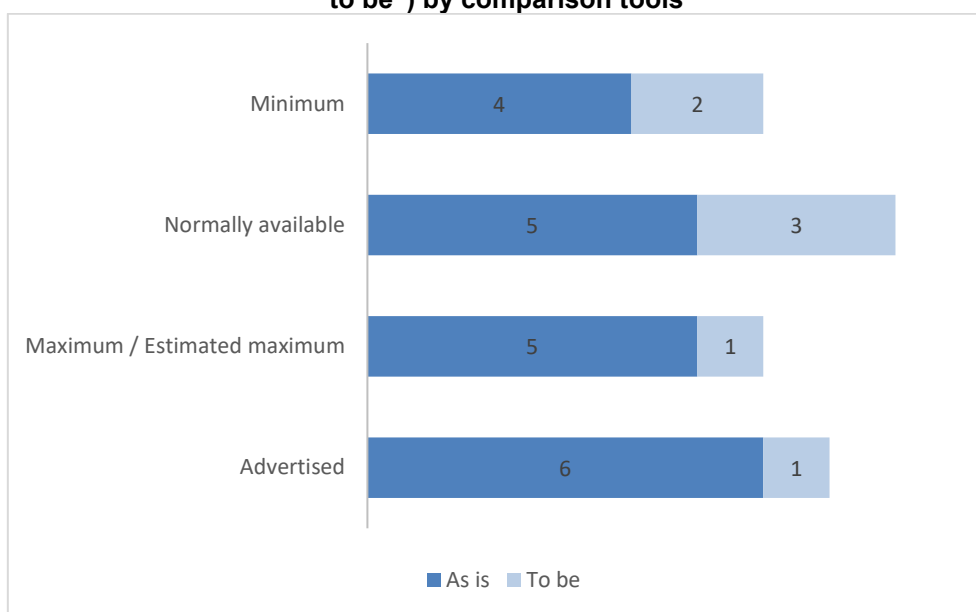


The speed of Internet access

In 12 countries the comparison tool takes into account the speed of Internet access,²⁹ one country does not consider to introduce this facility,³⁰ while five countries consider this facility in the implementation of the tool.³¹

The following figures show which measures of fixed and mobile Internet speed (defined according to Article 4[1] letter d of Regulation (EU) 2015/2120) are considered by their comparison tools.

Figure 5 – Type of speed (download and upload) of fixed connections considered (“as is” and “to be”) by comparison tools

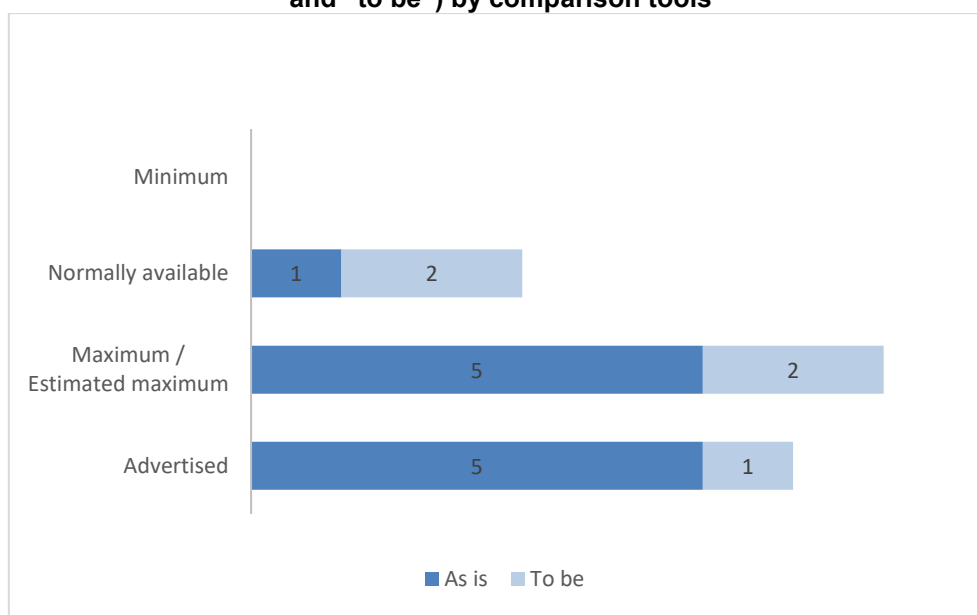


²⁹ BE, BG, CY, CZ, DK, EL, HR, IE, MT, PT, RO, SI.

³⁰ RS.

³¹ DE, HU, IT, LT, NL.

Figure 6 – Type of speed (download and upload) of mobile connections considered (“as is” and “to be”) by comparison tools



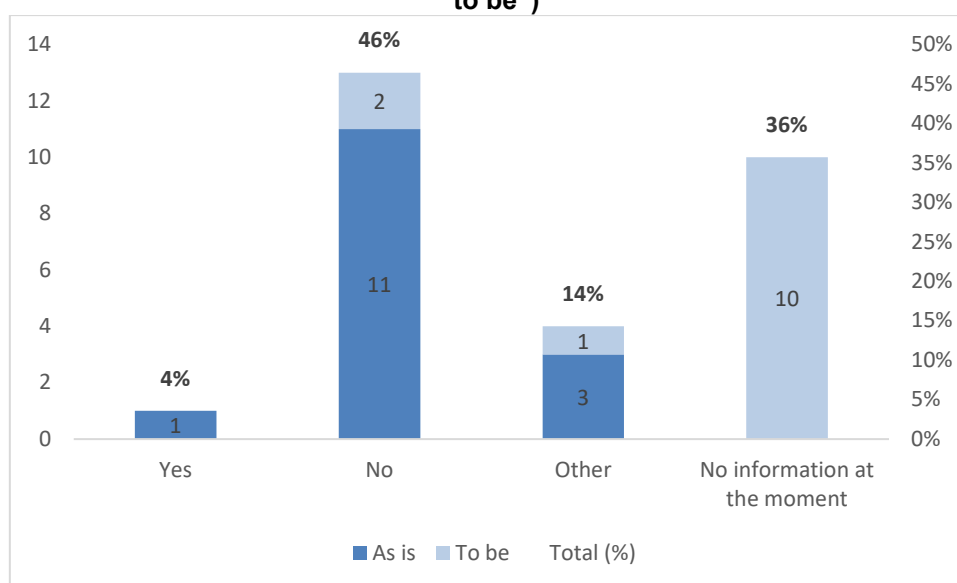
The quality of service performance and the technology of Internet access

Only one country has taken into account quality of service (QoS) performance measures other than Internet speed, published according to Article 104 of the EECC.³² Two other countries answered that the portal has a section on its website where end-users can compare the QoS of different providers.³³ The section allows to compare, among others, the fault repair timeframes, the indicators about the performance of the telephony customer care (calls answered by the helpdesk within two minutes, for example), the mobile network coverage, the time to repair failures.

³² CZ: fair usage policy limits and quality of service aggregation.

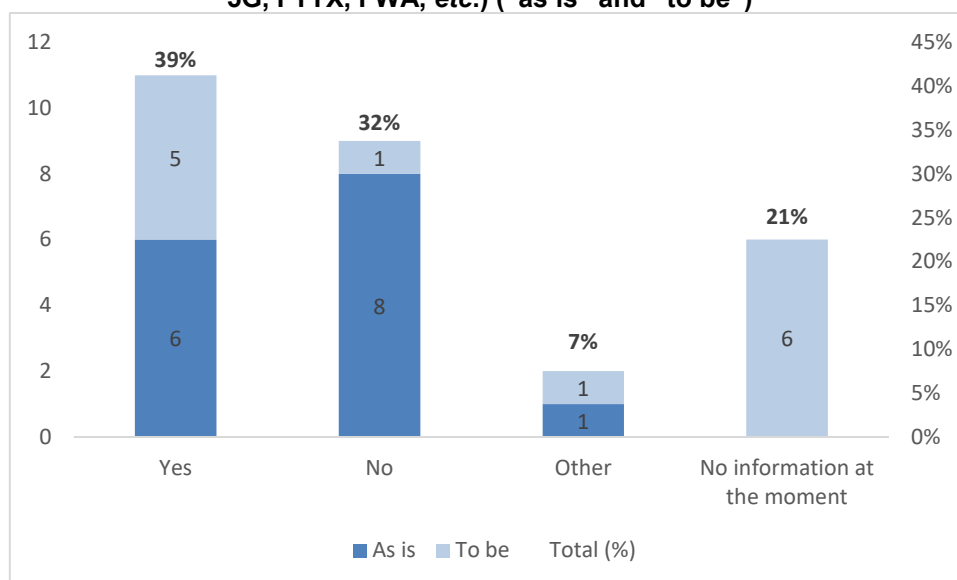
³³ BE (<https://www.bipt-data.be/en>), MT.

Figure 7 – Comparison tools that take into account quality of services parameters (“as is” and “to be”)



In six countries, the comparison tool is capable to compare and evaluate offers also taking into account the technology of Internet access,³⁴ while five countries are considering this option for future implementation.³⁵ In two countries, the technology of fixed Internet access is reported in the comparative table of results.³⁶

Figure 8 - Comparison tools that take into account the technology of the Internet access (4G, 5G, FTTX, FWA, etc.) (“as is” and “to be”)



³⁴ BG, CY, DK, EL, HR, RS.

³⁵ DE, HU, IT, LT, NL.

³⁶ BE, PT.

2.4 Other characteristics and compliance with the EECC

Other characteristics

In 11 countries, more than 75% of the market (in terms of offers) is covered by the comparison tool.³⁷ Ireland indicated that it is covered a portion of the market between 50 and 75%. Some countries stated that they are not able to provide this kind of information.³⁸ This shows that most countries that already have a comparison tool in place interpret the legal requirement to include a broad range of offers covering a significant part of the market as including more than half of the offers available on the market.

When answering the question of at what territorial level it is possible to compare offers, countries could indicate more than one answer. 11 countries indicated that the comparison is possible at the national level.³⁹ In addition, three countries answered that the comparison is possible at the sub-national level (e.g. regions, metropolitan areas, municipalities, etc.),⁴⁰ two countries stated that the comparison is possible at the streets and single premise level,⁴¹ and one country indicated that the comparison can be made at the zip code level.⁴² Three countries indicated that it is possible to search for offers at different territorial levels.⁴³ In Denmark, searching is possible at national and street and single premises level, and in Ireland at national and sub-national level. In Portugal, on the other hand, searching is possible at national level and also, in theory, by zip-codes until four digits. However, as Portugal explained, the providers do not usually upload information at this level of detail and therefore the comparison tool also indicates that the consumer should consult the provider to confirm if the tariff plan is available in his zip-code and/or address.

Out of the 13 countries where the tool is not implemented yet, five countries mentioned that that comparing offers will be possible at the national level,⁴⁴ two countries stated that it will be possible at streets and single premises level,⁴⁵ two countries indicated zip codes,⁴⁶ and one country indicated sub-national level.⁴⁷ At the same time, six countries replied that there is no information about this at the moment.⁴⁸ Austria mentioned that comparing offers will be likely possible at the national level.

Most countries (14 responses) stated that the comparison tool provides a procedure to report incorrect information.⁴⁹ Only one country indicated that such procedure is not provided.⁵⁰ The countries were also asked to describe in detail the procedure to report incorrect information.

³⁷ BE, BG, CY, CZ, EL, HR, MT, NO, RO, RS, SI.

³⁸ DK, MK, PT.

³⁹ BG, CY, DK, EL, HR, IE, MT, NO, PT, RS, SI.

⁴⁰ IE, MK, RO.

⁴¹ CZ, DK.

⁴² BE.

⁴³ DK, IE, PT.

⁴⁴ DE, FR, HU, LI, NL.

⁴⁵ DE, LT.

⁴⁶ DE, HU.

⁴⁷ DE.

⁴⁸ ES, IT, LV, PL, SK, SE.

⁴⁹ BE, BG, CY, CZ, DK, EL, HR, IE, MK, MT, NO, PT, RO, SI.

⁵⁰ RS.



End users can report incorrect information in various ways, e.g., via e-mail,⁵¹ via a special electronic form or user interface,⁵² by phone,⁵³ or by clicking on a special "Noticed an error?" icon.⁵⁴

Out of the 13 countries where the tool is not implemented yet, six countries stated that the comparison tool will provide a procedure to report incorrect information.⁵⁵ Italy mentioned that reporting incorrect information will be possible via e-mail. The Netherlands indicated that the exact procedure and related details will depend on the comparison tool which has requested certification. The provider of the comparison tool will have an opportunity to design its own well-functioning procedure. At the same time, six countries replied that there is no information by June 2022,⁵⁶ and Austria mentioned that the comparison tool will likely provide a procedure to report incorrect information.

Countries also provided information on options for downloading data on tariffs and quality of service performance of the offers in open formats. Only five countries replied that it is possible to download data,⁵⁷ and nine countries that there is no such option.⁵⁸ Malta declared that the comparison tool allows one to print the information and gives direct access to the applicable terms and conditions of the tariff the end-user is interested in. Countries were also asked to provide details. Based on the answers, depending on the specific comparison tool, end users can download the information in various formats such as .xlsx, .jsdn, .pdf or .csv format.

About the 13 countries where the tool is not implemented yet, no country has such information at this stage of the development of the comparison tool.⁵⁹

Challenges in development and implementation of the comparison tool

When asked about the difficulties in developing and implementing a comparison tool, 10 countries indicated that they had difficulties,⁶⁰ and five that they had no problems or that the tool is operated by a third party, so they didn't have to handle the problems directly.⁶¹

As many as nine countries indicated that the challenge was to collect data.⁶² The second problematic issue indicated by seven countries turned out to be design and testing of the algorithm used to rank the offers.⁶³ It also turned out that a fairly serious problem was the definition of the requirements of the tool, which was indicated by six countries,⁶⁴ and its update

⁵¹ BE, DK, EL, HR, MT, RO.

⁵² CZ, EL, NO, PT, SI.

⁵³ DK.

⁵⁴ BG.

⁵⁵ DE, HU, IT, LV, NL, PL.

⁵⁶ ES, FR, LI, LT, SE, SK.

⁵⁷ BG, CZ, EL, RO, SI.

⁵⁸ BE, CY, DK, HR, IE, MK, NO, PT, RS.

⁵⁹ AT, DE, ES, FR, HU, IT, LI, LT, LV, NL, PL, SK, SE.

⁶⁰ BE, BG, CZ, EL, HR, IE, MT, PT, RO, RS.

⁶¹ CY, DK, MK, NO, SI.

⁶² BG, CZ, EL, HR, IE, NL, PT, RO, RS.

⁶³ BE, BG, CZ, EL, HR, MT, PT.

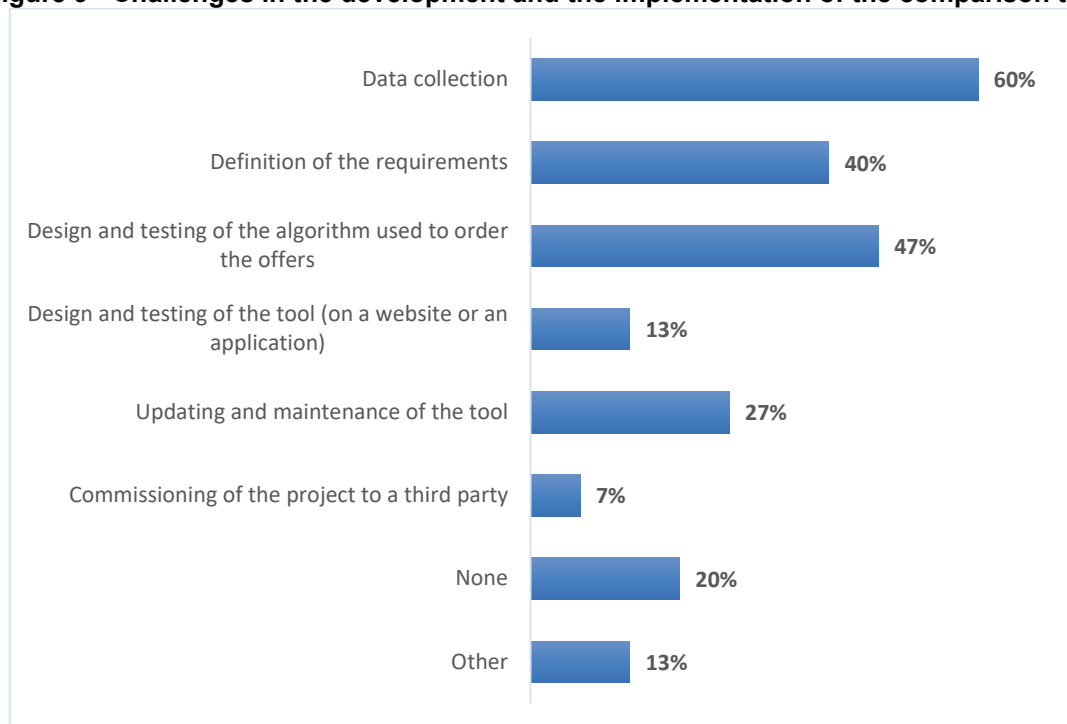
⁶⁴ BG, CZ, HR, NL, PT, RS.



and maintenance, which was indicated by four countries.⁶⁵ Only two countries indicated that the challenge was to design and test the tool,⁶⁶ while only one country encountered difficulties with commissioning of the project to a third party.⁶⁷

The most common challenges in creating and implementing a comparison tool are presented in the figure below.

Figure 9 - Challenges in the development and the implementation of the comparison tool



Compliance with the EECC

Countries that have already implemented a comparison tool were asked about the compliance with Article 103[2-3] of the EECC. Of these countries, eight replied that the comparison tool is fully compliant with Article 103 of the EECC,⁶⁸ and seven countries answered that it is not compliant yet.⁶⁹ The countries which stated that the comparison tool is fully compliant with Article 103 of the EECC indicated that all the conditions set out in that provision were met. On the other hand, the countries which indicated that the comparison tool is not fully compliant with Article 103 of the EECC were asked to specify how and when they are planning to adapt the tool to the requirements set out in EECC. Croatia has indicated that it is planning to upgrade the tool in the next 12 months. Belgium mentioned that the comparison tool for micro-enterprises should be online before the end of 2022. The other countries did not indicate a specific date.⁷⁰

⁶⁵ EL, IE, PT, RO.

⁶⁶ BG, CZ.

⁶⁷ BE.

⁶⁸ BG, CY, CZ, DK, EL, MT, NO (only for mobile IAS and mobile NB-ICS), RS.

⁶⁹ BE, HR, IE, MK, PT, RO, SI.

⁷⁰ IE, PT, RO, SI.

Clear and objective criteria of comparison

Countries have been asked to indicate what the clear and objective criteria are, on which, according to Article 103[3] (c) of the EEC, the comparison is to be based. Each country could provide its own answer. The most common responses indicated that the clear and objective criteria were price, data amount, duration of the contract, technology, location, SMS package, voice package. Further details can be found in Annex 2 of the Report.

3 The certification process

3.1 The requirements

Certification processes for independent comparison tools are not yet in place in most countries. Among the 28 respondents only five reported that they have a certification process for independent comparison tools in place.⁷¹ From the remaining respondents, one reported that the legal basis for the certification is in place,⁷² but no request for certification has been received so far. In five countries, the certification procedure is still under preparation.⁷³ Four respondents have indicated that they do not have plans to implement a certification regime at this time,⁷⁴ mostly because the NRA already operated its own comparison tool. One respondent indicated that they currently have a certification process in place, but this will be withdrawn when the NRA's own comparison tool will become operational.⁷⁵

⁷¹ AT, BG, IT, NL, NO.

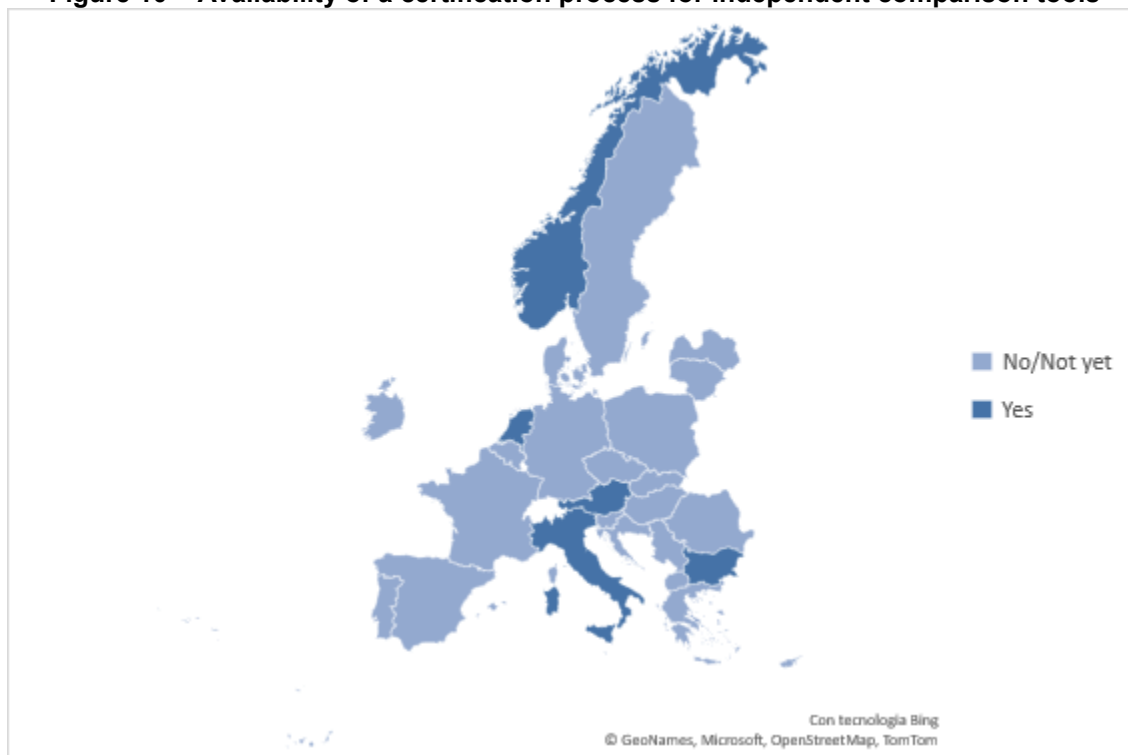
⁷² DK.

⁷³ ES, FR, HU, PL, SK.

⁷⁴ BE, CY, CZ, LV.

⁷⁵ IT.



Figure 10 – Availability of a certification process for independent comparison tools

Among the respondents that have a certification regime in place, two only require that the comparison tool be able to compare offers aimed at consumers.⁷⁶ In one case the tool must also be able to compare offers aimed at other categories of end-users.⁷⁷ One respondent indicated that the tool must fulfill the requirements established in national legislation (which echo those in Article 103 of the EECC).⁷⁸

Concerning the services to compare, in four countries the comparison tools must cover IAS and publicly available NB-ICS.⁷⁹ In one case the tool must cover either IAS or publicly available NB-ICS.⁸⁰

Among the respondents, none require that the tools should be able to compare bundles of services or products and services, only stand-alone services.

Concerning the independence of the comparison tools, three respondents provided details of their national requirements.⁸¹ One respondent again referred to the requirements established in the national transposition of the EECC.⁸² One respondent stated that there are a few criteria

⁷⁶ NL, NO.

⁷⁷ IT.

⁷⁸ AT.

⁷⁹ AT, BG, IT, NO.

⁸⁰ NL.

⁸¹ IT, NL, NO.

⁸² AT.

in place in this regard but did not provide specifics.⁸³ Based on the answers mentioning specific requirements, various certification regimes contain different rules in this regard:

- The providers of the tool (including administrators and legal representatives) must not hold positions in electronic communication companies or other companies controlled by, connected to or controlling such companies or belonging to the same group of companies.
- A Director's Statement must be submitted stipulating independence, along with official documents that the accrediting entity examines.
- The providers of the tool need to be transparent about how the service is financed and how the results are calculated.

All five certification regimes allow affiliate links from the comparison tool to the service providers' websites, however.

Most countries that already have a certification regime in place have not defined requirements additional to those in Article 103 of the EECC.⁸⁴ In one case the tool must be accessible free of charge also to consumers who do not have a broadband connection and to users with disabilities (according to some specified accessibility requirements).⁸⁵ One respondent indicated that the tool must fulfill the requirements in the national transposition of the EECC as an additional requirement.⁸⁶

3.2 Certification and compliance with the EECC

Among the five responses where a certification regime is already in place, two have indicated that there is a cost for the provider of the comparison tool if they want to be certified.⁸⁷ In one case,⁸⁸ initial certification costs EUR 3.000, and after that EUR 1.000 must be paid annually to maintain certification. The other respondent estimated the costs of providing the certification at EUR 4.700.⁸⁹

Among the countries where a certification regime is already in place, three have indicated that they already received a request for certification.⁹⁰ Of these countries, one has specified that two certifications have already been issued.⁹¹ One respondent indicated that they issued a certification to a website-based comparison tool in 2010, but this had to be revoked in 2018 due to data protection violations.⁹²

⁸³ RS.

⁸⁴ BG, NL, NO.

⁸⁵ IT.

⁸⁶ AT.

⁸⁷ IT, NL.

⁸⁸ IT.

⁸⁹ NL.

⁹⁰ AT, IT, NO.

⁹¹ NO.

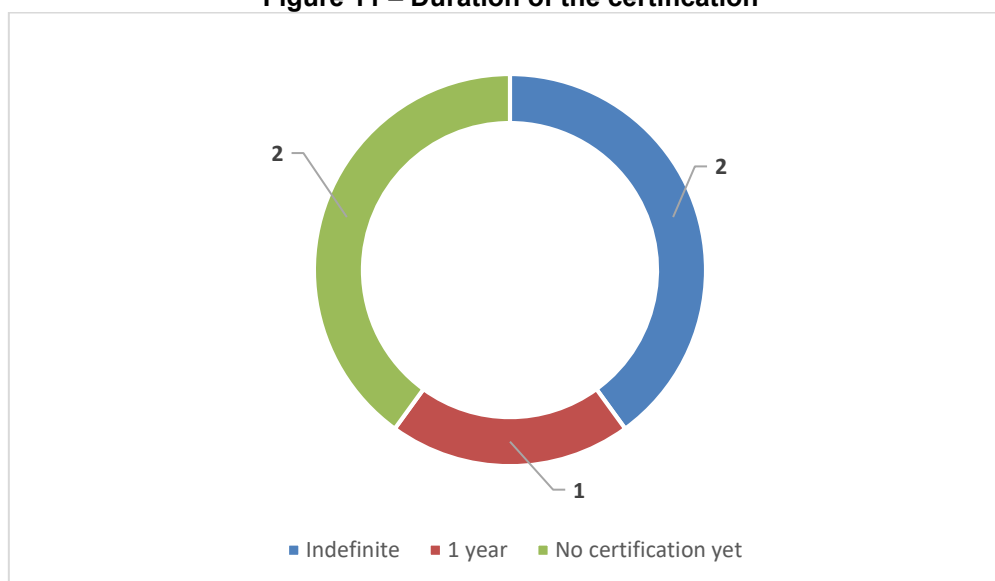
⁹² IT.



Asked about any lessons learned from the certification process, one respondent stressed the importance of substantial dialogue with the providers of comparison tools to arrive at a common understanding concerning the interpretation of the requirements in Article 103 of the EECC.⁹³ They also indicated that in practice, comparison tools operate in many different forms, which is difficult to foresee for the NRA.

Among the five countries with a certification regime already in place, two provide certification for an indefinite period (with one indicating regular verification that the requirements are still fulfilled).⁹⁴ In one case, the certification is provided for one year (with checks concerning the independence of the comparison tool conducted every six months),⁹⁵ while two respondents indicated that they have not yet provided any certifications.⁹⁶

Figure 11 – Duration of the certification



Three respondents indicated that they provide certifications for website-based comparison tools,⁹⁷ with one indicating that also smartphone apps may receive certification.⁹⁸ Again, two respondents have noted that they have not yet provided any certifications.⁹⁹

⁹³ NL.

⁹⁴ IT, NL.

⁹⁵ NO.

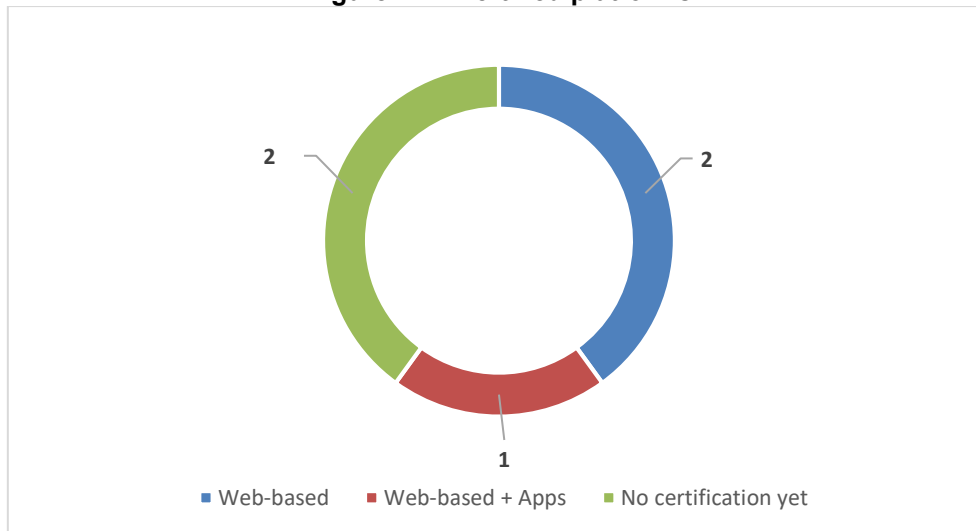
⁹⁶ AT, BG.

⁹⁷ IT, NL, NO.

⁹⁸ NO.

⁹⁹ AT, BG.

Figure 12 – Certified platforms



In order to make consumers aware of certified comparison tools, two respondents have indicated that they publish a list of such tools on their website.¹⁰⁰ In addition, three respondents provide a logo, a label or a certificate that the providers of comparison tools can display on their homepages.¹⁰¹

Among the five countries where a certification regime is already in place for comparison tools, three respondents have indicated that it is already fully in line with Article 103 of the EECC.¹⁰² One respondent said that they are working on compliance,¹⁰³ while another responded that it is planned that the certification regime will be withdrawn as soon as the comparison tool operated by the NRA will start its operation.¹⁰⁴

¹⁰⁰ NL, NO.

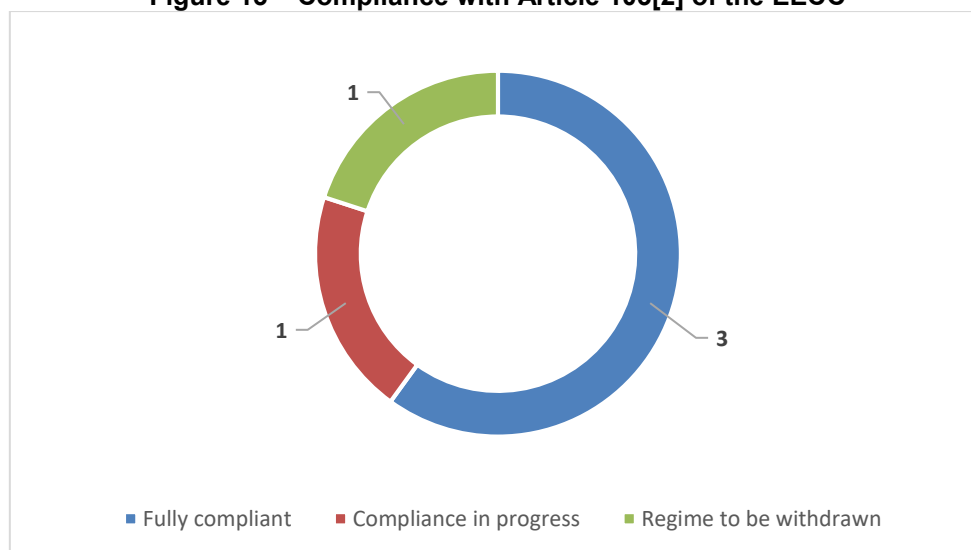
¹⁰¹ IT, NL, NO.

¹⁰² AT, BG, NO (only for mobile IAS and mobile NB-ICS).

¹⁰³ NL.

¹⁰⁴ IT.

Figure 13 – Compliance with Article 103[2] of the EECC



4 Conclusions

The main purpose of the present report is to offer insights on the comparison tools, already in place or planned, which enable consumers (and other end-users, if so required by NRAs) to compare and evaluate IAS and publicly available NB-ICS as set out in Article 103 of the EECC and, where applicable, publicly available NI-ICS. The report also captures details of the certification processes within each country that is, upon request, available to providers of a comparison tool that meet the requirements set out in Article 103 of the EECC.

In what follows, the main features of the independent comparison tools and certification processes implemented – or to be implemented – in Europe are reported.

Implementation and availability

Comparison tools are implemented in different ways. Some NRAs choose to develop a comparison tool themselves; others use a third party to develop a tool for the NRA; in addition, there are also countries where the NRA certifies an independent provider. In the countries where the tool is already implemented, in most (five) of them, the tool was developed by the NRA. In all 15 countries which have a comparison tool in place, the tool allows the comparison and assessment of offers available for consumers. In four countries, the tool allows the comparison and assessment of offers available also for other categories of end-users.

Comparison of services

Mobile IAS can be compared and evaluated in all the countries where the tool is already implemented. In almost all the countries, fixed IAS, mobile NB-ICS and fixed NB-ICS can also be compared. Only in Cyprus, is it possible to compare NI-ICS. These services can be hard to compare because they are often offered in exchange for (personal) data instead of money. It can be very interesting for consumers to compare how much personal data they have to exchange for using different NI-ICS.

Comparison of bundles

Bundles may make it more difficult for consumers to compare prices. In 12 of the 15 countries where the tool is already implemented, the comparison tool is able to compare and evaluate offers which include bundles of services or products. As in a lot of countries it is possible to compare bundles, it will be easier for consumers to make a deliberate choice.

Prices and tariffs

The main advantage of comparison tool is the possibility to compare prices and tariffs. Countries provided information on different types of prices or tariffs such as recurring charges, consumption-based charges, the price of activating the service, the price of equipment and so on. Among the many prices and charges considered by comparison tools, the most common are recurring charges.

A consistent number of countries have tools that consider price discounts in their comparison in place, but they use different discount periods. As the period of discount is concerned, it should be mentioned that seven countries adopt comparison tools that allow choosing among more than one discount period option (twelve or twenty-four months).

The speed of Internet access

In 12 countries, the comparison tool takes into account the speed of Internet access. Advertised speed (see Article 4[1] point d of Regulation (EU) 2015/2120) is the criterion most frequently used by comparison tools.

The quality of service performance and the technology of Internet access

Only one country has considered QoS performance measures other than Internet speed, published according to Article 104 of the EECC.

In six countries, the comparison tool is capable to compare and evaluate offers also taking into account the technology of Internet access, while five countries are considering this option for future implementation.

Other characteristics

In 11 countries, more than 75% of the market (in terms of offers) is covered by the comparison tool. Most countries that already have a comparison tool interpret the legal requirement to include a broad range of offers covering a significant part of the market as including more than half of the offers available on the market.

Most of the countries that have answered to the question about the territorial level at which one can compare offers indicated that the comparison is possible at the national level, three countries answered that the comparison is possible at the sub-national level, two countries reported that the comparison is possible at the street and single premise level, and one country indicated that the comparison can be made at the level of zip codes.

Most countries declared that the comparison tool provides a procedure to report incorrect information.



Only five countries reported that it is possible to download the data on tariffs and quality of service performance of the offers in open formats.

Challenges in development and implementation of the comparison tool

The main challenges faced by countries in the development and implementation of the comparison tool are the data collection, the design and testing of the algorithm used to order the offers, the definition of the requirements of the tool and its update and maintenance.

Compliance with EECC

Countries that already have a comparison tool in place were asked if it is fully compliant with Article 103[2-3] of the EECC. Of these countries, eight replied that the comparison tool is fully compliant (only for mobile IAS and mobile NB-ICS).

Clear and objective criteria of comparison

The most common clear and objective criteria indicated by the respondents on which, according to Article 103[3] (c) of the EECC, the comparison should be based were price, data amount, duration of the contract, technology, location, SMS package, voice package.

Certification

In most countries the certification regime for comparison tools is not yet in place (only five out of 28 countries have indicated that such regime already exists) although activities for the introduction of those regimes are in progress in four countries. Interestingly, four countries have no plans to introduce a certification regime, mostly because the NRA already operates its own comparison tool. Three regimes are already fully compliant with the requirements of the EECC (only for mobile IAS and mobile NB-ICS), one country is working on ensuring compliance.

The existing regimes differ in their details, but most of them require that the comparison tools to be certified at least cover IAS and publicly available NB-ICS. No certification regime currently requires the coverage of publicly available NI-ICS. Comparison tools are only required to cover individual services, the coverage of bundles of services and/or discounted equipment is not yet required. Two out of the five certification regimes only require the coverage of offers aimed at consumers, and only one regime requires the coverage of offers aimed at other categories of end-users. Requirements for independence of comparison tools are present in three out of the five certification regimes. These differ in their details, but are mostly concerned with organisational independence from providers of electronic communications services, and with ensuring transparency on the financing and operations of the tools, whereas affiliate links to the service providers' websites are allowed. Only one country has defined requirements for certification in addition to those contained in Article 103 of the EECC: the comparison tool must be accessible free of charge also to consumers who do not have a broadband connection and users with disabilities (according to some specified accessibility requirements). Two of the certification regimes currently in place require that the operators of comparison tools pay for the certification. Most certification regimes are concerned with website-based comparison tools, but in one country the regime it is extended to smartphone-based comparison apps.



On the basis of the responses to the questionnaire it emerges that certification regimes are not widely used: in only three countries, there has been a request for certification. In one case, a certification that was issued before the EECC had to be withdrawn due to the failure of the operator to observe the legal requirements. In one country, it is planned that the certification regime will be withdrawn as soon as the comparison tool operated by the NRA will start its operation.

In order to ensure the visibility and dissemination of the certifications, three certification regimes provide a logo, label, or certificate that the operators of comparison tools can display on their homepages, while in two countries, the list of certified comparison tools is also published by the NRA.



Annexes

1 Annex 1 – Country codes

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EL	Greece
ES	Spain
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LI	Liechtenstein
LT	Lithuania
LV	Latvia
ME	Montenegro
MK	North Macedonia
MT	Malta
NL	the Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
SE	Sweden
SI	Slovenia
SK	Slovakia



2 Annex 2 – Questionnaire – further analyses of the answers

CC	What are the clear and objective criteria, on which according to Article 103 (3) (c) from the EEC the comparison is to be based?
BE	<p>For Internet access</p> <ul style="list-style-type: none"> - Availability at postal code - Price - fixed / mobile / both - promotion (yes / no) - installation (technician / myself) - volume in Gb - download speed <p>For mobile telephony</p> <ul style="list-style-type: none"> - prepaid / postpaid / don't mind - price - data in Gb - voice calls in minute - number of SMS - promotion (yes / no) <p>For fixed telephony</p> <ul style="list-style-type: none"> - Availability at postal code - price - promotion (yes / no) - installation (technician / myself) - Landline Calls in minutes - Mobile Calls in minutes - International Calls in minutes <p>For bundles</p> <ul style="list-style-type: none"> - mobile telephony (yes / no) - internet access (yes / no) - fixed telephony (yes / no) - TV (yes / no) - price - promotion (yes / no) - installation (technician / myself)
BG	The tool is based on a comparison algorithm for every category of services that prioritises the results by price, if the price is equal - by consumption included, etc.
CY	Products and services are included by all providers in the market, and correspond to all market available products.
CZ	The comparison is based on the collection of comprehensive information on services and their charging. Based on this, the tool compares prices and quality requirements. The tool primarily compares prices. For measurable parameters, the user can set his own consumption of services or use a preset consumption consisting of three baskets (low, middle, high). For fixed services, the decisive criterion for comparison is the address location for which the comparison is required.



CC	What are the clear and objective criteria, on which according to Article 103 (3) (c) from the EEC the comparison is to be based?
DK	The comparison is based on: - Price - Data amount (GB) - Hours of speech
EL	The criteria can be found through the link of comparison: https://www.pricescopel.gr/telecom-compare
HR	All the criteria of Article 103 except the following: specify the time of the last update (Article 103 (2) (3) (e)); Third parties shall have a right to use, free of charge and in open data formats, the information published by providers of internet access services or publicly available interpersonal communications services, for the purposes of making available such independent comparison tools (Article 103 (2) (3) (h)).
IE	Results are presented by default by comparing the average monthly cost of the market offers. The end user can thereafter choose to sort the results by the following metrics: Upfront Cost, Total Contract Cost, Mobile Data Allowance, Mobile Minutes allowance, Mobile Text Allowance, Fixed BB download speed, Fixed BB download limit, Fixed BB minimum speed, Fixed BB normally available speed, Fixed Voice domestic minute allowance, Fixed Voice mobile minutes allowance, Fixed Voice landline minutes allowance, Fixed Voice International minutes allowance.
MK	Free access to services information on one point, and promotion of competition between operators.
MT	The results page displays a list of service plans which fit the preferences indicated by the user when completing the questions. The plans are sorted in accordance of the monthly cost starting from the cheapest service plan.
NO	Primary: price in relations to amount of data available. A few do also use: minutes used on voice and numbers of sms sent.
PT	Comparative criteria in the comparative tables of results /search filter options: 1) Mobile services: minimum monthly price, prices for data communications out of bundle , SMS prices (except out of bundle), price for the 1st minute in voice calls (except out of bundle), pre-paid/post-paid; loyalty period (and if it includes cost for termination of the contract). 2) Fixed telephone service: average monthly price, price for the 1st minute in voice calls for mobile networks (except out of bundle), price for the 1st minute in voice calls for fixed networks (except out of bundle), loyalty period (and if it includes cost for termination of the contract). 3) Internet services: average monthly price, data limit, announced data transmission speed (UL/DL), loyalty period (and if it includes cost for termination of the contract). 4) Pay TV: average monthly price, number of TV channels, loyalty period (and if it includes cost for termination of the contract), technology. 5) Bundles: average monthly price, services included, loyalty period (and if it includes cost for termination of the contract), technology.
RS	Accessibility, free of charge, transparency.



CC	What will be the criteria, on which according to Article 103 (3) (c) EECC the comparison is to be based?
AT	<p>They have to fulfil the criteria of Art 134 Telecommunications Act 2021 (https://www.ris.bka.gv.at/Dokumente/Erv/ERV_2021_1_190/ERV_2021_1_190.pdf) - the national implementation of Art 103 EECC:</p> <p>"(1) The regulatory authority shall ensure that, where an independent comparison tool is not provided in the market free of charge, end users have access free of charge to at least one such tool, based on the data notified and published pursuant to Art. 46 Par. 3 and Art. 133 Par. 1, which enables end users to compare and evaluate different internet access services and publicly available number-based interpersonal communications services, and, where applicable, publicly available number-independent interpersonal communications services, with regard to:</p> <ol style="list-style-type: none"> 1. prices and tariffs of services provided against recurring or consumption-based direct monetary payments; and 2. the quality of service performance, where minimum quality of service is offered or the undertaking is required to publish such information pursuant to Art. 46. <p>(2) The comparison tool referred to in Par. 1 shall:</p> <ol style="list-style-type: none"> 1. be operationally independent of the providers of such services, thereby ensuring that those providers are given equal treatment in search results; 2. clearly disclose the owners and operators of the comparison tool; 3. set out clear and objective criteria on which the comparison is to be based; 4. use plain and unambiguous language; 5. provide accurate and up-to-date information and state the time of the last update; 6. be open to any provider of internet access services or publicly available interpersonal communications services making available the relevant information, and include a broad range of offers covering a significant part of the market and, where the information presented is not a complete overview of the market, a clear statement to that effect, before displaying results; 7. provide for an effective procedure to report incorrect information; 8. include an option for comparing prices, tariffs and quality of service performance between offers available to end users. <p>(3) Comparison tools fulfilling the requirements in Par. 2 No. 1 to 8 shall, on request by the provider of the tool, be certified through the issue of an official decision by the regulatory authority. The decision may include ancillary provisions where necessary for verifying whether the approval criteria in the specific case are met.</p> <p>(4) The regulatory authority may issue an ordinance pursuant to Art. 133 Par. 1 specifying the format of the notification of the data required for the comparison tool as set out in Par. 1. In doing so, the regulatory authority shall consider the type of end-user relationship and service, the comparability of services, the ease of comprehension, clarity, and the significance of the information for the usability of the service. Providers with fewer than 1,000 end users, or providers within the meaning of Art. 4 No. 8 with fewer than 350,000 end users, may be exempted from the notification requirement if the effort involved would be disproportionate to the anticipated information value of the data. Third parties shall have a right to use, free of charge and in open data formats, the information published by the regulatory authority and providers of internet access services or interpersonal communications services under this Federal Act, for the purposes of making available such comparison tools."</p>
ES	<p>The new law on Telecommunications goes into force on 30 June 2022. The law incorporates article 103 EECC. The Ministry of Economic Affairs and Digital Transformation will be developed through a decree the comparison tool and the comparison tool certification.</p>



CC	What will be the criteria, on which according to Article 103 (3) (c) EECC the comparison is to be based?
FR	Especially concerning prices and tariffs of services provided against recurring or consumption-based direct monetary payments.
HU	The comparison is based - as input - on machine readable and editable (XML) data to be published and updated by service providers on their websites. The exact algorithm to be used by the tool for ranking offers is still under development.
LI	Currently we do not have enough information on this issue.
LV	We have not developed such criteria yet.
NL	IAS: Price, Internet speed, type of connection (glass fibre, ADSL, etc.), perhaps more to be announced. NB-ICS: Price, internet speed, type of connection, amount of minutes/texts, depending on CT: connected offers, perhaps more to be announced.
PL	Project of the new law does not specify the criteria. It will be decided during the process of comparison tool's development.
SE	PTS is waiting for an assignment to investigate how implementation and quality control would proceed - but we have not received any such assignment. So the answers to the survey are currently that we do not have a price comparison tool or a certification process.



3 Annex 3 – List of URLs of comparison tools

URL	Country
www.besttariff.be	BE
https://www.bipt-data.be/en	
https://comparetool.crc.bg/public	BG
cycompare.ee.cy	CY
https://srovnavac.ctu.cz	CZ
www.samolino.dk www.telepristjek.dk www.telemarkedet.dk www.bredband.dk	DK
www.pricesscope.gr	EL
https://procjenitelj.hakom.hr/	HR
https://www.comreg.ie/compare/#!/services	IE
https://komuniciraj.mk/en	MK
https://telecosts.com/	MT
https://www.tek.no/mobilabonnement/ https://mobiltelefon.no/mobilabonnement	NO
https://anacom.pt/tarifarios/PaginaInicial.do	PT
www.veritel.ro	RO
http://benchmark.ratel.rs/podaci-rezultati-cyr-2021 https://www.ceneusluga.rs/	RS
https://www.primerjajoperaterje.si/	SI

