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Report on NRAs' practices for ensuring equivalence of access and choice for disabled end-users

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1. Executive Summary

Under the current legislative framework for electronic communications, Member States have an important role in promoting equivalent access and choice for end users with disabilities. In the context of this report, "equivalence" means that equivalent access to and choice of electronic communications services should be available for end-users with disabilities. Notwithstanding, this may be accomplished by implementing specific solutions for end-users with disabilities, which are not necessarily coincident with the ones available to other endusers.

The aim of this report is primarily to collate information from NRAs for the purposes of compiling an inventory of measures and initiatives that NRAs might consider when evaluating any action to be pursued under the terms of relevant legislative provisions. These legislative provisions are set out in Section 3 below.

This document follows on from a previous, related report, published in November 2015, broadly on this subject.¹ It is structured around a questionnaire that BEREC circulated to its constituent National Regulatory Authorities (NRAs) to gain insight into how the issues of access and choice for disabled end-users are currently addressed across Europe. In its strategy (BEREC Strategy 2018-2020²), published in October 2017, BEREC clearly set out as one of its strategic priorities "Exploring new ways to boost consumer empowerment". In line with this priority, this report is intended to serve as a guide to NRAs, which may be considering options to enhance the experience for disabled end users of electronic communications services.

Section 4 reviews the formal implementation and monitoring of measures relating to the provision of services for disabled end-users derived from the Universal Service Directive (USD)³, the Roaming Regulation⁴ and the Audiovisual Media Services Directive (AVMSD)⁵.

¹ BoR (15) 201, Update of the report on equivalent access and choice for disabled end-users, 10.12.2015 <u>http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5549-update-of-the-report-on-equivalent-access-and-choice-for-disabled-end-users</u>

² http://berec.europa.eu/eng/document_register/subject_matter/berec/annual_work_programmes/7310-berecstrategy-2018-2020

³ DIRECTIVE 2009/136/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009 amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services, Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws <u>http://eur-lex.europa.eu/legalcontent/EN/TXT/?qid=1516268043319&uri=CELEX:32009L0136</u> and <u>http://eur-lex.europa.eu/legalcontent/EN/TXT/?qid=1516268172208&uri=CELEX:32009L0136R(01)</u>. Also see Directive 2002/22/EC <u>http://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002L0022</u>

⁴ REGULATION (EU) No 531/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 June 2012 on roaming on public mobile communications networks within the Union <u>http://eur-lex.europa.eu/legalcontent/EN/TXT/?qid=1516267983693&uri=CELEX:32012R0531</u> as amended by REGULATION (EU) 2015/2120 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of November 2015 <u>http://eurlex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.310.01.0001.01.ENG</u>

⁵ DIRECTIVE 2010/13/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services <u>http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010L0013</u>

The responses to the questionnaire showed that NRAs have taken a range of approaches to implement and monitor the relevant provisions. For instance, implementation by imposing a Universal Service Obligation on the Universal Service Provider is relatively more common with regard to Article 6 of the USD (Public pay telephones and other public voice telephony access points) and Article 7(1) of the USD (general provisions and affordability), whereas Articles 7(2), 21(3)(f) and 23a(1) of the USD (respectively relating to choice; information about products and services; and ensuring equivalence in access and choice) are more commonly implemented across all service providers. Since the Roaming Regulation is directly applicable, there is no need for NRAs to implement the accessibility provisions of Article 14 of the Regulation, although they may monitor compliance, most commonly based on end-user complaints. With regard to the Audiovisual Media Services Directive, most of the NRAs participating in the questionnaire do not have responsibility for implementing the relevant provisions in this sector.

NRAs were also asked about the potential for extending obligations. The clear majority of NRAs (19) consider that there is no requirement to extend any obligations, currently in place under the USO for end-users with disabilities, to ALL service providers, notwithstanding that three countries (IE, DE, & UK) stated that they had already extended the obligations to all service providers.

Similarly, a majority of NRAs (17) do not consider it necessary to extend obligations, currently in place under the USO for end-users with disabilities, to SOME other service providers.

A relatively wide range of views were expressed with regard to the issue of potential alternative funding mechanisms for the obligations outlined above and with regard to the potential legal basis for considering extending these obligations. For instance, some suggested funding mechanisms such as a Universal Service Fund or another State fund. However, some were not in favour of using additional funds and others stated that more information would be needed about the various options. With regard to the legal basis required for extending obligations, some referred to national legislation and some also mentioned EU law.

With regard to additional measures to promote equivalent access and choice for disabled endusers, beyond those implemented under the legal framework described above, 22 of the respondent NRAs indicated that there are additional measures in their Member States. These include measures with regard to access and affordability, equipment, software and website information, customer services and complaints, as well as other measures, including relay and emergency services and directories.

NRAs were also asked, what, if any, competences they have in their Member State regarding the protection of end-users with disabilities. Most of the responding NRAs said that they have at least some competences with regard to the protection of end-users with disabilities, such as monitoring or adopting regulations. However, the extent of competences varies widely.

Regarding the measures for encouraging the availability of terminal equipment in accordance with Article 23a(2), 12 out of 28 respondents mentioned that in their countries there have been actions taken in this respect. These are related to facilities provided on a voluntary basis by service providers and measures taken by the NRAs, mainly by offering support to operators

in order to find a common understanding of what should be considered "accessible", depending on the disability considered, for mobile and fixed terminal equipment.

In the majority of countries (21 out of 28) there are some special retail packages or subsidies available for disabled end-users. These are provided either following measures adopted by the NRAs or as part of operators' commercial policy.

Regarding the implementation of text and video relay services, 16 out of 28 respondent NRAs mentioned that at least one solution is in place and the majority of these countries have set some quality of service requirements. In terms of funding, these services are generally provided free of charge for disabled end-users and the costs are covered either by providers or through public funds.

In order to get input for policies based on the interests of disabled end-users, a majority of NRAs (24 out of 28), actively consult with disability representatives. This can be via formal consultations, meetings, focus groups or formal cooperation networks.

Regarding the equivalent access to emergency services for disabled end-users, 21 NRAs indicated that such equivalent access was available in their country. Different ways of providing this equivalent access have been indicated: mainly via SMS, applications, mail, fax or video services.

The report concludes that NRAs actively engage with representatives from the disabled community and, having regard for national circumstances, adopt different approaches to ensuring equivalence of access and choice to electronic communications services. As such, this report will serve as a tool to assist and inform NRAs as they evaluate adopting policies to ensure equivalent access and choice for disabled end-users

2. Introduction

In October 2017, BEREC updated its strategy with the publication of its document "BEREC Strategy 2018-2020⁶". One of the strategic priorities set out in this statement is "Exploring new ways to boost consumer empowerment". This strategic priority outlines BEREC's role in promoting the interests of EU citizens and protecting the interests of vulnerable end-user groups. It includes a role for BEREC to study demand side aspects of the market, to monitor market evolutions and, to the extent possible, respond to ensure end-users' continued ability to use the services of their choice, at appropriate levels of price and quality. In this context, BEREC aims to provide a fresh look at the provision of electronic communications services for disabled end-users across Europe, in particular focusing on the promotion of equivalent access and choice.

Following from this strategic objective, BEREC included a project in its Work Programme 2018, the aim of which is primarily to seek information from NRAs for the purposes of compiling an inventory of measures and initiatives that NRAs might consider when evaluating any action

⁶ BoR (17) 175, BEREC Strategy 2018-2020, 05.10.2017

http://berec.europa.eu/eng/document_register/subject_matter/berec/annual_work_programmes/7310-berecstrategy-2018-2020

to be pursued under the terms of Articles 6, 7(1), 21(3)(f), 23(a)1, 23(a)2 and 26(4) of the Universal Services Directive, Article 14 of the Roaming Regulation and Article 7 of the Audio-visual Media Services Directive.

This document follows on from a previous, related report, published in November 2015, broadly on this subject.⁷ It is structured around a questionnaire that BEREC circulated to its constituent National Regulatory Authorities (NRAs) to gain insight into how the issues of access and choice for disabled end-users are currently addressed across Europe.

The aim of this work is to promote the continued sharing of experiences mong NRAs regarding measures for end-users with disabilities. Through this process, BEREC expects to update its understanding of the needs of disabled end-users of electronic communications services and assess the current state of provision of electronic communications services with regard to this particular segment of end-users.

The current report is organised into the following sections

- Section 3, The legal background this section sets out relevant provisions of the Directive 2002/22/EC (Universal Service Directive – USD) as amended by Directive 2009/136/EC (Citizen Rights Directive), the Roaming Regulations and the Audiovisual Media Services Directive;
- Section 4, Implementation of the USD and other Regulations, is divided into two subsections, firstly summarising how the relevant provisions have been implemented in Member States and secondly how NRAs monitor compliance.
- Section 5, Potential for extending obligations and alternative funding mechanisms, summarises responses from NRAs on whether any current US obligations should be extended to all, or some, service providers and what might be, if any, alternative funding mechanisms for any of the obligations imposed under the USD and other Regulations set out in Section 4.
- Section 6, Encouraging equivalent access and choice, summarises the NRAs' responses that set out the formal and informal measures they have taken to promote for disabled end-users of electronic communications services (ECS):
 - o equivalence of access and affordability;
 - the availability of terminal equipment;
 - o special retail packages or subsidies;
 - o text and video relay services;
 - o access to emergency services.

⁷ BoR (15) 201, Update of the report on equivalent access and choice for disabled end-users, 10.12.2015 <u>http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5549-update-of-the-report-on-equivalent-access-and-choice-for-disabled-end-users</u>

It also details any engagements NRAs may have had with disabled end-users and representative organisations. Finally, Section 6 also sets out initiatives envisaged by NRAs to promote equivalent access and choice for disabled end-users of ECS and the competencies NRAs have to protect end-users with disabilities.

3. The legal background

Article 7(1) of the Universal Service Directive (USD) provided for special measures for disabled end-users in order to ensure access to publicly available telephone services, including access to emergency services, directory enquiry services and directories, equivalent to that enjoyed by other end-users. In addition, the provisions of Article 7(1) of the USD relate to the affordability of Universal Service (US) for disabled end-users.

Article 6 of the USD also contained a provision regarding the accessibility of public pay telephones to disabled end-users in order to meet the reasonable needs of end-users.

The provisions for end-users with disabilities established by Article 7(1) are focused primarily on services provided by the Universal Service Providers (USPs) and are designed to ensure access to the US for end-users with disabilities. Article 7(2) also provides that Member States may take specific measures so that end-users with disabilities *"can also take advantage of the choice of undertakings and service providers available to the majority of end-users"*.

The amendments introduced in 2009 to the USD brought the possibility for additional measures for end-users with disabilities to be implemented, particularly with respect to equivalent access and choice.

In particular, Article 23a(1) – "Ensuring equivalence in access and choice for disabled endusers" – specifies that Member States shall enable relevant national authorities to specify, where appropriate, the requirements to be met by undertakings providing publicly available electronic communications services to ensure that disabled end-users: (a) have access to electronic communications services equivalent to that enjoyed by the majority of end-users; and (b) benefit from the choice of undertakings and services available to the majority of endusers.

Article 23a(2) states that "(...) Member States shall encourage the availability of terminal equipment offering the necessary services and functions".

Furthermore, Article 21(3)(f) of the USD provides that Member States shall ensure that national regulatory authorities are able to oblige undertakings to regularly inform disabled subscribers of details of products and services designed for them.

Also, according to the provisions of Article 26(4) "Member States shall ensure that access for disabled end-users to emergency services is equivalent to that enjoyed by other end-users."

The above mentioned amendments are further supported by the USD revisions to Article 7, concerning services provided under the US, to ensure equivalence of access and affordability, and specifying that national regulatory authorities may be obliged by Member States to assess

the general need and specific requirements of measures in relation to the US for end-users with disabilities.

Recital 12 of the amended USD states that "Equivalence in disabled end-users' access to services should be guaranteed to the level available to other end-users. To this end, access should be functionally equivalent, such that disabled end-users benefit from the same usability of services as other end-users, but by different means".

Article 14 of the Roaming Regulation (Regulation (EU) No. 531/2012, as amended) mandates home providers to provide blind or partially-sighted customers with basic personalised pricing information automatically, by voice call, free of charge, if they so request.

Finally, Article 7 of the Audiovisual Media Services Directive (2010/13/EU) ("AVMSD) provides that Member States shall encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to people with a visual or hearing disability. While the AVMSD falls outside the scope of the BEREC Regulation⁸, since some NRAs have competencies under this Directive, details of the implementation of these competencies are included in the report.

4. Implementation of the USD and other regulations

This section reviews the formal implementation and monitoring of measures relating to the provision of services for disabled end-users. In particular, it describes the ways in which NRAs have implemented the relevant provisions contained in the USD, the Roaming Regulation and the AVMSD and how they monitor compliance by operators.

4.1. Implementation

NRAs were asked how the relevant provision have been implemented in their Member States.

The responses were grouped into the following categories:

- Via a Universal Service Obligation imposed on the Universal Service Provider(s) ("USO for USP");
- Implementation by all providers;
- Implementation by some providers;
- Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of the provisions.

The following figure illustrates the responses received from the NRAs.

⁸ REGULATION (EC) No 1211/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office <u>http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009R1211</u>

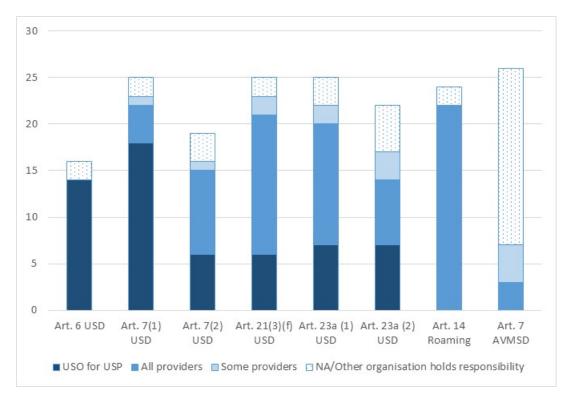


Figure 1 - Implementation of specific regulations related to disabled end-users

With regard to Article 6 of the USD, which relates to "Public pay telephones and other public voice telephony access points", the accessibility provisions for disabled end-users have been implemented via a USO on the USP in 14 countries (AT, BG⁹, CZ, EL¹⁰, HR, HU, IE, IT¹¹, LT¹², MT, PT¹³, RS, SI, UK¹⁴). In eight other countries (not included in the column for Art. 6 above) the measure was either previously imposed via the USO or has never been imposed, since it has been judged that the facilities or comparable services are sufficiently widely available or that they are unnecessary, due to a lack of demand (BE¹⁵, CY, DE¹⁶, FR¹⁷, LV¹⁸,

⁹ The USP must provide specially designed telephones in certain places, such as hospitals, sanatoriums and at offices of the consumer organisations for people with disabilities.

¹⁰ In EL there is an obligation on the USP to ensure that 75% of the public telephones are accessible to persons using wheelchairs.

¹¹ In IT 75% of public payphones must be accessible to disabled end-users.

¹² English language versions of the relevant Rules and Law can be found at: <u>http://rrt.lt/en/legal-acts_250.html</u>

¹³ In PT the USP has the obligation to ensure that 5% of the total number of public payphones are adapted to the needs of disabled people in wheelchairs.

¹⁴ There is a requirement that at least 50% of public payphones in Hull and 75% in the rest of the UK are accessible for wheelchair users and that at least 70% of them include additional receiving amplification (implemented by the two respective USPs).

¹⁵ In BE the USO was removed in 2013.

¹⁶ In DE there is no USO imposed, but if the incumbent decides not to provide US to the full extent or to provide US under less favourable conditions than those legally specified, it must notify the NRA one year in advance. Most public pay telephones are suitable for wheelchairs and the bottom number five of the telephone keyboard is marked to help visually impaired and blind people to orientate.

¹⁷ In FR public pay telephones have been removed from the USO in 2015.

¹⁸ In LV public pay telephones have been excluded from the scope of USO since January 1st, 2014.

NL¹⁹, PL²⁰, SE). In two other countries (DK, ES) another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions.

The accessibility provisions under Article 7(1) of the USD (general provisions and affordability) have been implemented via the USO on the USP in 18 countries (BE²¹, BG, CY, CZ, DK, EL, FI²², IE, IT, LT, LV, MT, NL, NO, PT, RS, SI²³, SK). They have been implemented in relation to all providers in four countries (DE, FR, HR, UK) and by some providers in one country (PL). Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions in two other countries (AT, ES).

With regard to Article 7(2) of the USD, which relates to the choice available to disabled endusers, the provisions have been implemented via the USO on the USP in six countries (CY, CZ, IE, PT, RS, SK). They have been implemented in relation to all providers in nine countries (BE, DE, EL, FR, HR, LT, MT, NL, UK) and for some providers in one country (PL). Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions in three other countries (AT, DK, ES).

The accessibility provisions under Article 21(3)(f) of the USD (informing disabled end-users about products and services designed for them) have been implemented via the USO on the USP in six countries (LV, NL, NO, PT, RS, SI). They have been implemented in relation to all providers in 15 countries (AT, BE, BG, CY, CZ, DE, EL, FR, HR, IE, IT, LT²⁴, MT, SK, UK) and for some providers in two countries (PL, RO²⁵). Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions in two other countries (DK, ES).

With regard to the provisions relating to access and choice for disabled end-users under Article 23a(1) of the USD, they have been implemented via the USO on the USP in seven countries (CZ, LV, NO, SI, SK, PT, RS). They have been implemented in relation to all providers in 13 countries (BE, BG, CY, DE, EL, FR, HR, IE, IT, LT, MT, NL, UK) and for some providers in two countries (PL, RO²⁶). Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions in three other countries (AT, DK, ES).

The accessibility provisions under Article 23a(2) of the USD (relating to the availability of terminal equipment) have been implemented via the USO on the USP in seven countries (CZ,

²² The obligation to provide accessible directory enquiry services is extended to all providers.

¹⁹ In NL a provision exists in law, should there be a need, but it has been decided that there is no need to implement it with regard to public pay telephones.

²⁰ In PL no telecommunications provider is designated to provide services within the scope of the universal service. However, any provider of publicly available telephone services providing public pay phones is obliged to adapt public pay phones to the needs of disabled persons.

²¹ Operators providing fixed telephony or Internet with a turnover of €50 million are obliged to offer a social tariff as part of the universal service. This implies that several operators are regarded as "USPs".

²³ In SI price options for disabled end-users are defined by the Ministry of Labour, Family, Social Affairs and Equal Opportunities.

²⁴ The institution responsible for certain aspects of the provisions is The State Data Protection Inspectorate (<u>https://www.ada.lt/go.php/eng/img</u>)

²⁵ In RO the measures are applied to all providers except those that only provide services to business users and those who provide their services through satellite communications.

²⁶ In RO the measures are applied to all providers except those that only provide services to business users and those who provide their services through satellite communications.

EL, NO, SI, SK, PT, RS). They have been implemented in relation to all providers in seven countries (BE, CY, FR, HR, IE, IT, LT²⁷) and for some providers in three countries (MT, PL, RO²⁸). Another organisation (i.e. not the NRA) is responsible for implementation and monitoring of these provisions in five other countries (AT, DE, DK, ES, NL). In one other country (UK – not included in the figure above) the NRA has a general duty to encourage the availability of equipment that is easy to use, but there are no specific obligations on providers.

With regard to the implementation of the USD in general, in one country (SE) a different approach is taken to encourage equivalent access and choice for disabled end-users, whereby the NRA (PTS) is assigned funding by government to procure communications services for disabled end users on the free market. Government funding can be used to procure electronic services for disabled people and people with special needs living in remote areas.

Since the Roaming Regulation is directly applicable, there is no need for NRAs to implement the accessibility provisions of Article 14 of the Regulation. The figure above shows that 22 NRAs (AT, BE, CY, CZ, DE, DK, EL, FI, FR, HR, IE, IT, LT, LV, MT, NL, NO, PL, PT, SE, SK, UK) responded to the questionnaire by noting that the provisions must be implemented by all providers. In two countries (DK, ES), it was noted that another organisation (i.e. not the NRA) is responsible for monitoring these provisions.

With regard to the Audiovisual Media Services Directive, most of the NRAs participating in the questionnaire do not have responsibility for implementing the relevant provisions in this sector (AT, BE, BG, CY, CZ, DE²⁹, DK, HR³⁰, IE, FR, LT, LV MT, NL, NO, PT, SE, SK). However, in

²⁷ Monitoring quality and other general requirements of terminal equipment is the responsibility of the State Consumer Rights Protection Authority (<u>http://vvtat.lt/en/about-authority.html</u>)

²⁸ In RO the measures are applied to all providers except those that only provide services to business users and those who provide their services through satellite communications.

²⁹ In DE die medienanstalten is the umbrella brand of the 14 state media authorities in Germany (<u>https://www.die-medienanstalten.de/en/about-the-media-authorities/</u>)

³⁰ In HR, the relevant organisation is the Agency for Electronic Media (<u>https://www.e-mediji.hr</u>).

three countries (EL³¹, ES³², UK³³) the provisions are implemented in relation to all providers and in five countries (FI³⁴, HU³⁵, IT³⁶, PL³⁷, SI³⁸) they are implemented for some providers.

4.2. Monitoring

NRAs were asked how the measures referred to above are monitored to make sure that the services or information are accessible for the relevant end-users.

The responses were grouped into the following categories:

- Monitoring based on end-user complaints;
- Regular reporting on compliance;
- Other monitoring (e.g. ad-hoc reports or monitoring publicly available data);
- No monitoring is conducted;
- N/A (e.g. because another organisation, not the NRA, is responsible for implementation and monitoring of the provisions).

The following figure illustrates the responses received from the NRAs.

³¹ In EL the operators that provide access through their technology platform (such as IPTV, digital terrestrial, satellite) to Electronic Program Guides (EPG) should take all necessary measures in order for the services to be accessible to disabled end-users, provided that this is technically feasible and to provide, in an easily accessible manner, all disabled end-users with all the necessary information on the use of the EPGs.

³² There are some obligations in place for all linear broadcast services, however public broadcasters have to fulfil additional requirements.

³³ In relation to linear broadcast services in the UK, there are requirements on broadcasters to meet target percentages of programmes with subtitles, signing and audio description. Exemptions are made on the grounds of audience benefit (measured by audience share), affordability, and technical difficulty. Obligations on the BBC are laid out separately in the BBC Agreement. In relation to regulated on-demand services, there are requirements on the NRA to encourage providers to ensure that their services are progressively made more accessible to people with disabilities affecting their sight or hearing or both.

³⁴ In FI a subtitling service (in Finnish and Swedish television programmes) and audio-description service (in other programmes) has to be provided for a certain share of the Finnish Broadcasting Company's public service programmes and in so-called "public interest programmes". The Finnish Parliament has approved a change to the legislation, which is awaiting ratification, according to which 100 % of the Finnish Broadcasting Company's public service programmes and 75 % of programmes which are broadcasted by virtue of a national programming licence and which service several different viewer groups must provide subtitling and audio-description.

³⁵ In HU public and linear media service providers with significant market power are obliged to provide subtitling or sign interpreting to gradually make their programmes more accessible for people with hearing impairments (currently this makes up 99% of their programmes, with a few exceptions, such as TV commercials).

³⁶ In IT, AGCOM is entrusted with surveillance duties in relation to the implementation of the general obligation put on all audiovisual media services providers to progressively make their services accessible to people with a visual or hearing disability. Whereas for the private audiovisual media services providers no sanctioning power has been envisaged for AGCOM, with reference to the public service broadcaster, specific obligations are laid down in the service contract (subtitling, audio-descriptions, use of the Italian sign language) that are subject to AGCOM's monitoring action and, in case of non-fulfilment by the public service broadcaster, to AGCOM's sanctioning power.

³⁷ In PL broadcasters must ensure accessibility of services by introducing appropriate measures, such as audiodescription, subtitling and sign language for at least 10% of the quarterly transmission time (excluding advertising and teleshopping). With regard to on-demand services, providers must aim to gradually make their services more accessible to end-users with visual or hearing impairments (via subtitling, audio-description and sign language).

³⁸ In SI the public broadcaster RTV Slovenija has an obligation to provide its in-house production with subtitles, including content displayed on its website.

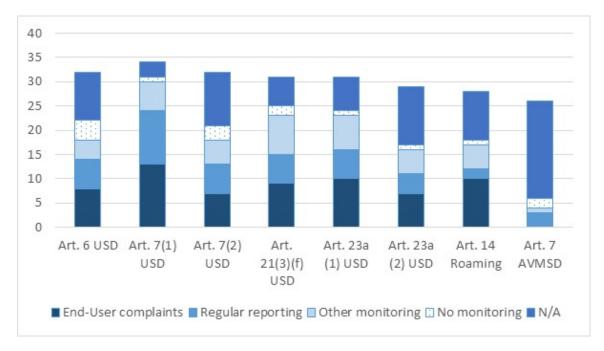


Figure 2 - Monitoring of compliance with the specific measures related to accessibility and choice for disabled end-users

With regard to Article 6 of the USD, which relates to "Public pay telephones and other public voice telephony access points", the accessibility provisions for disabled end-users are monitored based on complaints received from end-users in eight countries (CY, CZ, DE, IE, LT, MT, PL, UK). Regular reporting on compliance is performed in six countries (BG, EL, LT, PT, RS, SI) and in four countries (IT, LT, PL, PT) another form of monitoring is conducted. No monitoring is conducted in four of the responding countries (AT, HU, NO, SK). In addition to this, the responses indicated that this question was not applicable in 10 countries (BE, DK, FI, FR, HR, LV, RO, NL, RS, SE).

The accessibility provisions under Article 7(1) of the USD (general provisions and affordability) are monitored based on complaints received from end-users in 13 countries (CY, CZ, DE, DK³⁹, FI, IE LT, MT, NO, PL, SE, SI, UK). Regular reporting on compliance is performed in 11 countries (BE, BG, EL, FR, LT, LV, NL, NO, PT, RS, SE) and in six countries (IT, LT, MT, PT, SE, SK) another form of monitoring is conducted. No monitoring is conducted in one of the respondent countries (AT). In addition to this, the responses indicated that this question was not applicable in three countries (HR, HU, RO).

With regard to Article 7(2) of the USD, which relates to the choice available to disabled enduser, the provisions are monitored based on complaints received from end-users in seven countries (CY, CZ, DE, IE, LT, MT, PL). Regular reporting on compliance is performed in six countries (EL, FR, LT, PT, RS, SK) and in five countries (IT, LT, MT, PL, PT) another form of monitoring is conducted. No monitoring is conducted in three of the responding countries (AT,

³⁹ In DK a text relay service is under the supervision of the Danish Energy Agency. The Danish Handicap Organisations contacts DEA in case of problems with accessibility.

NO, SI). In addition to this, the responses indicated that this question was not applicable in 11 countries (BE, BG, DK, FI, HR, HU, LV, NL, RO, SE, UK).

The accessibility provisions under Article 21(3)(f) of the USD (informing disabled end-users about products and services designed for them) are monitored based on complaints received from end-users in nine countries (CY, CZ, DE, IE LT, PL, RO, SE, UK). Regular reporting on compliance is performed in six countries (FR, LV, NO, PT, RS, SK) and in eight countries (BE⁴⁰, EL, IT, LT, MT, PT, RO, SE) another form of monitoring is conducted. No monitoring is conducted in two of the responding countries (AT, SI). In addition to this, the responses indicated that this question was not applicable in six countries (BG, DK, FI, HR, HU, NL).

With regard to the provisions relating to access and choice for disabled end-users under Article 23a(1) of the USD, they are monitored based on complaints received from end-users in ten countries (CY, CZ, DE, IE, LT, PL, RO, SE, SI, UK). Regular reporting on compliance is performed in six countries (FR, LV, NO, PT, RS, SK) and in seven countries (EL, IT, LT, MT, PT, RO, SE) another form of monitoring is conducted. No monitoring is conducted in one of the responding countries (AT). In addition to this, the responses indicated that this question was not applicable in seven countries (BE, BG, DK, FI, HR, HU, NL).

The accessibility provisions under Article 23a(2) of the USD (relating to the availability of terminal equipment) are monitored based on complaints received from end-users in seven countries (CY, CZ, IE, MT, PL, RO, SI). Regular reporting on compliance is performed in four countries (FR, NO, PT, RS) and in five other countries (EL, IT, RO, PT, SK) another form of monitoring is conducted. No monitoring is conducted in one of the respondent countries (AT). In addition to this, the responses indicated that this question was not applicable in 12 countries (BE, BG, DE, DK, FI, HR, HU, LT, LV, NL, SE, UK⁴¹).

The accessibility provisions of the Roaming Regulation are monitored based on complaints received from end-users in ten countries (CY, CZ, DE, FI, IE, LT, MT, NL, NO, UK). Regular reporting on compliance is performed in two countries (FR, LV⁴²) and in five countries (EL, IT, NL, SI, SK) another form of monitoring is conducted. No monitoring is conducted in one of the respondent countries (AT). In addition to this, the responses indicated that this question was not applicable in 10 countries (BE, BG, DK, HR, HU, PL, PT, RO, RS, SE).

With regard to the Audiovisual Media Services Directive, the accessibility provisions are monitored with regular reporting on compliance in three countries (FI, HU, UK) and another form of monitoring is also conducted in two countries (HU, IT⁴³). For two other countries (AT, SI), the responses indicated that no monitoring is conducted, whereas for 19 countries (BE, BG, CY, CZ, DE, DK, FR, HR, IE, LT, MT, NL, NO, PL, PT, RO, RS, SE, SK) the responses

⁴⁰ In 2014 the Belgian NRA (BIPT) conducted a review that monitored the provision of information by operators to disabled end-users

⁴¹ The NRA's (Ofcom's) sponsoring department at one time convened an e-accessibility forum with regard to these provisions, but this has not met recently.

⁴² All providers submit information on compliance twice per year.

⁴³ A monitoring is carried out by AGCOM in relation to the implementation of the accessibility-related obligations bearing down on the Italian public service broadcaster, in view of any possible sanction in case of non-fulfilment. In relation to the overall market of audiovisual media service providers, AGCOM carries out an overall surveillance activity and not a systematic monitoring action.

indicated that the question was not applicable (e.g. because another organisation, not the NRA, is responsible for implementation and monitoring of the provisions).

5. Potential for extending obligations and alternative funding mechanisms

NRAs were asked to express their views on whether any current US obligations should be extended to all, or some, service providers and what might be, if any, alternative funding mechanisms for any of the provisions under the USD and other Regulations set out in Section 4 above.

5.1. Extending Universal Service Obligations to all service providers

In response to the question as to whether obligations that are currently in place under a USO for end-users with disabilities should those be extended to ALL service providers, the majority of respondents (19 NRAs – AT, BE, CH, CY, CZ, DK, FI, HR, HU, IT, LT, LV, MT, NL, PL, PT, RS, SI, SK) stated that, in their view, obligations should not be extended. Five NRAs, (DE, FR, IE, SE, UK) responded that this question was not applicable to them, with four countries (IE, DE, FR, UK) noting that the question did not apply since they have already extended some obligations to all service providers (with a qualification in Ireland that the providers must have more than 100k subscribers before the obligations to provide TRS applies). SE, on the other hand noted, that the question did not apply because it did not have any obligations in place under USO for end-users with disabilities.

Three other NRAs, (EL, NO, RO) did not provide a direct response to the question, suggesting that the question may not have been relevant or appropriate for them to answer, while one NRA, CRC (BG), supported the concept of extending obligations, currently in place under a USO for end-users with disabilities, to all service providers.

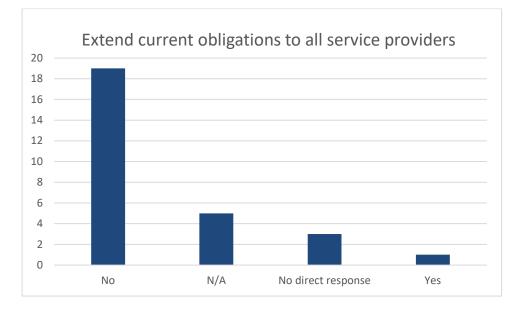


Figure 3 - Should obligations currently in place under USO for end-users with disabilities be extended to ALL service providers?

When asked whether obligations, currently in place under a USO should be extended to SOME service providers, 17 NRAs (AT, BE, CY, CZ, DK, FI, HR, HU, IT, LT, LV, MT, NL, PL, PT, SI, SK) answered "No", clearly indicating that there was no requirement to extend any obligations further in their Member State. However, NMHH (HU) did qualify its response by proposing that rather than extending an obligation to provide out-of-date services, it would be preferable to ensure that people with disabilities can get access to (high speed) Internet, both fixed and mobile⁴⁴ and a special mobile retail package with extra voice and/or SMS services for a lower price (best offer on the market). NMHH added that these obligations should apply to all service providers with at least 100,000 subscribers.

Six other NRAs (CH, EL, BG, NO, RO, RS) did not provide a direct response, perhaps suggesting that the question may not have be relevant or appropriate for them to answer.

Five NRAs (DE, FR, IE, SE, UK) replied that the question did not apply. It is inferred from the responses provided by these NRAs to the preceding question that it was not considered necessary to extend current obligations to some service provides, since, in the case of DE, FR, IE (subject to some qualifications) and UK, the obligations already apply to all service providers or, in the case of SE the NRA does not have any obligations in place under USO for end-users with disabilities.

⁴⁴ With data allowances of at least 3 GB for visually impaired and 5 GB for hearing impaired people per month.

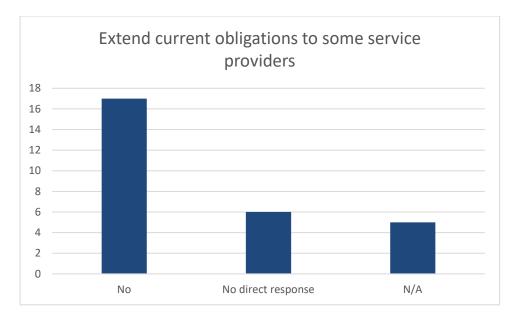
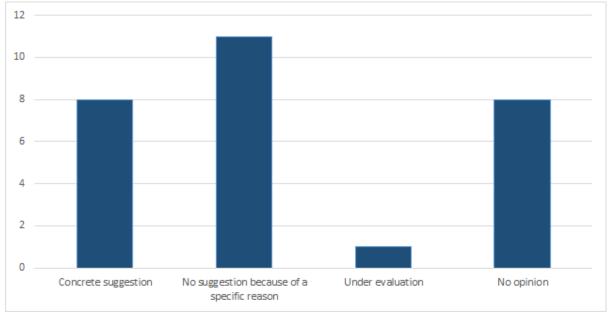


Figure 4 - Should obligations currently in place under USO for end-users with disabilities be extended to SOME service providers?

5.2. Alternative funding mechanisms

NRAs were asked for their views on alternative funding mechanisms for the measures outlined in Section 4.



The following figure illustrates the responses received from the NRAs.

Figure 5: Opinions on alternative funding mechanisms

The opinions of European NRAs on alternative funding mechanisms can be categorised into four groups.

- Concrete suggestion for financial compensation: eight countries (BG, DE, EL, LT, RO, RS, SE, UK).

- No suggestion because of a specific reason (e.g. they suggested not to give (more) public funds for alternative mechanisms, or would be willing to consider it but do not know of any alternative mechanisms, or they stated that no operators had complained yet about costs, or consider it to be a matter to be defined at the national level taking into account national specificities): eleven countries (CY, CZ, DK, FR, HU, IE, IT, MT, NL, PT, SK).
- This issue is currently under evaluation: one country (NO).
- No opinion: eight countries (AT, BE, CH, HR, FI, LV, PL, SI).

Concrete suggestions from the questionnaire about alternative funding mechanisms are as follows:

- As this issue is not necessarily specific to just one sector, general public funds can be/should be involved (e.g. social security institutions to give financial assistance for this purpose). (BG, DE, LT, RO, SE)
- All public and private employers (not only telecoms operators) could pay a charge into a fund if employment of disabled people is not ensured. Then, this fund could be allocated to ensure the necessary equipment, set-up of equipment (e.g., accessible PCs and software) for employees with disability. (DE)
- The largest (partly State-owned) telecoms operator could voluntarily set up a relay service system to make accessible communication possible for disabled end-users. Alternatively, all telecoms operators (over a certain market share) could pay into a fund controlled by the NRA to maintain the system and make it available for all customers of these service providers. In this case or in case of voluntary commitment of other service providers, costs are shared among all end-users of telecoms operators. (DE, LT)
- As an alternative funding possibility, a Universal Service Fund was also mentioned. In this case, other operators would contribute financially to the costs of the current or extended universal service, so that it is accessible for disabled end-users. (EL, RO, RS, UK)

5.3. Legal basis for extending obligations and for alternative funding mechanisms

Regarding the legal basis for extending the existing obligations and to set up alternative funding mechanisms, only 10 respondents made concrete suggestions. One NRA answered that this question is under discussion in their Member State (EL), while the majority (17 respondents) did not have a clear position or the question was not applicable for them.

The following figure illustrates the responses received from the NRAs.

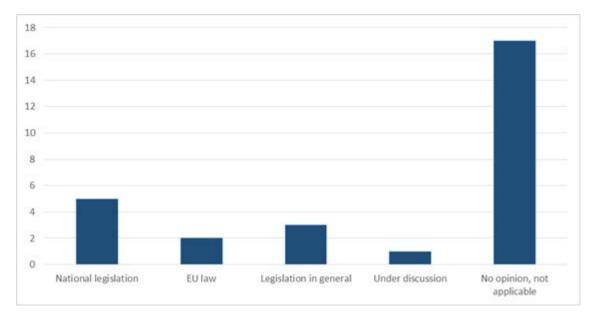


Figure 5: Legal basis suggested for extending obligations and alternative funding mechanisms

Practical suggestions for a legal basis for extending obligations and alternative funding mechanisms include:

- National legislation has already tackled it or should be modified for this reason (BG, FR, DE, PT, SK);
- EU law can be referred to or should be modified (CZ, RO);
- Legislation would be necessary in general (DK, LT, RS).

6. Encouraging equivalent access and choice

6.1. Formal and informal additional measures

Among the responses to the questionnaire, 22 (AT, BE, CY, DE, DK, EL, FI, FR, HR, HU, IE, IT, LT, LV, MT, NL, NO, SE, SI, SK, RO, UK) indicated that there are additional measures with respect to equivalence of access and choice for end-users with disabilities regarding electronic communications - other than those already mentioned in Section 4 of this report - in place in the Member State (including voluntary measures taken by electronic communications service providers). In three countries (CH, CZ, RS) it was specifically stated that no additional measures are in place. The remaining 4 countries did not provide an answer to this question.

The NRAs were further asked about 18 specific types of additional measure: whether they are available in the respective Member State and, if yes, whether they are formal or informal. For this report, those 18 additional measures included in the questionnaire are clustered into four subsections: 1. Access and affordability; 2. Equipment, software and website information; 3. Customer services and complaints; and 4. Other additional measures, including relay and emergency services and directories. The results are presented below.

If countries are not listed in the graphs below, it does not necessarily mean that no additional measures are available. Some countries included general statements in the questionnaire and/or refrained from answering this specific question or parts of the question due to lack of competences or lack of information available to the NRA.

6.1.1. Access and affordability

With regard to access and affordability, NRAs were asked if there are additional measures with regard to:

- the availability of electronic communication service providers with accessible services;
- the affordability of services and/or terminal equipment;
- an accessibility statement setting out an approach and policy in providing accessible services and information to disabled end-users;
- the availability of multiple accessible services/bundles;
- an accessible top-up facility for prepaid mobile users.

15 respondent NRAs (AT, BE, CY, DE, DK, EL, FR, LT, LV, MT, NL, NO, RO, SI, SK) stated that there are additional measures available with regard to affordability of services and/or terminal equipment. In 12 countries (CY, DK, FI, FR, HR, HU, IE, LV, RO, SI, SK, UK) additional measures are in place for the availability of ECS providers with accessible services.

Six NRAs responded that accessible top-up facilities for prepaid mobile users are available in their countries (CY, HR, IE, LT, MT, SI) and five NRAs (CY, FR, HR, IE, LT)⁴⁵ have additional measures regarding accessibility statements. Finally, three countries (LT, LV, RO) said that additional measures were in place with regard to the availability of multiple accessible services or bundles.

⁴⁵ One additional country (UK) stated that a general consumer vulnerability duty will be coming into force in 2018.

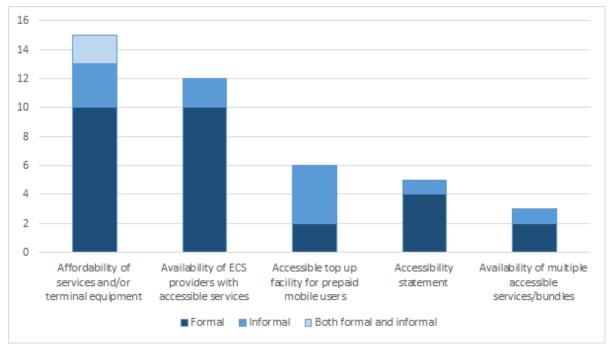


Figure 6: Availability of additional measures with regard to access and affordability

6.1.2. Equipment, software and website information

With regards to equipment, software and website information, NRAs were asked if there are additional measures with regard to

- the availability of accessible equipment such as terminal equipment;
- an accessible facility to test compatibility of terminal equipment or appropriate returns policy;
- or any minimum set-up requirements for accessible equipment;
- the availability of accessible software applications in the national language;
- accessible website information.

12 NRAs (BE, CY, DE, EL, FR, HR, IE, MT, NO, RO, SI, SK) mentioned additional measures with regard to the availability of equipment, four of which (CY, DE, IE, RO) also mentioned additional measures with regard to an accessible facility to test compatibility of terminal equipment or appropriate returns policies. In four countries (CY, DK, HR, SE) there are additional measures regarding minimum set-up requirements for accessible equipment.

Additional measures with regard to accessible website information were mentioned by 11 countries (BE, CY, DE, EL, FI, HR, IE, IT, NO, SE, SI). Ten countries (BE, CY, DE, EL, HR, HU, MT, NL, SE, SI) have additional measures for the availability of accessible software applications in the national language.

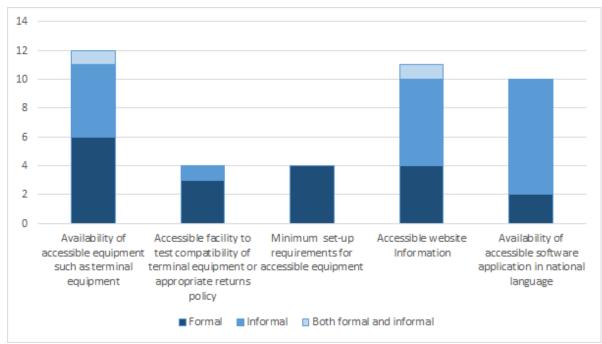


Figure 7: Availability of additional measures with regard to accessible terminal equipment, software and website information

6.1.3. Customer services and complaints

Questions on several additional measures regarding customer services and complaints were included in the questionnaire:

- accessibility of customer support services;
- accessible commercial and billing information;
- information regarding operator code of practice for complaints handling;
- accessible complaints procedures;
- accessible information for contracts, switching contracts and notification of modifications.

Additional measures with regard to the accessibility of customer support services were mentioned by 14 NRAs (CY, EL, FR, HR, HU, IE, IT, LT, LV, MT, NL, RO, SE, UK). 13 NRAs (CY, DE, FI, FR, HR, IE, LV, MT, RO, SI, SE, SK, UK) mentioned additional measures for accessible commercial and billing information. Again, 13 NRAs (CY, BE, DE, FR, HR, HU, IE, LT, MT, RO, SE, SK, UK) said that additional measures with regard to accessible information for contracts, switching and notification of modifications were available in their countries.

Ten NRAs (CY, HR, IE, LT, LV, MT, RO, SE, SK, UK) have listed additional measures regarding accessible complaints procedures. Information regarding an operators' code of practice for complaints handling was mentioned by seven responding NRAs (CY, DE, IE, LV, MT, NO, UK).

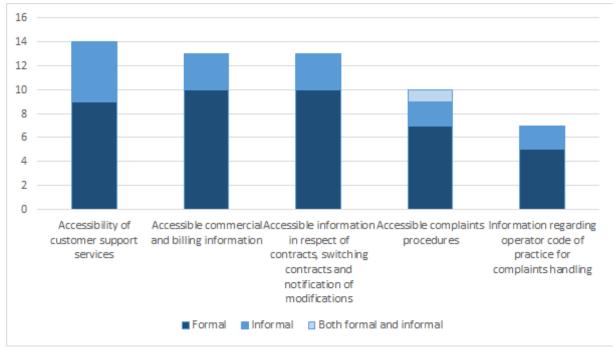


Figure 8: Availability of additional measures with regard to customer service and complaints

6.1.4. Other additional measures

The NRAs were asked whether additional measures were also available for:

- access to emergency services (112);
- access to text/video relay services;
- accessible directory enquiries;
- any other additional measures.

19 NRAs (AT, BE, CY, DE, DK, FI, FR, HR, IE, LT, LV, MT, NL, NO, RO, SE, SI, SK, UK) responded that additional measures were available with regard to emergency services. In 14 countries (BE, CY, DK, FI, HR, IE, LT, LV, MT, NL, SE, SI, SK, UK) additional measures for accessible directory enquiries are available. 12 NRAs (BE, CY, DK, FI, FR⁴⁶, IE, LT, NL, NO, SE, SK, UK) stated that additional measures with regard to access to text or video relay services are available in their countries.

⁴⁶ Relay services will be available in France from October 2018.

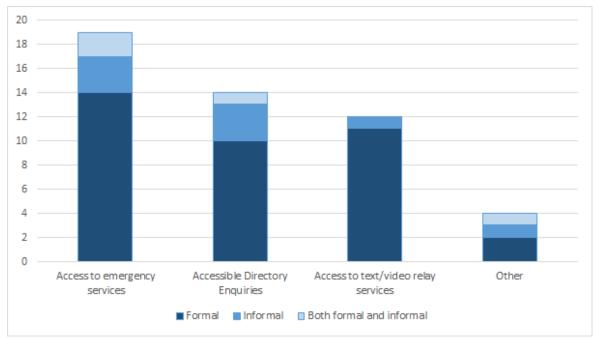


Figure 9: Availability of additional measures with regard to emergency and relay services, directories and other additional measures

As for other additional measures available in their countries, 4 NRAs (HU, RO, SI, SK) mentioned one or more additional measures. For RO, the NRA listed priority for fault repair services, the possibility for the end-users with visual disabilities to interrogate the cost control service by means of an audio message and GARI database on ANCOM's website. For SK, the NRA mentioned its decision on the designation of the USP. For HU, the NRA stated that a few service providers provide sensitising training about interacting with disabled end-users for their staff. In SI, the Slovenian Public broadcaster, RTV Slovenija (including their Internet and mobile portals with on-demand service) is obliged to provide programming for persons with sensory disabilities using systems adapted for them. The broadcaster also has a special web portal for disabled end-users that provides an archive of RTV Slovenija's in-house productions with subtitles, sign language and audio descriptions.

6.1.5. Envisaged additional measures

NRAs were asked if they envisaged taking any of those abovementioned additional measures in the near future to ensure the equivalence of access and choice for disabled end-users. Out of 21 NRAs who responded to the question, eight (DE, FI, HU, IE, MT, PT, RO, SE) said that they were planning such measures and 16 (AT, BE, CY, CZ, DK, EL, FR, HR, IT, LT, LV, NL, RS, SI, SK, UK) said that they do not envisage such measures in the near future. The envisaged initiatives are presented in Annex 2.

6.1.6. Competences of NRAs regarding the protection of end-users with disabilities

NRAs were also asked, what - if any - competences they have in their Member State regarding the protection of end-users with disabilities. For instance, these may include

adopting particular regulations, imposing obligations on undertakings, such as special tariff packages, information requirements, determination of quality parameters and additional standards with regard to quality of service for end-users with disabilities. 19 NRAs provided answers to this question and most of the responding NRAs have at least some competences with regard to the protection of end-users, such as monitoring or adopting regulations. However, the extent of competences varies from country to country. The responses are included in Annex 3.

6.2. Availability of terminal equipment

Article 23a (2) of the 2009 USD states that "In order to be able to adopt and implement specific arrangements for disabled end-users, Member States shall encourage the availability of terminal equipment offering the necessary services and functions".

The responses to the BEREC questionnaire suggest that the availability of terminal equipment is more often ensured through some concrete measures taken by the NRAs (8 countries: CZ, FR, EL, IE, PT, RO, SK, SI) than by the facilities provided by service providers as part of a commercial policy (5 countries: BE, FR, MT, NO, UK).⁴⁷ This is mainly achieved through collaboration between the NRAs, service providers and other entities involved in accessibility issues, in order to find the most appropriate way in which terminal equipment should be efficiently provided to the disabled end-users.

In this respect, ARCEP (FR) has given support to operators in order to establish criteria for identifying accessible devices. Some meetings have been organised with operators, representative organisations and institutions in order to find an agreement and a common understanding on what should be considered "accessible", depending on the disability considered, for mobile and fixed terminal equipment. This set of criteria has been shared with the mobile manufacturers' forum in order to integrate them in GARI⁴⁸. Each year, in their reports, operators have to tell ARCEP how many accessible devices they provided.

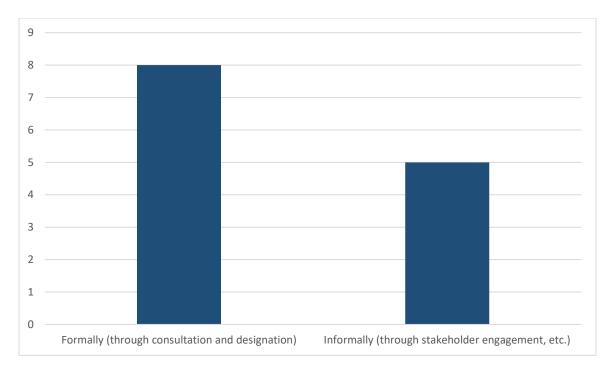
The GARI database is an option which allows the users to find all the information about the accessible features of the available terminal equipment. In some cases GARI or information about this facility are available on the NRAs' websites (BE, PT, RO).

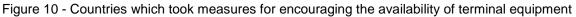
In PT and IE the USPs providing fixed telephony services are obliged to provide, upon request, handset amplifying equipment, consisting of an amplifier which can be used with any terminal equipment to increase the volume in the earpiece for people with hearing disabilities and a call warning light as a visual signal when a call is received on the terminal equipment.

The Romanian NRA (ANCOM) has introduced into secondary legislation the right of end-users to test the terminal equipment before buying it or to return it after buying if they find that the terminal features are not complying with their needs. The same facility is also available in IE.

⁴⁷ While in section 6.1.2. any measures with regard to terminal equipment were included (including voluntary measures taken by ECS providers), this section focuses on measures that were adopted in accordance with Article 23a(2).

⁴⁸ Global Accessibility Reporting Initiative is a project designed to help consumers, through an online database, learn more about the accessibility features of mobile devices and to help them identify devices with the features that may assist them with their particular needs.





6.3. Special retail packages or subsidies

In the majority of countries, (22: AT, BE, BG, CY, CZ, EL, FI, HR, HU, IE, IT, LV, MT, NL, NO, PL, PT, RO, RS, SK, SI, UK)⁴⁹ there are available special retail packages and/or subsidies for disabled end-users.

Financial facilities related to different electronic communication services are provided under the universal service mechanism (7: BE, CZ, EL, LV, MT, NO, PT) or following other legal requirements/on a voluntary basis (13: AT, BG, CY, FI, HR, HU, IE, NL, PL, RO, RS, SK, UK). In terms of subsidies for terminal equipment, these are offered either by the universal service provider (CZ, EL, PT) or by other providers (FI, SI, IT⁵⁰). The remaining respondents did not provide any answer or they did not have such facilities available on the market.

⁴⁹ With regard to the French market, it has to be underlined that French operators generally offer affordable "abundance packages»: i.e.: unlimited Internet access and unlimited voice communications for fixed packages or unlimited text messages and unlimited national voice communications for mobile packages, included in the basic package.

⁵⁰ The Ministry of Health is in charge of available subsidies for communication and information devices for disabled users. VAT applied to IT equipment is equal to 4% (instead of the ordinary 22% VAT).

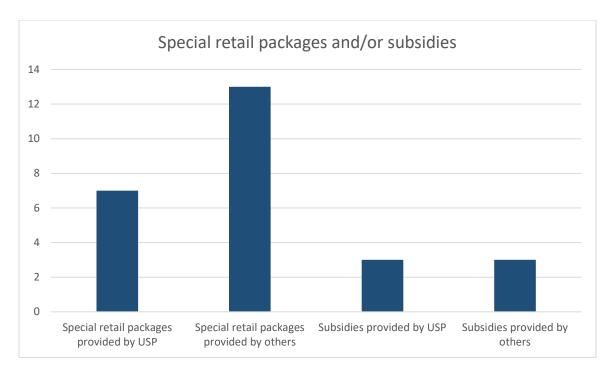


Figure 11 – Special retail packages and/or subsidies for disabled end-users

6.4. Text and video relay services

Relay services represent a communication facility for the deaf, hard of hearing or speech impaired people in order to help them to have a real time conversation via their telephony services, mostly intermediated by a communications assistant. Regarding the implementation of such services, 16 out of 28 NRAs which responded to the BEREC questionnaire mentioned that at least one solution is in place (BE, CH, CY, DE, DK, FI, FR⁵¹, HR, IE, NL, NO⁵², PL, PT, SE, SK, UK).⁵³

⁵¹ Relay services will be available in France from October 2018.

⁵² In NO there is a mixed solution: a text relay service provided by the USP and a video relay service which is run by the Norwegian Labour and Welfare Administration. The text relay service is available all day every day and the video relay service is only available between 8 AM and 8 PM Monday through Friday.

⁵³ While in section 6.1.4. additional measures with regard to text/video relay services were included (including voluntary measures taken by ECS providers), this section focuses on the details of the text/video relay service.

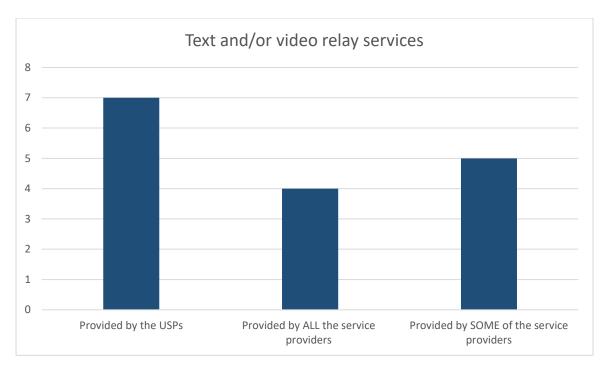


Figure 12 - Availability of text and/or video relay services⁵⁴

Almost all of the respondent countries with functional text/video relay services have set some quality of service requirements (BE, CH, DE, DK, FR⁵⁵, HR, IE, NL, SE, UK), but in some countries these are not mandatory (BE, IE). The service providers or the companies/entities entitled to provide the service have the responsibility of implementing these requirements while they are monitored either by the NRA or by the entity responsible with the implementation of the service.

In terms of funding, in NO for instance, the costs for providing the text relay service are supported by the USP, in PL the provision of the video relay service is zero-rated, while in FI the text relay service is publicly funded to some extent. In FI a hearing or speech impaired person has a right to a minimum of 180 hours of interpretation services, and a person with a disability related to hearing and sight has a right to a minimum of 360 hours of interpretation services yearly, free of charge. Following this, the local municipalities are obliged to provide persons with disabilities with the necessary aid and terminal equipment related to communication, transport, etc. necessary in everyday life. As a part of this obligation, text phones or necessary software and a computer for the use of text relay services have been provided for persons with hearing or speaking disabilities.

In CH, the universal service provider is required to provide a transcription service for the hearing impaired, which also handles emergency calls, as well as a short message relay service (SMS) which must be available 24 hours a day. Also, on the same basis the universal service provider has the obligation to provide a video-telephony relay service from 8 am to 9

⁵⁴ Provided by the USP (CH, CY, DK, NL, NO, SK); provided by all the service providers (BE, DE, FR, UK); provided by some of the service providers (FI, IE, PL, PT, SE).

⁵⁵ In France, quality of service requirements will be implemented in 2018.

pm Monday to Friday and from 10 am to 5 pm on Saturdays, Sundays and statutory federal holidays.

The provision of a relay service in DE is free of charge only for emergency calls. Deutsche Telekom AG provided a major financial contribution to the technical rollout of the service and helped to organise the service in close cooperation with the "German Society for Deaf and Hearing-impaired Persons" (DG). The annual costs of providing this service is financed by the German telecommunications companies with a market share over 0.5 % of the calls through a fund organised by the NRA. Currently, the relay services are provided by two companies which allow confidential interpretation between sign language and spoken German. The commercial approach for providing these services varies, depending on the offered services, the technology and the target-groups. The "Tess Relaydienste für hörgeschädigte Menschen GmbH", which operates the relay service for private use in Germany has to report regularly, at least annually, about the experiences when providing this service, the costs and the growing user numbers. Based on this report, the German NRA (BNetzA) determines the costs and the conditions for providing the relay service.

6.5. Engagement with disabled end-users and representative organisations

Of the 28 respondents, 25 indicated how they gain input from disabled end-users or representative organizations (AT, BE, BG, CH, CY, CZ, DE, DK, EL, FI, FR, HR, HU, IE, IT, LT, MT, NL, NO, PL, PT, RO, SE, SI, UK). (See figure 14)

These 25 NRAs stated that they interact with stakeholders in a variety of ways in order to gain input and insights from disabled end-users, when trying to ensure equivalence of access and choice for end-users with disabilities.

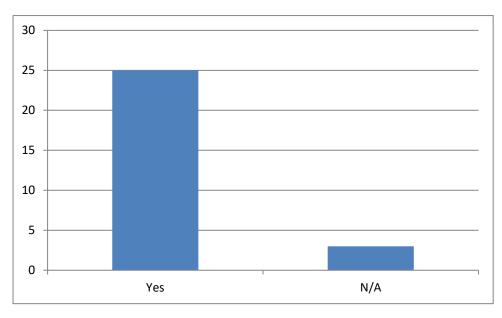


Figure 14 - Consultation with disability representatives

Table 1 - Methods used for consulting disability groups

Country (NRA)	Details for question 8
Austria (RTR)	RTR has no setting where disabled end-users are consulted. However, the Ministry responsible for telecoms (Ministry for Transport, Innovation and Technology) and for the USO, as well as operators (e.g. A1 Telekom) and the Federal Ministry of Labour, Social Affairs, Health and Consumer Protection consult with disabled end-user organisations regularly.
Belgium (BIPT)	 Collaboration with stakeholders while preparing a communication/decision; Formal consultation prior to each decision;
	• collaboration during screening campaigns, for instance the screening in 2014 of the respect of the decision of 28 March 2013 was done with the help of Transkript, an organisation for the blind.
Bulgaria (CRC)	 CRC, including with regard to people with disabilities and their organisations: Conducts public discussions and consultations; Examines and pronounces complaints to end-users and gives mandatory instructions to the enterprise for the removal of violations committed; Gives mandatory instructions to the undertakings providing electronic communications services on the drafting of the general terms and conditions of the contract with the end-users in a clear, comprehensive
Croatia	and easily accessible form for the subscribers. We consult with associations for persons with disabilities.
(Hakom)	,
Cyprus (OCECPR)	Public consultations are frequently executed and the organizations representing end-users with disabilities are invited and are participating with views and opinions.
Czech Republic (CTU)	The Czech telecommunication office consults only in the terms of the Telecommunication Act. There are no discussion fora or focus groups provided by The Czech telecommunication office.

Denmark (DBA)	No formal fora or focus groups.
Finland (Ficora)	Ficora initiated a cooperation network with organisations that represent end-users with disabilities related to hearing or speaking.
France (Arcep)	ARCEP is meeting representative organisations during meetings organised within specific projects, such as the testing of a relay service or a yearly process done by the French telecom federation.
Germany (BNetzA)	BNetzA relating to the relay service proactively consults disability groups and conducts a consultation procedure , which is open to disability groups concerned and undertakings concerned (provider of relay service, providers of telecommunications services).
Greece (EETT)	There have been discussions in the past regarding the measures to be adopted for disabled users.
Hungary (NMHH)	 Between 2013 and 2017, NMHH conducted two waves of research surveys among disabled people on the use of electronic communications services and organised one conference and four workshops on the empirical evidence and European practices with the participation of association and interest groups, national and European experts in disability issues. Although, in the previous years, these discussions have been rather adhoc and not a regular and systematic process, in 2017 NMHH has launched a discussion with the largest service providers to start a more systematic dialogue and cooperation on accessibility.
Ireland (ComReg)	ComReg holds workshops / focus groups at which we discuss specific topics and invite Industry and Disability representative groups to attend
Italy (AGCOM)	Agcom makes periodical consultations , inviting relevant stakeholders – typically, disabled users associations - to share their views in order to collect information on specific needs and relevant issues/topic to be addressed.
Lithuania (RRT)	RRT consults with various associations or groups of end-users, including the disabled, in case of relevant changes in legislation or provision of electronic communications services.
Malta (MCA)	The MCA regularly holds meetings with FITA and the Commission for the Rights of Persons with disability to discuss issues relating to accessibility.
Netherlands (ACM)	It happens incidentally that ACM receives input from interest groups. End-users can ask questions or file complaints with our consumer <i>information desk</i> .

Norway (NKOM)	Informal contact.
Poland (UKE)	First of all, as part of public consultations in the legislative process and regular cooperation of UKE with organisations acting for the benefit of people with disabilities. At the same time each person with a disability can submit its proposals to the President of UKE, ask questions or address complaints about telecommunications undertakings using contact forms, by telephone, e-mail or in person.
Portugal (ANACOM)	Any ANACOM decision with impact on the market is preceded by a public consultation involving all the relevant stakeholders.
Romania (ANCOM)	When planning to adopt measures with significant market impact, ANCOM follows the public consultation procedure. Also, before adopting Decision no. 160/2015, ANCOM actively consulted users with disabilities and associations representing their interests, analysing their requests related to ensuring equivalence of access to public electronic communications services. If necessary, ANCOM can organise meetings/send questionnaires with/to end-users' organisations in order to find out more details
	regarding their special needs and with/to providers to establish the most appropriate ways to meet these needs.
Slovenia (AKOS)	There is a Council for Telecommunications which is a consultant body for AKOS. The Council is enforced to give recommendations to AKOS in the field of strategy for the development of telecommunications and protection of end-users' rights. There are 11 members of the Council and at least one member has to be a representative of disabled end-users.
Sweden (PTS)	PTS gets input from disabled end-users including individuals by e.g. consulting with disability organizations, focus groups. PTS invites people with disabilities or their representatives as experts in the evaluation process of the Innovation competitions. PTS also gets input from the innovation projects through the tests with users with disabilities.
Switzerland (BAKOM)	Annual meeting with the PROCOM Foundation
United Kingdom (Ofcom)	Ofcom has an advisory committee for older and disabled consumers, as required by the Communications Act.

6.6. Access to emergency services

Out of the 28 respondents, 21 indicated that there were specific measures in their countries to ensure access to emergency services for disabled end-users, equivalent to that enjoyed by most end-users, and if there were special ways to reach those services (AT, BE, BG, HR, CY, DK, FR, DE, IE, LV, LT, MT, NL, NO, PL, PT, RO, SK, SI, SE, UK) (see Figure 15).⁵⁶

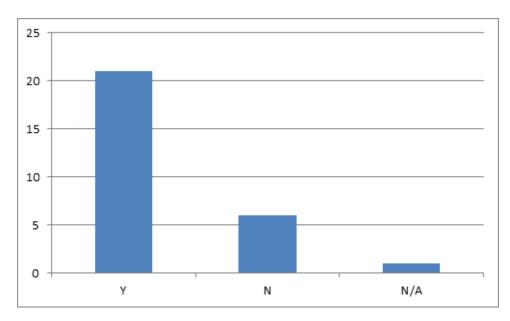
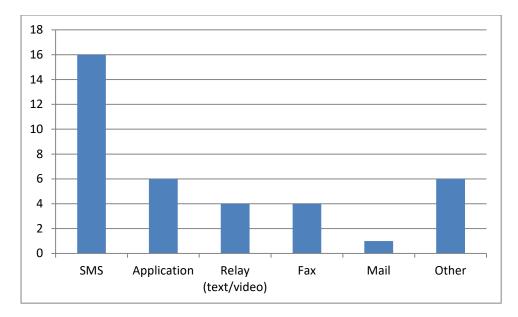


Figure 15 - Are there any specific measures taken in your country for ensuring that access of disabled end-users to emergency services is equivalent to that enjoyed by the majority of end-users?

Some of these NRAs provided further details on the measures, explaining how the service was provided. They also mentioned who was responsible for implementing and monitoring the functioning of the accessibility provisions for emergency services (See Table 2 and Annex 4).

SMS is the main way of providing accessible emergency services in 16 of the countries where emergency services are provided in an accessible manner. Applications are used in 6 countries, often along with fax, video and mail. Another way of providing accessible emergency services is through text relay and special devices.

⁵⁶ While in section 6.1.4. additional measures with regard equivalent access to emergency services were included (including voluntary measures taken by ECS providers), this section focuses on any measures for ensuring that access by disabled end-users to emergency services is equivalent to that enjoyed by the majority of end-users



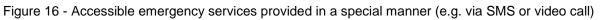


Table 2 - Access to emergency services

Country (NRA)	Authority responsible for emergency services	Provision of emergency services
Austria (RTR)	Federal Ministry of Transport, Innovation and Technology / Telecommunications Office	Mail, SMS, fax
Belgium (BIPT)	FederalPublicServiceHomeAffairs , BIPT	SMS, application
Bulgaria (CRC)	CRC	Specialised software application providing text or other non-voice connection
Croatia (HAKOM)	DGU (State Geodesic Administration)	SMS, equivalent of voice calls, visual interface

Cyprus (OCECPR)	The Cyprus Police Force.	SMS ⁵⁷ , telefax
Czech Republic (CTU)	Ministry of the interior of the Czech Republic	SMS
Denmark (DBA)	Danish Energy Agency	SMS
Finland (FICORA)	Emergency Response Centre Administration	SMS
France (Arcep)	National steering committee	SMS, fax
Germany (BNetzA)	BNetzA, towns, municipalities, providers	Telefax, text and video relay service
Ireland (ComReg)	ComReg	SMS
Latvia (SPRK)	Ministry of the Interior and State Fire and Rescue	SMS
Lithuania (RRT)	Emergency Response Centre	SMS, application
Malta (MCA)	n/a	Special device
Netherlands (ACM)	Ministry of Justice and Safety	Direct text relay service to 112. It can also be reached via the text and video relay service KPN Teletolk.
Norway	Norwegian Directorate for Civil	SMS
(NKOM)	Protection	
Poland (UKE)	Ministry of Internal Affairs and Administration	Application (in progress)

⁵⁷ Access via video call service is currently under pilot implementation.

Portugal (ANACOM)	National Institute for Rehabilitation	Application
Romania (ANCOM)	Service for Special Telecommunication	SMS
Slovakia (RU)	Ministry of Interior of the Slovak republic and RU	SMS
Slovenia (AKOS)	AKOS	SMS
Sweden (PTS)	SOS Alarm Sverige AB / PTS	SMS, PSTN text telephone, text relay and video relay services
United Kingdom (OFCOM)	Providers	SMS, text relay service

7. Conclusions

It is evident from the report that NRAs exercise the statutory powers, conferred on them through the national transposition of the provisions of the USD, in different ways. Put simply, this report illustrates that NRAs have taken different approaches to address the issue of equivalence of access for disabled end users of electronic communications services. Some NRAs impose obligations on the Universal Service Provider to ensure equivalence of access and affordability for a specific set of services, while other NRAs take a different approach and impose obligations on all service providers to ensure that disabled end-users: (a) have access to electronic communications services equivalent to that enjoyed by the majority of end-users; and (b) benefit from the choice of undertakings and services available to the majority of end-users.

Based on the responses received from NRAs, it is clear that there is no single way to ensure equivalence of access for end users across all Member States. Electronic communication is a fast-paced developing market and with the enhancement of hardware and software, there are ever emerging ways of ensuring and enhancing equivalence of access for disabled end users. Further, NRAs have differing competencies and, having regard for differing national circumstances, it is not possible to recommend a single prescribed methodology or series of measures that NRAs should employ to ensure equivalence of access to electronic communications services for disabled end users. However, it is also clear from the responses received that NRAs are active in consulting with representatives from disability organisations to develop their knowledge and understanding of the needs of this particular group of end users of ECS.

In addition, many Member States have taken measures beyond the provisions of the USD and some Member States already envisage such additional measures in the near future (such as the extension for the availability of relay services, a stronger focus on the accessibility of

websites and accessible information or improvements with regard to complaint handling). Several NRAs plan on conducting surveys, studies or workshops to better understand the needs of end-users with disabilities and take additional measures with regard to disabled end-users accordingly.

In this context, this report serves as an inventory of measures adopted by NRAs across Member States and its purpose is to assist and inform NRAs as they evaluate how best to ensure equivalent access and choice for disabled end-users.

Annex 1 – Country Codes

AT	Austria
BE	Belgium
BG	Bulgaria
СН	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EL	Greece
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LV	Latvia
MT	Malta
NL	the Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania

- RS Serbia
- SE Sweden
- SI Slovenia
- SK Slovakia
- UK United Kingdom

Member state	Envisaged initiatives
DE	This Year BNetzA will determine the extent and degree of coverage of the service and will organise a public tender for the relay service for the period beginning on 1 January 2019. The access to the relay service will be extended (from 8:00 to 23:00 o´clock) to any time. Furthermore NRA (BNetzA) will ensure financing of the relay service as prescribed by section 45(3) TKG.
FI	In 2018 start development and operation program within all our administrative authorities. 1 Find out develop customer satisfaction surveys and statistical methods to better take into account the views of disabled people and the elderly. 2 Launch the development of accessibility of websites to meet the requirements and timetables of the Accessibility Directive (2016/2102). 3 Will begin to explore the benefits and cost-benefit methods currently used in the transport and communications sector and how they are taken into account in accessibility.
HU	In 2017, NMHH organized an international workshop on accessibility of communications services with the participation of the largest service providers in Hungary. As a result of the discussion, these service providers are working on their suggestions to promote accessibility of services. NMHH will examine these suggestions and decide on possible measures to be taken. Regarding consumer protection, it seems to be unavoidable to have some basic guidelines for all big providers (i.e., those having at least 100,000 subscribers) to ensure that all consumers can get access to the provisions of the digital world and can switch provider in case of discontent. But NMHH would like to discuss and take into consideration the opinions of service providers to ensure that possible measures will fit in with the specific Hungarian situation, the social patterns of accessibility, and the capacity of service providers.
IE	ComReg has undertaken a consultation to further specify measures in respect to Accessible Services – complaints handling, Accessible Information and the Disability Register. A Decision is due Q2 2018.
MT	The MCA may consider implementing some of the above measures in the future depending on the necessities and exigencies of the local market. In 2018, the MCA will set up 4 assisted technology centres in Malta to facilitate the integration of ICT in everyday life and mitigating the dependency that persons with disabilities are burdened with. The centres will be used to deliver training, assessments, disseminate information on assistive technology amongst persons with disabilities, educators, employers and society at large.
PT	ANACOM will publish this year a new regulation concerning the way electronic communications and postal service providers handle end-users' complaints, that will establish an obligation for these service providers to ensure equal access to complaint handling procedures. Also, ANACOM is planning to launch a specific area for users with special needs in its Consumer Website – www.anacom-consumidor.com. This area will provide

Annex 2 - Additional measures envisaged in the near future

	specific information regarding relevant news and initiatives, contact details of service providers, manufacturers, support associations, etc. and most importantly a list of useful resources available in Portugal for users with special needs – equipment, software, tariffs, guides, etc. – accessible through a search engine. We expect to have this area ready and publicly available this year.
RO	ANCOM is planning to review the special tariff packages in order to better address the needs of disabled end-users.
SE	The rapid technological and market developments in electronic communications give new opportunities, and increase consumer demands as well as challenges, pushing for the implementation of new ICT-portfolio objectives and strategy. PTS deal with evaluating current needs of disabled end-users by studies, survey and consultation with representatives of disability organizations in purpose to identify disabled end-users needs, interests and barriers in relation to electronic communications services (to obtain an insight into potential measures). Some new measures may be taken into consideration by PTS in the future in aim to ensure the best way to meet disabled end-user needs for electronic communications services in the most possible economically efficient manner in both short and long term perspective.

Annex 3 - Competences of NRAs regarding the protection of endusers with disabilities

Member state	Competences of NRA	
AT	NRA has very few competences in this area. Two exceptions:	
	1. According to Article 17 the NRA can issue an ordinance, that "ordinance may also prescribe suitable measures to enable users with disabilities to use telecommunications services to the same extent as users without disabilities." However, such an ordinance has not been issued.	
	2. NRA is involved in the area of emergency calls.	
BE	 Art. 2121/4 of 13 June 2005 on electronic communications stipulates that the BIPT can take measures to ensure that end users with disabilities: enjoy access to public electronic communication services, equivalent to that enjoyed by the majority of end-users, this means adapted to their disability; take advantage of the choice of undertakings and service providers available to the majority of end-users; 	
CY	Special Retail packages have been imposed to the USP (fixed telephony) regarding end-users with disabilities. The terms and conditions and prices of these packages are regulated by the OCECPR.	
CZ	There is not special protection for end-users with disabilities. The level of protection is the same for every end user.	
DE	The NRA (BNetzA) is the competent authority for implementing section 45 TKG, especially for ensuring relay service. BNetzA has to determine the extent and degree of coverage of the service as in conjunction with the associations and undertakings concerned and regularly organises a public tender for the relay service.	
DK	To monitor if other measures are needed. Supervise that the implemented measure are provided.	
EL	All implemented obligations (see Section 4) are supervised by the NRA.	
FR	ARCEP monitors the implementation of obligations regarding the protection of end-users with disabilities. It sets quality of services standards of texts/video relay services provided.	
HU	The Parliament should modify the Act on Electronic Communications to ensure that NMHH shall be able to oblige service providers to offer accessible information, services, and procedures for disabled citizens. Presently, NMHH can monitor the accessibility of public phones and broadcasting services of the respective media service providers only. Besides, according to this law, NMHH could oblige service providers to offer affordable retail packages for disabled and vulnerable consumer groups, but NMHH prefer the concept of making services, information, and procedures accessible instead of providing financial aid or free equipment.	
IE	Consult on measures to further specify secondary legislation SI No 337 of 2011.	

IT	See Section 4.
LT	According to Article 34 (15) of the Law, The Communications Regulatory Authority may impose requirements on public electronic communications service providers related to ensuring access for disabled end-users to electronic communications services. Due to this, the Point 18 of the Rules of ECS establishes that "The Provider, who receives a request and/or consent from a person with disability to do so, must regularly provide the information on the products and services, intended for persons with disability in the form and by employing the tools, suitable for such person with disability".
MT	In line with the provisions of the Electronic Communications Networks and Services (General) Regulations (SL399.28) ("ECNSR") the MCA published a decision entitled "Universal Service Obligations on electronic communication services" which requires the designated undertaking to provide identified services for the purpose of ensuring that disabled end-users can access publicly available telephone services equivalent to those enjoyed by other end-users at an affordable rate, including access to emergency services, directory enquiry services, and directories. Regulation 41 of the ECNSR, requires that: "An undertaking providing publicly available electronic communications services shall take all necessary measures to ensure that disabled end-users have access to electronic communications services equivalent to that enjoyed by the majority of end-users". The "ECNSR" also establishes that the NRA may impose specified requirements on all undertakings with the aim to ensure that disabled end-users benefit from equivalent access to and choice of electronic communications services.
NL	ACM does not have the competence to adopt any new regulations or obligations. Only the minister can do this.
NO	NKOM may enter into an agreement with or designate by order one or more providers to offer special services for the disabled and other end-users with special needs.
RO	ANCOM can impose some obligations on undertakings (USP or all/some providers) by adopting particular regulations in order to ensure the equivalence of access for disabled end-users regarding the transparency of information related to the services or equipment intended for them, measures for encouraging the availability of terminal equipment and to ensure that disabled people have access to publicly available electronic communications services adjusted to their needs etc.)
SE	We are a group of approx. 10 colleagues at The Swedish Post and Telecom Authority that deals on the day-to-day basis with consumer issues at the Unit for Inclusive IT and Telephony that is a part of the Connected Society department. We strive to ensure a society where all the information and communication technologies (ICT) are inclusive, accessible for all. PTS approach to achieve equivalence in access and choice for disables can be summarized in three major working processes:

	 State funding to fil the gap for disabled users. PTS is assigned by government to procure communication services for disabled end users on the free market, rather than assigning a particular USP to fulfil the obligation. Evaluation of and encouragement for inclusive accessible services.
	State funding to push for market innovation for all.
SI	To impose measures for disabled users to USP. Measures themselves are defined by secondary law, prepared by Ministry of Labour, Family, Social Affairs and Equal Opportunities.
UK	OFCOM has duties under the Communications Act to take account of the needs of disabled citizens and consumers when making and implementing regulations.

Annex 4 – Access to emergency services

Country (NRA)	Authority responsible for emergency services	Provision of emergency services	Details for question 9
Austria (RTR)	Federal Ministry of Transport, Innovation and Technology / Telecommuni cations Office	Mail, SMS, fax	The Ministry of the Interior, in cooperation with large providers, established three ways for hearing-impaired and deaf end-users to make an emergency call to the police (133): it can be sent via Mail, SMS or Fax. The Federal Ministry of Transport, Innovation and Technology/Telecommunications Office is responsible for monitoring the accessible emergency service.
Belgium (BIPT)	Federal Public Service Home Affairs, BIPT	SMS, application	Emergency SMS and app for deaf people : https://www.sos112.be/en/for-deaf-people Federal public Service Home Affairs and BIPT are responsible for monitoring the accessible emergency service.
Bulgaria (CRC)	CRC	Specialised software application providing text or other non-	 Measures for ensuring equivalent access by disabled end-users to emergency services are regulated by an ordinance adopted by the Council of Ministers and published in the State Gazette and include the following minimum obligations of the universal service: facilities for end users deprived of vision or with impaired vision, like embossed "PIP" sign of the key 5 used for orientation for public phones, the location of the chip or sign of recognition indicating the direction to place any calling card or other kind of electronic payment card,

		voice connection	 distributed by the undertakings providing universal service, as well as other facilities for people with disabilities; special phones and/or other public access points for voice telephony services for public use, installed at suitable sites accessible to end users in wheelchairs, in hospitals, sanatoriums, stations of organizations of people with disabilities and other places, as well as public phones with textual or other connection for the deaf users and hearing or speech impaired users; at the request of end users with hearing or speech disability, the USP shall provide appropriate electronic communication devices, respectively - a specialized software application, depending on the technical capabilities, text or other non-voice connection. The above mentioned devices or the specialized applications allow the end-users with hearing or speech disabilities to access to 112. CRC is responsible for implementing and monitoring the functioning of the accessibility provisions for emergency services according to USO. The provisions were most recently updated in September 2017.
Croatia (HAKOM)	DGU - State Geodesic Administration	SMS, equivalent of voice calls, visual interface	Provisions for the accessible emergency service are implemented in Ordinance on universal services in electronic communications. Universal service operators must offer devices that enable persons with impaired hearing to make calls that are equivalent to voice calls, but by means of a text message or some other visual interface at a price not exceeding the price of an equivalent voice call with a view to achieving the equivalent level of accessibility of public communications services to disabled persons. The responsible is DGU (Državna geodetska uprava, State geodesic administration) https://www.dgu.hr
Cyprus (OCECPR)	The Cyprus Police Force.	SMS, Telefax	Currently the accessibility (technical solution) to the emergency service is being reviewed and a video call service is under pilot implementation.

Czech Republic (CTU)	Ministry of the interior of the Czech Republic	SMS	 Accessible emergency service is usually provided via SMS. This service is not provided or guaranteed by the Czech Telecommunication office or regulated by Electronic Communication Act. It is Ministry of the interior of the Czech Republic who is responsible for implementing and monitoring of the accessible emergency service.
Denmark (DBA)	Danish Energy Agency	SMS	The Danish Energy Agency is responsible for implementing and monitoring the functioning of the accessibility provisions for emergency services.
Finland (FICORA)	Emergency Response Centre Administration	SMS	The Emergency Response Centre Administration is responsible for implementing and monitoring of the accessible emergency service.
France (Arcep)	National steering committee	SMS, fax	 These measures were specified notably in articles D. 98-8-1 to D. 98-8-6 of the French electronic communication code. These articles describe the functioning of the service, which consists of a relay centre dedicated to demands coming from deaf and speech-impaired end-users, receives and dispatches the demand to the relevant public service. This relay centre is currently located in the Centre Hospitalier Universitaire de Grenoble.
			To this date, the emergency service accessible to deaf or speech-impaired people is provided only via SMS or fax. Other ways of communication are to be included, such as MMS or video, in a near future. The emergency service is available via a unique phone number (114), with no extra cost. The relay centre dedicated to disabled end-users is connected to other emergency relay centres.
			A steering committee, regrouping public authorities and associations of disabled end-users, implements and monitors the functioning of the emergency service.

Germany (BNetzA)	BNetzA, towns, municipalities, providers	Telefax, text and video relay service	Section 108(2) TKG provides the access to emergency services for deaf and hearing-impaired end users by telefax. But as mentioned above, with the relay service operator deaf and hearing- impaired persons have the opportunity to make emergency calls in the time from 8:00 to 23:00 o'clock from Monday to Sunday nationwide and without costs. Federal Ministry for Economic Affairs and Energy initiated a law change of section 45 TKG to extend the accessibility, especially the access to the relay service for deaf and hearing-impaired persons. Thus in the near future there will be an access to the relay service at any time and deaf and hearing-impaired persons will have the opportunity to make emergency calls with the relay service operator at any time. NRA (BNetzA), towns and municipalities, providers (section 108 TKG) are responsible for implementing and monitoring of the accessible emergency service.
Ireland (ComReg)	ComReg	SMS	A Short Messaging Service ("SMS") service, which facilitates citizens with a disability, is fully operational. The NRA monitors the quality of service provided by the ECAS (Emergency Call Answering Services) Provider and reviews the maximum call handling fees charged by ECAS providers to Operators
Latvia (SPRK)	Ministry of the Interior and State Fire and Rescue	SMS	A disabled end-user can call emergency services using SMS. The Ministry of the Interior and State Fire and Rescue service are responsible for implementing and monitoring the functioning of the accessibility provisions for emergency services.
Lithuania (RRT)	Emergency Response Centre	SMS, application	 112 SMS and 112 app for smartphones "GPIS 112" are available for deaf and hearing impaired people. 112 SMS is available to all end-users without pre-registration. 112 app "GPIS 112" is available to all citizens too but pre-registration is required. Emergency Response Centre ("Bendrasis pagalbos centras" in Lithuanian, www.bpc.lt) is responsible for implementing and monitoring of the accessible emergency service.

Malta (MCA)	n/a	Special device	MCA's decision entitled "USO on Electronic Communications Services" requires the universal service provider, to provide a 'Telecare' type of service allowing easy access to emergency services. This universal service includes the provision of a service referred to as 'Telecare' which is provided by means of a specialised device which allows easy access to emergency and other support services by means of a large easily accessible button on the 'Telecare' set itself or by means of a small button located on a wearable pendant. Once either of the buttons are activated the device contacts a control centre automatically.
Netherlands (ACM)	Ministry of Justice and Safety	Text, video	Direct text relay service to the 1-1-2 It can also be reached via the text and video relay service KPN Teletolk.
Norway (NKOM)	Norwegian Directorate for Civil Protection	SMS	The Norwegian Directorate for Civil Protection is responsible for the project on Emergency SMS for the deaf and hearing impaired. The USP is responsible for the emergency text relay service.
Poland (UKE)	Ministry of Internal Affairs and Administration	Application (in progress)	On 15 June 2017 the Ministry of Internal Affairs and Administration solved the competition for an emergency mobile application. The main purpose of the competition was to provide the disabled people with access to an emergency service. The task of the competition participants was to develop a project with an interface dedicated primarily to deaf people and equipped with elements that enable them to make an emergency calls with touch, i.e. pictograms, drawings, shortcuts, etc. The application must send emergency notifications in the form of SMS to an indicated phone number and enable subsequent two-way communication with an emergency number operator in the emergency response centre. The application should operate both on telephones and tablets. Registered users will be able to use the application if upon its first launch they accept the rules and regulations and provide data necessary for verification. (e.g. a telephone number, e-mail, personal data). The data entered are sent for verification. The launch of the mobile application depends on obtaining an activation code for the user's account.

			Currently the application is under development.
Portugal (ANACOM)	National Institute for Rehabilitation	Application	 The World Federation of Sign Languages provides an app for people with hearing impairment (www.app112.com.pt). National Institute for Rehabilitation (www.inr.pt) ensures the planning, implementation and coordination of national policies to promote the rights of people with disabilities.
Romania (ANCOM)	Service for Special Telecommuni cation	SMS	 Hearing and/or speech impaired users can contact the emergency services by SMS to 113. First of all the users have to subscribe to a national database to attest their disability. If the users have an emergency, they have to call first to 112 in order to be identified by the system as being disabled persons. As a result for this confirmation, they will receive an automatic response requiring to describe shortly the emergency and their address. The 112 operator send these details to the competent body according to the specificity of emergency. The authority responsible for the implementation of this service is the Service for Special Telecommunication which is the administrative body responsible for organizing and functioning of the National Unique System for emergency calls.
Slovakia (RU)	Ministry of Interior of the Slovak republic and RU	SMS	The Ministry of Interior of the Slovak republic and the NRA (RU) is responsible for implementing and monitoring of the accessible emergency service. The provision is part of primary law as of 1 January 2018.
Slovenia (AKOS)	AKOS	SMS	 Electronic Communications Act stipulates in Article 134(2) that SP has to enable calls in a manner to enable communication by using sign language for end-users with hearing disability. According to secondary law, the NRA is responsible for monitoring the emergency service. Access via video call is currently in a testing phase.

Sweden (PTS)	SOS Alarm Sverige AB / PTS	SMS, PSTN text telephone, text relay and video relay services	 The following services are available for disabled end-users to access emergency number 112 in Sweden: Direct SMS to 112 for users that are deaf, hearing impaired and speech impaired (prior registration is required). PSTN text telephone direct call to 112 (No Voice Carry Over (VCO) or Hearing Carry Over (HCO) when telephone user is calling 112 directly from the text telephone). PSTN text telephone indirect call to 112 via Text Relay Service (TRS) open 24/7 (VCO and HCO is possible). SIP text telephone indirect call to 112 via Text Relay Service (TRS). At times the SIP-standard's flexibility creates problems with interoperability between text telephones and between text telephones and relay services. Videophone indirect call to 112 via Video Relay Service (VRS) open 24/7. Calls to 112 are handled with priority on a specific SIP address for 112 via VRS for sign language users (VCO and HCO is possible) SOS Alarm Sverige AB is responsible for direct access to emergency number 112 in Sweden. To ensure that users with disabilities have equivalent access to 112 PTS provides disabled end-users with an alternative means of access to emergency number 112 indirectly, via relay services (they are procured by PTS and open 24/7).
Switzerland (BAKOM)	n/a	Voice, SMS	 Swiss regulation does not oblige service providers to offer a specific emergency service to disabled. However, under universal service, the company (PROCOM) providing specific services for disabled for the incumbent (Swisscom) has put in place two solutions for emergency calls:

			 Voice service with a specific and prioritized phone number (the operator will see a blinking red incoming call); Voice or message service through an Android or iOS application (emergency button).
United Kingdom (OFCOM)	Provider	SMS, text relay service	Access to emergency services via text relay and emergency SMS are mandated under General Condition 15. Text relay is available on textphones and via a regular phone call with the captions displayed via an app on a smartphone, tablet or PC. The emergency number (18000) is the same regardless of which method is used. The provider of the approved text relay service is responsible for complying with the approval criteria for the service. Mobile providers must give access to emergency SMS, again under General Conditon 15. Emergency SMS is accessed by texting 999 or 112. Ofcom would take action if there was evidence of a breach.