Brussels, November 30, 2007

Industry Self-Commitment

TO IMPROVE THE ACCESSIBILITY OF DIGITAL TV RECEIVING EQUIPMENT

SOLD IN THE EUROPEAN UNION

1. INTRODUCTION

Users and industry alike are convinced that features needed to provide access to people with disabilities are useful for all. Inclusive design, integrating eAccessibility features into mainstream technology and improving interoperability with assistive technologies, is recognised as “good” business practice, in both meanings of the word. Industry leaders are incorporating accessibility features into their core products. This supports the expectation that, in the future, inclusive design principles are spread across the entire digital industry. This vision is shared by the European Commission and endorsed by the 34 European Ministers who signed the Riga ministerial declaration on e-Inclusion in June 2006. To live up to this expectation, a strong partnership of users, industry and authorities is essential.

Supporting this vision, this document contains a self-declaration for parties that have voluntarily wished to commit to supporting eAccessibility requirements as outlined in this document for mainstream digital TV receiving equipment in the European Community.

This self-commitment is understood to be most effevtive if user organisations, Member States authorities and the European Commission actively promote accessibility of digital television. Industry will cooperate with these parties on the best ways to achieve this

Any relevant party can undertake the commitment and join the scheme.

2. EQUIPMENT COVERED

This agreement applies only to completely functional stationary (or semi-stationary) TV receivers such as set top boxes, integrated Digital TVs, recorders and other products whose primary function is to receive TV content (via Terrestrial, Cable or Satellite transmission. Both standard definition (SD) and high definition (HD) TV are covered.

This agreement does not apply to products that are capable of receiving TV via Terrestrial, Cable or Satellite transmission as a secondary function (e.g. hybrid IPTV set top boxes and PCs or game consoles with DVB-T receivers). It also does not apply to sub-assemblies (e.g. PC cards). This agreement specifically does not address mobile (small screen) devices; a typical screen size for marking the boundary between stationary/semi-stationary TV and mobile TV is 37 cm.

Though not part of the detailed "user requirements" in Annex I of this document, the signatories of this agreement commit to start work in 2008 with user groups and other relevant stakeholders to create a specification, and

subsequently equipment, to meet the functional requirements as detailed in Annex I, section 8 “Further requirements”. The timetable of this work will be discussed with the aim of reaching agreement at the first meeting of the stakeholder group as detailed in section 5.2 c.

3. AIMS

The objective of this agreement is to implement solutions that meet the needs of users so as to make digital TV services and receiving equipment more suitable and usable for disabled and elderly people.

The agreement concentrates on the following issues:

- User Documentation
- Unpacking and Installation
- Receiver User Interface issues
- Remote Control
- Receiver Functions (to improve accessibility of TV services)
- Support for decoding/presentation of specific services elements and information that can improve e-accessibility of TV services.

4. COMMITMENT

This document aims to reflect the requirements deemed feasible by 2009 for mainstream receivers in the EC market subject to mature technology being available for network specific mechanisms (which may evolve over time). Any additional features, in particular those requiring functionality in the delivered stream or new versions of network specific mechanisms, are subject to further discussion and road mapping between the relevant parties.

Signatories of the self-commitment agree to make all reasonable efforts to comply with the following principles and targets:

4.1 Abide by the General Principles contained in Annex 1 and ensure that by 2009 an adequate range of equipment is available to the consumer, at a reasonable cost, that meets the requirements detailed in Annex I .

4.2 Co-operate with other signatories, User Groups, European Commission, Member State Authorities, Broadcasters, Service Providers and other relevant stakeholders, such as consumer organisations in an annual review of the scope and effectiveness of this self-commitment.

4.3 Co-operate with other signatories, User Groups, European Commission, Member State Authorities, Broadcasters, Service Providers and other relevant stakeholders to agree to the structure, format and content of

product data, to be provided within one year of acceptance of this commitment.

5. Reporting and Monitoring

5.1 Signatories agree to provide to the European Commission and User groups information concerning the improved *accessibility* of the products covered by the Self-Commitment. This information will be provided on a yearly basis, within the first quarter of the following year.

5.2 The Reported results will be discussed at least once a year in a meeting by representatives of the signatories, of the European Commission, Member State authorities Broadcasters, Service providers and relevant stakeholders Broadcasters, Service providers and relevant stakeholders in order to:

a) Report on the improved *accessibility* of products placed on the European market.
b) Evaluate current and future developments that influence the *accessibility*, (e.g. IC development, service provision, display technologies etc.) with a view to agree actions and/or amendments to the Self-Commitment.
c) Set targets for future time periods, with the first revision coming into effect after the completion of the first three years of an agreed Self-Commitment.

The results will be advertised in report, made available to the public, which will contain both achievements, good practice, and recommendations for progress.

The sanction for failing to meet the self-commitments is publicity that one no longer does so. This will be done on an equal basis as publicity used to identify companies that do not commit.

ANNEX I: SPECIFICATION

This specification does not include common nor country/market specific digital TV delivery or service functionalities. It is assumed that there are separate regimes that address such requirements. It concentrates only on e-accessibility specific aspects. This focus will help this document's general application and more clearly separates functions of general digital TV interest and functions of more specific e-accessibility nature.

This specification concentrates on the following issues:

- User Documentation
- Unpacking and Installation
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It is recognized that the user manual, unpacking and installation and user interface design do not lend themselves well to clearly measurable requirements, since this usually leads to over-constrained design in areas of active differentiation and innovation. Nevertheless this specification addresses this area with recommended functionality to address common state of the art practices in this field.

Regarding the requirements on support for specific services and information: receivers can only offer access to such services and information if they are delivered in a recognized format that has been agreed between receiver manufacturers and network/service operators on a network.

1. Terminology & Formatting

All requirements are labelled for reference in square brackets in bold text. Example: **[UM.05]**. Any text that is not labelled does not indicate a specific requirement but may be important to interpret requirements.

The word "**shall**" in a requirement refers to a mandatory requirement in the sense of compliance of a receiver meeting this specification. In some cases this specification may indicate in case of a receiver not meeting a requirement it can offer replacement functionality that is equally effective.

The word "**should**" in a requirement refers to a requirement that is common practice / recommended for a receiver to meet in terms of compliance to this specification but which cannot be mandatory because this leads to undue

constraints on receiver design or because no option has been identified to objectively measure compliance.

2. Abbreviations

AD Audio Description; **DTT** Digital Terrestrial Transmission; **DTV** Digital TV; **iDTV** integrated Digital TV (TV with a built in digital reception capability); **STB** Set Top Box; **UI** User Interface.

3. User Documentation

Note: the term "**documentation**" used below shall indicate any manual, instruction, guide or other type of documentation provided with the receiver and related to the product.

[UD.01] The documentation should be easy to understand, concise and jargon-free and avoid technical abbreviations.

[UD.02] The documentation should have comprehensive, relevant index and/or content.

[UD.03] The documentation should provide information about the accessibility features of the product and about access services such as subtitling and audio description.

[UD.04] The documentation should have trouble shooting guide, including information about when the user needs to reboot or power-cycle the system.

[UD.05] In case of reception through an antenna (terrestrial and satellite), there shall be clear information on how to check the received signal condition using the receiver itself. Additionally there shall be advice for the user to contact their supplier if they have difficulty in receiving a suitable signal.

[UD.06] Any printed documentation provided with the receiver should follow the clear print guidelines e.g. as provided by RNIB and ONCE (Example: see [RNIB CP and ONCE-CERMI Accessibility to Digital Television for People with Disabilities]) <ask user organizations how to reference best>

[UD.07] The installation section of the documentation shall have diagrams for common home connectivity scenarios for common combinations of equipment. The documentation shall have as a minimum a diagram showing connectivity of a TV and recording device whether the digital

receiver is the TV, the recording device or a Set Top Box.

[UD.08] The documentation should incorporate a clear indication of where dedicated information and support services are available.

[UD.09] On-screen information should be provided to reduce reliance on the documentation.

[UD.10] The documentation shall provide information on how to obtain at least the same instruction or manual in an electronic form so that users have the option to view or print the manual in a more suitable or preferential size.

[UD.11] Printed documentation should be provided upon request from a user with visual disabilities, in accessible formats.

When the documentation is in PDF format, those files should be created following accessible guidelines (see: http://www.adobe.com/enterprise/accessibility/pdfs/acro7_pg_ue.pdf under "Creating Accessible PDF Documents with ADOBE ACROBAT 7.0 A Guide for Publishing PDF Documents for Use by People with Disabilities") and therefore they should be properly labeled.

[UD.12] The documentation shall list precisely all the components contained in the product box.

4. Unpacking and Installation

[PI.01] External connections should be easily accessible and clearly marked.

[PI.02] The on-screen set up procedures should use easy to understand language and should be available to the user after initial set up.

[PI.03] An iDTV shall have at least an audio jack socket (or equivalent) for headphones and connection for use of home hearing loop for hearing aid users shall be provided. These should be easily accessible, e.g. at the front of the equipment to allow easy access.

5. User Interface

5.1 On-screen display

[UI.01] The User Interface (UI) should be designed using principles derived from clear print guidelines and/or Web Content Accessibility

Guidelines especially when working down menus, e.g. use of clear and unambiguous menu terminology, highlighting current position in the menu etc. Clear Print Guidelines can be found on [RNIB CP] and [W3C CP].

[UI.02] Any selected menu option shall be highlighted clearly.

[UI.03] There should be a direct and consistent correspondence between relevant onscreen prompts and button labels on the remote control.

[UI.04] Items in pop-up menus should be numbered and directly selectable using alpha-numeric keys, colour coded keys and/or geometric pattern keys.

[UI.05] The UI should use a font designed for legibility and use on television and at sizes suitable for normal viewing distances (e.g. the [Tiresias] font, with 24 line minimum for body text, 18 minimum. for upper-case text on a 576 line display).

[UI.06] Mixed case letters should be used; if not possible then lower-case should be favoured over upper-case. Italic, underlined, oblique or condensed fonts should be avoided.

[UI.07] Text should be displayed with good contrast. Colours should be limited to an absolute maximum of 85% saturation. Pure red & white and combinations of red and green should be avoided.

[UI.08] Arabic numerals only shall be used (1, 2, 3, 4, 5…)

[UI.11] Generous inter-line spacing should be provided.

[UI.12] Words should have a clear space around them especially adjacent to symbols.

[UI.13] Flashing and scrolling text should be avoided.

[UI.14] Left-aligned text should be used rather than centred or right-aligned.

[UI.15] Justified paragraphs should be avoided.

[UI.16] The UI should leave the user in no doubt as to where he or she is in any necessary navigation and how to return to the root or default decoding condition.

[UI.17] The UI shall provide a means of returning to the previous menu

screen using a common, clear, unambiguous and reasonably consistent action and terminology such as use of a “back” button, or another consistent approach to the same end.

[UI.18] The User Interface (UI) shall provide explicit and distinguishable visible and/or Audible user feedback for actions initiated by the user (e.g. to acknowledge a highlighted choice, a key stroke, an activated command etc.).

[UI.23] The UI shall provide the means of selecting and deselecting the display of subtitles and, independently, of selecting and deselecting the presentation of audio-description.

5.2 Remote control

[RC.01] Keys should be large and well separated (e.g. at least 50% of button width).

[RC.02] Adjacent keys should be tactilely distinguishable (e.g. be raised or have raised edges).

[RC.03] The remote control shall provide a tactile means of identifying the 5 key of the numeric pad, such as a raised marking. <Reference from user groups desirable>

[RC.04] Keys should be logically grouped by function and those functional groups should be separated by more than the distance between keys within each group. Different functions should also be distinguished by distinct shapes or texture.

[RC.05] The remote control should have clear visual markings.

[RC.06] All legends should be clear, legible (in a font designed for legibility and as large as possible) and contrast with the keys and/or background.

[RC.07] All labelling should be durable and long-lasting (e.g. moulded into casing).

[RC.08] The labelling should be intuitive and standardized with a clear meaning for each legend.

[RC.09] The receiver shall provide visual and/or audible feedback of pressing a remote key (e.g. led flash).

[RC.10] The RC shall be robust, lightweight and balanced.

[RC.11] It shall be possible to use the RC with just one hand.

[RC.12] The remote control should include a subtitling key

6. Receiver Functions

6.1 Installation

[RF.01] The receiver shall provide an automatic means of acquiring all supported channels (i.e. a way to scan for all available channels with little user interaction).

[RF.02] A receiver shall have the ability to automatically number services as is defined for the network(s) it is qualified to receive. Suitable mechanisms are defined in Annex III A.

[RF.03] The receiver shall provide the user with a means of selecting, reordering and/or filtering the presentation of services in the service list (i.e. a "favourites" list).

[RF.04] The receiver should provide automatic identification / storage of services or service changes, without the need for user intervention[1].

[RF.05] Newly "discovered" services should not impact existing favourites without user intervention unless the user initiates a full re-install.

6.2 Miscellaneous Functions

[MF.01] The receiver shall support widescreen and 4:3 picture format changes and provide mapping to the output as appropriate for the device (4:3 or 16:9 for a STB, to screen aspect ration for iDTV).

[MF.02] If the receiver is capable of automatic (i.e. not user initiated) software upgrade, then the upgrade should be performed so as to minimize interruption to the viewer.

[MF.03] Receivers should defer downloading to standby when it is not possible to complete during normal viewing without interrupting the user.

[1] Not all networks allow such automatic updating of receivable services. This is particularly an issue for DTT networks

[**MF.04]** Where feasible, software upgrades should not cause loss of all relevant existing user settings (e.g. volume, subtitles enabled, favourites list etc.). The user's profile should therefore be maintained invariable, until the user that created it decides to modify it.

[MF.05] Access Services (such as subtitling and Audio description) should be included in the recordings made by recorders

7. Specific e-Accessibility Functions

7.1 Subtitling

[ST.01] The receiver shall be able to decode subtitling as is defined for the network it is qualified to receive. See Annex III B for recognized mechanisms to provide subtitling.

[ST.02] The UI shall allow the user to select their preferred subtitle language.

[ST.03] In the case where the preferred language subtitling is not available or the language of the subtitling is not available or is incorrect, the receiver should give the user the option to minimally decode an alternate available subtitle service. This feature may be disabled by the user.

[ST.04] The receiver should not permanently block the display of subtitling due to other graphics activities of the receiver during normal TV viewing (this includes simultaneous presence of dormant interactive TV applications) or alternatively, allow subtitling to take precedence over such graphics (e.g. by switching the other graphics off).

[ST.05] If the user elects to view subtitles when available, this choice shall be maintained without further user intervention. The mechanism to achieve this may act on all channels at once, or alternatively may act on a per channel basis.

7.2 Audio Description

[AD.01] Receivers shall be capable of presenting audio description with at least the minimum user controls appropriate for the platform as is appropriate for the network(s) it is qualified to receive. See Annex III C for recognized mechanisms for Audio Description,

[AD.02] Design of Audio Description controls should take into account that many users of audio description are visually impaired.

[AD.03] If the user elects to listen to audio description when available, this choice shall be maintained without further user intervention The mechanism to achieve this may act on all channels at once, or alternatively may act on a per channel basis.

7.3 EPG

[EP.01] The available EPG functions of the receiver, and OSD at channel change should be capable of indicating the availability of subtitling and audio description with an event if such information is available in the delivered stream and the functions for this are well established in industry standards[2].

8. Extended requirements

It is anticipated that through progress of technology and increased efforts of participants to this agreement the following requirements can become mainstream features in new versions of this agreement. All relevant parties are encouraged to consider these requirements and implement them in order to improve e-accessibility of their products and services.

- Inclusion of spoken channel identification - spoken programme information- spoken system menus - spoken electronic programme guides

- Equipment can provide an option for audible feedback on remote control button presses and/or on activation of functions.

- People with visual disabilities can have access to all text contents appearing on the screen. They can also have access and use all interactive services.

- Users with low vision can configure the size and colour of the letters and their chromatic contrast of information presented in the UI and/or EPG with the background colour.

- Agree minimum requirements for the print guidelines e.g. as provided by RNIB and ONCE (Example: see [RNIB CP and ONCE-CERMI Accessibility to Digital Television for People with Disabilities]) <ask user organizations how to reference best> .

- Subtitles and audio description switching.

[2] No DVB standard solution for such a function is defined at this time

- Consider adding IPTV and additional equipment such as PC and game consoles.

Annex II: References

[C-Book] *"EICTA Baseline Digital Cable TV Receiver Specification",* specification to be published shortly by EICTA, see http://www.eicta.org

[D-Book] "*Digital Terrestrial Television, Requirements for Interoperability*" version 5.0, 2007, published by DTG UK, see http://www.dtg.org.uk

[DGTVi D-Book] "DGTVi D-Book version 1.1 rev 4, Compatible DTV receivers for the Italian market: baseline requirements", 2006, published by DGTVi, see http://www.dgtvi.it

[DVB AV] "*Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting Applications based on MPEG-2 Transport Stream*", TS 101 154 version 1.8.1, available from ETSI

[DVB Subt] "*Digital Video Broadcasting (DVB) - Subtitling systems*", EN 300 743, version 1.3.1, nov 2006, available from ETSI.

[DVB SI] "*Digital Video Broadcasting (DVB) - Specification for Service Information (SI) in DVB systems*", EN 300 468, available from ETSI

[DVB TxT] "*Digital Video Broadcasting (DVB); Specification for conveying ITU-R System B Teletext in DVB bitstreams*", EN 300 472 v 1.3.1, available from ETSI

[DVB VBI] "*Enhanced Teletext specification*", ETS 300 706, available from ETSI

[E-Book] *"Baseline Digital terrestrial television receivers for the DVB-T system –part 1: Baseline receiver specification*", 2001-10, IEC 62216-1

[Nordig] "*NorDig Unified Requirements for Integrated Receiver Decoders for use in cable, satellite, terrestrial and IP-based networks*", available from NORDIG, see http://www.nordig.org

[RNIB CP] "*RNIB clear print guidelines*", dated 29/09/2006, published by RNIB on www.rnib.org.uk, latest ref: http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_printdesign.hcsp

[Tiresias] Font designed by the RNIB for high legibility. See http://www.tiresias.org/

[W3C CP] "*W3C Web Content accessibility Guidelines*", dated May 5, 1999, published by W3C on www.w3.org, latest ref: http://www.w3.org/TR/WAI-WEBCONTENT/

[SPANISH GOVERNMENT] Technical Forum on Digital TV: "*Accessibility to Digital TV for People with Disabilities"*. 2005. http://wwwinfodisclm.com/documentos/accesibilidad/tv_digital.html

[EBU report I44-2004}, which explains many of the services and technologies in detail. http://www.ebu.ch/CMSimages/en/tec_text_i44-2004_tcm6-14894.pdf

Annex III:

A. Recognised mechanisms for automatic numbering of channels

The list of systems below provides recognized mechanisms to provide automatic channel numbering. This list is non-exhaustive and may evolve. Any system (including those used in proprietary networks) that is deemed to acceptable needs to be reported to EICTA and approved as fit for purpose. The criteria for acceptability of such a mechanism are defined below. Any mechanism used in a network and receivers intended for that network shall be subject to agreements (rules of operation) relevant for that network.

DTT: Option 1: The receiver implements the LCN mechanism as defined in [E-Book] and/or an equivalent mechanism as defined in country specific requirements as defined in [UK D-Book], [Nordig] or [DGTVi D-Book] that suits all target markets for the receiver.

SAT: No mechanism is currently recognised by this specification at this time.

Cable: Option 1: The receiver implements the LCN mechanism as defined in [C-book].

IPTV: No mechanism is currently recognized by this specification at this time.

Criteria for a automatic channel numbering mechanism

1. The mechanism should define and unambiguously (as part of the transmission) identify the set of channels (bouquet) it governs for a specific market (e.g. country or region). This shall always include all relevant (for the market in question) FTA channels that are accessible via the same medium (since any receiver has to provide access to such FTA services).

2. The mechanism should provide each channel with a different (preference) channel number which is the (default) channel number by which the channel will appear in the list.

3. The channel numbering scheme used should obey typical conventions in the target market for the set of channels (bouquet). E.g. BBC1 = channel 1.

B. Subtitling

Recognised mechanisms for subtitling

The list of systems below provides recognized mechanisms to provide subtitling. This list is non-exhaustive and may evolve. Any system (including those used in proprietary networks) that is deemed to acceptable needs to be reported to EICTA and approved as fit for purpose. The criteria for acceptability of such a mechanism are defined below. Any mechanism used in a network and receivers intended for that network shall be subject to agreements (rules of operation) relevant for that network.

Option 1: DVB subtitling, ref [DVB Subt]

Option 2: EBU Teletext subtitling. Two alternative means for the carriage of EBU Teletext are defined: carriage in MPEG transport streams is defined in [DVB TxT] and carriage in the VBI of an analogue composite video signal is defined in [DVB VBI]. In the former case, indication of the appropriate teletext page for subtitling in a particular language shall be done in the transport stream using the Teletext descriptor as defined in [DVB SI].

Criteria for acceptability of a subtitling mechanism

1. Subtitling is text on screen representing speech and sound effects that may not be audible to people with hearing impairments, synchronised as closely as possible to the sound. The mechanism shall provide the user an option to present text on top of the existing video in a legible font.

2. The mechanism shall provide signalling of the availability of subtitling with a service (including language directions) to allow the receiver to automatically select this service element in the appropriate language.

C. Audio Description

Recognised mechanisms for Audio Description

The list of systems below provides recognized mechanisms to audio description. This list is non-exhaustive and may evolve. Any system (including those used in proprietary networks) that is deemed to acceptable needs to be reported to EICTA and approved as fit for purpose. The criteria for acceptability of such a mechanism are defined below. Any mechanism used in a network and receivers intended for that network shall be subject to agreements (ruled of operation) relevant for that network.

Option 1: Receiver-Mixed Audio Description is defined in Annex E of [DVB AV]. The description content is voice only and is conveyed as Ampeg-1 Layer II mono signal coded in accordance with ISO/IEC 11172-3.

Note: It is likely that future revisions of [DVB AV] will add other options for the audio coding, to allow the Audio Description codec to match the codec used for the main audio where this is not MPEG-1 Layer II. Support of such options in receivers is subject to further agreements.

Option 2: Provision of an alternate audio track with a service (using one of the audio codecs defined in [DVB AV]) containing a pre-mixed combination of audio description and the main audio. This option should include a suitable signalling mechanism to allow auto-selection of this audio track in place of the main audio track for the purpose of audio description (the list of recognized options is provided below) Option 2a: - list still empty

Criteria for acceptability of a Audio Description mechanism

1. Audio description is a service primarily aimed at blind or visually-impaired people. It comprises a commentary woven around the soundtrack, exploiting pauses to explain on-screen action, describe characters, locations, costumes, body language and facial expressions to enhance meaning and enjoyment for blind or visually-impaired viewers. The mechanism shall provide for a way to add additional descriptive dialogue to a regular sound track and enhance the comprehension of the programme in a way that is recognized as sufficient by EICTA.

2. The mechanism shall provide signalling of the availability of the audio description with a service (including language directions) to allow the receiver to automatically select this service element in the appropriate (e.g. user preferred language).

Annex IV

Industry's Self-Commitment to improve accessibility of Digital TV receiving equipment

SIGNING FORM

The organisation/company/

……..

Signs this Industry Self-Commitment with the objective to improve the accessibility of Digital TV receivers and to commit itself to abide to the principles described in point 4 "Commitment" for the equipment it produces, buys or specifies.

The organisation, through regular upgrade reports, will keep the European Commission and user Groups informed on the implementation of this Self-Commitment.

For the organisation

Category of product to which this agreement applies (tick as applicable):

☐ TV receiver equipment as per section 2 above, having a screen diagonal greater than 37 cm.

☐ TV receiver equipment as per section 2 above, with no screen or having screen diagonal smaller than 37 cm.

☐ Product category, characterized by: **……..…**
...……..……
……..

Director or person authorised to sign:

Name: **……**
Managerial Function: **……**
Address **……**
Tel. / Fax. **……/ ……..……**
e-mail **……**

Signature **…….**

Please send the signed form to:

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