

**ITU-EBU Joint Workshop on Accessibility to  
Broadcasting and IPTV ACCESS for ALL  
(In cooperation with the EU project DTV4All)  
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**DTV accessibility in Digital Europe  
and outlook in future**

**Frank Kamperman,  
Digital Europe**

# Towards accessible Digital TV

- What? Broadcasting activities moving from analogue to digital technologies
- Why? Digital TV delivers better quality, more choices to consumers and options for enhanced accessibility features
- When? Digital TV switchover already started and to be completed by 2012 for all of the European Union
- And? DTV presents opportunities as well as challenges / barriers that need to be overcome in concert with government, manufacturers and broadcasters

# Accessibility features of Digital TV

- Programmes and TV sets with accessibility features allow anyone, regardless of their abilities, to enjoy TV with everyone else
- **Accessible navigation in TVs** – on-screen menus, channel information and available services require "**visual**" interaction. They would need to be made to "**speak**" and as **easy-to-understand as possible** for people with sight, intellectual or reading disabilities, and for all.
- **Accessibility services in programmes** – for a better viewing experience TV sets and programs need to offer:
  - **Audio description** - a narrative describing the action on the screen. Necessary for a person with a visual impairment, welcomed by anyone
  - **Subtitling and sign language interpretation** - for hearing impaired and non-native speakers to enjoy TV programmes

# Accessible DTV: Cooperation

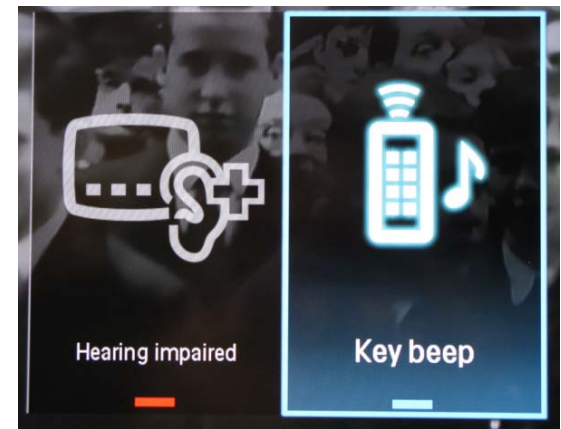
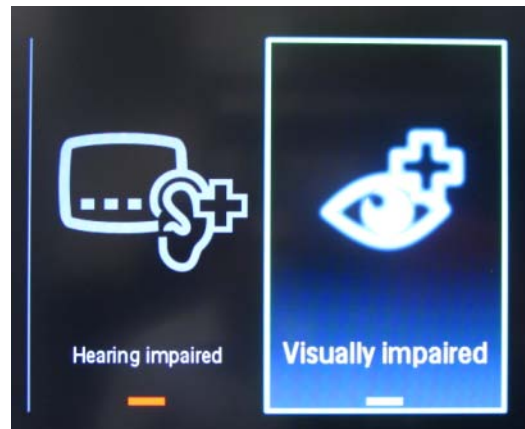
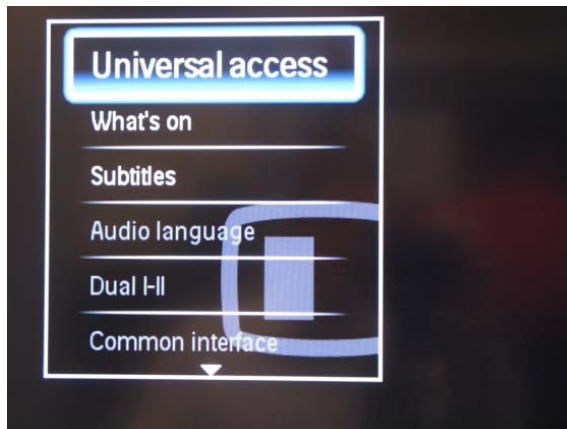
- Cooperation between the Users and the Industry (equipment manufacturers) facilitated by Digital Europe and EDF with the EC support
- National governments have a role (policy, regulation, awareness raising, switchover help schemes)
- The European Commission has a role (policy, regulation, awareness raising, funding for R&D)
- Content providers need to provide for the required signals, not only in a few European countries, e.g. Audio Description

# Accessible DTV: Cooperation Platform

- A forum of Digital Europe Members, User Groups and the EU Commission to openly identify, discuss and agree how to meet accessibility needs
- Result: Industry Self Commitment and industry action to make its products accessible to users
- Industry Self Commitment, signed by Microsoft, Panasonic, Philips, Samsung, supported by Sony
- Television products according to self commitment entering the market from 2009; Achievement Report May 2010

# Self commitment: Some results

- Audio Description, Key Beeps, and Accessibility Menus



# Self commitment and beyond

- Self commitment covers DTV accessibility basics:
  - 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, i.e. Audio Description, Subtitling
- The self commitment also agrees on elaborating more advanced features, i.e. text-to-speech for DTV

# Text-to-Speech (TTS) Example

- Text appearing, e.g. service information or menus, on the screen will be spoken out loud





# Text-to-Speech (TTS)

- Working on two specification documents:
  - TTS functional specification ->  
Behavior of DTV with TTS attached
  - TTS interface specification ->  
Connection of a TTS converter to a DTV
- High level agreement between Digital Europe (DE) and European Disability Forum (EDF)
- Documents ready for submission to formal standardization around end of this year

# Resolving barriers

- No large market demand for accessible products and no possibilities for manufacturers to initiate such demand. Can you help in creating market demand?
- Economy of scale is very important to drive down development costs and cost of technology itself. Therefore market fragmentation must be avoided. Perhaps by acknowledging agreements by EDF and DE?
- Technology for e.g. audio description is in place in receivers. How can the whole value chain, i.e. content providers and broadcasters, be stimulated to provide for accessible content?

# Conclusion

- Successful cooperation manufacturers and interest groups
- First phase of cooperation (self commitment) already lead to real products in the market
- Support of Broadcasters required, i.e. for Audio Description
- Good progress on specifying advanced features (TTS)
- Market development and one EC market required

# The (bright) future: Hybrid TV

- Hybrid TV seamlessly connects linear and online services enabling user centric services
- User specific additions may enrich and personalize the service
- Personalized presentation of a specific service in principle possible

# Example HbbTV



Picture from IRT

# HybridTV

- Would enable additional access to specific accessibility services, e.g. an online version of the movie with audio description or sign language
- HybridTV service platforms come in place in the coming years
- Services may then be made just making use of the available platform

Thank you!

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# Questions

