New Routes - Old Roots
A review of media accessibility

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The Tools for Media Access Services today

- **Television Programmes**
- Subtitles for those with reduced hearing.
- Signing of scene dialogue for reduced hearing
- Audio subtitling for those with reduced sight
- Audio Descriptions of scene action for those with reduced sight
- **Radio Programmes**
- Text version of audio for reduced hearing
- Foreground enhanced for elderly
- Reduced speed audio for elderly

- **For whom?**
- Persons with disabilities,
- The growing ageing population
- Users who wish to improve reading skills
- Multi-tasking individuals

- **By whom?**
- Content providers
- Broadcasters
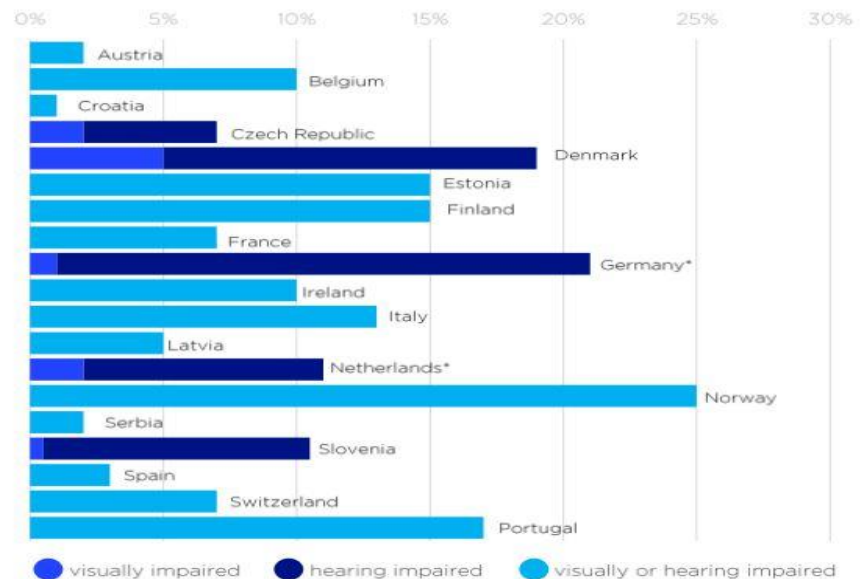- OTT providers
- DVD/Blu-ray/4kBlu-ray providers

AD))) Audio Description

I was hoping I could reason with them.

It's all right. Bilbo is here.

Access service needs in Europe today

(source: EBU survey)

On average 10% of people per country have sensorial disabilities

which is approximately **40 million people** across **18 countries**

Percentage of people with sensorial disabilities by market

- Austria
- Belgium
- Croatia
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany*
- Ireland
- Italy
- Latvia
- Netherlands*
- Norway
- Serbia
- Slovenia
- Spain
- Switzerland
- Portugal

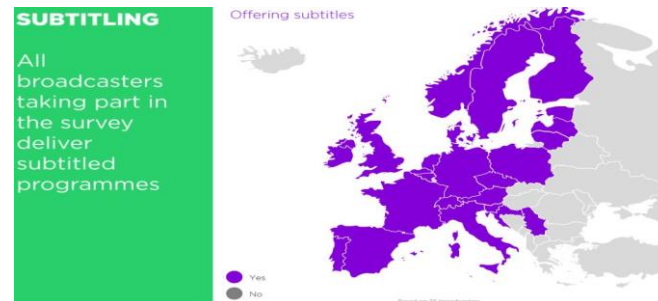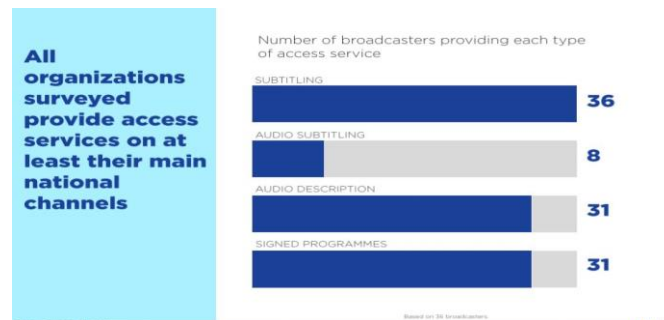● visually impaired   ● hearing impaired   ● visually or hearing impaired

*Germany and Netherlands % calculated by EBU based on data provided in number of people with sensorial disabilities.
Based on 19 countries with available data.

Access service availability in Europe
(Source: EBU survey)

- In Europe, all broadcasters provide subtitles to some degree on their broadcasts and on their websites.
- Three quarters of access service preparation is outsourced.
- Broadcasters in Europe spend on average about a half percent of their income on access service.
- Broadcasters in Europe, on average, provide sub-titles for 2/3 of programmes.
- A mix of technologies are used for subtitles.
- Not bad – but could be better!

All organizations surveyed provide access services on at least their main national channels

Number of broadcasters providing each type of access service

SUBTITLING — 36
AUDIO SUBTITLING — 8
AUDIO DESCRIPTION — 31
SIGNED PROGRAMMES — 31

Based on 36 broadcasters

SUBTITLING

All broadcasters taking part in the survey deliver subtitled programmes

Offering subtitles
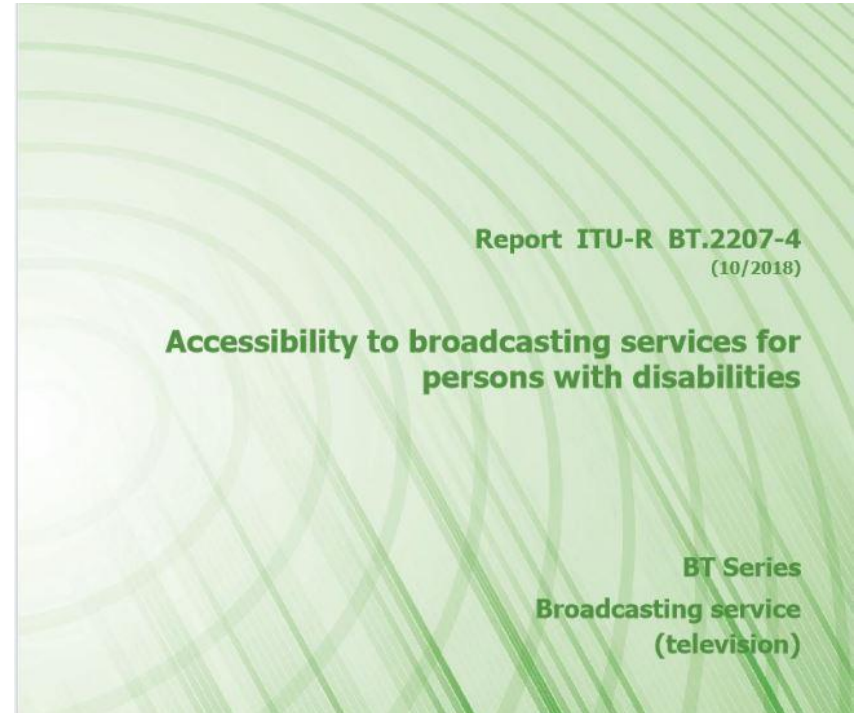
Yes
No

Based on 36 broadcasters

The barriers to more media access services?

- No broadcaster/content provider is against providing access services.
- If company income relates to audience size, funding for access services can grow with audience size.
- The principal barrier for fixed income public service broadcasters is usually cost.
  Spending more on access services can mean spending less on conventional programmes. Who should decide which is more important?
- Funding arrangement/s ideas are needed. In Canada, for example, there is a levy on cable networks.

Accessibility Systems for Broadcasting (ITU-R SG6)

- ITU-R SG6 is responsible for Accessibility systems for broadcasting

- A large series of Recommendations and Reports have been issued over the last 40 years covering many aspects of accessibility systems for television and radio

- The latest umbrella document is ITU-R BT 2207-4

Report ITU-R BT.2207-4
(10/2018)

Accessibility to broadcasting services for persons with disabilities

BT Series
Broadcasting service
(television)

What does Report BT 2207-4 Cover?

Report ITU-R BT.2207-4
(10/2018)

Accessibility to broadcasting services for persons with disabilities

BT Series
Broadcasting service
(television)

- Hearing Disabilities
- Sight Impairment
- Aging Audience
- Receiver User Friendliness

What does BT 2207-4 cover?

- Speech Rate Conversion Technology
- Real-time closed captioning/subtitling
- Multimedia browsing for the visually impaired
- Machine translation to sign language with CG animation
- Broadcast background sound balance

- Easy to read language broadcasting service and language support technology
- Sound level adjustment system with speech rate conversion for channel based stereo
- Terminology and guidance for operational practice related to audio visual media accessibility

The (exciting!) future of media accessibility includes...

- Timed Text Markup Language (TTML) based accessibility systems, which can be used for multiple delivery systems. Work done, or being done, in W3C for subtitling and Audio Description (AD).
- Hybrid broadcast broadband, such as HbbTV and Hybridcast, can be used for access services. Great idea.
- Augmented reality may be useful
- Machine generation of subtitling using AI/ML is being developed
- Cloud based access services are being studied.
- Object based audio systems can provide personalised clean audio or other services. Great ideas here.

Who should be doing what?

- The organisations of those with disabilities should be consulted and be part of the development of new technology ("Nothing for us, without us")
- The standards' organisations need to work 'together' on common technical solutions for accessibility systems, rather than independently.
- Regulatory bodies should consider the value of regulation for access services.
- Ways of funding access services need to be found, particularly for not-for-profit organisations' access services.

Thank you for your attention!

Keep caring about accessibility.

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