

## Module Methodology

## Modules and Unit Distribution

Distribution of Modules:

Module	Leading Partner	Units
Module 1 - First aids	OECON	
Module 2 – Dealing with persons with disabilities	SPI	
Module 3 – Communication	BEST	
Module 4 – Problem solving and organisational skills	DEKAPLUS	
Module 5 – ICT - Accessibility of digital content for people with disabilities		Unit 1: Introduction to digital accessibility and the needs of people with disabilities in the digital domain  Unit 2: Preparing accessible digital content (texts, multimedia, social media posts) and accessible digital documents (Word, PDF)  Unit 3: How to check if digital content and
	INUK	information are accessible
Module 6 – Cultural differences	SSGT	
Module 7 – Design an accessible travel itinerary	NTB	



### Module Methodology

### Module Outline

Provide a high-level content outline of the Module. Give brief and descriptive titles for each unit and sections within that. (*Please revise accordingly*):

Module: Module 5 – ICT (Accessibility of Digital Content for People with Disabilities)

Module Overview (Please edit accordingly):

• Please add a brief description of the Module in the box below (what will the Module cover overall).

#### **Module Overview**

Digital accessibility is a feature that allows as many people as possible (among others people with various disabilities) to view the digital content as easily as possible. Thanks to digital accessibility a bigger number of people can read the same information at different locations and will not have difficulties understanding it.

Nowadays people often plan their trips using the internet, therefore it is important that the information is accessible even for travellers with different disabilities. Depending on the disability, people use different assistive technologies to access the web. Therefore, the digital content must be adjusted to their needs and abilities.

#### Module Objectives:

In this module, the ATF will learn about different types of disabilities and their related ICT needs as well as how to prepare accessible digital content (e.g. accessible documents, web content, multimedia, and social media) so that they can ensure the travellers with disabilities can have equal access to travel information as other people.

Specific module objectives are:

- Acquaint ATF with diversity of disabilities and their ICT related needs.
- Acquaint ATF with the common barriers for PWDs within the ICT domain.
- Acquaint ATF with the benefits of digital accessibility for all people.
- Familiarise ATF with the basic principles and importance of digital accessibility.
- Familiarise ATF with the relevant standards and legislation related to ensuring digital accessibility.
- Acquaint ATF with the components of digital accessibility.
- Teach ATF how to prepare accessible digital content (e.g. web content, multimedia, social media content).
- Acquaint ATF with knowledge on how to prepare accessible digital documents (Word, PDF).
- Acquaint ATF with knowledge on how to prepare accessible online travel information.
- Acquaint ATF with knowledge on how to perform automatic and manual preliminary check of information available online.
- Acquaint ATF with knowledge on how to find and recommend accessible online travel information to clients.

Upon completion of this Module you should be able to:

- Know the relevant standards and legislation related to ensuring digital accessibility.
- Understand the basic principles and importance of digital accessibility.



### Module Methodology

- Recognise and understand the components of digital accessibility.
- Understand diverse needs of people with disabilities within the ICT domain.
- Recognise the common barriers for PWDs within the ICT domain.
- Recognise the benefits of digital accessibility for all people.
- Prepare accessible digital content (e.g. web content, multimedia, social media content).
- Prepare accessible digital documents (Word, PDF).
- Perform preliminary accessibility checks of the websites with travel information.
- Find and recommend accessible online travel information.

#### Units in the Module:

Please list the Units that your Module includes in the table below:

### Module: Module 5 – ICT (Accessibility of Digital Content for People with Disabilities)

#### Unit 1: Introduction to digital accessibility and the needs of people with disabilities in the digital domain

Upon completion of this Unit participants should be able to:

- Know the relevant standards and legislation related to ensuring digital accessibility.
- Understand the basic principles and importance of digital accessibility.
- Recognise and understand the components of digital accessibility.
- Understand diverse needs of people with disabilities within the ICT domain.
- Recognise the common barriers for PWDs within the ICT domain.
- Recognise the benefits of digital accessibility for all people.

## Unit 2: Preparing accessible digital content (texts, multimedia, social media posts) and accessible digital documents (Word, PDF)

Upon completion of this Unit participants should be able to:

- Prepare accessible digital content (e.g. web content, multimedia, social media content).
- Establish an accessible structure of the digital content (appropriate headings, titles, links, colours, and contrasts).
- Prepare easy-to-read texts that are readable and understandable.
- Prepare accessible images, multimedia, and tables (writing appropriate alt-text, transcripts, captions, etc.).
- Prepare accessible social media content and posts.
- Prepare accessible digital documents in Word and use accessibility checker.
- Prepare accessible digital documents in PDF and check their accessibility.

#### Unit 3: How to check if digital content and information are accessible

Upon completion of this Unit participants should be able to:

- Perform preliminary accessibility checks of the websites with automatic tools.
- Perform manual accessibility checks of the websites.
- Understand accessibility problems of reviewed websites.
- Find and recommend accessible online travel information to clients.



### Module Methodology

# Unit 2: Preparing accessible digital content (texts, multimedia, social media posts) and accessible digital documents (Word, PDF)

Unit Overview (Please edit accordingly):

#### **Unit 2 Overview**

Creating accessible web content can be a complex task that requires an understanding of how to design accessible layout and structure (appropriate headings, titles, links, colours, and contrasts), make texts readable and understandable to the broadest audience possible, as well as specifics of creating accessible multimedia, such as images, videos and tables (writing appropriate alt-text, transcripts, captions, etc.), and accessible documents, such as Word and PDF. Each of these topics is important for understanding digital accessibility holistically.

Content of this unit is thus divided into 5 parts:

- Creating accessible layout and structure of web content.
- Creating readable and understandable web content.
- Designing accessible multimedia (images, videos, audios and tables).
- Creating accessible social media content.
- Creating accessible documents (Word and PDF).

In the first part of this lesson, learners will learn how to prepare an accessible and meaningful structure of digital content. For preparing an accessible **layout and structure** not only should we know what an accessible structure looks like, but we also should know how to prepare meaningful titles, headings, links, hyperlinks and other structural elements, including the use of colour and contrasts.

In the second part, the unit focuses on text. For texts we need to ensure that they are **readable and understandable** to the broadest audience possible. We all have different reading levels. It is important to prepare easy to understand reading content, especially if it is intended for everyone.

Additionally, **adding multimedia**, such as images, videos, audio recordings and tables, can add value for most of the users. Some of them, e. g. people who access digital content with screen readers, will not have an option to access it. If we want that everyone can access all the content, we should provide an alternative. The third part of the unit will show, how to use alternative (writing appropriate alt-text, transcripts, captions, etc.).

Learners will also be acquainted with making social media content accessible. The same accessibility rules that were presented for digital content apply for **social media content**, too. Social media content needs to have accessible layout and structure, readable and easy-to-understand text, and accessible multimedia. However, as there are certain specifics (such as the use of hashtags and emojis) and due to the fact that social media are prone to constant changes, one needs to stay up to date and follow social media specific accessibility guidelines.

Finally, they will learn how to make accessible **Word and PDF documents**. When preparing documents with tourist information for their customers, ATF will need to consider making these documents accessible. Accessible documents will be easier to read and understand for everyone, especially for those who use assistive technologies (e.g. screen reader). ATF should thus learn to follow specific guidelines and procedures for accessible content (unit 3) and for accessible features of a specific document format (e.g. Word, PDF). For already written documents, ATF should also learn how to conduct an accessibility check and improve parts that are not yet accessible (e.g. add alt-text to all pictures).



### Module Methodology

Summing up, unit 2 will build upon previous unit by applying basic principles of digital accessibility (perceivable, operable, understandable, robust) onto concrete examples of accessible digital content and documents. It will guide learners towards an in-depth understanding of features that build up digital accessibility. It will teach them to design accessible web content, accessible multimedia (writing appropriate alt-text, transcripts, captions, etc.), how to write accessible social media posts (e.g. for FB, Twitter, LinkedIn etc.), and how to make accessible Word and PDF documents.

Upon completion of this Unit participants should be able to:

- Prepare accessible digital content (e.g. web content, multimedia, social media content).
- Establish an accessible structure of the digital content (appropriate headings, titles, links, colours, and contrasts).
- Prepare easy-to-read texts that are readable and understandable.
- Prepare accessible images, multimedia, and tables (writing appropriate alt-text, transcripts, captions, etc.).
- Prepare accessible social media content and posts.
- Prepare accessible digital documents in Word and use accessibility checker.
- Prepare accessible digital documents in PDF and check their accessibility.

#### Learning methodology - Please describe the way the content is presented

#### A. Introduction, development of the content:

How can learners be made interested in the topic? If appropriate, please insert picture, diagram, statistics, videos, etc.

Creating accessible web content can be a complex task that requires an understanding of how to design accessible layout and structure (appropriate headings, titles, links, colours, and contrasts), make texts readable and understandable to the broadest audience possible, as well as specifics of creating accessible multimedia, such as images, videos and tables (writing appropriate alt-text, transcripts, captions, etc.). Each of these topics is important for understanding digital accessibility holistically.

#### 1) ACCESSIBLE STRUCTURE AND LAYOUT

Preparing an accessible layout and structure is very important. Not only should we know what an accessible structure looks like, but we also should know how to prepare meaningful titles and headings. Accessible structure enables navigation through digital content with screen readers. On the other hand, it makes the text easier to read for everyone.

Accessible layout includes Brightness and colour (brightness in general, contrast of text and other elements, colour coding is not enough) Perception (font selection, font size, style, capitalization, size of all elements) Read spacing (line spacing, letter spacing, word spacing, line length, border and border, element spacing) Accessible

#### Why does the website need accessible structure?

People with cognitive and learning disabilities find it easier to find and sort content on a page.



### Module Methodology

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- People with visual impairment that use screen readers can directly access the main content and navigate to the desired sections.
- Keyboard users can browse pages and their sections more efficiently. People with visual impairments have tips on page and content orientation.
- An additional advantage of a well-structured site is also a better search engine content indexing (SEO)

#### Why does the website need accessible layout?

- People with cognitive and learning disabilities find it easier to find and sort content on a page.
- People with visual impairment (e.g. screen magnifier users that can see only a part of the screen at the same time, colour blind people) can find the desired content with more ease.
- First time visitors are able to orientate themselves on a website with more ease.
- Mobile phone and tablet users are also able to orientate themselves with more ease.

#### 2) READABLE AND UNDERSTANDABLE TEXT

It is important to ensure that the text is readable and understandable to the broadest audience possible. We all have different reading levels. It is important to prepare easy to understand reading content, especially if it is intended for everyone. Even though it is intended only for a specific audience (e. g. scientific article) it is advisable to add at least a short easy-to-read summary. In this lesson, learners will learn what easy-to-read level is, and how to prepare the content that is readable and understandable.

#### Why does the digital content need readable and understandable text?

Readable and understandable text will benefit many people, especially:

- People who use assistive technology (e.g. screen readers will pronounce the text correctly).
- People who have difficulty understanding complex sentences and vocabulary for any reason (e.g.
  cognitive impairment, language and learning impairment, temporary exposure to stress, anxiety, time
  constraints to read).
- Foreigners (even if they know the language, they may have difficulty understanding complex content).
- **People with hearing impairments** (they may know sign language, but sometimes have problems with their mother tongue).

#### 3) ACCESSIBLE MULTIMEDIA (images, videos/audio recordings and tables)

Adding multimedia, such as images, videos, tables, etc. can add value for most of the users. Some of them, e. g. people who access web content with screen readers, will not have an option to access the content. If we want that everyone can access all the content, we should provide an alternative.

In this lesson, learners will learn what are alternatives for multimedia and tables; and how to prepare descriptive and useful alternatives. They will learn how to write alternative text descriptions to images and concise transcripts and captions to multimedia, as well as acquire the ability to prepare accessible tables.



### Module Methodology

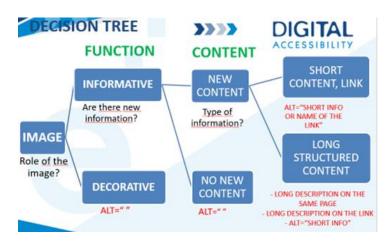


Figure 1: Decision tree as a support for alt-text preparation



Figure 2: Accessibility of videos

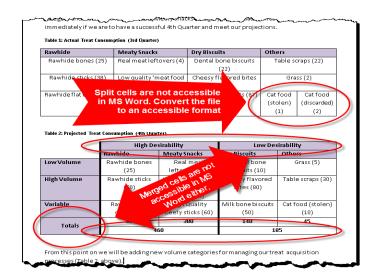


Figure 3: Accessible tables



### Module Methodology

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#### 4) ACCESSIBLE SOCIAL MEDIA CONTENT

The same accessibility rules that were presented for digital content apply for social media content, too. Social media content needs to have accessible layout and structure, readable and easy-to-understand text, and accessible multimedia. However, as there are certain specifics (such as the use of hashtags and emojis), there are plenty of guides that address accessibility of social media posts (e.g. for FB, Twitter, LinkedIn etc.). Additionally, social media are prone to constant changes, hence one needs to stay up to date and follow accessibility guidelines, published by each of the respective social media.

#### 5) ACCESSIBLE DOCUMENTS

Documents are widely used to convey information across all areas of life, be it private or public, formal or informal. All people use them, including people with diverse disabilities. **The two most commonly used applications for documents are Microsoft Word and PDF.** 

In this unit we will learn the basic principles on how to create accessible Microsoft Word and how to transform this into an accessible PDF.

#### B. Learning activities and material required:

Please describe the proceeding in detail.

Please describe the required material with special regard to variation of media and interactive/collaborative work.

Unit 2 consists of five interconnected parts and a final questionnaire.

Firstly, learners will be acquainted with knowledge relevant for making accessible layout and structure. The presentation will consist of the teacher's desktop and spoken presentation. This will be followed by experiental work in groups. In order to learn by doing, practical examples and tasks will be used. Final results will be discussed in a follow-up discussion.

Secondly, learners will be acquainted with knowledge relevant for creating readable and understandable web content. The presentation will consist of the teachers' desktop and spoken presentation. This will be followed by experiental work, both individually and in groups. In order to learn by doing, practical examples and tasks of creating accessible web content will be used. Final results will be discussed in a follow-up discussion.

Thirdly, rules for accessible multimedia (images and videos) will be presented and diverse approaches to create accessible images and videos will be discussed through practical examples. Learners will work in pairs and in groups to learn to recognize diverse types of images and to prepare a corresponding alt-text. Additionally, learners will work in groups on exemplary videos in order to recognize their accessibility issues and discuss possible accessibility solutions. A joint discussion with a teacher will follow.

Fourthly, basic principles of creating accessible social media content will be presented. Examples of accessible social media will be discussed. The teacher will lead the discussion. If the time allows it, learners will be invited to create accessible content on their own social media profiles and present it to the group at the (next) session.

Finally, learners will be acquainted with the basic principles on how to design an accessible Word document and how to transform this to an accessible PDF. They will also learn how to use Accessibility checker for Word.



### Module Methodology

Learners will be invited to design an accessible Word document and an accessible PDF. Most of the work will be done in groups, followed by group presentations and teacher-lead discussion.

The unit will conclude with a final individual questionnaire/test.

#### C. Reflection and setting phase – closing of unit, assignment (optional):

This could be short summarising of content; an exercise; a short group work and/or discussion; a self-studying exercise/homework; some questions to be answered; a test etc.

Unit 3 guides learners towards an in-depth understanding of basic digital accessibility principles. It teaches them how to design accessible web content, including social media content. It guides them towards understanding on how to prepare accessible multimedia, such as images, videos, audios and tables and provide alternatives for them, such as alt-text for images and transcripts or captions for videos. Finally, it provides them with the knowledge on how to create accessible Microsoft Word and PDF documents, and check accessibility of existing documents.

Before moving on with the units, learners will be recommended to reflect on what they learned in unit 2 through the following activities:

- Review of presentations,
- Review of group tasks and discussion conclusions,
- Review of references,
- An individual questionnaire/test.

#### D. References and material recommended for further study:

- <u>Digital accessibility course</u>
- Writing tips
- Media
- Contrast Viewer 1
- Contrast Viewer 2
- Images
- <u>Images a de</u>cision tree
- Guidelines for complex images.
- A checklist for creating accessible videos
- Video captions
- Web accessibility video
- Social media user's guide Ensuring accessibility
- Federal social media accessibility toolkit
- Make your social media more accessible
- Inclusive design social media
- How to make Microsoft Word documents accessible
- Creating Accessible Documents
- Creating Accessible Documents in Microsoft Word
- Creating Accessible PDF
- Creating Accessible PDFs from Microsoft Word
- Guidelines for using Accessibility checker
- Pave