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# ACCESS TO UNIVERSITIES FOR PEOPLE WITH DISABILITIES

## O4 MODEL AWARENESS BUILDING AT HEIs

Project ATU – Access to Universities for people with Disabilities

Reference No 2019-1-BG01-KA203-062530



**Varna Free University “Chernorizets Hrabar” (VFU)**

**Masaryk University (MUNI)**

**National Research Council (CNR)**

**Foundation „Institute for Regional Development” (FIRR)**

**Regional Agency for Entrepreneurship and Innovations – Varna (RAPIV),**

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## ABBREVIATIONS AND GLOSSARY OF TERMS

CNR	Consiglio Nazionale Delle Ricerche – National Research Council
CRPD	Convention on the Rights of People with Disabilities
EU-SILC	European Union Statistics on Income and Living Conditions
FIRR	Fundacja Instytut Rozwoju Regionalnego – Foundation “Institute for Regional Development”
HEI	Higher Educational Institution
IO	Intellectual Output
LP	Lead Partner
GP	Good Practice
MUNI	Masaryk University
RAPIV	Regional Agency for Entrepreneurship and Innovations - Varna
UN	United Nations
VFU	Varna Free University „Chernorizets Hrabar”
WHO	World Health Organisation



## SCOPE OF DOCUMENT

One of the activities planned to be undertaken during implementation of the ATU project is development of a model awareness building system at Higher Education Institutions (HEIs). The Model for Awareness Building at HEIs will allow ATU project partners to provide HEIs staff with fundamental knowledge about abilities, needs, what can cause barriers and limitations, in order to ensure equal chances for students with disabilities.

These Guidelines have been developed by Regional Agency for Entrepreneurship and Innovations – Varna (RAPIV).

They provide criteria for the model to meet and outlining steps to be followed.

Responsibilities and obligations of the Project Partners are defined in it as well as outline of the expected input by each partner.

## INTRODUCTION

Project ATU “Access to Universities for Persons with Disabilities” is funded under Erasmus + Programme of the EC, Key Action 2 Strategic Partnerships for Higher Education.

The main objective of the project is to elaborate comprehensive and adaptable model system of support services for students with disabilities to higher education institutions in the European countries.

The model includes the following elements:

- Creating a model support services list– comprehensive structured list, responding to a variety of needs, of particular type and level of disability, application model required, etc;
- Model awareness building among HEIs personnel of various type (academic, administration, etc.) – including methodology of awareness building and adaptable training model curricula.
- Development of methodology of implementation of support services into the HEIs based on intensive testing of proposed model services in each partner country.

The present document outlines the main steps and methodology for the elaboration of Model awareness building, including the development of Awareness Training Model, adaptable to the needs of various kinds of staff.



## DEFINITION OF METHODOLOGICAL STEPS

Design processes are always divided into steps and phases in order to make sure that checks and tests are carried out at the appropriate time to avoid any lengthy and costly time-consuming modifications at the end.

The whole process for development of training models can be divided into different sequential steps:

- |                              |   |   |
|------------------------------|---|---|
| Task analysis                | } | 1) Identification of the target groups  |
|                              |   | 2) Identification of training needs of the target group                       |
|                              |   | 3) Identification of GPs by PP  |
|                              |   | 4) Listing of skills and knowledge suitable for the training models           |
| Designing of training models | } | 5) Development of training modules  |
|                              |   | 6) Designing and development of training materials for the specific trainings |
|                              |   | 7) Pilot testing of the training models                                       |
|                              |   | 8) Evaluation of the results  |
|                              |   | 9) Revision and finalization of the training models                           |

### 1. Task analysis

Before approaching the task of development of the model awareness raising, a good knowledge of the needs and the available Support services for students with disabilities is necessary.

According to the World Health Organisation (WHO), in the European Region, between 6 to 10 out of every 100 people live with a disability, totalling an estimated 135 million people.

Several policy documents, especially related to the Europe 2020 strategy, have been developed in order to, among others, to encourage citizens to attain higher education



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level. One of the areas covered is related to disadvantaged groups, including people with disabilities.

As the research on that topic presents (the Eurostat data) the number of students with disabilities has increased, especially in some countries, but still, it is significantly lower than for the general population. The recent available data states that in Europe First and second stage of tertiary education was attained by 29,4 % of disabled persons aged 30 to 34 while 43,8 % for those not having a disability<sup>1</sup>.

It, of course, differs among countries. Europe 2020 strategy target “increasing the share of the population aged 30 to 34 having completed tertiary or equivalent education to at least 40% is not yet achieved in many of the EU countries.

Still, there are no official data collections on innovative services for students with disabilities, provided by the universities. That is why PP developed Survey on the Support services for students with disabilities among HEIs within activities of Output 2 in order to develop a Model support services list including structured, sorted list of standard and innovative services that are and might be provided, with their detailed description (needs to which they answer, target user, application conditions, etc.).

The survey was used to collect information about the support services accessible in Europe and beyond in the following areas: architectural, digital, information – communication, didactic classes, legal bases and others, such as evacuation, training and awareness. Basic information regarding the universities was also collected, taking into account the number of students with disabilities as well as the specification and number of regulations. As a result, a list of Support services has been elaborated, adaptable to the needs of HEIs.



## STEP 1:

### Identification of the target groups

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<sup>1</sup> European Union Statistics on Income and Living Conditions – 2018, <https://www.disability-europe.net>



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The main target group is HEIs staff, providing services for students with disabilities and the second target group includes stakeholders on local and regional level:

HEI staff can further be divided in three types:

a) HEI staff:

- academic staff (professors, researchers, lecturers);
- administrative staff (support, technical staff, etc.);
- management.

b) Stakeholders on local and national Level:

- Bodies responsible for higher education policy and legislation;
- policy and decisions makers at HEIs;
- Local Administrations and other local stakeholders;
- Agencies and NGOs working for people with disabilities.

To reach the target groups, the communication activities follow the overall project's Communication Plan aiming at raising public awareness in connection to the work being performed and disseminating the findings, results and innovative issues that will be brought up during the project's duration.

## STEP 2:

### Identification of the training needs

As part of the ATU project, survey was carried out, including 63 universities from 13 countries. Efforts were made to obtain information about the support services accessible in Europe and beyond in the following areas: architectural, digital, information – communication, didactic classes, legal bases and others, such as evacuation, training and awareness.

According to the results from the survey conducted in relation with development of the Model Support Services list, the top challenges to accessibility for students with disabilities are:

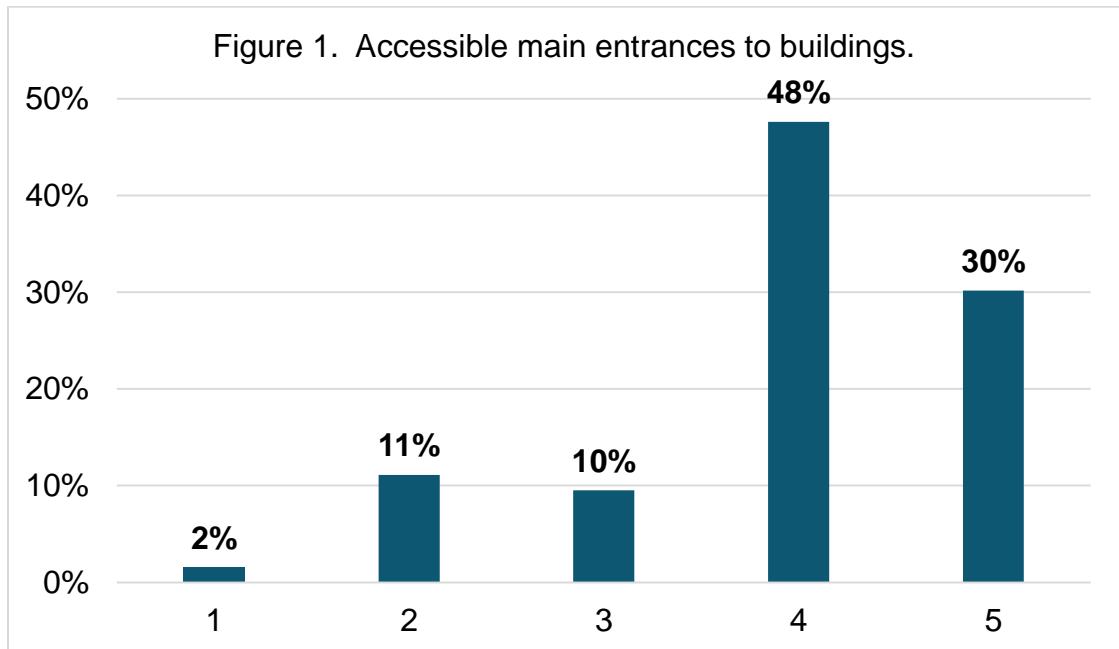
#### 1. Architectural accessibility

Universities are not yet fully accessible to students with disabilities:

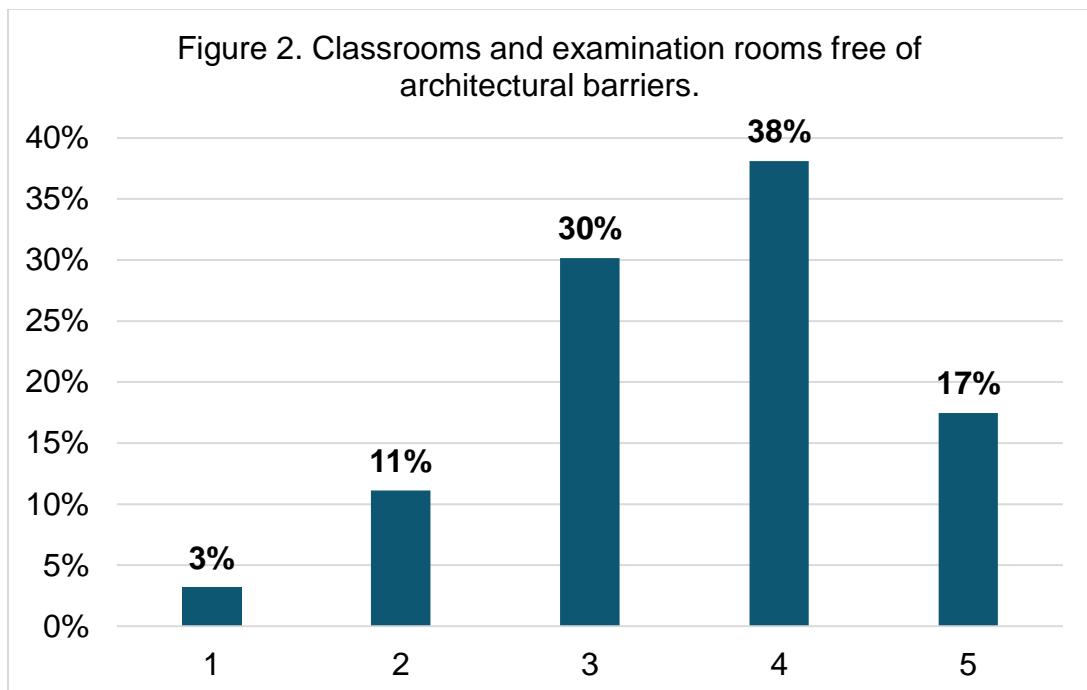
This project has been funded with support from the European Commission under the Erasmus+ Programme. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein



- 11% of the universities surveyed indicate that **less than half of their entrances are adapted** to people with special needs, and 10% say that half of their entrances are accessible;

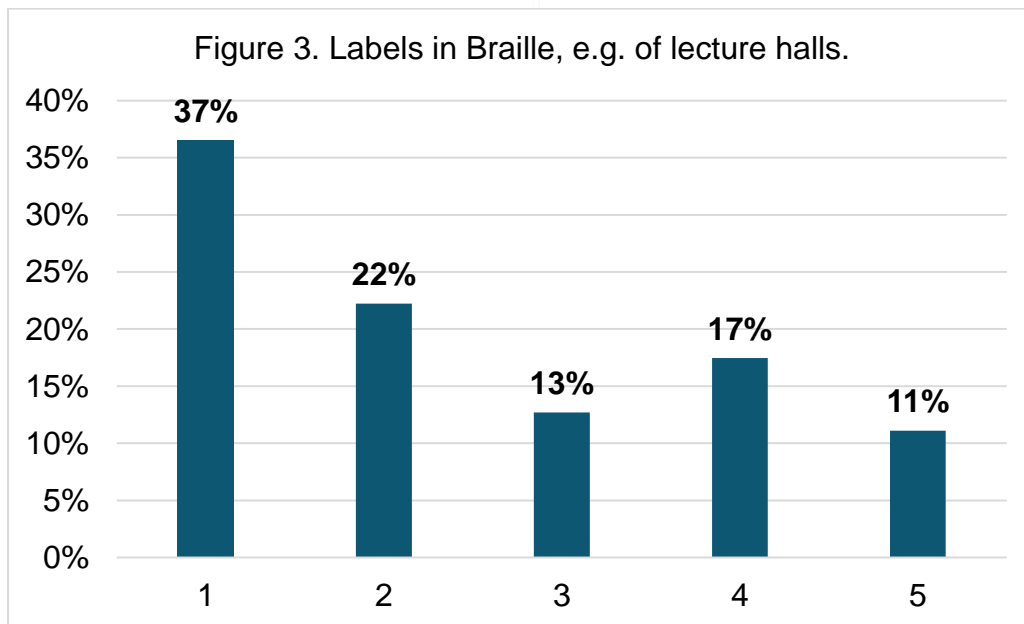


- 11% of universities have less than half of their rooms adapted. 3% of universities claim that they meet this criterion only to a small extent or not at all;

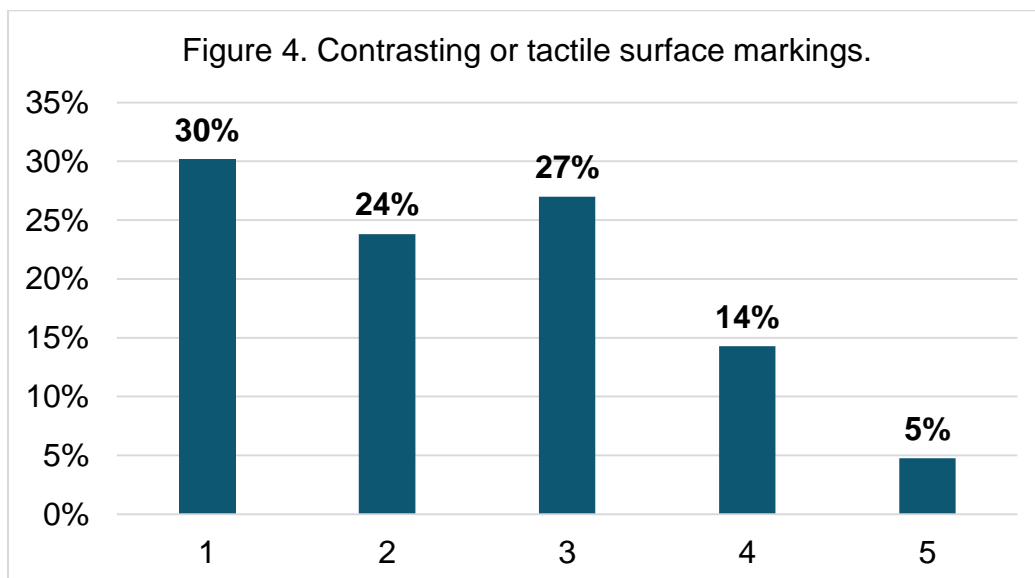


- Only 11% of universities assess their adaptation in **using labels in Braille** to be at the highest level;





- **Contrasting or tactile surface markings** are applied to a high extent (more than half) only in 24% of the universities, while only 5 % choose the highest level of this availability.

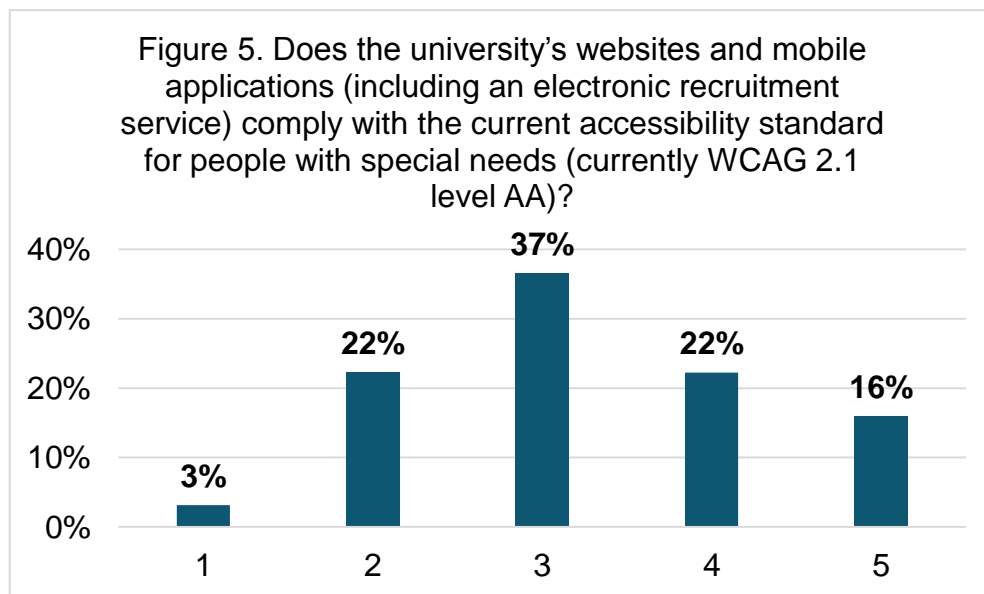


- 40 % of the universities do not provide training regarding special orientation at the university premises.

## 2. Digital accessibility



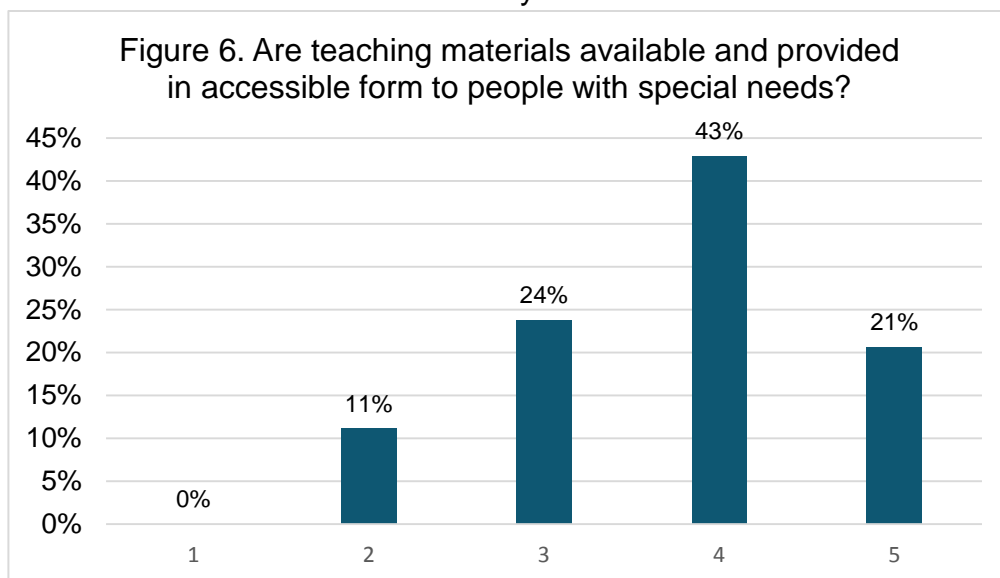
- Less than half of universities cover the standards for accessibility of their websites and applications.



### 3. Access to information and communication

- Only 21 % of universities report that all their teaching materials are accessible and provided in appropriate form for students with disabilities.

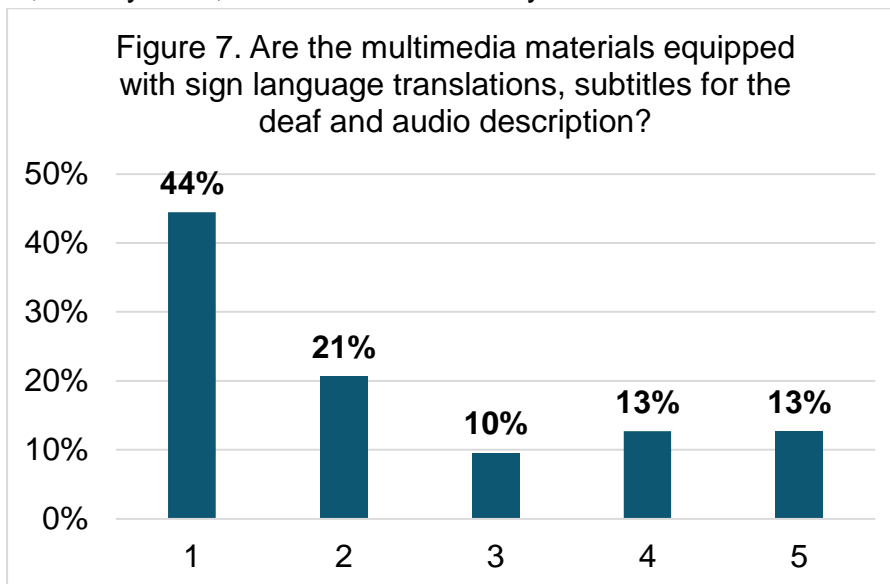
Less than half of the teaching materials are accessible and delivered in accessible form by 11% of universities and half of all materials are accessible for students with disabilities in 24% of the universities surveyed.



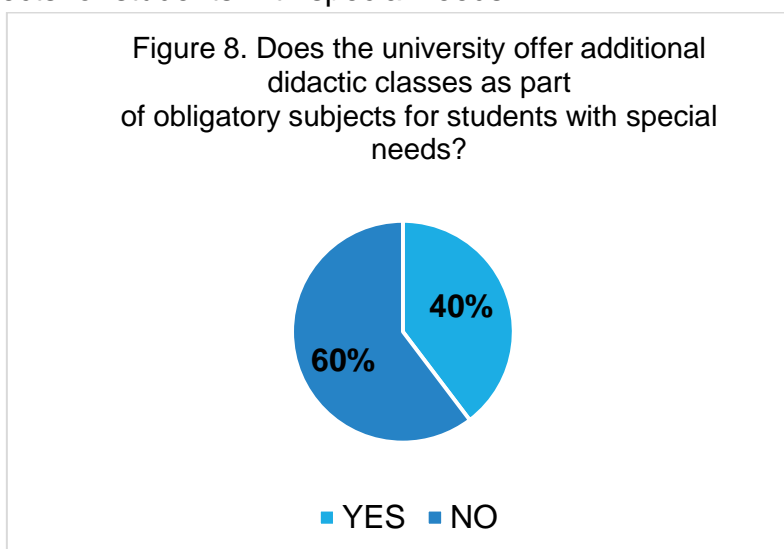
- Only 13% of the surveyed universities declare that all their published and presented multimedia materials are accessible with sign language translations, subtitles for the deaf and audio description. 44% of universities indicate that no



or few such materials are properly adapted. Less than half is owned by 21% of universities, half by 10%, and more than half by 13%.



- 41% of universities do not offer support in the form of sign language interpretation (also online) during classes, exams and administrative services.
- 40 % of the universities do not provide spatial orientation at the university premises.
- For 35 % of the universities the schedule of university classes and exams is not adapted to students with different special needs.
- 46% of universities do not have their language courses tailored to students with special needs.
- 35 % of the universities do not provide additional didactic classes as part of obligatory subjects for students with special needs.





#### 4. University standards and regulations

- 19 % of the universities do not have university standards governing the rights and obligations of students with special needs.
- 27% do not have university standards that regulate the rights and obligations of teachers to students with special needs.

#### 5. Lack of awareness

- 67% of the universities surveyed organize specialized training courses for university staff in the field of education and communication with people with special needs. However, one third (33%) of the universities do not provide such training.

Following the analysis of the result from the survey, a Model support Services list was created as an example of an universal and flexible support system for students with disabilities.

Full list of the support services for students with disabilities is presented in Intellectual Output 2 of ATU project: Model support services for students with disabilities.

According to experience of project partners, even the best support services provided for students with disabilities at university might not be sufficient for their full inclusion into the education system. The understanding and awareness of HEI staff and the relevant stakeholders is essential to their success. Yet, the study shows that a third of the universities do not yet provide awareness training to their staff.





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Additional survey was carried out by Masaryk University of the awareness building model at universities in Slovakia and the Czech Republic<sup>2</sup>.

In most universities, services are provided by a support centre for students with disabilities.

The survey results showed that the biggest challenge for the centres is low awareness of the services provided, a greater need to promote the centre and greater use of social networks.

## Conclusion

The consortium agreed that a good awareness building system should be elaborated and adequate activities undertaken in order to provide different type of staff (academic teachers, administration and technical staff, etc.) with fundamental knowledge about abilities, needs, what can cause barriers and limitations, in order to ensure equal chances for students with disabilities.

The model awareness building for HEIs staff will include both methodology and training model curricula adaptable to needs of various types of staff.

The experience of all partners in work dedicated to increase of inclusion policy at universities will contribute to the creation of a model methodology to develop an effective awareness building system.

## Distribution of tasks

- RAPIV developed the draft methodology for model awareness building and presented it for discussion and approval by all project partners;
- RAPIV coordinated the exchange of experience between project partners, identification and collection of Good practices.
- Partners discussed and evaluated the identified good practices and chose most suitable practice/s for transfer. On the basis of the received results, partners discussed and selected basic skills and knowledge to be included in training model;

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<sup>2</sup> Survey results are enclosed in Annex 2 to the Exchange of Experience



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- Following the developed methodology, FIRR proposed an outline of the training model and RAPIV proposed detailed distribution of tasks for its development among partners according to their expertise and experience;
- Drafts of the course design with particular learning outcomes and training and mentoring content, that provide the base of the training models was prepared and discussed by Project partners;
- **All the PPs** are involved in the process of elaboration and assessment of the training models in order to facilitate the learning process of organizations involved.
- Final adjustment and approval of the training model until the end of June 2021.
- Pilot testing by HEIs in each partner country will be carried out within *Intellectual Output 5 Methodology of implementation of support services into the HEI systems.*

## 2. Exchange of experience

The international character of the partnership enables to gather good practices, expertise and experiences from different perspectives – more and less advanced countries, bigger and smaller, public and private HEIs, different legislation backgrounds, etc.



### STEP 3:

#### Identification of Good practices on awareness training from project partners

In order for the information to be summarized and compared, related experiences were gathered in the form of good practices for training initiatives to build awareness on inclusion and accessibility for people with disabilities.

Each partner presented their experience or experiences selected in their own country but conceived and conducted by other institutions according to the type of organisation and different legislative and political conditions in the respective country.

Partners have used different approaches depending on the type (public/ private) and size of institution, national legislative framework.



Full description of the Good practices and the methodology for their selection and evaluation is provided in **IO4 Document - Exchange of Experience for Development of Model Awareness Building System at Higher Educational Institutions**. Partners have used different approaches depending on the type (public/ private) and size of institution, national legislative framework.

Summary of the identified good practices is presented in the following table:

No	Title of the GP	Country	Short Description
1.	Awareness training on the specific needs of students with disabilities at VFU	Bulgaria	1- day training programme, designed to build awareness of the university academic staff regarding the needs of students with disabilities
2.	MUST Week - Services for students with special needs, topic Universal Design for Learning	Czech Republic	1-week awareness training, aiming to introduce the concept of Universal Learning design to staff from partner HEIs and to share practical experience from the services offered at the Support Centre for Students with Special Needs at Masaryk University.
3.	Awareness training on the specific needs of students with disabilities at HEIs	Poland	1-day awareness training aimed to increase the knowledge and raise awareness on the specific needs of students with disabilities at HEIs.
4.	Master's in management of Disability and Diversity	Italy	The main aim of the Master's degree programme is to train professionals, active in the field of diversity and disability to manage, coordinate and work with various parties and people involved.  The training promotes awareness, inclusion and knowledge of the needs of people with diversities/disabilities.



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## STEP 4:

### Evaluation of the GPs according to the identified needs

The selected Good practices will be evaluated by all PPs according to the following criteria:

- Relevance
- Impact
- Effectiveness and efficiency: result in relation to resources
- Innovation
- Broad-based participation
- Transferability (How difficult is it to transfer and adapt)
- Sustainability

PPs will choose the best practice/s that have received the highest evaluation score to adapt and transfer in the development of the innovative awareness raising model.

### Results from the evaluation of Good practices

During the online Partners meeting on 31<sup>st</sup> March 2021, partners discussed and evaluated the Good practices according to the above set criteria.

Regarding the first criteria, **Relevance**, partners agreed that the Practice #3, presented by FIRR for “Awareness training on the specific needs of students with disabilities at HEIs” is mostly in line with the identified needs and barriers as well as with the objective of the ATU project and can contribute in the development of the training model. Partners also agreed that it has high Impact potential and has already proven its Efficiency in delivering general awareness training to Polish Universities.

**FIRR’s GP Practice #3 was evaluated as easily adaptable to different conditions, according to the needs of HEIs as well as to the needs of different types of staff.**

The practice #2, presented by Masaryk University “MUST Week - Services for students with special needs, topic Universal Design for Learning” of the University’s Support Centre for Students with Special Needs – Teiresias centre, was evaluated as most innovative as the Centre is also a research institution developing its own technological solutions.





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TEIRESIÁS centre cooperates directly with individual faculties at Masaryk University to increase awareness and provide consultations and advice at faculties in connection with education of special needs students and the related setting of services.

TEIRESIÁS centre organised a one-week awareness training for university staff, presenting their experience and aimed mostly at HEIs that would like to implement the model of TEIRESIÁS as Support centre for students with disabilities.

Partners agreed that although the practice of TEIRESIÁS centre is relevant with the project objectives and has had significant impact on the inclusion of students of disabilities, it cannot be easily adapted or transferred to all countries/ regions as this would require a lot of resources and expertise and would not be applicable to all HEIs. For those HEIs that the model applies, the practice will be showcased as leading in the field and anyone who is interested can find contacts and be provided with further information.

Masaryk University will still contribute with its expertise by providing methodological guidance in the preparation of the general awareness training model and will participate in the development of the training materials.

**As a result of the evaluation, the Practice #3 of FIRR was chosen by project partners as most suitable to adapt and transfer in the development of the innovative awareness raising model.**

After completing the evaluation process, Partners agreed that FIRR would present the outline of the General awareness training programme for the other partners to approve and start the development of the training model.

### 3. Designing of training model



#### STEP 4:

**Listing of skills and knowledge suitable for the training  
model**



For each task involved in a job, the training developers next list the skills and knowledge required to perform the task. Skills generally include actions such as measuring, processing and presenting information and recording, calculating, communicating, making decisions, etc. Required knowledge is the information needed to do a task correctly.

The starting point is "What are the main knowledge and skills that university staff need in their work with students with disabilities?".

Based on the shared experience and GPs among PP and looking at the ideas of what kind of trainings university staff needs, the following major groups of topics are set for the project purposes:

## GENERAL DISABILITY AWARENESS TRAINING

### A. THE CAUSES AND TYPES OF DISABILITY

- The formal and legal situation of students with disabilities;
- Myths and stereotypes regarding people with disabilities.
- Types of disabilities.

### B. INCLUSIVE LEARNING ENVIRONMENT

- **Available information and communication for people with disabilities**  
*(Inclusive teaching and learning methods using student/ learner-centred approach);*
- **Accessible environment**
- **Accessible educational materials** (in multisensory form) – how to adapt study materials in response to the specific needs (basic training on form of representation of the information, formats, types of documents, etc.).
- **Training special skills and compensation techniques**

### C. ASSISTIVE TECHNOLOGIES

- **Simulation of disability (experience of barriers)** and support in practice (case studies).



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- **Assistive technology** – main types and examples (software for reading text, signing assistant, tools and devices, etc.);

**Horizontal topics/ Fundamental skills: communication, social skills, digital skills**  
(assistive technologies/accessible information/adaptation of learning/promotional/  
materials)



## STEP 5:

### Development of training modules

As part of the design process, the PP organize the selected skills and knowledge to be taught into logical teaching units called modules. The design for each module includes its training objectives and a brief outline of the information, examples and exercises that will provide opportunities for practice using the skills and knowledge.

Development of each module progresses from the brief design outline, to an expanded outline, to the complete module. Expanded outlines of the modules specify more completely the information and the types of examples and exercises to be provided.

The following format for organizing the training is approved by project partners:

- **The training will be organized in six sessions, by 45 minutes and will be organized in 3 separate modules.**
- **The training events will combine theoretical part in the form of lectures followed by practical part, including case studies and demonstrations.**

Additionally, event follow-up should be ensured, in order to provide additional support to participants through the possibility to ask questions or request expert advice.



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All training materials will be available in digital format.

CNR provides an online platform where all materials can be uploaded.  
(<http://atu.pa.itd.cnr.it>)

## Modules outline

### Module I Title: The causes and types of disability, consequences for the education process

Module I Description:

The first training module is an introduction to **basic** concepts regarding disability and its consequences for the education process.

The Module includes 4 sub-topics:

#### Sub-topic 1: Formal and legal situation of people with disabilities

- General statistics and main policies regarding people with disabilities and access to education

According to World Health Organisation (WHO), in the European Region, between 6 to 10 out of every 100 people live with a disability, totalling an estimated 135 million people.

Several policy documents, especially related to the Europe 2020 strategy, have been developed in order to, among others, to encourage citizens to attain higher education level. One of areas covered is related to disadvantaged groups, including people with disabilities.

As the research on that topic presents (the Eurostat data) the number of students with disabilities has increased, especially in some countries, but still, it is significantly lower than for the general population. The recent available data states that in Europe First and second stage of tertiary education was attained by 29,4 % of disabled persons aged 30 to 34 while 43,8 % for those not having a disability.



- Rights of students with disabilities - Country specific Legislation

This part of the training is specific for each country.

Project partners provided information on legislation and regulations, regarding students with disabilities in their countries:

[Bulgaria](#)

[Czech Republic](#)

[Italy](#)

[Poland](#)

### Sub-topic 2: Myths and stereotypes regarding people with disabilities. Consequences of stereotypes for the education process

- Myths and stereotypes
  - people with disabilities are like kids - they always need help;
  - people with disabilities always need assistance;
  - majority of people with disabilities are mentally incapacitated;
  - people with intellectual disability can not study,
  - all people with disabilities are ashamed of it;
  - disability is contagious it is a punishment for sins ;
  - people with disabilities are sad, focused on their disability, they do not enjoy life;
  - people with autism spectrum disorders are especially gifted,
  - blind people have better hearing, more sensitive touch and can sing beautifully;
  - persons with a severe degree of disability cannot work.
- Consequences of stereotypes
  - deepening of the internal prejudice;
  - relationship boundaries, integration avoidance;
  - inadequate / too low or too high expectations towards people with disabilities;
  - an entitled attitude of people with disabilities;
  - exclusion from the group;
  - ignoring the needs and opinions of people with disabilities.

### Sub-topic 3: Types of disabilities – [Examples, barriers](#)

- Sensory disability (sight, hearing)



- Visual impairment – blind and visually impaired people
- Deafness and hearing loss
- Physical disability (motor organs dysfunctions, diseases of internal organs)
  - Mobility (using: wheelchairs, crutches, cane, walking frame)
  - Internal/ external organs formation
  - Physical capacity, stamina, or dexterity (reflex actions, muscle spasms);
  - Require constant assistance from another person
- Mental health  
The most common mental health problems are: depression, paranoia, bipolar disorder, schizophrenia, personality and anxiety disorders.
- Reduced communication skills (e.g. dysglosia, aphasia, people who stutter, some people suffering from autism, people diagnosed with mutism)
  - people with significant problems with articulation (e.g. stuttering, lisping, strong nasal speech);
- Pervasive developmental disorders (PDDs) (e.g., autism and Asperger's syndrome, Rett syndrome and Heller's syndrome)
- Intellectual disability (as a result of a chronic disease e.g. dementia, Alzheimer's disease) or brain damage as a result of an accident, hypoxia, stroke or injury)
- Cognitive disorders (CDs), also known as neurocognitive disorders (NCDs)

<b>Objectives</b> Introduce the main concepts regarding disability, breaks stereotypes regarding people with disabilities	<b>Learning Outcomes</b> Improve the general understanding on disability issues
<b>Methods of Learning:</b> Lecture, discussion, question and answer round, demonstrations	
<b>Resources</b>	1. Presentation: - <a href="#">The causes and types of disability, consequences for the education process</a>
<b>Feedback</b>	Feedback form, Q&A, discussion
<b>Total time needed:</b> 2 x 45 min	



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## Module II Title: Inclusive learning environment

### Module II Description:

The training will introduce **main principles of accessibility and inclusive learning environment**. It looks into principles of communication with students with disabilities, general rules for accessibility of information and educational materials. After completion of this module, participants will have the foundation of skills and knowledge necessary to communicate with students with disabilities.

The Module includes 6 sub-topics:

### Sub-topic 1: Information processing and communication

- presenting the basic principles of communication
- identifying the most common features of (a) universal design for learning and (b) barriers to be solved as an individual accommodation (as described in [chapter 2.6](#) of the guidebook *Inclusive Higher Education*):
  - students with visual impairment
    - accessibility of both physical and virtual environment, orientation in an unknown environment (see [sub-topic 2](#) and [3](#))
    - accessibility of printed and electronic materials (texts, tables, graphics, see [sub-topic 4](#))
  - students with hearing impairment
    - accessibility of the audio communication in both physical and virtual environment (acoustics, STTR, loops, interpreting, see [sub-topic 5](#))
    - training skills in oral and written communication, language acquisition, see [sub-topic 6](#))



- students with mobility impairment
  - accessibility of both the physical and virtual environment (classrooms, bathrooms etc., see [sub-topic 2](#) and [3](#))
  - accessibility of the printed and electronic materials, see [sub-topic 4](#))
- students with learning disorders
  - Issues arising from reading and writing (see [sub-topic 2](#), [3](#), [4](#))
  - Other issues
- students with psychological difficulties
  - orientation in an unknown environment
  - issues arising from virtual environment (keeping the camera on)
  - Adaptation to the stressful situations and under time pressure (see [sub-topic 6](#))

### **Sub-topic 2: Accessible physical environment**

- universal design for learning
  - international and national legislative standards for buildings
  - accessibility and usability of the equipment
  - monitoring the situation and publishing information, see MU [Virtual Guide](#)
- individual accommodation
  - temporary adjustment of buildings, furniture or equipment (temporary platforms, portable stairlifts etc.)
  - personal and/or pedagogical assistance if needed

### **Sub-topic 3: Accessible virtual environment**

- universal design for learning
  - international and national legislative standards for information systems
  - accessibility and usability of the applications
  - monitoring the situation and publishing information
- individual accommodation
  - temporary adjustment of the settings
  - alternative systems and/or applications
  - personal and/or pedagogical assistance if needed

### **Sub-topic 4: Accessible documents and educational materials**

- universal design for learning (principles of accessible educational materials are outlined in [chapter 3.3](#), [chapter 3.4](#) and [chapter 3.5](#) of the guidebook *Inclusive Higher Education*)
  - no printed material
  - producing accessible electronic texts and tables; graphic (visual layer) with alternative description





- captioning and alternative description of the audio layer
- **individual accommodation:**
  - students with visual impairment
    - printed materials in visually modified format (enlarged, modified contrast or colours)
    - electronic materials (texts, tables, graphics) as an alternative to the printed ones (to be visually modified and/or read by means of a speech output or tactile output)
    - tactile documents on physical media (braille text, tables, tactile graphics and maps, 3D printing), see [Principles of tactile graphics production](#) and [Tactile maps and graphics](#)
    - personal reader only in emergency situations
  - students with hearing impairment
    - audio layer with individually added captions and descriptions if needed
  - students with mobility impairment
    - electronic materials as an alternative to the printed ones (to be easily handled)
    - personal assistant if needed
  - Students with learning disorders
    - electronic materials as an alternative to the printed ones (to be visually modified and/or read by means of a speech output)

#### **Sub-topic 5: Accessible audio communication**

- **universal design for learning**
  - good quality acoustics
  - induction loops in teaching rooms
  - no audio intercom systems in buildings
- **individual adjustment for students with hearing impairment**
  - temporary inductions loops, headphones and other digital hearing aids
  - temporarily changing visual and spatial disposition to improve lip-reading or usage of a personal hearing aid
  - in both physical and virtual environment accompanied by a visualisation of the speech (captions, STTR, signed language, cued speech etc.) or by interpreting in a sign language or system
  - personal note-taker if needed

#### **Sub-topic 6: Training special skills and compensation strategies**



- **universal design for learning**
  - special staff trained and ready to offer specific courses and counselling
  - assistive technologies available (temporary platforms, portable stairlifts etc.)
  
- **individual accommodations**
  - **students with visual impairment**
    - orientation training in an unknown environment (both physical and virtual)
    - individual teaching of visually oriented subjects (mathematics, sciences, geography, anatomy, history of art etc.) and subjects based on inaccessible technological principles (pointing devices in IT etc.)
    - training proper usage of assistive technology and alternative systems, applications, tactile signage or graphics etc.
    - training presentations, body language etc.
  - **students with hearing impairment**
    - individual teaching of orally or acoustically oriented subjects (foreign languages, music and dance, team sports etc.) and subjects based on inaccessible technological principles (audio communication needed etc.)
    - individual teaching of the local or foreign sign language
    - training academic reading and writing
    - training presentations by means of an interpreter etc.
  - **students with mobility impairment**
    - training proper usage of assistive technology and alternative systems, applications etc.
    - training presentations, body language etc.
  - **students with learning disorders**
    - training proper usage of assistive technology for reading
    - training academic reading and writing, effective usage of spellchecker etc.
  - **Students with psychological difficulties**
    - regular consultations and psychotherapies to overcome the stress situations
    - training in time management systems or other assistive technology.
    - training presentations, body language etc.



<p><b>Objectives</b> The module introduces main principles of accessibility and inclusive learning environment.</p>	<p><b>Learning Outcomes</b> By the end of this course university staff will have the foundation of skills and knowledge necessary for teaching and communication with students with disabilities.</p>
<p>Methods of Learning: Theoretical part - Lecture, discussion, question and answer round, demonstrations</p>	
<p>Resources</p>	<p>Presentation</p>
<p>Assessment</p>	<p>Feedback form, Discussion, Q&amp;A round</p>
<p>Total time needed: 2 x 45 min</p>	

### Module III Title: Assistive technologies

Module III Description: This module represents an overview of the available assistive technologies and what barriers they are used to overcome.

The Module includes 2 sub-topics:

#### **Subtopic 1: Simulation of disability / practical experience of barriers**

- Simulation of sensual disability
  - Using canes to navigate as a blind person
- Simulation of physical disability
  - Overcoming obstacles and navigating in a wheelchair
- Simulation of cognitive disability
  - Simulation of how text is perceived by a person with dyslexia

#### **Subtopic 2: Support in practice (case studies and exercises)**

- Support for students with sensual disability
  - Demonstration of Screen reading program from a blind person
  - Demonstration of braille materials / 3D maps
  - Demonstration of speech recognition apps to assist the hearing impaired / Note taking
- Support for students with physical disability
  - Using virtual guides, Providing Orientation tour
- Support for students with cognitive disabilities
  - Assistive technologies for reading
- Support for students with psychological difficulties



- Case studies – time management techniques, working in small groups.

<b>Objectives</b> During this course users will have the possibility to have practical experience on the use of assistive technologies	<b>Learning Outcomes</b> By the end of this course users will have basic knowledge and practical experience in the usage of different types of assistive technologies by students with disabilities.
Methods of Learning: Practical demonstration, case studies	
Resource/Assignment	Demonstration of Assistive technologies, Practical exercises
Assessment	Feedback form, Discussion, Q&A round
Total time needed: 2 x 45 min	



## STEP 6:

### Designing and development of training materials

Training materials for the testing phase will be designed following the above curricula and will also be adapted to the specific needs of HEIs in each country.

Training and supporting materials will be designed for interactive training dynamics. The materials should comprise of readings, hand-outs, exercises, assignments, and templates, video and audio materials, working cards, case studies and simulation games.

While designing the training materials, the following points are to be kept in mind:

- Only create training content and assessments that relate directly to the set learning objectives.
- Do everything possible to let the trainees talk and interact with the trainer and with each other during the training.
- Make sure there's plenty of opportunity for feedback during training.



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- Training materials to be divided in small parts that are easier to take in and understand.
- Order your “chunked” training materials in a logical manner—one step that builds on top of another, or chronologically, etc.
- Try to use a “blended learning” approach that includes training in several different formats (computer-based, instructor-led, etc.).
- Try to integrate storytelling and scenarios into the training.

While creating materials, always should be kept in mind two primary concerns: (1) the things that will help trainees to learn most effectively and (2) the learning objectives.



## STEP 7: Pilot testing

**The pilot training models testing will be carried out by chosen HEIs in each partner country as part of the implementation of Intellectual Output 5 - Methodology of implementation of support services** into the HEI systems.

Pilot testing will be organized on a transnational level, mainly to test the training models developed towards raising awareness among university staff about the specific needs of students with disabilities.

Feedback from participants in the training will be analysed and used to improve the training model.



## STEP 8: Evaluation of results

Well-established criteria of training programme development are crucial to ensure the effectiveness, and most importantly, to reveal the real value of training programme. This



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method involves evaluating the effectiveness of your training at three different levels. Those three evaluations are:

**1. HEI’s staff actual learning:**


Assessments during the training should evaluate the HEI’ staff actual learning of the objectives. This might include simple tests for knowledge issues, question and answers session or case studies, job simulations, or hands-on exercises for skills and attitudes.

**2. HEI’s staff reaction to training:** Did HEI’s staff like the training? Did they feel like they learned? Was the content new? Was the content useful? This can be found out by observing the participants during training, asking their opinions, or handing out surveys. Printed surveys can be handed out after training (immediately after the training), but better results could be obtained if the survey is online and anonymous.

**3. Quantifiable results:** How many staff representatives have improved their awareness and skills in working with students with disabilities.

The evaluation and monitoring should be organized on the level of: HEIs, trainings and general impressions of the target group.

The evaluation templates will be developed jointly by the PP.

	<p style="text-align: center;"><b>STEP 9:</b> Revision and finalization of the training model</p>
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The General Awareness Training model will be revised and fine-tuned on the basis of the received feed-back and results evaluation.

Improved version of the training model will be presented by RAPIV and FIRR.



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Where necessary, final modifications will be made and the Final version of the training model will be presented for approval.

## CONCLUSIONS

The elaboration of innovative training models involves a process of their development, testing and validating. The gained know-how will provide (1) curriculum, training plans, collection and summary of the information about the topics covered and missing to improve awareness raising on disability; (2) educational systems comparison, analysis of results and (3) course design with particular learning outcomes, development of training content. Afterward they will be adapted to the specifics of each partner country and the needs of HEIs and will be tested as part of the intensive testing phase of project outputs within IO5. Finally, fine-tuning and finalization of the training curriculum for awareness raising will be made.

## Key concepts and definitions

Persons with disabilities	Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (Convention on the Rights of Persons with disabilities, Art. 1)
Disability Inclusion	The meaningful participation of persons with disabilities in all their diversity, the promotion of their rights and the consideration of disability related perspectives, in compliance with the Convention on the Rights of Person with Disabilities.
Accessibility	Ensuring that persons with disabilities have access on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communication technologies and systems, and to other facilities and services, open or provided to the public, both in urban and in rural areas (Convention, Art. 9)
Universal design	The design of products, environments, programmes and

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	services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. “Universal design” shall not exclude assistive devices for particular groups of persons with disabilities where this is needed (Convention, art. 2).
Discrimination on the basis of disability	Any distinction, exclusion or restriction on the basis of disability that has the purpose or effect of impairing or nullifying the recognition, enjoyment or exercise, on an equal basis with others, of all human rights and fundamental freedoms in the political, economic, social, cultural, civil or any field. It includes all forms of discrimination including denial of reasonable accommodation (Convention, art.2).
Reasonable accommodation	Necessary and appropriate modification and adjustments, not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms (Convention, art. 2)

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