

ACCESSIBLE TRAVEL SOLUTIONS FOR VISUALLY IMPAIRED PERSONs

METHODOLOGY



This project has been funded with support from the European Commission. This document and its contents reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Table of Contents

[1. EXECUTIVE SUMMARY 2](#_Toc41301360)

[2. INTRODUCTION ON THE ATSVIP PROJECT 3](#_Toc41301361)

[2.1 Overall Description of the Project 3](#_Toc41301362)

[2.2 Objectives 3](#_Toc41301363)

[2.3 Expected Results 4](#_Toc41301364)

[2.4. Envisioned activities 6](#_Toc41301365)

[2.5 The Partners 8](#_Toc41301366)

[3. SECONDARY GAP ASSESSMENT RESEARCH (DESK RESEARCH) 14](#_Toc41301367)

[3.1 Methodology (followed in each country) 14](#_Toc41301368)

[3.2 Country Profile: In terms of secure and barrier-free tourism for visually impaired people and accompanying persons’ perspective 15](#_Toc41301369)

[4. Primary Direct Gap Assessment research (field research) 27](#_Toc41301370)

[4.1. Methodology (followed in each country) 27](#_Toc41301371)

[4.2. Main findings of field research 29](#_Toc41301372)

[4.2.1 Main findings of field research out of the inquiries 29](#_Toc41301373)

[4.2.2. Main findings of field research out of semi structured interviews 33](#_Toc41301374)

[4.2.3. Main findings of field research out of the case study 38](#_Toc41301375)

[4.3. Recommendations for improvement (by the target group) 41](#_Toc41301376)

[5. Main documental findings review 46](#_Toc41301377)

[6. Main Stakeholders 60](#_Toc41301378)

[7. GENERAL CONCLUSIONS FOR EUROPE, BASED ON PRIMARY AND SECONDARY RESEARCH FINDINGS IN 3 PARTICULAR EUROPEAN COUNTRIES LOCATED IN THE EAST AND WEST OF EUROPE 71](#_Toc41301379)

[8. RECOMMANDATION FOR THE OER CONTENT 80](#_Toc41301380)

[BIBLIOGRAPHY 81](#_Toc41301381)

# 1. EXECUTIVE SUMMARY

The present methodology represents the first intellectual output of the Erasmus+ Strategic Partnerships for Adult Education project entitled **Accessible Travel Solutions For Visual Impaired Persons** (VIP), developed by a consortium of three partners from: North Macedonia - Lifelong Learning Network[[1]](#footnote-2), Spain - IT Solutions[[2]](#footnote-3) and Romania - Asociatia Babilon Travel Romania[[3]](#footnote-4).

The aim of this methodology is to study and compare accessibility and mobility services present in the three European countries, mainly focused on accessible tourism, and confront these findings with the needs of VIP. As a result, there is a set of recommendations made to related stakeholders regarding development and improvement of accessible travel solutions in general, with focus on those for visual impaired/blind people (VIP).

The methodology includes both field and desktop research with the purpose to create a framework for the second intellectual output: creation and implementation of an accessible open education resource (OER) platform for accessible, safe and secure traveling of VIP in North Macedonia, Romania, Spain and actually in the whole world.

The methodology has an innovative value by focusing on accessibility and safety issues during traveling of VIP. It is intended to be used by interested stakeholders like VIP, accompanying persons, non-profit organizations, educators, public institutions and the business sector to develop appropriate activities, projects and strategies meant to promote and sustain mobility and safe accessible traveling of VIP on local, national and international level.

Starting from the assessment of the situation in the partner countries (North Macedonia, Spain and Romania) and in Europe in general, the overall conclusion of the present study is that there are obvious differences regarding accessible tourism in different parts of our continent.

Western countries (including Spain, one of the top tourist destinations worldwide) are much more advanced, creating the context of accessibility and mobility for disabled people and also developing dedicated tourist packages and opportunities for them.

On the other hand, in many Eastern European countries, including here North Macedonia and Romania, most of the relevant stakeholders (tourist/travel agencies, tourist information centers, tourist service providers) not even heard/though about accessible tourism. These countries need to become much more aware about this concept and try to follow the footsteps of their western peers.

# 2. INTRODUCTION ON THE ATSVIP PROJECT

## 2.1 Overall Description of the Project

Travel by people with disabilities, also known as “disabled travel” or “accessible travel,” is on the rise. The travel industry is waking up to the special needs of travelers with disabilities by providing more services and greater accommodation. Meanwhile, the sheer abundance of information on accessible travel is astounding — much of it generated by travelers with disabilities themselves.

The European with Disabilities Act guarantees that travelers with disabilities receive equal treatment under the law. While this would be the case in a perfect world, it doesn’t always work out that way in real life, especially in foreign countries where accessibility regulations vary widely. Despite having common sense, considerable public sentiment and strength in numbers, travelers with disabilities frequently face inadequate facilities, prejudice, misinformation, general hassles and higher prices than other travelers.

World Health Organization estimates 285 million people to be visually impaired worldwide. Out of which 39 million are blind and 246 have low vision. However, they are not travelling at the same rate as people without disabilities and the public, stakeholders and the government have the right to address the difficulties and create an environment for the visually impaired travelers.

People with vision impairments have the right to participate fully in the community and enjoy the same quality of life as people without disabilities. However, they are not travelling at the same rate as people without disabilities. The reasons for such low participation rates are not yet clear. But one of the reasons could be the difficulty and sometimes harrowing nightmare to travel in unfamiliar.

Although they are a minority, they also deserve the same recognition as everyone else and to consider it as our social responsibility to create awareness among the public about the difficulties the visually disabled face in general and then help to increase the independence level among them. This is possible only when the experiences of such travelers are identified and addressed properly. About 90% of the world's visually impaired live in developing countries and 82% of people living with blindness are aged 50 and above. In Malaysia, the recent statistics produced by the Department of Social Welfare in 2010, shows that the total number of blind/visually impaired people who have registered has increased from 26,155 in 2009 to 27,582 in 2010 and has been steadily increasing over the last few years.

## 2.2 Objectives

Main project objective is trough development of barrier-free tourism OER and cross-traffic navigation solutions, to make traveling accessible and safety for blind and visually impaired people, the AST for VIP project aim is to improve the mobility and quality of life of these people all around Europe.

Project specific objectives:

* Using innovative approaches for access for safety and security traveling for visually impaired;
* Improve the level of key competences and skills, with particular regard to relevance for adult persons with visually impaired and their contribution to a cohesive society, in particular through increased opportunities for learning and through strengthened cooperation between the world of non-formal education, traveling and training;
* Identifying ways to implement innovative non formal teaching and learning methods to respond to the needs of adult persons with visual problems during traveling;
* Developing actions to facilitate inter-generational transfer of knowledge;
* Describing the ways in which assessment methodologies and procedures can embed all forms of learning, and facilitate the validation of skills and competences acquired prior to safety traveling;
* Enhance the international dimension of non-formal education and training, in particular through cooperation between Program Country institutions;
* Planning the progressive roll-out of project deliverables leading to systemic impact.

## 2.3 Expected Results

During the project lifetime there are expected the following results and outcomes:

* Innovative approaches for addressing adult with visually impaired target group, by providing more attractive non formal education and training programs, in line with individual needs and expectations;
* Support the capacity building of adult persons with visual impairment;
* Use of participatory approaches and ICT-based methodologies;
* Greater effectiveness of activities for the benefit of local communities, and Europe;
* New or improved practices to cater for the needs of disadvantaged groups and to deal with differences in learning outcomes linked to the geographical and socio-economic disparities;
* Integrated good practices and new methods into daily activities;
* Strategic planning of professional development for staff in line with individual needs and organizational objectives;
* Reinforced cooperation with partners from other countries, other fields of non-formal education, safety in traveling, training and other socio-economic sectors;
* Greater understanding and responsiveness to social diversity;
* More active participation in society;
* Improved competences, linked to professional profiles (teaching, training, youth work, etc.);
* Better understanding of practices, policies and systems in non-formal education, training of adults across countries;
* Increased motivation and satisfaction in living, traveling for visually impaired;
* Foster the inclusion of persons with disabilities.

Based on the initial analyses in the pre-application period, the project team has concluded that a similar project dealing with the issue about accessible traveling for visually impaired persons, creating OER about this topic, as well as making OER accessible for persons with disabilities (visually impaired), with included text-to speech program, does not exist.

During all these studies that we have done before applying this project, our team was not able to find innovative methodology, prepare non formal education strategy for traveling for VIP, as well OER relevant with this topic but accessible for persons with visual problems.

Unlike other projects we have carried out so far or have heard of, this projects' outputs will be tangible, open and transparent, covering a broad range of topics, available to all people that are interested in traveling, with biggest accent to visually impaired persons. Furthermore, this project will systematically support on-line collaboration on European educational platform, OER (open educational resource), something that does not exist all over the Europe, it is innovative enough, because there will be opportunity for all of the people working in this area to gain there knowledge, to learn new things, to develop new skill.

Starting from the above assumptions, the ATSVIP project creates three intellectual outputs:

(1) The first intellectual output includes field and desktop research with the purpose to create a framework for intellectual output 2 (creation and implementation of an accessible OER). The framework will be published as a publication in four languages (English, Macedonian, Spanish and Romanian) and also in a peer-reviewed journal (considering the time needed for publication in peer-reviewed journals, this paper is expected to be published before the project ends and promoted during the multiplier events).

Its innovative value is the focus on accessibility and safety issues during traveling for VIP. The suitability for this framework to be used by other interested stakeholders (NGO, public institutions, business sector) that do not use nothing to ensure safety and accessible traveling for VIP or are interested in making their accessible adds to the impact and transfer ability potential.

(2) The second intellectual output is based on the content created by the first output and will develop an Open Education Resource platform. The platform contains information about accessibility, safety and security during traveling in Macedonia, Spain and Romania.

The consortium of partners is ensuring accessibility of program, specifically around common language and understanding of technical terms and translation into partners languages, so that this platform could be reusable by other participant organizations and other relevant to project topic institutions. On the web portal of the project an e-learning area will be created, partner institution from Spain will be in charge of creating the e-learning platform by adapting the contents to the platform aims.

The learning modules will be inserting in the e-learning platform with a guide on how to insert the activities related to the project.

All adult visually impaired persons from Macedonia, Romania and Spain, including the wider population and other relevant stakeholders from partner countries, during short staff training Course, will learn how to use the platform and various aspect of the topic of the project. Then will experiment the platform and learning modules in their work/daily activities.

(3) The third intellectual output refers to public awareness campaigns for accessibility, safety and security during traveling for visually impaired persons. With this output the consortium will work on developing many activities on public awareness campaigns for accessibility, safety and security during traveling for visually impaired persons in 3 countries, Macedonia, Spain and Romania.

Videos well be recorded and will distribute all activities for raising public awareness on internet (on our OER platform). We will involve all relevant to the topic stakeholders to take a part in our campaign and to help us to share our idea in Europe.

A successful awareness campaign is a multifaceted effort - a team of professionals should use different avenues to increase awareness of different audiences. Several strategies are effective in an awareness campaign.

The following activities are developed for this output:

* Record video interviews with influences in different network for visually impaired adults, who travel to the world alone (explaining their experience, needs and obstacles). Making a viral challenge video related to the project topic;
* Publish Press Releases in local and regional (European) news outlets, preparing promotion videos, audio materials, flyers etc.;
* Create a video case for support. (positive example of VIP who travel alone);
* Including capital campaign in community outreach;
* Host Live Events in Spain, Macedonia and Romania, discussion with visual impairments persons with relevant stakeholders who can help them handle with all obstacles during they are traveling alone;
* We will run a CONTEST, about best visually impaired story teller, related to traveling experience alone;
* Organizing A traveling exhibition of Through Darkness to Light, when we will present all the content created with our OER.

## 2.4. Envisioned activities

In order to achieve its goals and outcomes the project has three types of activities:

(1) Trans-national project meetings

There are three such activities:

1. Kick off Meeting (Location: Tetovo, North Macedonia)

The first work meeting addresses the following issues:

* Introduction of the partners;
* Establishing the available contracts with the national agencies;
* Establishing ways for maintaining good and fruitful communication;
* Allocation of responsibilities and tasks among the partners;
* Setting the criteria for selection of the participants for the short mobility events and for the blended mobility of learners
* Discussion of the pre-set outcomes;
* Discussion of the system for monitoring the project;
* Discussion of the types of documents and tools for implementing the monitoring;
* Discussion of the final products of the partnership;
* Discussion and adoption of the rules of the partnership by all partners;
* Discussion of the plan for the dissemination of the outcomes and the final products.

1. During the second and third trans-national meetings, in Malaga, Spain and Cluj-Napoca, Romania the consortium of partners plans to discuss the following:

* Presentations and discussions of the implemented activities (intellectual outputs, multiplier events and the learning/teaching/training activity;
* How monitoring and evaluation were performed;
* Discussions of future activities;
* Discussions on the correspondence between plan and implementation: did the implementation go according to plan, what changes had to be made, what were the reasons for the changes, will that change show quantitative and qualitative results;
* Monitoring of the working environment and the educational process;
* Presentation of the educational system of the hosting country;
* Evaluation of the organization and the efficiency of each work meeting.

(2) Learning/Teaching/Training Activity

ATSVIP foresees one learning/teaching/training activity consisting of a training course for visually impaired and non-visually impaired youth workers, regarding an introduction to the OER platform for accessible, safety and secure traveling of visually impaired persons.

The trainers will possess all the necessary skills for a successful training.

This short-term activity will allow the project partners to verify the material produced, to directly involve beneficiaries, and indirectly other stakeholders.

The training activity and the follow up activities that will emerge are one of the best ways to disseminate the project, involving directly visually impaired adults.

The training courses will last 4 days at the end of which learners will be involved in the dissemination activities in the local area. Each partner country will contribute with 3 participants (visually impaired) and 3 accompanying persons to help them for facilitation, mobility and orientation during the training course activities.

The training will be oriented towards introduction to eLearning tools, platforms and instructional models; possibility for migration of eLearning courseware from a current system to a new OER; strategic planning for accessible e-learning; defining best OER option for accessible eLearning etc. Participants will be able to visit relevant to the topic and related to their professional interest institutions during the training.

(3) Multiplier Events

Each of the three partners of the consortium will organize a local multiplier event - a conference in order to disseminate the results of the project and its intellectual outputs.

Therefore, it will be presentation of the project and the benefits of its implementation on the European and local level. The preparation of the event will include planning for the event location, room, facilities and social event will also be made. The host organizations will set up a strategy to promote this event using existing channels (such as the project website, partner organization websites, mailing lists) and social media (i.e. Facebook, Twitter, LinkedIn).

In order to further boost participation in the conference, a ‘virtual stand’ will be supported that will offer interested parties the opportunity to participate online, to communicate their ideas and to interact with other people that have related interests.

## 2.5 The Partners

The approach in choosing the project partners was based on:

* Previous experience in similar projects;
* Institutions working in the area of persons with disabilities (especially visual impairment persons);
* General project management experience and
* Experience in creating Open Educational Resource, such as platforms.

In choosing the partners, we were insisting on fulfilling at least two of the above-mentioned criteria. Additionally, we took into the consideration partners that already have an experience in professional cooperation.

The project partners are chosen on the basis of the quality of their education process and capacities for offering cutting-edge knowledge and competences.

Thanks to the heterogeneous composition of the partners and their different experiences and value propositions in the fields of IT and disabilities, synergies were created, and existing resources were used more effectively and purposefully. In particular, the coordinated and faster approach of lecturers-mentors and the increase in the knowledge base within the project support structure, due to the heterogeneous specialist focus of the partners, will stimulate each other and create more efficient offers.

The consortium consists of three partners:

1. **Mreza za Dozivotno Ucenje North Macedonia (project coordinator)[[4]](#footnote-5)**

Mreza za Dozivotno Ucenje (Lifelong Learning Network - LLN) is the project coordinator and is the main responsible for the third intellectual output, for the learning/teaching/training activity and for one of the local multiplier events.

Lifelong Learning Network (LLN) is a national association of stakeholders, organizations and institutions, for the development of adult education and lifelong learning.

LLN was established in 2012, and in the course of its work, it has carried out several projects and researches.

The network works more at the policy level, but at the same time provides support to its member organizations and associates, especially in the area of program verification at the Center for Adult Education and the Ministry of Education.

During 2018, LLN had been working on several projects, such as projects related to vocational education and training, rural development, support for impaired persons (especially visually impaired youth) and other activities.

During the implementation of the activities, LLN provided expertise or addressed the challenges of lifelong learning.

LLN cooperates with several networks active at European level in order to exchange knowledge and experiences, and apply them in Macedonia.

LLN’s Vision: Macedonia, economically developed country with educated and employed people. LLN’s Mission: Strengthening the capacities of service providers for adult and youth education, as well as inclusive education and sustainable development programs appropriate to the needs of the labor market for local economic development and reduce unemployment.

Aims of the organization:

* Development and promotion of adult, youth and inclusive education;
* Reduce Unemployment in the Republic of North Macedonia;
* Support structures, organizations and institutions for sustainable adult, youth and inclusive education.

LLN strives to reduce conflicts among young people by including young people from different ethnic minorities in different program activities of the organization. LLN has been part of several Erasmus + projects and funded projects by other donors, either as a partner or associate. Topics addressed development of the national youth strategy, capacity building for local youth organization, student ombudsman and other related activities. As a part of the working group for drafting law for youth, the LLN staff members and representatives were actively involved in preparation of the provision of the law, research and analyses. In the same time LLN works on the topics like social inclusion (how to include children with disabilities in sport and non-formal education) and refuges (more inclusive, more tolerant and respecting human rights towards refugees).

Research on providers of Adult Education – So far, LLN has conducted two researches on providers of adult education. The first research was conducted in 2011 and it resulted with analysis report that served as a base for future researches. The results of this research provided an insight of the condition of the offer of non-formal education and education of adults in Macedonia. This was the first research of this kind in Macedonia and LLN continued its practice in the following years.

Project: Sport is my freedom - The project “Sport is my freedom” aims at promoting and undertaking preventive actions towards social unrest, by sustaining a closer relationship between physical activity and disability and therefore pursuing the necessary sensitivity and care towards integration and solidarity. LLN was associate partner in this project called Project VIP Culture: The goal of this project is to gather young people from different countries and to promote what can be found in common, so they can find similarities among them and feel as one. The main aim of this project is to involve young people with fewer opportunities (blind and partially sighted) into process of inter cultural learning on different music, clothes, tradition, culture and food.

With this project it is intended to fill the void between the countries and learn more about the similarities and the differences between our cultures.

This project is exploring cultural diversity and inclusion through material heritage such as folk music, songs, traditional clothes and foods. It tends to offer young people a multicultural environment in which they can live and work together, and also explore the music, tradition, foods, traditional clothes, cultures of each of the countries involved. Thus, multiculturalism and cultural diversity are central elements of this youth exchange.

Project Skills for better future – LLN’s and Community Development Institute’s TC “Skills for better future” was intended to inspire young people including the one with disability to develop competences and soft skills required by the labor market and traditionally not offered by formal education institutions, with the aim of achieving higher Youth Employment rates. Moreover, we intended to endorse the recognition of the competences with tools such as the youth pass and thus promote their better use and targeting in finding a job. Our TC was held in Tetovo, Macedonia between the 10 and 17 April 2014, and brought together 30 motivated youth workers and youth leaders from 5 SEE and 5 EU countries. The implemented activities and applied methods: non-formal education methods, where the participants in the diverse working moments were actively involved, sharing opinions, cooperating among themselves, learning from each other and ultimately conceiving project ideas together.

Last project activity for LLN was a project supported by Erasmus+ program KA 105 “Culture for all” common project between the youth persons from Macedonia, Poland and Turkey.

The aim of the project was to promote idea of integration into society and culture young people visually impaired. Visually impaired persons motivate the other participants to believe in themselves, raise their self-esteem, overcome their fears, discrimination, raise their awareness and become more open towards others.

During the project LLN organized workshops, activities, show multimedia presentations and arranged events promoting the idea of integration, inclusion, diversity and cultural heritage. All the activities were designed with care, taking into consideration active participation of the youth, and the need and possibilities of visually impaired persons.

1. **IT Solutions for All Spain[[5]](#footnote-6)**

IT Solutions for All is responsible for the second intellectual output and for one of the local multiplier events/

IT Solutions for All is a non-profit organization based in Malaga, Spain, that seeks promoting training on ICT technologies (Information and Communication Technologies) for low-skilled people in order to empower them and let them function comfortably in the technological world in which we live.

IT Solutions for All wants to spread a genuine love towards new technologies and Internet, as a way to improve the quality and lifestyle of any person.

IT Solutions for All‘s mission is to provide free technological consulting services and integral solutions in the field of information, communication and management tools to disadvantaged people in order to boost basic IT knowledge in modern technical environments.

IT Solutions for All’s vision is achieving short-term sustainable impacts in the fields of Digital Skills and IT solutions, with efficient management of resources, active community participation and the involvement of public institutions.

In Malaga, IT Solutions for All carries out different activities to convey the idea of improving quality of lifestyle by using ICT resources.

IT Solutions for All aims at creating equality in the correct use of new technologies and Internet. In this sense, we develop different online and face-to-face courses, so that anyone can learn in a very simple way the basic concepts that any type of computer device requires.

Our user is any person who is not familiar with the benefits offered by IT skills used in our digital world. We strongly believe that any person has the same right to receive adequate training and know how to take advantage of IT resources.

**(3) Asociatia Babilon Travel Romania[[6]](#footnote-7)**

Asociatia Babilon Travel (ABT) is responsible for the first intellectual output and for one of the local multiplier events.

Asociatia Babilon Travel's main mission is to promote inclusion, intercultural dialog, adaptive sports as instruments of inclusion, active European citizenship among young disabled people and young people with fewer opportunities. It also promotes sustainable tourism, rural tourism, ecotourism, traditions and handicrafts of Romania with focus on the region of Transylvania and the city of Cluj-Napoca, developing tourist tracks suitable for disabled young people. It also organizes sport and outdoor activities that help young disabled people to better integrate in the local, national and international community.

In their programs, ABT trains youth workers, youth leaders, teachers, educators and volunteers, to be capable to involve people with disabilities in various activities, including educational, sport, indoor and outdoor activities. ABT also trains volunteers to accompany groups of people with disabilities, especially visually impaired, along adapted tourist tracks, that are documented with accessible tourist guides in Braille and large fonts and audio guides. ABT staff provides training, consultancy and advice to those interested in methods and tools of non-formal education, intercultural learning, various forms of inclusion, inclusive and adaptive sports, as tools for inclusion, tourism, rural tourism and conservation, traditions, crafts, gastronomy and related areas.

In its work, ABT is widely supported by the local strategic partners: The High School for Visually Impaired Cluj-Napoca (LSDV), The Tourist Information Center of the City Hall (Cluj-Napoca), The National Association of Blind and Visually Impaired Romania and The Ethnographic Museum of Transylvania.

The main programs ABT is working on, since it was founded (2013), are focused on social inclusion. ABT develops, on local, national and European level, accessible tourist tracks for young people with disabilities, especially those visually impaired/blind (VI). It has in- and outdoor activities and special sport programs, dedicated to mixed groups of VI and non-VI, where sport is used as a tool for inclusion.

Early 2016, due to the immigrants' challenge in Europe, ABT started a program for social inclusion of immigrants in the local hosting communities.

ABT acts as a sending organization especially for its staff, volunteers and staff of its strategic partners, to trainings and events, on national and international level, related to non-formal education (NFE), inclusion, sport, entrepreneurship, intercultural learning, information and communication technologies (ICT) and social media platforms.

For these and for future projects and programs, ABT has built international partnerships and constantly expands its experience and knowledge in NFE methods and tools focused on disabled young people. In its projects, ABT is widely using NFE, ICT and social media platforms for communication, promotion and visibility.

# 3. SECONDARY GAP ASSESSMENT RESEARCH (DESK RESEARCH)

## 3.1 Methodology (followed in each country)

Starting from a common template for the secondary gap assessment research, agreed by all partners, there were some differences in the practical approach of each country. Each of the three partners adapted its own methodology to the local situation regarding visually impaired / blind people (VIP) and the development of inclusive and adapted tourism services.

**North Macedonia**

The used methodology for the desk research was based on online search of web sites, documents, policies, laws and everything that can be found via the Google search engine, aiming to reflect the situation in regards of traveling of the disabled people, especially people with visual impairment or blind people (VIP).

During the desk research, the Macedonian partner contacted VIP, collaborators with expertise in the field and relevant organizations, so that outcomes can be directed towards the proper and valuable content on Internet relevant for the topic.

The team considered as relevant firstly the VIP itself, the creators of policies in the state, transport providers, organizations working in this field and everything that exist as strategy, document, studies and activities related to the traveling of VIP.

**Romania**

The desk research activity started with a large computer study using the Google search engine. Institutions and individuals were sought on the one hand, activities and results on the other hand, that are for the benefit of the visually impaired people (VIP), in their quest to travel safely and as much as possible not accompanied. The initial skepticism stemming from the fear of not finding enough initiatives from stakeholders to target the mobility of VIP has been replaced in a very short time by a general enthusiasm. There are numerous initiatives, activities and projects aimed at improving VIP life, which, of course, are not all about mobility, many of them aiming at improving the quality of life. However, regarding the mobility of VIP and the accessibility by means of transport, the Romanian team had the pleasure of identifying non-governmental organizations with an intense, sustained and consistent preoccupation towards VIP, which has been producing very good and measurable results for several years.

The Romanian desk research also benefited from the information and suggestions of the interviewed persons, blind or visually impaired, who are direct beneficiaries of the services offered by the stakeholders we intended to include in our study, which made it easy to establish a direct connection with them.

The research included the results of the study on the Internet, with a number of 3 stakeholders who, in the Romanian team’s opinion, made a considerable contribution to VIP mobility and the possibility for them to live and travel independently. Their example is one that should be replicated in Romania and also worthy to be followed on international level.

**Spain**

The methodology followed for the desk research phase was meant to compile and summarize all the legislation relating to accessibility and the rights of people with disabilities because laws and standards are the main pillars on which accessibility is structured in Spain. The laws define the minimum measures that must be adopted both in transport and in accommodation or goods of tourist interest.

The Spanish team has also compiled a series of statistics that show the importance of tourism in Spain as a driving force for the economy and the responsibility that Spain has as a world tourist power to set an example of sustainable tourism.

Together with this the team has cited and analyzed important studies relating mainly to how people with disabilities perceive tourism and accessibility in Spain and the importance of people with disabilities as a group, for which tour operators should pay proper attention.

## 3.2 Country Profile: In terms of secure and barrier-free tourism for visually impaired people and accompanying persons’ perspective

**North Macedonia**

VIP citizens in the Republic of North Macedonia are organized within the national disability organization - the National Union of the Blind of the Republic of North Macedonia.

The basic strategic document that unites the measures and activities aimed at improving the level of social inclusion of these categories of citizens (as part of the wider vulnerable group - people with special needs) is the National Strategy for Equalization of the Rights of Persons with Disabilities (revised) 2010 -2018[[7]](#footnote-8).

The Constitution defines the Republic of North Macedonia as a welfare state, built on humanism, social justice and solidarity. Article 35 states: "The Republic shall take care of the social protection and social security of its citizens in accordance with the principle of social justice." In addition, the Republic guarantees the right to assistance to the disabled and incapable of working citizens and provides special protection for persons with disabilities and conditions for their inclusion in social life (Article 35 paragraph 3). This article implies that given the specificity of persons with disabilities, special measures are needed, ie affirmative action to achieve formal equality, which is a constitutionally guaranteed category.

Within the country, there are two coordinating bodies related to the implementation of policies for persons with disabilities: the National Coordinating Body for Equal Rights of Persons with Disabilities and the National Coordinating Body for the Implementation of the UN Convention on the Rights of Persons with Disabilities in the Republic of North Macedonia[[8]](#footnote-9).

Provided measures for facilitation of traveling for visually impaired people:

1. Bus transport:

There are voice instructions of departure and arrival time of the buses on the bus stations. There are information desks, which provide information for passengers located in the terminal bus buildings.

VIP traveling in intercity traffic:

* The blind person and his / her companion have the right to travel free of charge on the basis of Article 33, paragraph 4 of the Law on Amending the Law on Road Transport;
* Blind persons with visual impairment over 90% with residence in the Republic of North Macedonia, as well as their companions, have the right under the conditions determined in the Law on Road Transport on free travel in the internal transport of passengers;
* In the domestic transport of passengers, the blind person with visual impairment over 90% and his companion have the right to a maximum of six trips without compensation during one calendar year;
* One trip in the internal transport of passengers is considered to be departure from the starting point, to the place of departure (outgoing ride) and return from the place of departure to the starting point (return ride). When driving in departure and return, the means of transport of the carrier in intercity bus transport can be used from the starting point to the place of destination and vice versa in the internal transport of passengers;
* If the blind person's companion is another blind person, he / she has no right to travel without compensation as a companion;
* The blind person and his companion exercise the right to drive without compensation on the basis of the booklet for free driving of blind people. The book for free driving of the blind also contains an announcement for free driving of the companion of the blind person, which is an integral part of the booklet;
* The card for free driving of the blind is printed by the National Union of the Blind of Macedonia and issued by a competent organization-association member of the National Union of the Blind working in the area where the VIP lives, to provide the card to the VIP[[9]](#footnote-10).

1. Train transport:

There are voice instructions of departure and arrival time of the trains on the train stations. There are information desks which provide information for passengers.

The right of VIPs and their companions to free transport in the internal railway transport of passengers:

* Blind persons with visibility up to 10% with residence in the Republic of North Macedonia are entitled to preferential transport for six trips per year, as follows: 75% of the regular transport price in the railway and emergency traffic and 50% of the regular transport price in the air traffic. A blind person is entitled to a companion. The companion of the blind person has the right to free driving in the railway and in the road traffic and at 50% discount in the air traffic in all cases when the blind person accompanies him, he uses the privilege in the road traffic, but also when he travels on the blind person and when returning joining the blind person;
* One trip is considered to be departure from the place of departure to the place of destination (outbound driving) and return from the place of destination to the place of departure (return trip). When driving in departure and return, from the starting point to the place of destination and vice versa, means of transport can be used on all traffic branches (railway, bus and plane);
* The blind person has the right to use the first class of all types of trains and the business class on the plane when using the preferential driving. The companion of the blind person uses the same class and means of transport used by the blind person, on which the blind person is entitled;
* The card for preferential driving of the blind is printed by the National Union of the Blind of the Republic of North Macedonia and issued by the competent organization-association of the blind members of the Association in whose territory the blind person lives, based on the evidence of the medical commission for blindness[[10]](#footnote-11).

1. Air transport:

The Special Assistance Service is part of Passenger Handling Department and they provide services for the disabled and persons with reduced mobility at "Skopje International Airport".

According to EU Directive (EC) 1107/2006, the Airport is responsible for assisting passenger with reduced mobility (PRM).

The counter where people can ask for this free of charge service is located inside the terminal building next to the Information Desk. Passenger with reduced mobility (PRM) means any person whose mobility is reduced due to physical incapacity (sensor or locomotor), intellectual deficiency, age, illness or other cause of disability.

For any other question, that does not require immediate response, or people have any other complaint or compliment, they can be send by e-mail provided on the airport web site. Customer Relations Department, and airport staff will respond accordingly as soon as possible[[11]](#footnote-12).

1. Parking for VIP:

The Public Enterprise "City Parking" - Skopje, in accordance with the legal provisions, provides persons with special needs with preferential terms for the use of parking services.

All blind and partially sighted persons (residents of the City of Skopje) interested in receiving preferential parking services should personally submit duly completed requests or to fill the requests in the office of PE "City Parking" – Skopje[[12]](#footnote-13).

**Romania**

At this moment, we can state that in Romania there is no targeted tourism for the VIP; consequently, no tourism studies and statistics with reference to VIP are available. Inquiries to travel agencies have shown that there are no package tours tailored to the needs of blind. What in other countries exists under the name of accessible tourism or inclusive tourism is not a reality present in Romania. Although airports/air transport have largely complied with European VIP accessibility requirements, not the same can be said about train or bus transport, and especially not for hotels and restaurants. In Cluj-Napoca, the city of residence of Asociatia Babilon Travel, public transport has undergone a very favorable evolution in general, and beneficial for people with visual impairment in particular (speaking busses, audio traffic lights and tactile carpets), still we can consider that this is just an exception and a good example to follow for Romania, but the other cities, including the capital city, Bucharest, still have many steps to do in order to make public transport VIP accessible.

We consider that the main cause of this precarious state of affairs is related to the fact that the legislation supporting the rights and implicitly the mobility of visually impaired persons, as well as the accessibility of the infrastructure for VIP, is only on a theoretical level, without making the law provisions obligatory, so, unfortunately, the enforcement of those rules is an issue.

**Spain**

Out of the three partner countries, Spain is the only one that developed a strong and sustainable tourism for disabled people. Spain, being one of the major actors of worldwide tourism industry, developed studies regarding statistical findings for disabled travelers.

The Observatorio de Accesibilidad del Turismo en España (Fundación Once)[[13]](#footnote-14) analyses the travel experience and the level of accessibility of Spanish tourist destinations by surveying 558 participants divided into two groups:

* Tourists with special needs (412) who can condition the development of tourist activities (disabled and over 60 years old) and accompanying persons;
* Tourists without special needs. (131).

It is important to highlight that there is no statistically significant difference between the number of trips made in the last two years by persons with some disability or special needs (7 trips on average) and persons without special needs (8 trips on average), which points to a first conclusion:

**Persons with disabilities or special needs travel practically as frequently as persons without special needs.**

Although the main conclusions of the survey refer to disabled people in general, these can be extrapolated to the special group of VIP:

* 86% travelled for vacation and leisure;
* 96% travelled with an accompanying person.

The preferred destinations:

* Sun and beach;
* Artistic-cultural;
* Nature.

Regarding the way of organizing the trip and the means used to book transport and accommodation:

* 70% did so through the Internet (which rises to 8 out of 10 among those without special needs);
* 19% by travel agencies or through some association or organized groups;
* 10% of people with special needs asked someone else to organize and book the trip.

It is worth mentioning at this point the importance that users generally place on organizing the trip, consulting the opinions of other travelers in forums and search engines, and following the recommendations of friends and family.

For 43% of the VIP the most used means of transport is the train. It is the preferred means of travel above the plane, because of its speed, shorter waits and arrival in the city center.

In general, all available local means of transport such as metro, bus and suburban trains are used for travel to the destination, although there are restrictions on the use of taxis among VIP, who are somewhat worry of using this means of transport because of the possibility of being cheated, feeling vulnerable due to their visual limitations and not being able to detect deception during travel.

Regarding accommodation at the destination:

* 66% of the disabled tourists choose a hotel;
* 34% preferred to stay in private accommodation or with a friend or family member.

The selection of these accommodations is mainly based on:

* Economic reasons - 47%
* Comfort - 46%;
* Quality - 31%;
* Location - 27%;
* Accessibility and adaptation - 18%.

The average expenditure per person amounts to 813.65 Euros, compared to 637.60 Euros for tourists without special needs. Tourists with disabilities or special needs spent on average 28% more on their last trip than those without any limitations.

Concerning expenditure, and the statement "making use of accessible tourist accommodation or services implies an extra cost or expense", there is a moderate degree of agreement of 63.3%. This figure is significantly lower among tourists without special needs, which confirms this perception among those who do have special needs of having to make a greater outlay to ensure a greater degree of accessibility in tourist accommodation and services.

Tourists with special needs consider, on a scale from 0 to10:

* Transportation and accommodations to be the only aspects of their experience on the last trip that reaches a moderate level of accessibility - 7.5;
* Shops and stores - 5.8;
* Infrastructure and public services - 5.9;
* Tourist offices and tourist information channels at the destination - 6.0;
* Tourist excursions - 6.0;
* Museums and tourist attractions - 6.4;
* Information search and booking channels - 6.3;
* Restaurants, bars and cafes - 6.1.

It should be noted that those who responded to the survey are people who travel, especially to known and recommended destinations (as they have fewer accessibility barriers), which means that the scores are not as negative as might be expected. The very fact of travelling to known and recommended destinations implies that they are destinations that are better valued by users in their accessibility conditions than others are, that are not recommended. Moreover, the very fact of being people who travel already speaks of people who are used to overcoming certain barriers when they travel and being more benevolent in their scores.

Among VIP tourists, a lower value is given to the accessibility of tourist offices, shops and stores, and search and reservation channels.

Among difficulties mentioned by VIP, regarding tourism and travel:

* Online transport and accommodation booking pages present serious accessibility problems, which means that this user profile is very limited to making the purchase independently. These users also mention that when buying airline tickets, especially in low-cost companies, the additional services and advertising offered during the purchase process make it even more difficult to book tickets. In the end, the alternative to these difficulties and barriers is to ask for help from people close to them in their environment or to go to travel agencies to carry out the entire process;
* Local buses at destinations often present two main problems: Among visually impaired users to identify the bus number and for blind users because of the difficulty of having to stop all the buses that pass by the stop, because sometimes if the drivers do not identify that they are blind people they do not stop on their initiative. Once inside, if there is no voice information system, the difficulty lies in identifying the stop where to get off, a problem that does not usually occur so much in the metro or train, in which case the difficulty may lie in the volume or ambient noise to hear the message;
* Regarding trains, there is usually a particularly large distance between the car and the platform, which creates certain insecurity for blind people because of the danger involved in accessing them;
* The PRM service provided in airports seems to be more satisfactory than that of train stations, with the absence of this service in seaports being particularly noteworthy. However, in this service in airports, the inconvenience seems to be the forced wait after check-in until boarding, without the possibility of being able to move around the airport and its shops like the rest of the passengers.
* Accommodation with the most accessibility problems seems to be the rural houses, as they are in themselves in less accessible natural environments: "Rural tourism is less adapted, it is in the first phase" (Tourists with visual impairment). Although the hotels are more adapted than the rural lodgings according to the users with a visual disability, these perceive those adaptations more focused on people with reduced mobility or in wheelchairs. They find special problems in the restaurant buffets of the accommodations, where the posters of the meals are not accessible. In larger hotels, it is generally more complicated than in smaller ones, wherewith a more personal treatment, an assistant from the establishment helps to guide them through the buffet;
* In restaurants, the main barrier for visually impaired users is in the menus, which are usually not adapted, neither in Braille, nor with contrasts or large fonts. However, the staff of the establishment usually helps to read the menu;
* Regarding destination environments, VIP detect accessibility problems in the signage of tourist destinations in general, both in establishments and in the streets of the cities.

As far as the satisfaction of tourists with special needs is concerned, considering the whole experience of their last trip, the overall satisfaction is 7.6, on a scale from 0 to 10, which reveals a positive result with a moderate level of satisfaction. However, if we analyze the level of satisfaction achieved individually, among the aspects evaluated, the only one that reaches an adequate level of satisfaction is the treatment of clients, with a 7.6 average.

At the other end of the ranking, with a suspended satisfaction level, are the existence of accessible signage (homogeneous in all facilities, and with a size and contrast suitable for reading) and information in alternative formats such as Braille, audio description, referring to menus, description of services, guides, brochures, etc., with scores below 5. In an intermediate position in the ranking, but with medium-low levels of satisfaction (between 5 and 6), is the information available on the accessibility of the destination and the tourist resources, the existence of adapted toilets and bathrooms, the existence of specific adapted spaces (hotel rooms, halls, auditoriums) and the (accessible) website of the establishment/service.

The most important aspect for the users, the adequate treatment and attention, is, in turn, the aspect with the highest levels of satisfaction among the tourists participating in the study, which is in itself a positive result. The treatment of the personnel in the establishments, with a certain sensitivity towards disability, is considered as one of the levers for user satisfaction since, in the absence of adequate conditions of accessibility, it can overcome certain barriers found and solve some incidents.

Despite the shortcomings in accessibility conditions, tourists with special needs also recognize important advances and improvements in different links of the travel chain and their tourist experience.

In transport, for example, the accessibility of public transport in Spain is highly valued, especially the underground in some cities such as Madrid. Even so, improvements are identified that have been observed to exist in other countries or communities, such as including public toilets or lifts in all metro stations.

In museums and other points of tourist interest, users recognize certain privileges for people with disabilities, with very positive consideration being given to the ease of access without queuing at points of interest, economic advantages with free or discounted tickets, or free access for the accompanying person.

During the study conducted by Observatorio de Accesibilidad del Turismo en España there were also 458 interviews with tourist service providers of all kinds.

These interviews with tourist service providers revealed that:

* 77% declare to know the legislation on accessibility that applies to their business or establishment;
* 23% say they do not know it. This percentage is high and implies a wide knowledge of the legislation by tourism managers if this self-perception of their knowledge is real.
* 56% confirm that their establishment or service has incorporated an explicit policy, commitment or procedure regarding people with disabilities. Of these, 53% claim to have established an accessibility plan;
* 11% of suppliers claim that their establishment or service has some kind of accessibility certification or mark. Of these:
* 44% seems to have an accessibility label granted by a city council;
* 35% have accessibility labels granted by a private entity
* 9% endorse the UNE 170001 certification;
* 4% possess the WCAG web content accessibility seal.

Regarding the economic cost of improving the accessibility of their establishment or service:

* 55% perceive as high or very high;
* 9% consider this cost as low or very low;
* 29% interpret it as an average cost.

Going deeper into the brakes and difficulties perceived by tourism managers when facing the provision of accessible services:

* 59% perceive it as an additional cost for adaptation;
* 43% consider it a lack of effective demand;
* 30% recognizes a lack of knowledge about universal accessibility and attention to tourists with disabilities;
* 28% consider a lack of information and complexity of the normative requirements of accessibility;
* 16% consider these brakes justified by the lack of time needed to carry out these actions.

By type of tourist provider, it is worth noting as statistically significant differences, the lower perception of the additional cost for adaptation in the hotel industry (40%), and a greater lack of knowledge about universal accessibility and attention to tourists with disabilities in the tourist offices (42%).

Comparing the perspective of tourists with special needs and the providers in the tourism sector allows to clarify what the market reality is and to demolish certain myths or prejudices created among tourism companies and providers. 40% of businesses and suppliers consider a lack of effective demand for tourists with disabilities and special needs as a barrier to providing accessible services (making the necessary adaptations).

Also, tourism service managers are not convinced that people with disabilities and special needs represent a potential market niche for businesses (they rank near the "neither agree nor disagree" rating scale).

However, there is no statistically significant difference between the number of trips made in the last two years by people with a disability or special needs (7 trips) and people without special needs (8 trips).

Moreover, in the analysis of expenditure, another conclusion was reached: the average expenditure made by disabled and special needs tourists (813.65 euro on average) was significantly higher than the expenditure made by people without special needs (637.60 euro on average).

These two data are conclusive to state that people with disabilities and special needs constitute an effective demand in the tourism sector due to the frequency with which they travel and the average outlay they make on each trip, being a real market niche, for companies and providers of tourism services in Spain.

At this point, we can link to the report “Inclusive Tourism and Employment” of the Adecco Foundation[[14]](#footnote-15), that reveals that 56% of people with reduced mobility and other disabilities decide not to travel due to a lack of accessible tourism. The potential market of accessible tourism in Spain is 5,968,261 people according to the study “The potential market of accessible tourism for the Spanish tourism sector”, by Accesturismo[[15]](#footnote-16). The result is that 3,342,226 people with accessibility needs stop travelling due to the absence of accessibility, which would generate approximately 90,000 new jobs related to accessible tourism (transport, accommodation, catering, food and drink) plus some 14,000 new contracts in the field of accessible information and communication dedicated to optimizing the user experience.

With these figures in hand, in addition to meeting the travel needs of people with disabilities, there is no denying the additional impetus that the existence of destinations for people with disabilities and their companions could give to national tourism.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Service provided | Bus\* | Train\* | Airplane\* | Tourism Stakeholders\*\* |
| Voice messages and information desks in stations | ES MK RO | ES MK RO | ES MK RO | - |
| Voice messages inside and outside vehicles | RO ES | ES | ES RO | ES RO |
| Tactile carpets | ES | ES | - | ES RO |
| Audio traffic lights | - | - | - | ES RO |
| Special Assistance Service | ES | ES RO | MK RO ES | - |
| Free and discounted roundtrips for VIP and accompanying person | MK RO | MK RO | MK | - |
| Free public transport | ES MK RO | - | - | - |
| Free of charge special parking places | ES MK RO | ES MK RO | ES MK RO | ES MK RO |
| Free or discounted museum admission | - | - | - | ES RO |
| Accessible tourist information offices | - | - | - | ES |
| Accessible tourist packages for disabled tourists | - | - | - | ES |
| Accessible hotels and restaurants | - | - | - | ES |
| \* Here are also included the corresponding bus/train stations and airports; \*\* Tourism stakeholders: tourist agencies, tourist information centers, city halls, museums,  event organizers, tourist objectives. | | | | |

# 4.Primary Direct Gap Assessment research (field research)

## 4.1. Methodology (followed in each country)

For the field research the participating countries contacted their partners in order to establish either face-to-face meetings or online completion of questionnaires, each of the countries following similar ways of proceeding.

**Spain**

ITS Spain contacted 25 associations of visually impaired and blind people at a national level, through social networks (Facebook-Twitter) and mainly through e-mail.

In this e-mail, they have presented the ATSVIP project (achieving an important dissemination objective)

Four associations have accepted to collaborate with the project expressing their interest in participating as an associated partner, among them the federation Gestión Visión España with associations in almost all the provinces of Spain.

They have designed a version of the online questionnaires and distributed it among the interested associations, which in turn have distributed it among their partners, also informing them about the project, so a remarkable diffusion was achieved, that goes beyond the number of correctly completed forms.

**North Macedonia**

For the field research, LLN has contacted and established face-to-face meetings with relevant stakeholders from North Macedonia regarding the project topic. They contacted the National Union of the Blind of the Republic of Macedonia, The school for children and youth with impaired vision “Dimitar Vlahov”- Skopje, representatives from bus station, train station, railway, travel agencies, etc. The organizations were firstly approached by e-mail, the project was explained and the partners showed a great interest from their side to contribute in the IO1 research and to provide their expertise in the topic.

Face-to-face meetings with representatives of the organizations were arranged and LLN also visited the intercity bus station in Tetovo in order to provide information about the project and to gather useful information from the transport company. The meetings were productive since although LLN managed to spread the interviews and questionnaires to potential users. During the meetings LLN collected valuable information about the current situation and offer possibilities for travel of VIP in North Macedonia. They gained a lot of useful information that allowed them to contact valuable stakeholders directly related to the topic of the project (ICT, means of transport, accommodation, NGOs, etc.), and conduct the semi-structured interviews.

According to the requirements for the research LLN designed an online version of the questionnaire. The questionnaires were provided to the National Union of the Blind of the Republic of Macedonia and they have distributed the questionnaires among their members. The same method was used for the semi-structured interviews, online google interviews were produces, they were translated into Macedonian language and distributed to a relevant target groups: stakeholders, IT developers, visually impaired people.

LLN conducted the primary gap assessment and gained:

* 7 online semi-structured interviews with:
* 7 stakeholders;
* 5 IT developers;
* 5 VIP.
* 10 questionnaires with visually impaired people
* 1 case study with VIP

**Romania**

For the field research, ABT contacted their strategic partners, the Special High School for Visually Impaired Cluj-Napoca (LSDV)[[16]](#footnote-17), the Association of the Blind Cluj-Napoca[[17]](#footnote-18) and Arad[[18]](#footnote-19) and the Department for Social Care and Health Cluj-Napoca (DASM)[[19]](#footnote-20). During the local meetings, the project was presented, its goals and outcomes and the interest of the partners was risen, to be actively involved in the research part of the methodology we develop, that will become the first intellectual output of the project. During the local meetings it was also decided to contact the Polytechnic University of Bucharest[[20]](#footnote-21) and 2 NGO very active in mobility of blind people: AMAIS[[21]](#footnote-22) and TANDEM[[22]](#footnote-23), both from the capital city of Bucharest.

In this regard, ABT started to interview three blind students and teachers of the LSDV, filling out the first on-line questionnaires. In the meantime, there were interviews with the presidents (blind) of two local branches of the Romanian Association of the Blind (Cluj-Napoca and Arad).

Through this first set of interviews, a lot of useful information were gained, that allowed to contact valuable stakeholders directly related to the topic of the project (ICT, means of transport, accommodation, NGOs, etc.), and conduct the semi-structured interviews.

Based on these findings we finished a total of 29 interviews: face-to-face (4), on-line and by phone/Skype (24). The average duration of an interview was about 40 minutes, with a minimum of 30 minutes and a maximum of 90 minutes (Alex Cucu from AMAIS). Out of these 29 interviews:

* 13 are questionnaires from blind/disabled respondents;
* 15 are semi-structured interviews with stakeholders (5), blind persons (5) and IT companies (5);
* 1 is a case study with a visually impaired person.

## 4.2. Main findings of field research

For a significant number of people with visual impairments, public transport plays an important role in productivity, community participation, and independence, since it may be the only feasible mobility option to participate in their education, work, medical care, food, and to attend many other places in their community. To use the public bus system safely, effectively, and autonomously, these people need to collect information about their physical environment and visible information at stops and terminals, such as timetables, routes, etc. Unfortunately, most people who are blind or visually impaired experience difficulties in getting on the right bus or getting off at the right destination. These situations usually force them to depend on other people that assist them in activities close to their homes, or settle for simpler jobs, or simply stay at home. Therefore, our efforts should aim to develop a system where technology is used to empower people with visual disabilities, allowing them to navigate autonomously in the public transport system[[23]](#footnote-24).

Generated data from the field research:

### 4.2.1 Main findings of field research out of the inquiries

**North Macedonia**

The first questions of the inquiry were related to general info regarding to the respondents. LLN choose a gender balanced group of 50% female, 50% male, aged between 20 and 44 years, 50% of them visually impaired (partially sighted) and other 50% totally blind; regarding the level of education of the respondents, 50% are not graduated, 30 % have a bachelor degree, 20% graduated master studies.

1. Question number 8, is related to the level of knowing/speaking foreign languages, 80% of the respondents speak foreign language (English language), other 20% or 2 respondents do not speak any foreign language;
2. Most of the respondents (80%) travel with accompanying person. While travelling they mostly use cane as supporting tool (70%), while travelling, accompanying person 20% and 10% don’t use anything while travelling;
3. Taking in consideration IT tool, 90% of respondents use smart phones for navigation, none of respondents use smart watches, smart glasses, smart cane etc.;
4. Regarding to the use of any navigation software, the most of respondents answer that they used navigation software is Google maps 90%, none of our respondents is using Moovit or any other software;
5. During the travelling visually impaired people encountered transport impediments, impediments related to tourist attractions, accommodation impediments. These are the following, explained in the responses of the interviewed VIP:

Transport impediments:

* Absence of audio instructions;
* Facing architecture barriers;
* There is no one to help them;
* Non-existing protocols on national and EU level for VIP;
* No voice directions/instructions in the public transport means.

Accommodation impediments:

* There aren’t booking sites with audio possibilities

Impediments regarding tourist attractions:

* Absence of voice instructions;
* No voice information;
* No tactile carpets;
* No audio information;
* No Braille.

1. All of the respondents (100%) answered that they ask help, support or guidance from unknown by-passengers.
2. During the travelling the respondents mostly benefit from:

* Tactile carpets;
* Audio guides;
* Audio traffic lights;
* Speaking buses (voice signalization);
* Tactile layouts;
* Tactile maps.

1. All of the respondents answered that they did not benefit from the facilities/services or free access as blind/VIP people.
2. The respondents (100%) stated that they benefited from the special training courses meant to improve their field orientation offered by the educational institutions (school).

**Spain**

ITS interviewed 11 persons, aged between 41 and 72 years, out of which 4 persons are totally blind; regarding the level of education of the respondents, 1 has a primary education, 3 of them have a high school degree, 6 have a college degree, 1 has a vocational training.

1. About the level of knowing/speaking foreign languages: 36,4% speak both English and French, 18.2% speak English, 9,1% speak Portuguese and 27,3% don t speak any foreign languages.
2. Most of the respondents (72,8%) travel with an accompanying person, only 27.3% travel alone.
3. While travelling they mostly use cane as supporting tool (72,8%) while travelling, 18,2 % an accompanying person and 9,1% don’t use anything while travelling.
4. Taking in consideration dedicated devices, 72,8% of respondents use smart phones for navigation, 9,1% use a dedicated GPS and 18.2% don t use any device.
5. Regarding to the use of navigation software, the most of respondents answer that they use as a navigation software Google maps (72,8%); Lazarillo, NovNav and Moovit are also used; 18,2% of the respondents do not use any navigation software.
6. During the travelling visually impaired people encountered transport impediments, impediments related to tourist attractions, accommodation impediments. There are difficulties both in mobility in airports and stations, as well as in access to information. Supporting people are needed to access public transport and other activities such as guided tours, museums and similar. Adapted information are missing and accessibility in general still are an issue.
7. 81,9% of the respondents answered that they ask help, support or guidance from unknown by-passengers.
8. During the travelling the respondents mostly benefit from: tactile carpets, audio traffic lights, speaking busses, tactile layouts, tactile maps, audio guides
9. The facilities/services or free access as blind/VIP people the respondents benefitted from are public transport, museum admission and discounts for events. One of the respondents stated that he would rather prefer to be treated like any other human being.
10. 36,4% of the respondents stated that they benefited from the special training courses meant to improve their field orientation and they were offered by the educational institutions (school) and blind people associations.

**Romania**

Statistical data concerning respondents:

* The geographical distribution of the respondents covers all main regions of Romania: Moldova (6), Transylvania (15) and Muntenia (8). The larger number of respondents from Transylvania is due to the location of Asociatia Babilon Travel[[24]](#footnote-25), in the heart of Transylvania, in Cluj-Napoca[[25]](#footnote-26);
* The visually impaired (5) and blind (8) respondents:
* Are with age between 20 and 67, with an average of 34;
* 38% have graduated;
* 54% have a university degree of master or bachelor;
* 8% have a PhD;
* 92% have knowledge of at least a foreign language, mainly English;
* 15% are using a guide dog;
* 70% are using a cane;
* 15% are dependent and rely on an accompanying person.
* 92% are using ICT devices for orientation. Out of these:
* 100% are using smartphones;
* 25% are using smartwatches;
* 8% use smart glasses;
* 17% use dedicated GPS devices.
* 85% are using special navigation software for orientation. Out of these:
* 91% are using Google Maps[[26]](#footnote-27);
* 27% use Moovit[[27]](#footnote-28);
* 64% use other, more exotic navigation software like: Lazarillo[[28]](#footnote-29), Blindsquare[[29]](#footnote-30); Apple Maps[[30]](#footnote-31), MSInternational[[31]](#footnote-32), NuNav[[32]](#footnote-33), Nearby Explorer[[33]](#footnote-34), Osmand[[34]](#footnote-35), WazeEye-D[[35]](#footnote-36), InfoSTB[[36]](#footnote-37), Google Flight[[37]](#footnote-38), Tandem Navigator[[38]](#footnote-39), Tandem Access[[39]](#footnote-40), InfoFer[[40]](#footnote-41), Step-Hear[[41]](#footnote-42).
* During one year the 13 respondents were traveling:
* On country level:
  + 15% at least three times;
  + 85% at least five times;
* On international level (abroad):
  + 8% never;
  + 62% at least once;
  + 23% at least three times;
  + 7% at least five times;
* In case of need 85% of the 13 respondents will ask for help and assistance unknown passers;

### 4.2.2. Main findings of field research out of semi structured interviews

Semi structures interviews were conducted with:

* Stakeholders;
* IT developers;
* Visually impaired and accompanying persons.

**North Macedonia**

The main difficulties encountered by the participants in the research are related to accessibility, access to public transport and the lack of adapted information.

Low-vision and blind bus riders often rely on known physical landmarks to help locate and verify bus stop locations (e.g., by searching for an expected shelter, bench, or newspaper bin). However, there are currently few, if any, methods to determine this information a priori via computational tools or services.

When waiting at a stop, many participants found it difficult and stressful to know which bus to board when multiple buses arrived at a stop at the same time, since they could not hear the announcements for all buses. Nearly all participants relied heavily on asking bus drivers for information.

Follows the findings based on the 17 responses to the semi-structured interview from 3 target groups:

* Stakeholders (National Aviation Authority, Special educator, National authorities for land traffic / ministry, agencies, National Authorities and Railways / Related Associations, Railway Transport Company, School for people with disabilities, National authorities for land traffic / ministry, agencies, National authorities for land traffic / ministry, agencies);
* IT developers;
* VIP.

According to the three target groups, the biggest challenges or problems in using public transport services by visually impaired people are: absence of voice directions, voice maps, tactical paths, accompanying persons, tactile trails. The visually impaired people are facing infrastructure obstacles and barriers.

The conducted interview showed that all of the target groups covered with the research don’t get updates regarding the transport (schedule, arrival and departure times, etc.)? They either don’t get updates, or they are forced to ask for help from someone because there is no access application in Macedonia where they can check such data.

They usually get information on internet, through the website of the Public Transport Company or through their mobile application. They use visual display of bus station boards, phone, and public sign in front of each bus stop. They also get information through the information systems of the providers of public transport services.

**Spain**

The main difficulties encountered by the participants in the study are related to accessibility, access to public transport and the lack of adapted information. They also refer to the poor preparation of tourist guides in the care of people with disabilities.

All visually impaired or blind people who have answered the questionnaire travel, and more than 80% also travel outside Spain.

The most widely used support tool is the cane, the preferred device is the smartphone and as an additional aid, almost all make use of google navigation software.

The main difficulties encountered by stakeholders, IT developers, visually impaired and accompanying persons interviewed within the study are related to accessibility, access to public transport and the lack of adapted information. They also refer to the poor preparation of tourist guides in the care of people with disabilities.

Visually impaired travellers always suggest asking for help when necessary both from guides or managers of tourist establishments and from other passers-by. Everyone knows the accessibility aids that are usually found in adapted areas: traffic lights with audio, touch mats, audio guides...

Most of them miss more adaptation in leisure activities (cinemas, theatres and shows).

**Romania**

In general visually impaired/blind people are missing an integrated navigation system/device/application that could allow them to travel from point A to point B, with various options for transport (type – including here walking, price, updated timetables, etc.), buy tickets, make reservations for accessible accommodation, restaurants and various adapted tourist attractions. Today there are parts of such a system, not working together and in many cases not updated in real time.

Blind people consider tactile carpets, audio traffic light, speaking buses and audio guides the most helpful things during a journey.

Challenges faced during transport by the vast majority of the respondents (blind/visually impaired, stakeholders and IT companies):

* In general (bus/train stations and airports):
* Are not adapted to the needs of disabled people in general. There are no tactile carpets and markings and the information panels are written in small fonts and low contrast and do not have an audio version that can be accessed. The ticket vending machines are not adapted to the needs of disabled people, lacking on voice navigation;
* Audio information is not always available and if existent, the sound system is of poor quality and not understandable;
* Timetables are not always properly updated. Especially in airports, embarking gates change quite often without voice notification;
* Guide dogs have no access to all means of transport, especially buses, trains and taxis;
* Typical people expect visually impaired/blind persons to travel together with their accompanying persons and not alone.
* Railway (trains and stations):
* Only few stations in Romania offer professional help for disabled passengers;
* No dedicated phone applications for trains, regarding exact position, delays, etc.;
* Guide dog are not admitted in sleeping cars.
* Bus and bus stations:
* (Outside) Speaking buses have only one loudspeaker at the front door, not at all doors;
* During the journey there are many confusing station mismatches announcements (voice info);
* No number recognition system;
* Free places detection is missing.
* Accommodation and restaurants, except a few examples of good practices, found mostly in 4\* or 5\* hotels, the respondents are facing challenges regarding:
* Personnel and staff do not know or are afraid to interact with disabled people. They are not trained to be professional in this regard;
* Most elevators are not adapted to the needs of disabled people;
* Room numbers are not 3D and are not posted on the wall, but directly on the doors;
* There is a lack of international standards and certifications for hotels, restaurants, public and private companies in order to be recognized as accessible;
* The reading of menus is difficult. There are no Braille versions available, the font is small and the contrast poor;
* Buffet style serving is very challenging;
* In many public places, guide dogs are not allowed.
* Regarding tourist attractions for most of the respondents, visiting them is more a desire than a reality. In Romania, only a few museums and other tourist attractions are accessible for visually impaired. There is a great need of audio guides, artefacts that can be explored by touching and trained guides capable to explain things in terms relevant for blind people. Usually, blind and visually impaired people visit tourist attraction only together with an accompanying person.

The semi-structured interviews concluded in Romania include **three stakeholders** who make a considerable contribution to VIP mobility and the possibility for them to live and travel independently. Their example is one that should be replicated in the country and is also worthy to be followed in other countries.

**(1)** **Centrul de Mobilitate Urbană[[42]](#footnote-43) within the association AMAIS Bucharest[[43]](#footnote-44)**

This association is distinguished by the dedication, consistency and competence with which it offers self-service services to people with visual disabilities, allowing them to become largely independent in the actions they carry out in their daily lives, this being a precondition for wanting and being able to travel safely. The services of the association are materialized in several types of workshops in which VIP learns and train constantly.

* Mobility workshops, showing how the hearing is used (how the sound returns), how the city is organized, on how to use the mobile phone and the navigation applications. Trainers were learning how to approach VIP. In the meantime, there were concluded guides for volunteers. Each year of activity ends with mobility tests, with mixed VIP teams and typical people, when we go together to explore certain areas.
* Cooking workshops (in restaurants, at the bakeries, etc.) for both blinds and typical blindfolded.
* Echolocation workshops for independent living: using the cane, tying laces, pouring water into the glass. The echolocation workshop teaches how to use hearing to detect an object in front, right, left, how to use the sonar (a certain intentional produced sound) to track how sound is propagated. Here you learn how to detect where the sound comes from.
* Arts & hobbies: ceramics

**(2)** **Asociatia Tandem[[44]](#footnote-45)**

The association is preoccupied to offer accessible transport solutions for VIP, but also to involve VIP in an active life through cultural and sport activities. Regarding the accessibility of travel solutions, several projects were carried out, the most successful was Tandem Access.

The project **Tandem Access[[45]](#footnote-46)** implemented a navigation and orientation model inside the subway stations for the visually impaired users. It gave the user, through an application, notifications containing descriptive information aimed to help him to orient to and from the platforms and entrances of the metro system. This model contains a network of 1500 iBeacons installed inside the stations that communicate with the mobile phone through the Bluetooth connection. The platform is able to recognize the direction of movement of the user according to the order of the beacons with which the mobile device interacts, and also, at an intersection, it is able to notify him of all possible destinations and the direction to be followed in order to reach them.

**Tandem Navigator[[46]](#footnote-47)** is an active system with capabilities for both creating a pedestrian route from the starting point to the destination, as well as signaling obstacles and points of interest in the public space. This is the first Romanian urban mobility project for people with visual impairments who rely on the use of the smartphone.

The phone's GPS can be used for daily road trips. The first time the user crosses the route he/she will create points of interest on his/her way (for example shop, street corner, intersection, obstacle, etc.). When the user reaches the destination, he/her will add one last point of interest and complete the route. Once saved, the route will contain the GPS coordinate set for all saved points of interest, along with their description.

Apart from this technology-based project, the association also runs cultural projects, with children from blind schools, consisting in workshops for theater, modeling, music, computer competitions in schools. Lately there are actions on the part of civic education, knowledge of the rights of people with disabilities.

There are also sport projects under the name **Tandem Arena[[47]](#footnote-48)**. A national Tandem bike championships was implemented, it takes place every year. Visually impaired children are brought to a sport facility in Izvorani (near Bucharest) were they train swimming, cycling and athletics.

**(3) Polytechnic University Bucharest[[48]](#footnote-49)**

Prof. Dr. Ing. Alin Moldoveanu[[49]](#footnote-50), the vice dean of the Faculty of Automation and Computers of the Polytechnic University Bucharest[[50]](#footnote-51) is the person who leads the technical coordination of the project "Sound of Vision"[[51]](#footnote-52), a revolutionary project that aims to create a device to replace a sense (the visual one) with two other senses, the auditory and the proprioceptive sense, thus allowing the blind to move / walk similar to the typical persons.

The Polytechnic University of Bucharest, through the Faculty of Automation and Computers, together with partners from four other European countries, has developed the most revolutionary integrated system that allows the blind to perceive the environment through an alternative representation, based on sounds and vibrations. Sound of Vision (soundofvision.net) is a European project Horizon 2020 with an extremely ambitious objective - the creation of a wearable device. At the end of the project, the product system, in the prototype stage (TRL 8) is an integrated solution that includes hardware, software and training procedures.

The system has been intensively tested, involving a large number of blinds, and iteratively refined based on feedback. The results are extremely promising: trained users are able to perceive the environment and navigate extremely dynamically using the prototype.

The blind man actually feels what objects are around him, so he can orient, navigate and move easily. We integrate many other things into the system, such as special categories of objects that are special, doors, stairs, potholes, obstacles at head height, those that are not ordinary objects but require special attention, they are represented in a special way, so they I feel there is a door, a ladder, and so on. Moreover, many other things are implemented that are of interest to them, such as walking on the sidewalk, having a guide, or detecting traffic signs, zebra and traffic light from pedestrian crossings, traffic light colour, texts. When you want and press a button and the system plays the text. For example, here is the pharmacy, here is the grocery. There are solutions to cover them and integrate them into a system that is integrative. We will probably also integrate GPS-related navigation, and the system has the potential to become the overall solution as an artificial feel.

Within 3-5 years the device can be imagined having the form of glasses, a belt, or a waistcoat / shirt that does not bother the user with anything, used together with the mobile phone.

In terms of costs, they will do not go very high, below 1000 euros, this is the target with the prospect of decreasing as production increases.

### 4.2.3. Main findings of field research out of the case study

**North Macedonia**

The Case study was conducted with a visually impaired person who explained the experience in using the services of the air transport provider – International Airport, Skopje. When buying a ticket, airlines offer option to choose with which the passenger states that it is a person with a disability and can seek a personal assistant. At the airport, at the counter when the passenger shows the flight ticket, in accordance with the purchased ticket the airport staff provides personal assistant who assist the passenger while boarding on the plane. As for the seats in the airplane, the rule is that persons with disabilities are given seats by the window. When it comes to people with visual impairments, the flight attendants come where they sit and personally explain to them the safety rules and ask them if they need something. The flight attendants assist the visually impaired person while disembarkation and they provide support until the passenger meet the personal assistant provided by the airport where the passenger arrived.

**Spain**

Spain conducted two case studies, one about the Spanish application Lazzus[[52]](#footnote-53), the other one about WeWALK Smart Cane[[53]](#footnote-54).

**Lazzus[[54]](#footnote-55)** a Spanish application, the best friend of visually impaired travellers. Lazzus is an assistant that accompanies blind and visually impaired people on their journeys by creating an auditory field of vision.

People can live better experiences as in their daily lives as during their travels. When they are going to go or to travel anywhere, they can do it on their own, without the help of any other people. Lazzus is a travel partner that informs you where you are in every moment also can indicate the best route to tourist destinations or establishments of interest.

Mobile app available for any device. Three ways of operating:

1. 360º mode: The app recognizes all near, in radium of 360º such establishments or places of interest with clear information about distance and direction.
2. Flashlight mode: The app indicates what is there, in the direction the mobile is pointing.
3. Transport mode: Transport mode activates automatically when the blind or visually impaired person is travelling by bus or by car. It indicates where the person exactly is in each moment, to avoid the feeling of disorientation.

**WeWALK Smart Cane[[55]](#footnote-56):** the technology increases visually impaired people’s independence and promotes full- participation in society. WeWALK Smart Cane is a revolutionary smart cane developed for the visually impaired. WeWALK attaches to the traditional white cane, transforming it into an innovative smart cane. This technology increases visually impaired people’s independence and promotes full- participation in society.

WeWALK Smart Cane provides more secure travel to visually impaired people with obstacle detection and makes traveling experience easier and more independent with navigation and public transportation integrations.

WeWALK detects obstacles above chest level with ultrasonic sensor and warns with vibration.

* Gives turn-by-turn and clockwise navigation.
* Navigate to all nearby bus stops and access bus timetables.
* Learn what’s around you like popular places, restaurants, pubs, and cafes
* Talk to Alexa Voice Assistant

When paired with WeWALK application, actions such as getting navigation can be performed on WeWALK easily without taking the phone at hand

Each integration developed for WeWALK brings new features with software updates. WeWALK is integrated with Voice Assistant and Google Maps.

**Romania**

Romania’s case study was conducted with a visually impaired person who likes to travel a lot and who wanted to share how to organize journeys, as a person with visual impairment, or typical. Except accessibility, to plan and organize a journey is quite similar for disabled and non-disabled people. According to blind travelers with some experience, there are two main stages of fulfilling a successful journey: planning and organizing.

1. Planning:

Plan your trip ahead of time. It is ideal to make reservations six months in advance. Increasingly, the three months in advance, are no longer enough. Generally, booking a hotel online does not cost anything and it can be modified later free of charge, until a few days before check-in. Not the same is the case with airline tickets. Here any subsequent modification costs and not little.

Try to plan an out-of-season journey, but in a climate-appropriate time frame. A successful journey is one that combines relaxation (at the beach, pool, etc.) with the exploration of new territories, natural, urban or human.

If the purpose of the trip is for business, don't forget to plan at least half a day to visit the city you are in. Otherwise, you risk visiting the same city several times without knowing that you have passed there (not a joke but a real case).

1. Organizing:

If you, as a blind person, are travelling with or without an accompanying, you have to think about:

1. Transport

In case you do not change the continent and the country / countries you want to visit are not far away (e.g. Hungary, Bulgaria, Austria), the train or bus seems the best solutions;

For longer distances, consider the aircraft. You will need to locate the most advantageous flights both in terms of price and airport location (skyscanner.com).

1. Accommodation

There are many accessible websites on the Internet that offer you the possibility to book a hotel room online. Before booking, read reviews from other tourists who have stayed at the hotel for which you want to make your reservation. Especially pay attention to the accessibility aspects. It is a good idea to contact the hotel by phone or e-mail and ask about the facilities offer to blind/visually impaired guests.

If you travel by car, consider the parking spaces at the hotel or in the vicinity and their price. Sometimes you will win if you choose a more expensive hotel, but with its own free parking space.

For a disabled tourist, the centrally located hotels, in historic areas, are the most suitable, but the access routes to them can be narrow and twisted. Therefore, it is sometimes preferable for a hotel located on the outskirts, which, at the same level of comfort, is much cheaper and which is close to the public transport.

If you stay more than 2-3 days in one place, try to rent an apartment. It is much cheaper than a hotel room and, except for room service, it is much more comfortable.

1. Personal tour guide

To make the most of the time visiting various tourist locations, it is particularly useful to create a personal tour guide, which will include the sights to be visited, along with a brief description and useful information, such as operating hours, ticket price, address, etc. Using a text to speech application you can transform it into an audio guide.

1. Helpful devices and applications

Almost all blind/visually impaired travelers, accompanied or not use various ICT devices and applications that are very helpful in finding their way from point A to point B. Some of the most popular are smartphones, Google Maps and Moovit.

## 4.3. Recommendations for improvement (by the target group)

**North Macedonia**

Recommendations for improvement of the public transport accessibility for people with disabilities, we gathered following answers from 3 target groups:

Abstract from the findings:

Stakeholders:

* Providing voice directions and maps;
* Providing tactile tracks, overcoming infrastructural obstacles;
* To find a way to be informed about public transport and to help them in an appropriate way to get on and accommodate in the vehicle for public transport;
* Infrastructure adjustments in all railway stations, application of modern technologies for their information, escort;
* To use sound signalling and giving directions, to mark the central urban areas and the access to the public transport with tactile paths;
* Identify the shortcomings of public transport for people with disabilities;
* To develop a strategy with recommendations and measures for facilitated movement in public transport for people with disabilities;
* To involve the Associations of persons with disabilities in the preparation of the measures;
* The executive branch to adopt a strategy for development of infrastructure projects in which one of the elements will be the accessibility of persons with impaired vision, etc.

IT developers:

* Mobile application with voice directions and map;
* Possibility to call for help or escort by a person employed in the Public Transport Company both in the mobile application and at the transport stations;
* Voice maps and notifications;
* Voice commands for bus stations in each vehicle, counting how many more stations there are to each subsequent one, counting minutes / seconds to each station;
* When it comes to facilitating the arrival of information through a mobile application adapted for people with special needs, while the other infrastructural changes the city of Skopje should take care of improved infrastructure, appropriate mobile and web applications.

VIP:

* Repairing infrastructure barriers, setting up possible voice signals;
* Constantly updated data during arrival and departure, access road to public transport, access stations, access information in the form of voice information or which type of transport arrives at a particular station, bus, train;
* Available information, tactile tracks, sound instructions, protocols, accompanying persons.

The responses from the interview showed that The National Aviation Authority has adopted rulebook with procedures they apply and are intended for VIP. The Rulebook on Admission and Deployment of Passengers is provided by THE airport operator. Passenger service procedures are prepared by the airport operator (TAV).

The other stakeholders/respondents the reasons for not having rulebook with procedures to support visually impaired people stated that they do not have expertise, they did not received instructions from national authorities/regulator etc.

**Spain**

All visually impaired or blind people who have answered the questionnaire travel, and more than 80% also travel outside Spain.

The most widely used support tool is the cane, the preferred device is the smartphone and as an additional aid, almost all make use of google navigation software.

The main difficulties encountered by stakeholders, IT developers, visually impaired and accompanying persons interviewed within the study are related to accessibility, access to public transport and the lack of adapted information. They also refer to the poor preparation of tourist guides in the care of people with disabilities.

Visually impaired travellers always suggest asking for help when necessary both from guides or managers of tourist establishments and from other passers-by. Everyone knows the accessibility aids that are usually found in adapted areas: traffic lights with audio, touch mats, audio guides...

Most of them miss more adaptation in leisure activities (cinemas, theatres and shows).

From the field research phase it can be concluded that blind and visually impaired people travel just like everyone else, they know the adaptation and assistance elements that the destinations offer and they make use of them. They consider themselves as capable travellers as sighted people and do not like to be treated differently.

They request that many destinations that are not yet adapted be adapted and made accessible, and for those that are adapted to a greater or lesser extent they request better training of the personnel of both services and guides.

**Romania**

In regard of accessibility of information in the transportation system, the three target groups suggested improvements to be made or results to be gained:

VIP:

* Ticket machines and information panels should be VIP accessible, especially in bus and railway stations;
* Bus, train and air transport companies should train employees about handling people with disabilities;
* A solution should be found to get a better structure in bus transport, so that VIP don’t need guess but can foresee in which bus to board, if the bus has or does not have available places, where it stops, when it stops;
* Bus stations also need a lot of improvements: all buses should be speaking busses, they should have 2-3 loudspeakers located not only in the front of the bus;
* Railway stations are quite inaccessible for VIP, the staff is not at all trained to handle VIP, the announcements cannot be heard, they are not loud and clear enough. Inside the train an announcement system about the next station and the current time should be introduced;
* The next train station should be announced on the train, especially if there are delays;
* The implementation of transport accessibility through markings. An acoustic systems is needed;
* Since there still are problems with guide dogs, find a solution for them to be allowed in busses, trains, at restaurants;
* Romania also needs an organization which develops standards and certifies companies, hotels, etc. that offer services for disabled people of any kind and which further offers trainings for employees in order to teach them how to approach VIP clients;

IT developers

* Developing dedicated apps;
* Develop simple devices which help identifying the bus number of the bus entering the bus station;
* Existing and already implemented infrastructure should be kept up-to-date and made again available for visually impaired persons (here the project **Tandem Access** is meant, which implemented a navigation and orientation model inside the subway stations for the visually impaired users. It gave the user, through an application, notifications containing descriptive information aimed to help him to orient to and from the platforms and entrances of the metro system. This model contains a network of 1500 iBeacons installed inside the stations, that communicate with the mobile phone through the Bluetooth connection);
* Develop the prototype of the integrated perceiving system as a wearable device ready-to-use

Stakeholders

* Cluj-Napoca airport[[56]](#footnote-57): quality standards regarding the Assistance Service for passengers with reduced mobility are those established by the European Commission - Passenger Rights - Passengers with reduced mobility;
* Cluj-Napoca railway station[[57]](#footnote-58): in order to benefit from the specific services related to disability type, for the railway journey, it is necessary to request them at the latest 48 hours before the travel date, specifying all the necessary details (identification data, disability, necessary services, etc.) by completing the standardized form available at the points of sale of CFR Călători[[58]](#footnote-59) other authorized distributors, or by completing the PRM service request online;
* The Ethnographic Museum of Transylvania in Cluj-Napoca[[59]](#footnote-60) is hosting a permanent exhibition developed for the visually impaired. The access to the exhibition is also adapted to the specific needs of the visually impaired by use of tactile carpets. For a better orientation, at the entrance there is a tactile model of the exhibition space;
* Public transport in the city of Cluj-Napoca[[60]](#footnote-61)
* Voice announcement with the name of the next station and before the descent in the means of public transport;
* Useful mentions attached to audio ads in the means of public transport: "Stop at request", "Retires to the garage", "The last station is ...", "Attention, the route changed!";
* External advertisements with line number, direction of travel (destination station);
* All busses should be speaking busses. Announcements to be made loud and clear.

# 5. Main documental findings review

**The Romanian Institute for Human Rights[[61]](#footnote-62)** (Institutul Român pentru Drepturile Omului) has offered us through its brochure "Non-discrimination, autonomy, inclusion - instruments on the rights of persons with disabilities and case law in the matter" access to the entire legislation governing the rights of persons with disabilities, namely:

**Protection of persons with disabilities in the U.N.O.**

* The Declaration of Human Rights[[62]](#footnote-63);
* The International Covenant on civil and political rights[[63]](#footnote-64);
* The International Covenant on economic, social and cultural rights[[64]](#footnote-65);
* The International Convention on the Elimination of All Forms of Racial Discrimination[[65]](#footnote-66);
* UNESCO Convention on the fight against discrimination in education[[66]](#footnote-67);
* Convention on the rights of persons with disabilities[[67]](#footnote-68).

**Protection of persons with disabilities at the level of the Council of Europe**

* Convention for the defense of human rights and fundamental freedoms[[68]](#footnote-69)
* The European Convention for the Protection of Human Rights and the Dignity of the Human Being with regard to the Applications of Biology and Medicine, the Convention on Human Rights and Biomedicine[[69]](#footnote-70);
* The European Social Charter[[70]](#footnote-71);
* Revised European Social Charter[[71]](#footnote-72);
* Action Plan to promote the rights and full participation of people with disabilities in society: improving the quality of life of people in Europe 2006-2015[[72]](#footnote-73);
* Recommendation (2011) 14 regarding the participation of persons with disabilities in political and public life[[73]](#footnote-74).

**Protection of persons with disabilities within the European Union**

* The Charter of Fundamental Rights of the European Union[[74]](#footnote-75);
* The Community Charter on the fundamental social rights of workers[[75]](#footnote-76);
* Regulation (EC) no. 1107/2006 of 5.07.2006 regarding the rights of persons with disabilities and persons with reduced mobility during the journey by air[[76]](#footnote-77);
* Regulation (C.E.) no. 1371/2007 of 23.10. 2007 on the rights and obligations of rail passengers[[77]](#footnote-78);
* Regulation (U.E.) no. 1177/2010 of 24.11. 2010 regarding the rights of passengers traveling by sea and inland waterways and amending Regulation (C.E.) no. 2006/2004. 178[[78]](#footnote-79);
* The 2010-2020 European strategy for people with disabilities: a renewed commitment to a Europe without barriers[[79]](#footnote-80).

The 3 countries participating in this project apply European and/or national laws to impose standards for the accessibility of transport and public space, each with different results.

**Spain:**

Regulations on disability, and on disability and tourism.

Convention on the Rights of Persons with Disabilities**[[80]](#footnote-81)**

The Convention on the Rights of Persons with Disabilities and its Optional Protocol ([A/RES/61/106](https://www.un.org/development/desa/disabilities/resources/general-assembly/convention-on-the-rights-of-persons-with-disabilities-ares61106.html)) was adopted on 13 December 2006 at the United Nations Headquarters in New York, and was opened for signature on 30 March 2007. There were 82 signatories to the Convention, 44 signatories to the Optional Protocol, and 1 ratification of the Convention. This is the highest number of signatories in history to a UN Convention on its opening day. It is the first comprehensive human rights treaty of the 21st century and is the first human rights convention to be open for signature by regional integration organizations. The Convention entered into force on 3 May 2008.

The Convention follows decades of work by the United Nations to change attitudes and approaches to persons with disabilities. It takes to a new height the movement from viewing persons with disabilities as “objects”  of charity, medical treatment and social protection towards viewing persons with disabilities as “subjects” with rights, who are capable of claiming those rights and making decisions for their lives based on their free and informed consent as well as being active members of society.

The Convention is intended as a human rights instrument with an explicit, social development dimension. It adopts a broad categorization of persons with disabilities and reaffirms that all persons with all types of disabilities must enjoy all human rights and fundamental freedoms. It clarifies and qualifies how all categories of rights apply to persons with disabilities and identifies areas where adaptations have to be made for persons with disabilities to effectively exercise their rights and areas where their rights have been violated, and where protection of rights must be reinforced.

*Regulation (EC) No 1107/2006 of the European Parliament and of the Council of 5 July 2006 concerning the rights of disabled persons and persons with reduced mobility when travelling by air[[81]](#footnote-82)*

“The single market for air services should benefit citizens in general. Consequently, disabled persons and persons with reduced mobility, whether caused by disability, age or any other factor, should have opportunities for air travel comparable to those of other citizens. Disabled persons and persons with reduced mobility have the same right as all other citizens to free movement, freedom of choice and non-discrimination. This applies to air travel as to other areas of life.”

**At the national level**, there is an important collection of rules and laws in this regard, starting with *The Constitution*, the law of laws[[82]](#footnote-83).

Article 9.2:

It is incumbent upon the public authorities to promote conditions which ensure that the freedom and equality of individuals and of the groups to which they belong may be real and effective, to remove the obstacles which prevent or hinder their full enjoyment, and to facilitate the participation of all citizens in political, economic, cultural and social life.

Article 10.1:

The human dignity, the inviolable and inherent rights, the free development of the personality, the respect for the law and for the rights of others are the foundation of political order and social peace.

Article 10.2:

The principles relating to the fundamental rights and liberties recognized by the Constitution shall be interpreted in conformity with the Universal Declaration of Human Rights and the international treaties and agreements thereon ratified by Spain.

Article 14:

Spaniards are equal before the law and may not in any way be discriminated against on account of birth, race, sex, religion, opinion or any other personal or social condition or circumstance.

Article 49:

The public authorities shall carry out a policy of preventive care, treatment, rehabilitation and integration of the physically, sensorially and mentally handicapped who shall be given the specialized care that they require, and be afforded them special protection in order that they may enjoy the rights conferred by this Title upon all citizens.

*Another fundamental rule is Law 51/2003, of 2 December, on equal opportunities, non-discrimination and universal accessibility for persons with disabilities[[83]](#footnote-84).*

This law is a further step forward in the implementation of the right to equal opportunities for persons with disabilities, such as freedom, equality, participation and care for persons with disabilities, guaranteeing minimum levels that can be extended to the entire State, without which there would be territorial imbalances that would generate discrimination and disadvantages for the citizen group of persons with disabilities.

*Royal Decree 1544/2007, of 23 November, which regulates the basic conditions of accessibility and non-discrimination for access to and use of modes of transport for people with disabilities.*

It makes explicit reference in its articles to all types of transport with annexes of technical specifications (parking, accessibility, signalizing, facilities, elements and information systems)

Article 1. Basic conditions for the accessibility and use of different modes of transport for people with disabilities

Article 2. Rail transport.

Article 3. Maritime transport.

Article 4. Air transport.

Article 5. Road transport.

Article 6. Urban and suburban bus transport.

Article 7. Transport by metropolitan rail

Article 8. Adapted taxi transport

Article 9. Special transport services.

*Royal Decree 3250/1983 of 7 December 1983, regulating the use of guide dogs for the visually impaired*

*Order of 18 June 1985 on the use of guide dogs for the visually impaired*

*Decree of 13 December 1938 establishing the NATIONAL ORGANIZATION FOR THE BLIND (ONCE). Special mention for ONCE, an organization that brings together blind and disabled people and is a worldwide reference.*

"The problem of the blind in Spain must be solved in a comprehensive, broad and generous manner while responding to the fervent and sympathetic desires felt by the affected population"

"The National Organization for the Blind is created under the Ministry of the Interior, which will compulsorily bring together all blind Spaniards for the purpose of mutual aid and the resolution of their specific problems".

Royal Decree 1041/1981 of 22 May on the modification of the organic structure of the Spanish National Organization for the Blind.

Royal Decree 358/1991 of March 15, 1991, reorganizing the Spanish National Organization of the Blind.

Royal Decree 1359/2005 of November 18, 2005, amending Royal Decree 358/1991 of March 15, 1991, reorganizing the Spanish National Organization of the Blind

Royal Decree 3250/1983 of 7 December 1983, regulating the use of guide dogs for the visually impaired*[[84]](#footnote-85)*

1. Visually impaired persons accompanied by guide dogs shall have access to places, accommodation, establishments, premises and public transport in the manner determined in the following Articles. Reference establishments include public and private hospitals, as well as those that provide outpatient care.

2. The access of the guide-dog referred to in the previous paragraph shall not involve any additional expense for the visually impaired, unless such expense constitutes the provision of a specific economically assessable service.

Order of 18 June 1985 on the use of guide dogs for the visually impaired*[[85]](#footnote-86)*

Article 5:

1. The visually impaired may use all types of public transport accompanied by their guide dogs, provided that they have a muzzle for the latter, which must be placed at the request of the employee responsible for the service, in those situations where it is essential. The guide dog must be placed at the foot of the dog at no additional cost, except in cases where a space reservation is required that prevents the use of another seat, in which case this additional cost must be paid by the user.

2. A visually impaired person accompanied by a guide dog shall be given preference in the larger seat reservation, with more free space around it or adjacent to an aisle, depending on the means of transport concerned.

3. In rail transport, the visually impaired person and his guide dog shall be allowed to move about in corridors, restaurant cars and other community services. Besides, where the visually impaired person with a guide dog uses the bunk or sleeping car service, an attempt shall be made to reserve one of the lower berths.

4. In the case of maritime transport, transport companies must provide a suitable place on vessels in service beyond the scope of cabotage for the guide dog to carry out its physiological needs. Company staff must be provided with assistance to ensure that the guide dog is brought to these places during the voyage.

Shipping companies may assign a cabin to be shared with other persons for use by visually impaired persons accompanied by a guide dog, and shall inform other passengers who have to share the cabin of this possibility.

5. Any visually impaired person accompanied by their guide dog may use the urban and interurban light car transport services regulated by Royal Decree 763/1979 of 16 March. In such cases, drivers of vehicles may not refuse to provide the service provided that the guide dog carries the special indicative sign referred to in Article 2. The guide dog shall be at the rear of the vehicle, at the feet of the visually impaired person, and shall occupy a place in the count of those authorized for the vehicle.

6. All operating manuals of Companies and public transport companies shall include the necessary rules for compliance with the measures adopted for the use of such transport by visually impaired persons accompanied by guide dogs. To this end, the National Organization for the Blind, Associations of Guide Dog Users and Organizations representing consumers and users shall be heard beforehand.

Likewise, these measures will be disseminated and explained to all employees and operators of these companies so that they have complete and rigorous knowledge of them, as well as the rights and obligations of these users.

Also, all the **Autonomous Communities** have their specific regulations in this regard

*Castilla y León:*

*Law 11/2019 of 3 April on access to the environment for users of assistance dogs in the Community of Castilla y León*

1. The purpose of this law is to recognize and guarantee, within the scope of the Community of Castilla y León, the right of access to the environment of persons with disabilities or other persons who need the use of an assistance dog to promote their autonomy, as well as the regulation of the attachment units and the conditions that assistance dogs must meet to be part of them.

2. The right of access to the environment referred to in paragraph 1 of this Article includes not only freedom of access in the strict sense, but also the freedom to roam and to remain in the space or place concerned under the same conditions as other users.

*Andalucía:*

*Law 5/1998, of 23 November, regarding the use in Andalusia of guide dogs by people with visual impairments.*

As indicated in the conclusions of the Observatory of Universal Accessibility of Tourism in Spain[[86]](#footnote-87): "During the last thirty years most of the Public Administrations, from their respective frameworks of action, have undertaken a process of improvement of the conditions of accessibility. This has also been done to a greater or lesser extent by the administrations in charge of managing the territory as a tourist destination at regional level.

Accessibility is considered, evolutionarily and gradually, as a relevant factor in the quality of tourist destinations; the subject is not unknown by the sector and actions are reflected both in the resources and in the environments and the activity of the managers.

The situation of tourism in Spain, in search of the renewal of mature destinations and the improvement of the quality of their services, makes accessibility to be valued at the same time as other elements such as the intelligence of the destination or connectivity, as a factor that facilitates the opening of markets. Proof of this is the integration of accessibility as a fundamental pillar in the UNE 178501 standard of 2016 on Intelligent Tourist Destinations.

At a legislative and regulatory level, accessibility in the tourism sector is integrated within the general legislation on accessibility and in the tourism quality standards in a variable manner, without there being a specific standard that regulates it.

As a world tourist power, Spain also faces the challenge of being a power in terms of accessibility, from a legislative and regulatory point of view it seems that the protocols are clearly established.

The accessibility of public transport in Spain is highly valued, especially the underground in some cities such as Madrid. Even so, improvements are identified that have been observed to exist in other countries or communities, such as including public toilets or lifts in all metro stations.

According to the World Economic Forum in The Travel & Tourism Competitiveness Report 2019[[87]](#footnote-88), our country is the most competitive in the world in terms of travel and tourism. "Spain has developed an economy focused on tourism, where more than half of the sector's income comes from international visitors".

The report also highlights as factors that keep Spain at number one in tourism competitiveness year after year, the "exceptional infrastructure", mainly hotel and transport (air, rail, road, sea) "The many international visitors' - says the report - 'can rely on good airport infrastructure, with a wide variety of airlines that provide high connectivity.

Still, blind and visually impaired people request that many destinations that are not yet adapted be adapted and made accessible, and for those that are adapted to a greater or lesser extent they request better training of the personnel of both services and guides. Most of them miss more adaptation in leisure activities (cinemas, theatres and shows)

**North Macedonia**

The basic strategic document that unites the measures and activities aimed at improving the level of social inclusion of these categories of citizens (as part of the wider vulnerable group - people with special needs) is the National Strategy for Equalization of the Rights of Persons with Disabilities 2016-2020**[[88]](#footnote-89)** and the revised version of the National Strategy for Equalization of the Rights of Persons with Disabilities (revised) 2010 -2018[[89]](#footnote-90).

The Constitution defines the Republic of North Macedonia as a welfare state, built on humanism, social justice and solidarity. Article 35 states: "The Republic shall take care of the social protection and social security of its citizens in accordance with the principle of social justice." In addition, the Republic guarantees the right to assistance to the disabled and incapable of working citizens and provides special protection for persons with disabilities and conditions for their inclusion in social life (Article 35 paragraph 3). This article implies that given the specificity of persons with disabilities, special measures are needed, i.e. affirmative action to achieve formal equality, which is a constitutionally guaranteed category.

Within the country, there are two coordinating bodies related to the implementation of policies for persons with disabilities: the National Coordinating Body for Equal Rights of Persons with Disabilities and the National Coordinating Body for the Implementation of the UN Convention on the Rights of Persons with Disabilities in the Republic of North Macedonia[[90]](#footnote-91).

The Government of the Republic of Macedonia in 1996 established a National Coordinating Body for Equal Rights of Persons with Disabilities of the Republic of Macedonia[[91]](#footnote-92)in which representatives of the National Council of Disabled Organizations, Ministries and Institutions responsible for this issue. The role of this coordinating body is in accordance with Rule 17 of the Standard Rules of the UN. It is established in accordance with the administrative decision and it is responsible for coordinating the efforts of the state to promote the rights of persons with disabilities. The National Coordinating Body took an active part in drafting the revised National Strategy for Equalization of the Rights of Persons with Disabilities 2010-2018.[[92]](#footnote-93)

In addition to this body, the Government of the Republic of Macedonia in November 2012 decided to establish a National Coordinating Body for the Implementation of the UN Convention on the Rights of Persons with Disabilities in the Republic of Macedonia. At the same time, this body, in addition to monitoring the implementation of the Convention, has the opportunity to prepare proposals and opinions on legal and sub-legal acts in the field of protection of persons with disabilities convention on the Rights of Persons with Disabilities in the Republic of Macedonia. The Coordinating Body includes representatives of the legislature from the Inter-Party Parliamentary Lobby Group on the Rights of Persons with Disabilities, as well as from the Commission on Equal Opportunities for Women and Men, various ministries (especially the Ministry of Labor and Social Policy, Health , local self-government, education and science, finance, transport and communications, justice, economy and foreign affairs), independent institutions such as the Ombudsman and the Commission for Protection against Discrimination, the regulatory body - council Broadcasting, the Judicial Council and organizations of persons with disabilities (National Council of Disability Organizations and Polio Plus). It has a permanent structure and appropriate competencies that will allow it to coordinate all government institutions and bodies, both at the state and local levels, responsible for the implementation of the Convention on the Rights of Persons with Disabilities. The Republic of Macedonia signed the Convention on the Rights of Persons with Disabilities[[93]](#footnote-94) (hereinafter referred to as the CPCP or the Convention) on 30 March 2007 and ratified it on 5 December 2011. In addition, the State signed the Optional Protocol to the CPLP on 29 July 2009 and ratified it on 5 December 20111. The ratification instruments were deposited with the United Nations on December 29, 2011.

With the signing of the Convention on the Rights of Persons with Disabilities in 2007 and its ratification in 2011, its provisions have become part of the national legislation of Macedonia and are directly applicable. This includes members dealing with the issue of protection against discrimination on the grounds of disability, accessibility, education, employment, health, adequate living standards and social protection.

Equality and non-discrimination

The Constitution of the Republic of Macedonia, in its Article 9contains a general equality clause that does not explicitly provide for disability as a discriminatory basis. In order to improve the status of persons with disabilities and their integration into social flows, the Government adopted the National Strategy for Equality and Non-Discrimination 2016-2020.[[94]](#footnote-95)

According to the national legislation, there are two quasi-judicial mechanisms to which citizens can turn when their rights are violated due to discrimination, namely: the Commission for Protection against Discrimination and the Ombudsman.

**Physical environment:**

People with disabilities in the Republic of Macedonia encounter various barriers in performing daily activities: entry and use of residential and public buildings, public transport, use of services and products.

In Macedonian legislation, accessibility and accessibility in the physical environment is regulated by several laws. The Law on Construction 17 regulates the right to physical accessibility and accessibility to public buildings and public areas. Additionally, with the new amendments to the Law on Construction18, Article 11 paragraph 3 regulates the issue of accessibility and accessibility of public areas by designing and installing pedestrian paths for movement of persons with physical disabilities and visually impaired people. The accessibility of the institutions is stated as one of the obstacles in the realization of the rights of the citizens with disabilities. When it comes to accessibility, it is necessary to mention the Rulebook on the manner of providing unimpeded access, movement, residence and work of persons with disabilities to and in buildings, which prescribes minimum standards for the manner of providing unimpeded access, movement, residence and work of persons with disabilities up to and in the buildings for public, business, residential and residential-business purposes (Article 5 paragraph 1).

In parallel with the Rulebook on categorization of the facilities for performing catering activities, as a criterion for obtaining and classification of the catering facilities is: “the security of the room for the disabled (obligation only for the new facilities that are being built)". This criterion applies to all objects from 1 to 5 stars.[[95]](#footnote-96)

Within the Strategy for e-inclusion 2011-2014 of the Republic of Macedonia, disability is present in the context of priority 1. Namely, in 2009 the web portal for persons with disabilities (sakamznammozam.gov.mk) was created for their access to electronic content.[[96]](#footnote-97)

While the country is striving to implement laws and regulation regarding accessibility, visually impaired and blind people encounter difficulties in navigating independently in urban areas. Therefore, the use of an assistive mobile system seems to be necessary in the case of the visually impaired and blind people.

The main problems visually impaired people are facing during the use of public transport are:

1. Lack of vehicle identification, which means that a blind person is not properly informed, that the vehicle that have just arrived is the member of the public transport fleet (in the case, that vehicles which belong to other transport companies can share the stop).

2. Stops are not properly marked; there is no possibility to instruct a blind person where the bus stop is. 3. Lack of acoustic information about line numbers of arriving vehicles.

4. Lack of timetable in format which is readable by the blind people.

5. Lack of possibility to inform the driver to take care about a blind person, who is waiting at the stop.

The most of these barriers are easily worked around by legal regulations, which allow traveling for free for the people that take care about blind people and assist them during their voyages. To really solve the problem and allow blind people to travel independently without assistance there is a need of an information system, which would give them up-to-the-second notifications of arriving vehicles, access to the timetable in a way that can be accessed at the stop and moreover allow the driver to be notified of a disabled passenger waiting.

In designing and delivering transport projects, the ideal is to embrace the “universal design” concept. This is the concept of creating environments that respond to the widest range of the population possible, including the full range of people with limited mobility. The aim of transport projects should therefore be to design and operate transport systems that are easy for everybody to use (“universal access”). Most measures that help people with limited mobility also help everyone else. For example, everyone benefits from pedestrian paths and streets without potholes, and from easy-to-read destination signs on buses.

**Romania**

There are several Romanian laws governing the rights of persons with disabilities out of which we mention several with impact on mobility and travel:

* LAW no. 448 of December 6, 2006 \*\*\* republished, on the protection and promotion of the rights of persons with disabilities (Updated on 22.02.2019)[[97]](#footnote-98).

This law regulates the rights and obligations of persons with disabilities granted for the purpose of their integration and social inclusion and is based on principles such as respect for human rights and fundamental freedoms; preventing and combating discrimination; equalization of opportunities; community empowerment; adapting the company to the disabled person; the interest of the disabled person; freedom of choice and control or decision over one's own life, services and forms of support; protection against neglect and abuse; choosing the least restrictive alternative in determining the necessary support and assistance; social integration and inclusion of persons with disabilities, with equal rights and obligations as all other members of the society; according to this law, accessibility means: "the set of measures and works to adapt the physical environment, as well as the information and communication environment according to the needs of people with disabilities, an essential factor in exercising the rights and fulfilling the obligations of people with disabilities in society." Among other areas, Law 448/2006 provides for accessibility measures and the field of information and communication technology (ICT), mainly in charge of public authorities, with a deadline for implementation on 31 December 2007. The Ministry of Communications and Information Technology developed in 2008 a guide for public authorities on web design standards, a guide that also includes a chapter on web accessibility for people with disabilities.

* LAW no. 221 of November 11, 2010 for the ratification of the Convention on the Rights of Persons with Disabilities, adopted in New York by the General Assembly of the United Nations on December 13, 2006, opened for signature on March 30, 2007 and signed by Romania on September 26, 2007[[98]](#footnote-99);

Romania ratified the UN Convention on the Rights of Persons with Disabilities, which entered into force for Romania in January 2011. The Convention includes the most complex and explicit definition of what accessibility means, a much broader concept than simply making public space accessible, and states what are the obligations of the signatory states in this respect.

* Government Decision no. 268 of 14.03. 2007 for the approval of the Methodological Norms for applying the provisions of Law no. 448/2006 regarding the protection and promotion of the rights of persons with disabilities[[99]](#footnote-100);
* Government Decision no. 787 of 17.07. 2007 regarding the establishment of measures to ensure the application of Regulation (EC) no. 1.107 / 2006 of 5.07.2006 on the rights of persons with disabilities and persons with reduced mobility traveling by air[[100]](#footnote-101);
* Normative NP 051, on the adaptation of civil buildings and urban space to the individual needs of people with disabilities[[101]](#footnote-102), which is aligned with the European requirements in this matter and which contains a consistent section regarding the accessibility for the blind. It defines the minimum criteria necessary for accessibility of civil buildings and urban space for people with disabilities, including detailed and explanatory instructions, including graphs for each type of situation requiring accessibility (urban space, built space, design of housing for people with disabilities, buildings of interest and public utility), as well as an informative, accessibility check grid (Annex F). Therefore, there is a concrete regulation for at least the new buildings and the newly arranged public space to be executed according to accessibility standards.

The national reality of tourism for disabled people in general and visually impaired and blind people in particular in Romania is still very poor, despite the existing laws, so visual impaired persons continue to complain about mobility accessibility, traveling and access to independent living.

During the travelling visual impaired people encountered transport impediments, impediments related to tourist attractions, accommodation impediments. These are the following, explained in the responses of the interviewed VIP:

Transport impediments:

* Absence of audio instructions;
* Facing architecture barriers;
* There is no one to help them;
* Non-existing protocols on national and EU level for VIP;
* No voice directions/instructions in the public transport means.

Accommodation impediments:

* There aren’t booking sites with audio possibilities

Impediments regarding tourist attractions:

* Absence of voice instructions;
* No voice information;
* No tactile carpets;
* No audio information;
* No Braille.

It is a fact that laws, rules, and standards are important preconditions for independent and safe mobility to become a reality, but real change usually only comes about when laws are adopted to make those provisions obligatory.

Unfortunately, the enforcement of those rules is an issue. Many countries have difficulties making sure legislation and standards are fully obeyed, Romania is one of them. Reasons may include insufficient training, resulting in poor expertise of public authorities and professionals, prioritizing design over accessibility and usability, lack of or insufficient allocation of resources, and many more.

Romania is still in the situation of not having entirely solved the problem of personal mobility. Public transport is partially accessible and does not currently have facilities for the mobility of the blind. Although there are provisions in both Law 448/2006 and the Regulation on the Adaptation of Civil Buildings and Urban Space to the Individual Needs of Persons with Disabilities that regulate the ways in which a reasonable level of personal mobility can be achieved, they have not been yet systematically implemented.

An accessible product or service is one that can be used by a visually impaired person, despite his or her disability, autonomously, without the intervention of another person.

The right to accessible transport and the correspondent accessible public space is a fundamental right of people with disabilities, and also a key right because it allows the exercise of other rights. Lack of accessibility is a major problem that condemns people with disabilities to isolation, describing a framework of permanent and systematic discrimination.

# 6. Main Stakeholders

In the previous chapter it was shown that the legislative provisions represent the starting point for making transport and public spaces accessible. The extent to which accessibility is a priority for the authorities translates into the actual level of implementation of the respective legal provisions, shown by accessibility achieved in each of the countries participating in the project.

The implementation of legal obligations should come primarily from state institutions. This is the reason why transport service providers vision is of great interest, as well as the contribution of NGO’s.

**North Macedonia**

Representatives from 3 target groups were interviewed:

* Stakeholders (National Aviation Authority, Special educator, National authorities for land traffic / ministry, agencies, National Authorities and Railways / Related Associations, Railway Transport Company, School for people with disabilities, National authorities for land traffic / ministry, agencies, National authorities for land traffic / ministry, agencies);
* IT developers;
* VIP.

According to the three target groups, the biggest challenges or problems in using public transport services by visually impaired people are: Absence of voice directions, voice maps, tactical paths, accompanying persons, tactile trails. The visually impaired people are facing infrastructure obstacles and barriers.

The conducted interviews showed that none of the target groups covered with the research don’t get updates regarding the transport (schedule, arrival and departure times, etc.). They either don’t get updates, or they are forced to ask for help from someone because there is no access application in Macedonia where they can check such data.

They usually get information on internet, through the website of the Public Transport Company or through their mobile application. They use visual display of bus station boards, phone, and public sign in front of each bus stop. They also get information through the information systems of the providers of public transport services.

Main stakeholders related to the project topic in Macedonia are:

Visually impaired or blind people, with travel experience on national or international level. They are the main resource of information and they are presenting the current situation in terms of traveling for VIP in most appropriate and correct way, so we can all together identify the challenges they are facing daily during their traveling. Having the valuable information gathered directly from them and connected with the findings from the other stakeholders we can work together to improve the conditions related to travel for VIP.

**Relevant ministries on the subject:**

Ministry of Transport and Communications

Ministry of Labour and Social Policy

Ministry of Economy – sector Tourism

Ministry of Urbanism and Physical Planning

Ministry of Justice

**Transport providers:**

Main Intercity bus station – Skopje

The development of bus traffic on a city closely associated with the development of the city. Skopje has almost century-old tradition when it comes to the main bus station. Due to a number of reasons, its location was not constant over time, but as an object always exercised his duty.

Bus station in Skopje is the biggest bus station in the country. It is a bus station that implements most of timetables, both domestically abroad. There is no greater place in the country to which no timetable from Skopje to him and vice versa. It should also be noted that the bus stop riding and international timetables. Currently buses depart from Skopje to 20 European countries.

Every year the number of schedules that are realized from the bus station increases. It should also be noted that the number of passengers who use the bus services from year to year increase.

The next line of the time you can see the highlights of the development of international bus station in Skopje.[[102]](#footnote-103)

Railways of the Republic of Macedonia, Transport AD Skopje:

The railway system of the Republic of Macedonia has existed since 1873 with the release of the Thessaloniki - Skopje railway. According to EU regulations, the Macedonian Railways will be transformed into a modern transport organization that within Macedonia, but also beyond, will offer its transport services for transport of goods and passengers.

MR Transport AD-Skopje, in accordance with the Law on Access to Public Information, publishes on its website a list of acts, materials and information, as well there are responsible persons who act upon your requests.

The vision of MR Transport AD - Skopje is to provide conditions for optimal integration in the European Railways, establishing a model of corporate governance on the principles of market operation and customer satisfaction and employees, in order to achieve the role of national leader in passenger transport. and goods and the preferred carrier in the neighborhood.

The mission of MR Transport AD - Skopje is to manage the means of transport of the Macedonian Railways on the principle of sustainability of social values, and in order to provide quality, reliable, economically and environmentally friendly services for transport of passengers, goods and providing services for traction of trains in accordance with the needs of the interested parties.[[103]](#footnote-104)

International Airport Skopje:

Skopje Airport was declared as the airport offering the best quality service in Europe in its category by Airports Council International (ACI) in 2012, 2013 and 2015. The airport was also listed among the ‘Top 10 Airports in the Eastern Europe’ by Skytrax World Airport Awards in 2015, 2016 and 2017. In 2018, the airports operated by TAV in Macedonia served 2.3 million passengers.

**Policies**

TAV Airports has adopted the principle of managing its human capital, the main foundation of its success, at the highest global standard and being a preferred employer brand.

The main policy of the company is to select, develop, evaluate and manage human resources at international standards with the commitment of offering equal opportunity for each employee. Our goal is to recruit dynamic people who are gifted with entrepreneurial spirit, open to development and innovation, aim to improve both themselves and their professions, and who have high levels of education, motivation and social skills.

**Disabled & Special Need Passengers:**

The Special Assistance Service is part of Passenger Handling Department and the airport provide services for the disabled and persons with reduced mobility.  
According to EU Directive (EC) 1107/2006, the Airport is responsible for providing assistance to passenger with reduced mobility (PRM).

The counter where people can ask for this free of charge service is located inside the Terminal building next to the Information Desk. Passenger with reduced mobility (PRM) means any person whose mobility is reduced due to physical incapacity (sensor or locomotor), intellectual deficiency, age, illness or other cause of disability.

For any other question that does not require immediate response, or people have any other complaint or compliment, they can be send by e-mail provided on the airport web site. Customer Relations Department, and airport staff will respond accordingly as soon as possible.  [[104]](#footnote-105)

**The National Union of the Blind of the Republic of Macedonia:**

The National Union of the Blind of the Republic of Macedonia was established in 1946 under the name of the Union of the Blind of the Republic of Macedonia and since then has acted as a national, non-governmental, non-partisan, non-profit and humanitarian organization of special social importance in the Republic.

The basic mission of the Union is to create better living and working conditions for blind people throughout the country, their associations and their better socialization and integration into the social community.

The Union of the Blind is an umbrella organization that through its 18 associations of blind people counts more than 2500 members - blind people on the territory of the Republic of Macedonia, i.e. people who see at most 10% of the better eye with corrective glass.[[105]](#footnote-106)

For a significant number of visually impaired and blind persons, public transport plays an important role in productivity, community involvement, and independence, since it may be the sole viable mobility option to seek education, work, medical care, food and many other venues in their community. Public transportation is vital for independent travel for people who are blind or have low vision.

Technological advancements could be used to empower people with visual disabilities. Government and non-governmental organizations have shown interest in investigating difficulties encountered by visually impaired and blind people when using public transport media.

The visually impaired and blind people encounter difficulties in navigating independently in urban areas. Therefore, the use of an assistive mobile system seems to be necessary in the case of the visually impaired and blind people.

The main problems VIP are facing during the use of public transport are:

1. Lack of vehicle identification, which means that a blind person is not properly informed, that the vehicle that have just arrived is the member of the public transport fleet (in the case, that vehicles which belong to other transport companies can share the stop);
2. Stops are not properly marked; there is no possibility to instruct a blind person where the bus stop is. 3. Lack of acoustic information about line numbers of arriving vehicles.
3. Lack of timetable in format which is readable by the blind people;
4. Lack of possibility to inform the driver to take care about a blind person, who is waiting at the stop.

The most of these barriers are easily worked around by legal regulations, which allow traveling for free for the people that take care about blind people and assist them during their voyages. To really solve the problem and allow blind people to travel independently without assistance there is a need of an information system, which would give them up-to-the-second notifications of arriving vehicles, access to the timetable in a way that can be accessed at the stop and moreover allow the driver to be notified of a disabled passenger waiting.

In designing and delivering transport projects, the ideal is to embrace the “universal design” concept. This is the concept of creating environments that respond to the widest range of the population possible, including the full range of people with limited mobility. The aim of transport projects should therefore be to design and operate transport systems that are easy for everybody to use (“universal access”). Most measures that help people with limited mobility also help everyone else. For example, everyone benefits from pedestrian paths and streets without potholes, and from easy-to-read destination signs on buses.

**Spain**

Service providers' vision.

The study also interviewed providers of tourist services of all kinds (458), although this project aims to learn about the experience of the visually impaired, we believe it is relevant to draw at least the main conclusions.

Almost 8 out of 10 companies and tourist suppliers (77%) declare to know the legislation on accessibility that applies to their business or establishment, against 23% that say they do not know it. This percentage is high and implies a wide knowledge of the legislation by tourism managers if this self-perception of their knowledge is real.

Also, 56% confirm that their establishment or service has incorporated an explicit policy, commitment or procedure regarding people with disabilities. Of these, more than half claim to have established an accessibility plan (53%),

Concerning certifications, only 11% of suppliers claim that their establishment or service has some kind of accessibility certification or mark. Of these, 44% seems to have an accessibility label granted by a city council, followed by those granted by a private entity (35%), and to a lesser extent, they endorse the UNE 170001 certification (9%) or WCAG web content accessibility seals (4%).

More than half of the tourism companies and suppliers (55%) perceive as high or very high the economic cost of improving the accessibility of their establishment or service, significantly highlighting that only 30% of the tourism offices perceive it in this way. On the opposite side, only 1 in 10 companies (9%) consider this cost as low or very low, and the remaining 29% interpret it as an average cost.

Going deeper into the brakes and difficulties perceived by tourism managers when facing the provision of accessible services, 59% perceive it as an additional cost for adaptation, while 43% consider it a lack of effective demand. Besides, 1 out of 3 recognizes a lack of knowledge about universal accessibility and attention to tourists with disabilities (30%) and a lack of information and complexity of the normative requirements of accessibility (28%). To a lesser extent, these brakes are justified by the lack of time needed to carry out these actions (16%). By type of tourist provider, it is worth noting as statistically significant differences, the lower perception of the additional cost for adaptation in the hotel industry (40%), and a greater lack of knowledge about universal accessibility and attention to tourists with disabilities in the tourist offices (42%).

Market share:

Comparing the perspective of tourists with special needs and the providers in the tourism sector allows to clarify what the market reality is and to demolish certain myths or prejudices created among tourism companies and providers.

- 4 out of 10 businesses and suppliers consider a lack of effective demand for tourists with disabilities and special needs as a barrier to providing accessible services (making the necessary adaptations).

- Also, tourism service managers are not convinced that people with disabilities and special needs represent a potential market niche for businesses (they rank near the "neither agree nor disagree" rating scale).

However, there is no statistically significant difference between the number of trips made in the last two years by people with a disability or special needs (7 trips) and people without special needs (8 trips).

Moreover, in the analysis of expenditure, another conclusion was reached: the average expenditure made by disabled and special needs tourists (813,65 euro on average) was significantly higher than the expenditure made by people without special needs (637,60 euro on average).

These two data are conclusive to state that people with disabilities and special needs constitute an effective demand in the tourism sector due to the frequency with which they travel and the average outlay they make on each trip, being a real market niche, for companies and providers of tourism services in Spain.

At this point, we can link to the report Inclusive Tourism and Employment of the Adecco Foundation.

The potential market of accessible tourism in Spain is 5,968,261 people according to the study. The potential market of accessible tourism for the Spanish tourism sector, by Accesturismo.

* 56% of people with reduced mobility and other disabilities decide not to travel due to a lack of accessible tourism, according to a survey by the Adecco Foundation of 500 people in this situation.
* Applying this percentage (56%) to the potential accessible tourism market (5,968,261 people), 3,342,226 people with accessibility needs stop travelling due to the absence of accessibility, which would generate approximately 90,000 new jobs related to accessible tourism (transport, accommodation, catering, food and drink) plus some 14,000 new contracts in the field of accessible information and communication dedicated to optimising the user experience

With these figures in hand, in addition to meeting the travel needs of people with disabilities, there is no denying the additional impetus that the existence of destinations for people with disabilities and their companions could give to national tourism.

Main Stakeholders, IT developers and target groups identification

In this phase, the attention was set to the main groups that were being investigated for the project.

People who are blind or visually impaired, with travel experience and who know the difficulties and challenges they have to face.

A sample of the main stakeholders in the world of tourism, starting with Turismo de España, the public body responsible for marketing Spain as a tourist destination, as well as Renfe, the main railway operator and centers such as the Prado Museum and the Teatro Real.

Besides, some of the leading companies in the development of technological aids that visually impaired people use as support for planning and carrying out their trips.

To ensure that the tourist experience is a satisfactory one, accessibility must be present in all elements of the tourism value chain, from transport, access, accommodation, products and services

In this sense, **accessible tourism** would be defined as that which uses Universal Accessibility and Design for All, resulting in a set of services and infrastructures that allow access to all segments of the population, regardless of their needs and circumstances. Today it tends to be called inclusive tourism, due to its integrating character and its capacity to promote equal opportunities among all people.

(Source: Report on Inclusive Tourism and Employment, ADECCO Foundation)

As indicated in the conclusions of the Observatory of Universal Accessibility of Tourism in Spain[[106]](#footnote-107): "During the last thirty years most of the Public Administrations, from their respective frameworks of action, have undertaken a process of improvement of the conditions of accessibility. This has also been done to a greater or lesser extent by the administrations in charge of managing the territory as a tourist destination at regional level.

Accessibility is considered, evolutionarily and gradually, as a relevant factor in the quality of tourist destinations; the subject is not unknown by the sector and actions are reflected both in the resources and in the environments and the activity of the managers.

The situation of tourism in Spain, in search of the renewal of mature destinations and the improvement of the quality of their services, makes accessibility to be valued at the same time as other elements such as the intelligence of the destination or connectivity, as a factor that facilitates the opening of markets. Proof of this is the integration of accessibility as a fundamental pillar in the UNE 178501 standard of 2016 on Intelligent Tourist Destinations.

At a legislative and regulatory level, accessibility in the tourism sector is integrated within the general legislation on accessibility and in the tourism quality standards in a variable manner, without there being a specific standard that regulates it.

**Romania**

A number of target groups were identified and addressed individually to collect the information which is the subject of this study.

According to the desk research study we decided to select the following 5 stakeholders: Cluj Airport, Cluj Railway Station, Asociatia Babilon Travel, Ethnographic Museum and Public Transport Company in Cluj-Napoca, each of them having direct connection with the mobility of visually impaired persons, respectively with the accessibility of transport for VIP.

Airport Cluj

* Airport assistance

The passengers with reduced mobility receive special attention at the airport due to the services and facilities that are offered.

The category of passengers with reduced mobility includes any person whose mobility is impaired due to a disability (sensory or locomotives), a physical disability, age, illness or other cause (persons using a wheelchair, persons with disabilities, old or overweighed).

Quality standards regarding the Assistance Service for passengers with reduced mobility are those established by the European Commission - Passenger Rights - Passengers with reduced mobility.

* Before the trip:

In order to travel by plane and benefit from services for passengers with reduced mobility, they need to inform the airport or flight company accordingly, at the moment of booking tickets.

The staff responsible for boarding will be informed in advance about the type of assistance required, and assistance will be done by qualified personnel.

* Public parking:

The public car parks of the airport have special places for people with reduced mobility. Access from the parking lot to the Departures Terminal is facilitated by an access ramp.

* In the terminal:

The access doors in the terminals are automatic.

For access to the different floors of the terminals, passengers moving in the trolley have room elevators, equipped with a control panel installed at a suitable height. Areas that cannot be accessed via elevators are provided with mobile platforms (please request specialized assistance from the handling agent or the personnel of the airline you travel with).

In all areas of the airport there are specially designed toilets to allow them to be used by people moving in the trolley.

Public phones installed at a suitable height are available in all terminal areas.

Romanian Railway Company (CFR Calatori)

On major railway stations, there is a special service for disabled people, assisting them from the stage of buying tickets, finding the platform, getting on the train, finding the right seat, until the end of the journey and exiting the final destination station.

Services offered:

* on/off-boarding of the disabled passenger and eventually the wheelchair;
* accompanying disabled passengers across the starting/ending railway stations;

For persons with reduced mobility (PRM) the railway company CFR Călaturi provides free services, for certain stations and for certain trains in domestic and international traffic.

CFR Călători offers assistance services to all the high-end trains (Interregio), only between the stations opened for this type of transport, for all categories of disabled passengers, except persons with motor disabilities in non-folding wheelchairs.

For people with motor disabilities in a non-folding wheelchair, assistance is provided only to the second class, only between the stations open for this type of transport and only to certain trains.

In order to benefit from the specific services related to disability type, for the railway journey, it is necessary to request them at the latest 48 hours before the travel date, specifying all the necessary details (identification data, disability, necessary services, etc.) by completing the standardized form available at the points of sale of CFR Călători or other authorized distributors, or by completing the PRM service request online.

It is important to know that disabled passengers can also request assistance services if they have travel certificates and reservations in international traffic with boarding, train change or descent at a station on the territory of Romania. In this case, passengers need to present these credentials when submitting the assistance request.

Public Transport Company Cluj-Napoca (CTP – Compania de Transport Public Cluj-Napoca)

The public transport activity is meanwhile quite ok in Cluj-Napoca, since we made important improvements of the system. Still, there are issues to be solved, mainly regarding disabled people generally and visually impaired people especially, which we strongly consider for the very next time to come.

A number of newly purchased buses have a voice announcement at the station stop. Although the message is rather stylized than effective, it is a great evolution for accessibility and may be the most obvious form of accessibility for the visually impaired. The disadvantage is that you have to be in the front of the bus to hear the voice message. In longer stations it can be a problem because it is not certain that you will hear the announcement if you sit in the middle of the station and catch only the tail of the first bus.

The placement of small Bluetooth Beacon devices that transmit a presence signal over a distance of more than 20 m can be a simple and not too expensive solution. accessibility.

At present, most people use a smartphone, as do the blind. If we can also use the phone for accessibility, we no longer charge the user with devices specials that can be easily lost.

The implementation of a software application on the mobile phone allows the management of the messages that the user needs.

Bluetooth-based technology is a strategy to be followed to see how reliable and appreciated it is by the beneficiaries.

Ethnographical Museum of Transilvania (Muzeul Etnografic al Transilvaniei Cluj-Napoca)

The Ethnographic Museum of Transylvania is hosting a permanent exhibition developed for the visually impaired. The exhibition is entitled "Touch and understand - the tactile message of traditional peasant artifacts".

The exhibition is an outcome of a project funded by the National Cultural Fund Administration. The exhibition aims to facilitate access to culture for people with visual impairments, offering the necessary conditions for promoting and learning the values ​​of traditions and cultural heritage.

The exhibited objects are grouped by ethnographic categories, and the target audience can benefit from specialized guides, tactile signposts, labels in Braille alphabet, drawings with ethnographic themes in relief and in Braille alphabet. The access to the exhibition is also adapted to the specific needs of the visually impaired by use of tactile carpets. For a better orientation, at the entrance there is a tactile model of the exhibition space. This exhibition represents the only chance for the community of the visually impaired to establish a scientifically controlled contact with the cultural environment.

Conclusion

There are few assessments of the level of accessibility for people with disabilities, even in terms of accessibility of public space. Most come from NGOs, although the assessment of the implementation of legal obligations should come primarily from state institutions. Moreover, despite the existence of control obligations and the possibility of sanctions, there is very little data on the accessibility of the physical environment in general, and the state does not assume reasonable accessibility targets within a reasonable time.

There are many ways to define and measure “accessibility”. European states apply a variety of different approaches to measuring and defining “accessible” venues and services and therefore the data are not directly comparable in terms of the service types or the provisions for the customers groups they address.

All countries included in this project have accessibility legislation in place, which addresses the built environment, through general building regulations and laws and, in many cases, through specific access legislation for parts of the tourism sector (e.g. hotels). However, regulatory provisions on accessibility tend to be applied mainly when new buildings are being planned and any conformity assessment procedures appear to be generally weak. Adapting facilities in historical buildings and environments has been frequently mentioned as making accessibility more challenging and a significant barrier to improved accessibility.

# 7. GENERAL CONCLUSIONS FOR EUROPE, BASED ON PRIMARY AND SECONDARY RESEARCH FINDINGS IN 3 PARTICULAR EUROPEAN COUNTRIES LOCATED IN THE EAST AND WEST OF EUROPE

Traveling in general is based on mobility. This can be seen as one of the fundamental human rights. Regarding disabled people in general and visually impaired/blind (VIP) in particular, these rights are stated on international level by the UN Convention on the Rights of Persons with Disabilities[[107]](#footnote-108). Equal access to mobility is safeguarded in this international treaty.

On European level the most important stakeholder that creates guidelines for VIP in respect with mobility and accessibility is the European Blind Union (EBU)[[108]](#footnote-109).

According to EBU, there are three main areas that contribute to accessibility and independent and safe mobility of VIP. These areas are:

(1) Legislation and standards;

(2) Built environment and infrastructure;

(3) Digital solutions.

All of these are grounded in the conviction that the three areas of legislation, built environment and digital solutions are connected and need to be combined in order to maximize the accessibility of mobility across Europe.

Based on statistics, case studies and a collection of good practices, Europe wide and on our own researches (field and desk) during the ATSVIP project, there are some relevant findings to be highlighted:

(1) All three partner countries of the consortium have ratified the United Nations Convention on the Rights of Persons with Disabilities. Equal access to mobility is safeguarded in this international treaty. It is also an important precondition to enjoying other rights, as independent and safe mobility is necessary to reach a workplace, leisure activities or health service.

The three partner countries, North Macedonia, Romania and Spain, have accessibility legislation in place, which addresses the built environment, through general building regulations and laws and, in many cases, through specific access legislation for parts of the tourism sector (e.g. hotels). However, regulatory provisions on accessibility tend to be applied mainly when new buildings are being planned and any conformity assessment procedures appear to be generally weak. Adapting facilities in historical buildings and environments has been frequently mentioned as making accessibility more challenging and a significant barrier to improved accessibility.

Legislation and standards are the most efficient areas supposing that is represented by binding laws in order to achieve an accessible environment for VIP. They need to be well implemented and thoroughly enforced, for example with fines. Administrators, planners, public transport staff and other personnel members have to receive training to be aware of access needs and accessibility provisions. Only then can consistent and long-lasting change occur.

Quality labels, that are part of some Accessibility Information Schemes, are intended to communicate reliability of accessibility standards. Information and labelling schemes can also be used as a valuable business development tool and a point of reference for businesses to understand accessibility. However, every new accessibility labelling scheme presents a potential challenge to the VIP, insofar as each scheme uses its own nomenclatures, access standards, customer profiles, tactile pictograms and languages. The proliferation of access labels can thus diminish rather than enhance the availability of useful and easily accessed information due to the inconsistency of approaches among well-meaning standards and system designers.

While some labels differentiate their target groups by impairment (which can be an important incentive for stakeholders to engage with the label and make the initial investment), this has the drawback of not being consistent with a cross-impairment approach. Destinations and suppliers should recognize that single-impairment labels (e.g. targeting only “wheelchair users”) are likely to be insufficient, since many customers have additional access needs that must be accommodated.

Weaknesses of such standards and labels as they exist now are that they require consistent funding, they tend not to be self-sustaining and they therefore often do not go beyond the pilot phase and fail to achieve scale and replication required to maximize their impact.

(2) In the interconnected Europe of today, easily transferable solutions from one national context to another are preferable. This also means that accessibility provisions should be usable also for visitors and tourists and not only rely on digital solutions, only available to local residents. The development of European Standards could be mostly beneficial. Adaptations across Europe differ by country or even by city. Given the absence of harmonized standards and considering different cultural approaches to changing the built environment, a common system across the continent is unlikely, at least at the present time. Nonetheless, it would be desirable, as predictability and usability for visually impaired pedestrians are key elements. There needs to be a common structure, for instance a harmonized “language” of guiding strips or warning signals. This predictability makes it possible to navigate unknown locations at ease.

In addition to predictability, solutions also need to be adjusted to the local context. Adaptations of the built environment in an old town with narrow cobblestone sidewalks present different challenges and require different solutions as those in a newly-built suburb. In terms of the infrastructure, existing services play into the design of an accessible solution.

(3) General and dedicated devices (smartphones, smart canes, smart glasses, etc.) and mobile applications can offer great benefits, but they are limited in one fundamental way: Not every visually impaired person can or wants to rely on smartphone-based mobility services. Operating a smartphone is difficult if you have to hold a white cane and a shopping bag at the same time. Further, there is a significant risk of exclusion of older persons or those who cannot afford a smartphone. Moreover, pedestrians should not be overburdened with multiple additional gadgets in order to power their digital solutions, especially, when these only work in restricted locations.

(4) Accessibility solutions should be designed according to the “Design for All” principles, which means it benefits the biggest possible number of persons with disabilities as well as persons without disabilities. While accessibility is necessary for some, it is useful for all. Moreover, designing products and services in an accessible way from the start is cheaper and easier than retrofitting.

(5) Mainstream solutions for accessibility are preferable to separate, non-inclusive solutions for visually impaired users only. Although there should be European standards for accessibility and mobility, these should also be suitable for the specific geographic context and the situation of limited public transport infrastructure. In general, however, mainstream public transport should be adapted towards full accessibility, so that it can be used by persons with disabilities and persons without disabilities alike. Additionally, reduced rates for persons with disabilities or their assistance is a recommended practice to increase mobility easily.

(6) One of the best tools in order to encourage accessible tourism horizontally at the destination level are physical infrastructure actions plans. Investment in the external environment will increase its attractiveness and thereby increase potential revenues for tourism businesses, act as a ‘demonstrator’ to local businesses that investing in accessibility can yield economic returns and increase the connectedness of local businesses across the supply chain and thus the potential of network effects taking hold.

The more potential for interaction between stakeholders at different stages of the supply chain and/or in different locations (e.g. through transport links) the greater the impact of one company’s investment in accessibility on the rest of the chain.

On country level, the general conclusions based on our combined field and desk research are as follows:

**North Macedonia**

For people who are blind or have low vision, public transportation is vital for independent travel. Public transport plays an important role in productivity, community involvement, and independence, since it may be the sole viable mobility option to seek education, work, medical care, food and many other venues in their community. Public transportation is vital for independent travel for people who are blind or have low vision.

Technological advancements could be used to empower people with visual disabilities (VIP). Government and non-governmental organizations in North public transport media. Several studies and reports that help with improving public transportation and making it usable for people with disabilities have been carried out.

Many papers have been published and much work has been done on this issue, considering the intrinsic characteristics of each region or community. However, there is still a lot to be done.

While GPS technology has been tried in the past to make public transport navigation easier for the visually impaired people, this technology has not been very effective because of its lack of accuracy and slow response time up to nowadays.

Visually impaired people usually ask for help, support or guidance from unknown by-passengers. During the traveling the respondents mostly benefit from the: Tactile carpets; Audio guides; Audio traffic lights; Speaking buses (voice signalization); Tactile layouts; Tactile maps

Regarding the physical environment, VIP from North Macedonia encounter various barriers in performing daily activities: entry and use of residential and public buildings, public transport, use of services and products.

The VIP encounter difficulties in navigating independently in urban areas. Therefore, the use of an assistive mobile system seems to be necessary in the case of the visually impaired and blind people. However, the existing assistive systems for mobility of the visually impaired and blind people in public transport in cities are not satisfactory, which provides the motivation for continuing research on the subject.

Like in Romania, information about accessible tourism is simply inexistent. Not only that during the research we did not found any statistical data, but there are no tourist packages or services created by related stakeholders (tourist agencies, hotels, tourist information centers, etc.) and dedicated to VIP in particular and disabled people in general.

**Spain**

The right to accessibility, recognized as such since the United Nations Convention on the Rights of Persons with Disabilities and its Optional Protocol, adopted on 13 December 2006, constitutes one of the most important advances for the development of human rights and democracy in Spain. Tourism, as one of the fastest-growing economic and social phenomena in recent years, must adapt to this development path with inclusive measures that respond to the desire and right of all people to travel.

To ensure that the tourist experience is a satisfactory one, accessibility must be present in all elements of the tourism value chain, from transport, access, accommodation, products and services

In this sense, accessible tourism would be defined as that which uses Universal Accessibility and Design for All, resulting in a set of services and infrastructures that allow access to all segments of the population, regardless of their needs and circumstances. Today it tends to be called inclusive tourism, due to its integrating character and its capacity to promote equal opportunities among all people.

As indicated in the conclusions of the Observatory of Universal Accessibility of Tourism in Spain: "During the last thirty years most of the Public Administrations, from their respective frameworks of action, have undertaken a process of improvement of the conditions of accessibility. This has also been done to a greater or lesser extent by the administrations in charge of managing the territory as a tourist destination at regional level.

Accessibility is considered, evolutionarily and gradually, as a relevant factor in the quality of tourist destinations; the subject is not unknown by the sector and actions are reflected both in the resources and in the environments and the activity of the managers.

The situation of tourism in Spain, in search of the renewal of mature destinations and the improvement of the quality of their services, makes accessibility to be valued at the same time as other elements such as the intelligence of the destination or connectivity, as a factor that facilitates the opening of markets. Proof of this is the integration of accessibility as a fundamental pillar in the UNE 178501 standard of 2016 on Intelligent Tourist Destinations.

At a legislative and regulatory level, accessibility in the tourism sector is integrated within the general legislation on accessibility and in the tourism quality standards in a variable manner, without there being a specific standard that regulates it.

It is increasingly common for different tourism sector distinctions, such as the Q for tourism quality, blue flags or others, to incorporate accessibility aspects.

There are also other initiatives at the national and international level that propose consensus on accessibility standards in tourism. An example of this is the Accessible Tourism standard (ISO 21902 Tourism and related services). Accessible tourism for all. Requirements and Recommendations") that is being developed within the technical committee ISO TC228, "Tourism and related services".

**Romania**

The national reality of tourism for disabled people in general and visually impaired and blind people (VIP) in particular in Romania is still very poor, despite the existing laws, so VIP continue to complain about mobility, accessibility, traveling and independent living.

A VIP tourist is not different from any typical tourist in regard of hopes and expectations. However, due to his or her impairment, the needs are a little bit more complex. These additional needs (many times acknowledged as special needs) refer to one single aspect: accessibility. Usually the most common way for a VIP to solve this issue is to travel together with an accompanying person. However, fortunately, this is not the only option.

The vast majority of VIP in Romania use the cane, smartphones and Google Maps as main items that support their travelling. Because over 90% of them speak English, they benefit, during traveling from help and assistance of their typical peers (passers, staff of transport companies, hotels, restaurants, etc.), not only in their country but also abroad. Only 15% of the respondents rely exclusively on the help of their accompanying persons.

Most of the respondents in this research are traveling quite often, at least 5 times/year inside Romania (85%) and at least 1 time/year abroad (92%). That means that the group of 91,568 Romanian VIP can be considered a quite huge target group for the Romanian tourist industry. Unfortunately, this industry is not aware of this large group of potential clients. There couldn’t be identified any Romanian tourist agencies that offer tourist packages for blind persons, actually for any kind of disabled person. The tourist agencies even did not think about this kind of tourist services.

Generally Romanian VIP are missing an integrated navigation system/device/application that could allow them to travel from point A to point B, with various options for transport (type – including here walking, price, updated timetables, etc.), buy tickets, make reservations for accessible accommodation, restaurants and various adapted tourist attractions. Today there are parts of such systems, not working together and in many cases not updated in real time.

Blind people consider tactile carpets, audio traffic light, speaking buses and audio guides the most helpful things during a journey.

The Romanian respondents are most missing professional audio/voice information systems over all train/bus station and airports and inside these means of transport.

Regarding tourist attractions for most of the respondents, visiting them is more a desire than a reality. In Romania, only a few museums and other tourist attractions are accessible for visually impaired. There is a great need of audio guides, artefacts that can be explored by touching and trained guides capable to explain things in terms relevant for blind people. Usually, blind and visually impaired people visit tourist attraction only together with an accompanying person.

Throughout the desk research, we embraced the idea of the EBU - European Blind Union, that accessible mobility relies on three pillars which reflect the important and interlocking areas of: legislation and standards, built environment and infrastructure and lastly digital solutions.

(1) Legislation and standards

It is a fact that laws, rules, and standards are important preconditions for independent and safe mobility to become a reality, but real change usually only comes about when laws are adopted to make those provisions not optional but obligatory.

Unfortunately, the enforcement of those rules is an issue. Many countries have difficulties making sure legislation and standards are fully obeyed, Romania is one of them. Reasons may include insufficient training resulting in poor expertise of public authorities and professionals, prioritizing design over accessibility and usability, lack of or insufficient allocation of resources, and many more.

(2) Urban Planning and Built Environment

Strategic Accessibility Planning (SAP) is a concept that delivers a plan by the city municipality, accessibility experts, and organizations of persons with disabilities on accessibility priorities in a local context. Its purpose is to enable everyone to access public spaces and buildings. SAP follows a structure including safe routes, public transportation, key buildings and open spaces.

Many of the laws and standards in place regulate the built environment, which includes for instance streets, public transportation stations, traffic lights and zebra crossings or lifts. Tactile adaptations of the built environment include specific pavement structures, which alert pedestrians to directions and dangerous areas. Additionally, there can be acoustic adaptations, for instance to indicate green traffic lights. Among many other solutions, this requires the incorporation of vibration and sound, high contrast values for floor tiles, or a mixture of lowered and normal curb. The semi-structured interviews concluded in Romania show the need of such from the point of view of visual impaired persons. In Romania we also benefit of the NP-051, a normative regarding the accessibility of urban space, which is a regulation regarding the adaptation of civil buildings and urban space to the individual needs of persons with disabilities, hoping that the provision of the normative become soon obligatory.

Given the absence of harmonized standards and considering different cultural approaches to changing the built environment, a common system across the continent is unlikely. Nonetheless, it would be desirable, as predictability and usability for visually impaired pedestrians are key elements. Harmonized standards were also a topic of discussion in one of the semi-structured interviews with VIP. There needs to be a common structure, for instance a harmonized “language” of guiding strips or warning signals. This predictability makes it possible to navigate unknown locations at ease.

(3) Digital solutions

Digital Solutions involve a wide variety of technologies and serve for localization, navigation, control and information announcement. Some solutions require specific applications or devices, whereas others are available for everyone.

Virtually any display or device can be made accessible for visually impaired users. Notably, however, the adaptations differ for partially sighted persons (high contrast values, large and legible font, etc.) and for blind persons (synthetic speech output, availability over internet, etc.). Moreover, when an accessible device or app serves the general public, it is essential not to forget about its accessibility features when performing any updates. Digital Solutions need to be well thought-out, predictable and usable. Wherever possible, digital solutions and physical infrastructure should mutually complement each other, for instance buses and stops in public transport.

The best practice examples shown in our semi-structured interviews with IT developers illustrate possible and workable solutions for independent and safe mobility.

Still, innovative projects do not replace legislation. Binding laws are always the preferred solution to achieve an accessible environment for persons with disabilities. They need to be well implemented and thoroughly enforced, for example with fines.

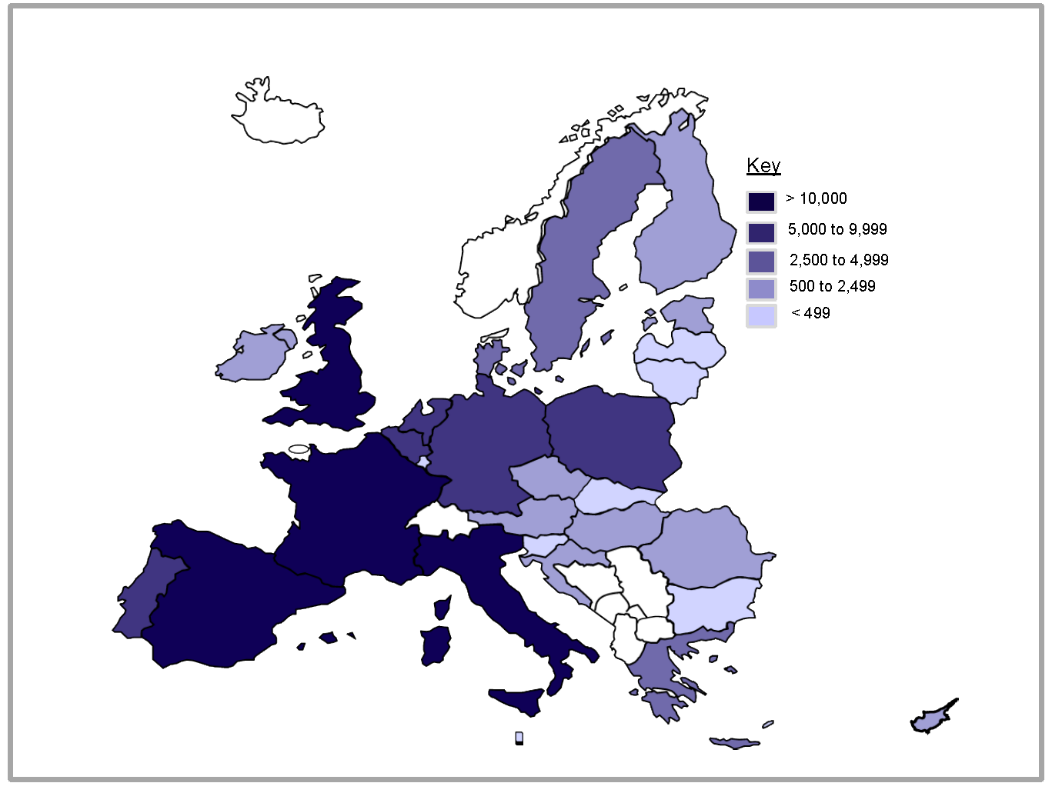
Nevertheless, legislation is one of the strongest tools for improving independent and safe mobility for visually impaired persons. Therefore, continuous support of decision makers is essential in achieving the long run goal of achieving fully independent mobility, which will also be more and more important for our aging population in Europe.

Starting from the assessment of the situation in all three partner countries (North Macedonia, Spain and Romania) and in Europe in general, the overall conclusion of the present study is that there are obvious differences regarding accessible tourism in different parts of our continent.

Western countries (including Spain, one of the top tourist destinations worldwide) are much more advanced, creating the context of accessibility and mobility for disabled people and also developing dedicated tourist packages and opportunities for them.

On the other hand, in many Eastern European countries, including here North Macedonia and Romania, most of the relevant stakeholders (tourist/travel agencies, tourist information centers, tourist service providers) not even heard/though about accessible tourism. These countries need to become much more aware about this concept and try to follow the footsteps of their western peers.

The difference between Eastern and Western Europe in respect with accessible travel and tourist solutions is clearly synthesized by a map published in **Mapping and Performance Check of the Supply of Accessible Tourism Services in Europe**[[109]](#footnote-110). The map below shows the frequency of accessible tourism suppliers in European Member States in 5 ranges from below 499 to over 10,000.



# 8. RECOMMANDATION FOR THE OER CONTENT

The present methodology is meant to create a framework for the second intellectual output of the ATSVIP project, the creation and implementation of an OER platform for accessible, safe and secure traveling of visual impaired/blind persons (VIP) in North Macedonia, Romania, Spain and actually in the whole world. The platform is adapted to be used by all interested stakeholders that do not use nothing to ensure safety and accessible traveling for VIP or are interested in making their accessible adds increase the impact and transferability potential:

* VIP;
* Accompanying persons;
* Non-profit and non-governmental organizations the that develop and implement activities/projects/programs that include VIP;
* Public institutions;
* Educational institutions;
* Business sector.

The e-learning platform (OER) provides accessibility and ease of use by:

* Creating W3C[[110]](#footnote-111) compliant web platform;
* Translation of all OER content in English, Macedonian, Romanian and Spanish, ensuring that the platform can be also used by other participant organizations and other relevant stakeholders, all over the world;
* Creating a simple but very effective and easy to use menu structure. It should contain the three main areas of tools and knowledge;
  + Legislation and standards;
  + Built environment and infrastructure;
  + Digital solutions.

Each of these chapters should be divided in three subchapters: North Macedonia, Romania and Spain;

* Each item, inserted in the OER platform is described by a short guide or description;
* Making all results of the field and desk research publicly available;
* The OER platform is tested during the short staff training course and the resulting feedback will be used to make improvements, if necessary.

BIBLIOGRAPHY

1. <http://dozivotnoucenje.mk/en>
2. <http://www.itsolutionsforall.org/>
3. <https://babilontravel.eu/>
4. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>
5. <http://www.euroblind.org/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6471122/>

1. <https://www.ldv.ro/>
2. <https://www.anrcluj.ro/>
3. <http://anrarad.ro/>
4. <http://dasmclujnapoca.ro/>
5. <https://upb.ro/en/>
6. <https://amais.ro/>
7. <https://www.asociatiatandem.ro/>
8. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6471122/>
9. <https://en.wikipedia.org/wiki/Cluj-Napoca>
10. <https://www.google.com/maps/contrib/106266208066847598839/photos/@46.767202,23.600695,17z/data=!3m1!4b1!4m3!8m2!3m1!1e1>
11. <https://m.moovitapp.com/>
12. <https://www.lazarillo.app/es/>
13. <https://www.blindsquare.com/de/>
14. <https://www.apple.com/ios/maps/>
15. <http://www.ibsasport.org/>
16. <https://www.nunav.net/en/>
17. <https://play.google.com/store/apps/details?id=org.aph.avigenie&hl=de>
18. <https://osmand.net/>
19. <https://www.facebook.com/pg/wayseye/about/>
20. <http://stbsa.ro/>
21. [https://www.google.com/flights?hl=de#flt=/m/0p2gq..2020-05-17\*./m/0p2gq.2020-05-21;c:RON;e:1;ls:1w;sd:0;t:h](https://www.google.com/flights?hl=de#flt=/m/0p2gq..2020-05-17*./m/0p2gq.2020-05-21;c:RON;e:1;ls:1w;sd:0;t:h)
22. <https://www.asociatiatandem.ro/tandem-navigator/>
23. <https://www.asociatiatandem.ro/tandem-access/>
24. <https://infofer.ro/index.php/ro/>
25. <https://www.step-hear.com/>
26. <https://amais.ro/cmu/>
27. <https://www.facebook.com/CMUSenseability/>
28. <https://www.asociatiatandem.ro/>
29. <https://www.asociatiatandem.ro/tandem-access/>
30. <https://www.asociatiatandem.ro/tandem-navigator/>
31. <https://www.facebook.com/TandemArena/>
32. <https://upb.ro/en/>
33. <https://cs.pub.ro/index.php/people/userprofile/alin_moldoveanu>
34. <https://acs.pub.ro/en/home/about-us/>
35. <https://upb.ro/proiectul-sound-of-vision-dedicat-nevazatorilor-nominalizat-de-comisia-europeana/>
36. <http://www.lazzus.com/>
37. <https://wewalk.io/en/>
38. <http://airportcluj.ro/>
39. <https://ro.wikipedia.org/wiki/Gara_Cluj-Napoca>
40. <https://www.cfrcalatori.ro/>
41. <https://www.muzeul-etnografic.ro/en>
42. <http://ctpcj.ro/index.php/en/>
43. <https://www.sobranie.mk/content/PI/7.pdf>
44. <http://www.mtsp.gov.mk/?ItemID=BD66FCC3A7FBCB47AB9150CBFECD2C96>
45. <http://nssrm.org.mk/upatstvo-za-besplatno-vozenje-na-slepite-lica-vo-vnatreshniot-megjugradski-avtobuski-soobrakja%d1%98/>
46. <http://nssrm.org.mk/upatstvo-za-povlasteno-vozenje-na-slepite-lica-vo-vnatreshniot-zheleznichki-soobrakja%d1%98/>
47. <http://skp.airports.com.mk/en-EN/passenger-guide/airport-facilities-services/page/disabled-special-need-passengers>
48. <http://nssrm.org.mk/izvestuvanje-od-%d1%98avnoto-pretpri%d1%98atie/>
49. <http://www.irdo.ro/english/index.php>
50. <https://www.un.org/en/universal-declaration-human-rights/>
51. <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>
52. <https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx>
53. <https://www.ohchr.org/en/professionalinterest/pages/cerd.aspx>
54. <http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html>
55. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html>
56. <https://rm.coe.int/1680063765>
57. <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/164>
58. <https://www.coe.int/en/web/european-social-charter>
59. <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/163>
60. <https://www.coe.int/en/web/disability/action-plan-2006-2015>
61. <https://asksource.info/resources/recommendation-cmrec2011-14-participation-persons-disabilities-political-and-public-life>
62. <https://www.europarl.europa.eu/charter/pdf/text_en.pdf>
63. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Ac10107>
64. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32006R1107>
65. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32007R1371>
66. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010R1177>
67. <https://ec.europa.eu/eip/ageing/standards/general/general-documents/european-disability-strategy-2010-2020_en>
68. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html>
69. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006R1107&from=EN>
70. <http://www.congreso.es/constitucion/ficheros/c78/cons_ingl.pdf>
71. <https://www.boe.es/buscar/pdf/2003/BOE-A-2003-22066-consolidado.pdf>
72. <https://www.boe.es/eli/es/rd/1983/12/07/3250/dof/spa/pdf>
73. <https://www.boe.es/boe/dias/1985/06/27/pdfs/A20069-20070.pdf>
74. Hernández, J., and et al. *Observatorio De Accesibilidad Universal Del Turismo En España*. Madrid: Fundación ONCE, 2017
75. <https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2019>
76. <http://www.mtsp.gov.mk/content/pdf/dokumenti/7.7_Strategija%20za%20ednakvost%20i%20nediskriminacija.pdf>
77. <https://www.sobranie.mk/content/PI/7.pdf>
78. <http://www.mtsp.gov.mk/?ItemID=BD66FCC3A7FBCB47AB9150CBFECD2C96>
79. <https://vlada.mk/KoordinativnoTelo/PravaNaLicaSoPoprechenost>
80. <http://mtsp.gov.mk/WBStorage/Files/FINALNA%20Revidirana%20Nacionalna%20Strategija.pdf>
81. <http://www.mtsp.gov.mk/WBStorage/Files/Konvencija%20za%20pravata%20na%20licata%20so%20invalidnost.pdf>
82. <http://www.mtsp.gov.mk/content/pdf/dokumenti/7.7_Strategija%20za%20ednakvost%20i%20nediskriminacija.pdf>
83. <http://mioa.gov.mk/sites/default/files/pbl_files/documents/legislation/zakon_za_gradenje_konsolidiran_032018.pdf>
84. <http://mioa.gov.mk/?q=en/node/2389>
85. <http://legislatie.just.ro/Public/DetaliiDocument/77815>
86. <http://legislatie.just.ro/Public/DetaliiDocumentAfis/123949>
87. <http://legislatie.just.ro/Public/DetaliiDocument/80918>
88. <http://legislatie.just.ro/Public/DetaliiDocumentAfis/84143>
89. <https://www.infocons.ro/wp-content/uploads/2014/08/NP-051-normativ-privind-acesibilizarea-spatiului-urban.pdf>
90. <http://www.sas.com.mk/en/Default.aspx>
91. <https://mzt.mk/?lang=mk>
92. <http://skp.airports.com.mk/>
93. <http://nssrm.org.mk/organizacija/>
94. <https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf>
95. <http://www.euroblind.org/>
96. <http://universaldesign.ie/What-is-Universal-Design/The-7-Principles/>
97. <http://www.sesprahova.ro/uploads/docs/legislatie/Normativul-051-2012-Monitor-Official.pdf>

1. <http://dozivotnoucenje.mk/en> [↑](#footnote-ref-2)
2. <http://www.itsolutionsforall.org/> [↑](#footnote-ref-3)
3. <https://babilontravel.eu/> [↑](#footnote-ref-4)
4. <http://dozivotnoucenje.mk/en> [↑](#footnote-ref-5)
5. <http://www.itsolutionsforall.org/> [↑](#footnote-ref-6)
6. <https://babilontravel.eu/> [↑](#footnote-ref-7)
7. <https://www.sobranie.mk/content/PI/7.pdf> [↑](#footnote-ref-8)
8. <http://www.mtsp.gov.mk/?ItemID=BD66FCC3A7FBCB47AB9150CBFECD2C96> [↑](#footnote-ref-9)
9. <http://nssrm.org.mk/upatstvo-za-besplatno-vozenje-na-slepite-lica-vo-vnatreshniot-megjugradski-avtobuski-soobrakja%d1%98/> [↑](#footnote-ref-10)
10. <http://nssrm.org.mk/upatstvo-za-povlasteno-vozenje-na-slepite-lica-vo-vnatreshniot-zheleznichki-soobrakja%d1%98/> [↑](#footnote-ref-11)
11. <http://skp.airports.com.mk/en-EN/passenger-guide/airport-facilities-services/page/disabled-special-need-passengers> [↑](#footnote-ref-12)
12. <http://nssrm.org.mk/izvestuvanje-od-%d1%98avnoto-pretpri%d1%98atie/> [↑](#footnote-ref-13)
13. The Observatorio de Accesibilidad del Turismo en España: Fundación Once [↑](#footnote-ref-14)
14. Inclusive Tourism and Employment: Adecco Foundation [↑](#footnote-ref-15)
15. The potential market of accessible tourism for the Spanish tourism sector: Accesturismo [↑](#footnote-ref-16)
16. <https://www.ldv.ro/> [↑](#footnote-ref-17)
17. <https://www.anrcluj.ro/> [↑](#footnote-ref-18)
18. <http://anrarad.ro/> [↑](#footnote-ref-19)
19. <http://dasmclujnapoca.ro/> [↑](#footnote-ref-20)
20. <https://upb.ro/en/> [↑](#footnote-ref-21)
21. <https://amais.ro/> [↑](#footnote-ref-22)
22. <https://www.asociatiatandem.ro/> [↑](#footnote-ref-23)
23. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6471122/> [↑](#footnote-ref-24)
24. <https://babilontravel.ro/en/3213-2/> [↑](#footnote-ref-25)
25. <https://en.wikipedia.org/wiki/Cluj-Napoca> [↑](#footnote-ref-26)
26. <https://www.google.com/maps/contrib/106266208066847598839/photos/@46.767202,23.600695,17z/data=!3m1!4b1!4m3!8m2!3m1!1e1> [↑](#footnote-ref-27)
27. <https://m.moovitapp.com/> [↑](#footnote-ref-28)
28. <https://www.lazarillo.app/es/> [↑](#footnote-ref-29)
29. <https://www.blindsquare.com/de/> [↑](#footnote-ref-30)
30. <https://www.apple.com/ios/maps/> [↑](#footnote-ref-31)
31. <http://www.ibsasport.org/> [↑](#footnote-ref-32)
32. <https://www.nunav.net/en/> [↑](#footnote-ref-33)
33. <https://play.google.com/store/apps/details?id=org.aph.avigenie&hl=de> [↑](#footnote-ref-34)
34. <https://osmand.net/> [↑](#footnote-ref-35)
35. <https://www.facebook.com/pg/wayseye/about/> [↑](#footnote-ref-36)
36. <http://stbsa.ro/> [↑](#footnote-ref-37)
37. [https://www.google.com/flights?hl=de#flt=/m/0p2gq..2020-05-17\*./m/0p2gq.2020-05-21;c:RON;e:1;ls:1w;sd:0;t:h](https://www.google.com/flights?hl=de#flt=/m/0p2gq..2020-05-17*./m/0p2gq.2020-05-21;c:RON;e:1;ls:1w;sd:0;t:h) [↑](#footnote-ref-38)
38. <https://www.asociatiatandem.ro/tandem-navigator/> [↑](#footnote-ref-39)
39. <https://www.asociatiatandem.ro/tandem-access/> [↑](#footnote-ref-40)
40. <https://infofer.ro/index.php/ro/> [↑](#footnote-ref-41)
41. <https://www.step-hear.com/> [↑](#footnote-ref-42)
42. <https://amais.ro/cmu/> [↑](#footnote-ref-43)
43. <https://www.facebook.com/CMUSenseability/> [↑](#footnote-ref-44)
44. <https://www.asociatiatandem.ro/> [↑](#footnote-ref-45)
45. <https://www.asociatiatandem.ro/tandem-access/> [↑](#footnote-ref-46)
46. <https://www.asociatiatandem.ro/tandem-navigator/> [↑](#footnote-ref-47)
47. <https://www.facebook.com/TandemArena/> [↑](#footnote-ref-48)
48. <https://upb.ro/en/> [↑](#footnote-ref-49)
49. <https://cs.pub.ro/index.php/people/userprofile/alin_moldoveanu> [↑](#footnote-ref-50)
50. <https://acs.pub.ro/en/home/about-us/> [↑](#footnote-ref-51)
51. <https://upb.ro/proiectul-sound-of-vision-dedicat-nevazatorilor-nominalizat-de-comisia-europeana/> [↑](#footnote-ref-52)
52. <http://www.lazzus.com/> [↑](#footnote-ref-53)
53. <https://wewalk.io/en/> [↑](#footnote-ref-54)
54. <http://www.lazzus.com/> [↑](#footnote-ref-55)
55. <https://wewalk.io/en/> [↑](#footnote-ref-56)
56. <http://airportcluj.ro/> [↑](#footnote-ref-57)
57. <https://ro.wikipedia.org/wiki/Gara_Cluj-Napoca> [↑](#footnote-ref-58)
58. <https://www.cfrcalatori.ro/> [↑](#footnote-ref-59)
59. <https://www.muzeul-etnografic.ro/en> [↑](#footnote-ref-60)
60. <http://ctpcj.ro/index.php/en/> [↑](#footnote-ref-61)
61. <http://www.irdo.ro/english/index.php> [↑](#footnote-ref-62)
62. <https://www.un.org/en/universal-declaration-human-rights/> [↑](#footnote-ref-63)
63. <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx> [↑](#footnote-ref-64)
64. <https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx> [↑](#footnote-ref-65)
65. <https://www.ohchr.org/en/professionalinterest/pages/cerd.aspx> [↑](#footnote-ref-66)
66. <http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html> [↑](#footnote-ref-67)
67. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html> [↑](#footnote-ref-68)
68. <https://rm.coe.int/1680063765> [↑](#footnote-ref-69)
69. <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/164> [↑](#footnote-ref-70)
70. <https://www.coe.int/en/web/european-social-charter> [↑](#footnote-ref-71)
71. <https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/163> [↑](#footnote-ref-72)
72. <https://www.coe.int/en/web/disability/action-plan-2006-2015> [↑](#footnote-ref-73)
73. <https://asksource.info/resources/recommendation-cmrec2011-14-participation-persons-disabilities-political-and-public-life> [↑](#footnote-ref-74)
74. <https://www.europarl.europa.eu/charter/pdf/text_en.pdf> [↑](#footnote-ref-75)
75. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Ac10107> [↑](#footnote-ref-76)
76. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32006R1107> [↑](#footnote-ref-77)
77. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32007R1371> [↑](#footnote-ref-78)
78. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32010R1177> [↑](#footnote-ref-79)
79. <https://ec.europa.eu/eip/ageing/standards/general/general-documents/european-disability-strategy-2010-2020_en> [↑](#footnote-ref-80)
80. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities/convention-on-the-rights-of-persons-with-disabilities-2.html> [↑](#footnote-ref-81)
81. <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006R1107&from=EN> [↑](#footnote-ref-82)
82. <http://www.congreso.es/constitucion/ficheros/c78/cons_ingl.pdf> [↑](#footnote-ref-83)
83. <https://www.boe.es/buscar/pdf/2003/BOE-A-2003-22066-consolidado.pdf> [↑](#footnote-ref-84)
84. <https://www.boe.es/eli/es/rd/1983/12/07/3250/dof/spa/pdf> [↑](#footnote-ref-85)
85. <https://www.boe.es/boe/dias/1985/06/27/pdfs/A20069-20070.pdf> [↑](#footnote-ref-86)
86. Hernández, J., and et al. *Observatorio De Accesibilidad Universal Del Turismo En España*. Madrid: Fundación ONCE, 2017 [↑](#footnote-ref-87)
87. <https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2019> [↑](#footnote-ref-88)
88. <http://www.mtsp.gov.mk/content/pdf/dokumenti/7.7_Strategija%20za%20ednakvost%20i%20nediskriminacija.pdf> [↑](#footnote-ref-89)
89. <https://www.sobranie.mk/content/PI/7.pdf> [↑](#footnote-ref-90)
90. <http://www.mtsp.gov.mk/?ItemID=BD66FCC3A7FBCB47AB9150CBFECD2C96> [↑](#footnote-ref-91)
91. <https://vlada.mk/KoordinativnoTelo/PravaNaLicaSoPoprechenost> [↑](#footnote-ref-92)
92. <http://mtsp.gov.mk/WBStorage/Files/FINALNA%20Revidirana%20Nacionalna%20Strategija.pdf> [↑](#footnote-ref-93)
93. <http://www.mtsp.gov.mk/WBStorage/Files/Konvencija%20za%20pravata%20na%20licata%20so%20invalidnost.pdf> [↑](#footnote-ref-94)
94. <http://www.mtsp.gov.mk/content/pdf/dokumenti/7.7_Strategija%20za%20ednakvost%20i%20nediskriminacija.pdf> [↑](#footnote-ref-95)
95. <http://mioa.gov.mk/sites/default/files/pbl_files/documents/legislation/zakon_za_gradenje_konsolidiran_032018.pdf> [↑](#footnote-ref-96)
96. <http://mioa.gov.mk/?q=en/node/2389> [↑](#footnote-ref-97)
97. <http://legislatie.just.ro/Public/DetaliiDocument/77815> [↑](#footnote-ref-98)
98. <http://legislatie.just.ro/Public/DetaliiDocumentAfis/123949> [↑](#footnote-ref-99)
99. <http://legislatie.just.ro/Public/DetaliiDocument/80918> [↑](#footnote-ref-100)
100. <http://legislatie.just.ro/Public/DetaliiDocumentAfis/84143> [↑](#footnote-ref-101)
101. <https://www.infocons.ro/wp-content/uploads/2014/08/NP-051-normativ-privind-acesibilizarea-spatiului-urban.pdf> [↑](#footnote-ref-102)
102. <http://www.sas.com.mk/en/Default.aspx> [↑](#footnote-ref-103)
103. <https://mzt.mk/?lang=mk> [↑](#footnote-ref-104)
104. <http://skp.airports.com.mk/> [↑](#footnote-ref-105)
105. <http://nssrm.org.mk/organizacija/> [↑](#footnote-ref-106)
106. Hernández, J., and et al. *Observatorio De Accesibilidad Universal Del Turismo En España*. Madrid: Fundación ONCE, 2017. [↑](#footnote-ref-107)
107. <https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html> [↑](#footnote-ref-108)
108. <http://www.euroblind.org/> [↑](#footnote-ref-109)
109. <https://www.accessibletourism.org/?i=enat.en.reports.1740> [↑](#footnote-ref-110)
110. W3C <https://www.w3.org/standards/webdesign/accessibility> [↑](#footnote-ref-111)