Pilot Actions Evaluation Report

Dubrovnik Airport

Implementation of TWS's in Dubrovnik Airport

Innovative transportation services for blind and partially sighted passengers in Danube region
DANOVA

June 2022

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INTRODUCTION

People with visual impairments may feel disabled if they do not have adequate access to supports and services and face barriers such as discrimination or inaccessible buildings or transportation. It has been estimated that 96% of the transport system in the EU is still not fully accessible to blind and partially sighted people (European Blind Union) and that accessibility is extremely low in many countries in the Danube Region. Furthermore, significant differences in the level of accessibility between countries and also between cities/regions within a country have been identified. As a result, over 30 million blind and partially sighted people cannot travel independently.

For blind and partially sighted passengers, the lack of accessibility features such as tactile surface indicators (TWSI), tactile orientation maps, large print and Braille signage, audio signage, screen reader friendly websites and applications makes it extremely difficult and, in some cases, impossible to use conventional transportation systems (airplanes, buses, trains, public transportation). In these cases, they rely on the assistance of a sighted person (their personal assistant, member of a staff or a random passer-by), which ensures their ability to travel, but still imposes some limitations compared to the travel experiences of sighted people.

The DANOVA project aims to improve the accessibility of airports, seaports, train stations and bus terminals for blind and partially sighted people by developing a range of new services and skills to enable full access to all transport information, facilities, and services. Within DANOVA project several steps were undertaken in order to improve accessibility:

International investigation and collection of best practices

Local assessment of infrastructure accessibility and web page accessibility for each transportation partner within DANOVA project. Assessment was performed according to prescribed Assessment methodology which was produced by University of Maribor in co-operation with technical partners. Croatian Blind Union (CBU) and Austrian Federation of the Blind and Partially Sighted (BSVO),

International Call for ideas in which total of 22 ideas for improvement of accessibility of infrastructure for blind and partly sighted people have been submitted. Three best ideas were selected and chosen by the Call for ideas Jury,

Implementation of pilot actions,

Training programme for employees of infrastructure providers and stakeholders

According to the Local assessment done by each transportation partner, implementation measures or fields of intervention for pilot actions were identified and prioritised in three categories: high, medium, low.

The first step of WP T3 was achieved – Action Plans of sites where the testing will be implemented were prepared by each Pilot Partner. The international investigation and its summary in the Capitalization Strategy (WPT1), Local assessment report (WP T1) as well as and inputs collected during the development of the concept of a totally accessible facility (WPT2) were used in the Pilot Plans.

Core phase of the WP T3 is the testing phase, where the Action Plan is put into practice, PPs perform testing & consecutive feedback. Implementation aims to show the feasibility, effectiveness & replicability of solutions, operative procedures, technological innovations. PPs already identified several fields of intervention; new topics could be added on the basis of results obtained from investigations and development of a totally accessible transport facility.

Deliverable D.T3.2.1 is the Appraisal Report on testing.

The testing pilot action is completed by an evaluation report to give feedback on action's performance and to show how the blind and partially-sighted passengers benefited from these initiatives. The evaluation report is crucial for the analysis of transferability and adaptability of the solutions. This document contains a Pilot action process evaluation(P1) and a Pilot action evaluation grid (P2). One report is to be done per each testing site.

Table of Contents for Part 1 of the Evaluation report – Process Evaluation

1. PROCESS EVALUATION

This chapter provides the evaluation of the pilot action planning and implementation process. Costs, problems and barriers encountered during the project life, and successes achieved with the pilot action in Dubrovnik Airport.

1.1 BRIEF DESCRIPTION OF PILOT ACTION SITE

Location

The "Dubrovnik - Neretva County" is the southernmost county of the Republic of Croatia. Croatia joined the European Union on 1 July 2013. The main cities in the region are Dubrovnik, Korčula, Metković, Opuzen and Ploče. Dubrovnik is, with almost 43,000 inhabitants (census 2011), the biggest municipality in the region. An approximately 10 km wide stretch around the municipality of Neum (BiH) divides the county in two parts and at the same time separates the area around Dubrovnik from the main part of Croatia. The total population of the county is currently approximately 123,000 inhabitants. During the main tourist season in summer, the infrastructure is used by significantly more people, seasonal workers and tourists.

The international and national accessibility of Dubrovnik is dominated by the airport of Dubrovnik located in the municipality of Čilipi and Konavle, The main gateway of Dubrovnik region is Dubrovnik Airport, more than 65% of tourists come to Dubrovnik by air. There is no direct motorway connection to Dubrovnik

Therefore, it is essential that DBV is accessible to all passengers.

DBV infrastructure

Dubrovnik Airport is accessible via the main road from Dubrovnik City which was constructed in 1960's, where congestion of traffic often occurs in summer season. Accessibility is provided through road traffic transport which includes public transport, airport shuttle bus, rent-a-car and taxy service.

Dubrovnik Airport is divided to airside ("restricted access") and landside area. It has one terminal building for public transport and one terminal building for general aviation passengers.

The most crucial part of DBV infrastructure in respect of accessibility for blind and partly sighted people is airport terminal building, parking areas and taxy and bus station area.

Dubrovnik Airport Terminal has been reconstructed in three main phases and completed in 2017 as a part of "Dubrovnik Airport Development (DAD)" project. It consists of three main buildings, building "A" which is baggage sorting area, building "B" for international / domestic arrivals and building "C" for domestic / international departures.

It has four main floors, basement where toilets and renting premises are located, ground floor for check-in area and arrivals as well as offices for airlines and lessees, first floor which consists of passenger and luggage security control, duty free shops and international departures, second floor

for domestic departures / international departures and passenger boarding bridges and fourth floor where landside restaurant area is placed.

Dubrovnik Airport terminal building consist of more than 55.000 square. Total passenger turnover capacity is around 5 million passengers with 87 thousand aircraft movements per year.

Out of the most significant terminal infrastructure and equipment, Dubrovnik airport has 38 check-in counters, 8 passenger boarding bridges, 18 gates, 6 self-check-in counters, 6 security control lines, 6 luggage belts. Dubrovnik Airport had passenger turnover of 2,9 million prior to COVID-19 crisis

Accessibility for blind and partly sighted

Currently Dubrovnik Airport has not developed adequate infrastructure and equipment for the accessibility of blind and partly sighted. Within Terminal building only in check-in area there are TWS's implemented (from entrance to the info-desk). However, based on Assessment report results, they are not adequately placed and are not covering all needed Terminal areas. Landside area in front of the Terminal building is not accessible to blind and partly sighted passengers.

Dubrovnik Airport has established PRM service *("Passengers with reduced mobility"*) within its passenger service department with aim of assisting passengers through landside and airside area. Dubrovnik Airport conducts regular training of PRM service in accordance to legislation in force.

The need to improve accessibility of DBV facilities to blind and partially sighted passengers is well recognized. This is well aligned with plans to significantly improve the quality of service and staff education

Accessibility of Dubrovnik Airport for blind and partially sighted passengers has been slightly improved within DAD project by installation of tactile lines from the entrance of the building (only one gate entrance at departures area is covered) to info desk where blind and partially sighted people will get assistance for further terminal movement. However, besides installation of TWSIs in very limited area in Terminal and Braille letters in elevators, no improvement has been done for accessibility for blind and partly sighted. Dubrovnik Airport has established PRM service ("*Passengers with reduced mobility*") within its passenger service department with aim of assisting passengers through landside and airside area. Dubrovnik Airport conducts regular training of PRM service in accordance to legislation in force.

The need to improve accessibility of DBV facilities to blind and partially sighted passengers is well recognized. This is well aligned with plans to significantly improve the quality of service and staff education. Main benefit that DBV will have from project DANOVA is not only related to implementation of pilot action but also to recommendations that are received in assessment of current accessibility process. These measures and timeline of their implementation are summarised in Dubrovnik Airport pilot action plan

1.2 DETAILED DESCRITPION OF ACTIONS TAKEN

Assessment of DBV infrastructure accessibility to blind and partly sighted passengers has been performed in May 2021 according to prescribed methodology. Recommendations and measures for improvement are prioritised in three main categories, high, medium and low priority. Within DANOVA the assessment is organized within modules making assessment process as well as outcomes easier to understand. There are two distinct parts of the assessment – the off-site and on-site assessment. The former is composed of eight modules related to access to information and rules of conduct, while the latter deals with built environment and is composed of eleven modules. Assessment process was divided in three main steps:

a) Review of national environment (regulations),
b) Off site assessment which included eight modules: review of existing site accessibility policies, disability training programme, customer service standards and pre-post travel access to information
c) On site assessment which includes eleven modules: approach and departure to and from the site, entrance to the site, inside circulation, security screening and custom, sanitary facilities, waiting areas, departure and arrival pints, evacuation routes and exit from the site

Each of these modules is built using DANOVA building blocks: parking (car, taxy), public transport, wayfinding (signage and displays), horizontal and vertical circulation, counters, machines, sanitary facilities and evacuation routes.

Accessibility of each area has been assessed in scale from 1 (Hazardous, inaccessible, and unsatisfactory) to 5 (Accepted as a Best Practice). According to performed assessment, improvement areas and type of interventions were identified which were divided in three categories: High, Medium and Low priority type of interventions.

There were total of 6 High, 6 medium and 11 Low priority type of interventions identified for DBV out of which DBV has implemented 7 of them.

Priority of intervention	Total recommendations	Implemented within DANOVA
High	6	4
Medium	6	3
Low	11	-

Table 1. Comparison of number of recommendations implemented according to priority of intervention

1.2.1. Type and reason for pilot action intervention

According to the assessment performed, Dubrovnik Airport has identified following pilot action interventions to be implemented within DANOVA project:

Installation of tactile lines from public bus station to info desk in the terminal, PRM corner and toilets- connecting departure and arrival key access points (highest priority measure 1 and measure 3),

Installation of tactile lines from arrival area to airport shuttle bus and public bus transport (highest priority measure 1 and measure 3),

Installation of tactile lines in international departure from toilette to info desk and to PRM corner (highest priority measure 1 and measure 3),

Installation of tactile lines in basement of airport terminal building from elevators to toilets (highest priority measure 1 and measure 3)

Tactile orientation plans (highest priority measure 2 and measure 4, medium priority measure 6),

Signage on the toilets (medium priority measure 2),

Installation of dedicated corner for blind and partly sighted passengers within check-in area (highest priority measure 4).

Web page accessibility check and update of web page according to accessibility check results (medium priority measure number 1).

Interventions to be implemented within pilot action were chosen according to their priority (high and medium), according to estimated budget of DBV within project DANOVA and according to prioritization of measures done by DBV management. In process of determining which interventions are most critical for DBV to implement, representatives of CBU were consulted as well as interested stakeholders.

1.2.2 Implementation process

These interventions were divided in the three separate public procurement processes as follows:

Public procurement name	Public procurement estimated amount	Start date of procurement	Date of contract	Date of service performed / equipment installed
External expertise Website accessibility for blind and partly sighted passengers check	5.000	April 2022	April 2022	June 2022
External expertise Website update according to findings from accessibility check	3.000	August 2022	August 2022	August 2022

Equipment	50.000	October 2021	January 2022	May 2022
Installation of TWS, orientation plans and signage on toilettes within DBV perimeter (landside area, terminal building)				
TOTAL	**58.000 EUR**			

Table 2. Pilot action procurement and implementation timeline

Largest public procurement and more complex one for implementation was "Installation of TWS's and orientation plans". In preparation of technical documentation for that public procurement, support was given by CBU. Installation of equipment was finalized in May 2022 and assessment of current situation and improvements in accessibility of DBV infrastructure for blind and partly sighted passengers has been performed in September 2022 by CBU.

1.2.3. State before and after the implementation

Evaluation of pilot action intervention has showed significant improvement in accessibility of DBV infrastructure as follows:

4 out of 6 high priority measures were implemented,

3 out of 6 medium priority measures were implemented.

Most significant measure implemented relates to installation of TWS's which were installed in following areas:

In front of the airport terminal building connecting shuttle bus and public bus station with arrival and departure access points.

Inside the terminal ground floor connecting entrance / exit (arrivals / departures) to the terminal with PRM corner, toilettes and info desk counters.

Inside the terminal first floor (international departure) connecting info desk to PRM corner and toilettes.

Inside the terminal basement connecting elevator to toilettes.

Also, total of 6 tactile orientation plans were installed in all key areas, in front of the terminal departure key access point, inside the terminal in PRM corners, inside the terminal in arrivals key access points.

According to finalised works and equipment installed following quantities were implemented:

Type of equipment	Prior to implementation (piece or metres)	After the implementation (piece or metres)
TWS's outdoor - in front of the terminal	55 m	145 m

TWS's – indoor (basement, ground floor, international departure)	0 m	242 m
Total TWS's	**55**	**387 m**
Tactile warning fields - outdoor	0	19
Tactile warning fields - indoor	0	36
Tactile orientation plans	0	6
Braille signage on toilets	0	3

Table 3. Pilot action improvements

Please see photos after the implementation per areas.
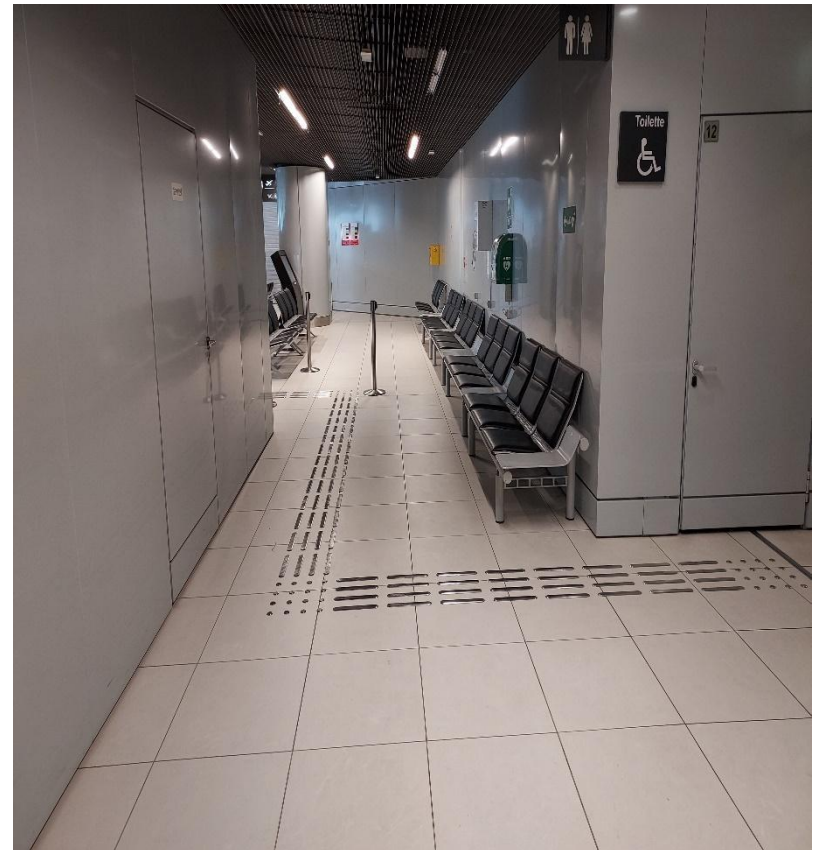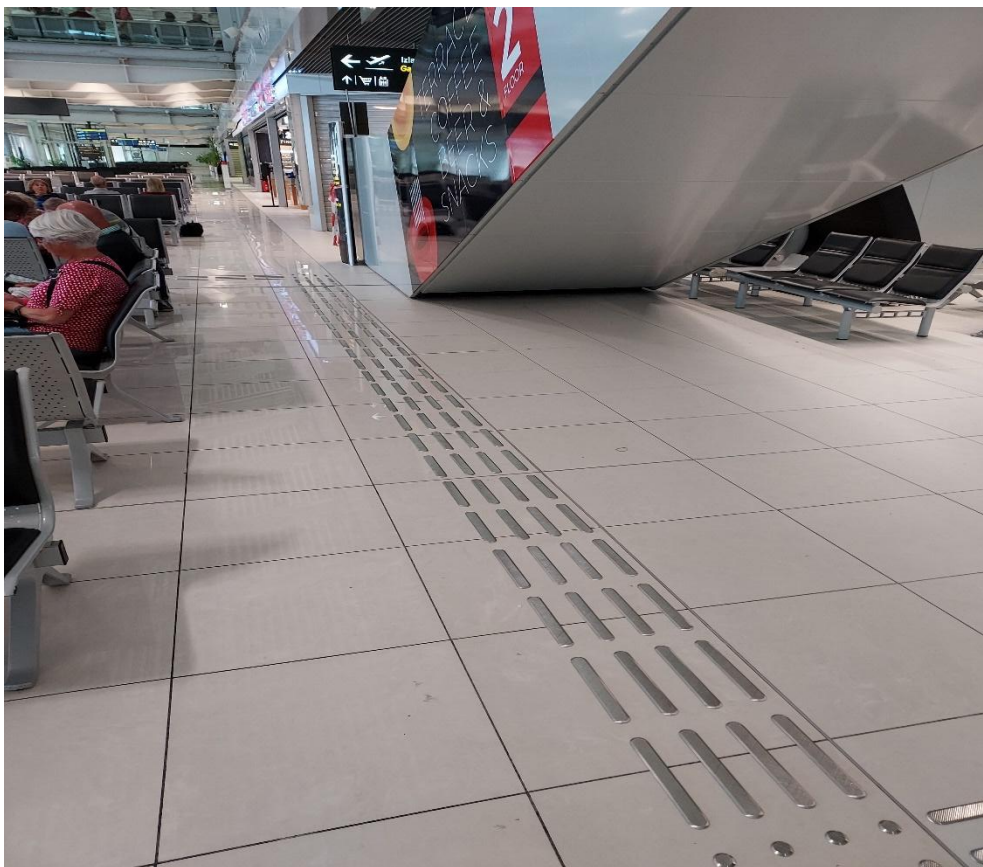
Picture 1. International departures TWS's

Picture 2. TWS's check in area – ground floor

Picture 3. TWS's basement – terminal building

17

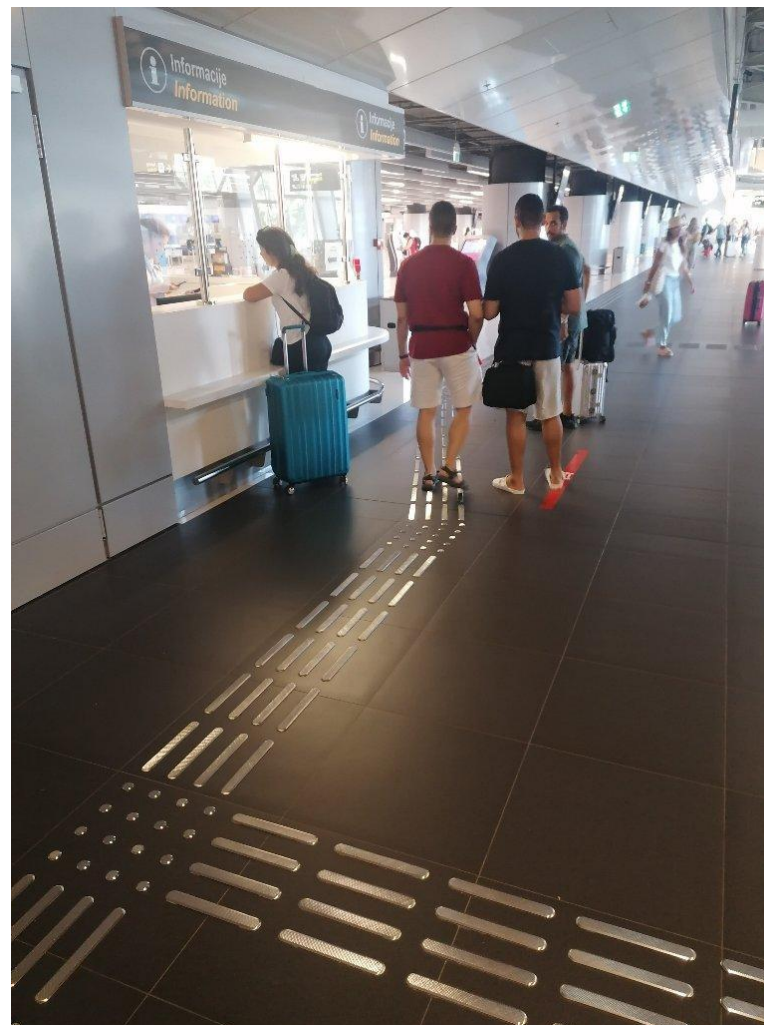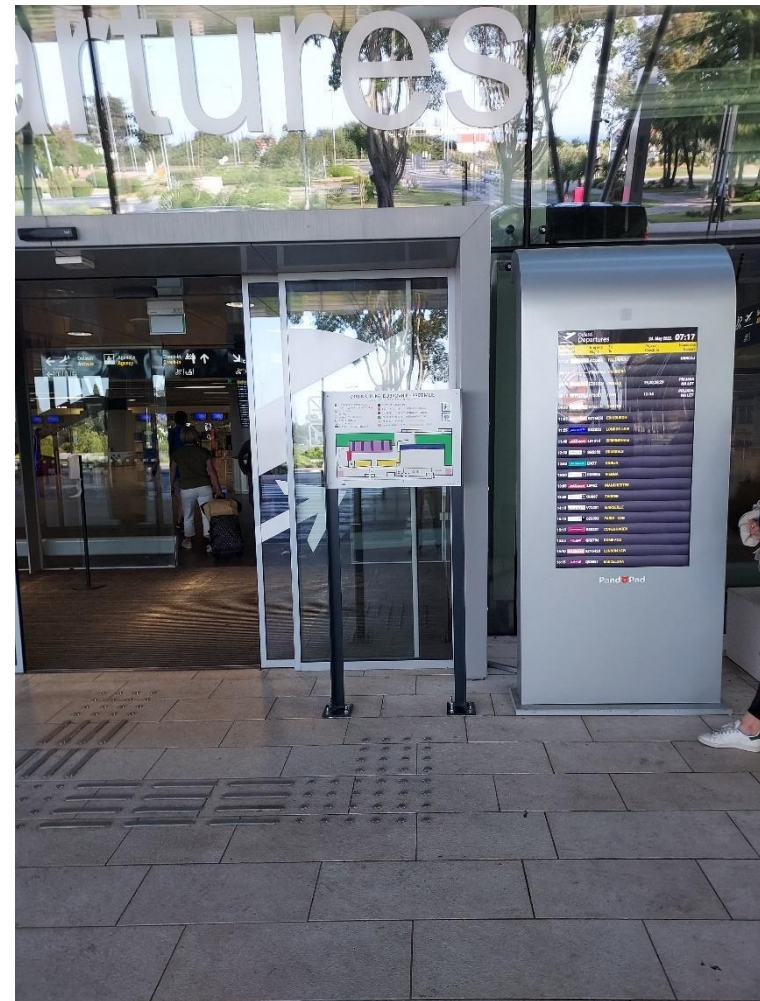*Picture 4. TWS's and tactile orientation plan - outdoor – in front of terminal building*

1.3 COSTS

Pilot action costs reported in D.T.3.3.1. amounted to 47.118 EUR, please see attached table:

Category of funding	Expenditure Amount (EUR)
External expertise Website accessibility for blind and partly sighted passengers check	4.570
External expertise Website update according to findings from accessibility check	3.000
Equipment Installation of TWS, orientation plans and signage on toilettes within DBV perimeter (landside area, terminal building)	39.548
TOTAL	**47.118 EUR**

Table 4: Pilot action actual costs

The total costs encountered during the pilot life cycle are equal to 47.118 EUR, which is below originally budgeted amount for implementation of pilot action of 70.500 EUR. Difference occurred due to the fact that during estimation of initial budget DBV had no previous knowledge of measures to be undertaken in order to improve accessibility for blind and partly sighted and had planned some different measures to be adopted, which were considered as not important during assessment process. Also, difference is a result of public procurement process.

The funding sources are:

ERDF contribution 85% - 40.050 EUR

DBV contribution 15%   - 7. 068 EUR

Such costs are in line with the costs foreseen in the AF.

1.4 PROBLEMS FACED

During the implementation of pilot action DBV has faced several problems and challenges:

Definition of technical description of pilot action in public procurement process. DBV had no adequate knowledge to determine which type of the TWS's should be placed indoor, which ones outdoor. Therefore, help of the experts from CBU was necessary in this respect.

There was delay in delivering of TWS's to the pilot action site and consequently delay in installation of equipment. Original deadline was set 90 days from contract signage (12.4.2022), however due to the delay in shipment of TWS's from ChIna and unexpected start

of war in Ukraine, delivery date of TWS's has been delayed and TWS's were implemented as of 27.5.2022.

Since TWS's implemented are made from stainless steel (indoor and outdoor) with anti-slip surface with small holes, DBV experienced problems in cleaning such TWS's. DBV will need to purchase specialised machine for cleaning TWS's and have to use chemicals and cleaning products that are not harmful for stainless steel (especially outdoor). Nevertheless, due to the type of the TWS's installed, they can easily get dirty and turned black.

1.5 GOOD POINTS / SUCCESS OF THE IMPLEMENTATION PROCESS

Implementation of TWS's has largely improved accessibility for blind and partly sighted passengers in Dubrovnik Airport. This, in combination with training of DBV employees, has significantly risen level of service that DBV provides to blind and partly sighted passengers and is considered to be major starting point in implementation of other measures identified within DANOVA project.

In implementation phase participation of stakeholders was also important. On first two stakeholder events held in July 2021 and March 2022, pilot action intervention was discussed with stakeholders, and their ideas were taken into the consideration, especially in prioritising identified measures that will be implemented after the project DANOVA is finalised.

Furthermore, in discussion with stakeholders and CBU, web page was identified as the crucial point of pre-travel information and its accessibility was considered of most importance for blind and partly sighted passengers. Therefore, DBV has performed update of the web page.

1.6. TRANSFERABILITY POTENTIAL AND ADAPTABILITY

During stakeholders' meetings and Transnational working Group meetings it was concluded that pilot action implemented in DBV can be used as a good practice for other airports in the region as well as for other applicable infrastructure access points. Representatives of City of Dubrovnik and local public bus provider Libertas have all expressed interests in sharing DANOVA project results and pilot action results.

Experience of the DBV and other DANOVA partners can be used in similar or other environments, following crucial points are to be considered in implementation of such practices according to DBV expereince:

Performing assessment of the current status of accessibility for blind and partly sighted.

Prioritization of interventions to be implemented.

Consultation on the corridor were TWS's are to be placed with involved stakeholders, especially service providers within the airport terminal building,

Expected costs and timeline for implementation of TWS's and tactile orientation plans.

Problems occurred during the installation and after the installation.

Benefits for blind and partly sighted passengers after the pilot action implementation.

1.7 OVERALL CONCLUSION ON THE EVALUATION OF THE PILOT ACTION PROCESS

DBV pilot action has made DBV infrastructure more accessible to blind and partly sighted passengers. Prior to pilot action intervention there were only 55 metres of TWS's placed in DBV check in area, connecting entrance to the building only to info-desk counter. After the pilot action implementation there are total of 387 metres of TWS's in airport terminal building and in front of the terminal building connecting all crucial access points: info desk, toilettes, arrivals, departures, public bus station, shuttle bus, info desk, PRM corners.

Also, as web page is considered to be starting point of each travel, DBV has performed web page accessibility check and has implemented recommendation and updated web page, for it to be fully accessible to blind and partly sighted.

Expected impact of DBV pilot action and DANOVA project can be summarised as follows:

Project and Policy instrument	Goal	Impact	Indicator
Danova – Danube Transnational Programme	Increase competences for business and social innovation - Developing innovative social services able to better meet social needs and to provide services in general interest	DANUBE region and other interested parties	Transnational concept for accessibility for blind and partly sighted that is to be developed based on Capitalisation strategy, collection of best practices, call for ideas' selection and stakeholder engagement
	Improvement in accessibility for blind and partly sighted passengers of DBV	All DBV users	387 metres of TWSIs that are installed 6 orientation plans 3 toilettes marked with Braille letter
	Improvement in level of service to blind and partly sighted passengers	DBV employees and blind and partly sighted passengers	At least 20 employees of Dubrovnik Airport will attend training session

Table 5. expected impact of DBV pilot action and DANOVA project

Table of Contents for Part 2 of the Evaluation report – Evaluation Grid

NOTE:

FILL IN ONLY THE TABLES THAT WERE INCLUDED IN THE PILOT ACTION AND DELETE THE REST!

1. NATIONAL ENVIRONMENT

1.1. National regulations

Did the pilot action include any improvements on this matter?	**NO** If no, please leave empty this table.	briefly describe		

Title/Name	Year adopted	Compulsory or recommended[1]	Related to EU/global standard (Yes/No)	If yes, specify which one

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[1] If the document is of mandatory nature (meaning that it is compulsory) please state *"Compulsory"*. If the document provides guidelines/recommendations and it is not obligatory to comply with it, please state *"Recommended".*

2. OFF-SITE ASSESSMENT

2.1. Site policies, service standards and awareness training

Accessibility policies			Evaluation	Comments
Did the pilot action include any improvements on this matter?	**NO** If no please leave empty this table	briefly describe		
Did the pilot action include introduction of policies on accessibility?	Yes/No	briefly describe		
Did the pilot action entail revision of accessible policies in order to include blind and partially sighted persons?	Yes/No	briefly describe		
How are the policies improved?	briefly describe			
How is the implementation monitored?	briefly describe			
Does staff policy specifically require the staff to assist persons with visual impairments?	briefly describe			
Has the staff been trained to assist persons with visual impairments in evacuation?	briefly describe			

Customer service standards			Evaluation	Comments
Did the pilot action	Yes/No	briefly describe	N/A	

include any improvements on this matter?	If no please leave empty this table			
Did the pilot action include introduction of customer service standards?	Yes/No	briefly describe		
Did the pilot action entail the revision of customer service standards in order to include blind and partially sighted persons?	Yes/No	briefly describe		
How are these service standards implemented?	briefly describe			
How is the implementation monitored?	briefly describe			

Disability awareness training			Evaluation	Comments
Did the pilot action include any improvements on this matter?	NO If no please leave empty this table	briefly describe	N/A	The pilot actions did not envisaged the training, but the training for both managerial and operational staff was implemented through the project, and future trainings are also announced by the ZLD, based on the training materials used within the project.

Is disability awareness training of staff members performed?	Yes/No	briefly describe		
Is every staff member trained?	Yes/No	briefly describe If no; who is trained and who is not?		
Which aspects are covered in training?	briefly describe, circle those that are included in the training • Legislation - employment and customer service • Challenging stereotypes and assumptions • Relating to people with disabilities - language and etiquette (how to adequately communicate, support and guide a person with disability) • Working with people with disabilities - practical skills and use of equipment • Inclusive working - removing barriers in practices, policies and procedures • Universal design - removing barriers in the physical environment; and • Inclusive information - removing barriers in communication and information provision		
Are specialized staff trainings performed (e.g., support for blind and visually impaired persons, for people with hearing disabilities, support for persons with reduced mobility etc.)?	Yes/No - if yes, specify which trainings (for which group) are implemented.			
Is visual impairment awareness training implemented?	Yes/No - if yes, specify who was the training provided by – was it by representatives of blind/partially sighted community, experts?			

2.2. Pre- and post-travel access to information

Website		Evaluation	Comments
Did the pilot action include any improvements on this matter?	Yes – updates are in progress but not implemented.	N/A	Test version not yet in

			production, thus can't be evaluated here.
Does the pilot site have its own website (stand-alone website)?	Yes		
Is website of the audited site compliant with W3C levels A/AA or AAA? (for stand-alone websites expert assessment is mandatory, for webpages within corporate websites, online tools can be used https://www.experte.com/accessibility to check accessibility of main webpage)	No – updates are in progress but not yet implemented.	2 – inaccessible and unsatisfactory	☒ Compliance checked by the expert (if YES, tick the box, leave empty if checked with online tool)
Does the website provide information on the building (including accessible paths and facilities, etc.) in suitable format (text)?	No	3 - Unsatisfactory but acceptable	
Are there any online services accessible (e.g., live chat online)?	No	3 - Unsatisfactory but acceptable	
Are there any services offered at the pilot site for blind and partially sighted persons) that can be booked online (e.g., personal assistance?). Is the application for booking them fully accessible	No	3 - Unsatisfactory but acceptable	
If forms need to be filled in, they can be filled electronically through an accessible software.	Yes	2 – inaccessible and unsatisfactory	

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3. ON-SITE ASSESSMENT

For each of the modules below, insert (copy/paste) appropriate building block assessment tables. Choose from all that apply, each building block can be used as many times as needed. If specific module is not present at audited site (e.g. Security screening and customs is only present at locations like airports and ports), delete the module.

If the pilot action does not include any improvements on this module, please delete it.

3.1. Approach and departure to and from the site

BUS STOPS		Evaluation	Comments
Is the pilot action related to this site?	YES	4 - Accessible and Acceptable	TWSIs were installed in front of the airport terminal building connecting shuttle bus and public bus stop with arrival and departure access points.
Did the pilot action include equipping alighting (disembarking) areas for persons with disabilities?	n.a.		
Did the pilot action include levelling, covering and/or putting the space out of the traffic lane?	n.a.		
Did the pilot action include providing a step free route leading to entrance?	n.a.		
Did the pilot action ensure that the person with disability is not require to cross the traffic lane?	NO	4 - Accessible and Acceptable	Tactile walking surface indicators guide to two crossings.
Did the pilot action include TWSIs guidance path including directional, hazard warning and positional tiles directing to the entrance?	YES	4 - Accessible and Acceptable	TWSIs were installed in front of the airport terminal building connecting shuttle bus and public bus stop with arrival and departure access points.

30

Did the pilot action include ensuring that there is adequate lighting and no glare?	NO		
Did the pilot action include installing acoustic information systems at place?	NO		

SIGNS - TACTILE ORIENTATION PLAN		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES	4 - Accessible and Acceptable	Tactile orientation plan at the Public bus stop. Provides information about the location of the bus stop, TWSIs, zebra crossings, taxi parking and entrances to the buildings (arrivals and departures).
Are the new visual directional signs placed in a way to constitute a logical orientation sequence from the starting point to different points of destination?	n.a.		Tactile orientation plan
Are the new visual signs easily understandable (designed to be simple and easy to interpret, the message is unambiguous)	n.a (check size, colours, fonts, and contrast; If NO, please specify what is inadequate (is it colour, font, size, contrast)		Tactile orientation plan
Are the new visual signs readable and legible for people with visual impairments?	n.a.		Tactile orientation plan
Are the new visual signs well illuminated with no glare?	n.a It is up to the evaluation team to decide whether or not the tactile guidance is sufficient and adequate in the investigated context		Tactile orientation plan

Is sufficient and adequate tactile guidance (e.g., TWSIs) provided along the relevant paths?	n.a		Tactile orientation plan compensate this.
Are orientational signs accompanied with signs/information in relief (raised lettering)?	n.a		Tactile orientation plan compensate this.
Is information in relief (raised lettering) appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.
Are orientational signs accompanied with signs/information in Braille?	n.a		Tactile orientation plan compensate this.
Are Braille signs appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.
Is a complementary audible information system provided?	n.a		Tactile orientation plan compensate this.

3.2. Entrance to the site - departures

DOORS – Departures – Entrance		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		TWSIs
Are automatic (preferably sliding) doors provided?	n.a. for this pilot action		
There are no thresholds present at the door (ISO standard: less than 15 mm high).	n.a. for this pilot action.		

Do doorframes contrast with the wall?	No	2 – inaccessible and unsatisfactory	Frames of the doors should be painted differently, in contrast to be more noticeable.
In case the doors are glass doors – do they have colour contrasting edging and door handles?	No	1 – hazardous, inaccessible and unsatisfactory	The doors and the adjacent walls are made of glass. There are some markings on them, but they are not easily noticeable.
Are Braille and tactile signs (TWSIs) provided at a door?	Yes	4 - Accessible and Acceptable	TWSIs are appropriately installed, guiding from the bus stop to the entrance of the Airport Terminal. NOTE: The TWSI should also be installed in the space between double door dividing indoor and outdoor area of the Terminal building.
Are Braille signs appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plan at the entrance - includes the braille markings and relief markings indicating the entrances.

SIGNS - TACTILE ORIENTATION PLAN		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES	4 - Accessible and Acceptable	Tactile orientation plan at the entrance.
Are the new visual directional signs placed in a way to constitute a logical orientation sequence from the starting point to different points of destination?	n.a.		

Are the new visual signs easily understandable (designed to be simple and easy to interpret, the message is unambiguous)	n.a (check size, colours, fonts, and contrast; If NO, please specify what is inadequate (is it colour, font, size, contrast)		
Are the new visual signs readable and legible for people with visual impairments?	n.a.		
Are the new visual signs well illuminated with no glare?	n.a It is up to the evaluation team to decide whether or not the tactile guidance is sufficient and adequate in the investigated context		
Is sufficient and adequate tactile guidance (e.g., TWSIs) provided along the relevant paths?	n.a		Tactile orientation plan compensate this.
Are orientational signs accompanied with signs/information in relief (raised lettering)?	n.a		Tactile orientation plan compensate this.
Is information in relief (raised lettering) appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.
Are orientational signs accompanied with signs/information in Braille?	n.a		Tactile orientation plan compensate this.
Are Braille signs appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.
Is a complementary audible information system provided?	n.a		Tactile orientation plan compensate this.

3.3. Inside circulation – departures

SIGNS - TACTILE ORIENTATION PLAN		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES	4 - Accessible and Acceptable	Tactile orientation plan at the entrance - showing the location of the TWSIs, doors, info desk, check in etc.
Are the new visual directional signs placed in a way to constitute a logical orientation sequence from the starting point to different points of destination?	n.a.		
Are the new visual signs easily understandable (designed to be simple and easy to interpret, the message is unambiguous)	n.a (check size, colours, fonts, and contrast; If NO, please specify what is inadequate (is it colour, font, size, contrast)		
Are the new visual signs readable and legible for people with visual impairments?	n.a.		
Are the new visual signs well illuminated with no glare?	n.a It is up to the evaluation team to decide whether or not the tactile guidance is sufficient and adequate in the investigated context		
Is sufficient and adequate tactile guidance (e.g., TWSIs) provided along the relevant paths?	n.a		Tactile orientation plan compensate this.
Are orientational signs accompanied with signs/information in relief (raised lettering)?	n.a		Tactile orientation plan compensate this.
Is information in relief (raised lettering) appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.

Are orientational signs accompanied with signs/information in Braille?	n.a		Tactile orientation plan compensate this.
Are Braille signs appropriately placed and of standardized size?	n.a		Tactile orientation plan compensate this.
Is a complementary audible information system provided?	n.a		Tactile orientation plan compensate this.

PATHS, CORRIDORS – Departures – Entrance		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES	3 – Unsatisfactory but acceptable	TWSIs – indoor (basement,ground floor, international departure) Note: not positioned correctly to indicate the path to the information desk.
Is the floor slip-resistant in both wet and dry conditions?	n.a for this action plan		
Is the floor level or with gradient according to regulations or standard (gentle slope (EN standard) or slope no more than 1:12 or a cross slope no more than 1:50 in the pathway (ISO standard))?	n.a for this action plan		
Is there a colour contrast between the floor, walls, doors, and the ceiling?	Yes	2 – inaccessible and unsatisfactory	There is not enough contrast
Is there adequate light and no glare?	No	3 – Unsatisfactory but acceptable	Queue barriers could pose a problem to visually impaired passengers, as well as machines.

Is the path free of any barriers or obstacles?	No	3 – Unsatisfactory but acceptable	Queue barriers could pose a problem to visually impaired passengers, as well as machines.
Are the paths maintained and kept free of unwanted barriers such as furniture, plants etc.?	n.a for this action plan		
Is the path equipped with adequate tactile guidance (e.g., TWSIs) including directional, hazard warning and positional tiles provided for independent navigation?	YES. It is up to the evaluation team to decide whether or not the tactile guidance is sufficient and adequate in the investigated context	4 - Accessible and Acceptable	TWSIs – indoor (basement, ground floor, domestic/international departure) NOTE: not positioned correctly to indicate the path to the information desk.
Is the path equipped with acoustic guidance?	n.a.		

COUNTERS- Departures –Landside – Information desk		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Does the counter contrast in colour with the adjacent background?	yes	4 - Accessible and Acceptable	
Is the counter-top adequately illuminated?	yes	4 - Accessible and Acceptable	
Is the counter to surface non-reflective?	yes	4 - Accessible and Acceptable	
Is there sufficient visual guidance (signage, visibility of the doors etc.) available to detect and identify the counter easily?	No	4 - Accessible and Acceptable	Marked on the Tactile orientation plan
In case of glass empanelled counter is there a microphone that is used by the staff?	yes	4 - Accessible and Acceptable	

Is there live assistance available at the counter to guide persons to their destination?	yes	4 - Accessible and Acceptable	
TWSIs lead directly to the counters – or – there is one counter designated to all people with disabilities and it is equipped with accessibility features?	Yes	4 - Accessible and Acceptable	TWSIs lead to the information desk
Is waiting area near info desk adequately marked and easily accessible	Yes.	4 - Accessible and Acceptable	Waiting area is visually marked by signs for passengers with reduced mobility and TWSIs that guides passengers to the waiting area zone.

Sanitary facilities – check in area - SIGNS		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Are visual directional signs placed in a way to constitute a logical orientation sequence from the starting point to different points of destination?	Yes	4 - Accessible and Acceptable	TWSIs are placed to reach them.
Are visual signs easily understandable (designed to be simple and easy to interpret, the message is unambiguous)	Yes	4 - Accessible and Acceptable	
Are visual signs readable and legible for people with visual impairments?	Yes	3 – Unsatisfactory but acceptable	It is a bit difficult to orientate but there are TWSIs
Are visual signs well illuminated with no glare?	No	3 – Unsatisfactory but acceptable	Some are not
Is sufficient and adequate tactile guidance (e.g. TWSIs) provided along the relevant paths?	Yes	4 - Accessible and Acceptable	TWSIs lead from PRM waiting areas to the toilet on the ground floor and from PRM area to the lift

Are orientational signs accompanied with signs/information in relief (raised lettering)?	Yes	4 - Accessible and Acceptable	Marked on the tactile orientation plan
Is information in relief (raised lettering) appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plan
Are orientational signs accompanied with signs/information in Braille?	Yes	4 - Accessible and Acceptable	Tactile orientation plan
Are Braille signs appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plan
Is a complementary audible information system provided?	n.a.		

TOILETS- Departures –Landside – Check-in area		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Accessible toiles are available on all floors of the building?	n.a. for action plan		
Accessible toilets are clearly marked?	No	3 – Unsatisfactory but acceptable	They should be marked more specifically with visual signage
The accessible toiles have signs in Braille?	Yes	4 - Accessible and Acceptable	Directly on the doors indicating toilet for man, women, people with disabilities
Toilet door must be outward opening, double hinged or sliding type.	n.a. for action plan		
The floor-surface of the toilet is non-slippery?	n.a. for action plan		
The toilet is well illuminated with no glare?	Yes	4 - Accessible and Acceptable	
There is a colour contrast between the floor, wall and sanitary fittings?	Yes	4 - Accessible and Acceptable	
Is there an alarm system within easy reach to alert persons outside, in case of emergency?	n.a. for action plan		

The door can be locked from inside but also released from outside in case of emergency	n.a. for action plan		
It is kept clean and well-maintained.	n.a. for action plan		
Is there sufficient visual guidance (signage, visibility of the doors etc.) available to detect and identify the toilets easily?	No	3 – Unsatisfactory but acceptable	Some signs marking the toilets are not properly positioned. They are not located on the door, but several centimetres away.

3.4. Security screening and customs

3.5. Sanitary facilities

3.6. Shopping and catering facilities

3.7. Waiting areas

3.8. Departure point(s)

3.9. Arrival point(s) - Domestic&international – Inside terminal- Landside

DOORS –Arrivals - Exit		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Are automatic (preferably sliding) doors provided?	n.a. for this action plan		
There are no thresholds present at the door (ISO standard: less than 15 mm high).	n.a. for this action plan		
Do door frames contrast with the wall?	No	2 – inaccessible and unsatisfactory	Frames of the doors should be painted differently, in contrast to be more noticeable.
In case the doors are glass doors – do they have colour contrasting edging and door handles?	No	1 – hazardous, inaccessible and unsatisfactory	The doors and the adjacent walls are made of glass. There are some markings on them, but they are not easily noticeable.
Are Braille and tactile signs (TWSIs) provided at a door?	Yes	4 - Accessible and Acceptable	There are TWSIs marking the entrance to the door.

Are Braille signs appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plan on the bus stop and at the entrance
Is a complementary audible information system provided?	Non existent		

PATHS, CORRIDORS – Arrivals - Landside		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Is the floor slip-resistant in both wet and dry conditions?	n.a. for this action plan		
Is the floor level or with gradient according to regulations or standard (gentle slope (EN standard) or slope no more than 1:12 or a cross slope no more than 1:50 in the pathway (ISO standard))?	n.a. for this action plan		
Is there a colour contrast between the floor, walls, doors and the ceiling?	yes	2 – inaccessible and unsatisfactory	No, there is not enough contrast
Is there adequate light and no glare?	yes	4 - Accessible and Acceptable	
Is the path free of any barriers or obstacles?	yes	4 - Accessible and Acceptable	
Are the paths maintained and kept free of unwanted barriers such as furniture, plants etc.?	Yes	4 - Accessible and Acceptable	
Is the path equipped with adequate tactile guidance (e.g.TWSIs) including directional, hazard warning and positional tiles provided for independent navigation?	Yes	4 - Accessible and Acceptable	TWSIs from meeting point inside the terminal to the exit and to the toilets.
Is the path equipped with acoustic guidance?	No	N/A	No need

SIGNS – Arrivals - Landside		Assessment	Comments
Did the pilot action include any improvements on this matter?	YES		
Are visual directional signs placed in a way to constitute a logical orientation sequence from the starting point to different points of destination?	Yes	4 - Accessible and Acceptable	
Are visual signs easily understandable (designed to be simple and easy to interpret, the message is unambiguous)	Yes	4 - Accessible and Acceptable	
Are visual signs readable and legible for people with visual impairments?	Yes/No (check size, colours, fonts, and contrast; If NO, please specify what is inadequate (is it colour, font, size, contrast)	3 – Unsatisfactory but acceptable	It depends on their visual impairment and the environment conditions (illumination)
Are visual signs well illuminated with no glare?	No	3 – Unsatisfactory but acceptable	Some of the signs were insufficiently illuminated
Is sufficient and adequate tactile guidance (e.g. TWSIs) provided along the relevant paths?	Yes	4 - Accessible and Acceptable	TWSIs from the meeting point of arrivals to the exit of the building and all the way to public bus transport and airport shuttle bus and taxy service.
Are orientational signs accompanied with signs/information in relief (raised lettering)?	Yes	4 - Accessible and Acceptable	Tactile orientation plans
Is information in relief (raised lettering) appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plans
Are orientational signs accompanied with signs/information in Braille?	Yes	4 - Accessible and Acceptable	Tactile orientation plans
Are Braille signs appropriately placed and of standardized size?	Yes	4 - Accessible and Acceptable	Tactile orientation plans
Is a complementary audible information system provided?	No	2 – inaccessible and unsatisfactory	Tactile orientation plans

TOILETS - Arrivals – Landside		Evaluation	Comments
Did the pilot action include any improvements on this matter?	YES		
Accessible toiles are available on all floors of the building?	n.a. for this action plan		
Accessible toilets are clearly marked?	No	3 – Unsatisfactory but acceptable	They should be marked more specifically with visual signage
The accessible toiles have signs in Braille?	Yes	4 - Accessible and Acceptable	Directly on the doors indicating toilet for man, women, people with disabilities
Toilet door must be outward opening, double hinged or sliding type.	n.a. for this action plan		
The floor-surface of the toilet is non-slippery?	n.a. for this action plan		
The toilet is well illuminated with no glare?	Yes	4 - Accessible and Acceptable	
There is a colour contrast between the floor, wall and sanitary fittings?	Yes	4 - Accessible and Acceptable	
Is there an alarm system within easy reach to alert persons outside, in case of emergency?	n.a. for this action plan		
The door can be locked from inside but also released from outside in case of emergency	n.a. for this action plan		
It is kept clean and well-maintained.	n.a. for this action plan		
Is there sufficient visual guidance (signage, visibility of the doors etc.) available to detect and identify the toilets easily?	No	3 – Unsatisfactory but acceptable	Some signs marking the toilets are not properly positioned.

3.10. Evacuation routes

3.11. Exit from the site

PATHS – Arrivals - Curbside		Evaluation	Comments
Is the floor slip-resistant in both wet and dry conditions?	n.a. for this pilot action		
Is the floor level or with gradient according to regulations or standard (gentle slope (EN standard) or slope no more than 1:12 or a cross slope no more than 1:50 in the pathway (ISO standard))?	n.a. for this pilot action		
Is there a colour contrast between the floor, walls, doors and the ceiling?	yes	2 – inaccessible and unsatisfactory	There is not enough contrast
Is there adequate light and no glare?	No	2 – inaccessible and unsatisfactory	No, there is significant glare because of the floor texture
Is the path free of any barriers or obstacles?	Yes	4 - Accessible and Acceptable	
Are the paths maintained and kept free of unwanted barriers such as furniture, plants etc.?	No	3 – Unsatisfactory but acceptable	Queue barriers could pose a problem to visually impaired passengers, as well as machines
Is the path equipped with adequate tactile guidance (e.g.TWSIs) including directional, hazard warning and positional tiles provided for independent navigation?	Yes	4 - Accessible and Acceptable	TWSIs from the exit door to the shuttle bus stop and public bus stop joining with the arrival TWSI
Is the path equipped with acoustic guidance?	No		No need

4. EVALUATION CRITERIA

1. **Hazardous, inaccessible, and unsatisfactory**
    If the evaluated element is dangerous and poses a hazard to blind and/or partially sighted persons, and, if the rated element is inaccessible, and if it is rated unsatisfactory by blind and/or partially sighted persons, the element receives the lowest rank (1). Note that all three conditions must be met in order to assign the lowest rank 1.

2. **Inaccessible and unsatisfactory**
    If the rated element is inaccessible and assessed as unsatisfactory by blind and/or partially sighted persons, but does not pose a hazard to passengers with visual impairments, the element is rated with rank 2.

3. **Unsatisfactory but acceptable**
    The element is rated unsatisfactory by blind and/or partially sighted persons, but does not pose a hazard to passengers with visual impairments nor is the element inaccessible. The element is evaluated with rank 3.

4. **Accessible and acceptable**
    The element is rated as acceptable and accessible to blind and partially sighted persons; the element is rated with rank 4.

5. **Accepted as a Best Practice**
    The element is rated as acceptable and accessible to blind and partially sighted persons and shows an exemplary way of implementing standards. It is very important that the expert or representative of the visually impaired rate the element as exemplary. It is very important that the element works for the intended user(s) - if the solution is very innovative but does not work for visually impaired people (e.g. due to its complexity), it cannot be given the highest rank. The solution is something that works and can/should be transferred and implemented elsewhere; the element is evaluated with rank 5.

Evaluation rank	Evaluation Criteria	Symbol	Priority for intervention
1	Hazardous, Inaccessible and Unsatisfactory		Highest
2	Inaccessible and Unsatisfactory		High
3	Unsatisfactory but acceptable		Moderate
4	Accessible and Acceptable		Low
5	Accepted as a Best Practice		None

5. IMPROVEMENT AFTER IMPLEMENTATION OF THE PILOT ACTION.

Please, based on the evaluation grid, describe

- Whether the problems you tackled with the Pilot Actions are dealt with?

The problems detected by the accessibility assessment and which are part of the pilot action were solved in such a way as to ensure accessibility for blind and partially sighted people to the extent necessary so that they as air passengers could participate and use the service in question much more equally. Namely, the problems detected by the accessibility assessment were defined according to priorities, which greatly contributed to a better quality and more objective assessment in the selection of actions that, in accordance with the provided funds, will be possible to be realized while ensuring the independence, equality and inclusion of blind and partially sighted people to the greatest extent possible. By implementing 4/6 defined top priorities and 3/6 defined medium priorities, the accessibility standards necessary for easier and equal use of the Airport facility for blind and partially sighted people have been ensured.

- What is the accessibility improvement (one evaluation rank higher equals 20% improvement)?

The assessment of accessibility improvement, although it is very difficult and demanding, given the guidelines for individual approach to each individual in need, is generally estimated at 65%.

- How that corresponded to the Pilot action plan – was it fulfilled as planned?

We believe that the goals have been achieved because the implemented actions have ensured the necessary accessible signage, the understanding of the officials who have undergone educational training, and the public's awareness of the topic in question has been raised. In addition, we believe that certain detected priorities of a lower rank, which will be especially useful for partially sighted people, can be realized very easily in the future because they require much less financial resources than the priorities that have been realized now due to their high priority rank. The fact that a blind person can come to the airport alone and board a particular flight without difficulty is an argument for praising what has been achieved and an incentive for further improvements in accessibility.

- What were the reasons behind the success / unsatisfactory result?

We believe that the reasons for the success are very high engagement and the desire to implement the planned pilot actions, which included a series of joint meetings, consultations, additional informing, counselling, and all in the good faith to make adjustments or ensuring accessibility at the highest possible level. As an example, we highlight the fieldwork of the Croatian Blind Union for the purpose of determining

the type and quality of the surface and the measurement of the area in order to offer a conceptual solution as professional and precise as possible, in accordance with the principles of economy and functionality; information provision, consultation and expert teamwork assessment of the development of optimal conceptual solutions for the installation of TWSIs for the blind (tactile guidance lines and tactile warning fields) indoors and outdoors of the building, in colour-contrast with the background; information provision, consultation and expert teamwork evaluation of the development of conceptual solutions and installation of orientation plans in relief, showing the layout of the floor on which a visually impaired person moves, with information in print and Braille.

- What are the lessons learned?

We believe that one of the most important lessons learned is the fact that the process of improving conditions for a certain group requires their direct engagement in terms of consulting them and getting to know and understand their needs and specificities. Moreover, another important lesson learned relates to correct prioritising when it comes to ensuring accessibility and personal mobility of blind persons, as well as the need to raise the awareness of both managerial and operational staff of the transportation facility. The latter also relates to the importance of the training on the right approach and communication with visually impaired persons, which the transportation facility plans to incorporate in its future actions.

- Would you consider this Pilot action can be replicated in a similar transport node – yes/no, why?

Yes, we believe that this pilot action can be replicated in a similar transportation facility, because accessible signage for blind and partially sighted people is standardized, includes expert assessment and creation of optimal accessibility solutions for blind and partially sighted people, and is universal in terms of meeting the needs of the blind and partially sighted population, which should be adapted to the possibilities, limitations and specificities of each transportation facility. However, examples of good practice can certainly be multiplied in the same way or with modifications based on professional advice.

- What will you advise the management of other transport nodes which are going to implement similar Pilot action?

The advice is to include in the process the organisations representing blind and partially sighted persons, experts in the relevant fields and end users, because in that way the transportation facility will ensure its actions comply with the needs of targeted users, as well as with the legal requirements and standards. This way the facility will have the opportunity to implement the best practices and to avoid overburdening with additional costs related to further adjustments.