



**Interreg
Danube Region**



**Co-funded by
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Improving accessibility of transportation facilities and travel information for passengers with disabilities and reduced mobility

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DANOVA



Innovative transportation services for blind and partially-sighted passengers in Danube Region

- Interreg Danube Programme
- July 2020 – December 2022
- Budget 2,192,546.66 €
 - ERDF 1,478,974.50 €
 - IPA 307,810.50 €
 - ENI 76,879.66 €
- 14 partners
 - 6 airports
 - 2 seaports
 - 2 urban public transports
 - 2 associations of Blind and partially sighted
 - 2 research partners

DANOVA NEXT



Smart Transport Network for the accessibility of Passengers with disabilities and reduced mobility in the Danube Region through innovative services

- Interreg Danube Programme
- January 2024 – June 2026
- Budget 2,622,400.00 €
 - ERDF 2,097,920.00 €
 - IPA 307,810.50 €
 - ENI 76,879.66 €
- 16 partners
 - 5 airports
 - 2 seaports
 - 3 urban public transports
 - 3 associations of people with disabilities
 - 3 research partners



Why DANOVA (Innovative transportation services for blind and partially-sighted passengers in Danube Region)?

- It is estimated that 96% of the transport system in the EU is still not fully accessible to blind and partially sighted people (European Blind Union).
- Accessibility is extremely low in many countries in the Danube Region.
- Implementation of standards is lacking.
- As a result, over 30 million blind and partially sighted people cannot travel independently.

DANOVA core activities:

- Develop a **concept of totally accessible transportation facilities** to visually impaired passengers.
- **Assess current accessibility** of transport terminals and propose improvements.
- **Implement and test solutions** for improving accessibility.
- **Educate stakeholders** on how to use those solutions and how to adequately support passengers with visual impairment .

Concept of totally accessible transportation facilities to visually impaired passengers:

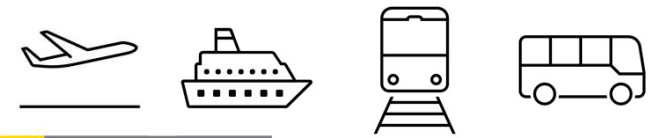
Six elements:

- Inclusion strategies.
- Provision of services and support.
- Accessibility of digital provisions.
- Accessibility of the built environment.
- Accessibility of equipment in the built environment
- Accessibility of vehicles

MUST HAVE

SHOULD HAVE

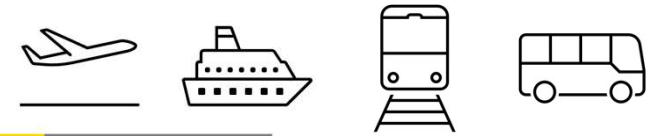
NICE TO HAVE



DANOVA Assessment methodology includes assessment of:

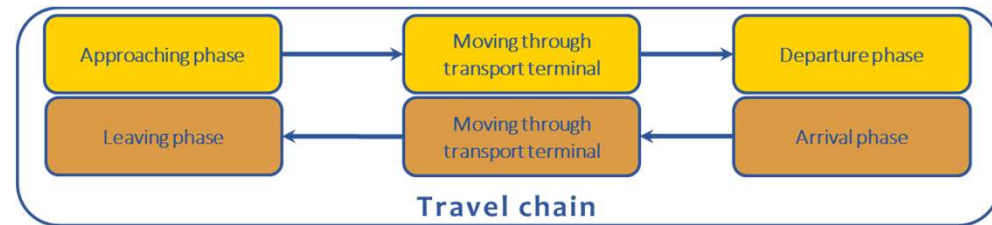
- physical access (**built environment**),
- access to **information** before and after travelling,
- access to **services** for blind and visually impaired people.



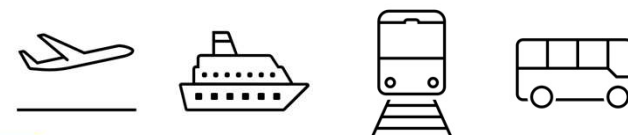


DANOVA Assessment methodology

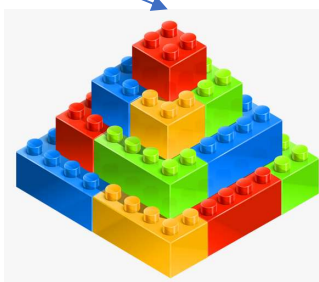
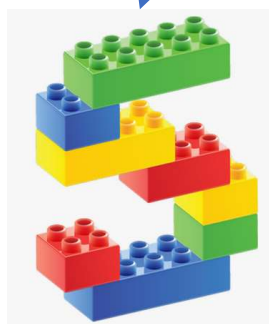
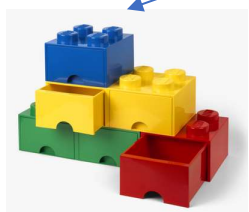
On-site assessment modules:



1. Approach and departure to and from the site
2. Entrance to the site
3. Inside circulation
4. Security screening and customs
5. Sanitary facilities
6. Shopping and catering facilities
7. Waiting areas
8. Departure point(s)
9. Arrival point(s)
10. Evacuation routes
11. Exit from the site



DANOVA Assessment methodology

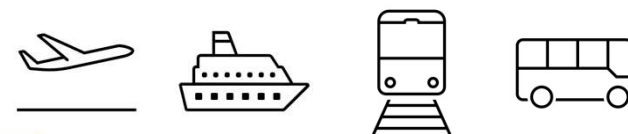


MODULES

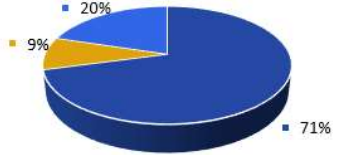
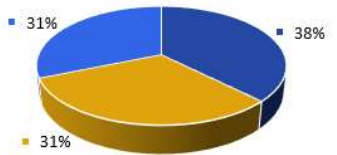
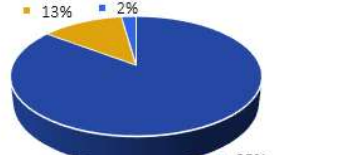
- Approach / departure to/ from the site
- Entrance/exit to/from the site
- Inside circulation
- Security screening and customs
- Waiting areas
- Shopping and catering facilities
- Sanitary facilities
- Evacuation routes
- Departure point(s)
- Arrival point(s)

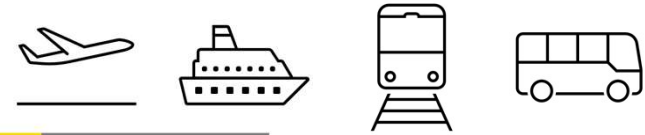
BUILDING BLOCKS

- Parking - car
- Parking - taxi
- Bus stops
- Tram stops
- Railway stops
- Signs
- Displays
- Paths, corridors
- Travelators, conveyers
- Doors
- Stairs
- Ramps
- Lifts
- Escalators
- Counters
- Machines
- Toilets
- Service animal relief



DANOVA Assessment methodology in practice

AIRPORTS	SEAPORTS	PUBLIC TRANSPORT SYSTEMS – BUS
 <p> ■ Built environment ■ Access to information and rules of conduct ■ In general </p>	 <p> ■ Built environment ■ Access to information and rules of conduct ■ In general </p>	 <p> ■ Built environment ■ Access to information and rules of conduct ■ In general </p>
Highest priority interventions <ul style="list-style-type: none"> - the installation of TWSIs, outside and inside terminals, - the placing of tactile orientation plan, - contrast marking of stairs, - cordoning-off of under-stair area, - general recommendations – (glass) wall contrast and revolving doors. 	Highest priority interventions <ul style="list-style-type: none"> - the installation of TWSIs outside terminal in both seaports (including TWSIs to public bus stops), - website accessibility to visually impaired persons. 	Highest priority interventions <ul style="list-style-type: none"> - evacuation routes (installation of evacuation alarm and signalling, evacuation plan), - the installation of TWSIs, outside and inside terminals, - installation of a large freestanding timetable display, - an intercom system at the information desk, - positioning of contrasting strips on stairs, - improvement of sanitary facilities (emergency alarm), - ensuring alternatives for touch-screen operated machines, - proper entrance illumination, - adoption of accessibility policy and customer service standards, - regular implementation of disability awareness training with an emphasis on visual impairments, - improving website accessibility for visually impaired persons.



DANOVA pilot implementations

- More than 1.000 meters of Tactile Walking surface Indicators (TWSIs).
- 100 warning tactile plates, contrasting stripes on walls and stairs.
- Braille signs or contrasting pictograms.
- Tactile orientation plans with Braille markings and legends.
- Indoor navigation software and mobile application (Budapest airport).
- Access to digital information: web-sites, time-tables, time-table display

DANOVA training programmes:

- **transnational trainings** targeted managers of transport authorities and service providers,
- **local trainings** for staff working in transportation terminals.



DANOVA

Innovative transportation services for blind and partially-sighted passengers in Danube Region



<https://dtp.interreg-danube.eu/approved-projects/danova>

OBJECTIVES

Improvement of transport accessibility (air, water & urban transport) in the Danube region **for all disabilities** by creating innovative services, and providing **fully accessible Digital Travel Information Services (DTIS)** through the **establishment of a Smart Network of transport facilities**, making a change and contributing to reduce the innovation gap across the DR.

SPECIFIC OBJECTIVES:

S.O. 1: To **assess the accessibility for people with hearing impairments** and **persons with disabilities and reduced mobility** (PRM) and to transfer the DANOVA methodology for the definition of the Strategy of accessible transports in the Danube Region, that will address all types of disability.

S.O. 2: To create **a smart network** among airports, ports and local urban transport companies sharing and **harmonising data, information and services through an application providing fully accessible Digital Travel Information Services (DTIS)**.

S.O. 3: To develop and evaluate customised pilot participatory actions through the implementation of innovative solutions and transfer of technology to improve accessibility of transport in the DR for all disabilities.

MAIN OUTPUTS

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DANOVA NEXT

Strategy for accessible transport in the Danube Region

Smart Transport Network for PRM (Passengers with reduced mobility) digital accessibility data

Customised pilot participatory actions

Replication Package for improving accessibility in transport



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DANOVA NEXT

- **DANOVA NEXT self-assessment toolkit**
- ***How-to and Best practices***
- **Inventory of digital travel information tools**
- **Interactive web application:** fully accessible Digital Travel Information System including the design of user-friendly interface data protection issues, user support and built-in integrations.

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DANOVA NEXT

**Smart Transport Network for the accessibility of
Passengers with disabilities and reduced mobility in
the Danube Region through innovative services**



<https://interreg-danube.eu/projects/danova-next>

Thank You for your attention.



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