



# ROAD-BASED PUBLIC TRANSPORT ACTION PLAN

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## 1. Project background and programme context

The project entitled *Landside Airports Accessibility* - LAirA<sup>1</sup> includes a project consortium of 10 project partners, and 4 associate partners. These partners are: Municipality of the 18th District of Budapest, Budapest Airport, SEA Milan Airports, Regional Government of the Mazowieckie Voivodeship, Stuttgart Region Economic Development Corporation, Dubrovnik Airport, Dubrovnik Development Agency, Airport Regions Conference, AustriaTech Ltd. - Federal Agency for Technological Measures, City of Poznan, Stuttgart Region, Vienna Airport, BKK Centre for Budapest Transport (BKK), Warsaw/Modlin Airport. Therefore, Dubrovnik Airport is one of the members of the consortium and partners in the project. The project CRE1074 LAirA is financed from European Union (EU) funds, within the Central Europe transnational cooperation programme (INTERREG Central Europe).

## 1.1. Project objectives

The transport activities of airports and their broader surroundings produce both positive and negative aspects. Negative aspects, such as environmental impacts, largely concern the emissions of greenhouse gases (above all CO<sub>2</sub>) emitted by the vehicles used at airports, and for the transport of employees, passengers and others, from their home to the airport and vice versa.

The objective of this Project is to reduce energy consumption, particularly fossil fuels, and the harmful environmental aspects resulting from transport activities, both at airports themselves, and in their broader environment, ensuing from the mobility of employees, passengers and visitors(those who go in and wait for the passengers) arriving at the airport, and those departing from the airport to the surrounding cities and settlements.

The means by which this Project aims to fulfil that objective is, above all, a change in the common behavioural practices of employees and passengers regarding their mobility, above all, the way they arrive at the airport, or depart from the airport towards the surrounding cities and settlements.

In order to resolve this complex issue that is characteristic for all airports and public bodies in the cities and regions where airports operate, it is necessary to integrate innovative solutions of planned mobility into development strategies that will result in the reduction of greenhouse gases. In the context of resolving this issue, the LAirA project relies on seven important areas: 1) electric mobility; 2) connection of the airport with the city railway; 3) walking and cycling; 4) transport services that are shared with other users; 5) intelligent transport systems; 6) wayfinding; and 7) public road transport.

In this project, the Dubrovnik Airport is cooperating with the Dubrovnik Development Agency (DURA). The subject of the cooperation, among other things, is developing activities associated with Functional Urban Areas (FUAs) at the local level. Furthermore, this cooperation is achieved by examining the current state and reporting on behavioural patterns and the need for employee mobility at the airport, and by applying a solution that is based on intelligent transport systems, especially at the transport interchanges where this problem is most evident. Furthermore, cooperation is being achieved in creating the requirements for long-term integration of low-carbon mobility in FUAs in the development strategy of the Dubrovnik Airport. This strategy should encompass the strategy for implementing solutions within the programme of energy efficiency in public transport, in line with the National Transport Development Strategy.

The LAirA project is significant from the perspective of multimodal, smart mobility. This implies the use of transport infrastructure and transport suprastructure that will result in reduced  $CO_2$  emissions. With its participation in this project, the Dubrovnik Airport has become a part of the integration of FUA mobility systems in Central Europe. This is particularly significant since airports are key transport infrastructure of

<sup>&</sup>lt;sup>1</sup> LAirA - Landside Airports Accessibility. The project has three thematic packets: T1 - Understanding of airports landside mobility integration into Functional Urban Areas - FUAs; T2 - Changing behaviour for low carbon airports accessibility in FUAs; T-3 Building strategies for airports low-carbon landside mobility planning in FUAs.





the FUAs of Central Europe, and significant points for international transport for the citizens of Central Europe.

The LAirA project is aimed at reducing energy consumption and the negative environmental impacts of transport activities in urban centres in Central Europe. This aim can be achieved by changing the current behavioural patterns and the habits of passengers and airport employees. Mitigating this project will be possible by applying new strategies by regional and local governments, and planning mobility whilst decreasing  $CO_2$  emissions.

The airports in Vienna, Budapest, Warsaw, Milan, Stuttgart, Dubrovnik and Poznan achieve a turnover of approximately 76 million passengers per year, and together have a total of 43,000 employees. The LAirA project should facilitate the development capabilities of the regional and local governments and the airports situated in those areas, in planning and implementing solutions that will ensure mobility with reduced  $CO_2$  emissions.

For the purpose of resolving this issue at the international level, with the focus on the countries of Central Europe, an innovative approach is needed, and encompasses seven key areas:

- Electric mobility,
- Connection between air rail,
- Walking and cycling,
- Shared mobility,
- ITS,
- Wayfinding,
- public road transport.

This process includes the airports, local and regional authorities, agencies, transport service providers, associations and other interested parties. This project should result in an international Action Plan that will enable the implementation of new solutions through multimodal mobility in FUAs surrounding airports.

## 2. Thematic Focus:

The participation of the Dubrovnik Airport, together with other airports and participants in this project, is based on the desire to contribute to mobility in a way that will ensure reduced  $CO_2$  emissions, thereby contributing to the protection of the environment of the City of Dubrovnik and Dubrovnik-Neretva County. The activities to be undertaken will be based on the Transport Development Strategy of the Republic of Croatia (2017-2030),<sup>2</sup> adopted in August 2017.

According to the data of the Central Bureau of Statistics (CBS), in 2015, the population of Dubrovnik-Neretva County accounted for 2.86% of the total population of the Republic of Croatia. This County is also among the top five of the 20 counties and City of Zagreb in terms of the highest value of the development index. Also, according to 2015 data, Dubrovnik-Neretva County is among the counties with the highest rate of motorisation (391 vehicles per 1000 residents).

Croatia is a tourism-based country, and tourism has a significant impact on multi-modal mobility in the FUAs, particularly in the Adriatic coastal regions such as Dubrovnik-Neretva County, which includes both the City of Dubrovnik and the Dubrovnik Airport.

On the main tourism route, demand is twice as high during peak season, particularly on the motorways leading to the Adriatic coast, and the main roads running through the Adriatic region, including the Adriatic main state road running through Dubrovnik-Neretva County that also connects the City of Dubrovnik with Dubrovnik Airport, by public coach transport.

<sup>&</sup>lt;sup>2</sup> Transport Development Strategy of the Republic of Croatia (2017-2030) (OG 131/14, 84/17).





Functional regions are those with a high level of transport interactions over short distances (e.g. work commuters or travellers arriving to or departing from the airport). The functional region of Southern Dalmatia also includes the territory of Dubrovnik-Neretva County. This is a coastal region that is geographically characterised by the fact that it is almost completely surrounded by Bosnia and Herzegovina, and physically separated from the rest of the Republic of Croatia due to the marine contact of Bosnia and Herzegovina at the town of Neum, thereby intersecting the territory of the Republic of Croatia, and intersecting the territorial integrity of the Republic of Croatia. The City of Dubrovnik is the most important city in this region. This functional region has two areas:

- the coastal region with strong tourism development, with tourism towns and sites of old cultural heritage, including those enlisted on the World Heritage List (Dubrovnik Old Town), a national park (Mljet) and accompanying industries, particularly fisheries. The coastline is highly indented, making it attractive for nautical tourism,
- other areas distant from the coast, isolated, and their tourism attractiveness is relatively low.

Since connecting its territories is a strategic interest of the Republic of Croatia, thereby also connecting the territories of the European Union, the strategic project to connect these territories via the Pelješac Bridge has been prepared and is under implementation. This project is largely financed by European Union funds.

Currently, the most important road is the state road D8, which connects the county and local roads, while the A1 motorway connects the Port of **Ploče** and the border with Bosnia and Herzegovina.

Dubrovnik Airport is an international airport. In 2017, it had a total of 2,323,000 passengers, while 2,489,550 passengers are planned in 2018. Dubrovnik Airport is situated at the southeastern edge of Dubrovnik-Neretva County, when considered from the transport aspect. The motorway ends almost 100 km from the city. The only public transport from the City of Dubrovnik to the airport is the shuttle bus service and city bus. The main problems include dense traffic and poor transport permeability on the section of the main state road from Dubrovnik to the airport, with frequent traffic jams making the trip even longer. This presents a problem year round, particularly in the summer months under the peak loads of the tourism season. This means of transport is also partially used by some of the 360 permanent airport employees and additional 250 seasonal workers during the summer, and employees in other organisations and businesses situated in Dubrovnik Airport.

Taxi transport is also active from the City of Dubrovnik to Dubrovnik Airport, and vehicular traffic is very intensive, and is largely used for employees to get to and from work at the airport.

In the regional sense, the City of Dubrovnik is the central hub of Dubrovnik-Neretva County, and all business performing commercial activities are concentrated there. The City of Dubrovnik is also the cultural and transport hub of the region. A large share of the transport in the total transport of the City of Dubrovnik and the region is transport connected with tourism.

Bus transport is well organised and intensive in the City of Dubrovnik. This form of transport includes a local network of 13 bus lines that serve 42,615 residents of the city and surrounding areas.<sup>3</sup>

Numerous airports in Europe, particularly in the EU, have resolved issues of mobility and access for employees and passengers through the appropriate organisation of public transport, from buses, taxis, shuttle buses, etc. Connecting airports to local subway lines in cities where they exist has also proven to be a good solution. In such situations, a particularly effective solution is integrated transport, where one ticket purchased on the bus at the airport is also valid for buses, subways and tramways in the same direction within a certain time frame, at a reasonable price.

In many cases, the roads towards the airport follow the demand for transport mobility, even though all countries are faced with dense traffic and occasional traffic jams on roads connecting airports and cities, particularly in peak periods.

In the Republic of Croatia, the Zagreb Airport is connected with the City of Zagreb by a public bus line, special bus line transporting employees and passengers from the passenger terminals at the airport to the

<sup>&</sup>lt;sup>3</sup> Source: CBS, 2011 Census





bus terminal in the city centre, taxi transport which is increasingly cost competitive given the high competition and accessibility, and shuttle bus transport transporting passengers from the airport to hotels in the city. Plans are in place to connect the Zagreb city centre with the passenger terminal of Zagreb Airport with the Zagreb tramway line. There is even a project planning to connect the airport terminals with the public rail network on the classic railway lines.

The Split Airport is connected with the cities of Split and Trogir by public bus transport, special bus lines transporting employees and passengers from the airport to the bus terminal in the City of Split and vice versa, taxi transport that is increasingly accessible given the intensity of supply and competition among service providers, and shuttle transport to hotels in the city of Split. In 2018, a project was presented to connect the Split Airport to the City of Split by rail.

Other airports in Croatia are primarily connected to the surrounding cities by public transport, and somewhat also by shuttle bus transport and taxi transport.

For all airports in Croatia, vehicular traffic is intensive, both for arrivals and departures of passengers, and also for airport employees and employees of businesses operating on site at airports in their commute to and from work.

By participating in the LAirA project, the Dubrovnik Airport is expecting improvements in mobility and accessibility of Dubrovnik Airport.

## 3. Relevance of topic for airports

Dubrovnik Airport is situated in Dubrovnik-Neretva County, in the settlement of Ćilipi, 20 km south of the Dubrovnik city centre.

## 3.1. Policy background

The county is isolated from the rest of the Republic of Croatia and the EU, both geopolitically and in its territory, due to the border with Bosnia and Herzegovina, which is not an EU Member State. The Dubrovnik Airport is important as it enables the connection of Dubrovnik-Neretva County with distant destinations in the Republic of Croatia and abroad, since road transport is substantially hindered due to the fact that there are two border crossings with Bosnia and Herzegovina over a very short distance, which creates large problems during the tourism season (dense traffic, long waits, negative environmental impacts). This will be an even more substantial problem once the Republic of Croatia enters into the Schengen territory, as this implies stricter border procedures.

There is no rail transport. The City of Dubrovnik is connected by sea only to the surrounding islands (Šipan, Lopud, Koločep, Mljet, Korčula and Lastovo).

The daily flow of people and goods without crossing the state border due to marine contact of Bosnia and Herzegovina at the town of Neum, thereby intersecting the territory of the Republic of Croatia, is only possible via air transport with the Dubrovnik Airport. That is the reason for the construction of the Peljesac bridge that will bridge this land-based territorial discontinuity. This project is predominantly funded by EU funds. Flights from Dubrovnik to the capital Zagreb is partly subsidised by the City of Dubrovnik, and transport is performed by the national air carrier, Croatia Airlines. The flight takes much less time than travelling by road.

It is possible to reach the City of Dubrovnik from the airport in several ways by bus, since three different companies (Atlas, Autotrans and Libertas) run passenger lines to and from the airport. These companies operate on a schedule. The carrier Atlas provides transfer from the airport to the city of Dubrovnik (Pila - Old Town gates, and main bus station), after every regularly scheduled flight, at a cost of HRK 40 (approx EUR 5.5).





The carrier Autotrans/Dalmacija performs bus transfer from the airport to the city (Dubrovnik main bus station) also on a set schedule, at a cost of HRK 40 (approx. EUR 5.5).

The public transport operator Libertas-Dubrovnik d.o.o. performs bus transport in the area of the City of Dubrovnik, and the municipalities of Župa Dubrovačka, Konavle, Dubrovačko Primorje, Ston and Mljet. The public city and county transport system is organised according to the winter and summer schedules, with different schedules for work days, weekends and holidays. Within their service, they also include transport to and from the airport.

Taxi services are also available. There is a taxi stand in front of the passenger terminal at building B (domestic and international arrivals) at the airport. Services are available daily for as long as the airport is open. Prices are listed at the taxi information stand in the passenger terminal, building B (domestic and international arrivals).

There is a wide supply of rent-a-car services at the Dubrovnik Airport, where 16 rent-a-car companies offer rental services to passengers.

According to the data of the CBS (Central Bureau of Statistics) contained within the Transport Development Strategy of the Republic of Croatia (2017-2030), the number of passengers in public transport in the Republic of Croatia who use bus and tram services has been increasing in recent years. However, the main findings indicate the following:<sup>4</sup>

- The number of passengers using public transport has increased overall.
- The number of passengers in rail transport in the Republic of Croatia has recorded constant declines since 2009, when the highest number of passengers was recorded (about 74 million, in comparison to about 22 million in 2015), and this sharp decline is the result of changing methodologies for assessing the numbers of transported passengers.
- In city and suburban public transport, including buses and trams, the highest number of passengers was recorded in 2007, at 426 million passengers. In the period from 2008 to 2012, this number was reduced to about 363 million passengers per year, while in the period from 2012 to 2015, an increase was recorded at about 398 million passengers in 2015.

The reason for declining numbers of passengers in public transport should be considered in the context of an increased rate of motorisation in the country. Furthermore, the economic crisis that last far too long in the Republic of Croatia (2009-2015) also had a strong overall effect on mobility.

Strong fluctuations in city and suburban rail transport were also observed, partially the effect of changes in the methodology of recording numbers of passengers, and also following the implementation of the concept of integrated transport (single ticket for rail and bus).

The Transport Development Strategy of the Republic of Croatia (2017-2030) established the following general objectives:<sup>5</sup>

- changing the distribution of passenger transport towards public transport and forms of transport with zero greenhouse gas emissions. That includes public transport in agglomerations and in the local regional context (trams, local bus lines, etc.), rail transport, public maritime transport and inland waterway transport (by boat), bus transport in regional and distant lines, and walking and cycling;
- developing transport systems (their management and organisation, and the development of infrastructure and maintenance) based on the principles of economic sustainability;
- reducing the impacts of the transport system on climate change;
- reducing the impacts of the transport system on the environment (environmental sustainability);
- increasing the safety of the transport system;
- increasing the interoperability of the transport system (public transport, rail, road, maritime, air transport, and inland waterway transport);
- improve the integration of transport modes in Croatia (management, ITS, VTMIS, P&R, etc.).

<sup>5</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Transport Development Strategy of the Republic of Croatia (2017-2030).





Specific objectives, among others, include the following:

- in certain parts of Croatia where applicable, completing the development of the tourism sector as the main economic factor for the adequate development of transport, especially in the sense of public transport and green mobility;
- improving accessibility to airports, especially by public transport.

The project *Development of the Dubrovnik Airport*<sup>6</sup> is currently under implementation, and according to plans lasts from 1 January 2014 to 11 April 2019. This project is cofinanced by EU funds from the European Regional Development Fund *"Investments in the Future!"*.

The reconstruction of the airport and its development project are aimed at ensuring greater competitiveness of the Dubrovnik Airport in comparison to other airports, providing a higher level of service, greater employment, and greater tourist turnover in both directions. One of the main objectives of the Dubrovnik Airport is to increase the number of passengers to about 3.98 million per year by 2032.

Road public transport is relevant to airports in Croatia since they are not connected by rail or other types of transport to cities. The vast majority of passengers, employees and visitors to arrive at the airport and leave the airport is using road transport and efforts should be directed towards more significant use of public road transport.

## 3.2. Best practices in/around airports

Examples of airports in the area surrounding the Dubrovnik Airport can be all airports in Croatia, and those in Bosnia and Herzegovina and in Montenegro. For all these airports, it is characteristic that the mobility of passengers and employees is carried out by public transport, personal vehicles and taxis. None of the airports surrounding Dubrovnik Airport is connected to its surrounding cities by railway. There are currently discussions underway for city rail connections at the Zagreb Airport, Zadar Airport (connection of the airport terminal with the Gaženica Port) and Split Airport. However, none of these planned projects are ready for completion in the next few years.

Zagreb is a good example of the connection of the airport with the city center bus lines. On this route there is a regular bus line maintained by the city public utility company. In addition, there is also a regular bus service linking the airport and the city center, maintained by a special transport company, where transportation between the airport and the city center is a fundamental activity.

Dubrovnik Airport has a single access route from the City of Dubrovnik to the airport terminal. This is the Adriatic main state road. The Adriatic main state road has a transport capacity that was suitable for the time of its construction, i.e. in the 1960s.

Today's transport demand is far higher than the capacity of the Adriatic main state road in the segment from the City of Dubrovnik to Dubrovnik Airport, not only during peak periods of the tourism season, but also year round. This situation is not sustainable and both short-term and long-term solutions need to be found in resolving this problem in order to increase mobility and accessibility, and to reduce harmful environmental impacts.

## 3.3. Limitations and Potentials

Raising the quality of mobility and accessibility of the Dubrovnik Airport can be achieved through both shortterm and long-term measures. However, each of those solutions implies investments in infrastructure and communications with the local population and all interested parties that are recognised by the Dubrovnik Airport as users, owners, narrow and broader social community, partners and employees. The following limitations must also be considered:

<sup>6</sup> Ibid.





- monetary resources for investments, since the local community lacks the funds for the necessary investments;
- degree of efficiency of the public administration, excessively administrative;
- long timeframe for execution
- partial interests of the local community in certain settlements along the Adriatic main state road, along the route from Dubrovnik to Dubrovnik airport;
- need to keep the Adriatic main state road functional during any works on the route Dubrovnik-Dubrovnik Airport.

The potential and opportunities are as follows:

- financing projects from EU funds, since this is a corridor that is part of the Adriatic-Ionian highway that is of great significance for the whole of Europe and the countries of the Near East, which is particularly important for diverting transit traffic from the direction by public bus from the city of Dubrovnik to the airport;
- raising the level of efficiency of public administration at the local to the national levels, primarily through the announced project to implement a quality management system in compliance with the norm ISO 9001:2015 in the public administration of the Republic of Croatia;
- raise the level of efficiency of the public administration at the regional and local levels;
- ensure the quality of external communications, primarily with the local population, in those settlements where construction works will be carried out for the purpose of increasing the capacity of the Adriatic main state road at critical points (Bosanka, Srebreno, Postranje, Cavtat, etc.), since it is the only road that connects the city of Dubrovnik and the airport with which the public transport of passengers by bus;
- ensure the support of partners (hotels, tourist board, property owners, cruise organisers for Dubrovnik, air carriers, etc.).

## 3.4. Project Partners insights

The partners of Dubrovnik Airport in this project are:

#### Budapest Airport

From Terminal 2, bus 200E runs every 7 to 8 minutes to metro station Kobanya-Kispest, from which you can continue your journey to the center of Budapest through metro M3 (blue). The journey time by bus from Terminal 2 to the metro station is 22 minutes. With metro M3 it takes 17 minutes to get to metro station Deák Ferenc tér (Deák Ferenc Square), in the center of Budapest. At this location passenger can transfer to metro M1 (yellow) or metro M2 (red) if necessary. The total journey time by public transport from the airport to the city center is 45 to 50 minutes.

Passenger will need a Single Ticket for both bus and metro, which they can obtain from the ticket machines at Budapest Airport and metro station Kobanya-Kispest for 350 HUF each. Tickets must be validated before beginning a journey on the bus or subway, passenger run the risk of getting a fine if you don't do this. A Transfer Ticket, costing 530 HUF for both carriers, is the cheapest option. Passenger need to consult timetables bus 200E and metro M3 for more information.

If passenger plan to use public transport in Budapest more often, then they can also buy day tickets. A 'Budapest 24-hour travel card' is available for 1,650 HUF (one person) or 3,300 HUF (up to five persons). Day tickets are also valid on bus 200E. If passenger plan to see a lot during your stay in Budapest (free admission to museums, free guided tours, etc.) and make regular use of public transport, then the Budapest Card is a must-have! Public transport in Budapest is free for children up to 5 years and seniors from 65 years old, they only need to present a passport or national ID to identify themselves.

If passenger prefer to travel from door to door and are willing to pay a little more, then they can use the bus service mini BUD. The minibuses leave from Terminal 2 and take exactly where they want to go, for instance their hotel.





If passenger is alone or with a small group, then will travel with others who need to be near passenger's destination. It saves costs and therefore tickets are not expensive (€ 7.00 per person). Passenger must book online if he wants to make use of the bus service mini BUD, making a reservation is only possible with a credit card and up to 5 hours before departure. The minibuses can take eight persons plus all their luggage.

A timetable does not exist for mini BUD, the bus service is available 24 hours a day, 7 days a week. Travel time depends on the traffic situation, passenger should take into account half an hour and need consult website mini BUD for more information.

#### SEA Milan Airports

Milan Malpensa - passenger arrive at Terminal 2 and can choose to travel by bus of Terravision towards Milan. This is cheaper than taking the train Malpensa Express. On average every 20 minutes from 05.05 to 00.10 hours a Terravison bus leaves from Terminal 1 to Milan's central station, via Terminal 2. The journey time from the airport to railway station Milano Centrale is 50 minutes from T1 and 40 minutes from T2.

Tickets are available through the website of Terravision, children up to 4 years of age can travel for free. Passenger need to consult website and timetable Terravision for more information.

Linate - the centre of Milan can be reached quickly through the road 'Viale Enrico Forlanini'. The distance between the airport and the centre of Milan is 8 kilometres / 5 miles, the journey time is 20 to 25 minutes. The centre of Milan can be reached by bus line 73, the final stop is Piazza San Babila. This square is located in the centre of Milan and has a metro station (Piazza San Babila - metro line M1) that can be used if passenger want to travel to other places within the city limits. Bus line 73 runs every day of the week, between 06.09 and 01.16 hours, approximately every 7 to 8 minutes in both directions.

A ticket for public transport in Milan costs € 1.50 and is valid for 90 minutes on the bus, tram, metro and Passante Ferroviario. The price of a day ticket which is valid for 24 hours is € 4.50. At the airport's bus stop passenger will find ticket machines where they can buy tickets. Tickets must be validate when boarding the bus. Passengers can consult website Milano Mobilità and timetable bus line 73 for more information.

The journey time to Piazza San Babila is 30 minutes. Bus line X73 was a fast express bus service on the same route, unfortunately it does not operate anymore. Its successor is bus service Linate that connects the airport between 07.00 and 00.00 hours with train station Milano Porta Vittoria. Here passenger can change to the suburban train (Servizio Ferroviario Suburbano) to various destinations in Milan.

#### Vienna Airport

Vienna - Airport lies to the east of the city center and can be reached easily, comfortably and affordably by public transport. Whether passengers opt for City-Airport-Train (CAT), ÖBB Railjet, bus or rapid transit railway depends on their destination.

The buses of Vienna Airport Lines take passengers direct to Vienna city center, to the Donauzentrum via Messezentrum and Vienna International Centre (VIC)/Austria Center Vienna, or to the Westbahnhof and Vienna Main Station. The Blaguss Air-Liner offers non-stop connections via Erdberg and Vienna Main Station. The City Airport Train (CAT) connects the airport with the transport hub at Wien Mitte in only 16 minutes and offers numerous additional services such as the City Check-In with baggage drop.

The CAT is the quickest connection from the airport to downtown Vienna (Wien Mitte, connections to U3, U4, rapid transit railway) and plies between the airport and the city every 30 minutes.

Passengers can check in at the City Air Terminal at Wien Mitte daily from 5.00 am to 9.00 pm for selected Star Alliance flights (Austrian Airlines Group, Lufthansa etc.) from 24 hours up to 75 minutes before departure; check-in on the evening before from 6.00 pm to 9.00 pm. For information about which flights are available for check-in at the City Air Terminal.





Warsaw/Modlin Airport

ModlinBus offers a direct connection between Warsaw Modlin Airport and the city, the timetable is adapted to the arrivals and departures of Ryanair in order to meet all incoming and outgoing flights. One or two times per hour a bus runs to Warsaw and Warsaw Modlin Airport. In Warsaw passenger can get off at the Palace of Culture and Science, near the central station of Warsaw and metro station Centrum.

Tickets cost 33 Polish zloty and are available from the bus driver. However, it is easier and most of the times cheaper to buy a ticket through the website of ModlinBus. Tickets for online purchase are available from 9 PLN. The journey takes 40 minutes on average with the convenience on your way to the capital of Poland to make use of free WiFi. The bus services are operated by carriers ModlinBus and OKbus.

Passenger can take the shuttle bus to the nearest train station (Modlin), where they have the possibility to board a train to the main railway station of Warsaw (Warszawa Centralna). The shuttle bus runs every 20 to 30 minutes, travel time between Warsaw Modlin Airport and Modlin's train station is 10 minutes. Approximately every hour the train of KML (Koleje Mazowieckie - RL) runs in the direction of Warsaw, the journey time is 43 minutes.

Tickets can be purchased at the airport for around 20 PLN, it includes the bus ride. Passenger need to consult train Warsaw Modlin Airport and website Koleje Mazowieckie for more information

## 4. Key objectives from the airport's perspective for future developments

From the perspective of Dubrovnik Airport, the key objectives for future development within the framework of the LAirA project can be divided into:

- short-term (to 2030),
- long-term (to 2050).

Dubrovnik Airport cannot independently set the short- and long-term objectives, since it is dependent on numerous factors and partners (see Chapter 3.4), both for setting these objectives and for their implementation. However, the airport can be the initiator and an active participant in these processes, with the cooperation of all the listed partners, and other partners. In setting the objectives, both short- and long-term, certain political decisions need to be made on the one hand, and financing secured on the other.

## 4.1. Short-term (to 2030)

For the short-term goals to be implemented by 2030, the focus of the activities should be placed on creating the assumptions for increased mobility of passengers and employees, whilst reduce the harmful impacts on the environment, primarily through the reduction of  $CO_2$  emissions.

In this project, the short-term period is defined as the period to 2030. This means that there are 12 years until the end of this period, making this a significant time-period, in which there will be certain further development of sciences having an impact on the development of infrastructure and suprastructure. In that context, at least the following results can be expected:





- development of the automobile industry, which will lead to a reduction in fuel consumption;
- improved quality of fuel for automobiles, which will result in reduced emissions of greenhouse gases, including CO<sub>2</sub>;
- development of alternative fuels and the replacement of fossil fuels with other energy source to fuel passenger road transport (vehicles, buses, etc.), which will significant affect a reduction of harmful greenhouse gases, including CO<sub>2</sub>;
- further improvements to the supply and business models in taxi transport;
- development of public transport, modernisation of the fleet in public transport, and replacement of fossil fuels with alternative energy sources, which will significantly affect a reduction in the emissions of greenhouse gases, including CO<sub>2</sub>;
- further development of the fleet management system in public transport, which will contribute to optimisation of the public transport process and result in a higher quality of service provided in public transport;
- development of road infrastructure;
- higher share of public transport in total transport.

From the perspective of Dubrovnik Airport, in this short-term period, it is possible to set and achieve the following objectives, concerning increasing the mobility and accessibility for passengers and employees from the City of Dubrovnik to Dubrovnik Airport and back:

- reconstruct the intersections on the Adriatic main state road from the City of Dubrovnik to Dubrovnik Airport that current represent bottlenecks (at Bosanka, Srebreno, Postranje, Cavtat) and create dense traffic and traffic jams, which significantly extends the travel time on this route and has negative impacts on the environment;
- expand the existing Adriatic main state road in the section between the City of Dubrovnik and Dubrovnik Airport by constructing a fast road to increase road capacity, improve transport safety and increase driving speed;
- create the infrastructure, suprastructure, information and organisational assumptions for implementation of a Park & Ride system, which would also increase the share of public transport with regard to passengers arriving in or departing from Dubrovnik by airplane;
- modernise the fleet of public city and suburban transport in the City of Dubrovnik, by procuring contemporary buses that use alternative fuels, which will significantly affect a reduction in the emissions of harmful greenhouse gases, including CO<sub>2</sub>;
- ensure wider promotion of the concept "shared mobility".

From the perspective of Action plan topic in general, in this short-term period, it is possible to set an achieve the following objectives, concerning increasing the mobility and accessibility for passengers and employees from the city to the airports:

- Electric mobility,
- Connection between air rail,
- Integral transport implementation,
- Walking and cycling,
- Shared mobility,
- ITS,
- Wayfinding,
- public road transport increase.





## 4.2. Long-term (to 2050)

From the perspective of Dubrovnik Airport, in the long-term period it is possible to set and achieve the following objectives, concerning increasing the mobility and accessibility of passengers and employees, from the City of Dubrovnik to Dubrovnik Airport and back:

- greater implementation of the short-term objectives defined and described in Chapter 4.1;
- optimisation of the Park & Ride system in the City of Dubrovnik;
- construct the extension of the A1 motorway from Ploče to Dubrovnik and further to the border with Montenegro, as part of the Adriatic-Ionian Highway, which would remove all transit traffic from the Adriatic main state road, particularly on the segment City of Dubrovnik Dubrovnik Airport;
- modernise public city and suburban transport of the City of Dubrovnik by using only those buses that have replaced fossil fuels with an energy source that does not pollute the environment;
- ensure complete management of city and suburban transport of the City of Dubrovnik through the implementation of Intelligent Transport Systems (ITS).

From the perspective of Action plan topic in general, in this long-term period, it is possible to set an achieve the following objectives, concerning increasing the mobility and accessibility for passengers and employees from the city to the airports:

- greater implementation of the short-term objectives defined and described in Chapter 4.1;
- modernise public city and suburban transport of the cities to the airports v.v. by using only those buses that have replaced fossil fuels with an energy source that does not pollute the environment;
- ensure complete management of cities and suburban transport of the cities through the implementation of Intelligent Transport Systems (ITS).

## 5.Measures/Actions addressing the key objectives including: time period, responsible/involved actors and priority

In order to achieve the short- and long-term objectives outlined in Chapter 4.1 (short-term period) and 4.2 (long-term period), it is necessary to precisely define the time period for execution, and the responsible actors and partners whose participation is essential for meeting the objectives. It is also particularly important to determine the priority of objectives. An overview of the short- and long-term objectives and activities is provided below.

#### a) Short-term objectives for Dubrovnik Airport

Key objectives	Time period	Responsible actor	Involved actors	Priority
Reconstruction of intersections on the Adriatic main state road (Bosanka, Srebreno, Postranje, Cavtat)	to 2020	Croatian Roads	-City of Dubrovnik -DUNEA -DN County -Advisor	1





Expansion of the Adriatic main state road on the route City of Dubrovnik- Dubrovnik Airport (fast road)	to 2025	Croatian Roads	-City of Dubrovnik -DN County -Airport -Advisor	2
Park & Ride system (construction of parking lots)	to 2025	City of Dubrovnik	-DN County -Libertas Dubrovnik -Advisor	2
Modernisation of the fleet of the company Libertas Dubrovnik	to 2030	City of Dubrovnik	-Libertas Dubrovnik -DUNEA -DN County -Banks	3
Concept "shared mobility"	Ongoing	City of Dubrovnik	-Airport -All businesses operating at the airport	

Short - term objectives for other LAirA airports

Key objectives	Time period	Responsible actor	Involved actors	Priority
Electric mobility	to 2020	Cities	- Airports - Advisors	1
Connection between air - rail	to 2025	Cities	<ul> <li>Railway companies</li> <li>Airport</li> <li>Advisor</li> </ul>	2
Integral transport implementation	to 2025	Cities	<ul> <li>Railway comp.</li> <li>Bus companies</li> <li>Airports</li> <li>Advisor</li> </ul>	2
Walking and cycling	to 2025	Cities	- Road comp. - Eco associate.	2
Concept "shared mobility"	Ongoing	Cities	<ul> <li>Airport</li> <li>All businesses operating at the airport</li> </ul>	
ITS	Ongoing	Cities	<ul> <li>Airport</li> <li>All businesses operating at the airport</li> </ul>	
Wayfinding	Ongoing	Cities	<ul> <li>Airport</li> <li>All businesses operating at the airport</li> </ul>	
Public road transport increase	Ongoing	Cities	<ul> <li>Airport</li> <li>All businesses operating at the airport</li> <li>Banks</li> </ul>	

Priorities: 1- highest priorities, followed by 2, 3, etc.





### b) Long-term objectives for Dubrovnik Airport

Key objectives	Time period	Responsible actor	Involved actors	Priority
Optimisation of the Park & Ride system (construction of parking lots)	to 2035	City of Dubrovnik	-DN County -Libertas Dubrovnik -Advisor	1
Construction of extension of A1 motorway from Ploče to Dubrovnik and further to the state border (Adriatic-Ionian Motorway)	to 2040	Croatian Motorways	-Government of Croatia -Government of BiH -Government of Montenegro -Croatian Roads -City of Dubrovnik -DUNEA -DN County -Banks -Advisor	2
Complete modernisation of the fleet of the company Libertas Dubrovnik	to 2045	City of Dubrovnik	-Libertas Dubrovnik -DUNEA -DN County -Banks	3
Complete implementation of ITS for management of city and suburban transport on the route City of Dubrovnik - Dubrovnik Airport	to 2050	City of Dubrovnik	-Libertas Dubrovnik -DUNEA -DN County -Banks	4

Priorities: 1-highest priority, then 2, 3, etc.

### Long-term objectives for LAirA airports

Key objectives	Time	Responsible	Involved	Priority
	period	actor	actors	
Greater implementation of the short-term objectives defined and described in Chapter 4.1	to 2030	Cities	-Airports -Advisor	1
Modernise public city and suburban transport of the cities to the airports v.v. by using only those buses that have replaced fossil fuels with an energy source that does not pollute the environment	to 2035	Cities	-Bus company. -Eco associations -Banks -Advisor	2





Complete implementation of ITS for management of city and suburban transport on the route cities to the airports	to 2050	Cities	-Bus company. -Eco associations -Banks -Advisor	3

Priorities: 1-highest priority, then 2, 3, etc.

## 6. Actions

## Short-term objectives:

## Action 1

a) Action 1

Reconstruct intersections on the Adriatic main state road from the City of Dubrovnik to Dubrovnik Airport, which currently present bottlenecks (at Bosanka, Srebreno, Postranje, Cavtat) hindering traffic and causing traffic jams, which significantly extends travel time on that route and has a negative impact on the environment. Reconstruction of these intersections by widening the Adriatic main state road at these intersections to enable a separate left-turn lane, would enable the unhindered flow of vehicles continuing straight through those intersections. Where it is not possible to constructed a separate left-turn lane without performing major construction or in a short time frame, it is necessary to define and enable alternate routes. Any necessary de-levelling of individual intersections should be considered, which could occur as part of the permanent solution of constructing the fast road on the route City of Dubrovnik - Dubrovnik Airport.

b) Overview on measures

Process steps in the process:

- A-0.1 Recording the current state of the road segment
- A-0.2 Determining bottlenecks and assigning weight factors (degree of cause of traffic jams and slowing of traffic)
- A-0.3 Securing the necessary resources for infrastructural works (funds, contractors, etc.)
- A-0.4 Communication with the local population
- A-0.5 Execution
- A-0.6 Technical inspection
- A-0.7 Implementing activities aimed at removing shortcomings
- A-0.8 Obtaining the necessary permits
- A-0.9 Final works, putting finished segments into operation

Action	Actors involved (Target groups and	Barriers	Timeline	Proposed
	agents of change and their role)			changes/improvem
				ents in general
				addressing airports
				and their FUA





Action 1	-Croatian Roads -City of Dubrovnik -DUNEA -Dubrovnik-Neretva County -Advisor	Protests by the local population Purchase of lands	to 2020	Reconstruction of intersections on the segment of the Adriatic main state road from the City of Dubrovnik -
				Dubrovnik - Dubrovnik Airport

For the implementation of Action 1, it is necessary to obtain the decisions of the relevant institutions, above all Dubrovnik-Neretva County and the City of Dubrovnik. The project may be financed by Croatian Roads and the budget of Dubrovnik-Neretva County, and in part by the budget of the City of Dubrovnik. It is possible to obtain EU funding. Executing this project will result in increased traffic flow on this segment of the road, increased traffic safety on this segment, reduced density of traffic, reduced travel time, and reduced environmental pollution.

## Action 2

#### a) Action

Expand the existing Adriatic main state road on the segment City of Dubrovnik – Dubrovnik Airport through the construction of a fast road, in order to ensure greater capacity of roads, increase traffic safety and increase driving speed. In this way, with the prior resolution of the activities from Action 1, mobility will be increased in this segment, increasing traffic safety, preventing traffic jams and reducing environmental pollution caused by greenhouse gas emissions, including CO<sub>2</sub>. This action requires substantial construction work, both due to the expansion of the road, and due to the difficult terrain.

b) Overview of measures

Process steps in the process:

- A-0.1 Recording the existing state of the road segment
- A-0.2 Determining the track for road expansion
- A-0.3 Ensuring the necessary resources for infrastructure works (funding, lands, contractors, etc.)
- A-0.4 Communication with the local population
- A-0.5 Execution of works
- A-0.6 Technical inspection
- A-0.7 Implementation of activities in order to remove shortcomings
- A-0.8 Obtaining the necessary permits
- A-0.9 Final works, putting the road into operation.

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvements in general addressing airports and their FUA
Action 2	-Croatian Roads -City of Dubrovnik -Dubrovnik Airport -Dubrovnik-Neretva County -Advisor	Protests of the local community Purchase of lands	to 2025	Expansion of the Adriatic main state road in the segment City of Dubrovnik - Dubrovnik Airport with





		the construction of a fast road.

To implement Action 2, it is necessary to receive the decisions of the relevant institutions, above all the Government of the Republic of Croatia, then Dubrovnik-Neretva County and the City of Dubrovnik. The project may be financed from the funds of Croatian Roads and the budget of Dubrovnik-Neretva County, and in part by the City of Dubrovnik. It is possible to obtain some financing from the EU funds. Executing this project would result in increased traffic flow in this segment, increased traffic safety in this segment, reduced traffic jams, reduced travel time and reduced environmental pollution.

d) Information on whether also another mode/topic would be affected

Includes Action 1.

## Action 3

a) Action

Create the infrastructure, suprastructure, information and organisational requirements for the implementation of a Park & Ride system, which would increase the share of public transport for those passengers arriving in or departing from Dubrovnik by airplane. The same relates to an increased share of public transport for those employed at the Dubrovnik Airport location to get to and from work. Action 3 implies the construction of modern parking garages and parking lots where employees, tourists and others can leave their cars, and take well organized public city and suburban transport to get to the Dubrovnik city centre, or to their place of work, which implies the travels of passengers and employees on the route Dubrovnik Airport and vice versa.

#### b) Overview of measures

Process steps in the process:

- A-0.1 Recording the existing state
- A-0.2 Determining the location of parking garages and parking lots
- A-0.3 Ensuring the necessary resources for infrastructure works (funds, lands, contractors, etc.)
- A-0.4 Communication with the local population
- A-0.5 Execution of works
- A-0.6 Technical inspection
- A-0.7 Implementation of activities aimed at removing shortcomings
- A-0.8 Obtaining the necessary permits
- A-0.9 Final works, putting structures into operation.

ſ	Action	Actors involved (Target groups and	Barriers	Timeline	Proposed
		agents of change and their role)			changes/improvem
					ents in general
					_





				addressing airports and their FUA
Action 3	-City of Dubrovnik -Libertas Dubrovnik -Dubrovnik-Neretva County -Advisor	Spatial plan of the City of Dubrovnik Protests of NGOs	to 2025	Create the infrastructure, suprastructure, information and organisational requirements for the implementation of a Park & Ride system

To implement Action 3, it is necessary to obtain the decisions of the relevant institutions, above all the City of Dubrovnik and Dubrovnik-Neretva County. The project may be financed from the budget of Dubrovnik-Neretva County and in part by the City of Dubrovnik. The project could be executed on the basis of a concession model. Also, some financing could be obtained from EU funds. Execution of this project would increase the share of public transport in the total city and suburban transport, reduce traffic density, reduce travel time and reduce environmental pollution.

d) Information on whether also another mode/topic would be affected

A synergy of positive effects is achieved with the execution of Actions 1 and 2.

## Action 4

a) Action

Modernise the fleet of public city and suburban transport of the City of Dubrovnik, such that modern buses are procured that use alternative fuels, which will significantly impact a reduction of greenhouse gas emissions, including  $CO_2$ .

#### b) Overview of measures

Process steps in the process:

A-0.1 Recording the existing state of the fleet

A-0.2 Determining the dynamics of fleet modernisation

- A-0.3 Securing the necessary resources (funding, suppliers, etc.)
- A-0.4 Procurement of equipment
- A-0.5 Putting into operation

A-0.6 Final works

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvement s in general addressing airports and their FUA





Action 4	-Libertas Dubrovnik -DUNEA -DN County -Banks	Availability of financing	to 2030	Modernise the fleet of public city and suburban transport
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To implement Action 4, it is necessary to obtain the decisions of the relevant institutions, above all the City of Dubrovnik. This project can be financed from the budget of the City of Dubrovnik and funds of the company Libertas Dubrovnik d.o.o. A part of the financial resources can also be obtained from EU funds, and from bank loans. Project execution will result in an increased share of public transport in total city and suburban transport, reduced traffic density, reduced travel time, and reduced environmental pollution.

Information on whether also another mode/topic would be affected

A synergy of positive effects will be achieved with the execution of Actions 1, 2 and 3.

## Action 5

#### a) Action

Increase the promotion of the concept of "shared mobility". This requires good communication and organisations.

#### b) Overview of measures

Process steps in the process: A-0.1 Record the existing state A-0.2 Communication among employees at Dubrovnik Airport A-0.3 Modelling the concept A-0.4 Application A-0.5 Measurements in the process A-0.6 Improvements

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvement s in general addressing airports and their FUA
Action 5	-City of Dubrovnik -Dubrovnik Airport -All businesses operating at Dubrovnik Airport	Availability of financing	Ongoing	Increase the promotion of the concept of "shared mobility".

#### a) Sustainability Potential/impacts

To implement Action 5, it is necessary to ensure good coordination, above all amongst all employees working at Dubrovnik Airport. Executing this project will result in a reduced number of automobiles used to bring





employees to their jobs at Dubrovnik Airport, reduced traffic density, reduced travel time, and reduced environmental pollution.

b) Information on whether also another mode/topic would be affected

A synergy of positive effects is achieved with the execution of Actions 1 and 2.

## Long-term objectives:

### Action 1

#### a) Action

Optimisation of the Park & Ride system (construction of parking garages and parking lots), which implies the construction of public parking garages and lots at all potential locations at entrances to the City of Dubrovnik. This also implies the organisation of public transport in such a way that the Park & Ride system can achieve its fullest benefits.

b) Overview of measures

Process steps in the process:

- A-0.1 Recording the existing state of public garages and parking lots and their capacity
- A-0.2 Determining the need for capacity
- A-0.3 Securing the necessary resources for infrastructure works (financing, contractors, etc.)
- A-0.4 Communications with the local population
- A-0.5 Execution
- A-0.6 Technical inspection
- A-0.7 Implementation of activities aimed at removing shortcomings
- A-0.8 Obtaining the necessary permits
- A-0.9 Final works, putting structures into operation.

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvements in general addressing airports and their FUA
Action 1	-City of Dubrovnik -Dubrovnik-Neretva County -Libertas Dubrovnik -Advisor	Availability of financing Protests by NGOs	to 2035	Optimization of the Park & Ride system (construction of parking garages and lots), which implies the construction of public garages and parking lots

#### c) Sustainability Potential/impacts

To implement Action 1, it is necessary to obtain the decisions of the relevant institutions, above all Dubrovnik-Neretva County and the City of Dubrovnik. This project can be financed from the budget of Dubrovnik-Neretva County and in part by the City of Dubrovnik, and via the concession model. It is possible to obtain financing from EU funds. Execution of this project will result in an increased share of public





transport in total city and suburban transport, reduced traffic jams, reduced travel time, reduced environmental pollution.

d) Information on whether also another mode/topic would be affected

A synergy of positive effects will be achieved will the execution of all actions contained within the Short-term objectives.

## Action 2

#### b) Action

Construct the extension of the A1 Motorway from Ploče to Dubrovnik and the state border with Montenegro, as part of the corridor of the Adriatic-Ionian Motorway. This would shift all transit transport from the Adriatic main state road that connects the City of Dubrovnik with Dubrovnik Airport to that motorway, thereby significantly improving transport on this segment, reducing traffic jams, increasing mobility speed, increasing accessibility and reducing environmental pollution.

#### b) Overview on measures

Process steps in the process:

A-0.1 Recording the current state

- A-0.2 Determining the route of extension of the motorway
- A-0.3 Securing the necessary resources for infrastructure works (project, financing, contractors, etc.)
- A-0.4 Communication with the local population
- A-0.5 Execution
- A-0.6 Technical inspection
- A-0.7 Implementing activities aimed at removing shortcomings
- A-0.8 Obtaining the necessary permits
- A-0.9 Final works, putting road into operation.

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvements in general addressing airports and their FUA
Action 2	-Government of the Republic of Croatia -Government of Bosnia and Herzegovina -Government of Montenegro -Croatian Motorways -Croatian Roads -City of Dubrovnik -DUNEA -Dubrovnik-Neretva County -Banks -Advisors	Availability of financing Protests by NGOs	to 2040	Construct the extension of the A1 motorway from Ploče to Dubrovnik and further to the state border with Montenegro

#### c) Sustainability Potential/impacts

To implement Action 2, it is necessary to obtain the decisions from the relevant institutions, above all the Government of the Republic of Croatia, Dubrovnik-Neretva County and the City of Dubrovnik. However, due





to the characteristics of the territory through which the motorway route will pass, and the fact that this segment represents a part of the corridor of the Adriatic – Ionian Motorway, coordination is also required with the Governments of Bosnia and Herzegovina and Montenegro. This project can be financed by Croatian Motorways. It is possible to obtain part of the funding from the EU funds. Execution of the project will result in shifting all transit transport from the Adriatic main state road in the segment from the City of Dubrovnik to the Dubrovnik Airport.

## Action 3

#### c) Action

Complete modernisation of the fleet of the company Libertas Dubrovnik. Continuation of execution of the objectives from Action 4 of the Short-term objectives. Complete elimination of vehicles fuelled by fossil fuels.

#### b) Overview on measures

Process steps in the process:

- A-0.1 Recording the existing state of the fleet
- A-0.2 Determining the dynamics of completing the fleet modernisation
- A-0.3 Ensuring the necessary resources (funds, suppliers, etc.)
- A-0.4 Procurement of equipment
- A-0.5 Putting the fleet into operation

A-0.6 Final works

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improve ments in general addressing airports and their FUA
Action 3	-City of Dubrovnik -Libertas Dubrovnik -DUNEA -Dubrovnik-Neretva County -Banks	Availability of financing	to 2045	Complete modernisation of the fleet of the company Libertas Dubrovnik

#### c) Sustainability Potential/impacts

To implement Action 3, it is necessary to secure financing. The project can be financed from the funds of the company Libertas Dubrovnik, budget of the City of Dubrovnik and Dubrovnik-Neretva County. It is possible to obtain a portion of the funds from the EU Funds and the Environmental Protection and Energy Efficiency Fund.

d) Information on whether also another mode/topic would be affected

A synergy of positive effects is achieved with the execution of Action 4 from the Short-term objectives.





## Action 4

d) Action

Complete implementation of the ITS for managing the city and suburban transport on the route City of Dubrovnik - Dubrovnik Airport.

#### b) Overview on measures

Process steps in the process:

A-0.1 Recording the existing state of the ITS in the City of Dubrovnik and Dubrovnik-Neretva County A-0.2 Determine the dynamics of complete implementation of the ITS

A-0.3 Securing the required resources (funds, suppliers, etc.)

A-0.4 Procurement of equipment

A-0.5 Putting the system into operation

A-0.6 Final works

Action	Actors involved (Target groups and agents of change and their role)	Barriers	Timeline	Proposed changes/improvements in general addressing airports and their FUA
Action 4	-City of Dubrovnik -Libertas Dubrovnik -DUNEA -Dubrovnik-Neretva County -Banks	Availability of financing	to 2050	Complete implementation of the ITS for managing the city and suburban transport on the route City of Dubrovnik - Dubrovnik Airport

#### c) Sustainability Potential/impacts

To implement Action 4, it is necessary to secure the financial resources. This project can be financed from the funds of the budget of the City of Dubrovnik and Dubrovnik-Neretva County. A portion of the financing may be obtained from the EU Funds and Environmental Protection and Energy Efficiency Fund.

d) Information on whether also another mode/topic would be affected

A synergy of positive effects is achieved with the execution of all Short- and Long-term objectives.

#### **Risk Mitigation Measures**

All Action Plans contain the same mitigation measures for potential risks, which are summarised in the risk management process pursuant to the requirements of the international standard ISO 31000:

- Determining context
- Identifying risk
- Analysing risk
- Assessing risk
- Handling risk
- Communication and consultation
- Supervision and reporting.