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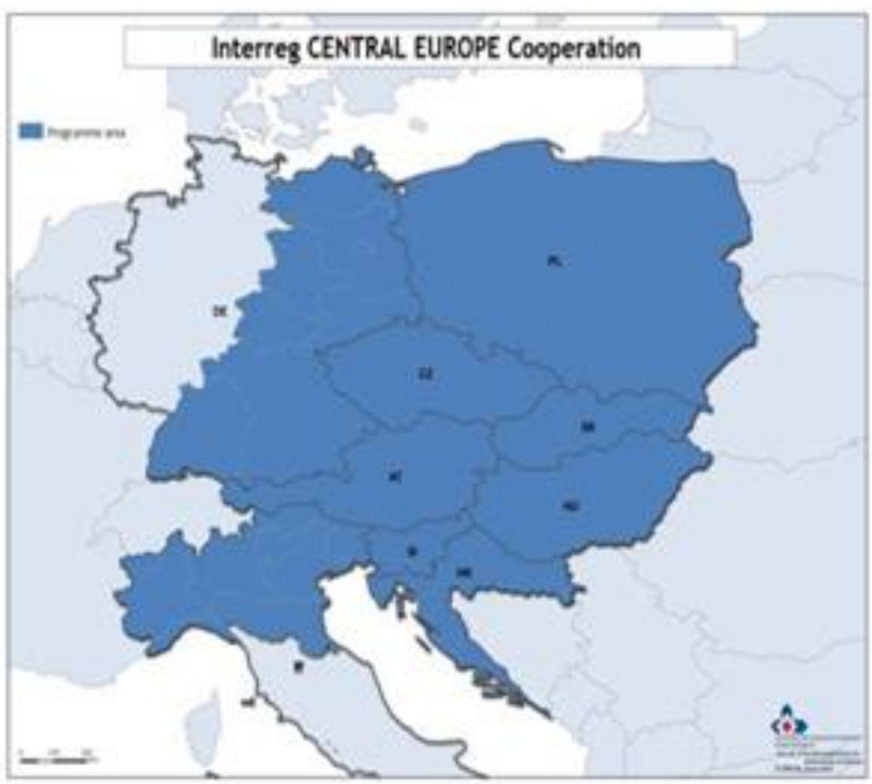
Transnational report on understanding landside mobility demand, needs & behaviours of passengers

Final version

01 2019

1. General overview of the project and of the activities related to WPT1

Interreg Central Europe is wholly supported by European Union European Regional Development Funds (ERDF). The project LAirA is developed within the Priority 2 of Interreg Central Europe Program: "Cooperating on low-carbon strategies in Central Europe. The specific objective investigated here is 2.3: "To improve capacities for mobility planning in functional urban areas to lower CO2 emissions". The activities started in May 2017 and will cover a 30 months period until October 2019. The project involves 10 partners from 7 different countries, of which one is a steering authority grouping European Airports (ARC) and 5 associated partners.



The overall objectives of the project are to reduce the carbon footprint of transport activities related to the airports landside connectivity in FUAs and to develop strategies, skills, and capacities for transport planning. Starting from the wide discussed topic of Landside Airport Accessibility, the topics of "improvement of airport integration into the multimodal transport system" as well as "carbon footprint and service quality" have been investigated, with a “Focus on passenger and employees of the airport system” demand, behavior and needs around the key areas of Electric mobility, Air-rail links, Walking & cycling, Shared mobility, ITS, Wayfinding, On Demand Road Public Transport Service.

It is important to have in mind that a clear distinction is made between a FUA and a CATCHMENT AREA of airports and PPs shall not be confused between the two concepts. A catchment area of the airport embraces the whole wide territorial area on which the majority of traffic originates; on the other hand, a FUA is on a much smaller territorial layer since the acronym FUA stands for Functional Urban Area. While the catchment area is not dependent from any authority besides airport management (which in its turn is interested in enlarging it to gain much traffic shares), on FUAs also Urban Authorities have a say. In the context of LAirA Project it is required that all PPs clearly and unmistakably define the extension, the scope, the features, the characteristics and location of the FUAs taken into account - making use of graphic tools and context – as well as of the main rationale behind this choice.

In particular, three goals have been set for LAirA project:

- Improving the understanding and knowledge of public entities for better capacities in airports landside mobility integration into FUAs
- Developing low-carbon mobility planning and behavioural change for airport passengers accessing FUAs and employees living in FUAs
- Building and mainstreaming strategies for airports low-carbon mobility planning in the participating FUAs & in Central Europe, integrating stakeholders in FUA governance process

All involved airports have made survey campaigns which helped them to check level of service analysis and passenger demand profiling to improve service design.

Nevertheless, airports service quality is assessed “per se” by third part entities based on objective and standardized criteria to allow worldwide comparison with regard to a scale based on traffic output; on the other hand, airport authorities themselves are interested in assessing how they operate and how the service provided is perceived and to do this they rely on similar methodologies enriched with a specific focus on the local scale and on demand dimension which help understanding the rationale, the gap between expected and perceived service and the main features of airport users. Those features are derived by means of specific questions whose results are treated both on average term and segmented per relevant typology investigated.

Poznan – Lawica Airport -

The survey allowed for learning the characteristics of passengers using the Ławica Airport, as well as exploring
their opinions about services provided by the airport. In the light of the analyses carried out, the following
findings should be singled out:

- Customers of low-cost airlines are most prevalent in the passenger stream, accounting for almost 60% Cuof the total, and the remainder is equally divided between charter passengers and traditional carrier customers.
- The share of frequent-travellers is relatively low, and this percentage is significantly higher than the average among persons using the services of traditional carriers at the time of the study.
- Passengers departing from the Ławica Airport predominantly buy tickets way ahead of departure, i.e., over a month in advance - they most often use carrier websites or travel agency services. A particularly large share of travel agency clients are charter flights passengers.
- Taking into account the factors determining the use of the Airport services, the main thing is whether it offers direct connections - this opinion prevailed regardless of the motives of the journey.
- Both for arriving and departing passengers, the most commonly used means of transport is a passenger car. However, the share of public transport is higher among those arriving than departing.
- For people declaring their willingness to use a bicycle, it would be an attractive option to locate a City

Bike Station next to the Terminal, from which short-distance commuters with hand-luggage only can use it. It should also be noted in this context that the survey conducted among airport employees demonstrated that City Bike could be an attractive alternative way of travelling to work for people living near the airport

- Passengers declare a relatively high level of familiarity with alternative forms of transport, and display an especially high brand awareness.
- The idea of introducing a railway connection to the airport terminal was very popular - 76% of respondents declared their readiness to use such a solution. This way of accessing the airport would not only be faster, in particular to those passengers commuting from outside of Poznań, but it would also be cheaper than the car access. It should be noted that the popularity of this solution is significantly higher among passengers (76%) than airport employees (62%).
- The mobile applications that are used most often by the respondents are Uber and Jak Dojadę. None of the other options turned out to be very popular. In the case of the application dedicated to the Ławica Airport there is a clear contrast between a general interest in and a relatively low level of the actual use of the existing Poznań Airport Guide application. Among the answers to the question, the most popular one was "other", which relates to the fact that the respondents also use other popular mobile applications other than the ones mentioned in the cafeteria, like e.g. Google Maps.

The survey allowed for learning the characteristics of passengers using the **Mazovia Airport**, as well as exploring their opinions about services provided by the airport. In the light of the analyses carried out, the following findings should be singled out:

- The largest group of people aged 26-35 (30%), who accounted for slightly more than 30% of all respondents participating in this study. The second largest group were people aged 36-45 (22%).
- The majority of participants (65%) were full-time employees. The second most numerous group consisted of pupils and students (12%), and the third – of pensioners (8%).
- 46% of respondents declared from one to two flights of this type per year. A considerable share of answers (27%) concerned people flying 3-5 times with the analyzed type of airline in the last year. Respondents who had never used this type of flights constituted 11% of all participants
- For the vast majority of respondents, the purpose of the trip was to visit relatives and/or friends, or recreation (respectively 41.6% and 41.0%). On the other hand, business trips accounted for only slightly more than 6% of all responses. This structure of answers concerning the destination may
  result from the dates of the study which coincided with trips related to the May holidays.
- Respondents were asked to indicate, assuming that all of the means of transport are available, which means they would choose to travel to/from airport. The most preferred means of transport in this case was the private car (62% of the highest grade, 10) and train (43% of the same answer). The least popular was the taxi (68% for the answer 1) and rented car (43%).
- There is moderate interest in using a mobile application dedicated to the airport which would facilitate access thereto. The willingness to use such an application was expressed by almost 39% of all respondents, with 6,7% having no opinion. It is also worth noting that only slightly more than 7% of respondents believe that existing applications are sufficient while nearly 47% do not use this type of applications.
- Another question concerned aspects that could cause the surveyed respondents to stop using from the car when going to/from the airport (the question was answered by people who previously confirmed travelling by car or informed the interviewer that they use the car during the remaining trips to/from the airport). Unfortunately, over ¼ of respondents stated that they do not intend to change their means of transport. Nevertheless, the remaining share of respondents identified a series of measures that could influence them to change their mind. The most popular option were direct rail connections to the city center (the answer chosen by 26% of respondents). A related aspect was also a railway stop at the airport (15% of answers). A bus stop closer to the place of residence would influence 12% of respondents to give up the car. For 8%, it would be important to have a train stop closer to home.
- The main means of transport to/from airport (regarding both those departing and arriving) was a car (in various variants), chosen by 41% respondents. Among the remaining answers, the bus, indicated by 35% of the total number of respondents,

was also an important mode of transport. Among other significant means of transport were the train (as the only means or with further public communication), indicated by 14% of the respondents.
- In terms of the respondents' destinations, a direct railway connection to the city center and the higher frequency of buses/trains were chosen mainly by passenger travelling to Bialystok and Warsaw. New bus connections eere indicated predominantly by passenger going to Lomza, Warsaw and Bialystok. A railway station at the airport would encourage passengers travelling to Lodz and Radom not to travel by car.
- The mode of transport used to get to the airport chosen by the respondents depended on their professional status. People working part-time more often than other groups indicated taxi. The unemployed and pensioners travelled by bus more often than other groups. The private car was used mostly by full-time employees.

The survey allowed for learning the characteristics of passengers using the **Vienna Airport**, as well as exploring their opinions about services provided by the airport. In the light of the analyses carried out, the following findings should be singled out:

- It might be assumed that in general middle aged people are flying more often and that the groups under 24 and the group 65+ are less often travelling by plane.
- The analysis shows that outbound passengers accessing the airport via landside are mostly arriving by "suburban train" followed by "private/company car" (ca. 25% in each case in the year 2017). Referring to the annual distribution the passengers arriving by train are continuously increasing, whereas the share arriving by car is continuously declining.
- Regarding distances higher than 25 km there is a significant tendency towards car usage. The analysis shows that passengers arriving from distances higher than 25 km the decision on choosing the transport mode "car" is rising up to around 50%

The survey allowed for learning the characteristics of passengers using the **Budapest Airport**, as well as exploring their opinions about services provided by the airport. In the light of the analyses carried out, the following findings should be singled out:

- Price, travel comfort and journey time are the three major revelead factors at decision, when it comes to weighing, which transport mode to choose out of the known or found alternatives on the spot.. Reliability, safety and the door to door service were mentioned too as decisive factors, though of less importance
- The arriving respondents were asked about what transport modes they have found or if they looked for transport alternatives or which ones do they know if they have not looked for any. They could name more transport modes and also combined ways to get to the their destination from the airport.

- The table below shows the best known and most frequently considered and used transport modes. These are the taxi, the combination of 200E and the metro to the downtown of Budapest, bus 100E and the pick-up by friends or the family
- 54% thinks, there is an information barrier and they might consider using other modes if they had more information about them. 46% of the respondent would not change their travel pattern, if they had more information about to other transport modes

The survey allowed for learning the characteristics of passengers using the **Milano Airports**, as well as exploring their opinions about services provided by the airport. In the light of the analyses carried out, the following findings should be singled out:

28% of passengers at Linate used a third-party car to get to the Terminal, while taxi is the second most frequent travel choice (25.6%).
About one fifth of passengers chose a bus, 14.3% of passengers travelled by their own car and 7.4% of passengers rented a car or used a car-sharing service; the remaining 2.7% of passengers travelled by a hotel bus, a tour operator bus, a motorcycle, by foot or in another way (category “Other” in the Figure above).
The distribution of Malpensa passengers’ travel choices is different from Linate, except for the use of a third-party car and car-rental, which have shares similar to Linate.
Concerning the comparison between Malpensa Terminal 1 and 2 we note that:

- the category third-party car has similar percentages (26.9% for the Terminal 1 and 29.1% for the Terminal 2).
- the percentage of passengers who travelled by their own car is different among the two Terminals: 24.6% for Terminal 1 and 33.4% for Terminal 2.

the percentage of passengers travelling by train differs by Terminal, being 6.1% higher for Terminal 1 than for Terminal 2.

- the share of bus as travel choice is the same for both Terminals (13%).
- car-rental/car-sharing is slightly more used by Terminal 1 passengers (this could be explained by the fact that more car-rental/car-sharing operators are based there)

The correlation analysis between passengers’ socio-economic profiles and travel choices shows that:

- there is correlation between age and the chosen transport means; passengers in the range 18-24 years prefer travelling by public transport, passengers in the range 35-64 prefer travelling by own-car, while older passengers are generally accompanied to the Airport (third-party car)
- the passengers’ country of residence does not correlate with surface travel choice.

The survey allowed for learning the characteristics of passengers using the **Dubrovnik Airport**, as well as exploring their opinions about services provided by the airport. In the light of the analyses carried out, the following findings should be singled out:

- The largest number of airport users comes by private car as a passenger (46,92%). In the surveyed area, 12.18% of the passengers to the airport arrived with the Charter bus. Of the more representative transport there are Shuttle buses, taxi transport and passengers arriving by private car. The least represented forms of transportation are interurban, international bus service and city liner transport.
- Using the car as a means of transport is the most popular way to get the airport. The biggest reason is that such access to the Dubrovnik airport is the simplest because the conditions for other forms of transportation are not favorable. To a lesser extent are the reasons for distance and financial profitability. This type of transport is largely used by employed passengers with bachelor/master degree
- The main motivations that passengers have put forward as a reason for using public from their starting point to Dubrovnik Airport are better frequency, respectively more frequent departures than present, stations nears their place of residence before arriving at the airport and cheaper carriers. For other more prominent reasons, there is a shorter travel time, a travel planning application, better information on the public transport timetable and comfort.
- The idea of introducing a car sharing system as one of the options for transport to the Dubrovnik Airport surveyed passengers in most (42%) pleaded to use much a form of transportation. Of the total number of surveyed passengers, them 40% of the participants did not use it. 16% of the respondents might have used such transport system.

Conclusion:

After reading reports of all participating associates and answers of their respondents, some common patterns can be noticed. Like expected, most people go to the airport with their own vehicle. It depends on a city and/or an airport, but most passengers declare a relatively high level of familiarity with alternative forms of transport, and display an especially high brand awareness.

Ideas of introducing a new ways of connections to the airports terminal were very popular among all respondents. New ways of accessing airports would not be only faster for passengers but also in the most cases cheaper than the car access. Also, as it was expected, Uber is one of few applications that turned out to be very popular between most of the passengers. So, it means that all other airports applications should do better and broader marketing to reach and activate bigger group of passengers that still do not use their application.

The largest group was between 26-35, which was also expected, because people of this age travel the most. Similarly, the majority of participants employed full-time, and had one to two flights per year. For the vast majority of respondents, the purpose of the trip was to visit relatives and/or friends, or recreation (41.6% and 41.0% respectively). On the other hand, business trips accounted for only slightly more than 6% of all responses. This structure of answers concerning the destination may result from the dates of the study which coincided with trips related to May holidays.

These results were expected and reports serve as data to verify those assumptions.

It is safe to say that this statistical data is a valuable display of habits of airport visitors. The data will be very useful for creating and implementing the project strategy, but will also have a great value after the project is completed for both passengers and airports, which were given the information about their targeted audience.

This data will have to be carefully examined while creating the transnational strategy for each individual airport. Of course, each airport will have its own, specific, parameters.

It has to be mentioned that the work done by airports was truly exceptional in this first part of the project.

This document will serve as a great first step towards future activities of this project and all of its participants.