D.T2.2.4 – Individual Final Pilot reports

BUD (PP2) Ride-Sharing IT Platform Pilot on low carbon mobility management - testing car-pooling platforms and implement public awareness campaigns

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Content

1. Introduction

Budapest Airport (BUD) is in charge of managing, operating and developing the main international airport of Hungary and has set itself the goal to operate efficiently and profitably on a sustainable basis. BUD is participating in the LAirA EU Interreg project, which is aimed to create an on-line ride-sharing platform for our approx. 900 employees and a related communication campaign, in order to reduce the harmful emissions of employee commuting and transportation at the landside areas of Budapest Airport and the affected area of Budapest city and for raising awareness for ride-sharing and sustainability among BUD employees.

2. Specifications of pilot

Based on the results of the LAirA airports employee mobility survey in February 2018 (https://www.bud.hu/file/documents/2/2724/20180711_laira_greenairport_munkavallaloi_felmeres.pdf), LAirA project partners have found that most of the airport's employees are commuting daily by car and the most significant reduction of CO_2 emissions and of other harmful effects of commuting and transportation in the FUAs could be achieved by reducing the travelled distances and number of cars. Therefore LAirA PPs, including BUD, have decided to create on-line ride-sharing platforms at the participating airports. The task of creating and testing the on-line ride-sharing platform should be implemented according to the guidance of BUD and by the LAirA Application Form (Activity A.T.2.2., Deliverable D.T.2.2.1. and Output O.T.2.2.). LAirA PPs and the supporting PP AustriaTech (ATE) has also complied a documentation of the Pilot Planning Workshops, which, besides the Application Form, describes the Pilot Plans of the PPs and provides guidelines for the tasks to be implemented in relation with the ride-sharing platform.

The ride-sharing platform, the awareness raising campaigning and a new company policy for employee ride-sharing are the three main measures/pillars to urge BUD employees, currently commuting with their own cars individually and often using fleet cars individually to going to the same destination, to share their cars with their colleagues, in order to reduce the number of cars used within and outside of the airport premises and therefore achieve behavioral change and environmental benefits for the airport FUA.

The ***ride-sharing platform*** is aimed to reduce environmental effects originating from the use of BUD fleet and manager cars, as well as commuting employees. Users will register at an on-line ride-sharing platform which is to share their planned journey's starting points and destinations and organize common travels, in order to reduce the environmental effects of transportation at the airport and its catchment area.

The introduction of the ride-sharing platform should be accompanied by a specific ***communication and awareness raising campaign*** for airport employees, which is to be implemented at all participating LAirA airports by creating press releases, newsletter articles and employee related communication materials via social media. The campaign is targeted at all airport employees. Communication tools of BUD are to be applied (company e-mails to all employees, BUD's own weekly on-line newsletter (BUD Heti hírek), Interreg and BUD visibility requirements should be followed.

Besides, a ***company policy initiative*** should be formed together with the relevant departments of BUD (HR, EHS), in order to create a benefit system and/or company policy related to employee ride-sharing.

3. Insights on developments of KPIs

Quantitative KPIs			
Source for KPI	**KPI**	**Measuring Unit**	**Frequency of reporting**
Operator platform/data	Number of registered users	15 (mid September) 56 (mid October) 58 (mid November) 62 (09. December 2019)	Monthly / as requested
Operator platform/data	Number of active/passive users	active: 10 passive: 52	Monthly / as requested
Operator platform/data	Number of matched rides to/from the airport	18 (551 km travelled = 87,2 kg CO_2 spared)	Monthly / as requested
Calculation by LAirA partner	Vehicle occupancy rate	Persons per vehicle per ride: 2	Intermediate, End
Calculation by LAirA partner	CO2 Savings	CO_2 per driven kilometer (and day) 551 km travelled = 87,2 kg CO_2 spared Total offered rides: 574 pcs. = 17.200 km	Intermediate, End
Calculation by LAirA partner	Number of parking spaces saved	0 – passengers using ride-sharing have no cars	Intermediate, End

The 62 registered users make 10% of BUD employees.

The number of advertised travels is approximately 9 per registered user (total number of advertised travels: 574), the number of realized travels is much lower (18). However, this is similar to the rate of matched rides of all Oszkar users (not only BUD employees), but there is certainly a possibility to increase this number.

Management level decisions were made in order to enhance the participation and activity of users by planning BUD-Oszkar Ride-Sharing Annual Award Program. The BUD Award Gala is a company ceremony and gala to hand-over various prizes, make announcements, etc. From 2020, a BUD-Oszkar Award will be handed over to the driver and passenger using ride-sharing the most. Prizes include dedicated parking spot close to the terminal entrance, new tyre set/repair of the car. Besides the Award, every month the top 3 most active driver receive a free car-wash at the airport, the top3 passenger receives a free meal voucher at one of the airport restaurants. This program will be announced early next year. Also BUD is planning to sustain the application until one more year for testing, we expect a high level supporting decision about this.

Additional communication tools had been performed by creating a ride-sharing poster, dedicated ride-sharing meeting points and a free map of the available airport addresses.

In line with our awareness-raising campaign plan, we have prepared various communication articles and social media posts to increase the number of registrations and the activity of users. A “How to Ride-Share Guide” had been created, which served as a basis of articles in our company weekly newsletter and social media groups. We created articles about: launch of the application, map of the available airport addresses, how you can find an advertisement, useful tips for users, number of registered users, why is it environmentally beneficial to use ride-sharing, why to use ride sharing in general, use ride-sharing within the airport besides daily commuting, special ride-sharing meeting points at the airport.

Specific address list of airport facilities had been added to the application, which is to ease searching for advertisements and offer rides.

BUD-Oszkar info e-mail address had been set-up to answer user requests (BUD.Oszkar@bud.hu)

IT Pilot experiences were very similar during the pre-, intermediate- and final test periods, in terms of number of registrations and frequency of using the platform. After the launch, a registrations had been starting slowly, but after two weeks we have experienced a rapid rise. However, the number of registrations had only increased by a few since then. BUD sees various reasons behind this, such as the time period for launching and testing the platform is too sort for users to really change behaviour from only registering to actually sit in or to offer travels, as this requires real attitude change and sometimes careful planning of car travels, in order to be able to pick-up passengers or change your route according to passenger requests. This could be enhanced by the company benefit system and an additional development aimed at displaying the available travels on a map-based user interface instead of a list.

Also as the results of the qualitative survey pointed out, the ride-sharing platform is not a solution suitable for all employees, it rather should be viewed as one of the available solutions to reduce your environmental footprint, which you could use if it suits you and your circumstances.

Overall, all of our registered users interviewed emphasized, that ride-sharing is an environmentally conscious way of organizing your travels and by this, it is a great tool to induce behavioural change of the employees, but it should be followed by other steps, also pointed out by the LAirA project, such as the need for an air-rail link, bicycle road extensions and better local public transportation around the airport.

BUD has also induced talks with Airport Partners, such as DHL, AFM (airport facility management) to include them to the ride-sharing platform, in order to scale-up the development.

4. Insights on qualitative survey results

Questionnaire had been sent to Oszkar users (56). 34 answers had been received.

Non-users had been interviewed personally, 15 interviews had been made.

- Lack of benefit system for users: most users expect financial benefits, which are quite problematic from the company point of view
- Some mentioned the need for a map based ride-sharing advertisement search option, as it is hard to find out if the certain drivers passes by the passenger's close location if the driver starts from far away.
- Personal fears related to unknown passengers/drivers

User experience on accessibility	How did you first learn about our carpooling pilot/program for airport employees?	Weekly BUD Newsletter and company e-mail BUD Employee FB Group (only for BUD employees) posts Only a few indicated that he/she was notified by a colleague
	How likely is it that you would recommend our carpooling pilot/program for airport employees to a colleague or friend?	Most answer indicated "likely"

	Is it easy to get familiar with the product and to learn how to use it?	Most of our users (approx. 60%) have been an Oszkar user already.
User experience on usability	Why do you use our carpooling platform?	1. Already used carpooling before/usual habit, 2. Environmental reasons, not applicable answers were: Financial saving reasons, Comfort, Social Interaction
	How easy is our carpooling platform to use?	Most indicated easy, however the registration procedure takes a long time (lot of data should be filled in, such as car type and yr. of manufacture, etc.)
	Which features of our carpooling platform are most important to you? Name them.	Most users indicated that the direct message and actual position functions are useful.
	Do you miss any features? If so, please name them.	Driver/passenger ads. start- and arrival points to be put on a graphic map.
	Is it fun to use our carpooling platform?	Most indicated yes.
Satisfaction level		
	What do you like least/most about our carpooling platform?	No info about travel routes. Such info could help finding suitable ads.
Suggestions for improvement	Do you have any suggestions for improving the carpooling platform/pilot/program? If so, please name it.	• more airport addresses to choose from • graphic map to choose ads. • BUD should provide financial benefits for users

Questions/claims the HR departments need to deal with	What are claims the HR or any other department collected during the last months of platform operation? Name them.	• GDPR worries of IT department related to BUD users share data through a separate IT system • HR has problems with providing financial benefits to users, therefore motivation is more difficult
Handling of the platform from the airport's perspective	Name the experience and impressions the airport has made when implementing and operating the carpooling platform.	• the operation is smooth and effective, the provider answers all requests on time and provides development ideas

5. Learnings

Learnings and key points that need attention to launch and operate a similar ride-sharing system:

- Number. of users and the total pool of users (number of employees of the company or companies participating in ride-sharing) should be maximum as possible, in order make finding suitable travels easier
- The application and the method how the users can find suitable travels has a crucial importance. IF the public transportation user has to make an extra travel to meet the driver, than passengers tend to stick to the system they already started to use for their travel, such as if the passenger has to leave home by car to meet with an other driver, in practice they will less likely adjust their schedules and just continue with two cars separately. Same applies to public transportation.
- Also it is important to note, that users commuting from far away are more likely users of the ride-sharing scheme, as they tend to take care of daily issues during the weekends or one time a week, so for passengers it is easier to organize travels.
- Proportion of the registered users among the total employees is key in being able to find travels/commutes.
- A strong company level employee benefit system is a must to foster participation and activity of the users. This system has to be built on multiple awarding tools: long term competitions, such as annual award, and short term competitions, such as monthly rewards for top users. Users should be surveyed in order to help the company to decide about the appropriate measures.
- Detailed information and personal support (ambassador system) is needed during the launch of the initiative and for some time after.
- Common dilemmas and questions should be openly communicated toward employees: how to find travels / commutes, how to adjust the personal comfort of using a car to travelling with others, can the CEO sit next to an average employee, etc.
- Scaling-up the development is key: extension of the system to other partners can have various by increasing the pool of users, commuting times and locations.
- Employee ride-sharing pilot can be the first tool or company measure to change the attitude of employees and create a company culture, but it is not the only tool to be applied for the green mobility of employees.

5.1. Success factors

Describe success factors of your pilot, i.e. what has worked out very well? What has worked out better than expected? Why is your pilot a success?

- Employees and registered users are in favour of the idea of ride-sharing and highly supporting it in terms of supporting environmental protection. However the user statistics points out that when it comes to them to change their behaviour and act, they are much less likely to do that.
- Users like the open map and sent new address book locations
- BUD has received positive feedback about the awareness-raising activities (newsletters, social media posts)
- The application had been created and successfully launched, regularly updated
- Additional tasks had been performed to further support ride-sharing (maps, etc.)
- Company benefit system had been created to enhance participation of employees in the ride-sharing platform

To which extent have you reached your objectives?

- The application had been prepared and launched, practical measures had been performed (map of locations, address list, BUD-Oszkar info line) and a related company award and 1st stage of employee benefit system had been established. The number of registrations and user activity is below our expectations.

To what extent have you been able to achieve the expected impact?

- There were no expected impacts, we wanted to see if this solution can work or not and within what circumstances and conditions. We can point out the basic and must conditions for an employee ride-sharing scheme, such as the benefit system.

What has changed since the intermediate monitoring report?

- No significant changes had been experienced since the intermediate period, except the team working on the implementation has received some useful user feedback about how to enhance user participation by an ambassador system and some ride-sharing platform ambassadors are to be pointed out among employee groups by department.

5.2. Failure factors

- Employees and registered users are in favour of the idea of ride-sharing and highly supporting it in terms of supporting environmental protection. However the user statistics points out that when it comes to them to change their behaviour and act, they are much less likely to do that.
- Employee benefit system is to be launched next year due to company negotiations with employee unions
- Personal fears of users: low level employee travelling with high level employee, driver has an old car, therefore offers no travels
- Many users are not participating actively due to issues, which could be avoided by careful planning and scheduling to tasks to do. These are also related to personal comfort provided by owning car and using it where and when and how you want. However, users provided very contradictory opinions based on the distance of how far /close they are commuting. Users commuting from far away, are

more likely to take passengers or become passengers, as they usually have less personal things to do when they are about the arrive or leave from work, such as users living far away from the airport drop off the children at school earlier and travel directly to work and also less likely to organize small personal travels after work.

- Number of registered users is lower than ideal for a wide selection of travel/commuting ride options. Based on the service provider's experience, approximately 50-60% of the employees should be registered for the necessary pool of commuting options.

Why weren't you able to achieve your set objectives?

- More user involvement is needed, this is why we created the benefit system.

What was hindering during your pilot?

- Mostly personal fears of users: low level employee travelling with high level employee, driver has an old car, therefore offers no travels
- Attitude change of employees takes time
- Need for better advertising methods for offering and/or searching for rides

What has changed since the intermediate monitoring report?

- The LAirA Closing Conference created awareness for employee ride-sharing among BUD employees, BUD Airport Partners and the media.

6. KPIs in short

Quantitative KPIs			
Source for KPI	**KPI**	**Measuring Unit**	**Comments**
Operator platform/data	Number of registered users	15 (mid-September) 56 (mid-October) 58 (mid-November) 62 (09. December 2019)	Number of users registered and having active registration at the time of surveying. BUD has approx. 600 employees with company smartphones and e-mail address (pre-condition of registering to the platform).
Operator platform/data	Number of active/passive users	active: 10 passive: 52	Active user: realized a travel as a passenger or a driver, who transported at least one passenger during a travel. Passive user: only registered, but not offering travels / never sat in one yet.
Operator platform/data	Number of matched rides to/from the airport	18 (551 km travelled = 87,2 kg CO_2 spared)	CO_2 emission reduction only can be accounted if a car driver travels as a passenger via the platform.
Calculation by LAirA partner	Vehicle occupancy rate	Persons per vehicle per ride: 2	Drivers can offer seats in their car according to the legal capabilities of the car or by their own wish, while also complying with the relevant regulations.

Calculation by LAirA partner	CO2 Savings	CO_2 per driven kilometer (and day) 551 km travelled = 87,2 kg CO_2 spared Total offered rides: 574 pcs. = 17.200 km	The system collects the type and year of manufacture of cars of the users. According to the European Environmental Agency, these two data could be used to determine the CO2 emission of the car per km. As the system collects the travelled distance, it is possible to calculate the amount of CO2 spared.
Calculation by LAirA partner	Number of parking spaces saved	0 – passengers using ride-sharing have no cars	Based on the matched travels' data, it is possible to collect information if the passenger has a car (=CO_2 reduction as that car is not used) or has no car (=no CO_2 had been spared). On this basis, if no CO_2 was spared during a travel, no saving of parking spaces were possible. Also if somebody using public transportation commutes with the IT app will have no measurable CO_2 or parking space impact.

7. Conclusion

BUD believes that its participation in the LAirA project was a great opportunity and provided a very useful set of tools and know-how within the project team and also on management level about climate friendly mobility solutions. The project idea and aims have gained management level attention, which is reflected in the reshaping of company strategies and development planning. The results of the action plans are to be turned into actions, such as the e-mobility and soft-mobility action plan initiatives and various sustainability related measures, as well as the ride-sharing platform, which is to be, according to the plans, voluntarily sustained at least until the end of 2020.

In order to make the ride-sharing platform more successful, based on the experiences of the ride-sharing platform pilot, BUD has planned additional measures. BUD has initiated a company benefit policy (described before). Besides, an ambassador system will be formed from BUD employees, whom will act as leaders and contact points, as well as provide information for others.

While implementing the above changes, the following factors should be evaluated and preventive measures should be planned:

- Proportion of the registered users among the total employees is key in being able to find travels/commutes.
- A strong company level employee benefit system is a must to foster participation and activity of the users.
- Detailed information and personal support (ambassador system) is needed during the launch of the initiative and for some time after.
- Common dilemmas and questions should be openly communicated toward employees: how to find travels / commutes, how to adjust the personal comfort of using a car to travelling with others, can the CEO sit next to an average employee, etc.

- Scaling-up the development is key: extension of the system to other partners can have various by increasing the pool of users, commuting times and locations.
- Employee ride-sharing pilot can be the first tool or company measure to change the attitude of employees and create a company culture, but it is not the only tool to be applied for the green mobility of employees.

As a final conclusion of the project and the pilot, it should be mentioned that both provided an ideal opportunity for gaining useful knowledge about green mobility initiatives and actions for multiple actors and stakeholders: actions plans and results, best practices and the related information proved to be useful at management and decision making levels, while the IT Pilot provided the need to implement real and practical initiatives, that affected all employees. Regarding airport stakeholders and partners within the airport FUA, the created studies, action plans, measures and initiatives could also prove to be useful. These and the implemented pilot initiative has greatly contributed to the overall project aim of finding green mobility solutions for the airport regions.