

REGIONAL ACTION PLAN FOR IMPROVING CROSSBORDER PUBLIC TRANSPORT

CARINTHIA - KOROŠKA BASED ON REGIONAL ANALYSIS

2nd Progress Report D.T2.1.4

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Prepared by:

Peter Zajc, MsC, RRA Koroška (PP8)

Aleš Rupreht, RRA Koroška (PP8)















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1. Motivation and initial situation

1.1. Regional analysis

According to the Regional Analysis report, there are significant differences between the project pilot area in Slovenia (Koroška region) and part of southern Carinthia (Austria). This results in differences in commuting patterns (table 1, figure 1).

	Sax	ony	Liberec	region	Boles	ławiec	Kord	oška	Cari	nthia
Direction	Commuters	Students								
at the place of residence	370.077	11.338	31.989	12.300			13.461	106	37.515	11.874
Not commuters	317.371	9.767					8.417	0	4.271	1
Community single commuters	52.706	1.611					5.044	0	33.244	11.873
outbound Commuter	82.054	2.465	41.305	16.821	7306	4201	20.587	3.395	16.402	2.285
in other municipality of same province	8.196	124	23.150	16.821	7306	4201	12.549	429	1.966	266
in other province of same country	49.562	1747	7.953				6.622	2.966	10.777	1.396
in other country (Bundesland)	17.294	522	9.130				1.416	0	3.427	623
in other state	k. A.	k. A.	1.072						232	0
inbound Commuter	119.006	3.455	47.877	13.158			12.535	374	39.002	10.337
from other municipality of same province	13.821	21	41.025	10.156			10.606	253	35.972	9.484
from other province of same country	84.156	2903	3.211	575			1.929	121	3.030	853
from other country	17.294	522								
from other state	3.541	9								
Gesamt	571.137	17.258	121.171	42.279	7.306	4.201	46.583	3.875	92.919	24.496

Table 1: Commuters and students in all TRANS-BORDERS pilot areas¹

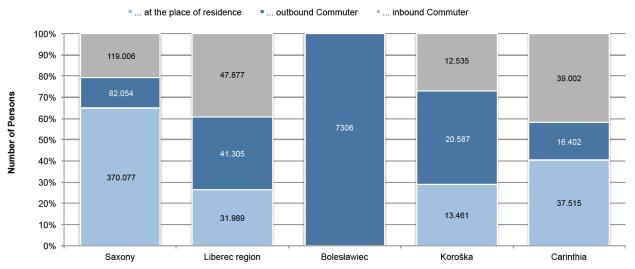


Figure 1: Share of different type of commuters in all TRANS-BORDERS pilot areas²

Koroška region in Slovenia is predominantly characterized by outbound commuting from local municipalities. Around 60 % of outbound commuting occurs as commuting to another municipality within the Koroška region and roughly 1/3 to another region in Slovenia. Almost 85 % of all inbound commuting in the region is due to the commuting between municipalities within the region.

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¹ Source: Summary of Regional Analysis (TRANS-BORDERS)

² Source: Summary of Regional Analysis (TRANS-BORDERS)





On the other hand, just over 40% of the active population in southern Carinthia either do not commute or commute within the local municipality compared to the slightly below 30% in the Koroška region in Slovenia.

1.2. Cross border commuting

Official data on cross border commuting are limited. Within TRANS-BORDERS PP8 (RRA Koroška) and PP9 8 (ZRC) have collected some data to deepen understanding of Koroška region (Slovenia) inhabitants commuting to the southern Carinthia in Austria. Aspects of commuting for work, education and leisure time were examined.

1.2.1. Work

Following institutions in Slovenia were approached, interviews with relevant representatives made and data on commuting for work were gathered:

- Employment Service of Slovenia
- Health insurance institute of Slovenia
- Financial Administration of the Republic of Slovenia

Employment Service of Slovenia has provided limited data of Arbeitsmarktservice Österreich but only Austria as a whole and land Styria but not for land Carinthia. TRANS-BORDERS PP2 Office of the Carinthian Government Department 7 has provided Arbeitsmarktservice Österreich for the land Carinthia.

After data examination, we have concluded different methodologies were used and data were gathered on different spatial units. According to our estimations around 2.000 workers from Koroška region were in 2017 officially working in Austria. According to the qualitative estimates by the interviewee, commuting is predominantly done to the Carinthia. This number does not include seasonal and hidden work. While estimates of the percentage of these forms of work are unknown it is difficult to estimate the overall all number of cross border commuters.

It is known around 450 of Slovenian citizens are employed at two production factories in St. Michael and 70 % of those are from Mežiška Valley.³ Within the preparation of Mobilitätsmasterplan Kärnten 2035 estimates of potential to change modal split from the car and car pooling to train for workers at two production factories in St. Michael were prepared (table 2)⁴. Just over 40 % of workers in five near the border municipalities are living within 1,5 km distance to the train station.

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³ Potential- und Umfeldanalyse Bleiburg - Prevalje (projektbericht). Raumplanungsbüro Kaufmann. ÖBB Infrastruktur AG, 2018

⁴ Land Kärnten, Mobilitätsmasterplan Kärnten, 2017





Railway station	Total	Walking distance (to 1,5 km)	Distance with bike (1,5 to 3 km)	Distance with E-bike (3 to 5 km)	P+R distance (5 to 10 km)
Prevalje	129	63	9	7	50
Ravne na Koroškem	95	55	33	5	2
Podklanec	21	1	2	5	13
Dravograd	69	25	16	3	25
Vuzenica	39	5	18	10	6
SKUPAJ	353	149	78	30	96

Table 2: Potential to change modal split from car and car pooling to train for Slovenian workers at St. Michael production factories⁵

Increase of Slovenian workers at production factories in St. Michael is noticeable in personal vehicles average daily traffic per year at the border crossing Holmec:

2005: 1.332 personal vehicles

2010: 1.407 personal vehicles

2015: 2.020 personal vehicles

2017: 1.996 personal vehicles⁶

Change in working shifts at 6.00 a.m., 14.00 p.m. and 22.00 p.m. is noticeable in half-hour personal vehicles counting at the border crossing Holmec done by the Slovenian Infrastructure Agency constantly by the automatic counter (figure 2).

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⁵ Land Kärnten, Mobilitätsmasterplan Kärnten, 2017

⁶ Slovenian Infrastructure Agency, 2017





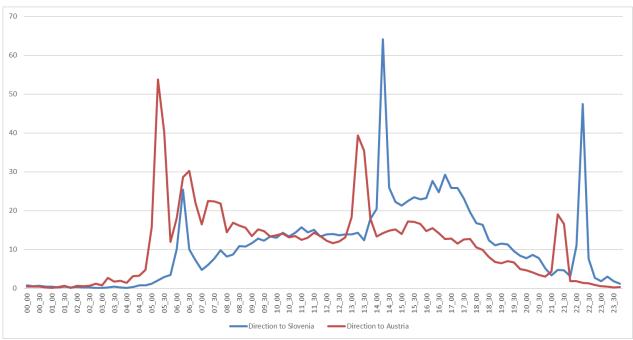


Figure 2: Half-hourly personal vehicles counting at the border crossing Holmec on the average working day in 2015^7

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 $^{^{7}}$ Slovenian Infrastructure Agency, 2017; data processing: ZRC SAZU, 2017





Working shift at St. Michael production factories is noticeable quantitatively and visually (figure 3).



Figure 3: Border crossing Holmec just after 2 p.m. working shift at St. Michael production factories on 6 February 2018 (photo: A. Rupreht)

1.2.2. Education

To estimate the number of Slovenian pupils and students in Carinthia interviews with headmasters of the following institutions were made and evaluated:

- Federal gymnasium for Slovenes, Klagenfurt,
- Federal bilingual commercial school, Klagenfurt,
- High school for business professions, Sankt Peter in Rosental.

Additionally, interviews with Youth boarding school, Klagenfurt and Youth boarding school Slomškov dom/Slomšekheim in Klagenfurt were made and evaluated.

All schools and both boarding schools have provided data on the number of pupils and their originating municipality in Slovenia for 2017/2018 school year.

Interviews were made and evaluated by Primož Pipan (PP9) and Peter Zajc (PP8) in autumn 2017.

Furthermore University Alpe Adria Klagenfurt and Music Conservatorium, Klagenfurt were requested by Primož Pipan (PP9) to provide data by e-mail.

Klagenfurt	Number of pupils/students from Slovenia in 2017/2018	Of those from Koroška region in Slovenia 2017/2018
Federal gymnasium for Slovenes, Klagenfurt	49	16
Federal bilingual commercial shool, Klagenfurt	104	46
High school for business professions, Sankt Peter in Rosental	92	0
University Alpe Adria*	32	8





Music Conservatorium	113	9
Youth boarding school, Klagenfurt	91	16
Youth boarding school Slomškov/Slomšekheim, Klagenfurt dom/Slomšekheim	35	8

^{*} Additional 41 from Slovenia but have provided an address in Carinthia (AT).

Table 3: Numbers of pupils/students from Slovenia and Koroška region specifically in Carinthia in 2017/2018 school year

Just below 390 pupils and students from Slovenia are attending programs in Carinthia in school year 2017/2018 according to the gathered data. 62 pupils and at least 17 students are from Koroška region in Slovenia.

Pupils and students from Koroška region often travel by car or as car accompaniment to Bleiburg and change for a train to Klagenfurt as revealed in interviews. To better understand commuting habits further interviews with selected pupils in Sankt Peter in Rosental and Klagenfurt were carried out in June 2018.

1.2.3. A survey among residents of selected settlements in Koroška region

To better understand and to fill the data gap PP8 and PP9 has decided to realize survey among residents of four settlements along the railway line in Slovenia. Settlements included were almost identical to those used for the mobility plan for production factories in St. Michael:

- Prevalje,
- Ravne na Koroškem,
- Dravograd and
- Vuzenica.

Survey questionnaires were delivered by post to addresses provided by the Statistical Office of the Republic of Slovenia in March 2018. The sample has included representative and random 1.100 addresses. The response rate was 19 %, 174 respondents were included in further analysis.

The survey questionnaire included questions on:

- purposes and frequency of traveling to Austria;
- destinations of traveling to Austria;
- modes of transport;
- satisfaction with current cross border public transport and
- some general questions.





85 % of the respondents have traveled to Austria in the last year, with Carinthia being the most frequently visited federal state according to the respondents (figure 4).

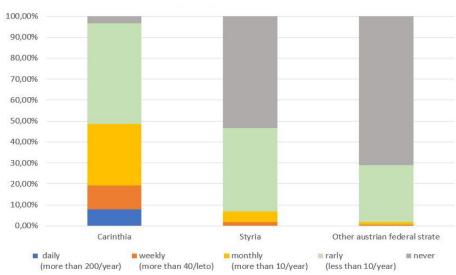


Figure 4: Frequency of traveling to Carinthia and other federal states in Austria





Purposes and frequencies traveling to Austria are shown in figure 5. Respondents were estimating frequency on the 5-point scale. Just over 7,5 % of respondents travel to Austria for work at least on a weekly basis. Regular shopping, including gasoline, occasional shopping (e.g. furniture) and visiting relatives and friends were among the most frequent purposes for traveling to Austria.

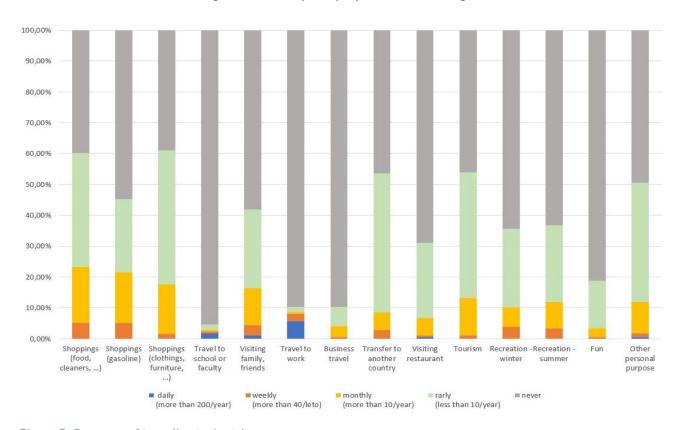
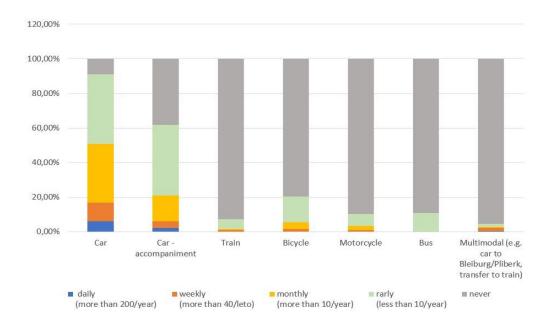


Figure 5: Purposes of traveling to Austria





By far the most frequent mode of mobility traveling to Austria is by a car, followed by car accompaniment (figure 6). Bicycle being used more often than the train can be related to the attractiveness of Carinthian cycle infrastructure for leisure cycling rather than for daily commuting.



Even though in very small share, multimodal cross borders commuting was indicated as noticeable in the beforehand interviews.

Figure 6: Means of mobility traveling to Austria





1.3. Existing cross border public transport

In Slovenia, there is no public transport act dealing with all modes of public passenger transport, there are separate acts for road and railway transport.

The railway passenger transport is regulated on the national level by Railway Transport Act. Domestic and regional cross-border passenger transport is provided by the state as a mandatory public service to the extent determined by the transport policy. Timetables are prepared by the operator upon prior consent of the Ministry of Infrastructure. If the needs of the inhabitants of a particular area are greater than the transport provided local communities could finance additional services in accordance with their needs and possibilities. Details on public railway passenger service are determined by the Decree on the mode of providing public service obligations in inland and cross-border regional railway passenger transport. According to the decree the state provides services in cross-border regional rail transport in the public interest and fulfills the obligation to provide uninterrupted mobility in the European geographical area. Currently, Slovenske železnice (Slovenian Railways) company has the exclusive right to provide the above mentioned public service. Compensation is paid to the operator to provide the public service.

Bus public passenger transport is regulated at the national level by the Road Transport Act. The state shall ensure the public passenger transport as a public service and awards concessions to the most favorable transport providers on the basis of a public tender. With the exception of urban public transport which is regulated by the cities. There is no urban public transport in the Koroška region in Slovenia

According to the Road Transport Act, the transport providers have exclusive rights to transport passengers in their areas. In the Koroška region in Slovenia, the concessionaire is company Nomago.

International bus lines are regulated according to European legislation. There is no special regulation for local (regional) cross-border lines. There is no legal basis for the cross-border lines to be co-financed by the state or by local communities. Due to the exclusive rights of transport operators who provide public service in Slovenia, it is not allowed to any other operators to transport passengers between two bus stops in Slovenia. There were several discussions between Slovenian TRANS-BORDERS partners and competent Slovenian authority (Ministry of Infrastructure) to include the local cross-border bus services in national public service (in a similar way as rail services). Changes of Road transport act have been proposed.

There are significant spatial and time gaps in the existing cross border public transport between Carinthia in Austria and Koroška region in Slovenia. Schedule details for cross border train and up to border bus lines in 2017 are in the attachment to this report.

European Commission has in the 2018 study put forward many:" Despite the efforts of European integration and cohesion policies made over the past decades, many citizens in border regions of the EU still suffer from their spatial situation in certain aspects such as lacking, insufficient or low-quality public transport services."

Recent DG Regio study showed in the EU "... only 44 % of the population of all border areas has access to rail services". In the summary study pointed out: "In many cases, cross-border links are less frequent and often slower than domestic connections of similar length. In some border areas, efficient rail connections enable cross-border commuting, while in many other areas, low speed and frequency of services severely limit the attractiveness of rail as an efficient regular traveling mode."

⁸ European Commission, Comprehensive analysis of the existing cross border rail transport connections and missing link on the internal EU borders, 2018

⁹ Passenger rail accessibility in Europe's border areas, DG Regio WP 11/2017





In summer season Lavantaller Radlerbus is operating¹⁰. It runs every Sunday between 15 July and 2 September between Lavamünd and Reichenfels.

Up to the 1965 railway line, Dravograd-Lavamünd existed but was abandoned in 1965 after the construction of railway line Bleiburg/Pliberk-St. Paul.11

Bus line Celje-Lavamünd existed in the past but was closed down just after the year 2000. Up to 1995 two pairs of rides existed

Existing cross border public transport between Koroška region in Slovenia and Carinthia in Austria is limited to train connection Maribor-Prevalje-Bleiburg (figure 8).

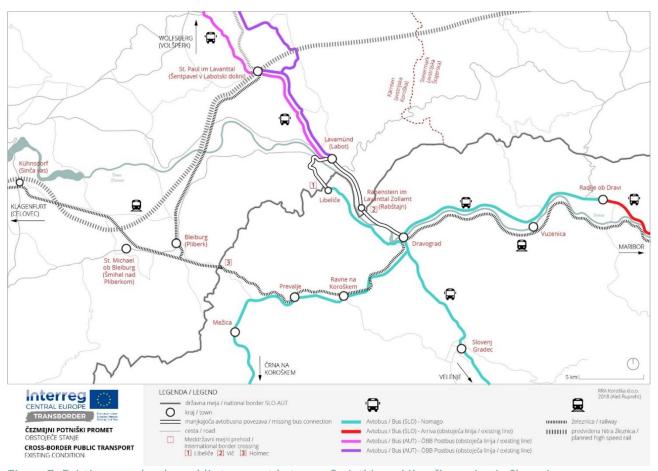


Figure 7: Existing cross border public transport between Carinthia and Koroška region in Slovenia

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¹⁰ Lavantaller Radlerbus 2018, https://www.region-lavanttal.at/_Resources/Persistent/a15fed6169c17c657b13fca050eb5d9e97db3e83/Lavanttal_FlyerWanderRadlerbus_06_2018 __SCREEN.pdf

¹¹ Mladen Bogić: Pregled razvoja železniškega omrežja v Sloveniji in okolici, 1998







Figure 8: old rail bridge in Dravograd once part of the "Koroška proga" rail line to Lavamünd abandoned and out of use from 1965

RRA Koroška puts significant efforts in developing The Drava Cycling route in Slovenia. Providing transfer for cyclists along the cycling route is one of the emphases along with infrastructure and tourism product development.

Before 2018 there were no cross border trains operating during weekends on the so-called "Koroška proga" line running from TEN-T node Maribor in Slovenia to Bleiburg/Pliberk on the Austrian side (figure 7). Before 2017 was limited service even between Maribor and Prevalje (last train station on the Slovenian side).

Slovenian Railways provided numbers of outgoing passengers per train station on the "Koroška proga railway line" in Slovenia in 2015 (table 4)¹³.

Train station	Number of outgoing passengers	Average number of outgoing passengers per week
Prevalje	4.886	94
Ravne <u>na</u> Koroškem	11.492	221
Dravograd	10.265	197
Vuzenica	13.288	256

Table 4: Number of outgoing passengers per train station on the "Koroška proga" railway line¹⁴

As a result of key national and regional stakeholders cooperation within TRANS-BORDERS project, Slovenian Railways have added Saturday trains between Maribor and Bleiburg in summer season 2018¹⁵. This is a continuation of productive cooperation between Slovenian Railways, Austrian Railways (ÖBB) and local communities coordinated by Regional Development Agency for Koroška region (RRA Koroška), with the support of Slovenian Infrastructure Agency. In 11 Saturdays 746 passengers (142 of them cross border) and 202 bicycles were transferred.

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¹³ Slovenian Railways, 2015 data

¹⁴ Slovenian Railways, 2015 data

¹⁵ Cross-border summer train between Slovenia and Austria: www.interreg-central.eu/Content.Node/Cross-border-summer-train-between-Slovenia-and-Austria.html, 2018





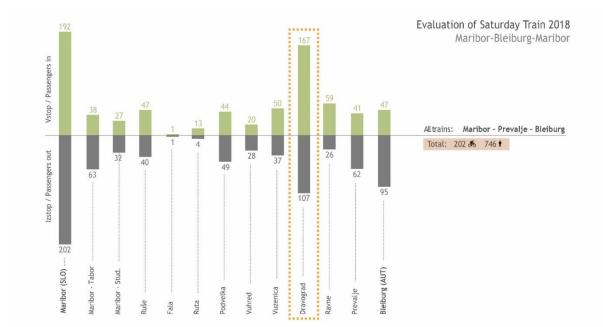


Figure 9: Evaluation of Saturday Train 2018

Within TRANS-BORDERS project press conference was held on 30 June 2018 (figure 7). The cross-border Saturday summer train can support sustainable mobility in the attractive cross-border tourism region. Among other international Drava River Cycle Route and Geopark Karawanken/Karavanke, part of the UNESCO world geoparks network, are located here. This railway line corridor, which will be directly connected to the Koralm Railway, has at least a potential similar to the Micotra - best practice railway line between Villach and Udine/Trieste. Since there is not the only potential in sustainable mobility for leisure time (tourism) as well as for daily mobility (e. g. work or education).





Figure 10: Press conference on 30 June 2018 at Bleiburg/Pliberk train station on the start of the cross border Saturday summer train 2018 operation (foto: Nika Hölcl Praper)

By 2025 Koralm Railway, as a part of Southern Line, will be in operation. A new highspeed railway line will reduce travel time between Klagenfurt and Graz to 45 minutes. The new passenger train station is foreseen in St. Paul in Lavant River Valley. Bleiburg/Pliberk will not be directly on the new highspeed





railway line. But it will be connected with it via so-called "Bleiburger Schelife" and thus importance of the "Koroška proga" line between Maribor in Slovenia and Bleiburg/Pliberk will remain or even raise. 16

2. Approach

What is to be achieved?

Current demand and commuting patterns data and information indicate considerable efforts should focus on further upgrading existing cross border possibilities provided by railway line corridor between Maribor and Bleiburg/Pliberk. This railway line corridor, which will be directly connected to the Koralm Railway, has at least a potential like the Micotra - best practice railway line between Villach and Udine/Trieste. Since there is not the only potential in sustainable mobility for leisure time (tourism) as well as for daily mobility (e. g. work or education). Europen Commission Comprehensive analysis of the existing cross border rail transport connections and missing link on the internal EU borders has recognized rail connection Klagenfurt-Bleiburg-Maribor as on the potentially most beneficial projects along with other 47 cross border rail transport connections. Even more, rail connection Klagenfurt-Bleiburg-Maribor has along with other 18 project been put into the highest category "high need for improvement of cross border passenger services on operational infrastructure". 17

Current demand, commuting patterns data and information indicate cross border connection from Dravograd to the Lavamünd/St. Paul by bus will most likely remain of low importance for daily mobility at least by the operation of Koralm Railway in 2025. The multimodality node in St.Paul will most likely generate demands not present today and serve as a regional passenger hub for the high-speed connections within the broader cross border region

But the cross-border region offers a considerable amount of cycling infrastructure and develop tourism and recreational products. By combining Štrekna - the Mislinja Valley Cycling Route ¹⁸ and the River Lavant Cycling Route - Lavantradweg ¹⁹ R10 70 km long cycling route could be provided. Transfer of cyclist could be supported by cross border bus service. The starting and ending point of the bus line could be Mislinja in Slovenia and Lavamünd (or St. Paul) in Austria but the final decision should be determined after more indepth study. Lavamünd in Austria has no public transport service with a bus during weekends with the exception of tourism-oriented Lavantaller Radlerbus²⁰ in summer months. Pilot implementation within TRANS-BORDERS project could improve the options for daily mobility of inhabitants.

Bus service could be implemented and evaluated within TRANS-BORDERS project in summer season 2019. For the long term solutions, some changes in the legislation would be needed.

¹⁶ ÖBB,

 $https: \'/www.oebb.at/infrastruktur/de/5_0_fuer_Generationen/5_4_Wir_bauen_fuer_Generationen/5_4_1_Schieneninfrastruktur/Suedstrecke/suedstreckeonline/index_en.html$

¹⁷European Commission, Comprehensive analysis of the existing cross border rail transport connections and missing link on the internal EU borders, 2018

¹⁸ Štrekna - the Mislinja Valley Cycling Route, http://www.koroska.si/en/activities/cycling-trails/382-Strekna-The-Mislinja-Valley-Cycle-Route

¹⁹ https://www.outdooractive.com/de/radtour/lavanttal/lavantradweg-r10/3705977/

²⁰ Lavantaller Radlerbus 2018, https://www.region-

 $lavanttal. at/_Resources/Persistent/a15fed6169c17c657b13fca050eb5d9e97db3e83/Lavanttal_FlyerWanderRadlerbus_06_2018_SCREEN.pdf$





What conditions must be created?

TRAIN

Promotion, marketing, and common ticketing would be needed to fully develop the potential of cross border possibilities provided by railway line corridor between Maribor and Bleiburg/Pliberk.

There are already discussions to expand weekend connections after 2020. Up to eleven trains are discussed between Bleiburg (Austria) and Dravograd (Slovenia) after 2020 supported with up to the date train carriages, especially concerning the comfort of the passengers.

BUS

LONG TERM SOLUTION

To subsidize cross-border public bus transport changes in Slovenian legislation are needed. Relevant changes of Road Transport Act have been prepared at the Ministry of infrastructure. The procedure could not start before the election of the new Slovenian government in 2018, also parliament procedure could be long.

SHORT TERM SOLUTION

The bus line Lavamund - Dravograd - Velenje should be *de iure* split into 2 lines (*de facto* could be operated by the same bus):

Velenje - Dravograd: This line should be included in the Slovenian national public service, it should be operated by one of the Slovenian bus operators with a concession (company Nomago d. o. o.) This bus could take national and international passengers, Slovenian integrated tickets should be accepted. This bus line could accept subsidies according to Slovenian national rules (max. 0,56 EUR per km).

Dravograd - Lavamünd (or St. Paul): This line should be registered by Austrian operator as international line, Slovenian operator should be a subcontractor, it should (possibly) accept Kärntner Linien tickets on the Austrian side, also »Freifahrt« for students could be enabled.

To achieve such a solution an agreement should be made between Slovenian and Austrian bus operators and between Slovenian and Carinthian competent authorities and bus operators.

Which partners need to be brought on board?

TRAIN

- Austrian railways ÖBB
- Transport Association Carinthia
- Office of the Carinthian Government Department 7 Competence Center of economic law and infrastructure
- Slovenian Railways
- Slovenian Infrastructure Agency
- RRA Koroška (PP8)
- ZRC SAZU (PP9)





BUS

- Transport Association Carinthia
- Office of the Carinthian Government Department 7 Competence Center of economic law and infrastructure
- Ministry of Infrastructure
- Nomago ltd. (bus concessioneer in Slovenia)
- ÖBB-Postbus GmbH (bus concesioneer in Austria)
- RRA Koroška (PP8)
- ZRC SAZU (PP9)
- Municipality of Lavamund
- Municipality of Dravograd

What is the time horizon?

Pilot implementation of upgraded cross-border train and bus services in 2019. Fully expanded train services in 2020.

- Where and how should the action plan be implemented?
 - How is this to be achieved?

Pilot implementation of upgraded cross-border train and bus services should be realized within TRANS-BORDERS project. Fully expanded train services in 2020 should be implemented by the Slovenian and Austrian Railways.

How can TRANS-BORDERS help?

TRANS-BORDERS project activities are an indispensable platform to implement pilots of upgraded cross-border train and bus services in 2019. TRANS-BORDERS project partnership networking with key cross-border stakeholders has provided the necessary basis for pilots implementation. Within the project, RRA Koroška has provided or has taken part in 43 meetings with relevant stakeholders up to the end of November 2018.





3. Measures

- RRA Koroška has in the framework of a midterm project review propose a budget change proposal. Pilot implementation should focus on upgrading railway corridor Maribor- Bleiburg/Pliberk services and realizing bus line (Maribor)Dravograd-Lavamünd. Estimations of the cost for upgrading services, promotion, marketing and common has been prepared.
- Pilot implementation will be realized in 2019.
- Evaluation of the pilot implementation will be made by the end of 2019.

4. Next steps

TRAIN

A binding legal agreement between Slovenian Railways - Passenger Service, Slovenian Infrastructure Agency and RRA Koroška will be established early in 2019. Pilot implementation including promotion and marketing will be realized in 2019. Evaluation of the pilot implementation will be made by the end of 2019

BUS

Meeting with Slovenian and Austrian bus operator will be held on 14 January 2018 in Klagenfurt to discuss technical and organizational implementation details. Pilot implementation including promotion and marketing will be realized in 2019. Evaluation of the pilot implementation will be made by the end of 2019.