



WP.T3 - D.T3.2.3

**State of the Art Report about mobility problems
and policy challenges within ETP follower
regions - Carinthia Lesachtal and Tyrol Gailtal**

2021



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1. Introduction

Remote regions in central Europe share the same risks and issues related to the fact that they are located at the periphery of main transport networks. Inadequate and under-used services, excessive costs, lack of last-mile services and proper intermodality, poor communication and information to users and car commuting are some of the challenges that many central European regions face.

The SMACKER project addresses these disparities and promotes public transport and mobility services that are demand-responsive and that connect local and regional systems to main corridors and transport nodes.

Within SMACKER mobility issues related to peripheral and rural areas, main barriers are assessed and considered and solutions drawn on the best international know-how are provided. SMACKER promotes demand-responsive transport services to connect local and regional systems to the main transport corridors and nodes. Soft measures (e.g. behavior change campaigns) and hard measures (e.g. mobility service pilots) are used to identify and promote eco-friendly solutions for public transport in rural and peripheral areas, with the aim of achieving more liveable and sustainable environments and better integration of population to the main corridors. SMACKER helps local communities to re-design their transport services according to user needs through a coordinated co-design process between local/regional partners and stakeholders; SMACKER also encourages the use of new transport services through motivating and incentivizing campaigns. The direct beneficiaries of the actions are residents, commuters and tourists.

Participation reflects the overall integration of citizens and groups in planning processes and policy decision-making and consequently the sharing of power. In particular, transport planning and transport relevant measures are often the subject of controversial discussions within the urban community. The concept of Sustainable Urban Mobility Planning has established the principle that the public should be included from the very beginning of the transport planning process and not only when the plans are largely completed and only minor amendments can be carried out. For that reason, public authorities need to open up debate on this highly specialised and complex subject area and make participation a part of the planning process. In order to ensure participation throughout the process, the development of an engagement strategy would be necessary.

This deliverable “State of the Art Report” on mobility problems and policy challenges within ETP follower regions is the starting point for a better knowledge of the 10 selected Smacker Enlarged Transfer Programme (ETP) partners’ sustainable mobility challenges. The scope of these analysis is to map the needs, problems and expectations of each ETP follower region in low carbon mobility planning. Moreover, it defines the roles of ETP followers and policy leverages. It paves the way for local action plans in ETP follower regions.



2. Project's area description

The present deliverable addresses the areas “Kärntner Lesachtal” and “Tiroler Gailtal”. “Kärntner Lesachtal” is located in the NUTS 3 area “Oberkärnten” part of “Südösterreich”; “Tiroler Gailtal” is located in the NUTS 3 area “Osttirol” part of “Westösterreich”. Both areas are part of the “Tirol Werbung” ETP follower region. More specifically this state of the Art Report focuses on four municipalities “Kartitsch”, “Obertilliach”, “Untertilliach” and “Lesachtal” as shown in Figure 1 in purple. Three of the four municipalities - “Kartitsch”, “Obertilliach” and “Untertilliach” - are located in the federal province of Tyrol as shown in orange in Figure 1, one municipality - “Lesachtal” - is located in the federal province of Carinthia marked in Figure 1 in yellow.

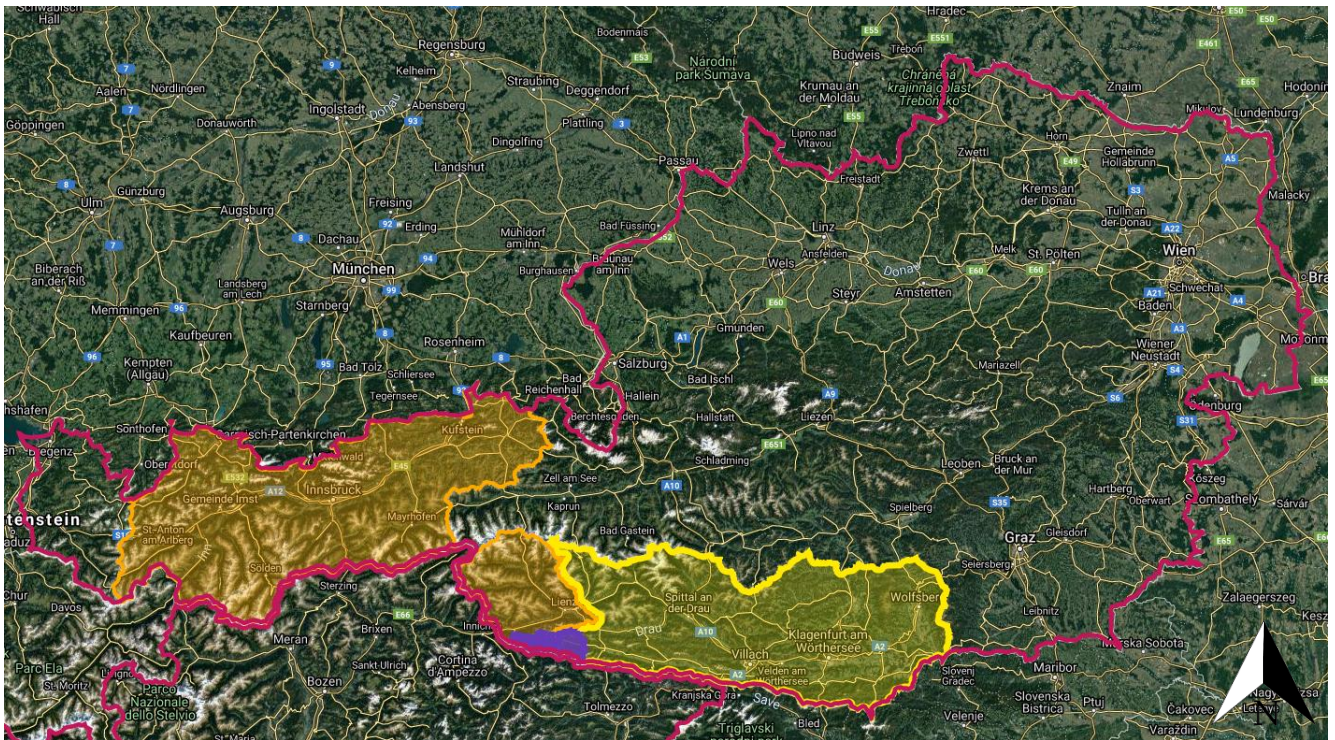


Figure 1: Overview map of the project area (purple) in relation to Austria's state territory, national (red) as well as federal province borders (Carinthia yellow, Tyrol orange)

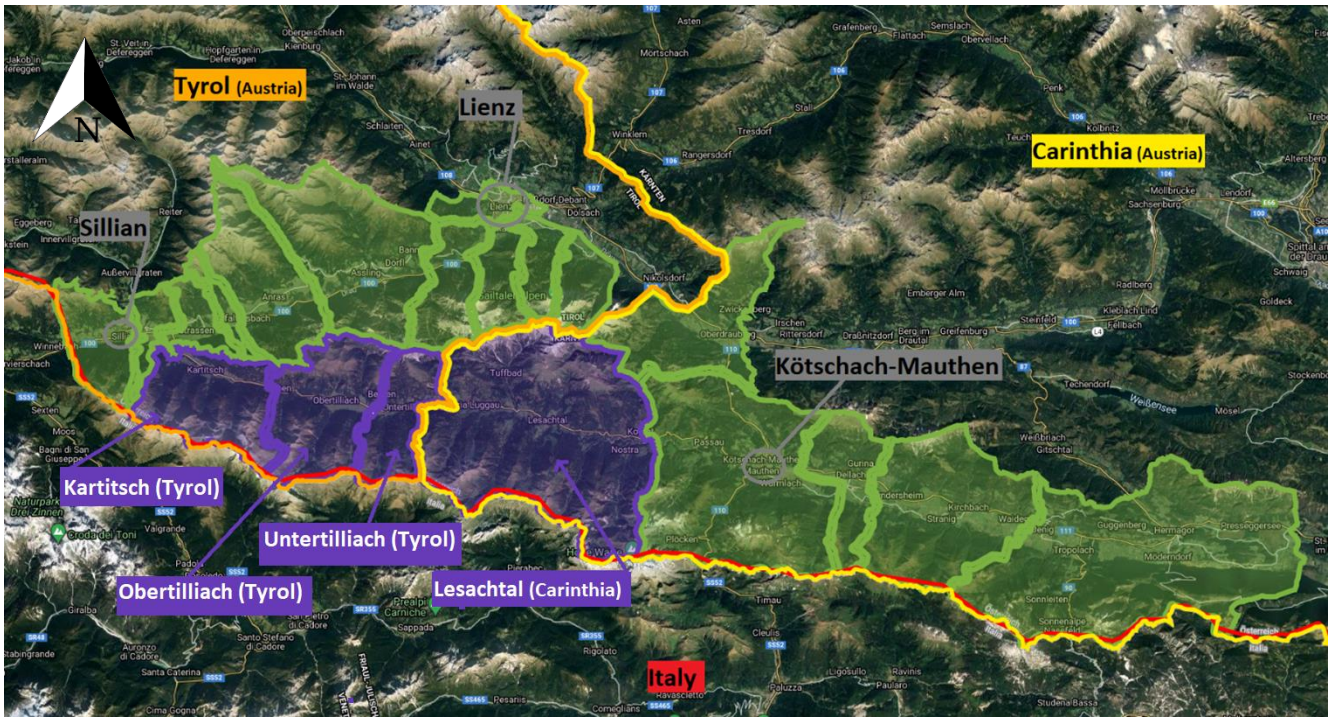


Figure 2: Map of the project area (purple) and its surrounding areas (green) with the most important surrounding towns (grey) and the national (red) and provincial (Carinthia yellow, Tyrol orange) borders.

These four municipalities are located on Austria’s southern border with Italy in the High Tauern region of the Alps and are all located in the same contiguous valley spanning East to West as seen in Figure 3, an elevation map of the region.

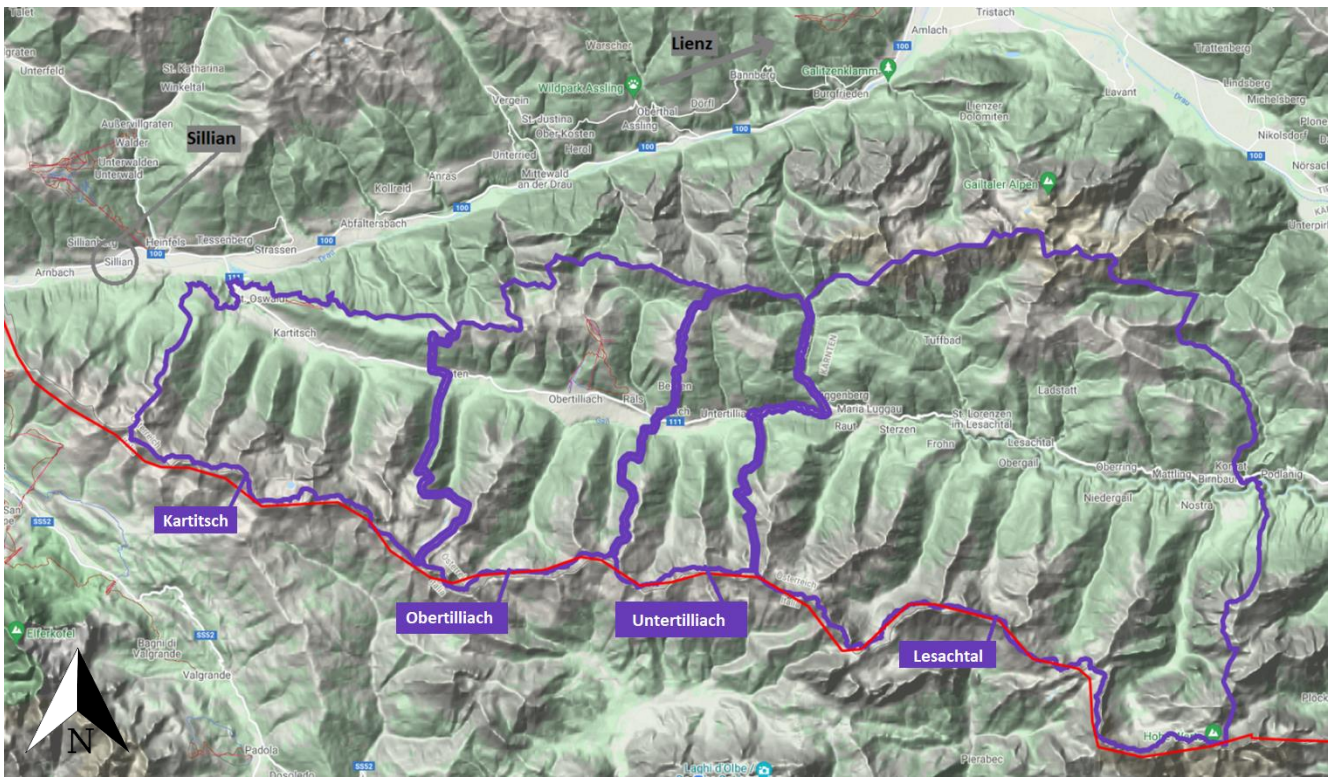


Figure 3: Elevation map of the core area (purple).



Project Area						
age	total		male		female	
0-4	123	4%	69	56%	54	44%
5-9	127	4%	69	54%	58	46%
10-14	140	5%	77	55%	63	45%
15-19	193	7%	90	47%	103	53%
20-24	191	7%	106	55%	85	45%
25-29	188	6%	113	60%	75	40%
30-34	140	5%	77	55%	63	45%
35-39	153	5%	78	51%	75	49%
40-44	140	5%	71	51%	69	49%
45-49	182	6%	99	54%	83	46%
50-54	244	8%	127	52%	117	48%
55-59	229	8%	121	53%	108	47%
60-64	186	6%	102	55%	84	45%
65-69	161	6%	75	47%	86	53%
70-74	160	5%	75	47%	85	53%
75-79	95	3%	40	42%	55	58%
80-84	136	5%	51	38%	85	63%
85+	127	4%	53	42%	74	58%
Total:	2915		1493	51%	1422	49%

Table 1: 2021 population of the project area with gender-age-distribution and colour coded (highest population of an age bracket green, lowest red) (Source: Statistik Austria)

Project Area			Lesachtal		Obertilliach		Untertilliach		Kartitsch	
age	total		total		total		total		total	
0-4	123	4%	63	5%	28	4%	6	3%	26	3%
5-9	127	4%	61	5%	20	3%	8	4%	38	5%
10-14	140	5%	69	5%	26	4%	10	4%	35	5%
15-19	193	7%	78	6%	46	7%	20	9%	49	6%
20-24	191	7%	85	7%	58	9%	16	7%	32	4%
25-29	188	6%	79	6%	47	7%	13	6%	49	6%
30-34	140	5%	69	5%	29	4%	7	3%	35	5%
35-39	153	5%	67	5%	36	5%	7	3%	43	6%
40-44	140	5%	61	5%	33	5%	16	7%	30	4%
45-49	182	6%	70	5%	38	6%	23	10%	51	7%
50-54	244	8%	91	7%	60	9%	32	14%	61	8%
55-59	229	8%	109	9%	43	7%	14	6%	63	8%
60-64	186	6%	82	6%	43	7%	6	3%	55	7%
65-69	161	6%	77	6%	38	6%	7	3%	39	5%
70-74	160	5%	70	5%	40	6%	11	5%	39	5%
75-79	95	3%	35	3%	24	4%	9	4%	27	4%
80-84	136	5%	52	4%	28	4%	7	3%	49	6%
85+	127	4%	59	5%	19	3%	11	5%	38	5%
Total:	2915		1277		656		223		759	

Table 2: 2021 population of the four municipalities and summarization of the area with age distribution and colour coded (highest population of an age bracket green, lowest red) (Source: Statistik Austria)

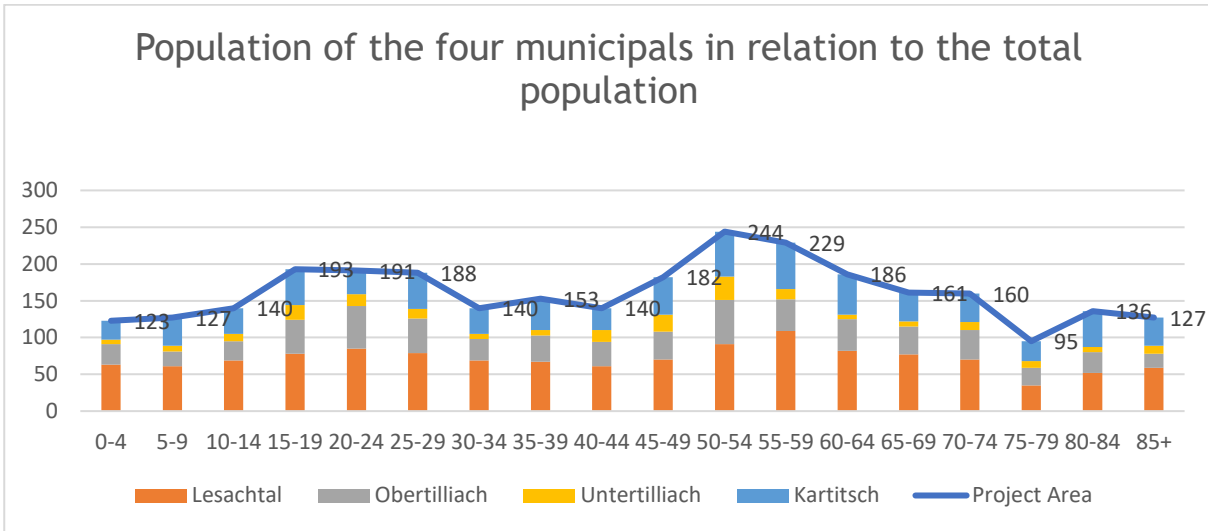


Figure 4: Visualization of Table 2.

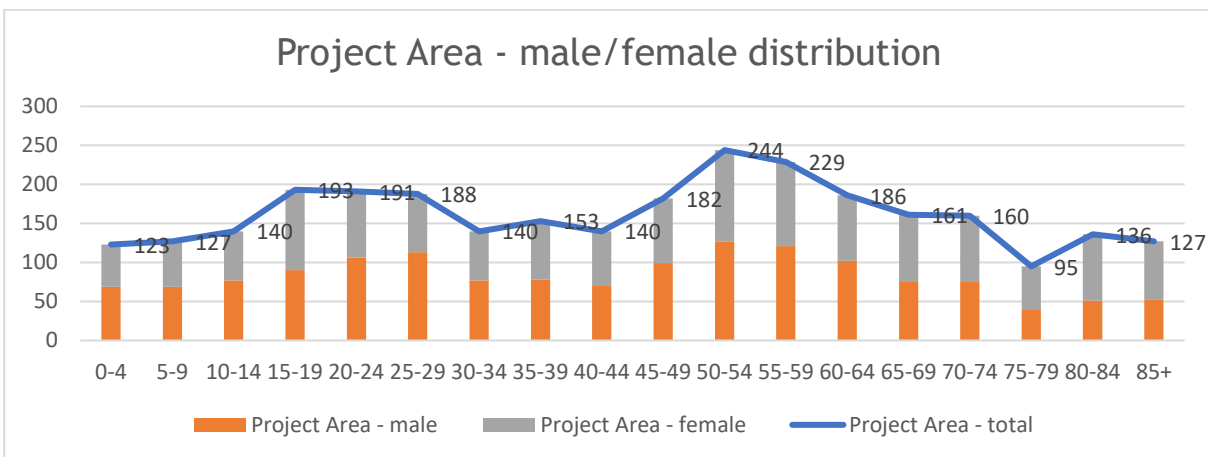


Figure 5: Visualization of the male - female distribution of the project area

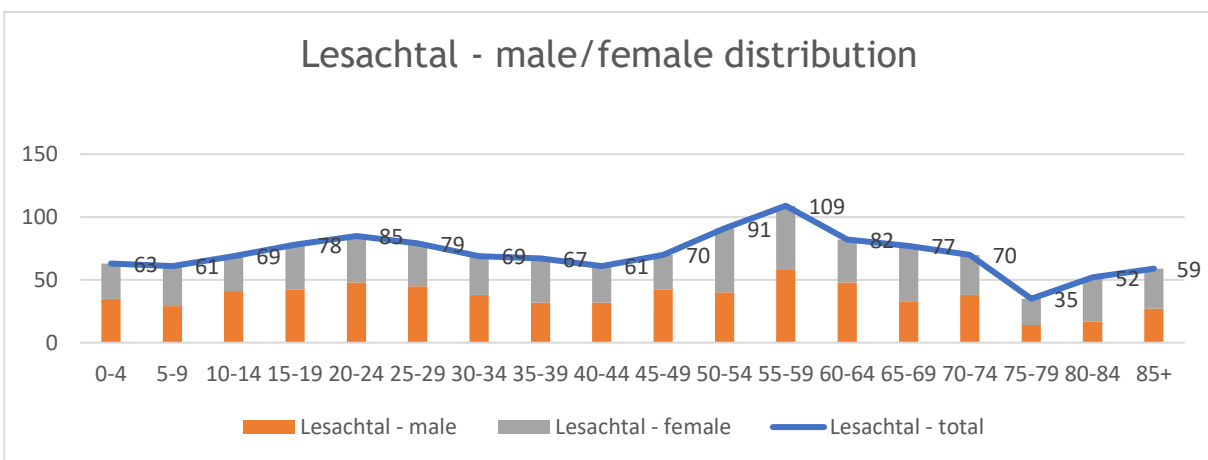


Figure 6: Visualization of the male - female distribution of the municipal Lesachtal

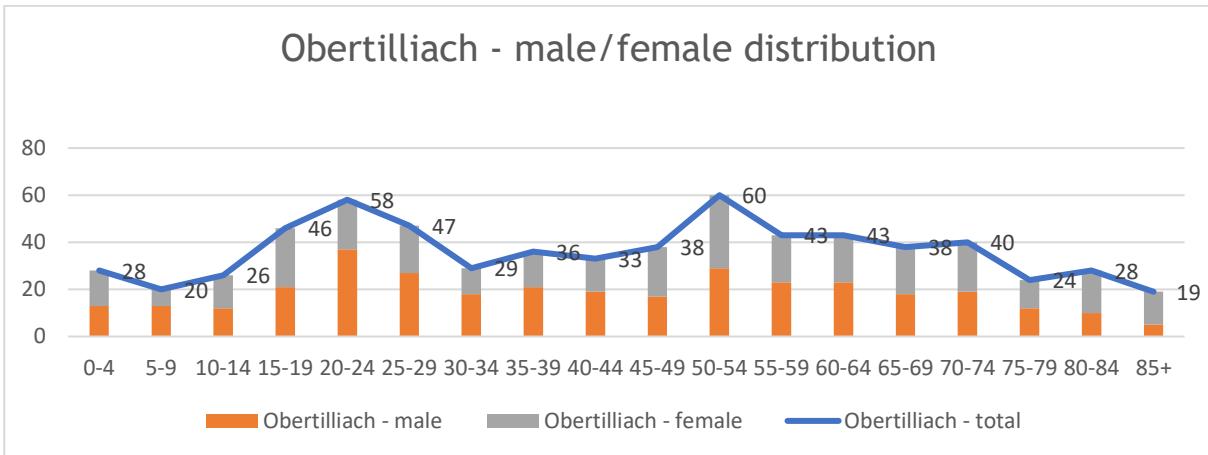


Figure 7: Visualization of the male - female distribution of the municipal Obertilliach

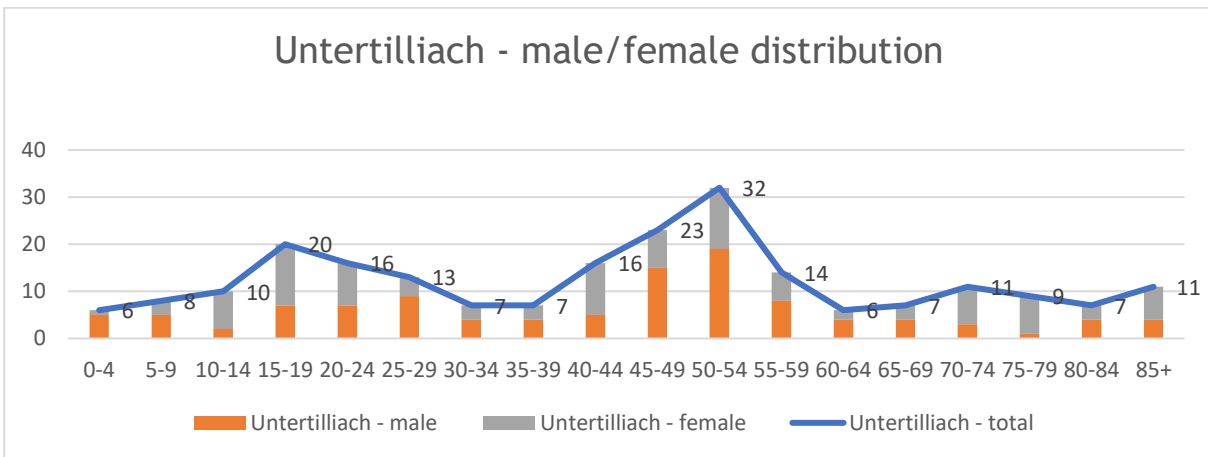


Figure 8: Visualization of the male - female distribution of the municipal Untertilliach

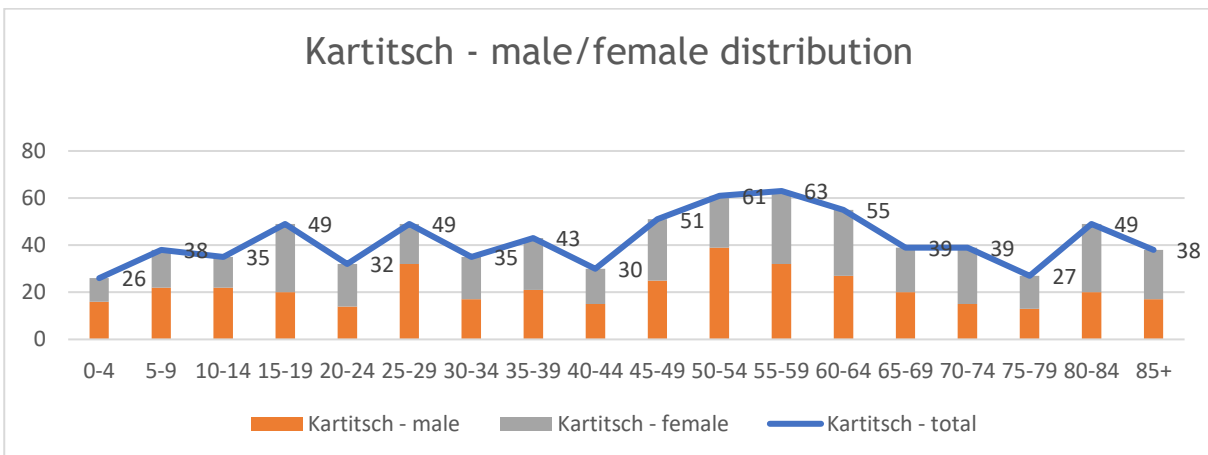


Figure 9: Visualization of the male - female distribution of the municipal Kartitsch



age	Project Area		Lesachtal		Obertilliach		Untertilliach		Kartitsch		age	Project Area		Lesachtal		Obertilliach		Untertilliach		Kartitsch	
	male	female	male	female	male	female	male	female	male	female		female	female	female	female	female	female	female	female	female	female
0-4	69	5%	35	5%	13	4%	5	5%	16	4%	0-4	54	4%	28	5%	15	5%	1	1%	10	3%
5-9	69	5%	29	4%	13	4%	5	5%	22	6%	5-9	58	4%	32	5%	7	2%	3	3%	16	4%
10-14	77	5%	41	6%	12	4%	2	2%	22	6%	10-14	63	4%	28	5%	14	4%	8	7%	13	3%
15-19	90	6%	42	6%	21	6%	7	6%	20	5%	15-19	103	7%	36	6%	25	8%	13	12%	29	8%
20-24	106	7%	48	7%	37	11%	7	6%	14	4%	20-24	85	6%	37	6%	21	7%	9	8%	18	5%
25-29	113	8%	45	7%	27	8%	9	8%	32	8%	25-29	75	5%	34	6%	20	6%	4	4%	17	5%
30-34	77	5%	38	6%	18	5%	4	4%	17	4%	30-34	63	4%	31	5%	11	3%	3	3%	18	5%
35-39	78	5%	32	5%	21	6%	4	4%	21	5%	35-39	75	5%	35	6%	15	5%	3	3%	22	6%
40-44	71	5%	32	5%	19	6%	5	5%	15	4%	40-44	69	5%	29	5%	14	4%	11	10%	15	4%
45-49	99	7%	42	6%	17	5%	15	14%	25	6%	45-49	83	6%	28	5%	21	7%	8	7%	26	7%
50-54	127	9%	40	6%	29	9%	19	17%	39	10%	50-54	117	8%	51	8%	31	10%	13	12%	22	6%
55-59	121	8%	58	9%	23	7%	8	7%	32	8%	55-59	108	8%	51	8%	20	6%	6	5%	31	8%
60-64	102	7%	48	7%	23	7%	4	4%	27	7%	60-64	84	6%	34	6%	20	6%	2	2%	28	8%
65-69	75	5%	33	5%	18	5%	4	4%	20	5%	65-69	86	6%	44	7%	20	6%	3	3%	19	5%
70-74	75	5%	38	6%	19	6%	3	3%	15	4%	70-74	85	6%	32	5%	21	7%	8	7%	24	6%
75-79	40	3%	14	2%	12	4%	1	1%	13	3%	75-79	55	4%	21	3%	12	4%	8	7%	14	4%
80-84	51	3%	17	3%	10	3%	4	4%	20	5%	80-84	85	6%	35	6%	18	6%	3	3%	29	8%
85+	53	4%	27	4%	5	1%	4	4%	17	4%	85+	74	5%	32	5%	14	4%	7	6%	21	6%
Total:	1493		659		337		110		387		Total:	1422		618		319		113		372	

Table 3: 2021 male and female population of the four municipalities and summarization of the area with age distribution and colour coded (highest population of an age bracket green, lowest red) (Source: Statistik Austria)

The four municipalities of the core area are inhabited by 2915 people, 51% male and 49% female. 759 inhabit Kartitsch (26%), 656 Obertilliach (23%), 223 Untertilliach (8%) and 1277 Lesachtal (44%). The male population (51%) is slightly higher than the female population (49%), however the number of females in the older age brackets is higher than the number of males. There are three different age groups with different mobility needs discernible in the region. The age group from 15 to 29 years amounts to 20% of the population with additional 13% of the inhabitants of the core area being under the age of 15. Most of the core area's population is between the age of 45 and 64 (29%) and 23% of the total population are over 65 years old.

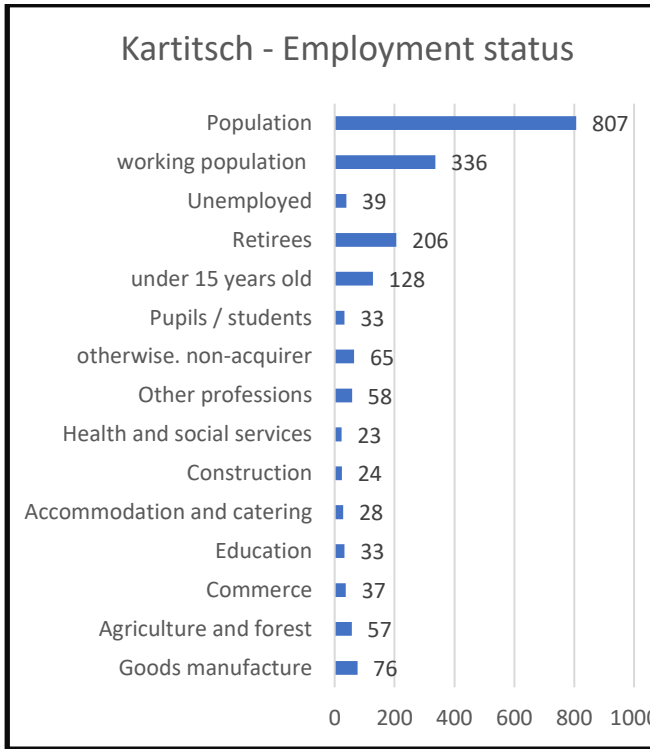


Table 4: Kartitsch - population employment status - 2016 (Source: RAUM|SCHMIEDE)

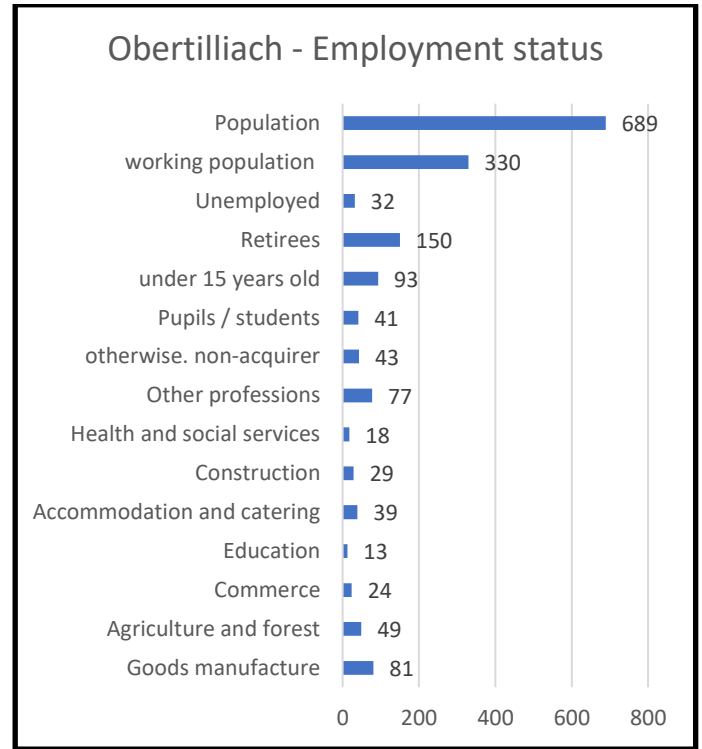


Table 5: Obertilliach - population employment status - 2016 (Source: RAUM|SCHMIEDE)

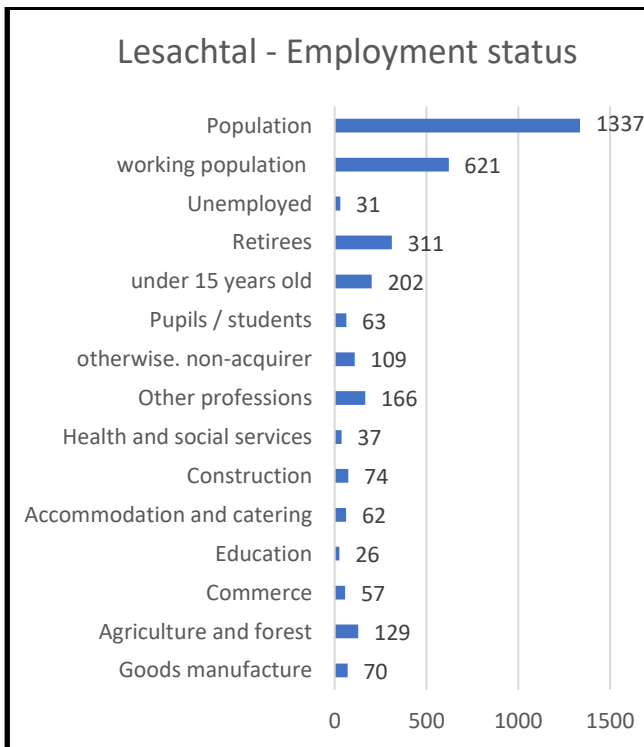


Table 6: Lesachtal - population employment status - 2016 (Source: RAUM|SCHMIEDE)

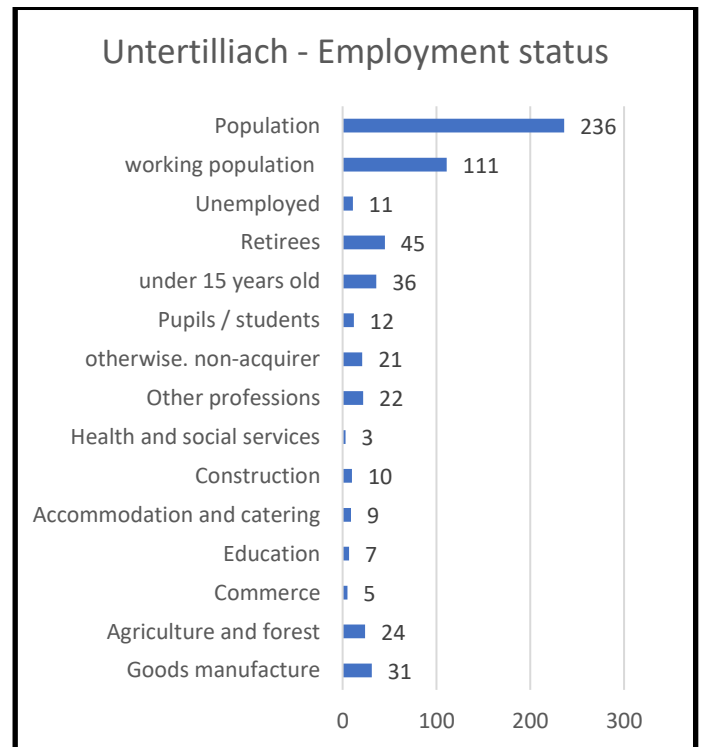


Table 7: Untertilliach - population employment status - 2016 (Source: RAUM|SCHMIEDE)

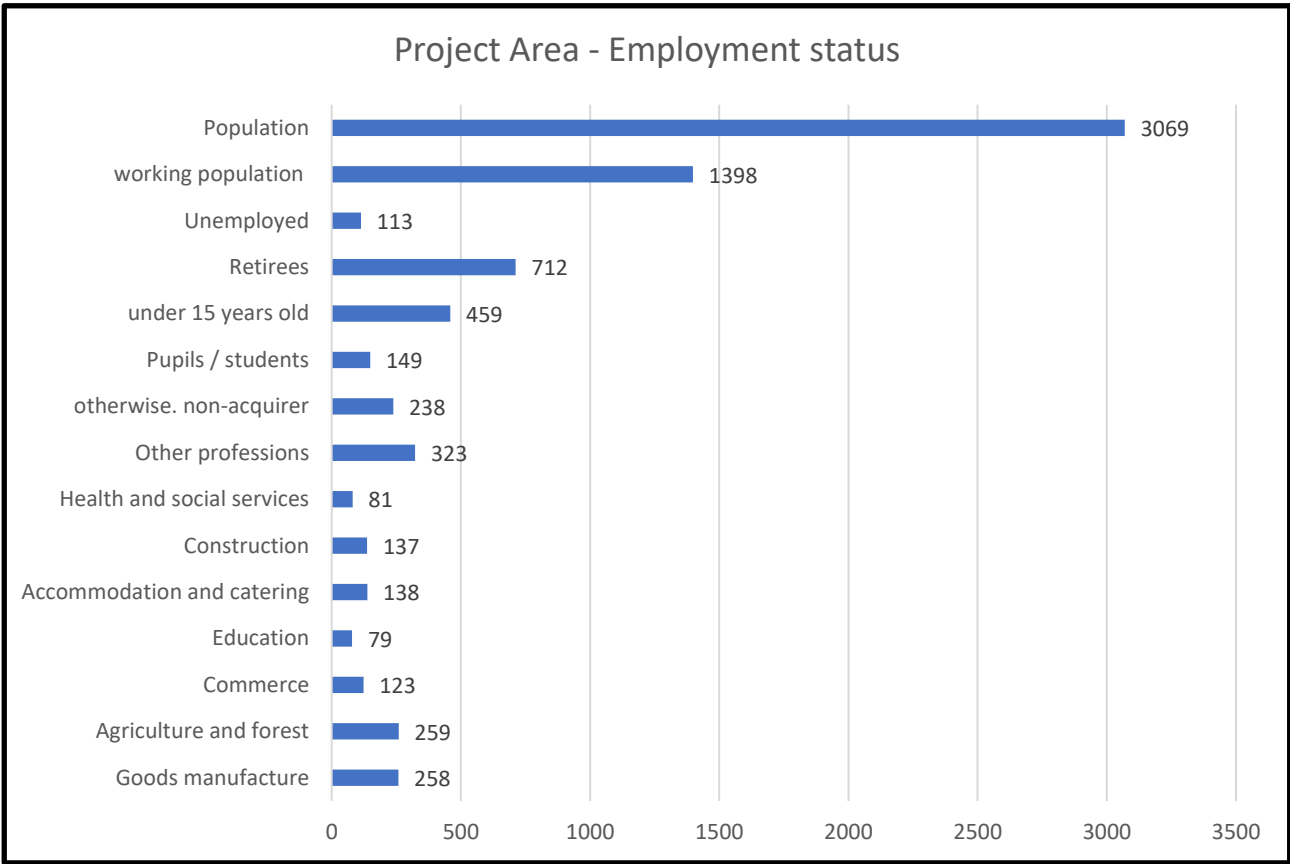


Table 8: Project area - population employment status - 2016 (Source: RAUM|SCHMIEDE)

Around 45% of the total population is employed in “Agriculture and forest” (18,52% of employed population) and “goods manufacturing” (18,45% of employed population) as the largest employer of the region. 23,2% of the total population in the project area is retired.

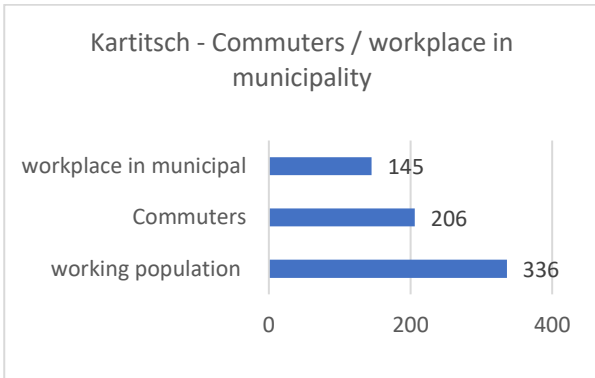


Table 9: Kartitsch - commuters/workplace in municipality - 2016 (Source: RAUM|SCHMIEDE)

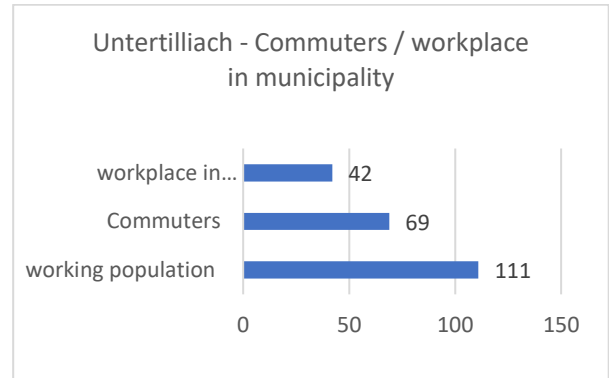


Table 11: Untertilliach - commuters/workplace in municipality - 2016 (Source: RAUM|SCHMIEDE)

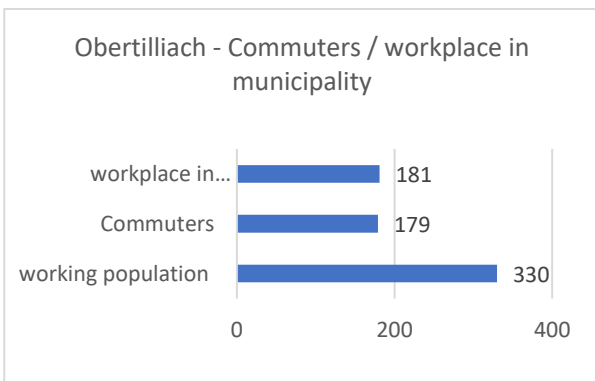


Table 10: Obertilliach - commuters/workplace in municipality - 2016 (Source: RAUM|SCHMIEDE)

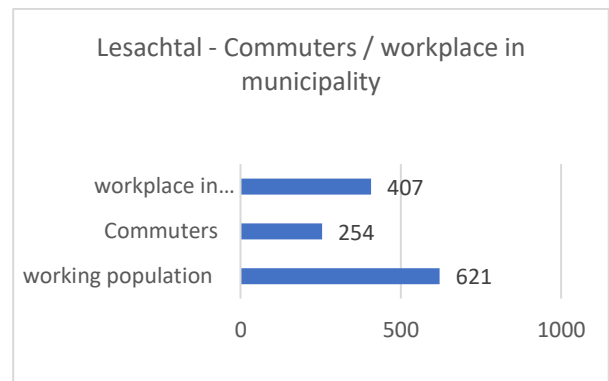


Table 12: Lesachtal - commuters/workplace in municipality - 2016 (Source: RAUM|SCHMIEDE)

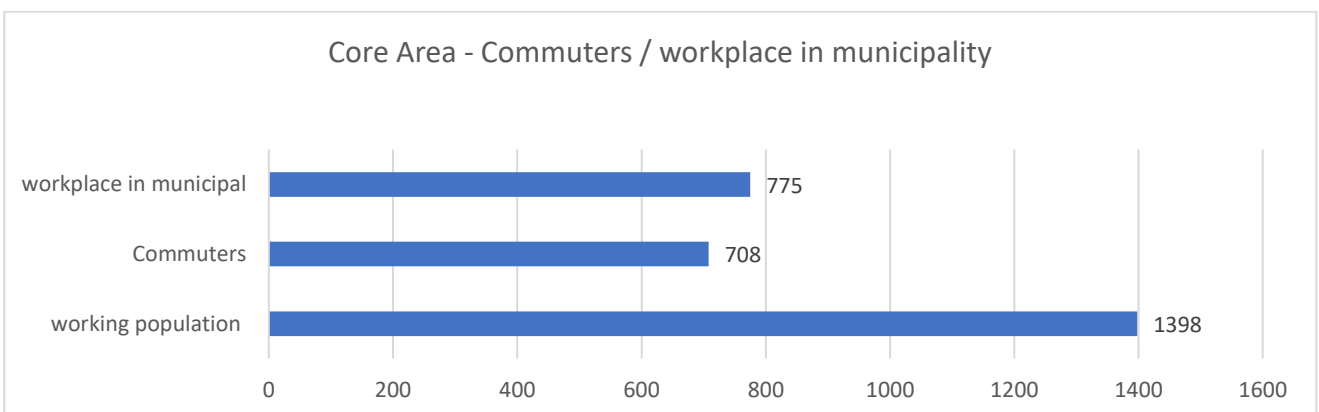


Table 13: Core Area - commuters/workplace in municipality - 2016 (Source: RAUM|SCHMIEDE)



In the municipalities of Kartitsch (43%), Obertilliach (54%) and Untertilliach (62%) there are more commuters than people working in their municipality, only in the municipality of Lesachtal there are less commuters (40%) found in the working population. About 50% of the overall working population in the core area is commuting to work.

The four municipalities of the core area are classified with Code 3 - rural areas (thinly populated areas) - by EUROSTAT and Statistik Austria. This classification is defined by the inhabitants of 1km²- squares. The municipality of Kartitsch has 15 inhabitants per km², Obertilliach has 12 inhabitants per km², Untertilliach has 7 inhabitants per km² and the municipality of Lesachtal has 8 inhabitants per km².

Municipality	Villages	Village /Settlement Name	Population (2011)
Kartitsch	2	Hollbruck	58
		Kartitsch	773
Obertilliach	4	Bergen	127
		Leiten	42
		Obertilliach	469
		Rodarm	69
Untertilliach	1	Untertilliach	249
Lesachtal	31	Assing	4
		Birnbaum	73
		Durnthal	11
		Egg	23
		Frohn	34
		Guggenberg	25
		Klebas	86
		Kornat	68
		Ladstatt	10
		Liesing	119
		Maria-Luggau	232
		Mattling	25
		Moos	18
		Niedergail	30
		Nostra	41
		Obergail	60
		Oberring	24
		Pallas	20
		Promeggen	12
		Raut	25
		Rüben	11
		Salach	3
		St. Lorenzen im Lesachtal	323
Stabentheine	11		
Sterzen	22		
Tiefenbach	8		
Tscheltsch	33		
Tuffbad	5		
Wiesen	25		
Wodmaier	28		
Xaveriberg	31		

Table 14: Municipalities - Villages and Locations overview with inhabitants (Source: Statistik Austria 2011)



Table 14 shows the villages and locations of the 4 municipalities with their inhabitants. Marked with blue pins Figure 4 shows the center of settled areas of the municipals, however these pins do not represent a village or settlement but are rather a statistical representation of where the inhabitants of the core area live. Most of these villages and settlements are alongside the B111 - Gailtaler Straße. These scattered settlements mostly consist of a few farmhouses or one-family houses in proximity. Between these settlements in the valley are crop fields, meadows and forests.

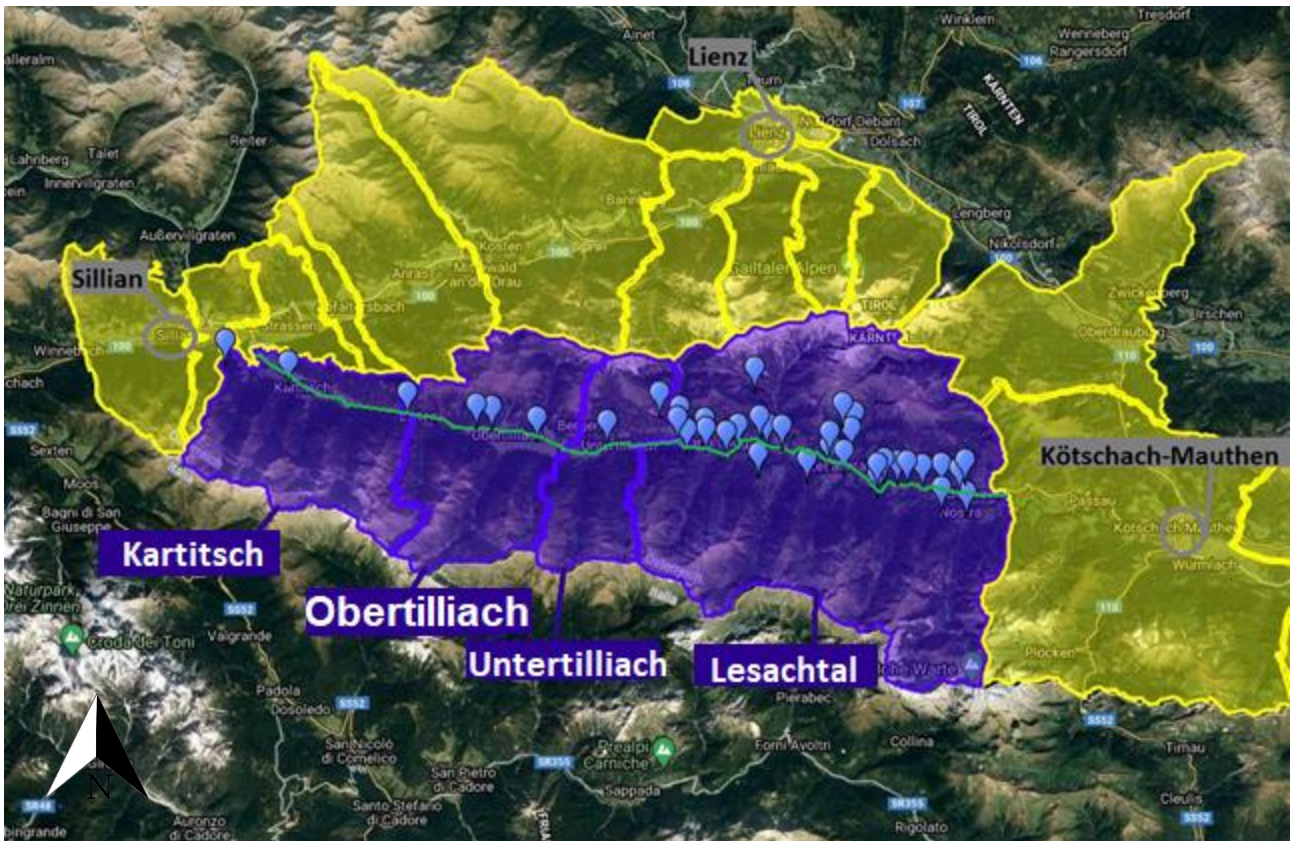


Figure 10: Map of the core area with its settled areas in relation to B111 marked in green

Each municipality's main village features a kindergarten and an elementary school. There are no other schools, especially primary schools, in the three municipalities of the federal state of Tyrol. The inhabitants must commute to either Sillian or Sankt Lorenzen. The villages of Kartitsch and Obertilliach play an important role as attractors of everyday life in the Tyrolean part of the area. Each of these two villages has a grocery store, a tobacco shop, a post office, a general practitioner and a bank.

Lesachtal, the only municipality of the core area in the federal province of Carinthia, has the most inhabitants of the core area consisting of two important villages covering daily necessities, namely Sankt Lorenzen and Liesing.

There is only one hairdresser's shop in Obertilliach and there are no dentists in the whole project region.

The project area contains every necessity of the inhabitants' daily life. However these services are spread throughout the whole area.

In the surrounding area the the cities of interest are Lienz and Kötschach-Mauthen as well as the village of Sillian, as seen in Figure 4 marked in grey. These towns and villages have a wider range of shops and services such as high schools, nursing homes, banks and different shops and shopping opportunities.

The village of Sillian in the north is the closest settlement connected to the wider public transportation network with a train station, in the east it is the town of Kötschach-Mauthen.

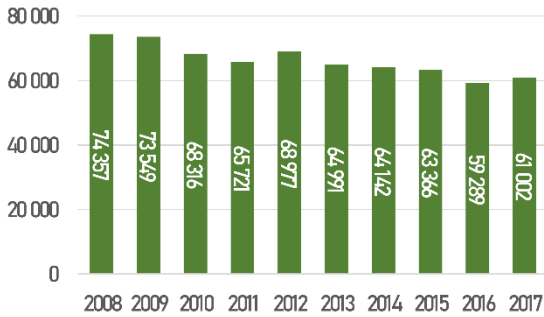


Table 15: Kartitsch - overnight stays 2008 - 2017 (Source: RAUM|SCHMIEDE)

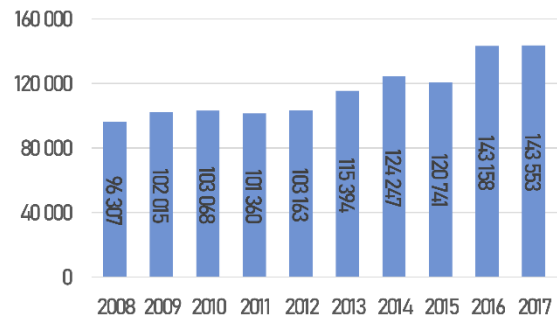


Table 16: Obertilliach - overnight stays 2008 - 2017 (Source: RAUM|SCHMIEDE)

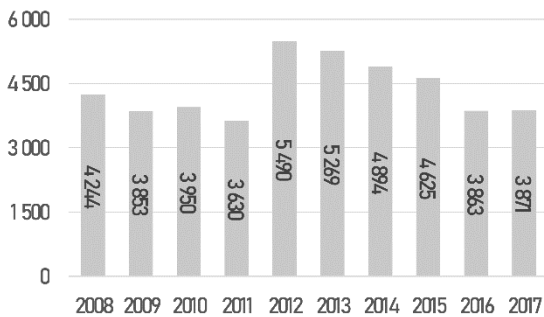


Table 17: Untertilliach - overnight stays 2008 - 2017 (Source: RAUM|SCHMIEDE)

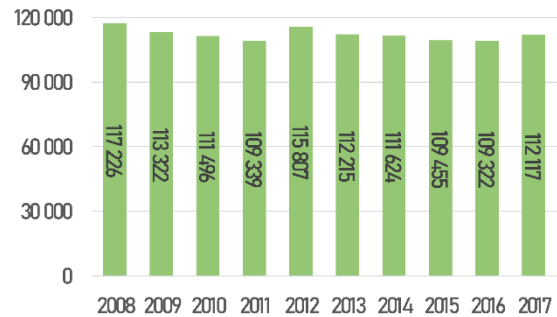


Table 18: Lesachtal - overnight stays 2008 - 2017 (Source: RAUM|SCHMIEDE)

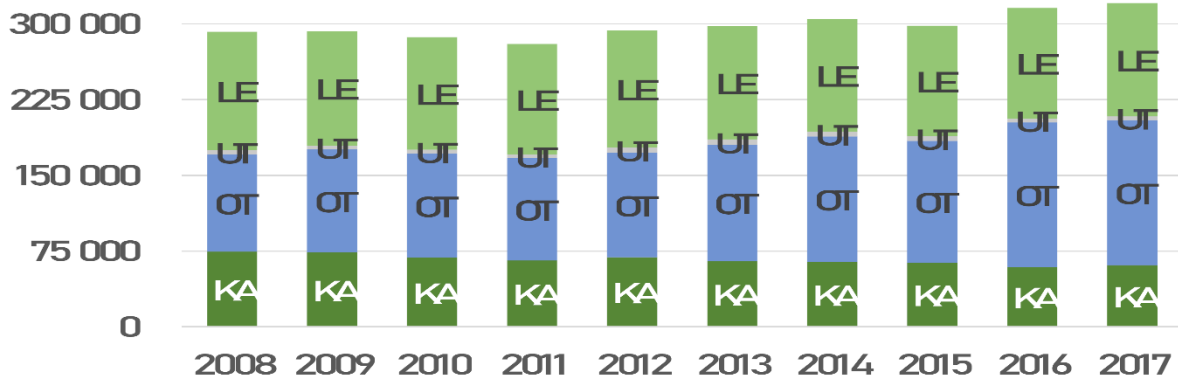


Table 19: Project area - overnight stays 2008 - 2017 (Source: RAUM|SCHMIEDE)

Tourism is an important economic part of the region with over 300.000 overnight stays in the year 2017 (table 15-19).

Overall, the number of overnight stays in the years 2008 - 2017 the project area increased, however this is only because of the municipality of Obertilliach. Obertilliach's overnight stays increased by 49%, whereas they decreased in Kartitsch by 18%, in Untertilliach by 9% and in Lesachtal by 6%.

A big touristic attractor for the region is the mountainous scenery inviting for climbing, hiking and in winter skiing. However, only the municipalities of Kartitsch and Obertilliach offer ski lifts.



	Kartitsch	Lesachtal	Obertilliach	Untertilliach	total
Number of establishments	80	190	66	12	348
beds	952	1720	1011	101	3784
4-star superior	0	1	1	0	2
4-star	0	3	1	0	4
3-star	7	10	6	0	23
2-/1-star	3	6	3	1	13
Holiday apartments/houses (commercial)	7	4	13	0	24
Private accommodation (not on farm)	9	23	4	0	36
Private accommodation (on farm)	11	47	5	2	65
Managed shelters	2	2	1	0	5
Private apartments/-houses (not on farm)	27	41	17	7	92
Private apartments/-houses (on farm)	14	51	14	2	81
Campsites	0	2	1	0	3

Table 20: Overview of touristic accommodations of the municipalities and the project area (2017) (Source: RAUM|SCHMIEDE).

Private accommodations and private apartments or houses amount to 78% of all touristic accommodations in the region. In the region, however, are also four 4-star and two 4-star superior hotels located as well as several 3-/2-/1-star hotels and three campsites, which means a wide range of tourists' wishes can be covered.

3. Description of the mobility demand and needs (relations and attraction poles)

For the municipalities of Kartitsch (Fig.5), Obertilliach (Fig.6) and Untertilliach (Fig.7), the traffic model of the year 2014 created by the federal province of Tyrol is available. There is no data available for the federal province of Carinthia or the municipality of Lesachtal.

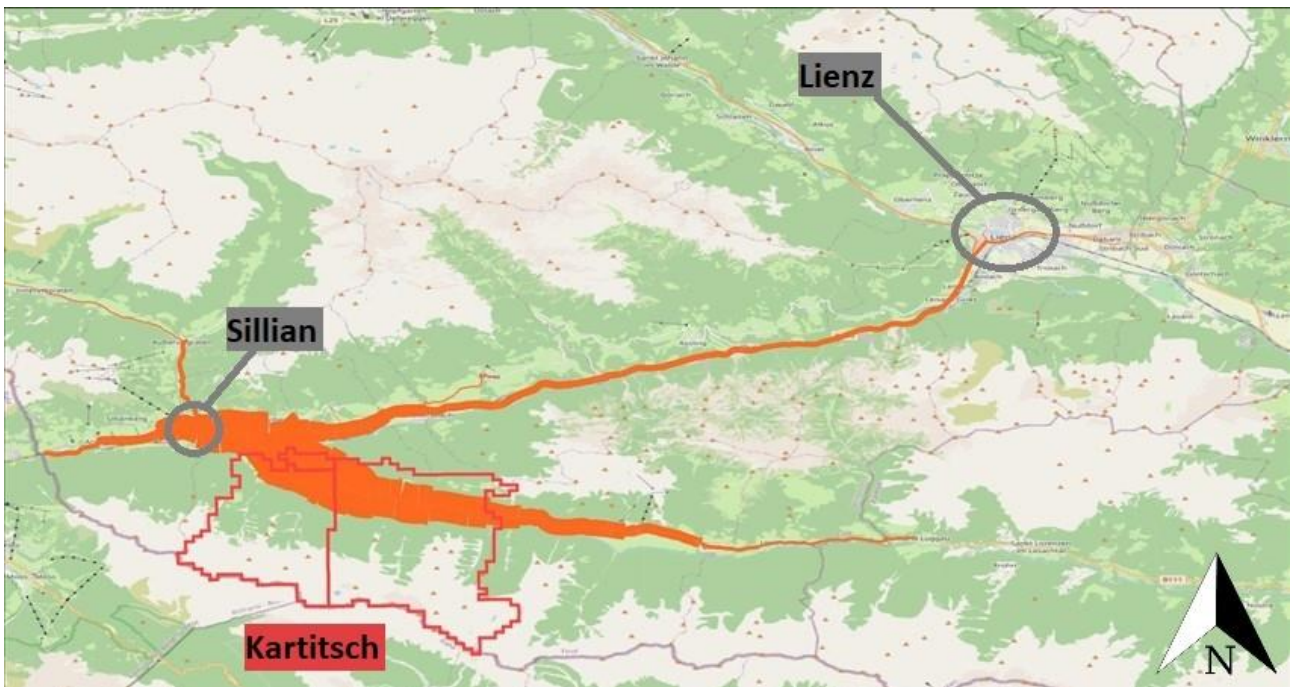


Figure 11: Destination flow 2014 - Kartitsch

Destination flow of the municipality of Kartitsch. The main direction of attraction is North-West, with the main attraction poles Sillian and Lienz. The orange line indicates the traffic arising from the municipality, the wider the more traffic.



Figure 12: Destination flow 2014 - Obertilliach

Destination flow of the municipality of Obertilliach. The main attraction poles are Sillian and Lienz and neighboring communities in the northwestern part of the valley. To a lesser extent neighboring communities in the eastern part of the valley are to be mentioned. The orange line indicates the traffic arising from the municipality, the wider the more traffic.



Figure 13: Destination flow 2014 - Untertilliach

Destination flow of the municipality of Untertilliach. The main attraction poles are Sillian and neighboring communities in the northeastern and eastern parts of the valley. There is no data available about the origin-destination flow further to the east. The orange line indicates the traffic arising from the municipality, the wider the more traffic.



Figure 14: Daily traffic load on trans-regional road network 2014

Daily traffic load on trans-regional road network in the year 2014 for the federal district of Tyrol. The red line indicates the daily number of vehicles on the road, the wider the more vehicles. The number indicates the average daily vehicle amount.



As part of the SMACKER project, a study (Nachhaltige Mobilität in Obertilliach - Gezielte Befragung des Mobilitätsverhaltens von BewohnerInnen in Obertilliach - März 2021) about the inhabitants' mobility behaviour was conducted in Obertilliach. The study took place between 08.03.2021 and 28.03.2021 with 75 inhabitants participating. According to this study, Lienz (24%), Sillian (15%) and Obertilliach (12%) are the main daily destinations of the inhabitants. The car is the main mode of transportation with 36% of the respondents having access to one car and 63% of the respondents having access to two cars in their household. It is important to mention that around two-thirds of the respondents have access to a bicycle, with around 23% of these being an e-bike. However, bicycles are mainly used for leisure activities with only a minority using them for commuting to work. The study found that every 4th person owns a public transportation ticket of any kind like ÖBB-Vorteilscard (railway bonus card), Jahres-Ticket-Land (public transportation ticket) or Schulplus-Ticket (public transportation ticket for students). Public transportations are mainly used to get to work or educational facilities. 15% of the respondents stated to use public transport at least once per day, one-third stated to use it less than at least once per day and 35% to never use it at all.

The car sharing system Flugs-Mobil is well known (80%). However, it is rarely used. The study asked participants how they would use an extended offer of either a car sharing model or a call-bus service. The main reason to use one of these services was stated to be picking up and bringing a household member somewhere, shortly followed by using them for shopping purposes and leisure activities.

A video conference was held on July 16th 2021 with mayors of the four municipalities and other stake holders of the region in which the traffic situation regarding the origin-destination flow was discussed. It has been stated that most of the residents' traffic is orientated (north-)westwards to Sillian and further to Lienz for work and shopping purposes. It has been stated that larger companies in the region have organized shuttle busses for commuters and shift workers as far as Liesing traveling west.

Figure 9 serves as basic orientation and rough overview of the distribution and availability of services of general interest in the project area and its surroundings.

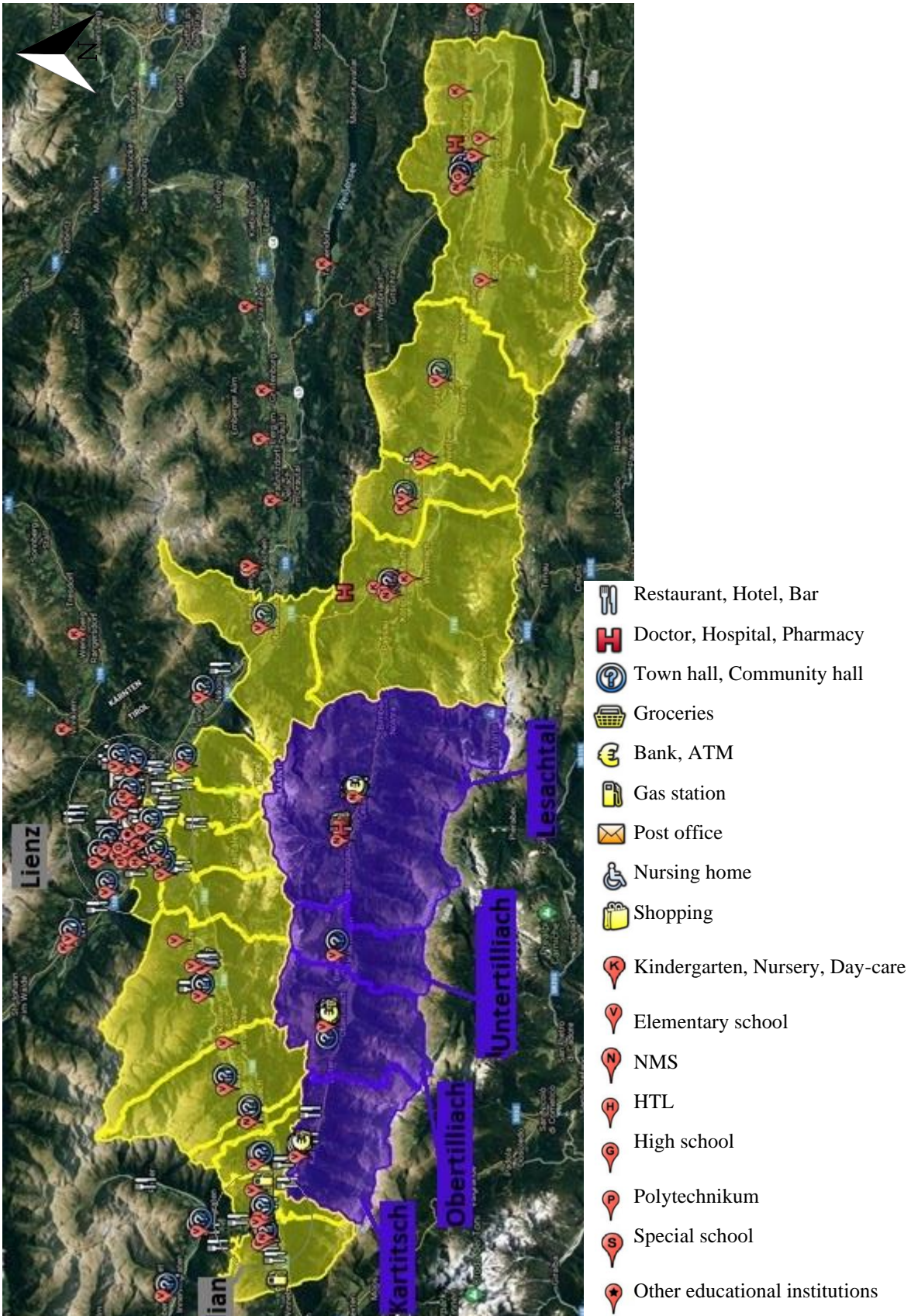


Figure 15: Overview map of services of general interest in the project area and its surroundings



4. Description of the public transport services and related multimodal accessibility

4.1. PT transport supply

At the present time there is no multimodal transportation network in the core area available. The main mode of transportation in the region is the car.

The core area has no railway lines available (Figure 10). The closest station in westward direction is in the village of Sillian which belongs to the railway line S2 leading first to Lienz and then to Spittal an der Drau and Villach. This railway line S2 also connects to Fortezza/Franzensfeste in Italy and is run by ÖBB, while there is no railway available from Kötschach-Mauthen in the direction of Lienz.

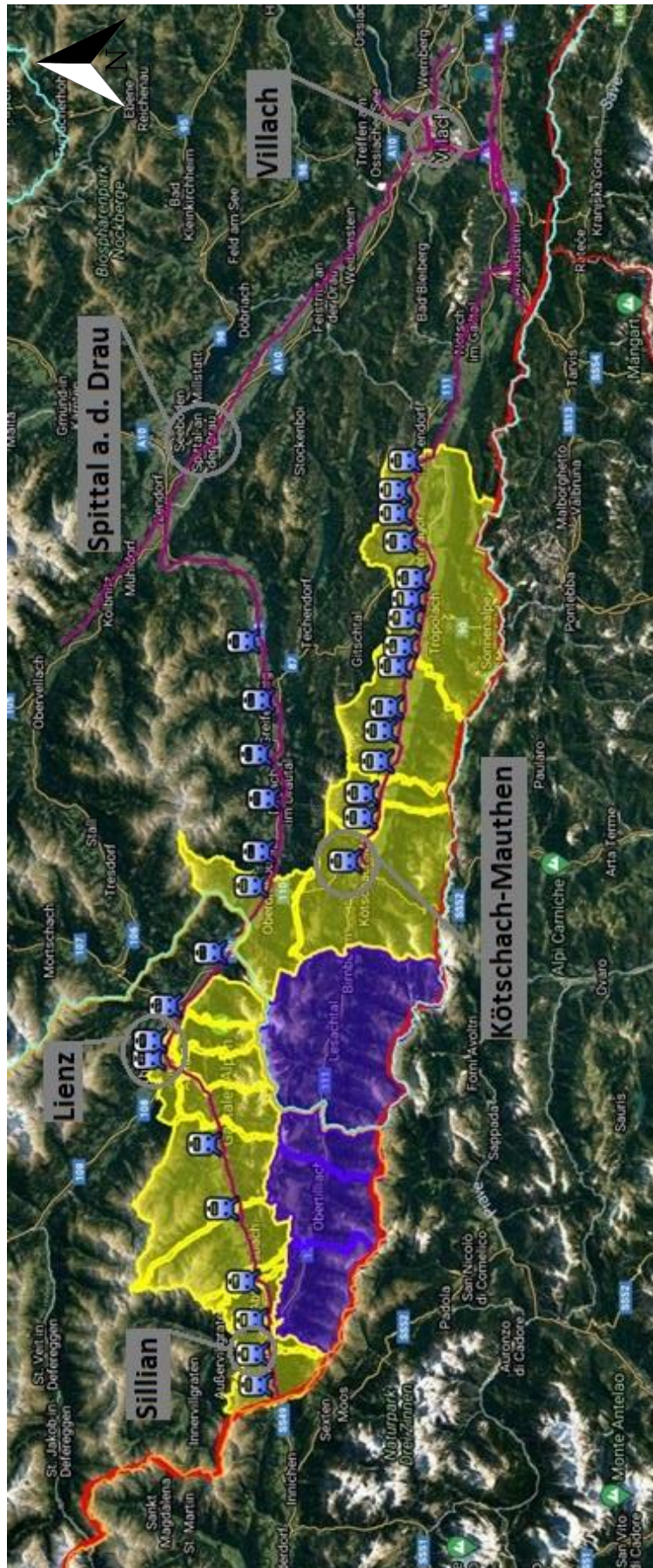


Figure 16: Existing railway stations and railway lines (marked in purple) in the surrounding area

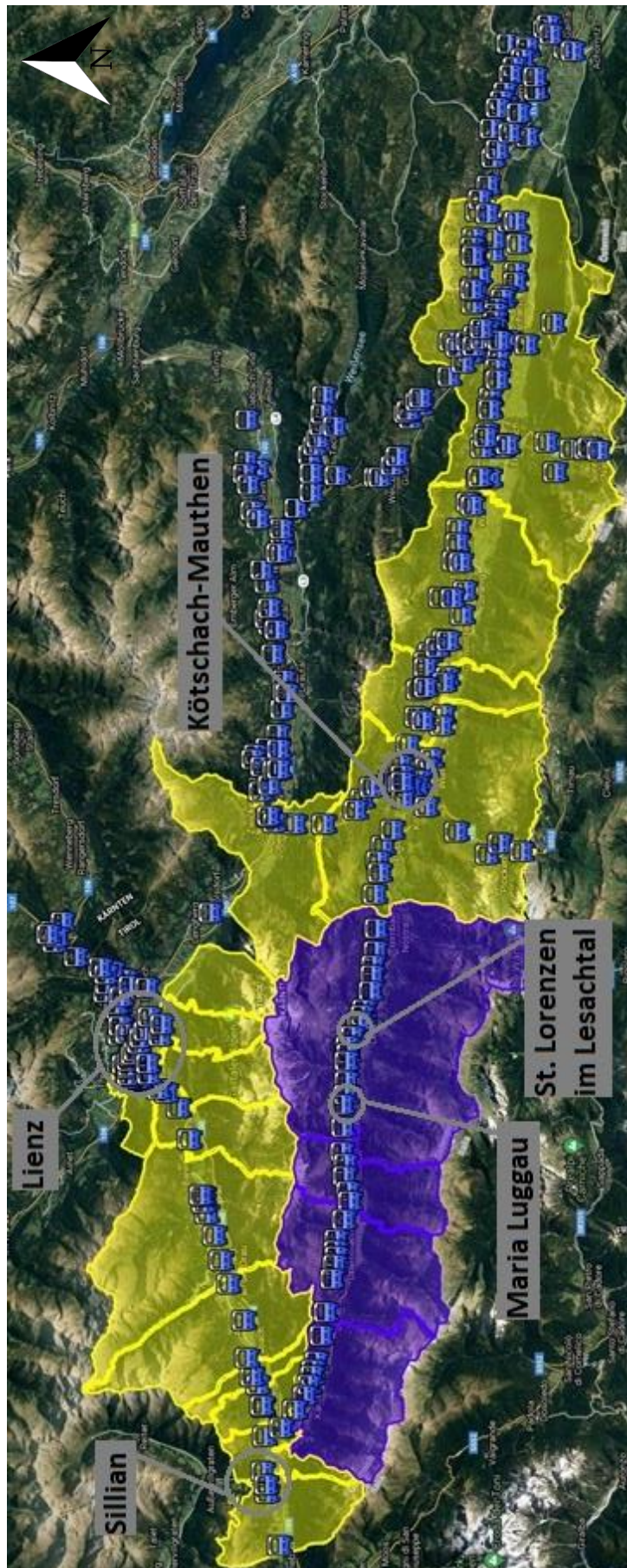


Figure 17: Existing bus stops in the core and surrounding area



As regards bus services, currently there are two bus lines driving in the core area. Namely bus line 965, (Österreichische Postbus AG) and 5050 (Mobilbüro + VerkehrsmanagementGmbH).

Bus line 4416 (Postbus) connects Sillian with Maria Luggau along the B111. There are 8 courses in each direction per day on workdays, this number is reduced to 5 per day on school holidays. At the weekend and on public holidays, the bus line drives further from Maria Luggau to Sankt Lorenzen in Carinthia. On Saturdays, this bus line has only two connections per direction, on Sundays and public holidays only one.

During the winter tourism season (December until March), there is a special skiing bus from Maria Luggau to Sillian to the skiing area Thurmtaler twice a day per direction.

The core area is partially located in the federal provinces of Tyrol and Carinthia which makes creating a uniform bus network difficult. Each federal province has its own local mobility network with different ticketing systems, moreover the Austrian Postbus AG working closely with ÖBB is operating bus lines in the area, too. The federal province of Tyrol operates “Verkehrsverbund Tirol”, Carinthia operates “Kärntner Linien”. Therefore, each passenger driving through the whole area needs to validate two tickets. This circumstance makes commuting by bus extremely expensive.

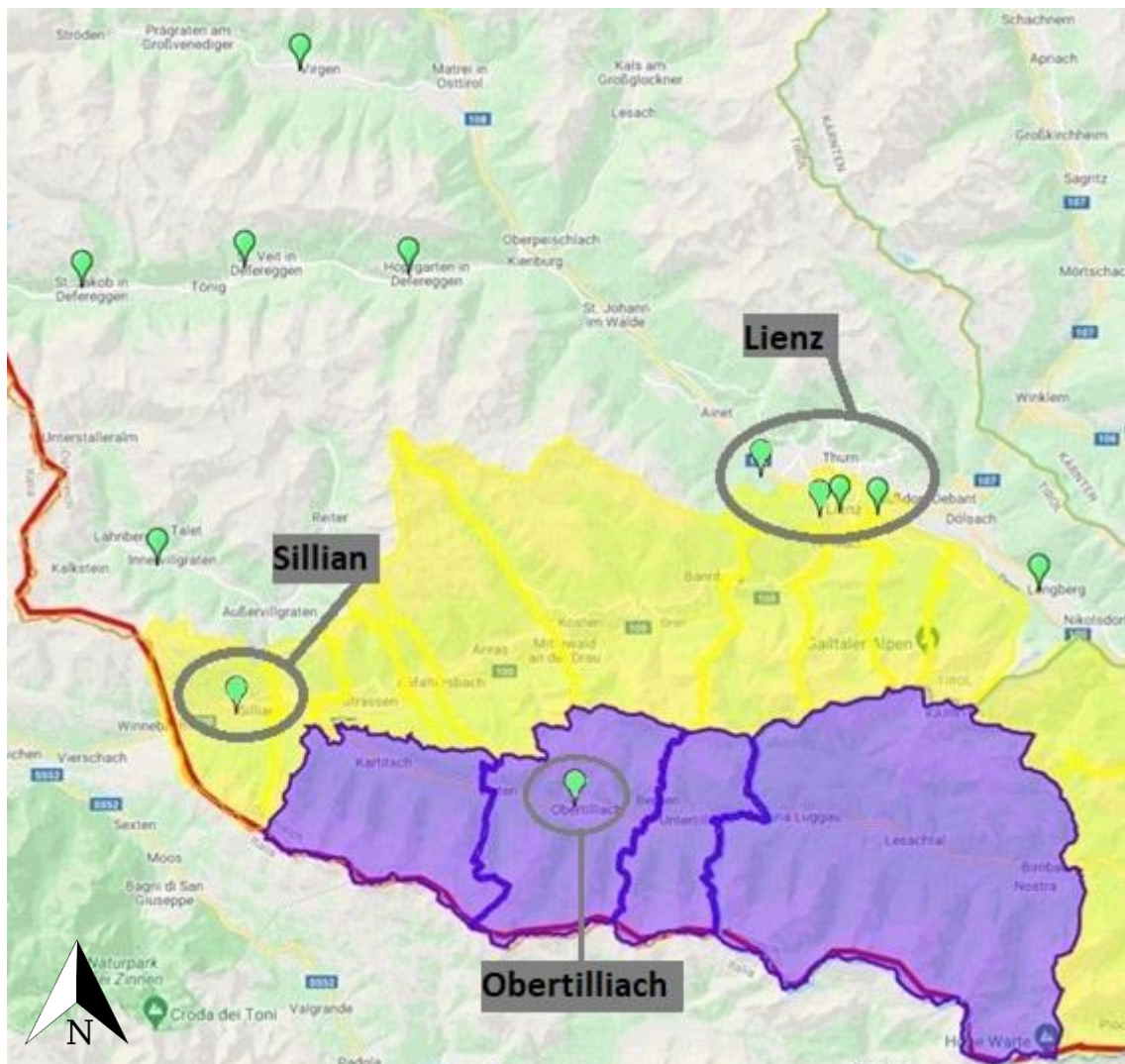


Figure 18: Locations of currently existing car sharing locations in East Tyrol

At the present time there is a shared mobility project ongoing in East Tyrol called “FLUGS eCarsharing” being part of the SMARTA project. FLUGS currently operates 12 stations with 14 E-Cars. FLUGS is web



based, reservation and booking are done over an app and a webpage (flugs.moqo.de). Currently, there are two different rates, “Tauernwind” and “Dolomitenglanz”.

“Tauernwind’s” target group is tourism and spontaneous use. It has no monthly subscription fee and charges either 4€/hour with 0,20€/km or 48€/day with 100 km included or as a weekend-rental from Friday 17:00 till Monday 00:00 with 94€ and 200 km included.

“Dolomitenglanz” targets residents of the region. It charges a subscription fee of 4,90€/month but in return only charges 2€/hour with 0,20€/km and from 20:00 till 07:00 0,20€/hour instead of 2€. (Rates from <https://flugs.moqo.de/cars>, as seen on 31.08.2021)

4.2. Accessibility

The project area is predominantly rural with scattered settlements. Therefore, accessibility for public transportation is a topic of interest. In an online meeting with the mayors of the municipalities held on July 16th 2021, the statement was given that for a lot of residents it makes little sense to drive to a bus stop with their own car only to switch to public transportation. The same is true for car sharing; however there is also the issue of returning the borrowed car after arriving at home.

As already discussed in chapter 3: Description of the mobility demands and needs - most households in the region own more than one car and are very used to it. The car is an important status object with people relying on it to get to work, go shopping or for other recreational purposes. Finding a suitable location, easily and comfortably to reach by foot for an electric car station serving as many people in the area as possible will be difficult. This “returning problem” can be alleviated in a call bus service system since there is no need to return the vehicle to a station. However, a call bus service requires personal such as drivers increasing the operating cost of such a service. There are models with volunteer drivers solving this issue partially, creating the issue of needing volunteers to run the service.

Another topic of interest regarding DRT and accessibility are the three major age groups. 23% of the population is retired, 20% are between the age of 15 and 29 and 29% are between the age of 45 and 64 years old. Each of these groups has different mobility and accessibility needs. Younger generations might have no issue renting an electric car or booking a call bus online, whereas older generations usually have issues with adapting to new technologies. Creating a system easily to use and understand for all ages and generations is paramount for its success. This issue not only regards the elderly but also tourists and visitors of the region.



5. Mapping the governance framework and relevant actors

5.1. Planning and regulatory framework

The Austrian Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie (Federal Ministry of Climate Action, Environment, Energy, Mobility, Innovation and Technology) released the „Austria’s 2030 Mobility Master Plan“ earlier this year. This plan provides the Austrian framework to reduce carbon emissions until the year 2030.

The “2030 Mobility Masterplan” lays out a broad overview of targets and goals to be reached to cut carbon emissions.

Important targets set by the mobility masterplan regarding development of a DRT in the region are as follows:

- The share of eco-mobility must increase from 30% to 47%.
- The current 60% of distances traveled by car needs to be reversed switching the car for eco-mobility.
- Shared mobility and eco-mobility needs to be expanded on a large scale in order to drop private motorized transport’s share to 42%.
- Creation of a legal framework regarding shared mobility such as car-sharing to encourage business development in this area.
- Connecting holiday and excursion destinations to the public transportation system. These destinations must be reached fast and easily by tourists either by train, bus, or flexible mobility.

5.2. Identification of Stakeholders and key target groups

The key target groups for whom a new DRT in the area should be developed are the following:

- Elderly people, enabling the oldest member of society to take part in social life with more flexibility and mobility.
- Commuters, creating a cheaper and an ecologically sustainable mode of transportation for workers to and from their workplace.
- Tourists, enabling the region to attract more tourists. Giving visitors an opportunity to travel the region in a cheap and ecologically sustainable way without the need of their own car.
- Students, giving the children and students of the region the opportunity to travel to and from their school or leisure activities in a flexible and ecologically sustainable way.



Smacker Target Groups	Brief description
Local public authority	The four municipalities of the region. Kartitsch, Obertilliach, Untertilliach and Lasachtal
Regional public authority	Federal state of Carinthia, Federal state of Tyrol
Infrastructure and (public) service provider	Kärntner Linien, Verkehrsverbund Tirol, ÖBB, ÖBB Postbus
General public	
Education/training centre and school	
Other	
SME	Wilhelmer Reisen (private taxi and bus company operating in the area)
Higher education and research	
Sectoral agency	
Interest groups including NGOs	
National public authority	
Large enterprises	
International organisation, EEIG under national law	

Table 21: Key SMACKER target groups



6. SWOT analysis

The following SWOT analysis aims to summarize the strengths and opportunities compared with the weaknesses and threads of all the information gathered in the report. It shall lead to conclusions for the action plan development.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • <i>Municipalities working together to solve their mobility issues</i> • <i>Already existing projects in the surrounding area</i> • <i>Already existing bus stops</i> • <i>Different groups of users (residents, tourists)</i> 	<ul style="list-style-type: none"> • <i>No existing railway stations or lines in the area</i> • <i>Different ticketing systems for the two different public transportation providers (bus lines)</i> • <i>Rural area with scattered settlements</i> • <i>Low population density with increasing elderly population</i> • <i>Car ownership as high-status function</i> • <i>“last mile”</i>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • <i>Potential synergies with other EU-projects (SMARTA)</i> • <i>Potential to improve individual mobility for the young and elderly population</i> • <i>1-2-3-Mobility Ticket</i> • <i>New investment opportunities for private investors</i> • <i>New opportunities for entrepreneurs</i> • <i>Extension of already existing DRT projects in the region</i> 	<ul style="list-style-type: none"> • <i>Potential emigration of the younger population</i> • <i>High costs, long term funding</i> • <i>Potentially overall decreasing demand for public transportation because of emigration</i> • <i>No railway lines in the area</i>

Table 22: SWAT-Analysis

The core area consists of four municipalities from two different federal states working closely together to expand their already existing public transportation system. The municipalities are well-connected and work closely together to achieve this goal. The region is already served by bus and there are already existing DRT projects such as the FLUGS eCarsharing project with one electric car and a station in Obertilliach creating an opportunity for expansion.

The region is relatively underdeveloped regarding mobility and transportation creating new opportunities for investors and entrepreneurs.

Since the project area is in two different federal states there are two different public mobility providers, “Kärntner Linien” and “Verkehrsverbund Tirol”. Both providers run different ticketing systems, however this issue will eventually be resolved when the “1-2-3-mobility Ticket” gets implemented nationwide.

The area is to be classified as rural, there are villages and larger settlements, however most of the population lives relatively scattered. This creates a “last mile” problem especially for car sharing models. The car first must be borrowed and picked up at a station and returned to a station after it has been used making the system uncomfortable for use especially for residents of the area living further away from the main settlement areas around the villages.

There is a possibility of decreasing demand for public transportation in general for the region. The population is largely over the age of 45 with a strong tendency of younger people to leave the area for larger cities like Vienna or Graz to study and work. This could jeopardize the long-term funding of any public transportation project in the region.



7. Policy challenges

The area with its growing elderly population, emigration and scattered settlements provides a difficult situation for DRTs. People are used to use their car providing them flexibility in their movement. The lack of existing railways and bus lines driving through the whole area is a big issue. A low population density paired with side valleys increases the difficulty of creating a sustainable public transportation system in the region. The main policy challenge in the region is nudging the population to use public transportation rather than their own car and to stop the younger population from emigrating from the region. The region provides a lot of economic opportunities, especially for tourism, a DRT would be able to address.

Austria's 2030 mobility master plan provides a broad overview of goals the Austrian government set itself to reach climate goals according to EU targets.

Transportation must be social, safe, environmentally friendly, and efficient. This goal should be reached by implementing and expanding shared mobility systems interconnected to each other with strategically placed mobility hubs, especially in rural regions of the country.



8. Conclusions and addresses for the Action Plan development

The regions of Carinthia Lesachtal and Tyrol Gailtal are rural areas with scattered settlements. The population grows increasingly older while there is a high level of emigration of the younger population. Inhabitants are depending on cars with nearly every household in the region owning at least one. As long as the own vehicle or the family's 2nd or 3rd car is available in front of the door, the probability of switching to car sharing or public transportation alternatives is low. Accessibility and flexibility of the services for elderly people who are not used to new technologies must be addressed. In general, there is the need to connect the four municipalities better with the main attraction poles of the region, Sillian and Lienz with public transportation which could be best achieved with a well-integrated and flexible DRT-system. Whether the best solution is a car sharing model, a call bus or a mixture of these has to be assessed further since each of these systems have advantages and disadvantages like accessibility of car sharing stations for remotely living people or flexibility and costs of a call bus service. An extension of DRT services in the region would be generally well-received but will take some time until the inhabitants switch away from their cars.

Tourism could play an important role for the development and expansion of DRT-systems since the Austrian government's mobility master plan especially mentions the touristic development of public transportation to better facilitate ecologically friendly tourism.



9. References

Statistik Austria	statistik.at
SMARTA Project	https://ruralsharedmobility.eu/
INSPIRE Metadaten-suche Österreich	https://geometadaten-suche.inspire.gv.at/
Open Data Österreich	https://www.data.gv.at/
Open GIS Government Data - Tirol	https://data-tiris.opendata.arcgis.com/
KAGIS Maps	https://gis.ktn.gv.at/
Verkehrsverbund Tirol	https://www.vvt.at/
Lasachtal.at	https://www.lesachtal.com/
BergsteigerDörfer.org	https://www.bergsteigerdoerfer.org/
Mobil Büro Hermagor	https://www.mobilbuero.com/
Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie	https://www.bmk.gv.at/
FLUGS eCarsharing	https://flugs.moqo.de/
Land Kärnten	https://www.ktn.gv.at/
Regionalenergie Osttirol	https://www.regionalenergie-osttirol.at/
Klima und Energiefonds	https://www.klimafonds.gv.at/
Land Tirol	https://www.tirol.gv.at/
Nachhaltige Mobilität in Obertilliach – Gezielte Befragung des Mobilitätsverhaltens von BewohnerInnen in Obertilliach	komobil

Table 23: References

And various data provided by Mr. Kranebitter and RAUMSCHMIEDE as well as a video conference with the four mayors of the municipalities on July 16, 2021.



10. Annexes

10.1. Annex 1 - Stakeholders list

See attached file *Stakeholder_List_2021-08-31.xlsx*

Relevant stakeholders in the field of youth and senior the municipalities were contacted. However, no contact has yet been established with relevant stakeholders of these categories. Stakeholders will be added as soon as contact is established.