

# 30th Middle European Planning Seminar 2019, St. Veit/Glan

## Task I – Erstellung eines Grundverkehrsplan für St.Veit und der Glan

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### Aufgabenstellung

Das Ziel liegt darin, den Mobilitäts Masterplan (MoMaK) von Kärnten auf lokale Ebene zu übersetzen. Wichtige Punkte des Masterplan sind die Entschleunigung des Verkehrs sowie die Überprüfung und Harmonisierung der Geschwindigkeitsbegrenzungen. Damit einhergehend empfiehlt der Masterplan den Verkehrsfluss zu vereinfachen, Kfz-Verkehrsaufkommen in den Zentren zu reduzieren und die Einführung von fairen Ampelschaltung, die Fußgänger gleichbehandelt.

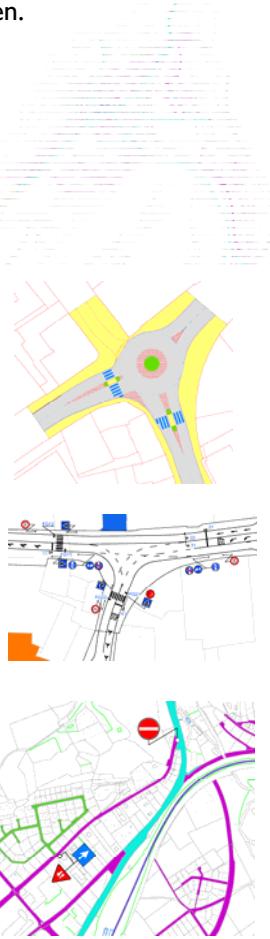
### Methodik

Erster Schritte waren die Beobachtung und Analyse des bestehenden Verkehrs und Verkehrsinfrastruktur. Hierbei wurde nicht nur die Straßenbauinfrastruktur analysiert sondern auch die bestehend Geschwindigkeitsbegrenzungen. Hierbei wurde festgestellt, dass die Geschwindigkeitsbegrenzungen in St.Veit sehr unübersichtlich und nicht immer verständlich sind. Auch wurde beobachtet, dass das System aus Kreisverkehr und Ampelschaltung nicht immer ideal funktioniert. Ein weiteres Problem ist dass der Verkehr sich während den Hauptverkehrszeiten in Nebenstraßen/Wohngebiete verlagert und diese somit unnötig belastet. Hierdurch wird der Verkehr nicht aus dem Stadtzentrum rausgehalten.

### Ergebnisse

Um die Geschwindigkeitsbegrenzungen zu vereinfachen, schlagen wir vor, Hauptstraßen mit 50 km/h, alle Nebenstraßen mit 30 km/h und bestehende Wohnstraßen als Begegnungszonen mit 20 km/h zu begrenzen. Nebenstraßen könnten hierdurch attraktiver und sicherer für Fahrradfahrende werden. Wir empfehlen die Straßeninfrastruktur dementsprechend anzupassen. Um die Hauptstraßen zu entlasten könnte man die Marktstraße-Lastenstraße als Alternative mit 50 km/h etablieren.

Um auf den Hauptstraßen den Verkehrsfluss zu verbessern und zu entschleunigen schlagen wir zwei Lösungen für die Villacher/Ossiacher/Bahnhofsstraße vor. Die erste Lösung sieht vor den Kreisverkehr an der Ecke Bahnhofsstraße-Klagenfurterstraße neu zu gestalten. Hierbei würde die Mitte des Kreisverkehrs erhöht werden. Es ist somit nicht mehr möglich in gerader Linie über den Kreisverkehr zu fahren. Die zweite Lösung sieht vor den Kreisverkehr durch eine Ampelanlage zu ersetzen. Alle Kreuzungen könnten abgestimmt werden und Fußgänger besser Priorität gegeben werden. Man kann die Ampeln so abstimmen, dass bei starkem Verkehr eine grüne Welle besteht. Da sich während den Hauptverkehrszeiten ein Teil des Verkehrs von der Friesacher Straße in die Doktor-Arthur-Lemisch-Straße verlegt, empfehlen wir diese Straße zur Einbahnstraße zu machen. Die Straße sollte in Richtung Frisacher Straße befahren werden können. Dieser Eingriff ist sehr kostengünstig, kann schnell umgesetzt werden und wäre sehr effektiv.



### Fazit

Zusammengefasst empfehlen wir:

- Die Geschwindigkeitsbegrenzungen zu harmonisieren und dadurch den Verkehr auf den Nebenstraßen zu beruhigen.
- Die Kreuzungen an den Hauptverkehrsachsen zu harmonisieren, durch oben genannte Vorschläge, und eine faire Ampelschaltung für Fußgänger an den Kreuzungen.
- Die Doktor-Arthur-Lemisch-Straße zur Einbahnstraße zu machen und ggf. über ähnliche Maßnahmen an Stellen mit dem gleichen Problem nachzudenken.

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## Task 2 - Radverkehrskonzept St.Veit/Glan

Anna Tailliez Polina Zayats, Petr Vopalecký, Urmat Saparbekov Martin Asztalos, Dávid Mester



### Aufgabenstellung/Objective

- Analyse des bestehenden lokalen Radverkehrsnetzes (Qualität, Abdeckung, Anbindung der Vororte)
- Analyse der Anbindung an das überregionale Radverkehrsnetz
- Mängelanalyse
- Erarbeitung von Empfehlungen und Verbesserungsvorschlägen (strategisch bis konkret)

- Analysis of the existing local cycle network (quality, system cover and connections with the surroundings)
- Analysis of the connection to the national cycle network
- Analysis of the deficiencies
- Elaboration of recommendations and amelioration measures (strategic up to concrete)

### Methodik/Methodology

- Nach einer ersten intuitiven Analyse des Stadtplans haben wir St. Veit besichtigt, um die konkreten, bestehenden **Mängel** zu identifizieren.
- Ein offensichtliches großes Problem ist die Klarheit der **Signalisierung** und die Sicherheit der **Kreuzungen**.
- After a first intuitive analysis of a map of the city, we took a tour around the center of St. Veit so as to identify clearly and concretely the **main deficiencies**.
- Obviously, one of the main problem was the **clarity** of the signalisation and the safety of the crossroads.



- Und Ziel war es, jene Stellen zu finden, wo neue Radwege errichtet werden können, um das Netzwerk **kohärent** und **attraktiv** machen.

- Our main goal was to find places, where new paths can be built so as to make the existing system more **coherent** and **attractive**.

- Wir haben in der Altstadt eine Umfrage gemacht, um die Meinungen und Einstellungen der Menschen zum Radverkehr in St. Veit zu ermitteln.

- We made a survey in the old town, to investigate on what people think about cycling in the area.

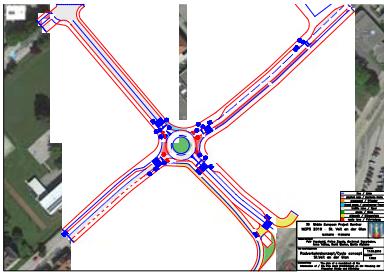
- Eine der Hauptanforderungen der Menschen ist: **sichere** und **zugängliche** Kreuzungen.

- One of the main requirements is: making the crossings intersections more safe and easier to access.

### Ergebnisse/Results

- Wir haben die Kreuzung Friesacher Straße – Kölnhofallee als Kreisverkehr neu gestaltet und mit Radverkehrsanlagen ausgestattet.

- We completely redesigned the intersection Friesacher Straße – Kölnhofallee and replaced it with a roundabout.

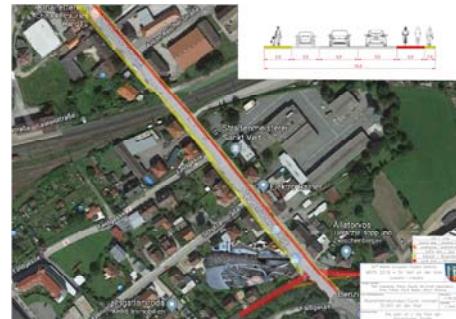


- Bei der Kreuzung Klagenfurter Straße – Glangasse haben wir eine Unterführung angedacht, damit sowohl Fußgänger als auch Radfahrer die Klagenfurter Straße sicher und ohne Zeitverlust überqueren können.

- We made an underpass, so people can cross the main road safer and without stopping. (Klagenfurter Straße – Glangasse)

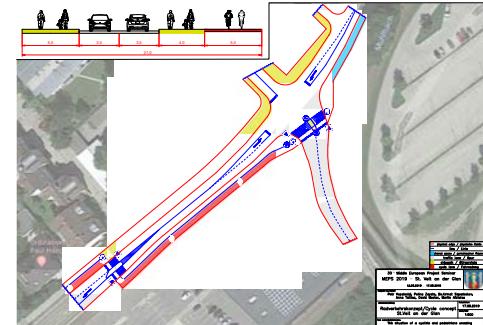
- In der Klagenfurter Straße haben wir einen Zweirichtungsradweg vorgesehen, damit die Radfahrer die Altstadt auf direktem Weg erreichen können.

- We connected two routes with a new cycle path, where cyclists can directly reach the center of the city. (Klagenfurter Straße)

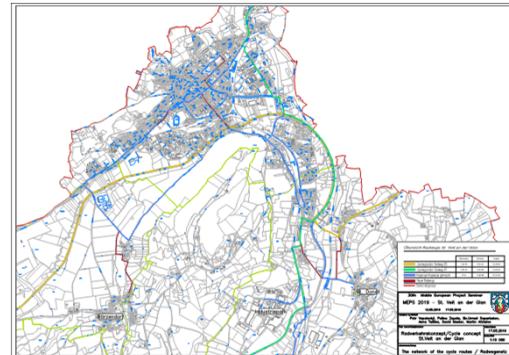


- Wir haben die momentan unzureichende Kreuzung Villacher Straße – Schießstattallee neu gestaltet und den Supermarkt besser an das Radverkehrsnetz angeschlossen.

- We fixed a crossing intersection because of a lack of signs and made the near shop a bit more accessible (Villacher Straße – Schießstattallee)



- Übersicht der neuen Radwege
- Map of the final routes



### Abschluss/Conclusion

- In dieser auto-orientierten Stadt mit vielen engen Straßen ist es nicht so leicht, Platz für Radinfrastruktur zu finden. Eine der zielführendsten Maßnahmen ist deshalb eine Verringerung des Geschwindigkeitsniveaus und der Verkehrsmengen im unterrangigen Straßennetz, sodass Mischverkehr Kfz-Rad möglich ist. Schließlich sollte die Stadt das Bewusstsein der Bevölkerung dafür schaffen bzw. stärken, dass Rücksichtnahme und angepasste Geschwindigkeit für einen sicheren und harmonischen Verkehrsablauf essenziell sind.

- In this car-oriented city with a lot of narrow streets, it is not that easy to find new places to build cycle paths. Main solutions will definitely have to include a reduction of the speed limits inside the borders of the city so as to make not to dangerous for the cyclist sharing the roads with the cars. Finally and maybe above all, we think that all of this would only be possible, if the municipality succeeds in raising awareness about the importance of a true cohabitation (e.g. respect of the priorities, adaptation of ones speed, courtesy, etc.) between all the users of different means transport in the public space.

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## Task X - [Task]

**[Adam Palkovics, Thomas Riedler, Michal Šupej, Václav Táborský, Stefan Mladenović]**

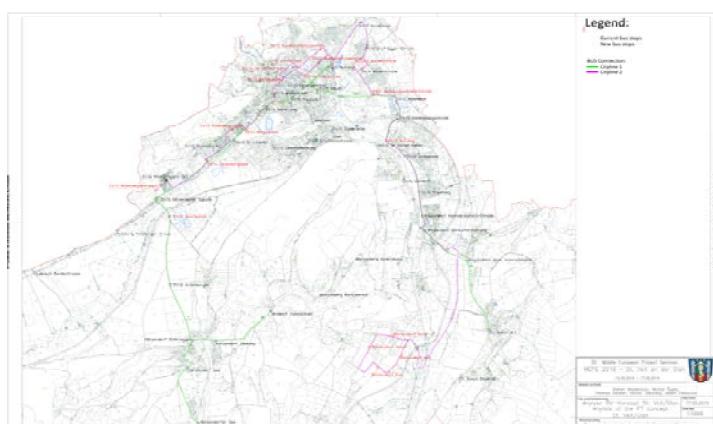
## Abstract

Our task was to assess the condition of public transport in St. Veit/Glan, and find ways to improve it. What we have found is that the development of the main bus station, and the local bus lines would raise the efficiency of present conditions.

## Methodology

- Site visiting and evaluating current conditions
  - Analysing time schedules and improving them
  - Redesigning the place in front of the Main station building (separating parking lot and bus terminal)

## Results



## **City bus lines**

Our design of public transport includes 2 bus lines, which connects residential areas (including the developing ones), city centre and the main railway station

- Line 1 – main bus line (runs every day)
  - Line 2 – additional bus line (runs only at rush hours)
    - serves local communities and industry zone

There are also new stops established (red coloured in map



# Rearrangement of railway station's interchange area

We advice to rearrange the area in front of the station building to separate bus terminal and the P+R parking lot.

## Our design offers:

- 80 parking places
  - 4 departure and 2 arrival bus stops
  - More convenient transferring
  - Connection with cycle roads
  - New parking (110 places) for bikes (Biketower)
  - Better aesthetics of whole area



## Conclusion

As we found the current state of the bus station problematic, we advise to implement such a solution as ours to tackle its inefficiency and unpleasant outlook. Concerning the buslines, our study shall be treated as a starting point for further studies as we couldn't run all the needed measurements for such design process. Such as economical efficiency and passenger counts.

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## Task 4 - Analyse der Erreichbarkeit der Innenstadt

Matysková Aneta, Dupuy Audrey, Németh Benedek, Mányi Gréta, Lestál Richárd, Hudec David

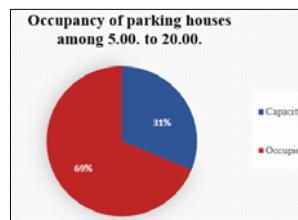
### Abstract

- 1. Our objective is to make the city center more attractive
- 2. Minimize the number of cars in the city center .
- 3. Evaluation of shopping mall competition.

- 4. Evaluation of parking space statistics.
- 5. Old city accessibility analysis.

### Methodology

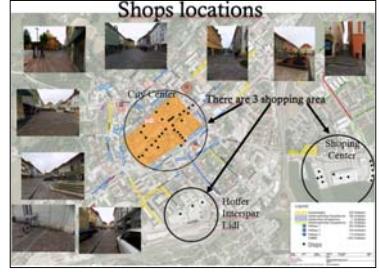
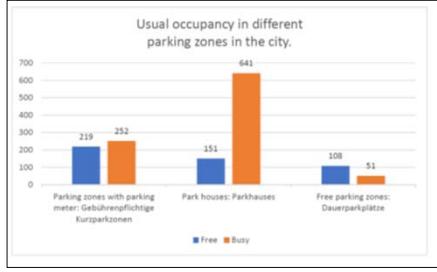
- We counted the parking cars among 5:00 to 20:00. as well as after 9:00 pm because we would like to know is there any facilities to the motorist for parking.
- We analyzed the town center and we took some pictures there.
- We sized up where are the opportunities to create some new bike roads and some new bike racks.



### Results

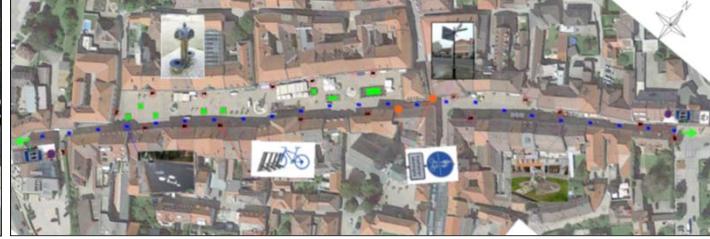
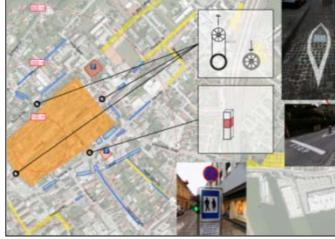
#### PROBLEMS

- 1) We have controlled the parking houses and all of parkplaces which are within 500 meters radius of the downtown. We diagnosed there is enough parking lots during the whole day and we identified the capacity of the town makes it possible for the motorists.
- 2) The problem is that cars can move in the city spontaneously in a large space, so they increasing their speed and making the square is not safe for pedestrians



#### Solutions to the current problems of the old town in St. Veit/Glan

- Variant A - Pedestrian zone in the city
- Variant B - Pedestrian and cycling with deceleration elements for cars (Improving the amenities of the square, improving the amenities of the square)
- Design of a new playground near the square



Both variants were evaluated. Option A will make the pedestrian square attractive and will prevent all cars and cyclists from entering. This will also prevent the entry of residents cars who live in the square (more than 600 inhabitants), vehicles supplying to the shops in the square. In our opinion, Option B is better, because it integrates pedestrians, cyclists and cars. In the square there are designed elements for cyclists to avoid the free movement of cyclists and reduce pedestrians. With regard to the elements that speed the speed of vehicles, the speed of vehicles passing through the square will no longer increase.

Around the square there is a lot of green area without any use. The aim is to make the square more attractive, for example by building a new playground. This will help attract people, especially families with children.

### Conclusion

- A bicycle road and some green area installations would be a great solution for the oldtown.

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## Task 5: Focus residential area Wayerfeld

Mohammad Sadegh Aminian, Karolína Moudrá, Andreas Papadopoulos, Jani Vag, Zombó Dávid

### Abstract

#### Objectives:

- Reducing traffic noise
- To make go-through traffic impossible in the zone
- Reducing speed of cars in the area
- To Encourage walking and Cycling
- Maintaining operation of buses and emergency vehicles

#### Outline:

- Make traffic surveys
- Assess traffic surveys
- Based on reports prepare solution to reach the objectives

### Methodology

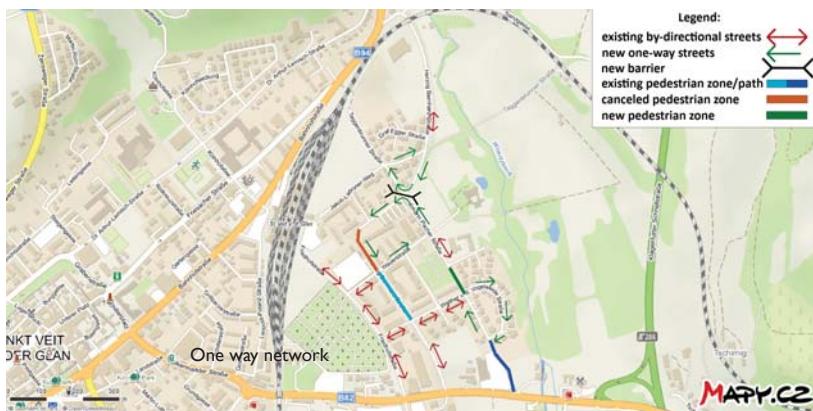
- Traffic noise bothers the residents. Traffic Noise is in direct relation with traffic volume and speed.
- In order to realize the character of traffic, we did **site surveys**. We found out that mixed land-use principle is not fulfilled in this area. The amenities are all located at Wayerfeld shopping center which is out of the region and requires residents to pass across B82 high traffic road. Nevertheless to realize whether the car traffic in the region is local or go-through we did **traffic countings**. At three main access gates of the region in the morning (07:00-08:00) and evening (17:00-18:00) rush hours, both incoming and outgoing traffic were registered. Subsequently the collected data was analyzed to find the share and average speed of go-through traffic.
- To eliminate go-through traffic **we changed the order of the links of the neighborhood street network**.
- To restrict the speed violations and to reduce noise, **we introduce several traffic calming measures**
- In order to reduce vehicular traffic in the region, we planned **to encourage walking and cycling for daily shopping trips**. We analyzed vehicular traffic of this road at two different time slots (10:00-11:00 and 16:00-17:00). Parallelly we counted number of pedestrians and cyclists who visit the shopping center at the above mentioned time slots.
- In order to encourage walking and cycling trips and making street crossing safe to the shopping center, we redesigned the layout of B82 street to calm the traffic.



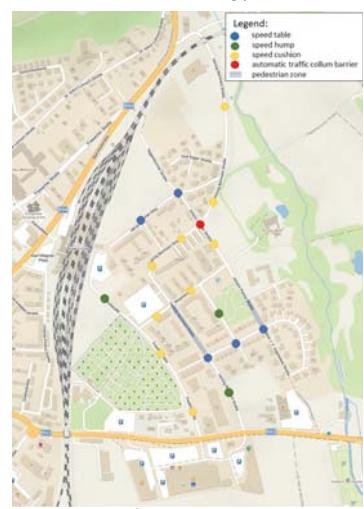
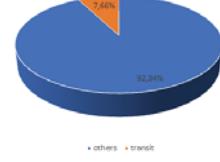
Measuring points

### Results

- Near 7% of car traffic in the area is go-through traffic which is consistent with the findings of KfV studies in 1999.
- Our proposal for inner streets network, eliminated the go-through traffic and made the distance of car travels to the shopping center longer. Accessibility of pedestrian, cyclists, and heavy duty vehicles are preserved.
- We replaced "wohnstraße" concept with "Shared Space" which brings a practical speed limit of 20 km/h.
- To make sure the speed would be confirmed several traffic calming measures introduced.
- A cargo bike sharing concept is suggested to make shopping trips more feasible by bike.
- To enhance safety and ease access of pedestrian and cyclist residents from Wayerfeld to the shopping center we redesigned the layout of the road and its intersections. The new design restricts speeding.

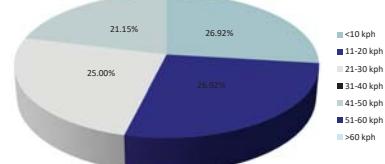


Transportation in Weyerfeld



Speed reduction devices

average car speed in the area



### Conclusion

- 5 km/h speed is an unreasonable speed limit for a neighborhood of the size of Wayerfeld.
- Wayerfeld neighborhood suffers from urban planning deficits which have put the neighborhood center out of it, on the opposite side of a high traffic road. Such planning mistakes increase motorized trips.
- By increasing safety, comfort, and attractiveness of the streets for active mobility, we try to persuade more citizens to use non-motorized travel modes.
- Taxes should be imposed on shopping centers which provide free parking which generate car traffic.

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## Task 6 – Potential for future housing development

Márk Ferenczi

Erik Zsolt Kiss

Gábor Nagy



Jan Gallia

Lucie Odvodyová

Petr Šatra

### Abstract

**Where should the future housing development take place?**

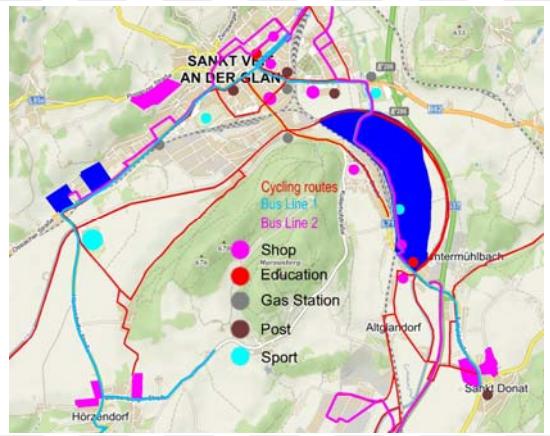
Goals:

- to estimate the impact of future housing areas on traffic
- make suggestions for future development



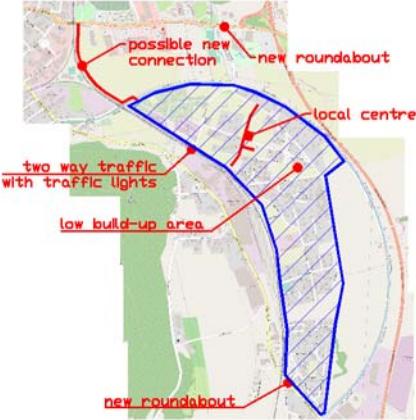
### Methodology

- Research of the international best practice
- Identification of the values in the area
- Identification of the problems in the area
- Identification of the opportunities in the area
- Communication of the assumptions with the other teams
- Assesment of transport accessibility of the potential areas
- Estimation of traffic demand
- Collection of input data from the other tasks
- Creation of the overview plan

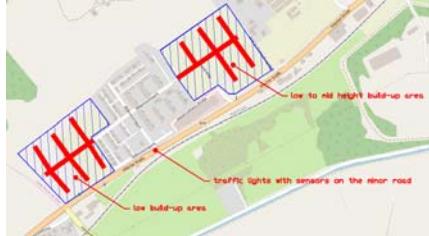


### Results

#### T1 - Glandorf



#### T2 - Millenniumspark



#### S1 - Poganzer Straße



#### Areas S2 (Sankt Donat) and S3 (Hörzendorf)

##### Current situation:

- Both areas are far from the downtown of St.Veit
- Hörzendorf is missing any civic amenities
- Sankt Donat has very limited offer of civic amenities

##### Expectations:

- In case of new housing development, all the inhabitants will commute from there
- With more housing more traffic will be induced
- If there will be a lot of new housing, (more) civic amenities could be introduced there, which could decrease the pressure on commuting somewhere else

##### Recommendations:

- Maximise or minimise the new housing there
- If new housing will be introduced, it should be a low build-up area not to disturb the local urban structure

### Conclusion

- The town should proceed with the development of potential housing areas – Glandorf and Millenniumspark with consideration of proposed measures.
- The housing in urban area of St.Veit can be expanded by introduction of the development area Poganzer Straße into the planning documentation.
- The new housing in St. Donat and Hörzendorf should be either minimised or maximised.