

# **Responsive Transportation Systems on Public Demand**

## **Challenges in Rural Areas**

**Doris Hahn, MSc**  
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# Interface for Smart Transport



## TEAM

CEO Alexander Stiasny  
19 Employees



## LOCATION

Kärntner Straße 7b  
8020 Graz - Austria



## IDEA

Transportation Planning  
Business Consulting  
Operator of Microtransit  
IT-Services



## HISTORY

Founded in 2013 as part of an  
independent project of  
Stiasny Mobility Management

# Situation in Rural Areas



Hardly any access  
to public transport



Dependence on  
one's own car

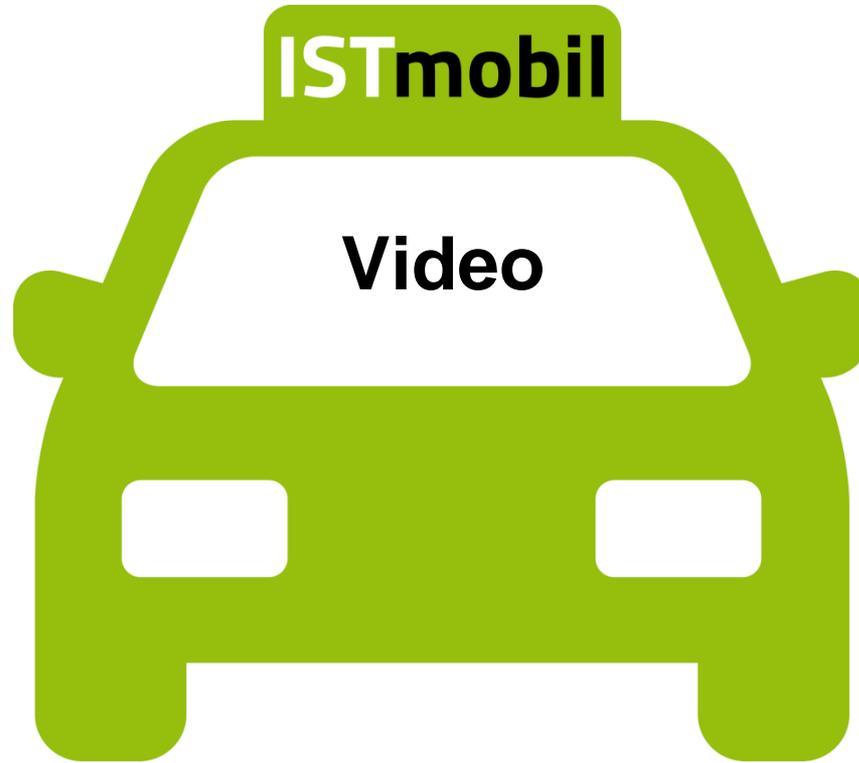


Disadvantage  
for immobile groups of people



Dependence on pick-up  
and drop-off services

# Basic Idea



# ISTmobil Concept

- ➔ **No competition** to higher-ranking public transport **by ISTmobil**
- ➔ **Connection** to a reasonable **public transport network** (feeder and collector)
- ➔ **Ensuring** a well-structured mobility system within communities



# ISTmobil – Distinction to other Transport Systems



## Existing Public Transport

- + Affordable
- Inflexibel



## Combination of public transport and on-demand public transport

- + Affordable
- + Based on demand
- + Occasional traffic supporting public transport



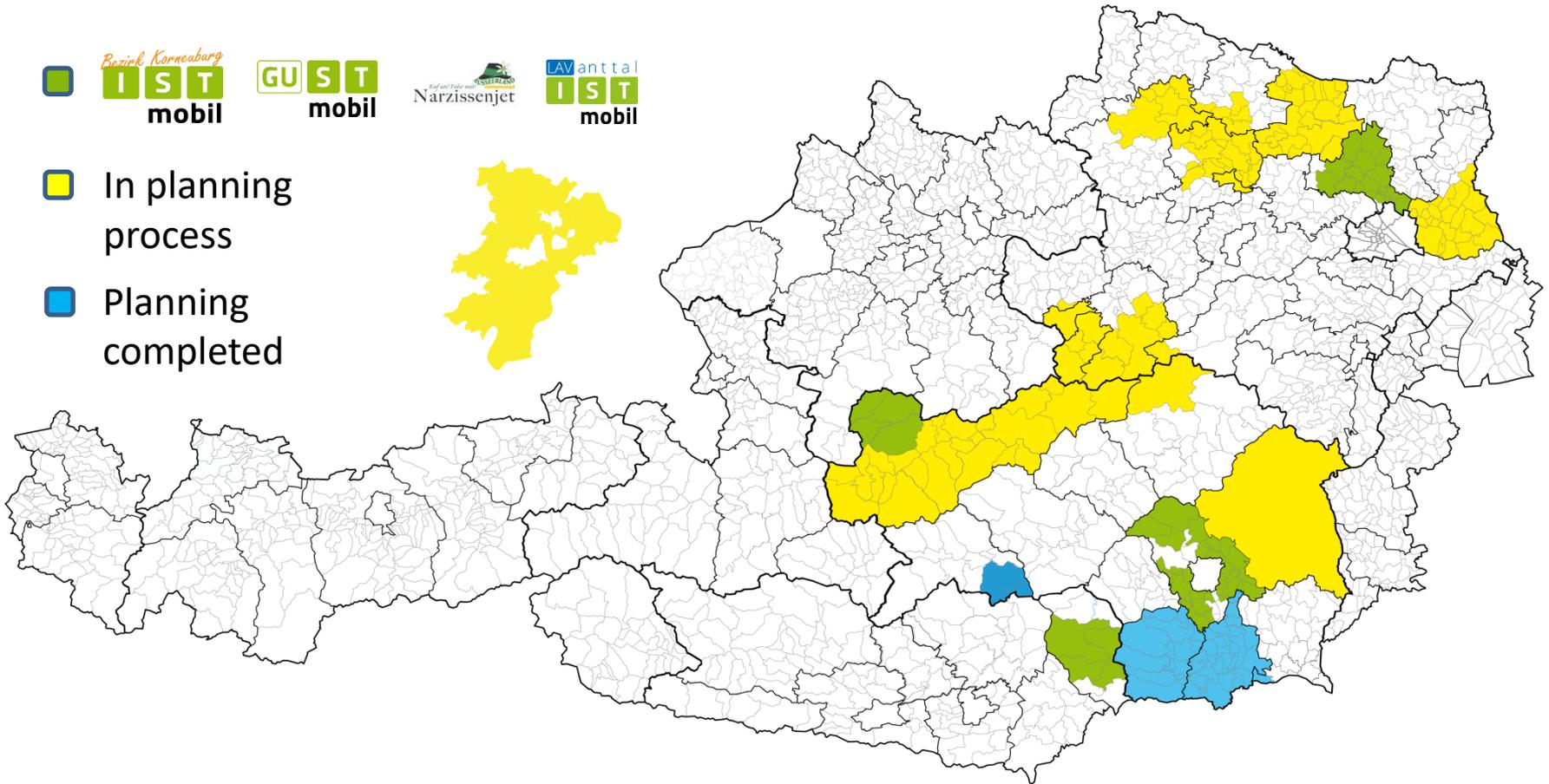
## Taxi Traffic

- + Flexible
- Expensive

# Overview of ISTmobil Regions



-  In planning process
-  Planning completed



# ISTmobil System Design



## System Services Adapted to Region

➔ **Operating Hours** 

➔ **Tariff Structure** 

## Fixed System Services Components

➔ **ISTdis Software** 

➔ **Call Center** 

➔ **ISTmobil App** 

# Operating Hours I

Narzissenjet



## Operating Hours

**Sunday – Thursday, Holidays** 09:00 – 22:00

**Friday, Day before a Holiday** 09:00 – 24:00



# Operating Hours II

ISTmobil Korneuburg



## Operating Hours

<b>Monday - Thursday</b>	06:00 – 22:00
<b>Friday</b>	06:00 – 24:00
<b>Saturday</b>	08:00 – 24:00
<b>Sunday and Holidays</b>	09:00 – 18:00

## Minimum Lead Time for Booking a Ride

**30 minutes** 06:00-14:00 Uhr

**60 minutes** 14:00-24:00 Uhr



# Distance-Based Tariff

GUSTmobil



**Tariff Structure:** Special tariff on short distances up to 5,5 km;  
Billing per person

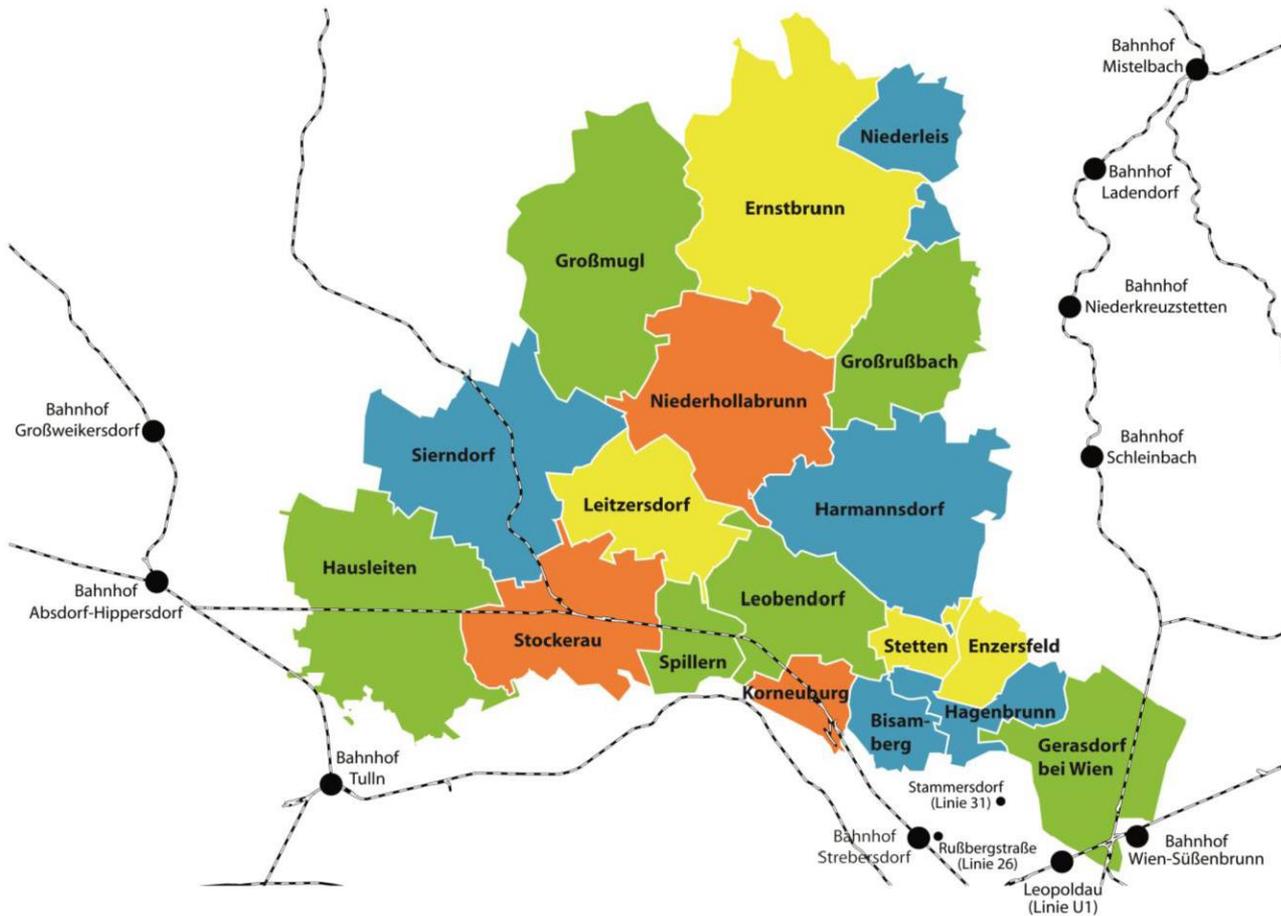
Tariff System			
Distance	1 Person	2-3 People	4 People
up to 3,5 km	€ 3,00	€ 2,00	€ 1,00
up to 5,5 km	€ 5,00	€ 3,00	€ 2,00
up to 7,5 km	€ 7,00	€ 5,00	€ 4,00
up to 10 km	€ 9,00	€ 7,00	€ 6,00
more than 10,00 km	€ 1,10 / km	€ 0,80 / km	€ 0,60 / km

Distances longer than 10,00 will be charged by an exact billing per kilometer.

***Link to public transport hubs will be charged  
with a maximum of the 2. tariff intervall.***

# Tariff Zones

ISTmobil Korneuburg



The **service area** is divided into zones about the same size.

There are defined **fixed tariffs** within a **tariff zone**.

# Tariff Structure

ISTmobil Korneuburg



	Bisamberg, Hagenbrunn	Enzersfeld im Weinviertel, Stetten	Ernstbrunn	Gerasdorf bei Wien	Großmugl	Großrußbach	Harmannsdorf	Hausleiten	Korneuburg	Leitzersdorf	Leobendorf	Niederhollabrunn	Niederleis	Sierndorf	Stockerau
Bisamberg, Hagenbrunn	€ 1,7	€ 2,2	€ 5,5	€ 2,2	€ 6,6	€ 4,4	€ 3,3	€ 5,5	€ 2,2	€ 4,4	€ 3,3	€ 4,4	€ 5,5	€ 5,5	€ 4,4
Enzersfeld im Weinviertel, Stetten	€ 2,2	€ 1,7	€ 4,4	€ 3,3	€ 4,4	€ 3,3	€ 2,2	€ 4,4	€ 2,2	€ 3,3	€ 2,2	€ 3,3	€ 4,4	€ 4,4	€ 3,3
Ernstbrunn	€ 5,5	€ 4,4	€ 1,7	€ 6,6	€ 2,2	€ 2,2	€ 3,3	€ 4,4	€ 5,5	€ 3,3	€ 4,4	€ 2,2	€ 2,2	€ 3,3	€ 4,4
Gerasdorf bei Wien	€ 2,2	€ 3,3	€ 6,6	€ 1,7	€ 6,6	€ 5,5	€ 4,4	€ 6,6	€ 3,3	€ 5,5	€ 4,4	€ 5,5	€ 6,6	€ 6,6	€ 5,5
Großmugl	€ 6,6	€ 4,4	€ 2,2	€ 6,6	€ 1,7	€ 3,3	€ 3,3	€ 3,3	€ 5,5	€ 3,3	€ 4,4	€ 2,2	€ 3,3	€ 2,2	€ 3,3
Großrußbach	€ 4,4	€ 3,3	€ 2,2	€ 5,5	€ 3,3	€ 1,7	€ 2,2	€ 5,5	€ 4,4	€ 3,3	€ 3,3	€ 2,2	€ 2,2	€ 3,3	€ 4,4
Harmannsdorf	€ 3,3	€ 2,2	€ 3,3	€ 4,4	€ 3,3	€ 2,2	€ 1,7	€ 4,4	€ 3,3	€ 3,3	€ 2,2	€ 2,2	€ 3,3	€ 4,4	€ 3,3
Hausleiten	€ 5,5	€ 4,4	€ 4,4	€ 6,6	€ 3,3	€ 5,5	€ 4,4	€ 1,7	€ 4,4	€ 3,3	€ 3,3	€ 3,3	€ 5,5	€ 2,2	€ 2,2
Korneuburg	€ 2,2	€ 2,2	€ 5,5	€ 3,3	€ 5,5	€ 4,4	€ 3,3	€ 4,4	€ 1,7	€ 3,3	€ 2,2	€ 4,4	€ 5,5	€ 4,4	€ 3,3
Leitzersdorf	€ 4,4	€ 3,3	€ 3,3	€ 5,5	€ 3,3	€ 3,3	€ 3,3	€ 3,3	€ 3,3	€ 1,7	€ 2,2	€ 2,2	€ 4,4	€ 2,2	€ 2,2
Leobendorf, Spillern	€ 3,3	€ 2,2	€ 4,4	€ 4,4	€ 4,4	€ 3,3	€ 2,2	€ 3,3	€ 2,2	€ 2,2	€ 1,7	€ 3,3	€ 4,4	€ 3,3	€ 2,2
Niederhollabrunn	€ 4,4	€ 3,3	€ 2,2	€ 5,5	€ 2,2	€ 2,2	€ 2,2	€ 3,3	€ 4,4	€ 2,2	€ 3,3	€ 1,7	€ 3,3	€ 2,2	€ 3,3
Niederleis	€ 5,5	€ 4,4	€ 2,2	€ 6,6	€ 3,3	€ 2,2	€ 3,3	€ 5,5	€ 5,5	€ 4,4	€ 4,4	€ 3,3	€ 1,7	€ 4,4	€ 5,5
Sierndorf	€ 5,5	€ 4,4	€ 3,3	€ 6,6	€ 2,2	€ 3,3	€ 4,4	€ 2,2	€ 4,4	€ 2,2	€ 3,3	€ 2,2	€ 4,4	€ 1,7	€ 2,2
Stockerau	€ 4,4	€ 3,3	€ 4,4	€ 5,5	€ 3,3	€ 4,4	€ 3,3	€ 2,2	€ 3,3	€ 2,2	€ 2,2	€ 3,3	€ 5,5	€ 2,2	€ 1,7

Price Quotation excl.  
Convenience  
Surcharge

Convenience  
Surcharge (tariff for  
season ticket holder):

Until 07 pm – € 2,00  
After 07pm – € 4,00

# Season Tickets I

## Example Korneuburg



Mr Smith commutes from Spillern to Vienna on a daily basis and owns an annual pass to Vienna.



Network: Route from Spillern to Vienna(Source: VOR)

# Season Tickets II

## Example Korneuburg



- **ISTmobil Ride I: Route Spillern to Korneuburg**  
**Main Square, 6pm**  
➔ Price: **2,00 €** (only comfort surcharge because of season ticket for that very root)
- **ISTmobil Ride II: Route Spillern to Stockerau**  
**Town Hall, 4pm**  
➔ Price: **4,20 €** (2,20 € basic rate plus 2,00 € comfort surcharge)
- **ISTmobil Route III: Route Spillern to**  
**Niederhollabrunn, 8.30pm**  
➔ Price: **7,30 €** (3,30 € basic rate plus 4,00 € comfort surcharge)



# ISTdis Software

## System Components I



### **Input-Interface**

Graphical User Interface  
Online Customer Access  
ISTmobil App



### **Output-Interface**

Tablet  
Smartphone  
Analogue Media



### **Backend**

Administration  
Controlling



### **Allocation of Rides**

Automated  
Manual

# ISTdis Software

## System Components II



### **Automised Billing**

Customers  
Car Companies  
Communities



### **Customer Management**

Customer Data Base  
Adresses of Home Pick-up Services  
Accounting



### **Maps**

Mapping  
Routing



### **Support**

Customers  
Car Companies

# User Interface Service Center (Callcenter)



**IST mobil** Fahrgast & Mobilcard Management

**ZENTRALE**

Neuer Auftrag

Aufträge

Informationen

**Ausseerland - Narzissenjet**

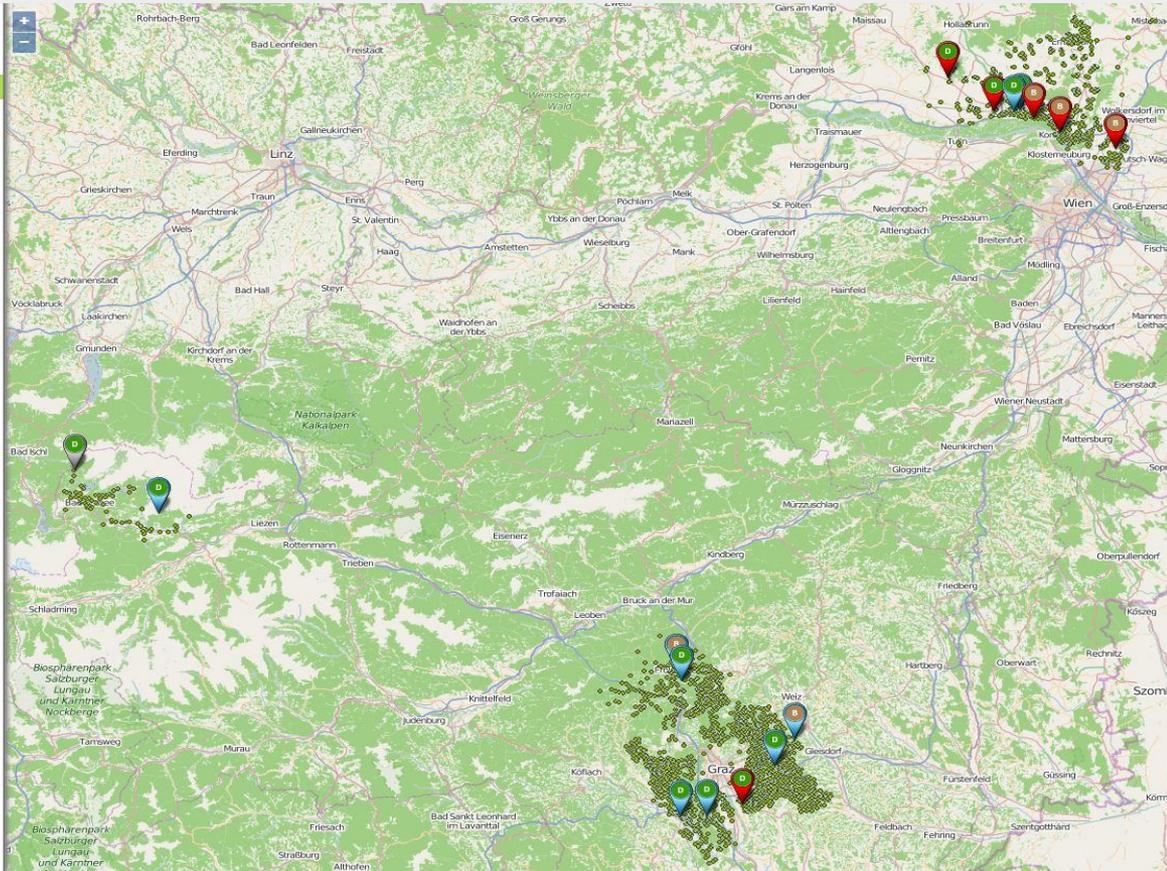
NJAT-1, 8 R. <b>D</b>	NJTG-1, 8 R. <b>D</b>
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**Graz Umgebung**

GUEW-4, 8 R. <b>D</b>	GUEW-1, 4 R. <b>D</b>
GUEW-2, 4 R. <b>D</b>	GUSF-1, 8 R. <b>D</b>
GUTT-1, 4 R. <b>D</b>	GUEB-1, 6 R. <b>D</b>
GUEB-2, 4 R. <b>D</b>	GURH-1, 8 R. <b>D</b>

**Korneuburg**

GB-1, 8 R. <b>D</b>	KL-1, 4 R. <b>D</b>
WG-1, 4 R. <b>D</b>	WG-2, 6 R. <b>D</b>
NZ-1, 6 R. <b>D</b>	SA-1, 4 R. <b>D</b>
SA-2, 6 R. <b>D</b>	



# Changing to Public Transport



## Criteria

- ➔ **Immobile people** are transported directly **to all stopping points at all times by ISTmobil** (home pick-up service remains unchanged)
- ➔ **No change to public transport within a community** necessary
- ➔ Rides **across communities** are check wheather a **direct ride by public transport** or **multimodal ride** (on demand public transport services) are possible
  - Public transport connection is checked **15 minutes** before and **30 minutes** after the customer's booking time
  - If public transport is available → change is compulsory



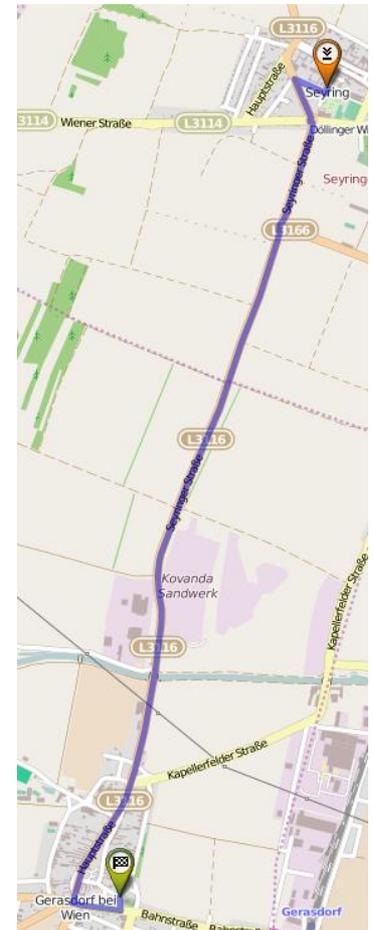
# Changing to Public Transport

## Example ISTmobil Korneuburg I

Mr Smith would like to get from **Seyring** (community Gerasdorf) to **Gerasdorf Townhall** at 8.30am on weekdays.

*Is it possible that ISTmobil conducts this ride directly or is a change to public transport necessary?*

**As the route is within one community, ISTmobil can conduct the ride directly to the customer's destination.**



# Changing to Public Transport

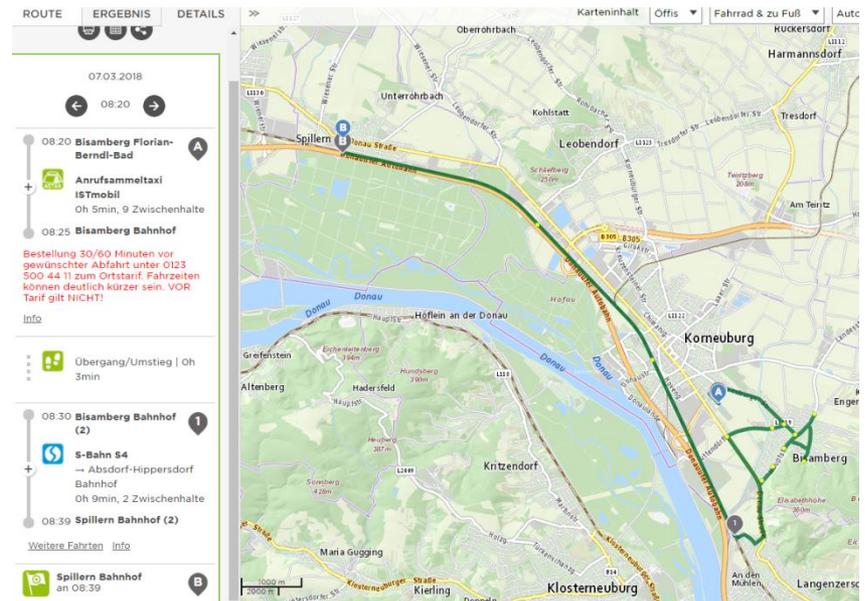
## Example ISTmobil Korneuburg II



Mrs Stuart needs a ride from **Bisamberg** (Florian-Berndl-Bad) to **Spillern** at 8.15am on weekdays.

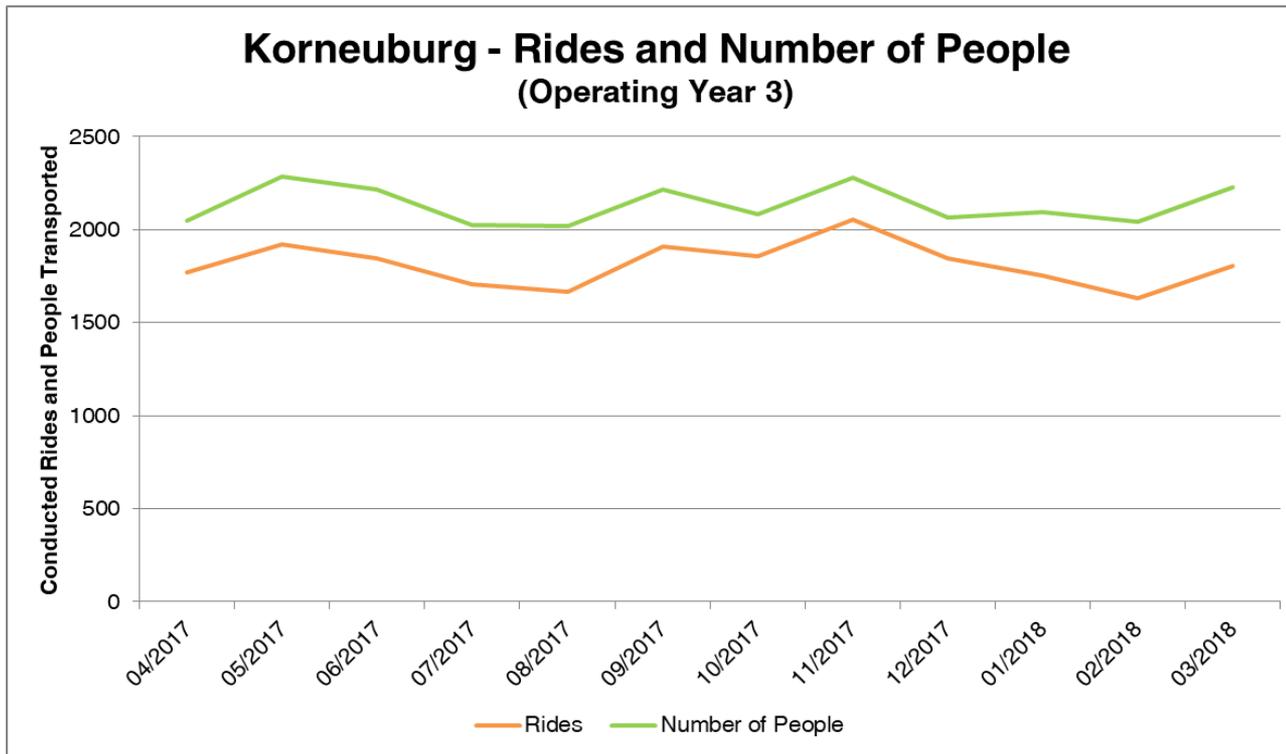
*Is it possible that ISTmobil conducts this ride directly or is a change to public transport necessary?*

**As there is a train connection available at 8.30am to Mrs Stuart's destination, ISTmobil acts as feeder for the public transport.**

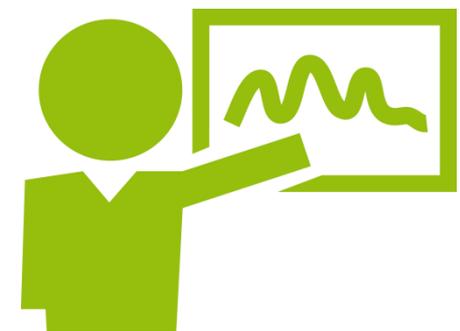


# ISTmobil Evaluation

## Example Korneuburg



Increase of rides since April 2015 by 50 %



# Contact



## **IST**mobil GmbH

**Doris Hahn, MSc**  
*CEO*

Kärntner Straße 7b  
A-8020 Graz  
0123 500 44 72

[doris.hahn@ISTmobil.at](mailto:doris.hahn@ISTmobil.at)  
[www.ISTmobil.at](http://www.ISTmobil.at)