
Project Stronger Combined

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1. introduction

The town of Rinteln is participating in the three-year project Stronger Combined of the Interreg North Sea Region. The aim is to improve mobility in rural areas and create alternatives to the private car. In the town of Rinteln, the aim is to improve mobility from the parts of Rinteln to the new hospital in Vehlen and the former hospital in Rinteln (Burghof-Klinik).

The Stronger Combined project began with the analysis phase, the results of which are summarised briefly below. The analysis includes test drives from the parts of Rinteln to the two clinic locations, a timetable analysis, a passenger analysis to the Schaumburg Clinic in Vehlen of the Schaumburg district and a bachelor thesis on the connection. The analysis results form the basis for the second phase, in which discussions and workshops with stakeholders will take place.

2. test drives

In the period from 20.08.2019 to 29.10.2019, test drives were carried out with the regular buses from the parts of Rinteln Deckbergen, Engern, Hohenrode, Möllenbeck, Steinbergen and Todenmann to the Burghof Clinic and Schaumburg Clinic in Vehlen. The trips took place in the early morning hours until noon. Overlapping bus lines had to be used to get from the parts of Rinteln to the two clinic sites. Buses of the Verkehrsbetriebe Extertal (VBE) as well as buses of the Schaumburger Verkehrsgesellschaft (SVG) are used here. In some cases, a third line Bad Eilsener Kleinbahn (BEK) is also used.

At the time of the test runs, the price per trip from the parts of Rinteln to the Schaumburg Clinic in Vehlen was €3.90. For a trip to the Burghof Clinic in Rinteln the fare was 2.70 €. Tickets can be purchased directly from the bus driver. A combi-ticket allows you to change buses without additional costs. During the test drives, such a

ticket was usually not available. Therefore, in such cases, a ticket was purchased in the connecting bus to avoid double payment. The reasons for these difficulties in purchasing a combined ticket are a lack of information for the bus drivers and the ticket computers in the buses that were not designed for this purpose.

3. timetable analysis

Bus connections to the Schaumburg Hospital in Vehlen

The journey time from the parts of Rinteln to the Schaumburg Clinic in Vehlen can take up to 2.5 hours. A changeover with waiting times of up to 60 minutes is necessary in 17 of 18 parts of Rinteln. Only Steinbergen has a direct connection to Vehlen Hospital. The number of bus connections from Monday to Friday between 06:30 and 18:00 hours is between nine and 17. However, there are big differences between the parts of Rinteln in terms of the number of journeys.

Overview of number of trips from parts of Rinteln – Klinikum Schaumburg in Vehlen

Overview of number of trips Vehlen			
Parts of rinteln	Daily	Daily back	Travel times incl. waiting time due to changeover
Ahe	12	9	0,5-2,5 Std.
Deckbergen	8	4	1,5-2,5 Std.
Engern	14	17	0,5-2,15 Std.
Exten	13	11	0,5-2,15 Std.
Friedrichswald	9	8	1,5-2,5 Std.
Goldbeck	8	11	1,5-3 Std.
Hohenrode	9	9	1,5-2,5 Std.
Kohlenstädt	12	9	0,5-2,5 Std.
Krankenhagen	8	9	1,0-2,5 Std.
Möllenbeck	9	11	1,0-2,5 Std.
Schaumburg	11	8	0,75-2,5 Std.
Steinbergen	13	13	0,5-1,25 Std.
Strücken	10	8	0,75-2,0 Std.
Todenmann	17	16	1,0-1,5 Std.
Uchtdorf	9	8	1,0-2,0 Std.
Volksen	10	9	0,75-2,5 Std.
Wennenkamp	9	8	1,0-2,5 Std.
Westendorf	12	10	1,5-2,5 Std.

Bus connections to the Burghof-Klinik

The journey from the parts of Rinteln to the Burghof-Klinik can take up to 50 minutes. A change with waiting times is necessary in 17 of 18 parts of Rinteln. Only Todenmann

has a direct connection to the Burghof-Klinik. The number of bus connections from Monday to Friday between 06:30 and 18:00 hours is between five and 20 trips. However, there are great differences in the number of journeys between the various parts of Rinteln.

Overview of number of trips from parts of Rinteln - Burghof-Klinik

Overview of number of trips BurghofKlinik			
Parts of rinteln	Daily	Daily back	Travel times incl. waiting time due to changeover
Ahe	13	9	0,5-1,0 Std.
Deckbergen	6	4	1,0-1,5 Std.
Engern	18	16	0,5-1,7 Std.
Exten	13	11	0,5-1,5 Std.
Friedrichswald	7	8	0,5-1,0 Std.
Goldbeck	12	20	1,0-3 Std.
Hohenrode	7	7	0,5-1,25 Std.
Kohlenstädt	14	11	0,5-1,0 Std.
Krankenhagen	5	8	0,5-1,5 Std.
Möllenbeck	8	9	0,5-0,75 Std.
Schaumburg	12	9	0,5-1,0 Std.
Steinbergen	14	13	0,15-2,0 Std.
Strücken	6	5	0,5-1,0 Std.
Todenmann	12	13	2 Min
Uchtdorf	7	6	0,5-1,25 Std.
Volksen	11	9	0,5-1,5 Std.
Wennenkamp	7	7	0,5-1,0 Std.
Westendorf	9	10	0,5-1,5 Std.

4. passenger count for the Schaumburg Clinic in Vehlen

From April to November 2018, the district of Schaumburg carried out a passenger count for journeys to the Schaumburg Hospital in Vehlen. The passengers of the bus line 2006, which runs from the centre in Rinteln to the hospital in Vehlen, were counted. On average, this census resulted in one passenger per trip. The count does not take into account whether the passengers came from a part of Rinteln or live centrally in Rinteln.

5. access to information

Information about the available bus connections can be found on the bus stop notices. However, the posters are often difficult to read due to the size of the font and the height

of the posting. There is also a printed timetable book of the district of Schaumburg, which is also available for download¹. The printed timetable is available for a fee of 2,00 € at the tourist information in the city centre of Rinteln.

Both information offers do not include the possibility to change trains. It is very difficult to find out the bus connections in this way. The bus drivers also did not necessarily have the information about possible onward journeys during the test drives.

Another possibility is electronic information. Here all transfers and waiting times are listed². For older people and people without PC experience, however, access to this information is difficult.

It is also possible to obtain information from the VBE by telephone about bus connections from the parts of Rinteln to Schaumburg Hospital or the Burghof Clinic (Tel: 05162 490-0). However, this offer is not advertised.

6. Bachelor thesis on the project

Within the framework of the scientific teaching activities of Dr.-Ing. Norbert Handke, a Bachelor's thesis was written on the new forms of mobility in rural areas using the example of transport to the central hospital in the district of Schaumburg. Topics here include the routes between Rinteln and the Schaumburg Clinic in Vehlen, the evaluation of travel times and conditions and the demand for mobility services. The bachelor thesis confirms the analysis results of the city of Rinteln and can be viewed.

7. conclusion

The analysis summary shows that the quality of the bus connections from the parts of Rinteln to both clinic locations must be improved. The duration of journeys, often caused by long waiting times when changing bus lines, must be shortened in order to make bus use more attractive. The possibility of obtaining information on individual bus connections must also be simplified and improved. Information on bus connections with a change of bus line is currently only available from the electronic information service. For older people and people without a PC or PC experience, this information is hardly available. The ticket computer on the buses must be programmed in such a way that the purchase of a combi-ticket is possible without difficulty. Bus drivers also

¹http://www.efa.de/index.php?id=fahrplanauskunft&sessionID=0&type_destination=any&isLink=1&name_origin=hess&coordOutputFormat=WGS84%5BDD.ddddd%5D&origin=hess&language=de&anySigWhenPerfectNoOtherMatches=1&type_origin=any

²<https://www.schaumburg.de/Landkreis/Mobilit%C3%A4t/%C3%96ffentlicher-Personennahverkehr-%C3%96PNV.php?object=tx%7C3020.2&ModID=10&FID=3020.1578.1&NavID=3020.159&La=1>

need to be better informed about the ticket options. These issues will be discussed in talks and workshops with the transport companies, clinic representatives and citizens from the parts of Rinteln in the second project phase.