Accessibility of 12 Campuses Study

Metropolitan Region Rotterdam The Hague

Report

Index

Summary

For this study, Goudappel mapped out the accessibility of twelve campus locations (see figure 1. MRDH region with the locations of the ten MBO/HBO campuses and two relevant university campuses) in the MRDH, for the transport modes car, bicycle and public transport.

We performed three types of accessibility analyses: First, we determined per campus the potential for students or employees in the area. We did this by analysing the number of residents who live within a 45 minutes travel time from the campuses. Secondly, we determined the mutual accessibility of the campuses, divided into four sectors: IT campuses; food & agriculture campuses; technical & green campuses; maritime campuses. Finally, we performed an in-depth analysis of the travel time of current employees and students.

Accessibility of campuses by bicycle and public transport is lagging behind

In our analysis of the accessibility to campuses for residents and young people, we recognize a big difference between the car and walking & public transport (OV). Within a radius of 20 kilometres around the campuses, it is evident that accessibility increases by a factor of five based on the number of residents that can reach the campuses in 45 minutes. Public transport is also not competitive with the car within a radius of 10 kilometres around the campuses. The combination of bicycle & public transport provides slightly better accessibility. Most campuses are easily accessible by bicycle (as the main mode of transport). The four campuses with lower bicycle accessibility are located around the new waterway, where it is difficult to reach residents on the other side of the river.

Mutual accessibility of campuses a point of attention

We see that not all campuses can be reached by public transport or bicycle within 45 minutes. Specially looking at the IT campuses, the travel time to/from the IT/RDM Campus Rotterdam is up to 80 minutes from the other IT campuses. At the food & agriculture campuses, Green Horti Center Lansingerland and the Food Innovation Academy are not accessible by public transport (and bicycle) within 45 minutes. At the maritime campuses, the Groene Chemie Campus Brielle is located 84 minutes from the rest by bike or public transport. The two IT & green campuses are both located in Delftand and are easily accessible by bicycle and public transport.

For five campuses we were able to conduct in-depth research into the accessibility of the students and staff, three of which have sufficient data to make statements about it. At the World Horti Center Westland we see the best accessibility of its students and employees, because many of them live relatively close to the campus. Furthermore, we see that for the majority of employees and students who travel using the 'sustainable modes', their travel time is longer than 45 minutes. At the Food Innovation Academy Schiedam and the Dutch Innovation Factory Zoetermeer up to two-thirds of the employees and students have a travel time of more than 45 minutes by bike. With the public transport & bicycle combination more than half would take longer than 45 minutes.

Improve accessibility both for current visitors and to tap into new potential

Based on the travel time analyses we make a suggestion for improvements of campus accessibility. For most campuses we see opportunities to improve transport after the event by offering partial mobility, bicycle sheds and attractive, direct bicycle routes. For the campuses with less public transport in the vicinity, there are opportunities for e-bikes and/or (shared) scooters to improve the range. All campuses can work on promoting sustainable transport modes with a mobility approach for employees and students and smart parking policies. In addition, we see that the choice of location of the campus plays a role in the poorer accessibility, this choice is often historically grown. It is difficult to change the location of existing campuses, but for new campuses it would be a good idea for the MRDH to consider the regional accessibility of the campuses (by means of an accessibility test). Furthermore, the MRDH can make choices about improving mutual accessibility per sector.

Specifically, we see opportunities for a number of campuses to attract (unused) potential (read: students and employees). For example, the Dutch Innovation Factory currently has many students from The Hague and few from Rotterdam, even though these two cities are approximately the same distance away. Furthermore, new connections over the new waterway (e.g. ferry) would potentially reduce the water barrier for the campuses in Brielle, Vlaardingen, Schiedam and Rotterdam.
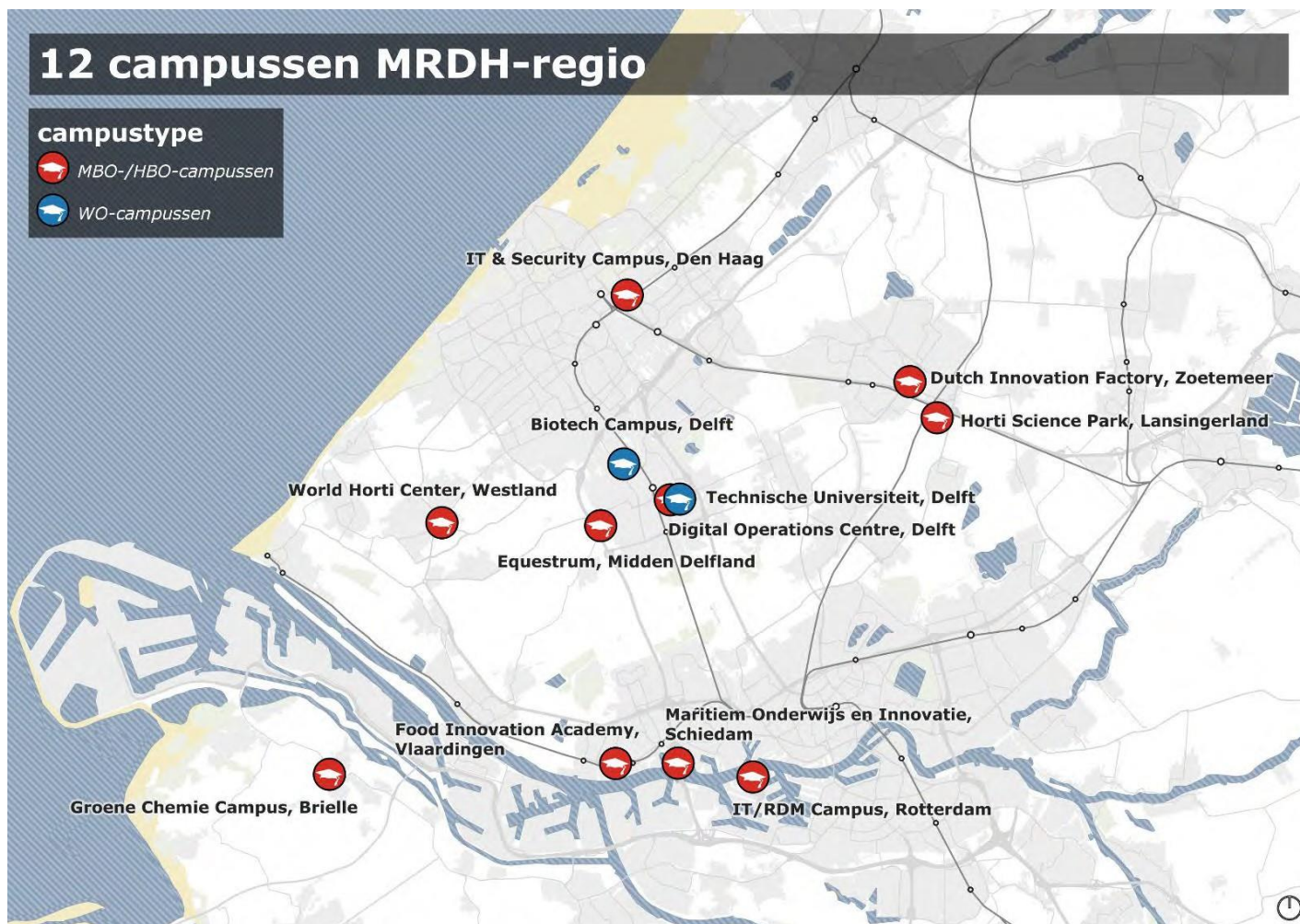
Figure 1. MRDH region with the locations of the ten MBO/HBO campuses and two relevant university campuses

1. The reason

The Metropolitan Region of Rotterdam-Den Haag (MRDH) is closely involved in the development of campuses in the Metropolitan Region. One of the spearheads of the MRDH is to strengthen the collaboration between the campuses. Based on a baseline measurement among the ten campuses, the need has been expressed for an exploration of the current accessibility of these campuses. This concerns both the accessibility of the campuses for students and lecturers, and the mutual accessibility in the context of thematic cooperation.

The MRDH has asked Goudappel to conduct analyses and issue recommendations about the accessibility of twelve campus locations. This concerns ten MBO and HBO campuses, and two relevant WO campuses. Figure 1 shows the twelve campuses on a map. This memorandum describes the results of these analyses.

Reader's Guide
In chapter 1 we describe the starting points used for the accessibility analyses. In chapter 2 we report the results of the accessibility analyses. We zoom in on the accessibility per campus location; the mutual accessibility of the twelve campuses; and an in-depth analysis of travel distances of students and employees. In Chapter 3, we provide recommendations for improving the accessibility of the campuses.

Within this study, we have mapped the accessibility of twelve campus locations in the MRDH, for the transport modes car, bicycle and public transport. In this chapter we have described the methodology and assumptions of the analyses.

2. Principles

Within this study we mapped the accessibility of twelve campus locations in the MRDH, for the modes of transport car, bicycle and public transport. In this chapter we describe the methodologyand the basic principles of the analyses.

Destination locations: The addresses of the twelve campus locations wereused as destination locations. These locations are shown in Figure 1.

Origin locations: For the origin locations, zip code 5-points from GIS specialist ESRI were used. A zip code 5-point (e.g. 2572N) is the centre of gravity of several zipcode 6-points (e.g. 2572NG and 2572NH).

Population numbers: For each campus location, we want to be able to make a statement about the number of residents who live within a 45 minute travel time radius. This requires population numbers at postal code 5 level. Population figures were purchased at zip code 6 level via CBS. These are summed to postcode-5 level andlinked to the postcode-5 point locations. A distinction is made between the total number of inhabitants and the number of young people aged 15 to 24.

Travel times: for the analyses, travel times for car, bicycle and public transport werecalculated from all zip code-5 locations to the 12 campus locations. Travel times between the campus locations have also been calculated.

- **Car:** Car travel times are calculated using the Dijkstra algorithm and a routablenetwork with speeds based on HERE Floating Car Data (FCD), data from navigationsystems that allows for the determination of road travel time including delay.
- **Public transport:** the public transport travel times are calculated with OpenTripPlanner, a travel
  planner that uses the actual timetable (from GTFS) and the OpenStreetMap network. For publictransport the combination 'bicycle, public transport, walking' and 'walking, public transport, walking' have been calculated as they occur most frequently.
- **Bicycle:** Bicycle travel times were calculated using the Dijkstra algorithm and theroutable network of the Fietsersbond and an algorithm to estimate bicycle speeds based on measured data.

For the analysis, a travel time of 45 minutes was considered. The average travel time in the Netherlands for study and commuting is generally somewhat shorter.

45 minutes was chosen because for travel times longer than 45 minutes, the number of people willing to travel to work or education decreases rapidly.

Period of time: the calculations for this study were performed for an average morning rush hour on a regular working day before the outbreak of COVID-19. Forpublic transport, the timetable of Tuesday, February 4, 2020 was used.

We work with a dot map based on zip codes because it shows well where people live. Appendix A.

We also conducted a more in-depth analysis for some of the campuses for which anonymized residential locations (at the zip code-5 level) of students and employees were provided. Based on the travel times between these ZIP Code 5 housing locations and the campus, we depict what percentage of students and employees live within an acceptable travel time by bicycle or public transportation.

3. Accessibility of Campus Locations

In this chapter, we present the results of the accessibility analyses. We first make a comparison of the accessibility of the 12 campus locations. Then we zoom in on the accessibility per campus location and analyze the mutual accessibility of the 12 campuses. Finally, we conclude with an in-depth analysis of the travel time of students and employees from some of the campuses.

3.1   Number of residents within 45 minutes of campus locations

For each campus location we calculated how many inhabitants can reach the location within 45 minutes travel time by car, bicycle and public transport. For public transport, we considered the combinations "walk, public transport, walk" (public transport) and "bike, public transport, walk" (bike & public transport). The results are presented in Table 2-1.

Legend: *>1 m; 500k-1m; <500k*

CAMPUS	TYPE	CAR	BIKE	WALK & OV	BIKE & PT
The Hague, IT & SC	MBO/HBO	4,918,000	938,000	1,472,000	2,257,000
Zoetermeer, DIF	MBO/HBO	5,105,000	535,000	629.000	1,256,000
Lansingerland, GHC	MBO/HBO	4,935,000	516,000	116,000	365,000
MOIC Schiedam	MBO/HBO	3,921,000	710,000	460,000	796,000
IT Campus Rotterdam	MBO/HBO	3,653,000	661,000	339,000	675,000
Green Chemistry Brielle	MBO/HBO	2,932,000	107,000	135,000	201,000
Vlaardingen, FIA	MBO/HBO	3,689,000	465,000	344,000	619,000
Delft Digital Operations Centre	MBO/HBO	4,326,000	1,047,000	551,000	1,225,000
Equestrum, Central Delfland	MBO/HBO	4,435,000	989,000	320,000	950,000
Westland, WHC	MBO/HBO	3.622000	664,000	305,000	687,000
Tu Delft	WWI	4,265,000	994,000	506,000	1,189,000
Biotech Campus Delft	WWI	4,649,000	1,042,000	700,000	1,271,000

Table 3-1 Number of inhabitants living within 45 minutes travel time per campus location

The accessibility of the campuses varies greatly by mode of transportation. All campuses are best reached by car based on the 'tidy' travel time. This does not take into account the extra time and effort required to park the car, wait for public transport, or to park the bicycle. IT & Security Campus The Hague, Digital Operations Centre Delft is easily accessible due to its location near public transport. The Biotech Campus Delft is also well served by public transport through the combination of bicycle and public transport. The Horti Science Culture Park Lansingerland has a low accessibility for all modalities except the car. This is of course strongly influenced by the lower number of residents living in the vicinity of this campus location, but also by the lack of a high-quality public transport connection.

Based on the CBS figures it is also possible to look specifically at the accessibility of the group of young adults (potential students) aged 15 to 24 years. The results of this are included in Table 2-2. The results largely give the same picture as for all ages of population. We see very low numbers of reachable young adults at a number of campuses such as GHC Lansingerland or the Green Chemistry Campus Brielle.

Legend: *>150k; 150-50k; 50-15k; <15k*

CAMPUS	TYPE	CAR	BIKE	WALK & OV	BIKE & PT
The Hague, IT & SC	MBO/HBO	610,000	119,000	193,000	287,000
Zoetermeer, DIF	MBO/HBO	637,000	64,000	79,000	160,000
Lansingerland, GHC	MBO/HBO	618,000	59,000	13,000	41,000
MOIC Schiedam	MBO/HBO	487,000	94,000	62,000	111,000
IT Campus Rotterdam	MBO/HBO	455,000	88,000	49,000	91,000
Green Chemistry Brielle	MBO/HBO	362,000	12,000	14,000	22,000
Vlaardingen, FIA	MBO/HBO	459,000	58,000	47,000	90,000
Delft Digital Operations Centre	MBO/HBO	535,000	138,000	80,000	165,000
Equestrum, Central Delfland	MBO/HBO	548,000	128,000	46,000	128,000
Westland, WHC	MBO/HBO	451,000	87,000	35,000	88,000
Tu Delft	WWI	529.000	132,000	71,000	159,000
Biotech Campus Delft	WWI	574,000	132,000	101,000	170,000

Table 3-2 Number of residents aged 15 to 24 living within 45 minutes of travel time per campus location

3.2 Accessible percentage of residents within 10km and 20km of the campus locations

In section 3.1, the difference in accessibility between the campuses is explained in no small part by how many people live nearby and not just by the quality of accessibility. In order to see how good the accessibility of the campuses is, an additional analysis was done to see how many of the people living within a broad radius of 10 and 20 kilometers from the campus can actually get to the campus within 45 minutes. For each mode, the proportion of residents who can reach the campus location within 45 minutes of travel time was determined. 45 minutes is a generally accepted travel time for commuting/school traffic. We choose 10 km, because this should be reasonably accessible to all residents by bicycle within 45 minutes. And within 20 km you should ideally be able to reach a large proportion of residents within 45 minutes by public transport.

The tables contain three colors: green, yellow and orange. Values are colored green if more than 66% of residents can reach a campus by this mode of transportation. This is a high degree of accessibility. Values are colored yellow if between 33% and 66% of residents can reach a campus by this mode of transportation. Values are colored orange if less than 33% of residents can reach a campus by this mode of transportation. This indicates a low level of accessibility.

Accessibility of residents within a 10 km radius
Table 3 3 shows the percentage of residents living within a 10-kilometer radius who can reach the campus within a 45-minute travel time. All campuses are very accessible by car and, with some exceptions, easily accessible by bicycle. All campuses with lower bicycle accessibility are located around the new waterway, where it is difficult to reach people on the other side of the river. IT & Security Campus The Hague and Dutch Innovation Factory are the best accessible campuses by public transport for residents living within 10 kilometers of the campus. A combination of walking and public transport (OV) results in lower accessibility than bicycle and public transport. The Horti Science Park Lansingerland and Equestrum campuses are the least accessible by foot and public transport. This is mainly because they are not located directly near HOV. A combination of bicycle, public transport and walking (bicycle & OV) results in a higher accessibility.

CAMPUS	INHABITANTS	CAR	BIKE	WALK & OV	BIKE & OV
The Hague, IT & SC	910,000	100%	99%	93%	99%
Zoetermeer, DIF	440,000	100%	97%	72%	94%
Lansingerland, GHC	455,000	100%	99%	24%	59%
MOIC Schiedam	785,000	100%	86%	57%	87%
IT Campus Rotterdam	854,000	100%	77%	40%	79%
Green Chemistry Brielle	145,000	100%	68%	61%	62%
Vlaardingen, FIA	548,000	100%	79%	53%	72%
Delft Digital Operations Centre	924,000	100%	98%	51%	93%
Equestrum, Central Delfland	922,000	100%	99%	33%	80%
Westland, WHC	612,000	100%	99%	46%	90%
Tu Delft	931,000	100%	96%	48%	95%
Biotech Campus Delft	971,000	100%	100%	57%	88%

*Table 3-3 The percentage of residents living within a radius of **10 kilometers** resides and can reach the campus within 45 minutes travel time by mode of transport.*

Accessibility of residents within a radius of **20 km**

Table 3-4 shows the percentage of residents living within a 20-kilometer radius who can reach the campus within a 45-minute travel time. The campuses are very accessible by car. The difference between car accessibility and walking & public transport (OV) accessibility differs by a factor of five in many cases. A combination of walking and OV results in low accessibility (33% or less of the population) for 11 of the 12 campuses.

However, the accessibility of IT & Security Campus The Hague increased (>66% of the population) with a combination of walking and public transport and a combination of walking, public transport and cycling (bicycle & OV). This can be explained by the location in the center of The Hague with many public transport possibilities. A combination of walking, public transport and cycling (bicycle & OV) results in medium-low accessibility levels for 11 of the 12 campuses.

CAMPUS	INHABITANTS	CAR	WALK & OV	BIKE & OV
The Hague, IT & SC	1,965,000	100%	70%	87%
Zoetermeer, DIF	2,590,000	100%	24%	48%
Lansingerland, GHC	2,559,000	100%	5%	14%
MOIC Schiedam	2,222,000	100%	21%	36%
IT Campus Rotterdam	2,115,000	100%	16%	32%
Green Chemistry Brielle	970,000	100%	14%	21%
Vlaardingen, FIA	2,169,000	100%	16%	29%
Delft Digital Operations Centre	2,475,000	100%	22%	49%
Equestrum, Central Delfland	2,307,000	100%	14%	41%
Westland, WHC	1,747,000	100%	17%	39%
Tu Delft	2,497,000	100%	20%	48%
Biotech Campus Delft	2,306,000	100%	30%	55%

*Table 3-4 The percentage of residents living within a radius of **20 kilometers** resides and can reach the campus within 45 minutes travel time by mode of transport.*

3.3 Accessibility of the 12 campus locations

3.3.1 Overview of the twelve campus locations

To determine the accessibility of all 12 campuses, we analyzed which zip codes are most accessible within 45 minutes of travel time for each mode. The following pages show an overview of the accessibility maps of the 12 campuses on one page. We show the accessibility within 45 minutes for the modes of bicycle, public transport and car.

The green dots represent postal codes that are accessible by bicycle, public transport and car, while the yellow dots indicate postal codes that are only accessible by bicycle and car within a travel time of 45 minutes. Blue dots represent zip codes that are accessible by public transportation and car. Orange points represent zip codes that can only be reached by car. All gray points are not accessible within a 45-minute travel time.

We see five campuses with distinct blue areas, circled thick pink in the figure below. These campuses are relatively close to a fast (regional) public transport connection.
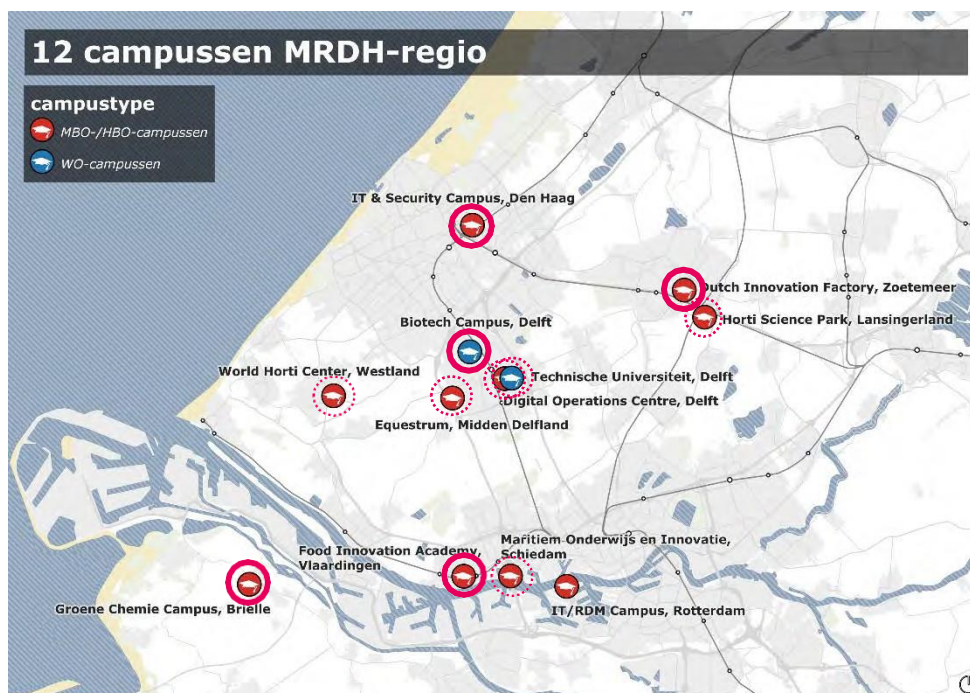
In addition, we see six campuses with small blue areas, dotted circled on the map. These campuses are a bit further from fast (regional) OV connections so get a bit less far in 45 minutes. For example, from the TU Delft campus you can get to Rotterdam station by public transport, but not much further.

The campus without blue dots is the IT/RDM Campus. This campus is unfavourably located with regard to fast (regional) public transport connections. Only a ferry and a city bus currently stop near this campus.

Two striking differences with the accessibility analyses of the number of inhabitants

(Section 3.2) can be seen at the Green Chemistry Campus Brielle and the Food Innovation Academy. Here relatively few inhabitants could be reached, but the accessibility by public transport to Schiedam or Rotterdam is good. This can be explained by the fact that the harbour and the Meuse form a barrier to reach the residents north of the Meuse, for example from Maassluis and Vlaardingen.

3.3.2 Sample map: Dutch Innovation Factory

The Dutch Innovation Factory is largely accessible by bicycle within a radius of 10 kilometers. The campus is largely accessible by public transport within a radius of about 15 kilometers. It is striking that The Hague is easily accessible from Zoetermeer and Rotterdam less so. In Appendix A. all campuses are shown in a similar way.

Dutch Innovation Factory

MRDH

Bereikbaarheid (45 min)
- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 5105k
Fiets: 535k
OV: 629k

3.4 Mutual accessibility of the campuses

In this section we analyze the mutual accessibility of the campuses. In doing so, we distinguish between four sectors:

- IT campuses
- Food & agriculture campuses
- Technical & green campuses
- Maritime campuses

On the following pages we show two types of tables for different modalities for the IT campuses. In the tables, we first show the travel time between the IT campuses by modality, in so-called origin-destination matrices. In shades of green the travel time is shown for under 45 minutes, in orange if it exceeds 45 minutes. Second, we show the relative speed between the IT campuses by different modes. The higher the speed, the better connected the campuses are, the lower the speed the more delayed or less direct the connection. For the car, a very direct route could reach at least 50 km/h, while by bicycle you are more likely to cycle 15 km/h.

IT campuses

In terms of IT campuses, all four campuses are within 45 minutes of each other by car. However, for cycling and walking/public transport, a higher travel time applies between the four campuses. Traveling by public transport/bicycle between the IT & Security Campus The Hague and the Dutch Innovation Factory Zoetermeer/ Digital Operations Centre Delft is still within 45 minutes. The accessibility to and from the IT/RDM Campus Rotterdam is relatively poor compared to the rest. The location of the Campus, surrounded by water, means that one has to make a detour to get there or make use of the 'slow' ferry connection.
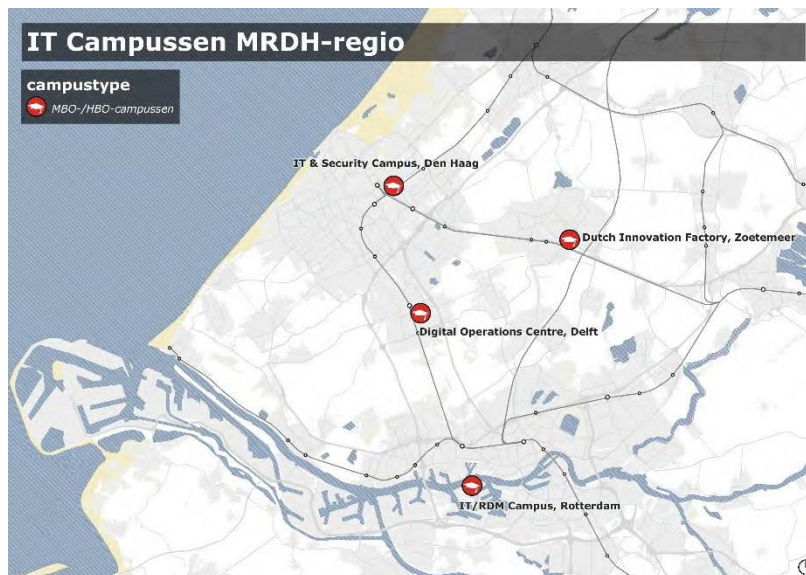
Figure 3-1 IT campuses

*Table: IT campuses: **Car** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	digital Operations Center Delft	English Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
digital Operations Center Delft		16	26	14
English Innovation factory	17		33	14
IT/RDM campus Rotterdam	26	34		32
IT & Security Campus Den Haag	12	11	28	

	digital Operations Center Delft	English Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
digital Operations Center Delft		43	28	38
English Innovation factory	39		32	55
IT/RDM campus Rotterdam	29	32		40
IT & Security Campus Den Haag	43	69	45	

*Table: IT campuses: **Bike** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	Digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
Digital Operations Center Delft		45	66	41
Dutch Innovation Factory	46		94	52
IT/RDM campus Rotterdam	65	95		103
IT & Security Campus Den Haag	41	51	104	

	Digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
digital Operations Center Delft		15	11	13
English Innovation factory	15		11	14
IT/RDM campus Rotterdam	11	11		12
IT & Security Campus Den Haag	13	15	12	

*Table: IT campuses: **Walking, public transport and walking** travel time [min] (left)*

and straight line distance/travel time [km/h] (right)

	Digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
Digital Operations Center Delft		53	72	35
Dutch Innovation factory	59		90	24
IT/RDM campus Rotterdam	68	90		68
IT & Security Campus Den Haag	34	26	72	

	digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
digital Operations Center Delft		13	10	15
Dutch Innovation factory	11		12	32
IT/RDM campus Rotterdam	11	12		19
IT & Security Campus Den Haag	16	29	18	

*Table: IT campuses: **Bicycle, public transport and walking** travel time [min] (left)*

and straight line distance/travel time [km/h] (right)

	Digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
Digital Operations Center Delft		42	59	21
Dutch Innovation factory	45		79	25
IT/RDM campus Rotterdam	66	80		66
IT & Security Campus Den Haag	32	23	70	

	Digital Operations Center Delft	Dutch Innovation factory	IT/RDM campus Rotterdam	IT & Security Campus Den Haag
Digital Operations Center Delft		16	13	25
Dutch Innovation factory	15		14	30
IT/RDM campus Rotterdam	11	13		19
IT & Security Campus Den Haag	17	33	18	

Food & agriculture campuses

Most of the Food & Agriculture campuses have travel times between them longer than 45 minutes by public transport. Especially GHC Lansingerland is located far away from the rest and with public transport the travel time is relatively long. In addition, the Equestrum also scores relatively poorly when looking at the average OV speed on relations with the other campuses. At both the Equestrum and GHC Lansingerland this can be attributed to peripheral location. Here, improvements can be made in after-hours transportation. Bicycle routes between each other are all relatively direct though. With a relative speed of 13-15 km/h, these campuses score best compared to the other sectors. Lansingerland is somewhat further from the rest, so has a relatively high travel time (60-90 minutes), faster bikes like the e-bike offer opportunities for these distances.
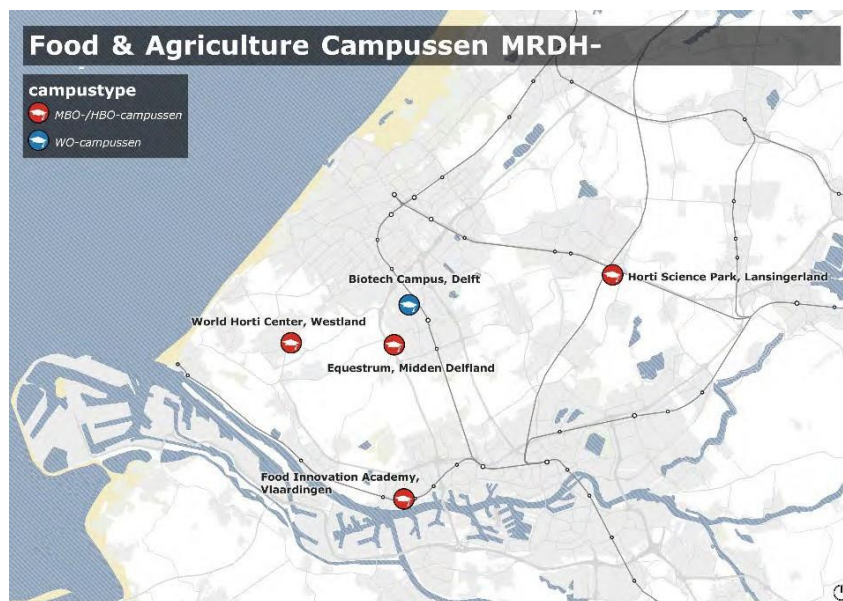
Figure 3-2 Food & agriculture campuses

Table: Food & agriculture campuses: **Car** travel time [min] (left) and straight line distance/travel time [km/h] (right)

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		7	18	16	15
Equestrum	7		14	19	12
Food Innovation Academy	18	15		28	16
Lansingerland GHC	19	20	27		26
Westland WHC	16	12	16	25	

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		25	43	50	33
Equestrum	25		44	47	33
Food Innovation Academy	43	40		42	46
Lansingerland GHC	43	45	44		49
Westland WHC	31	32	46	51	

Table: Food & agriculture campuses: **Bike** travel time [min] (left) and straight-line distance/travel time

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		13	52	60	34
Equestrum	13		39	64	28
Food Innovation Academy	52	40		81	52
Lansingerland GHC	60	65	82		90
Westland WHC	34	28	52	90	

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		13	15	13	14
Equestrum	13		15	14	14
Food Innovation Academy	15	15		15	14
Lansingerland GHC	13	14	15		14
Westland WHC	14	14	14	14	

Table: Food & agriculture campuses: **Walking, public transport and walking** travel time [min] (left) and straight line distance/travel time [km/h] (right)

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		37	61	82	51
Equestrum	37		60	89	46
Food Innovation Academy	59	57		93	59
Lansingerland GHC	80	94	108		91
Westland WHC	47	45	61	89	

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland, GHC	Westland WHC
Biotech campus Delft		4	12	10	10
Equestrum	4		10	10	9
Food Innovation Academy	13	11		13	13
Lansingerland GHC	10	9	11		14
Westland WHC	10	9	12	14	

Table: Food & agriculture campuses: **Bicycle, public transport and walking** travel time [min] (left) and straight-line distance/travel time [km/h]

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		22	45	67	36
Equestrum	21		49	78	40
Food Innovation Academy	50	48		84	43
Lansingerland GHC	55	69	88		72
Westland WHC	43	36	57	95	

	Biotech Campus Delft	Equestrum	Food Innovation Academy	Lansingerland GHC	Westland WHC
Biotech campus Delft		8	17	12	13
Equestrum	8		12	12	10
Food Innovation Academy	15	13		14	17
Lansingerland GHC	15	13	14		18
Westland WHC	11	11	13	14	

Technical & green campuses

Travel times between the two technical & green campuses are low for each mode, due to the short distance between the two campuses. However, the relative travel time between the campuses by most modes is high. Especially the time in public transport is relatively long, this can be explained because with a short distance in public transport the pre- and post-transport weigh extra heavily. However, the travel time remains short, so one can wonder whether improvements are needed here.
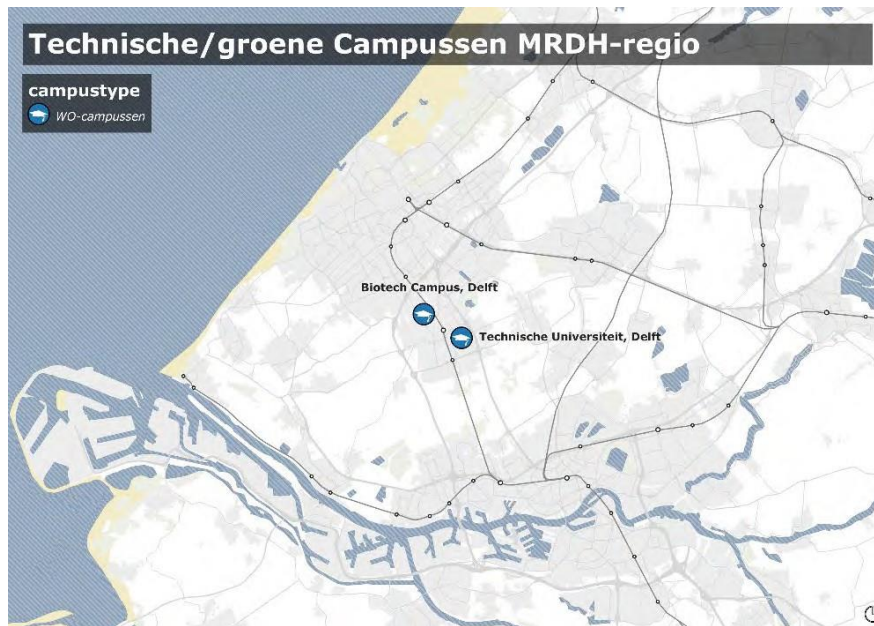
Figure 3-3 Technical & green campuses

*Table: Technical & Green Campuses: **Car** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		8
Technical Delft University	8	

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		21
Technical Delft University	21	

*Table: Technical & Green Campuses: **Bike** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		15
Technical Delft University	16	

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		11
Technical Delft University	11	

*Table: Technical & Green Campuses: **Walking, public transport and walking** travel time [min] (left)*

and straight line distance/travel time [km/h] (right)

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		27
Technical Delft University	15	

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		6
Technical Delft University	11	

*Table: Technical & Green Campuses: **Bicycle, public transport and walking** travel time [min] (left)*

and straight line distance/travel time [km/h] (right)

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		8
Technical Delft University	8	

	Biotech Campus Delft	Technical Delft University
Biotech Campus Delft		5
Technical Delft University	6	

Maritime campuses

With the exception of the automobile, accessibility between campuses is low. This can be attributed to the fact that there are few direct roads and bicycle lanes and public transportation reaching these locations. In particular, the accessibility between the Maritime Education and Innovation campus and the IT/RDM campus is relatively low due to the barrier of the water.
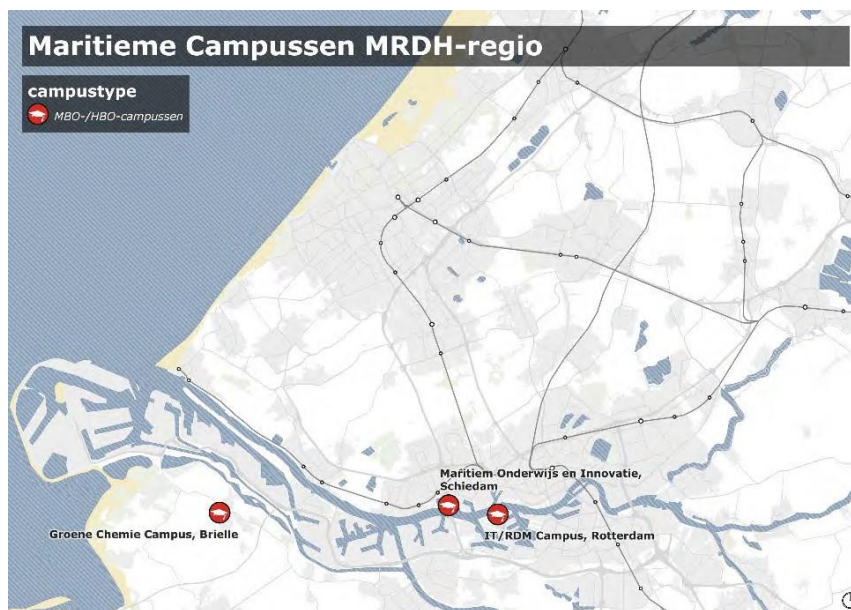

Figure 3-4 Maritime campuses

*Table: Maritime Campuses: **Car** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	green Chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education e n Innovation
green Chemistry campus brielle		26	23
IT/RDM campus Rotterdam	26		15
Maritime Education and Innovation	24	17	

	green Chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education e n Innovation
green Chemistry campus brielle		41	38
IT/RDM campus Rotterdam	42		13
Maritime Education and Innovation	37	12	

*Table: Maritime Campuses: **Bike** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	green Chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education e n Innovation
green Chemistry campus brielle		72	58
IT/RDM campus Rotterdam	73		52
Maritime Education and Innovation	57	32	

	green Chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education e n Innovation
green Chemistry campus brielle		15	15
IT/RDM campus Rotterdam	15		4
Maritime Education and Innovation	16	6	

*Table: Maritime Campuses: **Walking, public transport and walking** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	green Chemistry campus brielle	IT/RDM campus rotterdam	maritime Education and Innovatie			Greene chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education and Innovation
green Chemistry campus brielle		84	75		green Chemistry campus brielle		13	12
IT/RDM campus Rotterdam	83		32		IT/RDM campus Rotterdam	13		6
Maritime Education and Innovation	75	32			Maritime Education and Innovation	12	6	

*Table: Maritime Campuses: **Bicycle, public transport and walking** travel time [min] (left) and straight line distance/travel time [km/h] (right)*

	Greene chemistry campus brielle	IT/RDM campus rotterdam	maritime Education and Innovatie			green chemistry campus brielle	IT/RDM campus Rotterdam	Maritime Education and Innovation
green Chemistry campus brielle		82	70		green Chemistry campus brielle		13	13
IT/RDM campus Rotterdam	73		56		IT/RDM campus Rotterdam	15		3
Maritime Education and Innovation	65	59			Maritime Education and Innovation	14	3	

3.5 In-depth research into the accessibility of students and employees for 5 campus locations

For five campuses, we received information where we were able to conduct a more in-depth study of student and employee accessibility. The last two campuses only involve employees, hence the lower numbers.

The table below shows the percentage of students and employees residing within 45 minutes travel time of the campus. Broken down by mode of transportation and based on zip code-5 residential locations provided by the campuses. No data was provided at the zip code-5 or zip code-6 level for the remaining campuses.

CAMPUS	PERSONS	CAR	BIKE	WALK & PV	BIKE & PV
Dutch Innovation Factory	513	96%	33%	40%	63%
Food Innovation Academy	103	93%	44%	39%	45%
World Horti Center Westland	268	97%	74%	59%	73%
Horti Science Park, Lansingerland	19	100%	95%	47%	84%
IT/RDM Campus Rotterdam	8	100%	38%	25%	38%

Table 3-12 Percentage of students and employees who travel within 45 minutes from the campus location resides

The first three campuses have enough data, from employees and students to draw conclusions. Of these three, the World Horti Center Westland is the most accessible by car, bicycle and a combination of bicycle and public transportation. The accessibility analysis showed that, compared to other campuses, few residents live within a short travel time of the World Horti Center, but apparently many young people who study there and people who work there do live near the campus. The accessibility of the Dutch Innovation Factory is lowest via bicycle. The accessibility of the IT/RDM Campus Rotterdam is lowest via a combination of walking and public transport; but due to limitations in the data, the accessibility of IT/RDM Campus Rotterdam could change with a larger number of respondents. There is also too little data for the Horti Science Park, Lansingerland to draw good conclusions.

Overall, the staff and students of the campuses are best reached by car. Especially at the Dutch Innovation Factory and Food Innovation Academy the current staff and students are not yet easily accessible by bicycle or public transport. It is important to mention that these figures are also strongly influenced by the travel distance. A low accessibility by bicycle mainly means that the students and employees live somewhat further away. Not that there are bad cycle paths, for example.

The maps below show the locations of the respondents for the campuses with student and employee data.

Dutch Innovation Factory Zoetermeer

MRDH

Bereikbaarheid (45 min)
- fiets en auto
- fiets, ov en auto
- ov en auto
- alleen auto
- > 45 minuten

Food Innovation Academy Vlaardingen

MRDH

Bereikbaarheid (45 min)
- fiets en auto
- fiets, ov en auto
- ov en auto
- alleen auto
- > 45 minuten

World Horti Center Westland

MRDH

Bereikbaarheid (45 min)
- fiets en auto
- fiets, ov en auto
- ov en auto
- alleen auto
- > 45 minuten
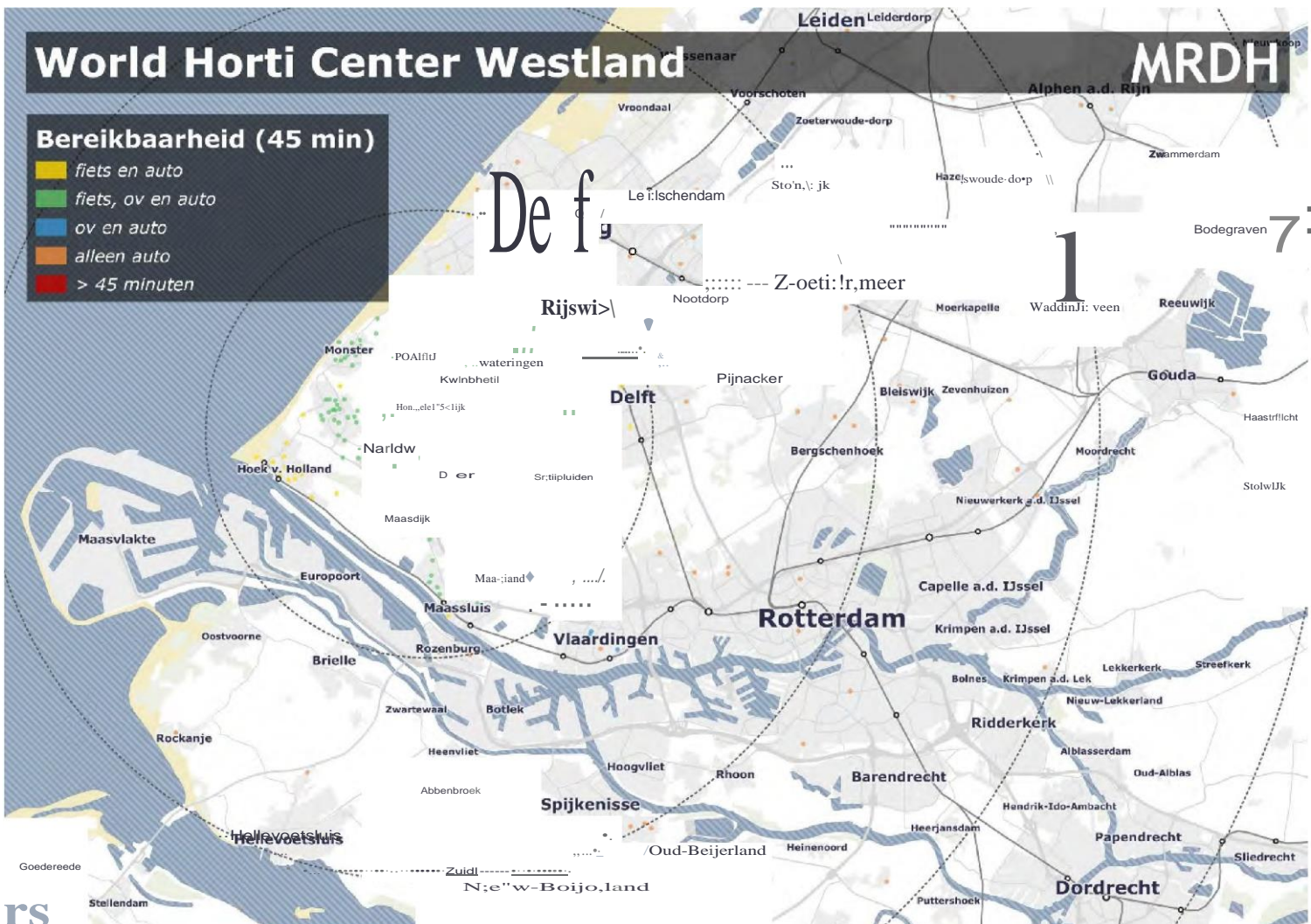
4. Opportunities for campus accessibility

We make a recommendation to improve the accessibility of the campuses based on the travel time analyses. In addition, we make a link with the improvement of the accessibility of other campuses, on which Goudappel has worked in recent years. What common thread do we draw from this?

4.1 Improvements for employees and students and for the future potential

The analyses show how accessible the 12 campuses studied are by various modalities. To improve accessibility, measures can be taken from two angles. First, the MRDH can take measures to better reach the current staff and students. In the in-depth analyses of the staff and students, we see that the campuses are best accessed by car, but -particularly at the Food Innovation Academy Vlaardingen and the Dutch Innovation Factory Zoetermeer- the current staff and students are not yet well served by bicycle or public transport.

In addition to the current employees and students, the potential of new employees and/or students in the vicinity (young residents) can be better utilized. An important note is that location choice in many cases creates poor accessibility. Many campuses are built in more industrial locations that are easily accessible by car, but not easily accessible by public transportation. This has often historically been the case due to, among other things, the need for a spacious location. A specific point of interest are the campuses around the Nieuwe Waterweg, which are less accessible from the other side due to the barrier effect of the water, also the location at harbor basins causes long travel times compared to the distance as the crow flies.

Promote sustainable modes of transport
In general, we see that the geographical location of the campus is very decisive for multimodal accessibility. Campuses that are not located in the urban area can automatically reach fewer residents in 45 minutes. Natural barriers, such as the Maas river, also cause longer travel times for campuses around the ports of Rotterdam. Campuses close to regional public transport, such as an intercity train station, are relatively easy to reach by all modalities. For all campuses, the car has the greatest range.

However, it is not always desirable for employees and/or students to come to the

campus by car. This requires a lot of parking space and is a less sustainable way of getting around compared to public transport or cycling. One way to encourage sustainable travel is a mobility approach for employees and students. This is a measure that is useful for all campuses. How this can be done in practice is explained with an example from Nijmegen.

Improving onward transport

In addition to a mobility approach, improving transport after the event is an effective measure. Good (pre)-transport can significantly reduce the time spent on public transport. Specifically, a campus can think of the following:

- Using shared mobility (such as shared bicycles) at the nearest station, HOV facility and on the campus itself. Possibly in consultation with the transport company concerned.
- Good (guarded) parking facilities at the stations and on the campus. Consider also charging stations for speed bikes and e-bikes.
- Better routes to and from public transport or providing a stop closer to the campus.

Attractive & direct routes

Improving bicycle and walking routes to public transport facilities is a major concern for campus accessibility. The obvious solution is to create a more direct route between the campus and public transport. It is also possible to make the route(s) more pleasant and attractive, especially if the routes are already relatively direct. An attractive route is experienced as shorter. In addition to the usual elements like a smooth, red cycle path, consider greenery and water, works of art along the route, clear signposting, lighting, places to sit, etc.

Opportunities for (e-)bike and e-mobility.

Especially in the areas where public transport is further away, we see opportunities for (e-)bikes and for example electric shared scooters. The campus should pay attention to appropriate parking facilities on the campus, sufficient available charging points and (in consultation with the municipality, shared scooter providers or MRDH) connection to a good cycle network.

The Metropolitan bicycle route network developed by the MRDH plays an important role in this. Most campuses are located on or near this network, only the Campus in Brielle is not.

Accessibility test at new campuses
Part of the explanation for the poorer accessibility of campuses is location. The location choices of campuses are often historical. Campuses often need space for experiments, workshops, etc., so it makes sense that they are sometimes built in more remote places with lots of space. For existing campuses it is difficult to change the location, but for new campuses it would be good if the MRDH would also think about the regional accessibility of the campuses, to test whether students and employees from the entire region can get there easily. It is also advisable to critically examine the location of existing campuses when expanding them.

Improving mutual accessibility
We provided insight into the mutual accessibility of various clustered sectors. This showed that the IT/RDM campus and the Horti Science Park Lansingerland in particular are likely to improve accessibility to the other campuses in their sector. There is particular room for improving the pre- and post-transport.

4.2   Specific to the campuses

Specifically for the 12 campuses, we see the following opportunities for improving accessibility.

Biotech Campus Delft
The campus is now relatively far from the regional public transport system. With bicycle pre- and post-transport the location can be reached better with public transport. There are currently no plans to improve the accessibility of the campus.

Digital Operations Center Delft
The campus is now relatively far from regional public transport. With bicycle transport the location can be reached better with public transport. The bicycle facilities on the campus are also good. In addition, there are plans to construct the Gelatine Bridge, which will improve the bicycle connection from Delft Campus station to TU Campus. In addition, the planned extension of streetcar line 19 will improve accessibility by public transport. Furthermore, TU Delft intends to introduce parking regulations on the campus at the end of this year. Free parking will then no longer be possible, which will reduce car accessibility for non-TU related parkers.

Dutch Innovation Factory, Zoetermeer
At the Dutch Innovation Factory (DIF) the poor accessibility is reflected in the longer travel times of students and employees. Current employees and students still cannot be reached easily by bicycle or public transport. It can also be seen that the DIF attracts many students from The Hague and few from Rotterdam, as it falls under the hat of the Haagse Hogeschool. On the one hand, the public transport connection to The Hague is good. On the other hand, The Hague University of Applied Sciences also has a good customer network there, so good marketing to recruit students. Besides The Hague, Alphen aan de Rijn, Delft, Gouda, Leiden and Rotterdam can also be reached from the DIF. Recruiting new students in these areas through promotion and marketing could be a good measure. From the DIF there are wishes for a shuttle as a possibility for pre- and post-transport to the station Zoetermeer Lansingerland.

Equestrum, Central Delft
This campus scores relatively poorly on public transport. There are opportunities here to improve transport to and from the campus. For example, by good bicycle facilities or a local public transport connection. The Equestrum has already expressed the wish for a bus stop on line 33 in the timetable for 2022.

Food Innovation Academy, Vlaardingen
In the in-depth analyses into the employees and students we see that the campuses are best reached by car. At the Food Innovation Academy, current employees and students are not yet easily accessible by bicycle or public transport. The Hoekselijn stops in front of the door, but the students do not necessarily come

from that connection. Here are also opportunities for recruiting new students. The FIA wishes to improve the connection of the campus with the regional bicycle routes, as well as the connection to the Unilever site, the city center and the central station; and to improve partial systems for pre- and post-transport.

Green Chemistry Campus Brielle

The campus in Brielle can, due to its geographical location under the new waterway, more difficult to reach all inhabitants (and potential students) within 20 km. An extra crossing could help, for example with a ferry. The public transport connection to the east is currently a local bus. Brielle would like to turn this into a good HOV connection and a connection to the Spijkenisse metro.

Horti Science Park Lansingerland

This campus scores relatively poorly on public transport. There are opportunities here to improve transport to and from the park. There is already a plan for the realization of an R-net bus stop in front of the door and for the realization of a Metropolitan Bicycle Route Zoetermeer-Rotterdam including good parking facilities at the station Zoetermeer Lansingerland (Zo-La). Furthermore, in Q4 of 2021 a bicycle path between the Zo-La station and the campus will be realized.

The campus currently attracts relatively few students from Rotterdam; better connections with Rotterdam could tap into significant additional potential here.

IT/RDM Campus Rotterdam

This campus is very remote, and in between the harbors. This results in long journeys to and from the port. There are opportunities to adapt this, for example, by having a ferry that is better suited to the flow of passengers or good subsystems at the door. On 1 January there will be a water cab between RDM and Marconistraat. A pilot with expansion Waterbus is being investigated.

Maritime Education and Innovation, Schiedam

The campus is not far from the Hoekselijn. With good pre and post transport the location is reasonably well accessible by public transport. A number of measures are being taken to improve the accessibility of the campus: the Port of Schiedam bike sharing system from the Troelstralaan and Vijfsluizen subway stations; a shuttle bus on Nieuwe Waterwegstraat; new cycle route on Westfrankenlandsedijk and Metropolitan Cycle Route Rotterdam-Schiedam-Naaldwijk. Studies are also underway into a slow traffic bridge over the mouth of the tidal area Vijfsluizen; a cycle bridge over Vlaardingerdijk; a pilot project for autonomous transport between Vijfsluizen and Vlaardingen Oost; and further development of the water cab.

IT & Security Campus, The Hague

This campus is already centrally located and the best accessible. Providing sufficient bicycle parking facilities and charging stations could increase accessibility by (e)bike. There are also plans for the construction of a Vélostrada (bicycle route)

along Laan van NOI station in the direction of HS station and a study is underway into increasing the frequency of the Randstadrail. This will benefit the improvement of accessibility by bicycle and public transport.

Delft University of Technology

Same as the Digital Operations Center Delft.

World Horti Center, Westland

This campus has many students who live in the Westland itself, so we see the travel times for many students and employees is still within 45 minutes. It is useful to further investigate whether all these students come to the campus by bike. The campus (and municipality of Westland) already has many plans to construct (metropolitan) bicycle routes towards The Hague, Delft and Rotterdam and to improve the existing bicycle network. In addition, a study is underway into a HOV connection in the Westland from The Hague via Naaldwijk to Maassluis, which would help to increase the reach of the Campus.

4.3   Lessons from Dutch campuses

Goudappel has carried out studies for various campuses in the Netherlands on improving accessibility. For example, we recently examined the campuses of Nijmegen, Leiden and Tilburg. This often includes the desire to develop a green car-free campus with more sustainable mobility.

Policy in three areas

We see that a mobility approach for campuses requires an integral approach in which three policy strands can be distinguished:

1.   Policy on strengthening home working, e-learning and e-consulting
2.   Make policy on stimulating bicycles/ e-bikes up to 15 km and public transport/ shared travel for longer distances.
3.   Make policy on harmonizing parking policy including tariff differentiation according to distance and OV travel time.

Trends and developments

Many campuses see a more sustainable campus as feasible, with the focus shifting (as in urban centers) to car-free and a parking ring outside the campus area. This issue is fueled by pressure on parking and space. We see trends and developments at the other campuses that are also useful for the MRDH campus to consider.

Employees who live near the campus (within 15km) **do not always go by bike.** This can of course vary greatly from one campus to another. A study of mobility choices can help gain more insight into this.

E-bike has a lot of potential; also evidenced by previous e-bike trial weeks conducted by the Nijmegen campus. (see image)

More people are now forced to work from home; apply benefits of this in a more regular situation (e-learning and e-consulting)

RESULTATEN E-BIKE PROBEERWEKEN
november 2018 - juni 2019
Resultaten
Motivatie?
65% test e-bike als alternatief voor de auto

Geschikt?
85% is positief

Aanschaf e-bike?
40% op korte termijn

Good parking policy is essential for the growth of sustainable modes. This includes both the location choice of parking facilities (preferably on the outskirts) and the number of spots versus possible parking costs.

Provide **appropriate allowances for employees in measure packages. And consider this on a campus-by-campus basis**. Additional benefit of the right choice: Sustainable image provides employer with competitive advantage. Consider the following allowances:

- Reimburse bicycle (short distance, up to 5-10 km): Short distance drivers relatively insensitive to measures
- Reimbursement of e-bike, speed ped (middle distance, up to 15-20 km): Motorists middle distance are sensitive to measures
- Reimbursement of public transport (middle and long distances): Provision of public transport pass; reimbursement of P+R
- Reimbursement of removal expenses
- Allowance for business trips and pool cars
- Home working allowance
- Reimburse non-sustainable travel (car): make sure scheme is in line with sustainability policy

Opportunities for shared mobility and first and last mile

It is advisable to hold a market consultation among (partial) mobility providers and parking operators at an early stage. This will give a picture of which mobility products and which hub designs are realistic, with which quality level, and which preconditions this requires. It also gives a grip on the opportunities and threats in realizing a first- and last-mile sharing concept. It is also important that a first and last mile mobility concept fits within the municipal policy framework.

Innovation increases the mobility possibilities beyond what we are used to in contemporary mobility. Examples of innovations include: zero-emission transport; automated transport; IT solutions for seamless mobility.

Innovations can contribute to:
- Increasing the traveler's freedom of choice. The needs and characteristics of the various target groups are decisive in this respect.
- Reducing the (perceived) travel time of the first and last mile.
- Facilitating seamless mobility, i.e. transferring between modalities should be as smooth as possible.

Mobility policy requires a long haul approach to stimulating sustainable mobility in conjunction with harmonizing parking policy on the campus.

Appendix A. Accessibility maps for campus locations

In paragraph we have shown theaccessibility map of the Dutch Innovation Factory as an example.

This appendix shows the accessibility maps of all campus locations.

1. Biotech Campus, Delft
2. Digital Operations Centre, Delft
3. Dutch Innovation Factory, Zoetermeer
4. Equestrum, Central Delftland
5. Food Innovation Academy, Vlaardingen
6. Green Chemistry Campus Brielle
7. Horti Science Park Lansingerland
8. IT/RDM Campus Rotterdam
9. Maritime Education and Innovation, Schiedam
10. IT & Security Campus, The Hague
11. Delft University of Technology
12. World Horti Center, Westland

Biotech Campus Delft

Katwijk aan Zee

MRDH

Bereikbaarheid (45 min)

- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 4649k
Fiets: 1042k
OV: 700k

Voorhout · Leimuiden
Kaag · Roelofarendsveen · Langeraar Nieuwveen
Rijnsburg · Hoogmade Woubrugge · Ter Aar
Valkenburg · Nieuwkoop · Kockengen
Leiden · Alphen a.d. Rijn · Zegveld · Kamerik
Wassenaar · Voorschoten · Zwammerdam
Vroondaal · Zoeterwoude-dorp · Woerden
Stompwijk · Hazerswoude-dorp · Bodegraven Nieuwerbrug · Linschoten
Den Haag · Leidschendam · Benthuizen · Boskoop · Waarder
Rijswijk · Nootdorp · **Zoetermeer** · Moerkapelle **Waddinxveen** Reeuwijk · Driebruggen · Montfoort
Monster · Poeldijk · Wateringen · Pijnacker · Bleiswijk · **Gouda** · Oudewater
Kwintsheul · **Delft** · Haastrecht
Honselersdijk · Bergschenhoek · Moordrecht
Naaldwijk · De Lier · Schipluiden · Stolwijk · Vlist · Lopik
Hoek v. Holland · Bleiswijk Nieuwerkerk a.d. IJssel · Schoonhoven
Maasdijk · Maasland · Capelle a.d. IJssel · Nieuwpoort
Maasvlakte · 10km · Groot-Ammers
Europoort · **Maassluis** · **Rotterdam** · Lekkerkerk · Streefkerk · Goudriaan Noordeloos
Oostvoorne · Rozenburg · **Vlaardingen** · Bolnes · Nieuw-Lekkerland
Brielle · Botlek · Gijbeland · Hoornaar
Zwartewaal · **Ridderkerk** · Bleskensgraaf
Rockanje · Alblasserdam · Oud-Alblas · Giessenburg
Geervliet · Hoogvliet · Rhoon · **Barendrecht** · Hendrik-Ido-Ambacht
Abbenbroek · **Spijkenisse** · Heerjansdam · **Papendrecht** · Boven-Hardinxveld
Zuidland · Oud-Beijerland · **Sliedrecht** · Sleeuwijk
Nieuw-Beijerland · Puttershoek · **Dordrecht** · Werkendam
Goudswaard · Mijnsheerenland · Maasdam

Digital Operations Centre Delft

MRDH

Inwoners binnen 45min
Auto: 4326k
Fiets: 1047k
OV: 551k

Accessibility study 12 campuses metropolitan region Rotterdam The Hague - 1 July 2021

Dutch Innovation Factory , Zoetermeer

MRDH

Bereikbaarheid (45 min)

- **fiets, ov en auto**
- **fiets en auto**
- **ov en auto**
- **alleen auto**
- **> 45 minuten**

Inwoners binnen 45min
Auto: 5105k
Fiets: 535k
OV: 629k

10km

20km

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Equestrum, Central Delftland

MRDH

Bereikbaarheid (45 min)
- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 4435k
Fiets: 989k
OV: 320k

Accessibility study 12 campuses metropolitan region Rotterdam The Hague - 1 July 2021

Food Innovation Academy, Vlaardingen

MRDH

Bereikbaarheid (45 min)
- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 3689k
Fiets: 465k
OV: 344k

Groene Chemie Campus Brielle

MRDH

Bereikbaarheid (45 min)

- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Monster
Poeldijk
Wateringen
Pijnacker
Delft
Honselersdijk
Den Hoorn
Bergschenhoek
Naaldwijk
Hoek v. Holland
De Lier
Schipluiden
Maasdijk
Maasvlakte
Europoort
Maasland
Maassluis
Rotterdam
Oostvoorne
Vlaardingen
Bolnes
Brielle
Rozenburg
Zwartewaal
Botlek
Barendrecht
Rockanje
Heenvliet
Hoogvliet
Geervliet
Rhoon
Heerjansdam
Abbenbroek
Spijkenisse
Hellevoetsluis
Oudenhoorn
Oud-Beijerland
Heinenoord
Zuidland
Puttershoek
Goedereede
10km
Nieuw-Beijerland
Ouddorp
Stellendam
Mijnsheerenland
Maasdam
Goudswaard
Piershil
Klaaswaal
Melissant
Zuid-Beijerland
Strijen
Middelharnis
Dirksland
Stad aan't Haringvliet
Numansdorp
20km
Den Bommel
Zonnemaire
Nieuwe-Tonge
Herkingen

Inwoners binnen 45min
Auto: 2932k
Fiets: 107k
OV: 135k

Accessibility study 12 campuses metropolitan region Rotterdam The Hague - 1 July 2021

Horti Science Park Lansingerland

Bereikbaarheid (45 min)

- fiets, ov en auto
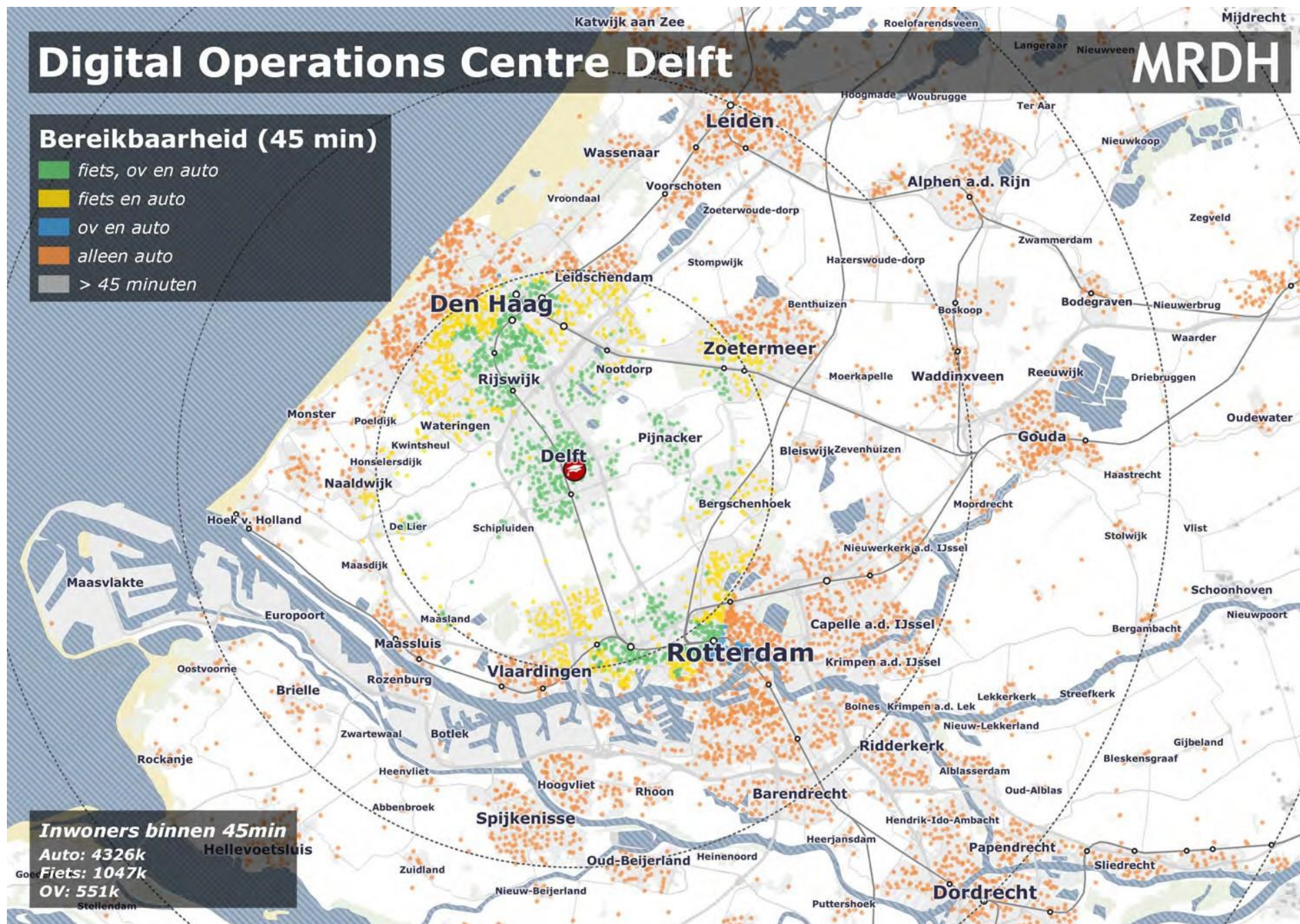- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 4935k
Fiets: 516k
OV: 116k

10km

Noordwijk-Binnen
Voorhout
Kudelstaart
Vreeland
Leimuiden
Katwijk aan Zee
Roelofarendsveen
Mijdrecht
Vinkeveen
Wilnis
Rijnsburg
Langeraar
Nieuwveen
Breukelen
Hoogmade Woubrugge
Ter Aar
Leiden
Nieuwkoop
Kockengen
Wassenaar
Maarssen
Maarssenbroek
Voorschoten
Alphen a.d. Rijn
Zegveld
Kamerik
Vroondaal
Zoeterwoude-dorp
Zwammerdam
Woerden
Harmelen
Stompwijk
Hazerswoude-dorp
Bodegraven
Nieuwerbrug
Leidschendam
Benthuizen
Boskoop
Waarder
Linschoten
Den Haag
Zoetermeer
Moerkapelle
Waddinxveen
Reeuwijk
Driebruggen
Montfoort
Nootdorp
Rijswijk
Oudewater
Pijnacker
Bleiswijk Zevenhuizen
Gouda
IJsselstein
Poeldijk
Waddinxveen
Wateringen
Benschop
Kwintsheul
Delft
Honselersdijk
Bergschenhoek
Gouderak
Vianen
Naaldwijk
Haastrecht
De Lier
Schipluiden
Nieuwerkerk a.d. IJssel
Stolwijk
Vlist
Lopik
Lexmond
Maasdijk
Schoonhoven
Ameide
Capelle a.d. IJssel
Nieuwpoort
Maasland
Bergambacht
Meerkerk
Maassluis
Krimpen a.d. IJssel
Groot-Ammers
Rozenburg
Vlaardingen
Rotterdam
Goudriaan Noordeloos
Leerdam
Bolnes Krimpen a.d. Lek
Lekkerkerk
Streefkerk
Zwartewaal Botlek
Nieuw-Lekkerland
Gijbeland
Hoornaar
Heukelum
Hoogvliet
Rhoon
Ridderkerk
Bleskensgraaf
Arkel
Spijkenisse
Barendrecht
Albiasserdam
Oud-Alblas
Giessenburg
Hendrik-Ido-Ambacht
Heerjansdam

IT/RDM Campus Rotterdam
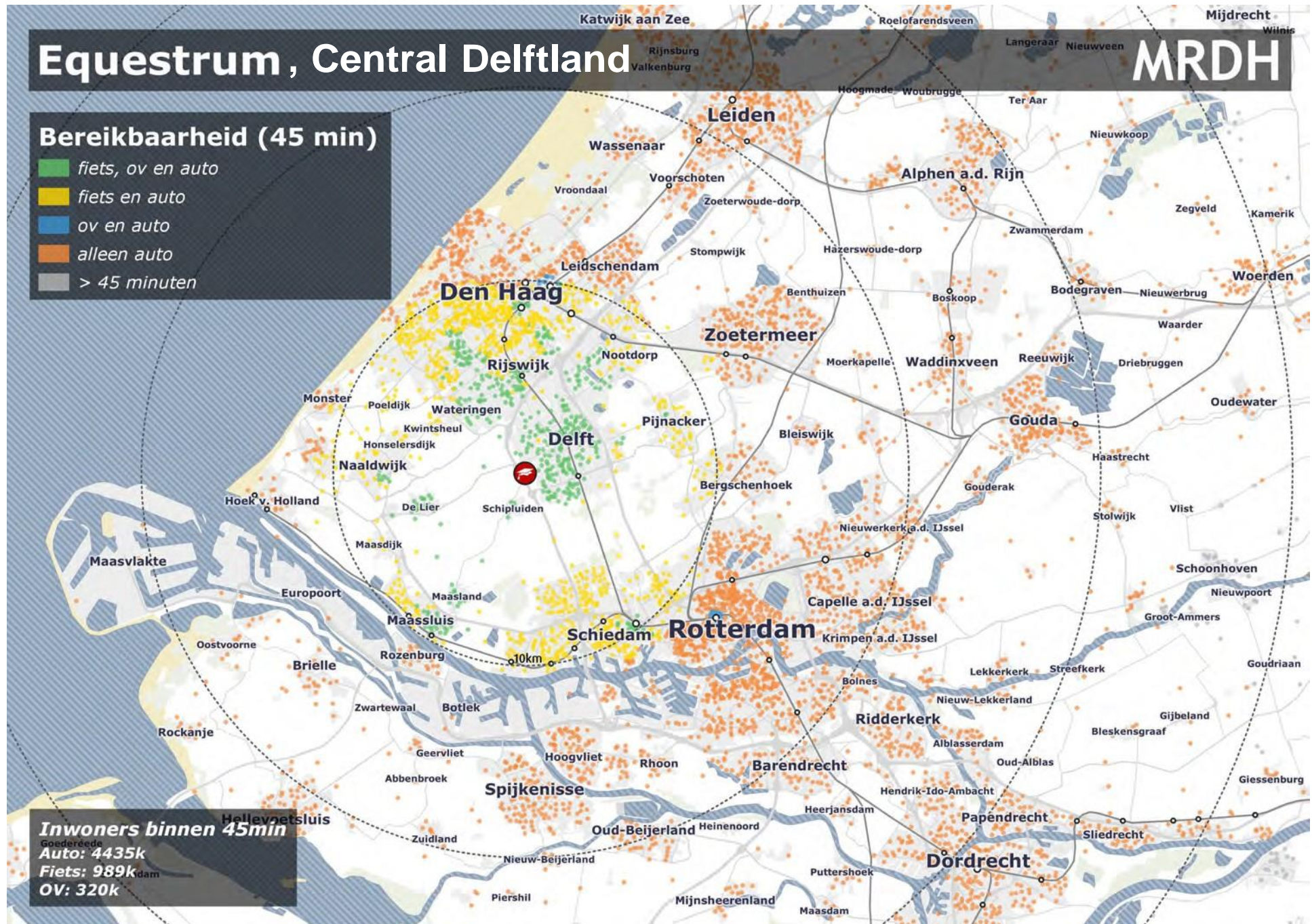
MRDH

Bereikbaarheid (45 min)

- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 3653k
Fiets: 661k
OV: 339k

Accessibility study 12 campuses metropolitan region Rotterdam The Hague - 1 July 2021

Maritiem Onderwijs en Innovatie, Schiedam

MRDH

Bereikbaarheid (45 min)

- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
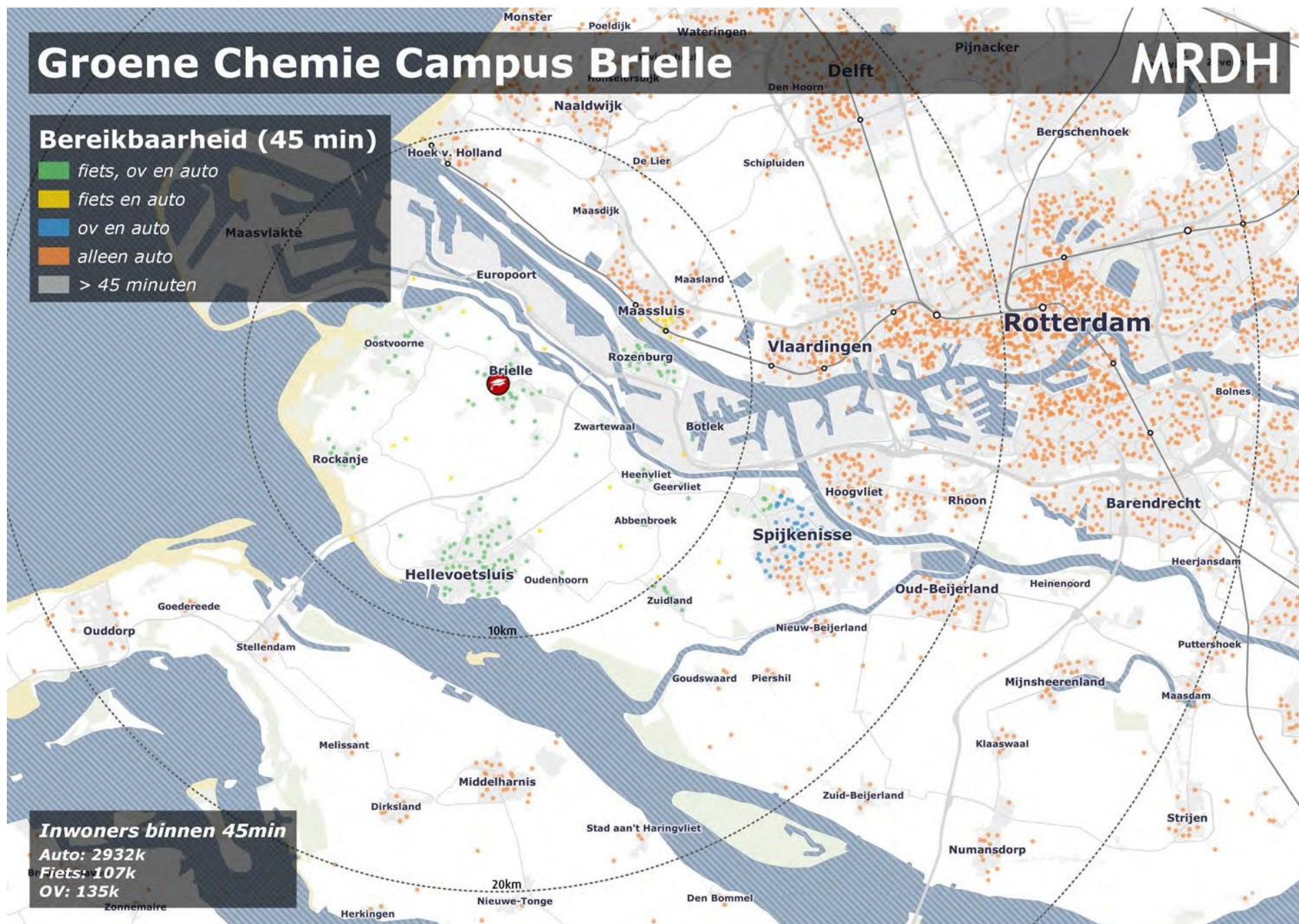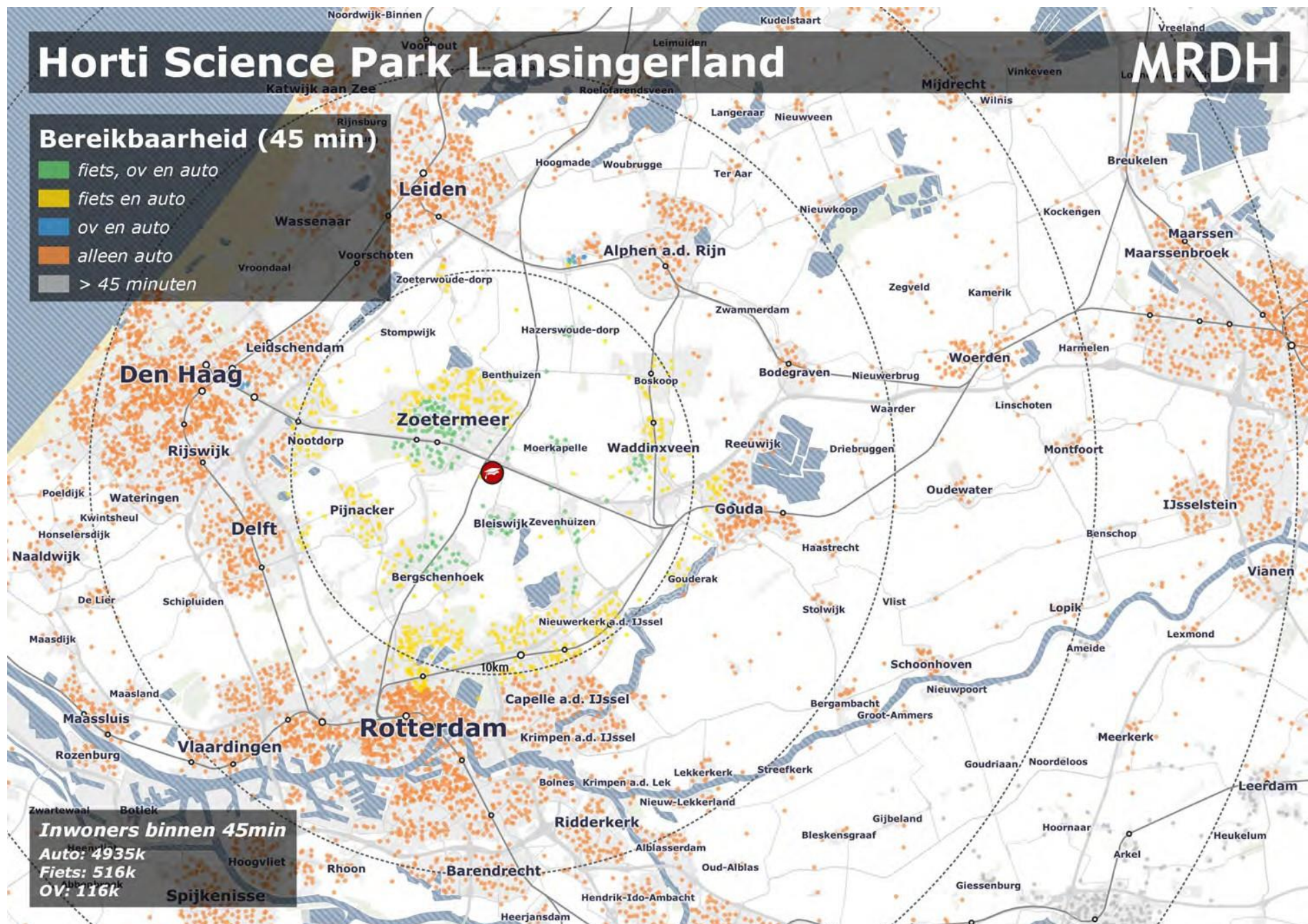Auto: 3921k
Fiets: 710k
OV: 460k

Accessibility study 12 campuses metropolitan region Rotterdam The Hague - 1 July 2021

Map labels

Nieuwkoop, Wassenaar, Alphen a.d. Rijn, Zegveld, Kamerik, Zoeterwoude-dorp, Zwammerdam, Stompwijk, Hazerswoude-dorp, Woerden, Bodegraven, Nieuwerbrug, Leidschendam, Benthuizen, Boskoop, Den Haag, Zoetermeer, Waarder, Rijswijk, Nootdorp, Moerkapelle, Waddinxveen, Reeuwijk, Driebruggen, Oudewater, Monster, Poeldijk, Wateringen, Pijnacker, Bleiswijk, Gouda, Kwintsheul, Delft, Honselersdijk, Naaldwijk, Berkel en Rodenrijs, Haastrecht, Hoek v. Holland, De Lier, Schipluiden, Gouderak, Nieuwerkerk a.d. IJssel, Stolwijk, Vlist, Maasdijk, Schoonhoven, Maasland, Nieuwpoort, Maasvlakte, Europoort, Capelle a.d. IJssel, Bergambacht, Maassluis, Schiedam, Rotterdam, Oostvoorne, Rozenburg, Bolnes Krimpen a.d. Lek, Streefkerk, Goudriaan, Brielle, Nieuw-Lekkerland, Zwartewaal, Botlek, Ridderkerk, Gijbeland, Alblasserdam, Rockanje, Geervliet, Hoogvliet, Rhoon, Barendrecht, Oud-Alblas, Bleskensgraaf, Giessenburg, Abbenbroek, Spijkenisse, Hendrik-Ido-Ambacht, Heerjansdam, Papendrecht, Hellevoetsluis, Zuidland, Oud-Beijerland, Sliedrecht, Boven-Hardinxveld, Goedereede, Stellendam, Nieuw-Beijerland, Dordrecht, Werkendam, Ouddorp, Goudswaard, Puttershoek, Mijnsheerenland, 's-Gravendeel, Hank, Melissant, Maasdam, Klaaswaal, Strijen, Middelharnis, Zuid-Beijerland, Numansdorp, Zonnemaire, Stad aan 't Haringvliet, Den Bommel, Lage Zwaluwe, Herkingen, Nieuwe-Tonge, Drimmelen, 20km
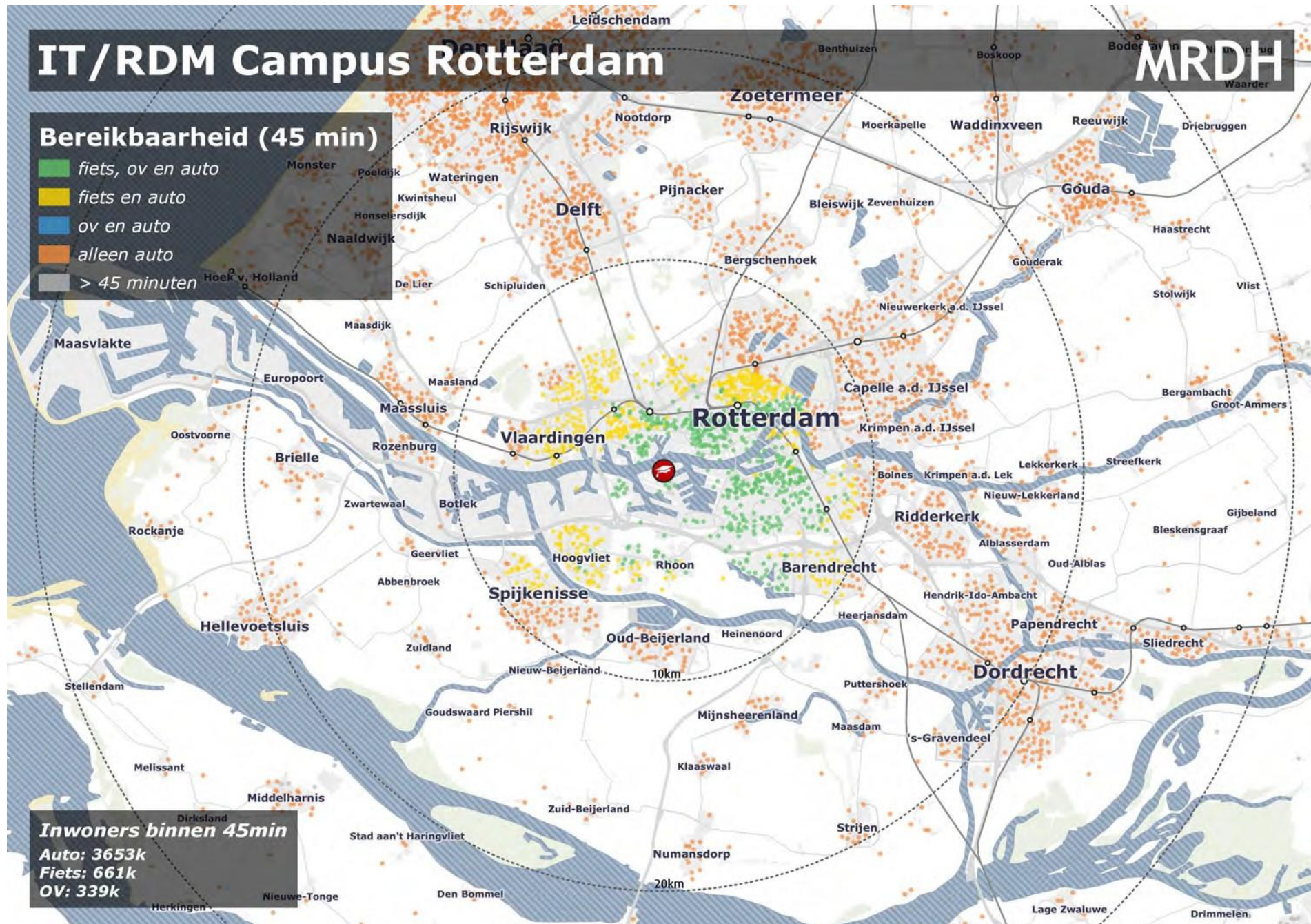
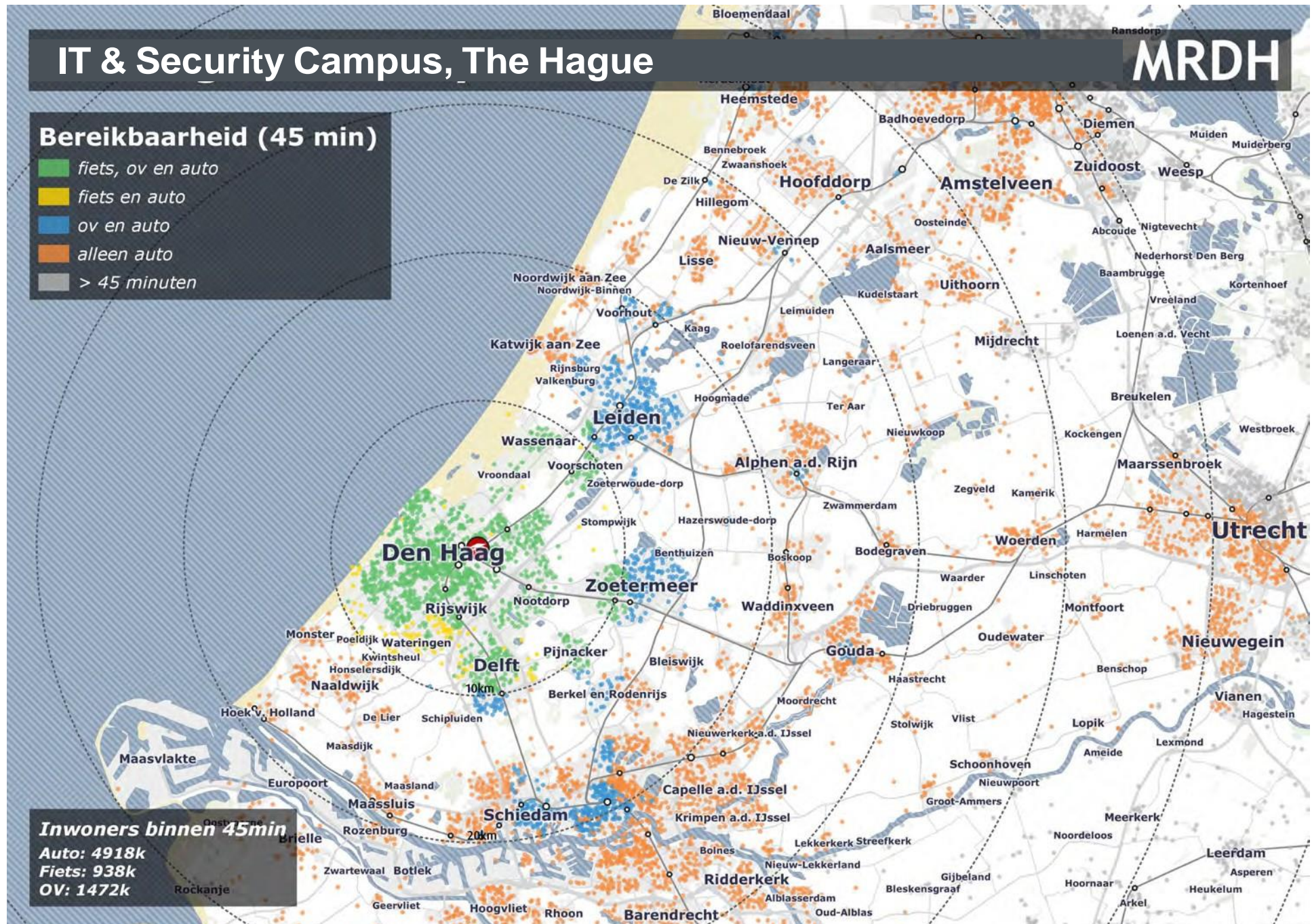IT & Security Campus, The Hague

MRDH

Bereikbaarheid (45 min)
- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 4918k
Fiets: 938k
OV: 1472k

Delft University of Technology

MRDH

Bereikbaarheid (45 min)
- fiets, ov en auto
- fiets en auto
- ov en auto
- alleen auto
- > 45 minuten

Inwoners binnen 45min
Auto: 4265k
Fiets: 994k
OV: 506k