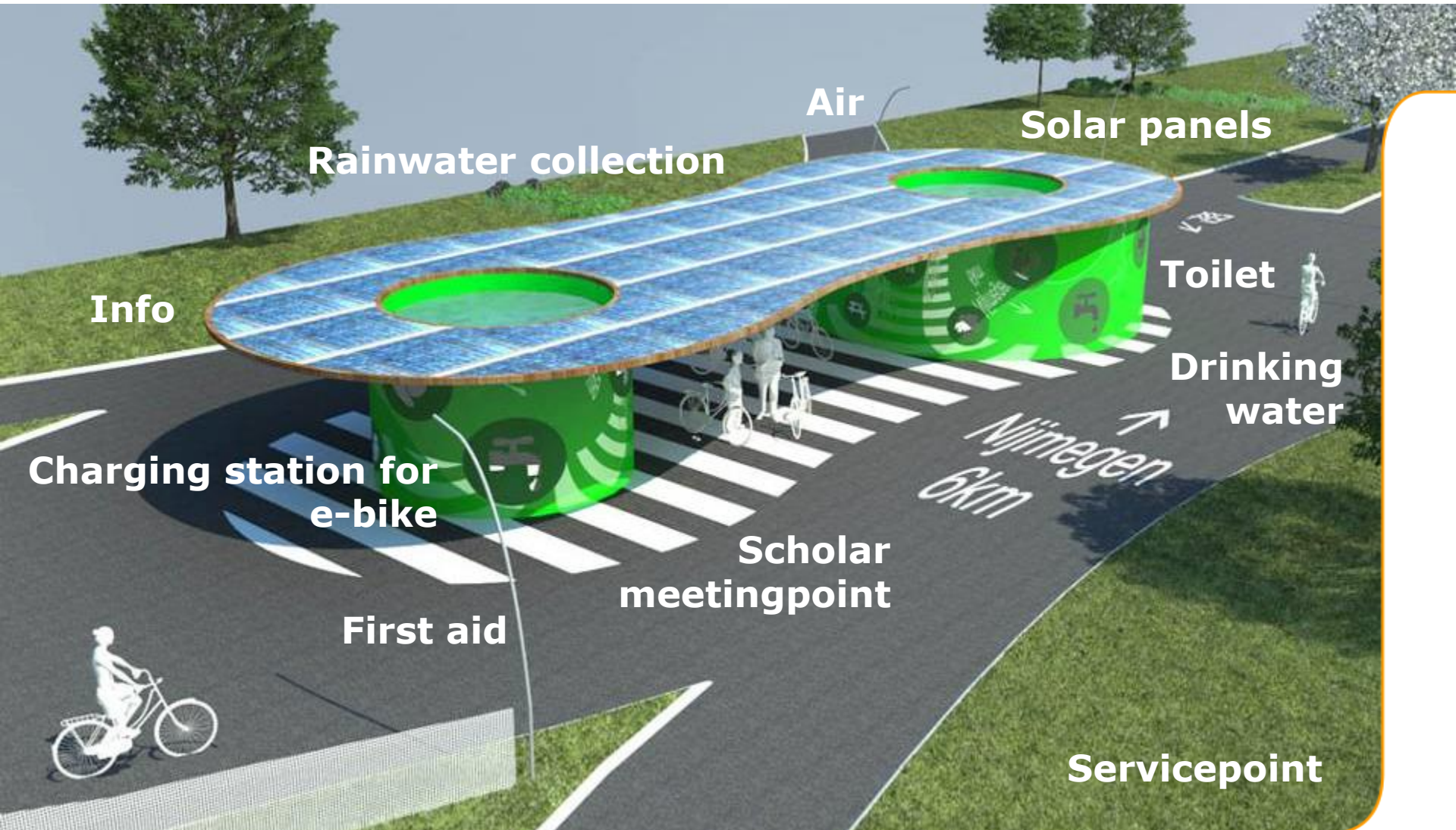




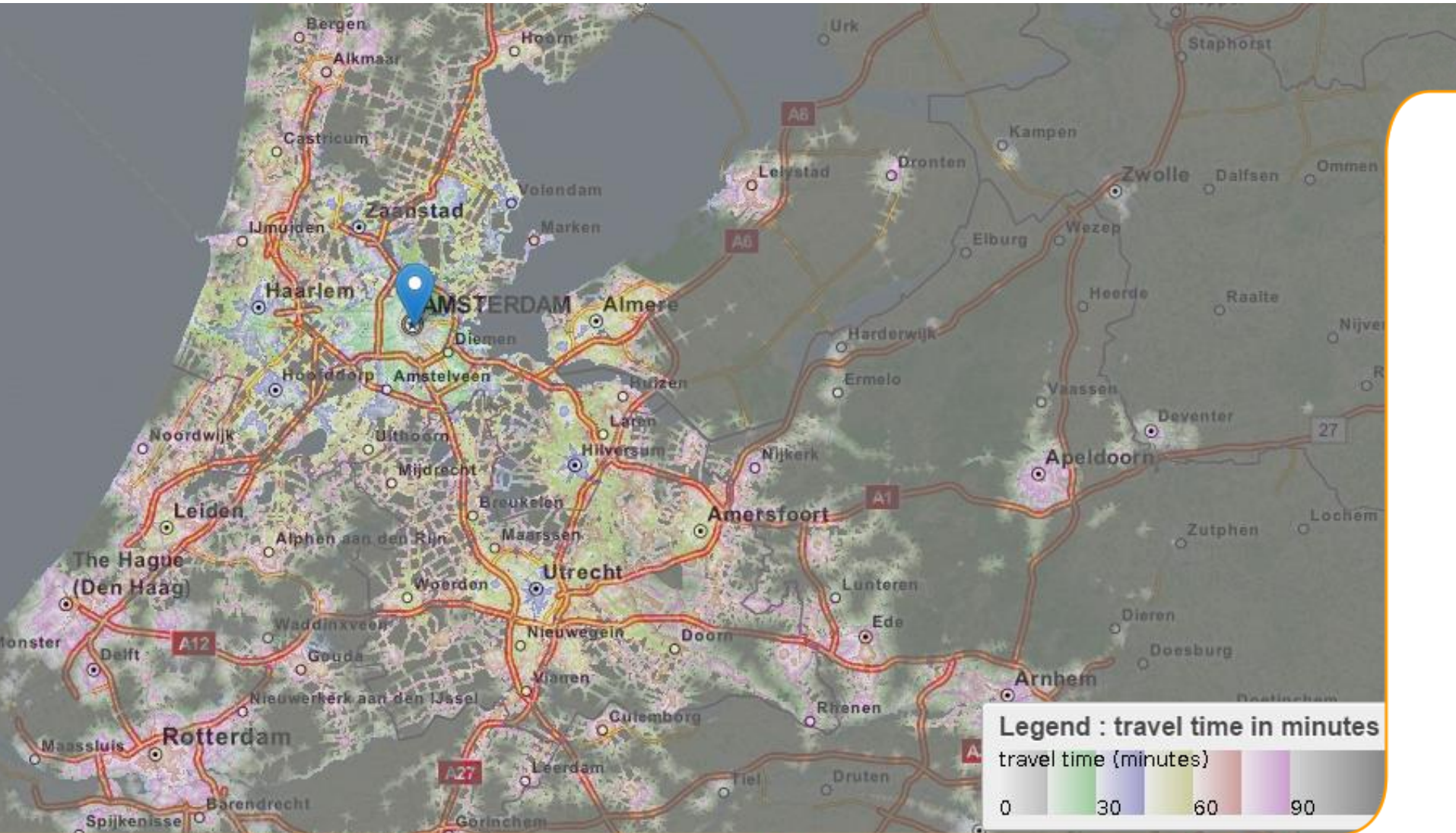
Biking Betuwe

Idea competition Rijnwaalpad



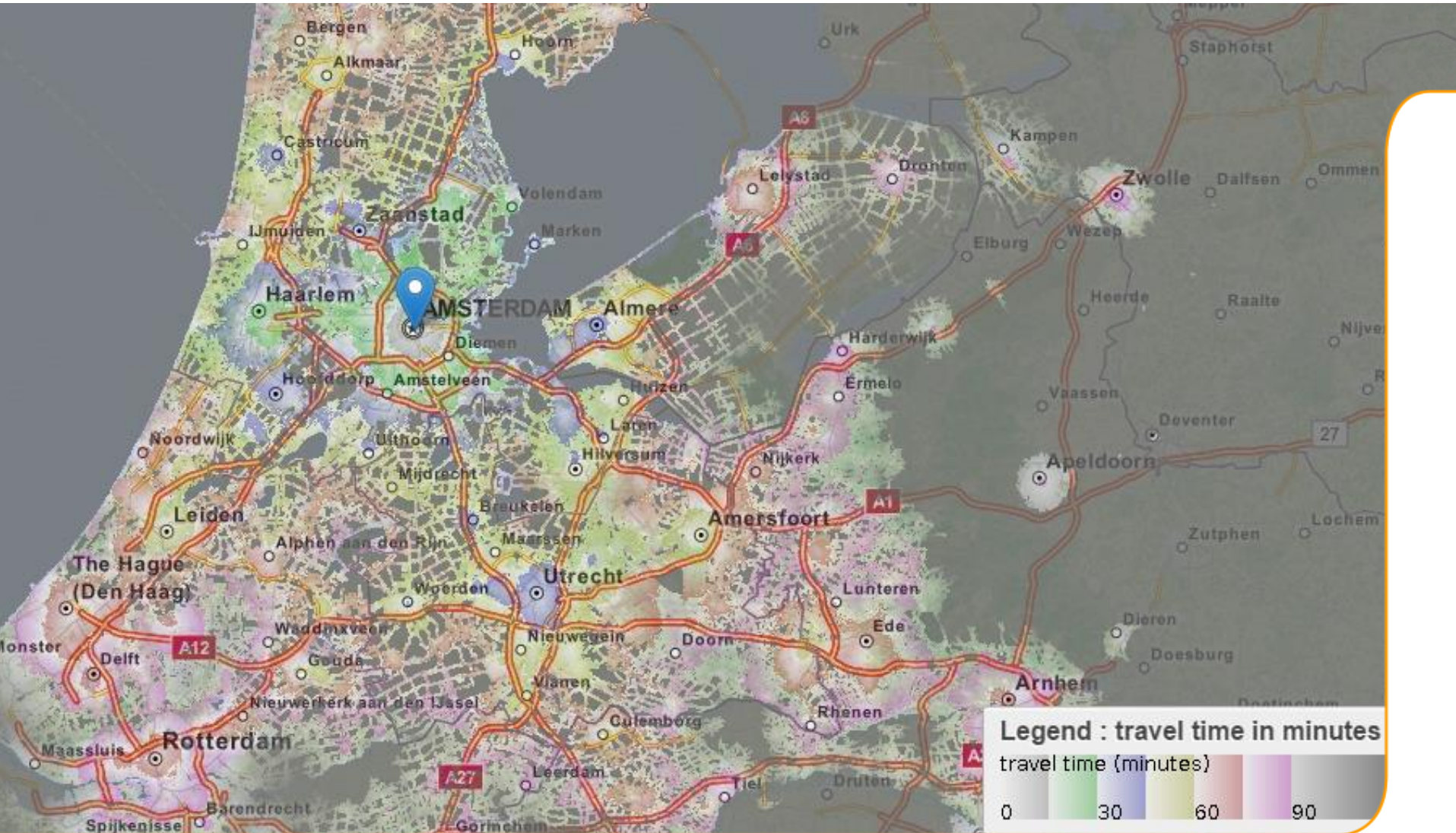
Traveltime Isochrone (verbindingswijzer)

Leaving Amsterdam at 10:00 AM by public transport



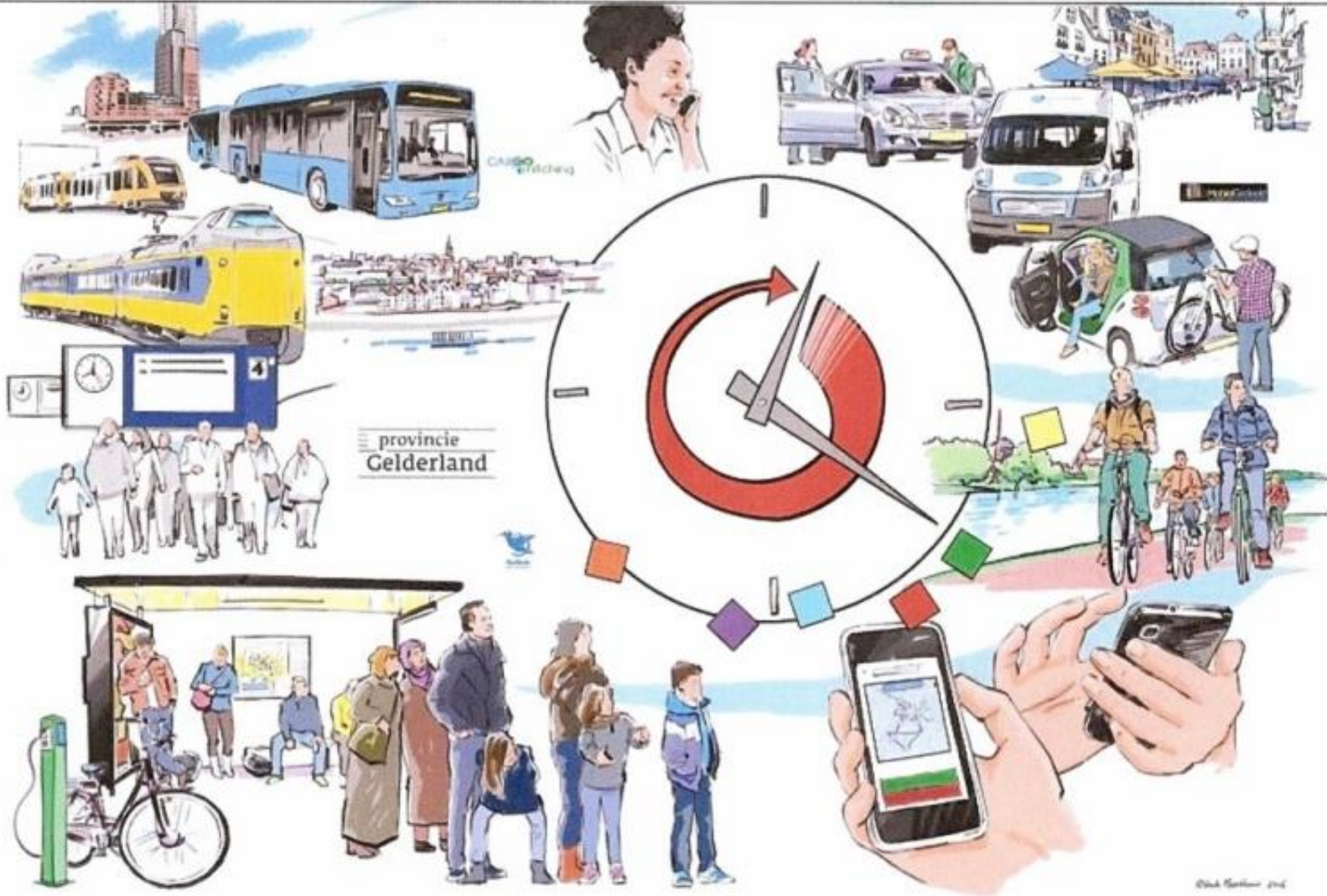
Traveltime Isochrone (verbindingswijzer)

Leaving at 10:00 AM by public transport + short bicycle ride



Vision on the future of public transport

Provincie Gelderland



High school students bike on a daily basis

Short to medium distance (<10km)



The bus system is important in rural area's

Small demand & long distance compared to cities



E-bike to school as an alternative to public transport

Experiment at 4 high-schools in Gelderland



Participants are used to travel by bus or train

Minimum distance from school

Set of 20 e-bikes

Questionnaires

Track-and-trace (24/7)



1 **APELDOORN**
Jacobus Fruytierscholengemeenschap
13 apr 2015 t/m 19 jun 2015

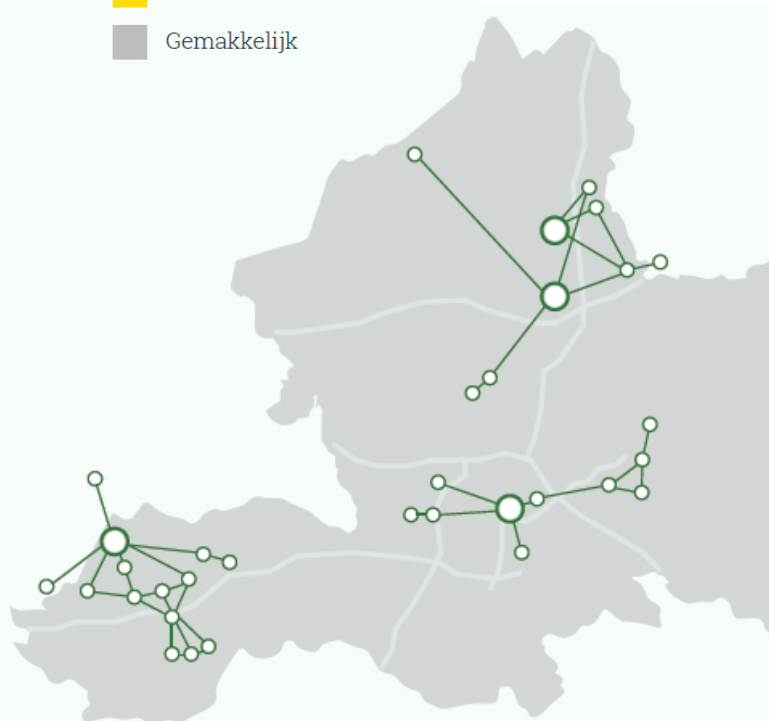
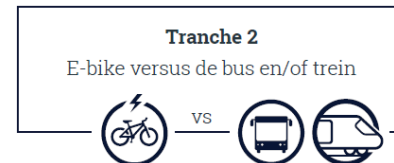
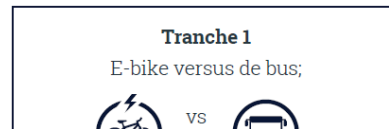
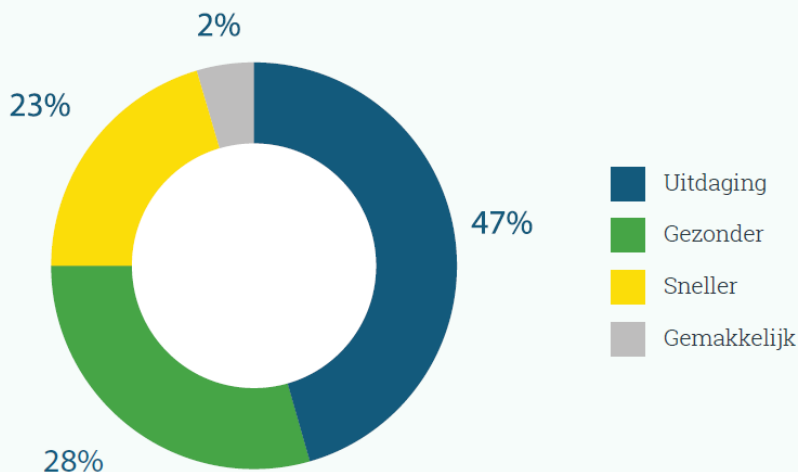
2 **ARNHEM**
Montessori College
1 sep 2015 t/m 6 nov 2015

3 **CULEMBORG**
ORS Lek en Linde
16 nov 2015 t/m 19 feb 2016

4 **EPE**
RSG Noordoost Veluwe
8 mrt 2016 t/m 22 apr 2016

Why and from where?

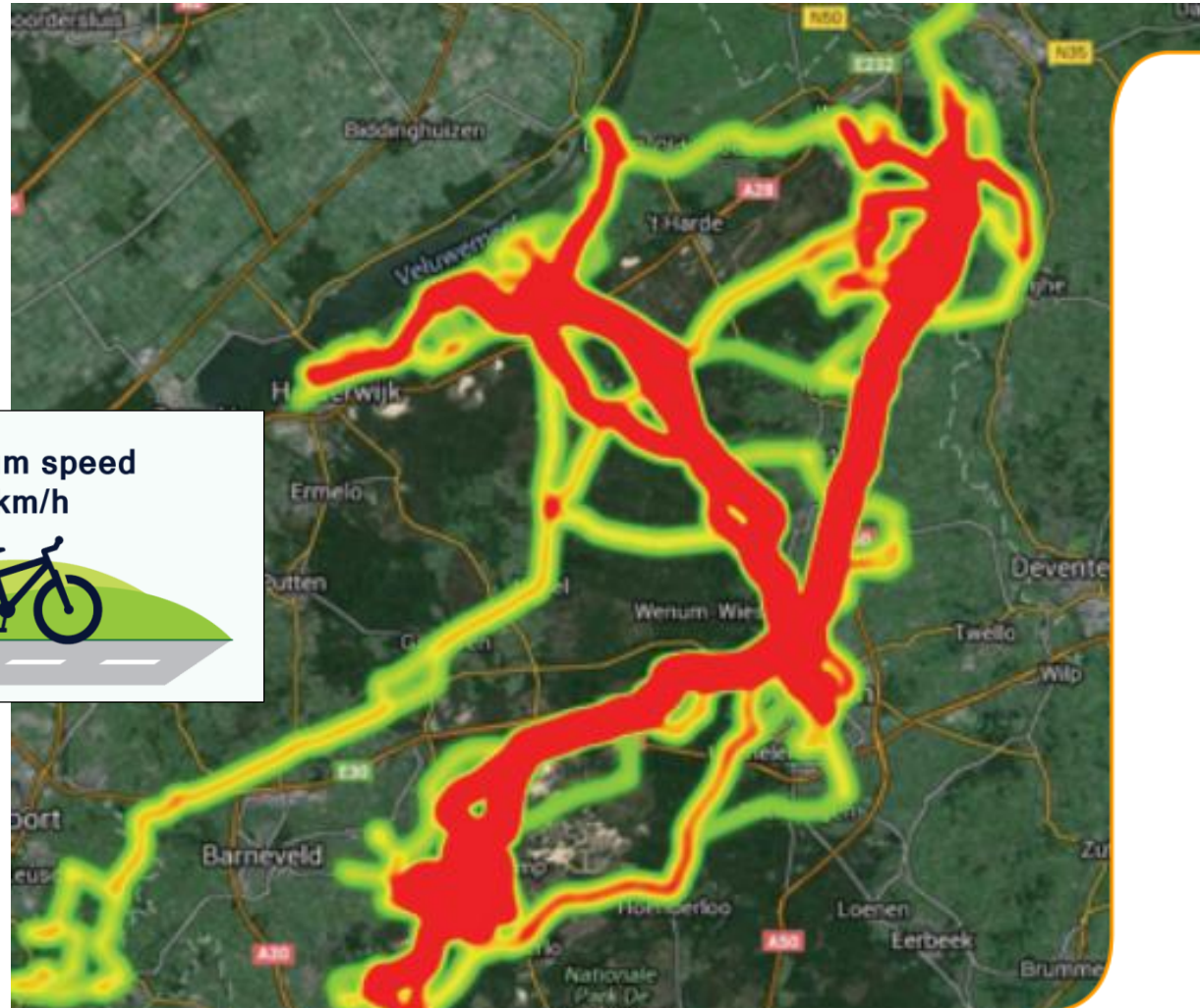
It's a challenge, healthier & faster



- Angerlo
- Apeldoorn
- Arnhem
- Deil
- Delwijnen
- De Steeg
- Deventer
- Doesburg
- Erichem
- Geldermalsen
- Harskamp
- Heteren
- Houten
- Huissen
- Leerdam
- Maurik
- Meteren
- Nunspeet
- Opijnen
- Olburgen
- Ophemert
- Ravenswaaij
- Renkum
- Tricht
- Varik
- Veessen
- Velp
- Wapenveld
- Wekerom
- Wenum-Wiesel
- Wolfheze

Track-and-trace

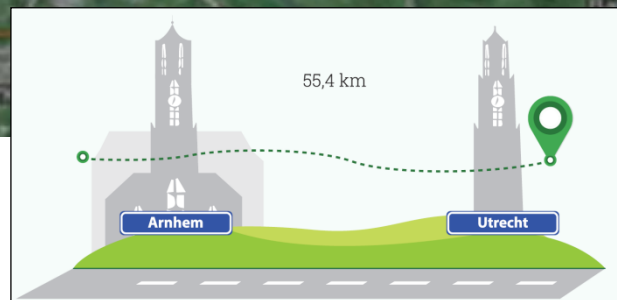
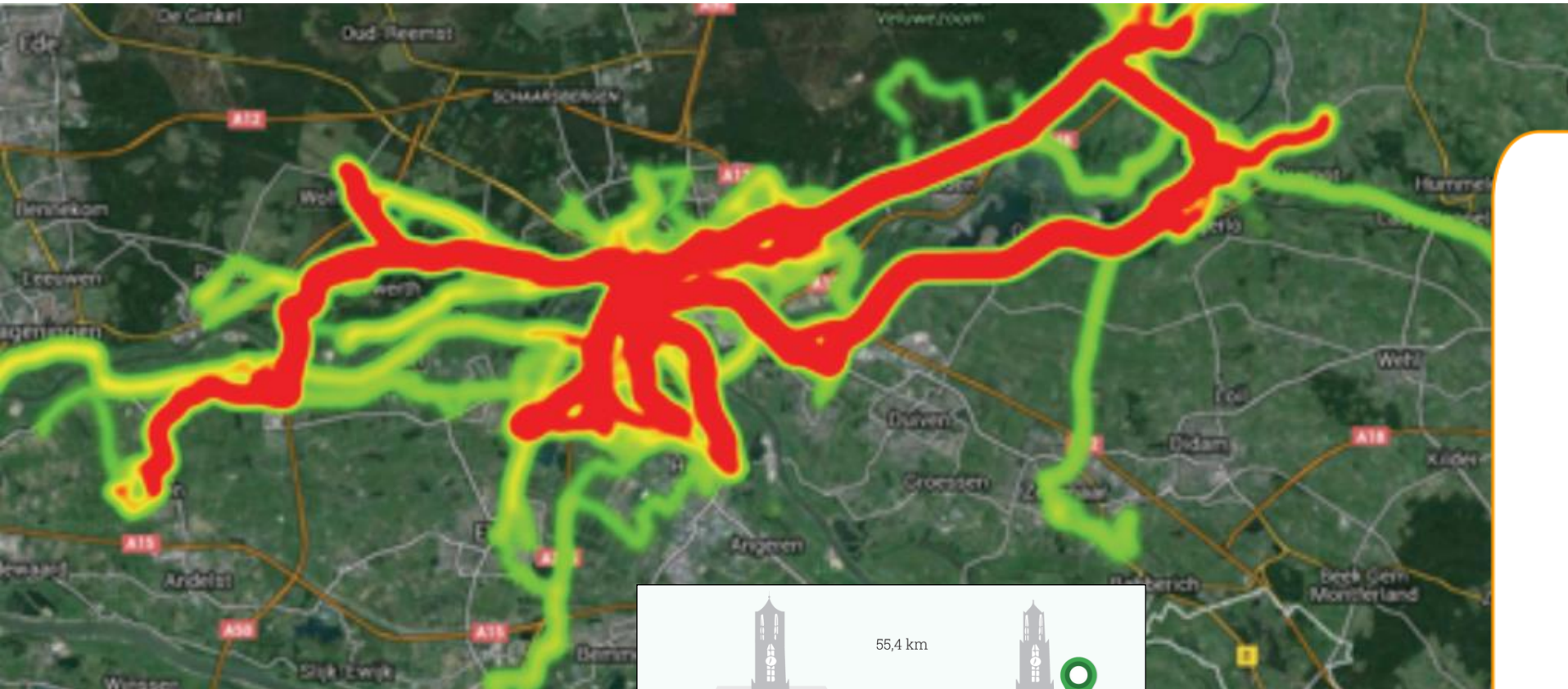
Heatmap JFSG school Apeldoorn



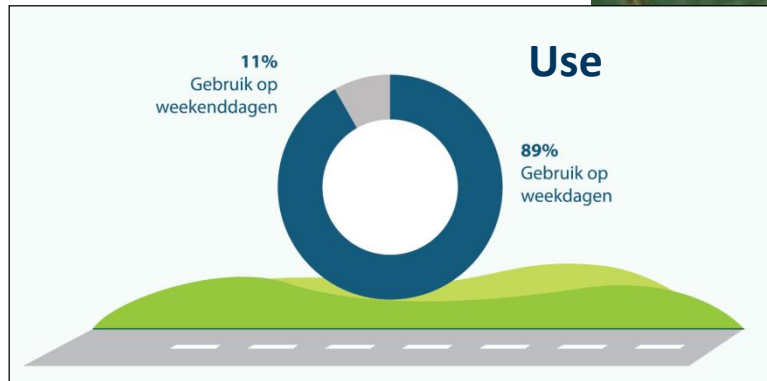
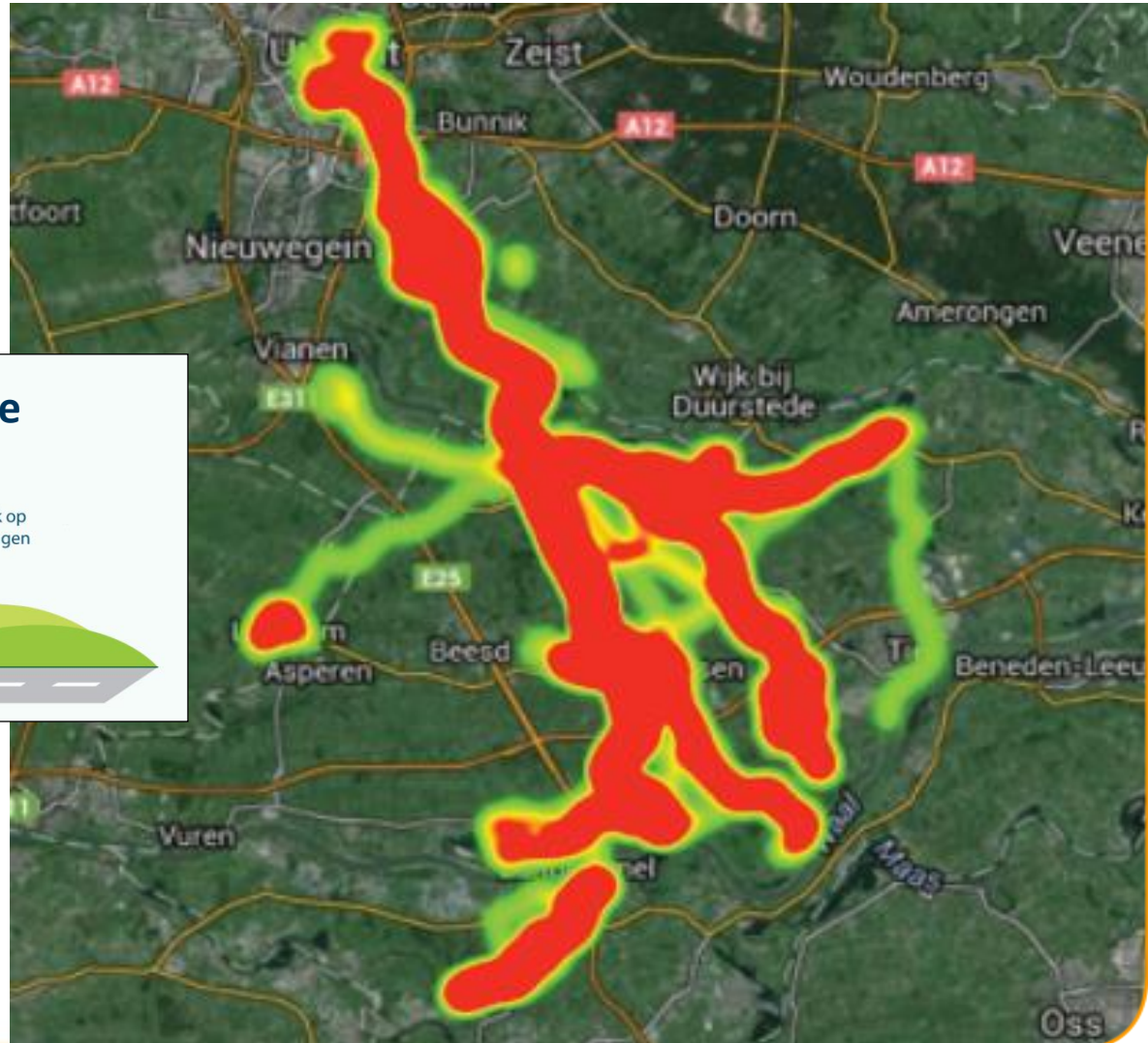
Average speed
22,3 km/h

Maximum speed
35 km/h





Heatmap Lek en Linge school Culemborg



Well used, high average speed, longer distances

	JFSG	Montessori	Lek en Linge	RSGNOV	Totaal
Number of rides	1.773	1.383	2.200	1.422	6.778
Number T&T	19	16	18	19	72
Average speed	22,3 km/h	20,1 km/h	18,6 km/h	21,1 km/h	20,5 km/h
Average distance	16,8 km	9,9 km	8,8 km	7,1 km	10,7 km
Maximum distance	55,4 km	27,3 km	23,9 km	22,3 km	55,4 km
Maximum speed	35 km/h	34,9 km/h	34,2 km/h	34,8 km/h	35 km/h
Use weekdays	84,9%	91,3%	91,5%	87,3%	88,8% (gem)
Use weekends	15,1%	8,7%	8,5%	12,7%	11,2% (gem)

Wet or slippery weather reduces the use of the e-bike

Gebruik bij goed weer



28%
Geen gebruik

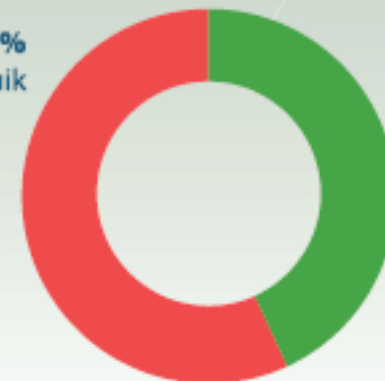


72%
Gebruik

Gebruik bij slecht weer



59%
Geen gebruik

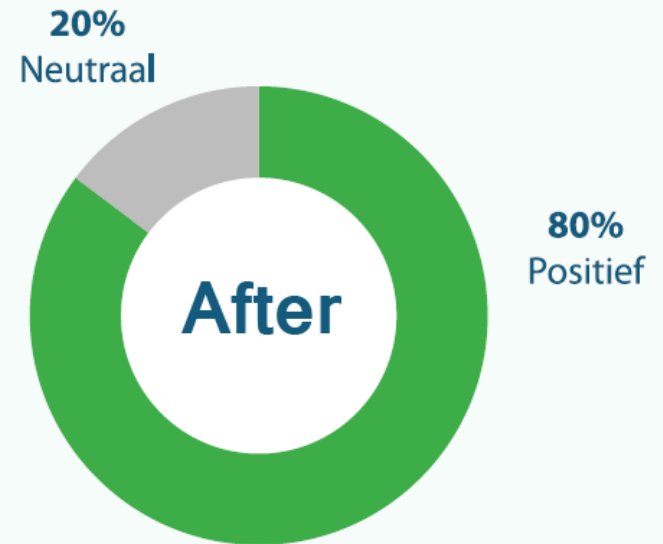
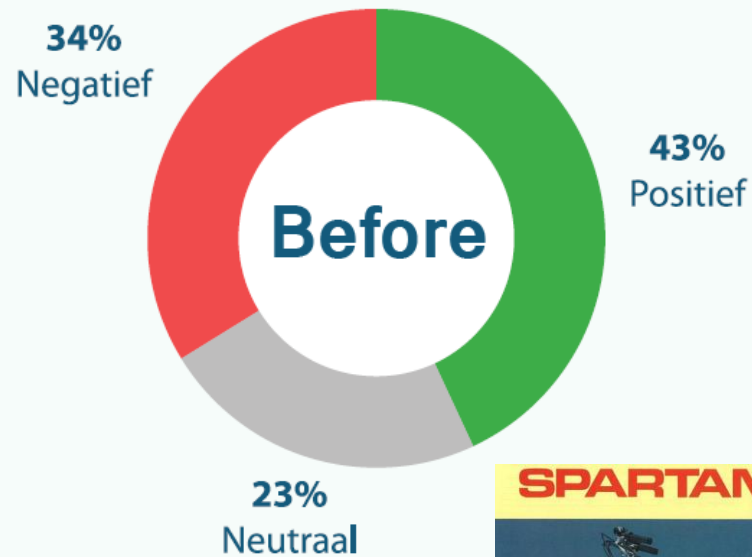


41%
Gebruik



Image of the E-bike among classmates and family

Before and after the pilot



Public transport vs. E-bike

Appreciation before and after the pilot

Public transport		Public transport	
Positive top 5	Negative top 5	Before	After
Weather-independent	Time-dependent / waiting time	6,7	6,3
Speed / fast	Unhealthy		
Homework	Costs		
Easy	Delays		
Social interaction	Crowded		

E-bike		E-bike	
Positive top 5	Negative top 5	Before	After
Healthy	Weather-dependent	8,2	8,1
Speed / fast	Charging		
Cheap	Homework		
Time-independent	No social interaction		
Sustainability (environment)	Safety		

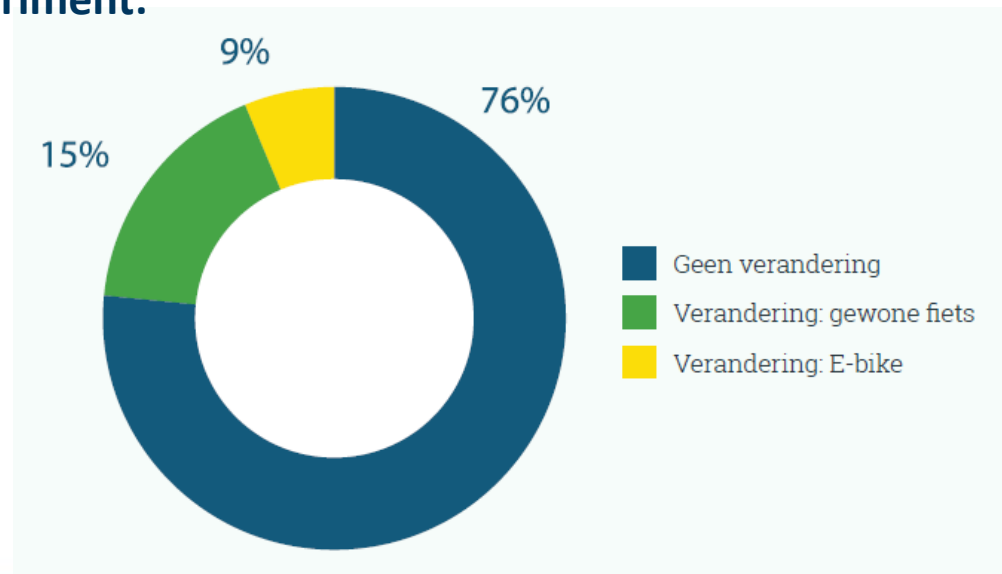
Change of transport modality

25% of participants change permanently to the bicycle

During the experiment:

- 78,5% switches all of the time to the E-bike;
- 15,7% switches half of the time;
- 5,8% never uses the E-bike.
- Also well used besides school for social visits, sports & holiday's

After the experiment:



At one school 40 e-bikes were purchased by followers

- Healthy option, popular image
- Serious alternative to public transport
- Infrastructure has to be optimized (curves ed.)
- Make an early investment – target second schoolyear (return on investment during high-school)
- Great for
 - young scholars
 - scholars living at large distances from school
 - scholars unable to ride a normal bicycle (medical reasons)

