

Going Dutch - but keeping it real

Internationale Konzepte zur Förderung des Radverkehrs
Radgipfel Graz, 28 März 2019
Stefan Bendiks

ARTGINEERING

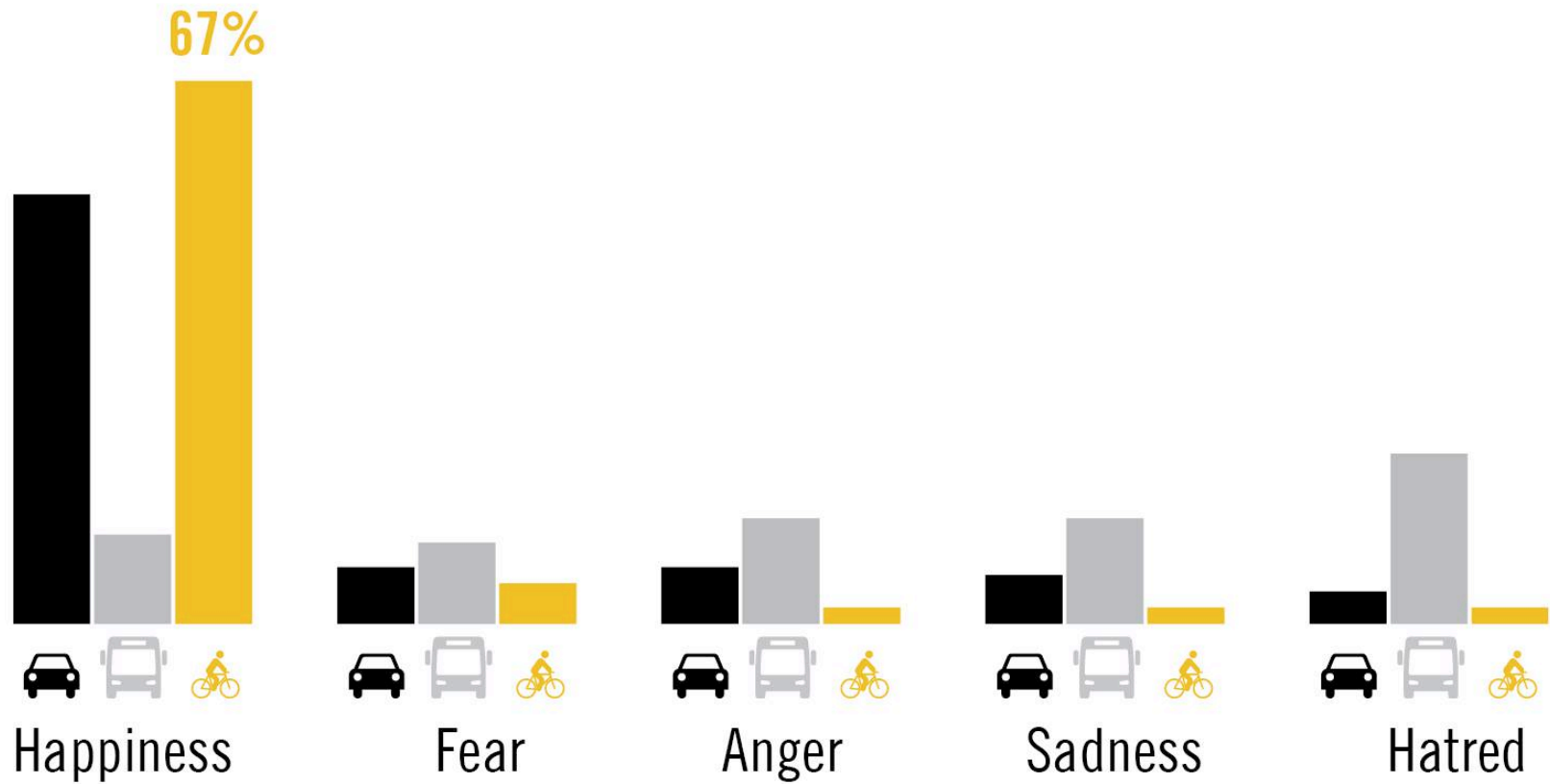
Arduinkaai 37 bus 23 B-1000 Brussels

Tel: 0032.2.8803080
Email: info@artgineering.eu
Web: www.artgineering.eu
Twitter: AG_cycleinfra

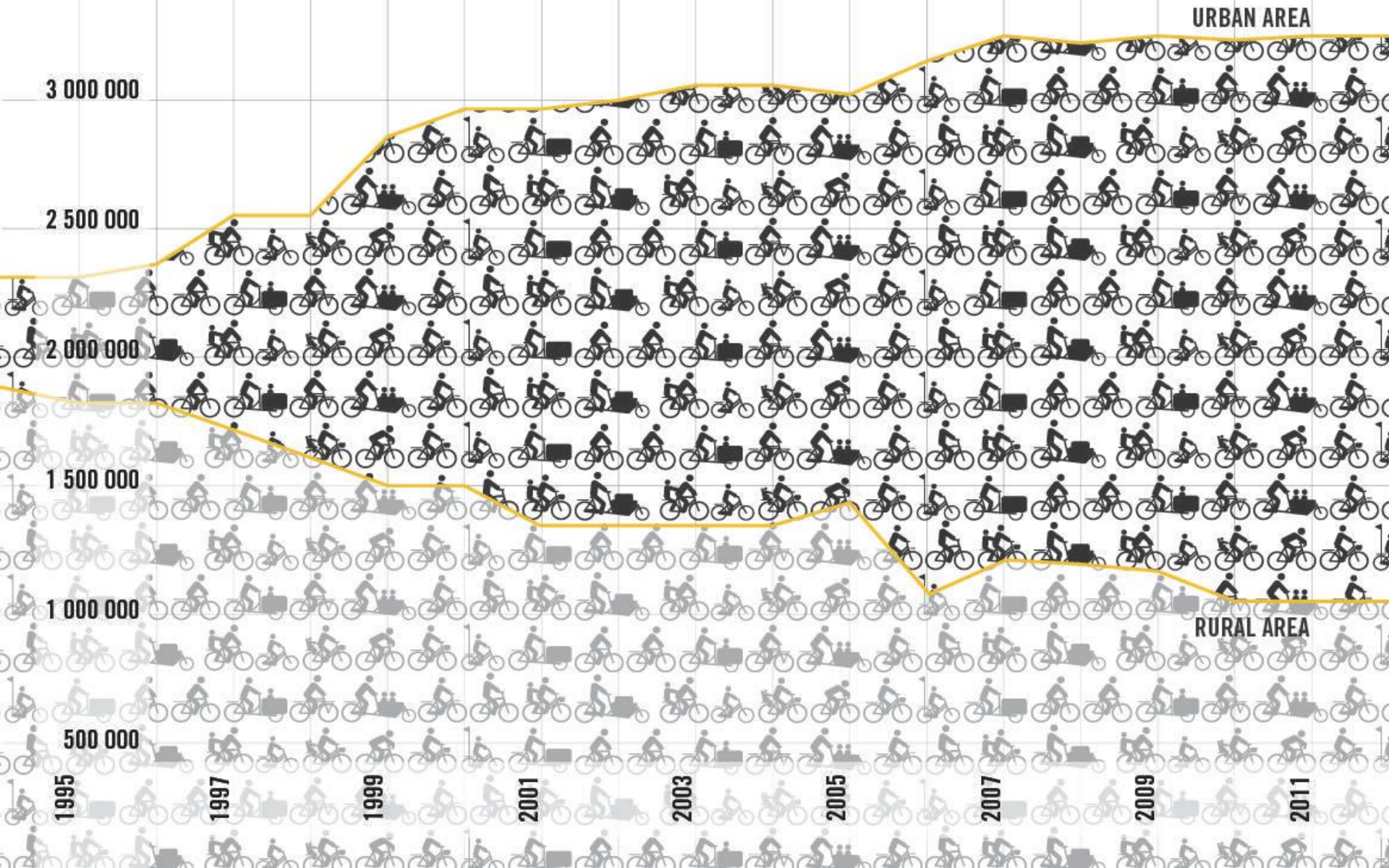
THE NETHERLANDS IS (STILL) THE NUMBER ONE CYCLING COUNTRY.

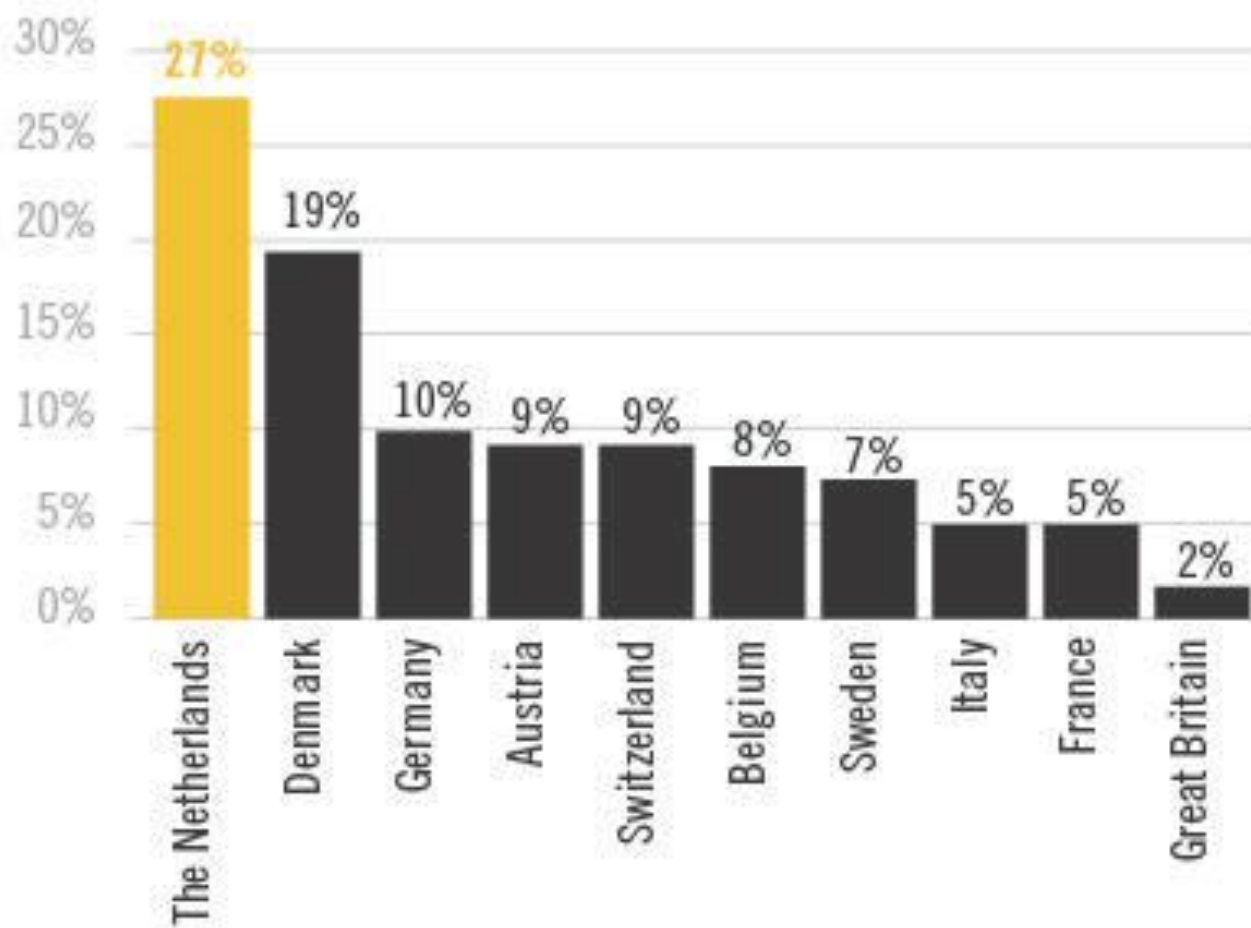


CYCLING MAKES YOU HAPPY.



THE AMOUNT OF URBAN CYCLISTS IS CONSISTENTLY GROWING.





Mode share cycling (2009)



Waze's Driver Satisfaction Index



,Dutch roundabout‘ Zwolle

Going Dutch?



Lüleburgaz - Cycling for a better city

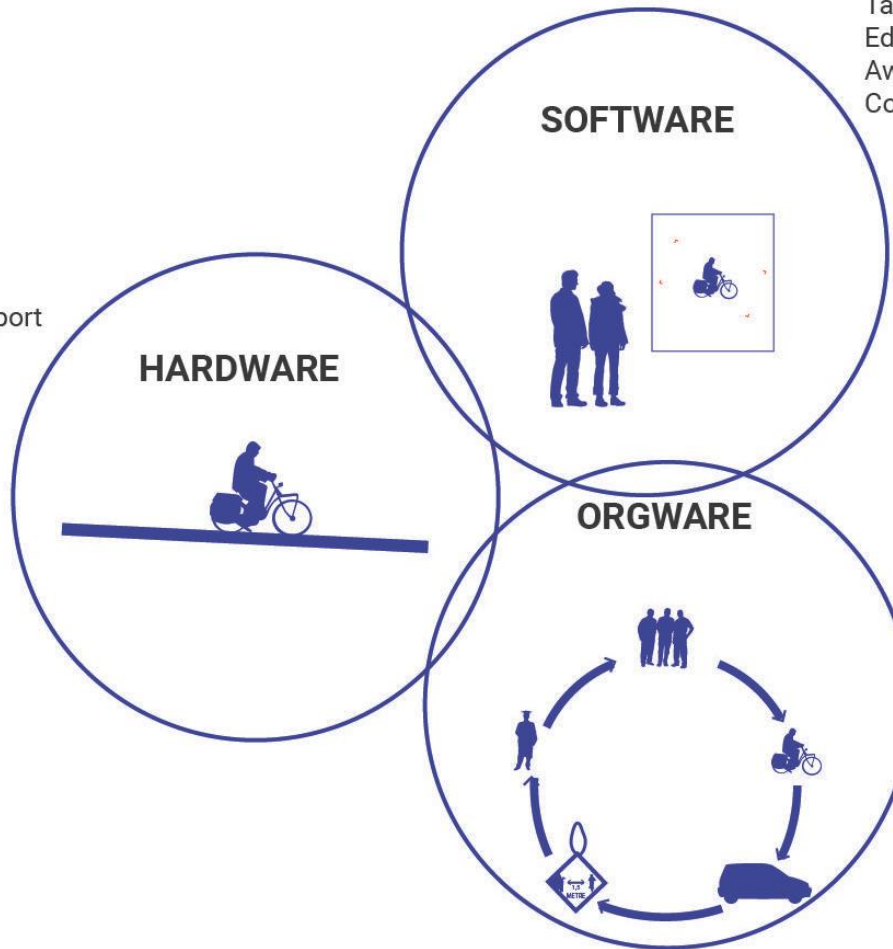
Inclusive Bicycle Masterplan
Lüleburgaz, 2018-2019



Luleburgaz Bicycle Academy

HARDWARE

- Bicycle parking
- Save bicycle paths
- Upgrading existing roads
- Building new roads
- Bicycle rental
- Integration with Public Transport
- Crossings with (main) roads



SOFTWARE

- Role models / word-of-mouth
- Bicycle-friendly-city image
- Traffic signs and Information signs
- Target groups / Front-runners
- Education
- Awareness
- Communication

ORGWARE

- Legislation (traffic regulations e.g. 1,5m law)
- Rewarding cyclists (tax incentives)
- Integration of relevant public stakeholders
- Reinforcement (Fines, penalties, cameras)
- National research and standards
- Restrictions for some road users (trucks)

The 3 aspects of the inclusive bicycle masterplan



Orgware: Workshops, field trips, stakeholder dinners, alliances



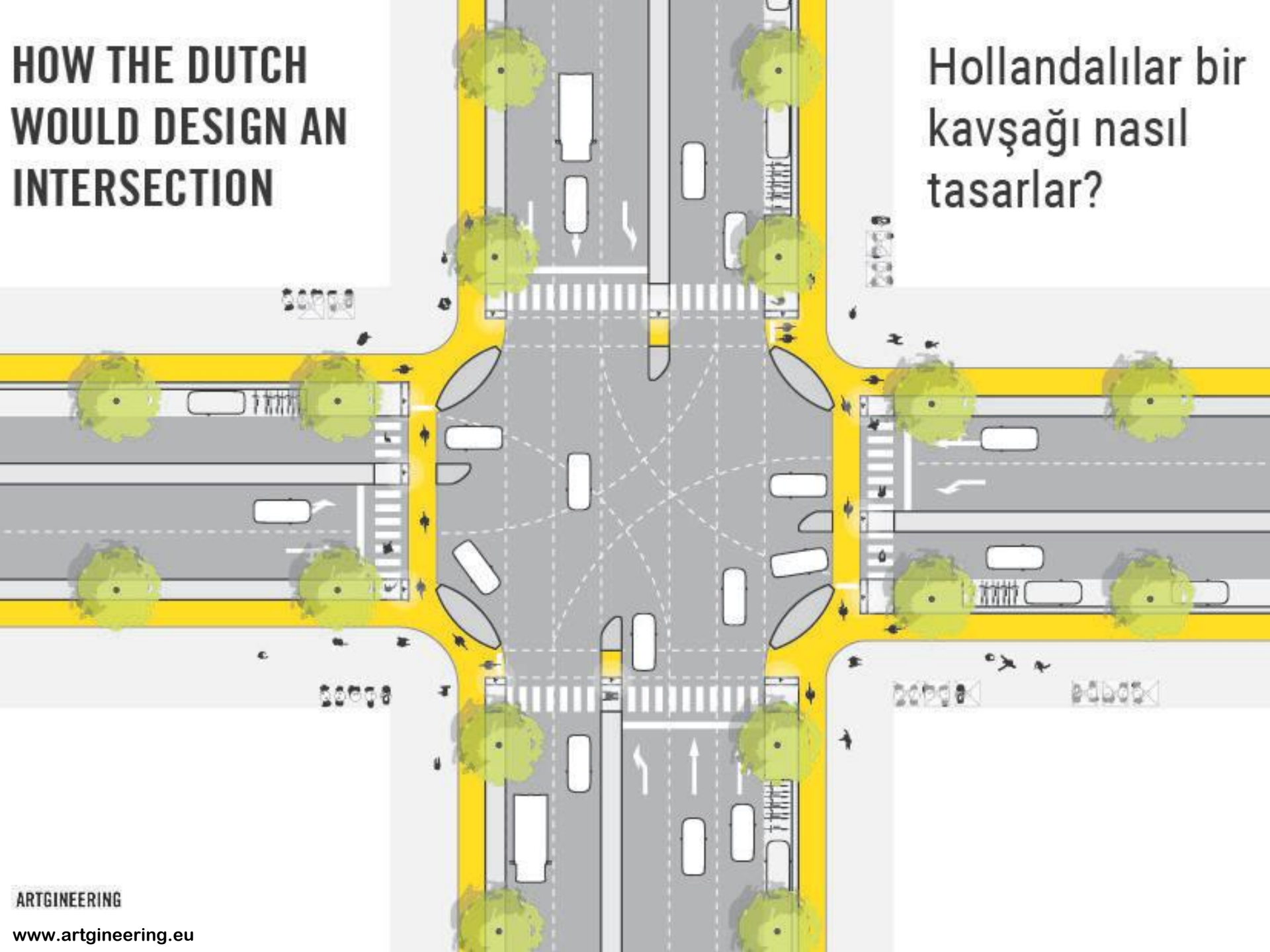
Software: Flamboyant women bike ride



Software: Repair workshops at the bicycle academy

**HOW THE DUTCH
WOULD DESIGN AN
INTERSECTION**

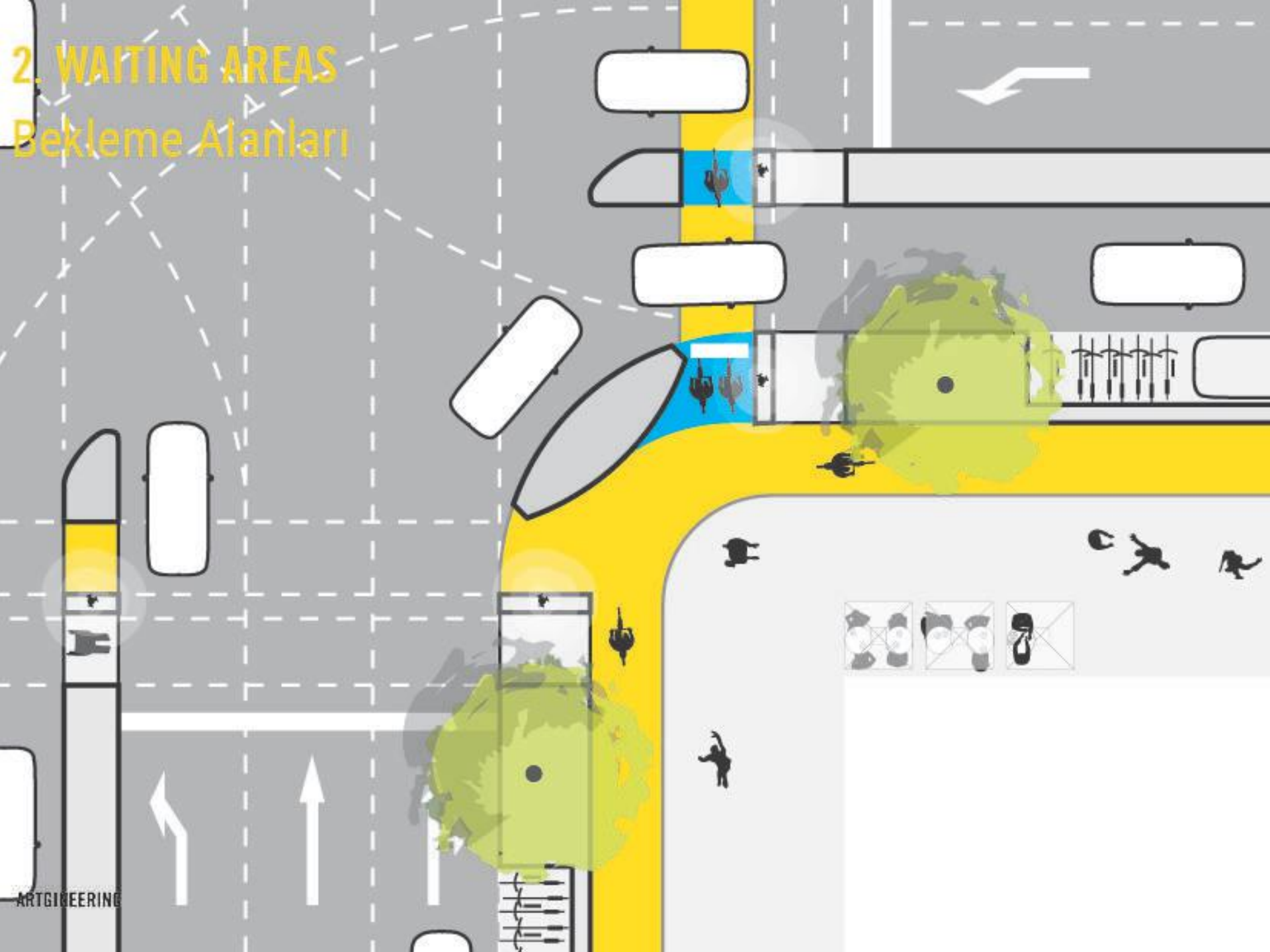
**Hollandalılar bir
kavşağı nasıl
tasarlar?**



1. PROTECTIVE ISLANDS Koruyucu Adalar



2. WAITING AREAS Bekleme Alanları



3. SHIFTING OF THE CYCLE PATH

Bisiklet Yolunun Değiştirilmesi



4. ADVANCED STOPPING LINES

Gelişmiş Durdurma Çizgileri

This diagram illustrates a T-junction where a vertical road crosses a horizontal road. The vertical road is highlighted in yellow. A blue line, representing an advanced stopping line, is drawn across the horizontal road, positioned before the junction. Pedestrians are shown crossing the road at the junction. A green tree is located on the left side of the vertical road. The horizontal road has a dashed line indicating a stopping point. The diagram is labeled '4. ADVANCED STOPPING LINES' and 'Gelişmiş Durdurma Çizgileri'.

FOR WHOM ONE SHOULD DESIGN CYCLE INFRASTRUCTURE?

Bisiklet altyapısı kimin için tasarlanmalı?

60%

"Interested but concerned"
"Meraklı ama endişeli"



33%

"No way. No how."
"Kesinlikle hayır"



6,5%

"Enthused and confident"
"Coşkulu ve kendinden emin"



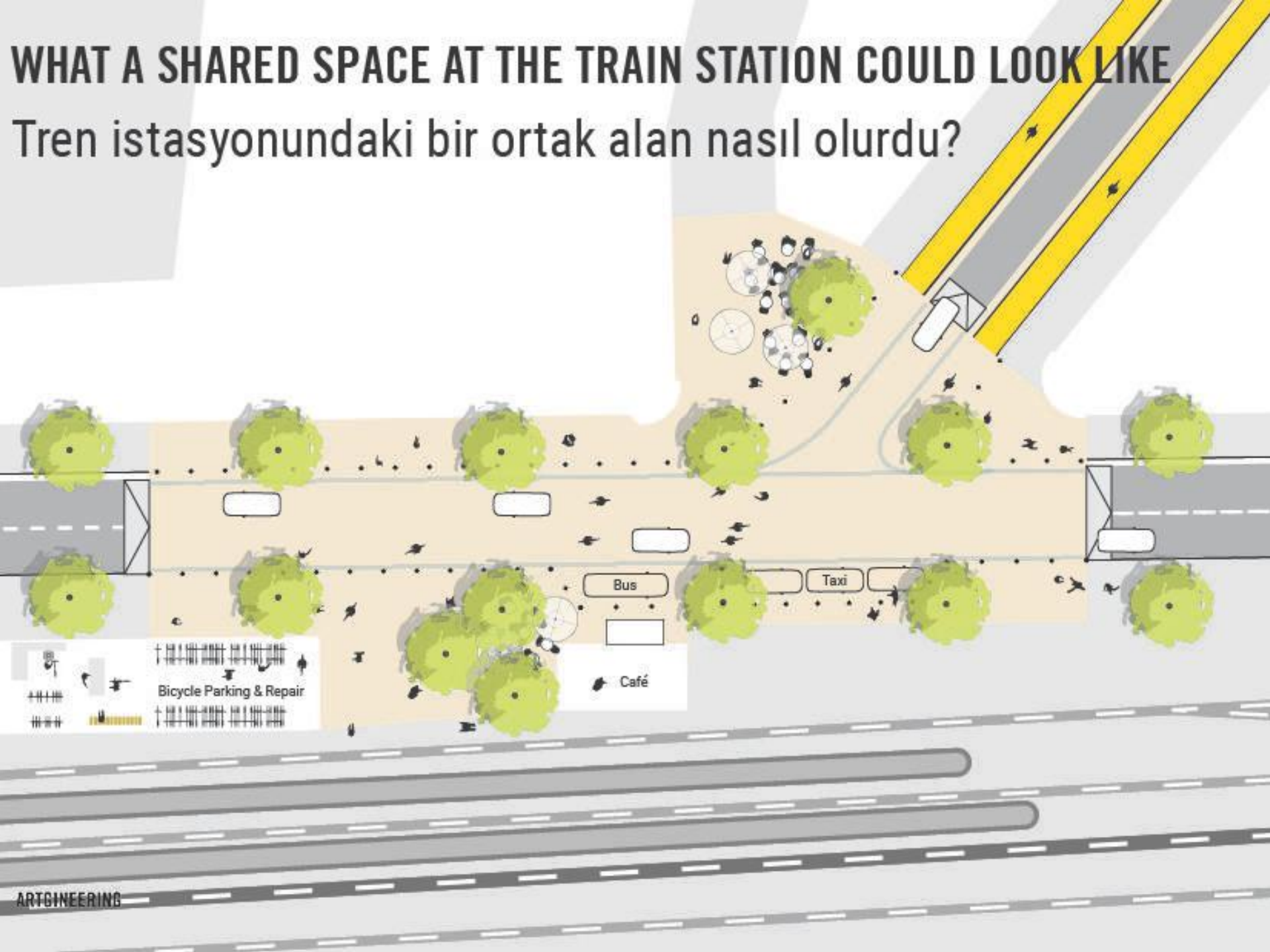
0,5%

"Strong and fearless."
"Güçlü ve korkusuz"



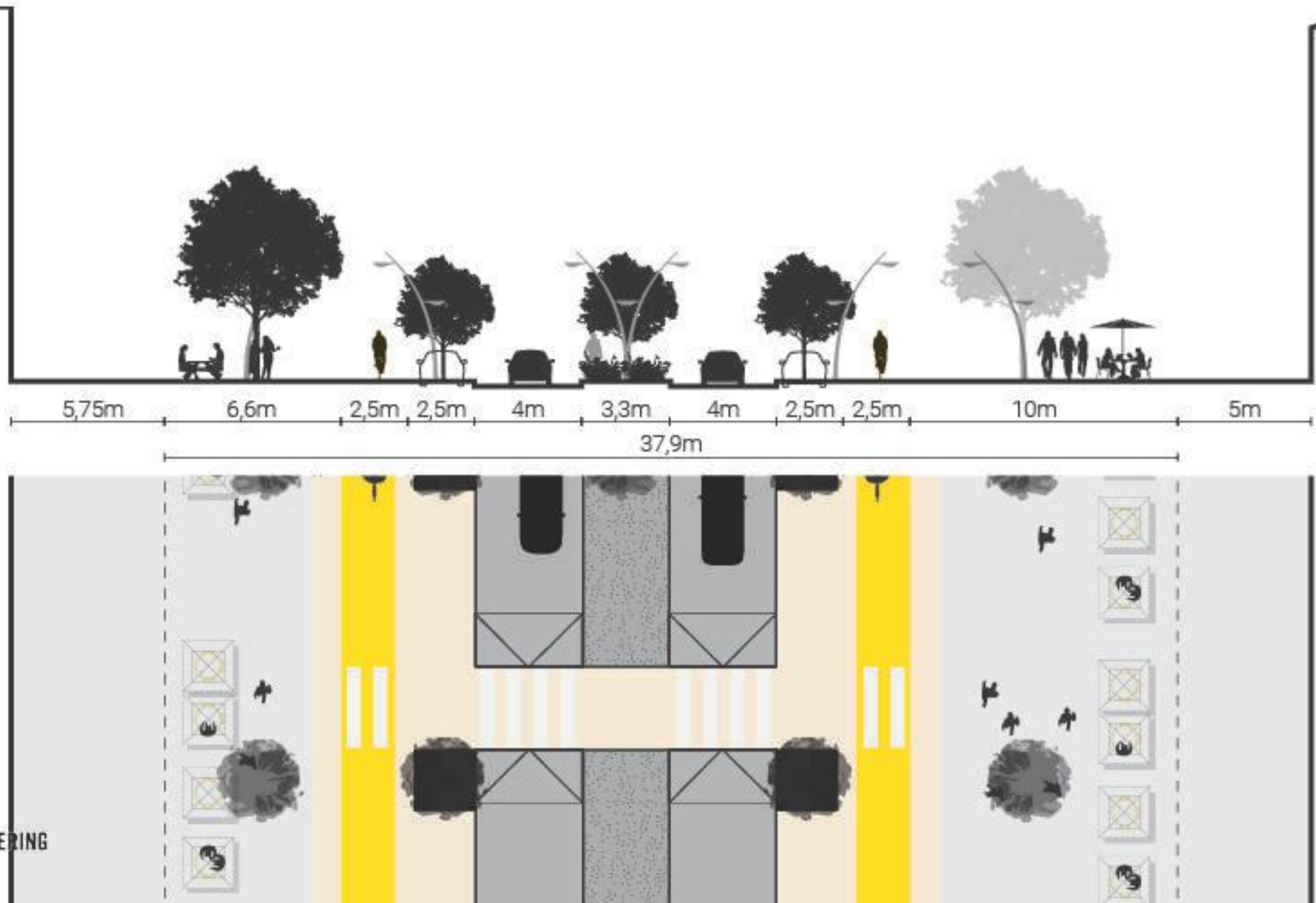
WHAT A SHARED SPACE AT THE TRAIN STATION COULD LOOK LIKE

Tren istasyonundaki bir ortak alan nasıl olurdu?

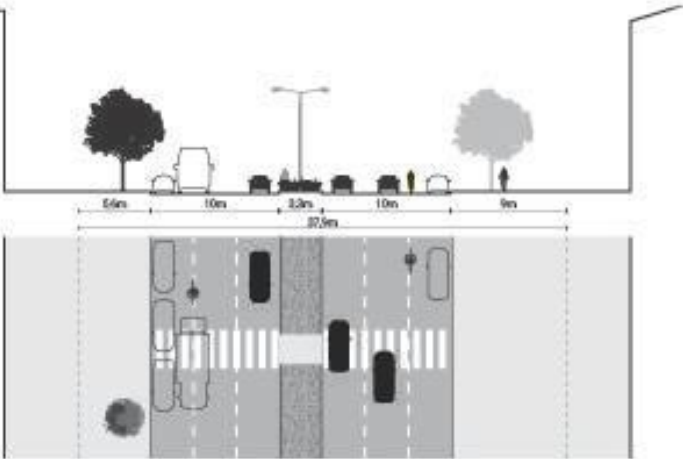


WHAT A FORMER URBAN HIGHWAY COULD LOOK LIKE

Eski bir otoyol neye benzer?



Existing situation - D-100 Karayolu- Murat Hüdavendigâr Caddesi



Lüleburgaz bisiklete biniyor
Cycling for a better city

ARTGINEERING
NOVUSENS
SUSTAINABLE SOLUTIONS
CREATIVE INDUSTRIES FUNDS



Testing of the bicycle friendly road profile in a mock-up

Stefan Bendiks
ARTGINEERING

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Twitter: [AG_cycleinfra](#)

Sustainable Urban Mobility Plans as Drivers for Cycling Boom

Lea Rikato Ružić, PNZ consulting, designing Ltd.



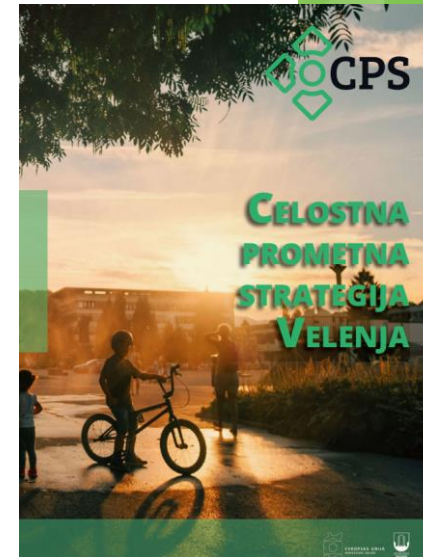
Cycling in Slovenia

- Modal share: 4,5% in Slovenia, 11% in Ljubljana, 5% in Maribor
- Growing cycling tourism and recreational cycling
- First cycling infrastructure guidelines in 2000
- Silo approach, patchy development of network
- Lack of vision & funds
- Cycling strategies still rare



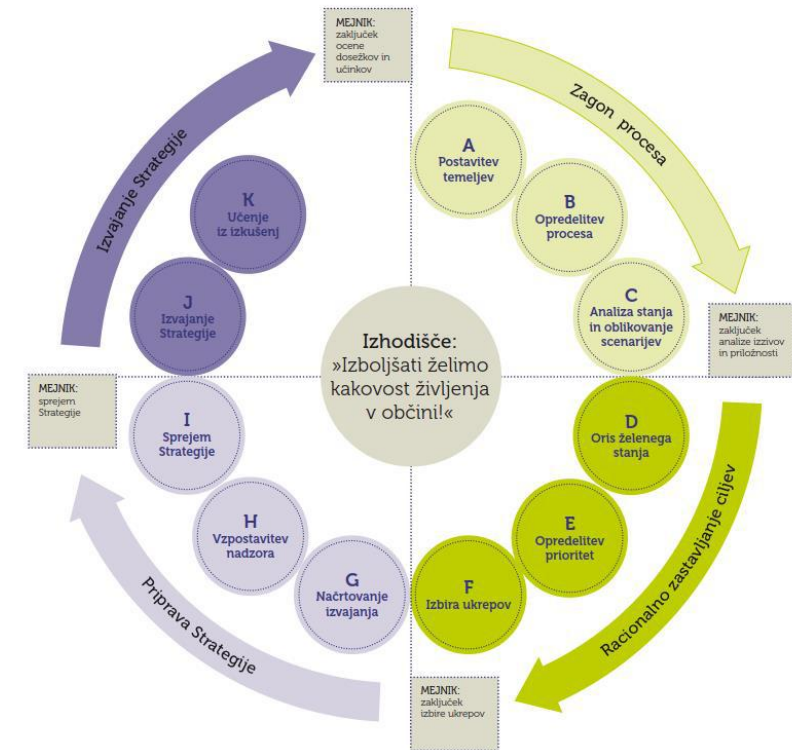
Enter SUMPs

- Sustainable Urban Mobility Plans - long-term strategy for the future development of transport and mobility infrastructure and services in the urban area
- First one in 2012 in EU project
- Since 2017: >70 local authorities with a SUMP



How did that happen?

- Ministry of Infrastructure, new office for sustainable mobility
- SUMP guidelines in 2012
- EU Cohesion Funds (2014-2020) for developing SUMPs in 2015
- 3,75 mio EUR
- Minimal standards + compliance with SUMP guidelines
- Any local authority with urban area(s) eligible



Role of cycling in SUMPs

- Cycling typically one of the pillars
- Strong focus on cycling
- SUMPs locally based, harder to influence national rail or bus system
- Short distances in Slovenian relatively flat towns
- Big potential for mobility and tourism
- Relatively cheap

STRATEŠKI STEBRI 3. IZKORIŠČANJE DANOSTI ZA KOLESARJENJE

Kolesarjenje je poleg zdravega načina rekreacije tudi vrsta prometa, ki ne onesnažuje okolja, ne povzroča hrupa, ne potrebuje goriva in zmanjšuje težave s parkiranjem. Z vidika porabe prostora in denarja je kolesarjenje zelo učinkovito, v urbanih naseljih pa omogoča celo najhitrejšo in najučinkovitejšo premagovanje krajših razdalj. Zaradi omejenih razgov (gospodarskih, ekoloških, turističnih in rekreacijskih) se znova vključuje v prometni sistem in kot alternativa avtomobilskemu prometu dobiva čedalje večjo vlogo in pomen.

IZZIVI
Kljub ugodnim geografskim danostim in investicijam v zadnjih letih v izboljšanje razmer možnosti kolesarjenja še niso dovolj izkoriščene. V širšem mestnem območju je več kot 50 konfliktnih točk za kolesarje, pri večini gre za prekinitve in manjkajoče povezave kolesarskih poti. Povezave z zaledjem so pomanjkljive oziroma neobstoječe, na primer proti Solkanu ali Kromberku, še bolj pa proti drugim naseljem vzhodno od Nove Gorice. Naselja, kot so Šempas, Ozeljan, Ozek, Vitovlje, s kolesom skoraj niso dostopna oziroma le po veliko daljših lokalnih cestah in poteh. Državno kolesarsko



Ob nekaterih najbolj prometnih cestah ter solških poteh še vedno ni kolesarskih povezav, povezave med naselji pa so tudi redke.



Pomanjkanje kolesarskih parkiršč je očito tako v stanovanjskih območjih kot tudi ob zgodnjih javnih in zasebnih storitvah.

omrežje je zasnovano in se počasi izgrajuje, vendar je še vedno v začetnih fazah razvoja. Slabše razvite so kolesarske povezave med večstanovanjskimi območji ter zaposlitvenimi, upravnimi in storitvenimi območji, najslabše je poskrbljeno za varnost najmlajših kolesarjev, saj večina osnovnih šol v mestu ni dosegljiva po kolesarski poti.

Projektiranje kolesarskih povezav pogosto zapostavlja varnost in udobje kolesarjev in pešcev z namenom obraditi raven storištev za motorni promet. Gre za nevarne in neudobne rešitve, kot so umeščanje kolesarjev na pločnike, preozke steze, previsoki robniki, dvigi in spusti ob stranskih dovozh, nenadne prekinitve, urbana oprema in prometna signalizacija kot ovira, vodenje v krčžih, slabo vzdrževane površine, neprepustnost enosmernih cest za dvosmerno kolesarjenje, ovire za motorna vozila. Med razlogi za neustrezno zvedbo je, da tako na državi kot tudi na občinski ravni niso sprejeti standardi in predpisi pri načrtovanju in gradnji infrastrukture za kolesarje. Analiza od zdaj zgrajenih in urejenih kolesarskih površin kaže na dejstvo, da je treba odpraviti pomanjkljivosti in tako izboljšati elemente za varno in udobno kolesarjenje.

Z vidika preostale kolesarske infrastrukture je v mestu opazno pomanjkanje parkirnih mest za kolesa in kolesaric, obstoječa stojala so pogosto neprimerna. V prostorskih aktih nimamo opredeljenih zahtev glede parkiranja koles, zato se praviloma na ta element pozablja ali je zveden pomanjkljivo. Trenutni sistem izposoje koles je omejen, ideje o vzpostavitvi avtomatiziranega sistema izposoje koles v sosedstvu treh mest se niso uresničile.

Metna varnost kolesarjev se ne izboljšuje enako kot skupna prometna varnost, saj se število prometnih nesreč ne zmanjšuje. V zadnjih letih je bilo namreč povprečno 18 nesreč s kolesarskimi udeleženci na leto, kar je podobno kot v začetku tisočletja. Eden pomembnih razlogov je zagotovo tudi povečanje števila kolesarjev, a vseeno moramo stremeti k zmanjšanju števila nesreč. Še veliko možnosti za izboljšave je v

Kaj ste nam sporočili:

Občani so najbolj nezadovoljni s sklenjenostjo kolesarskega omrežja (52 odstotkov), pomanjkanjem kolesarskih parkiršč (61 odstotkov) in pomanjkljivo osvetlenostjo poti (53 odstotkov). Približno 81 odstotkov anketiranih meni, da je pomembno imeti več površin za mestne kolesarje, 64 odstotkov jih meni, da je pomembno imeti več parkirnih površin za kolesa, 55 odstotkov, da je pomembno imeti sistem za izposajo koles, 74 odstotkov pa jih meni, da je pomembno umerjati promet.

Metna varnost kolesarjev se ne izboljšuje enako kot skupna prometna varnost, saj se število prometnih nesreč ne zmanjšuje. V zadnjih letih je bilo namreč povprečno 18 nesreč s kolesarskimi udeleženci na leto, kar je podobno kot v začetku tisočletja. Eden pomembnih razlogov je zagotovo tudi povečanje števila kolesarjev, a vseeno moramo stremeti k zmanjšanju števila nesreč. Še veliko možnosti za izboljšave je v

Impact on funds

- SUMP condition to bid for funds for measure implementation
- 250 mio EUR for cycling measures (2018-2023) tied to SUMP
- =25 EUR per person per year
- Biggest financial injection ever
- First systematic investment in cycling

Operation	Mio EUR	Source
Call for Tenders Ministry of Infrastructure	13,1*	CF, National participation, Beneficiaries cofounding
ITI Mechanism ERDF	35,6*	ERDF, National participation, Beneficiaries cofounding
Regional Development Agreements	194*	ERDF, National participation, Beneficiaries cofounding
Call for Tenders Ministry of Environment	10,2*	Climate Change Adoption Fund, SIA
Slovenian Infrastructure Agency	37,0	National budget
Total	289,8	

*SUMP as condition for bidding

Impact on quality – current state



Impact on quality - future

- New Cycle Friendly Infrastructure Guidelines
- Not legally binding but mandatory when bidding for funds
- More ambitious and higher quality than the formal guidelines
- Cycling as part of overall mobility system, not on its own – other pillars in SUMPs supporting traffic calming, parking policy, integration with PT, quality of urban realm, soft measures etc.



Finally, impact on cycling levels?

- Measures/projects are being implemented
- No real results yet
- However – clearly a strategic and financial boost for local authorities
- National government supporting higher quality infrastructure
- Positioning cycling into wider urban mobility agenda



Thank you!

Lea Rikato Ružić

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www.pnz.si





Fix the mix





Gent



Working together



Good place to be



1. Low car-traffic volume and low speed

Low traffic volumes
Local traffic

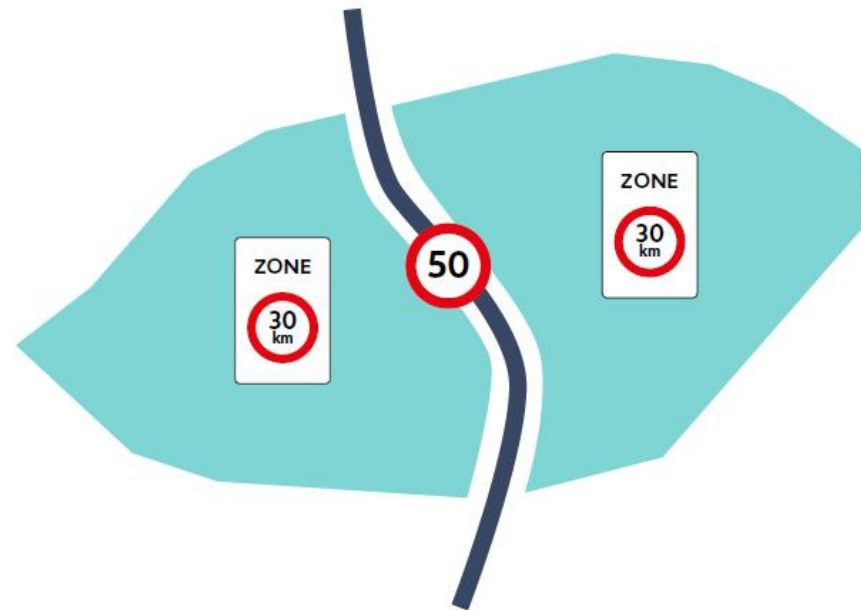
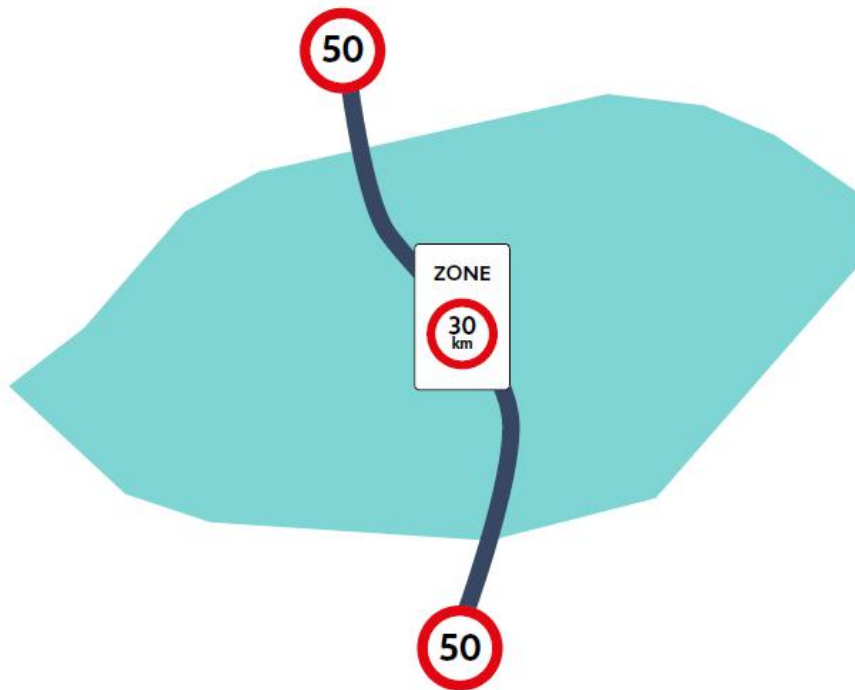
Slow traffic
Small vehicles

Turnhout centrum

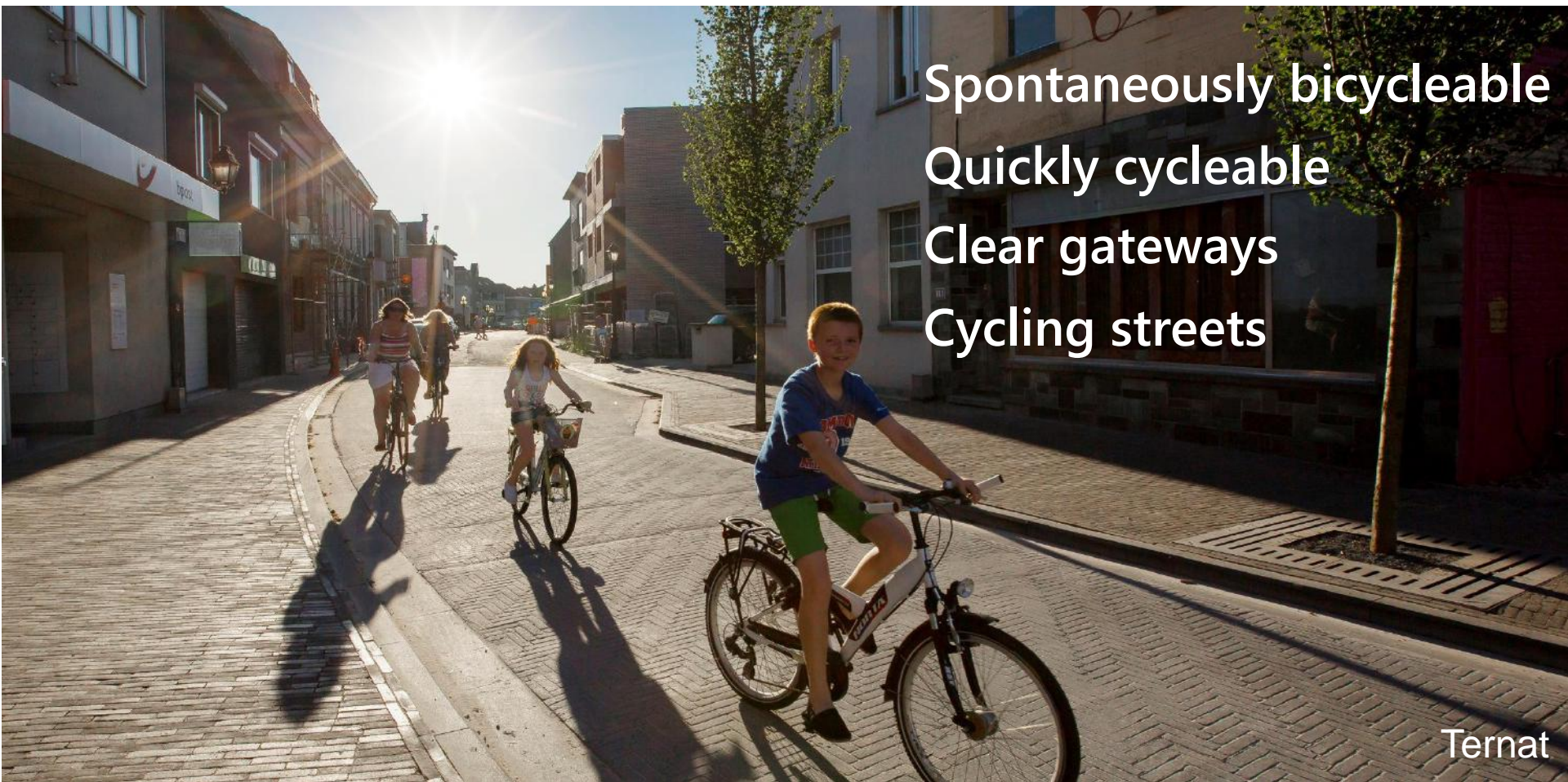
1. Low car-traffic volume and low speed



1. Low-car traffic volume and low speed



2. Obvious cycle friendly



Spontaneously bicycleable
Quickly cycleable
Clear gateways
Cycling streets

Ternat

Poorten



Highly cycleable
Cycling streets

3. Space to meet&greet



Good place to stay

Freedom and space
to move

Practical and nice

Safe parking

Turnhout

4. Nearby services



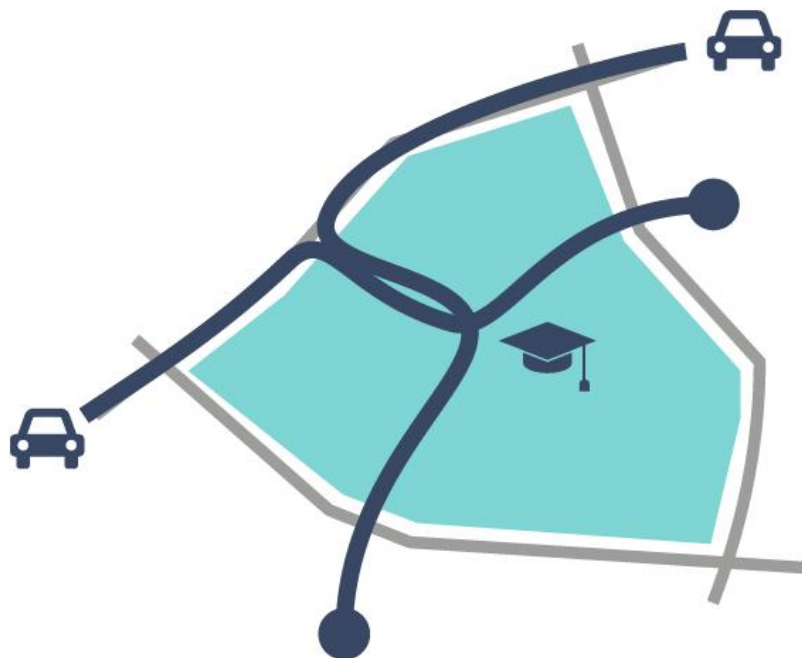
5. Connecting networks



Cycling routes
Walking routes
Connecting
Multimodal

Gent

5. Connecting networks



Ketenverplaatsingen: twee auto's rijden om door de wijk langs de school



Auto's gaan meteen naar de verbindingsweg

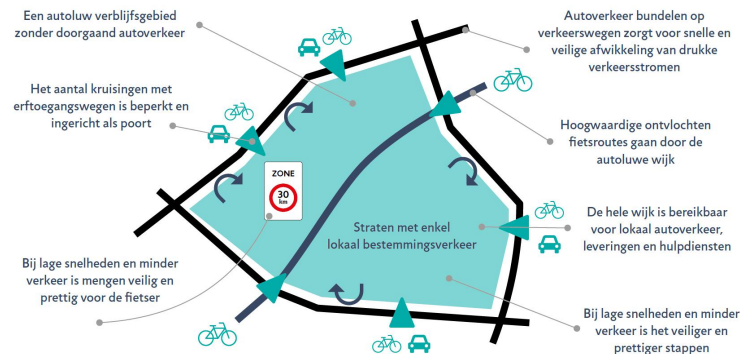
Kinderen stappen en fietsen zelfstandig naar school door de autoluwe wijk

Now let's fix the mix

Basic principles Set boundaries on living areas
Mix where possible, separate if needed.

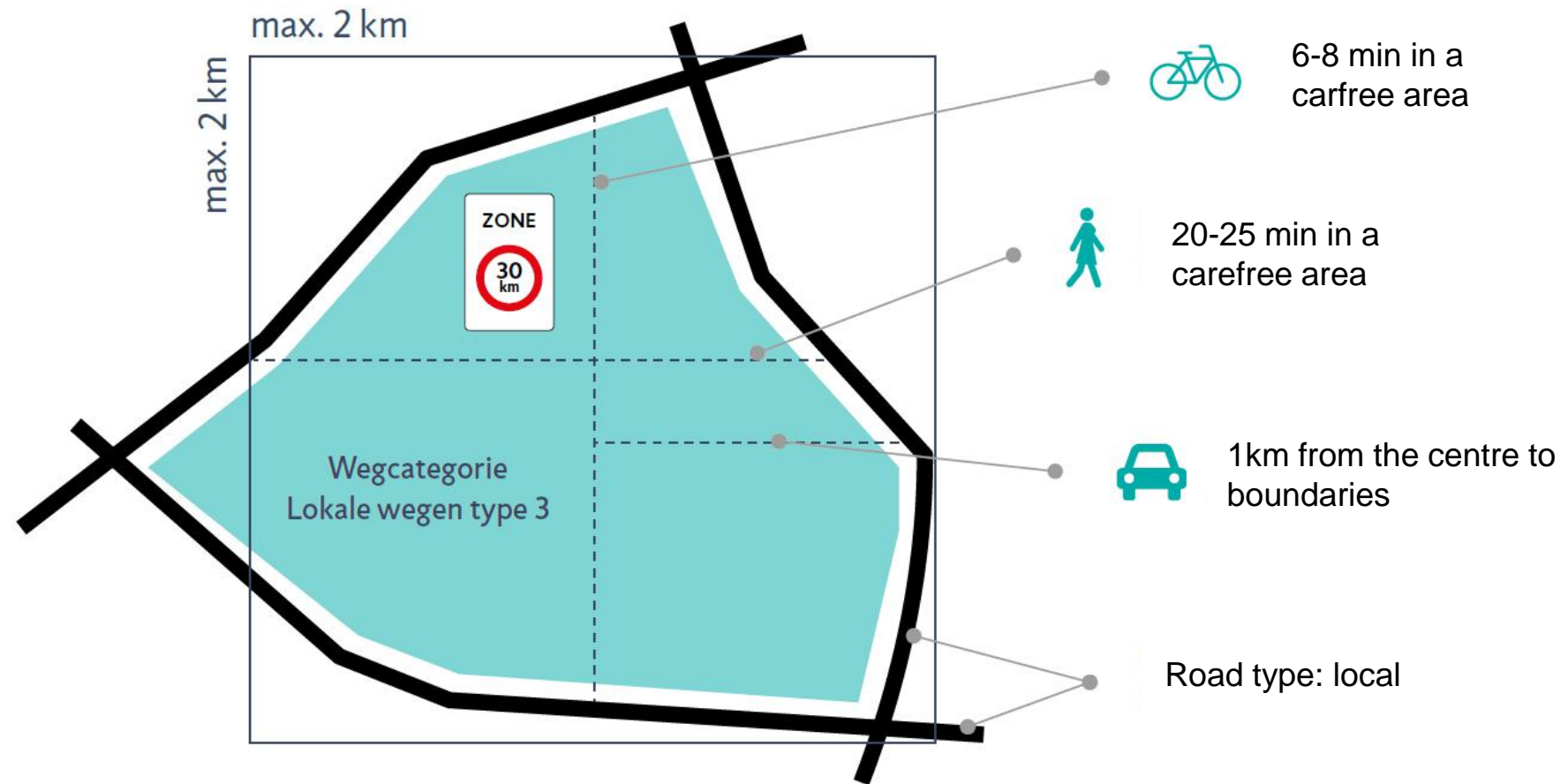
Core measures Introduce a low traffic circulation plan with clear gateways, one-way roads and filters.
Transform in a 30km/h zone.

Gains Link with measures from other policy areas to increase the gains and positive effects



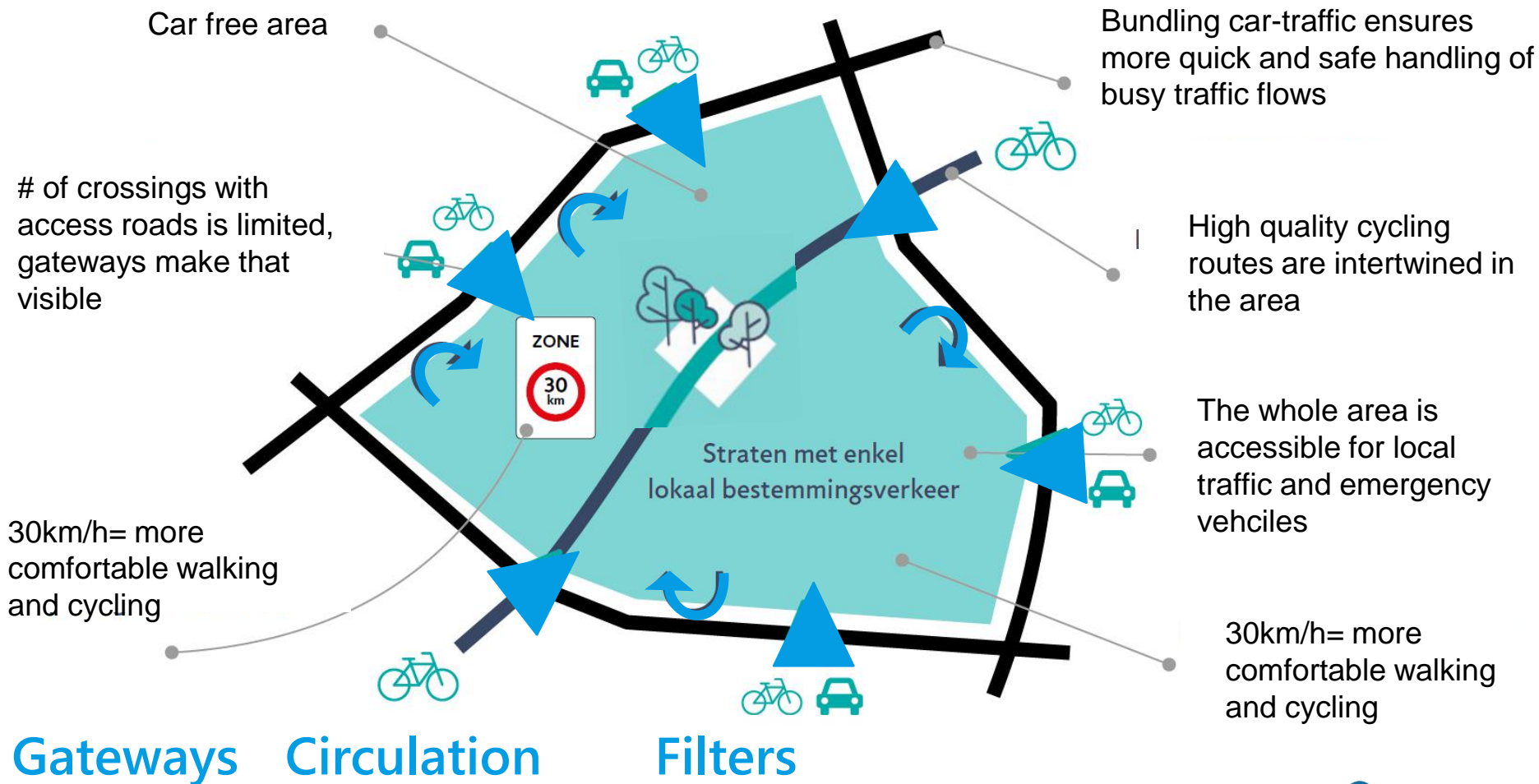
Basic principle 1

Set boundaries on your living areas

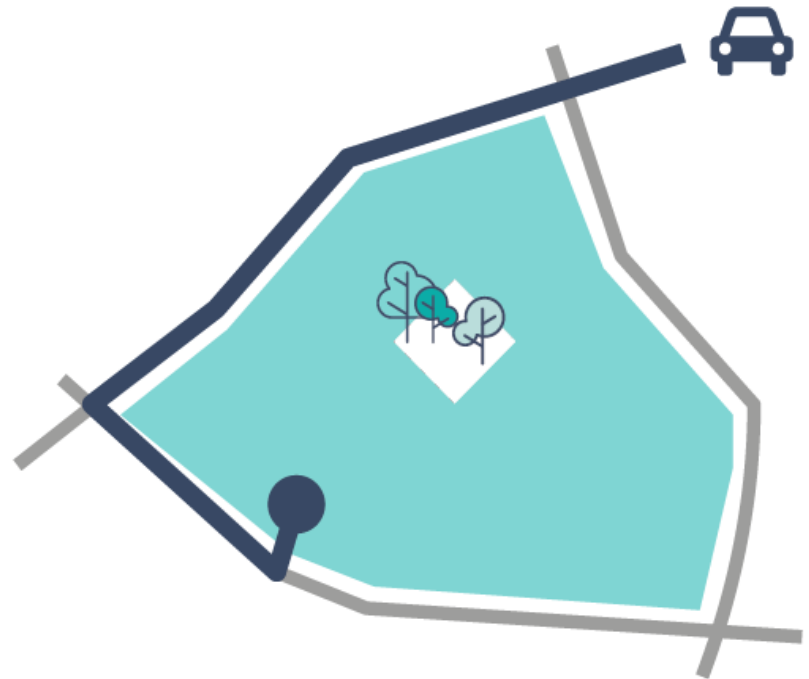


Core measure 1&2

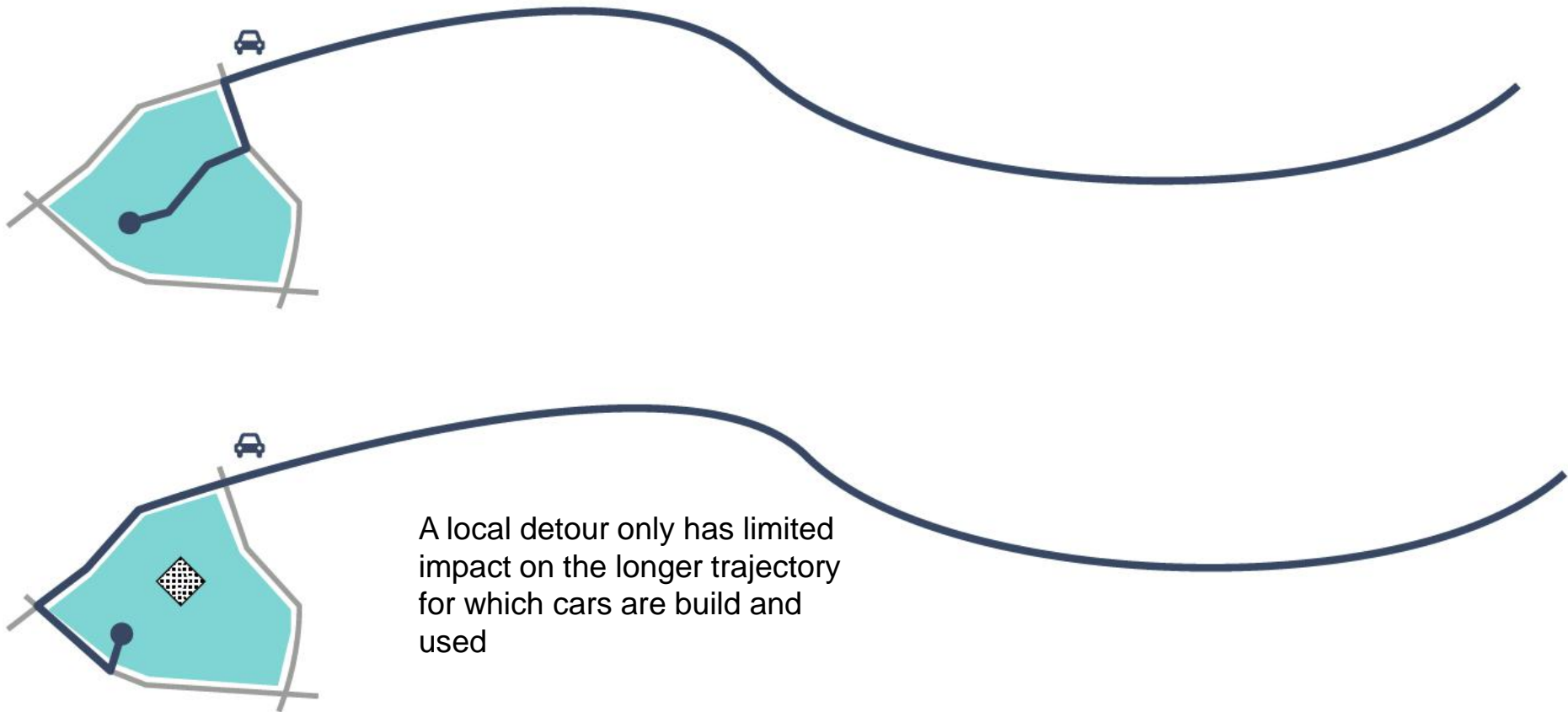
Traffic circulation plan & 30km/h



Traffic circulation



Traffic circulation



Traffic circulation



Turnhout - Congostraat

Mobility gains

Traffic safety

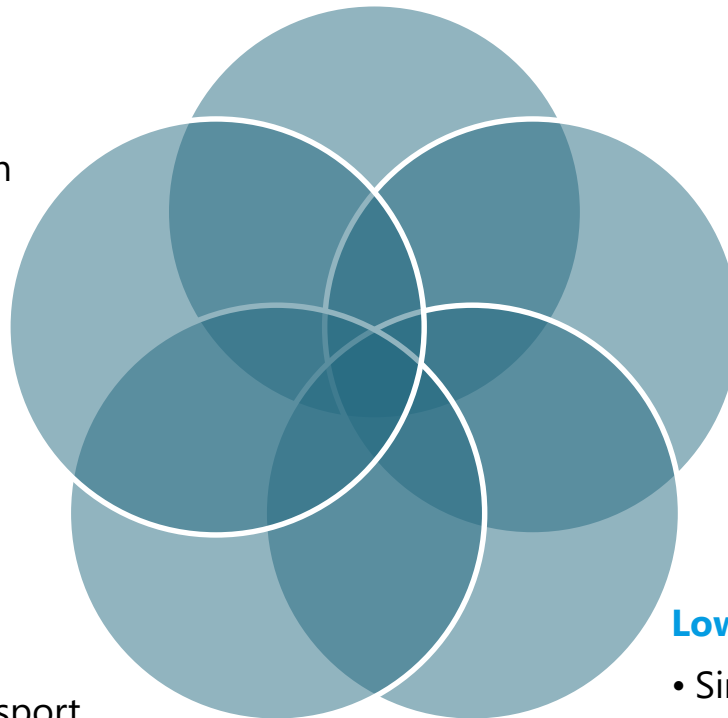
- Uniformity = clear and understandable
- Structured & credible

Living quality

- Less pollution and congestion
- More space for social interaction

Accessible

- Social inclusion and transport autonomy



Sustainable mobility

- More walking and cycling
- Mobility services

Lower costs

- Simple measures
- Less (expensive) cycling lanes needed

Social & community gains

Health

- Healthier lifestyles
- Improved air quality

Environment & climate

- Less energy use
- More green, less concrete

Social interactions

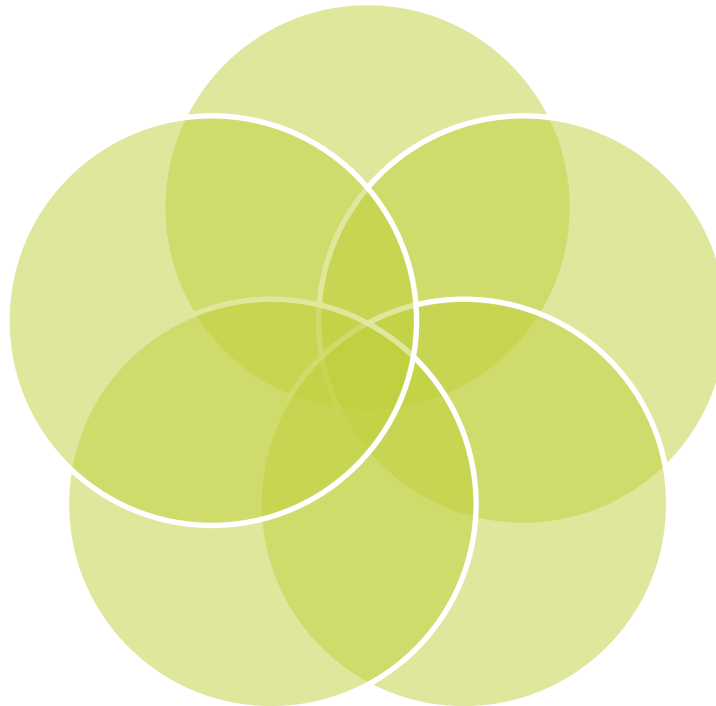
- More interactions
- Increased social safety

Public space

- More space to live
- More space to play

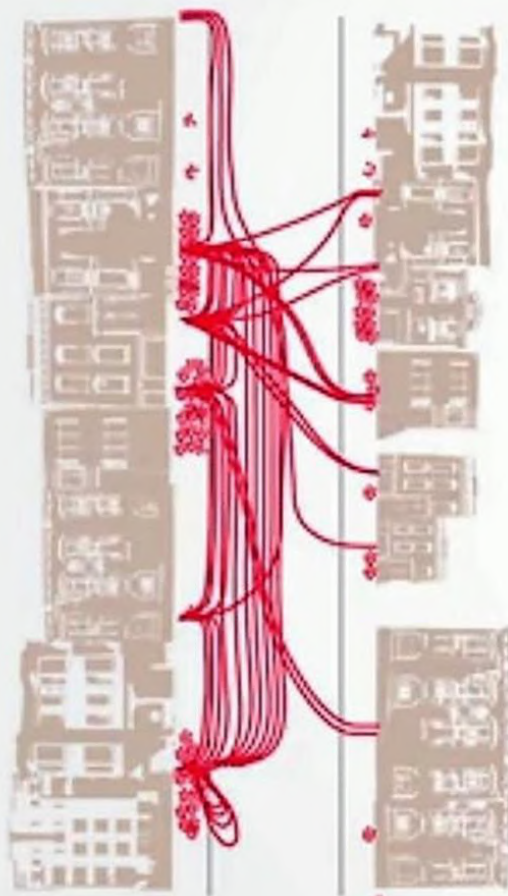
Attractive

- More families living in the city
- Attractive for retail



Social Interactions on Three Streets - Neighboring and Visiting

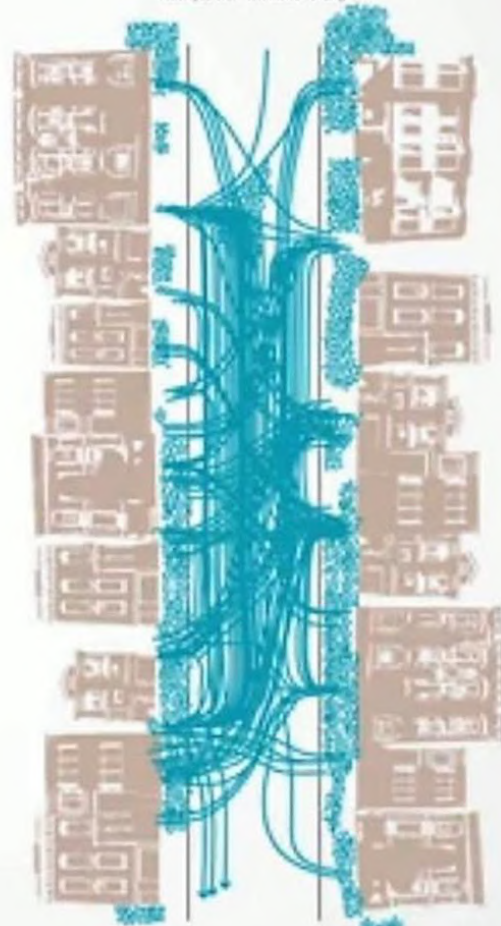
HEAVY TRAFFIC



MODERATE TRAFFIC



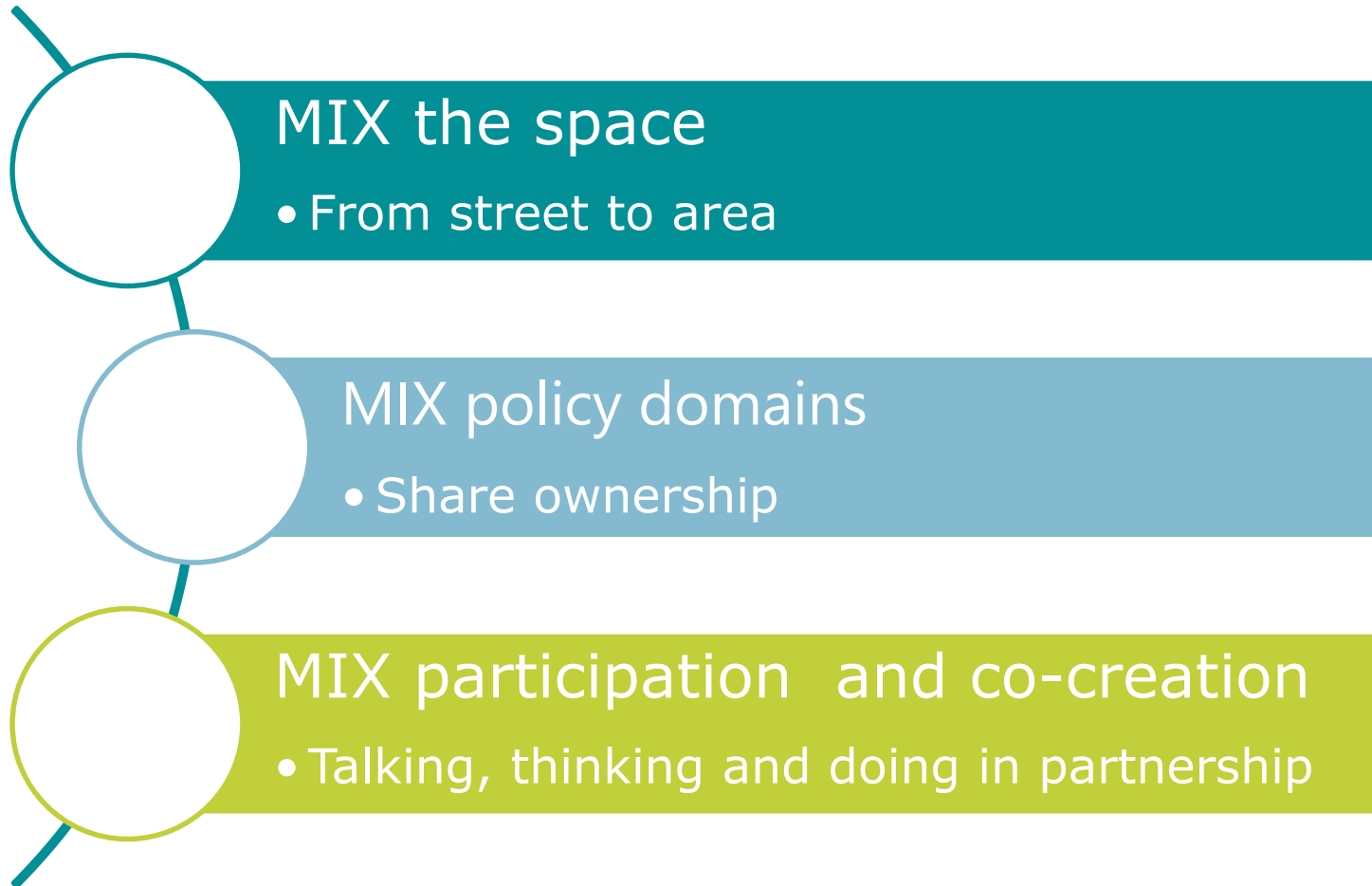
LIGHT TRAFFIC



Where people have friends

Where people gather

Building together



Stay in touch!

Fix the mix, offered to you by



Thank you for your attention, let's stay in touch!

Elke.Bossaert@mobi21.be
www.mobi21.be

Civic Tech für Veloinfrastruktur

Let's make our Streets
Bikeable

Hannes Heller, Österreichischer Radgipfel 2019, 28.05.2019

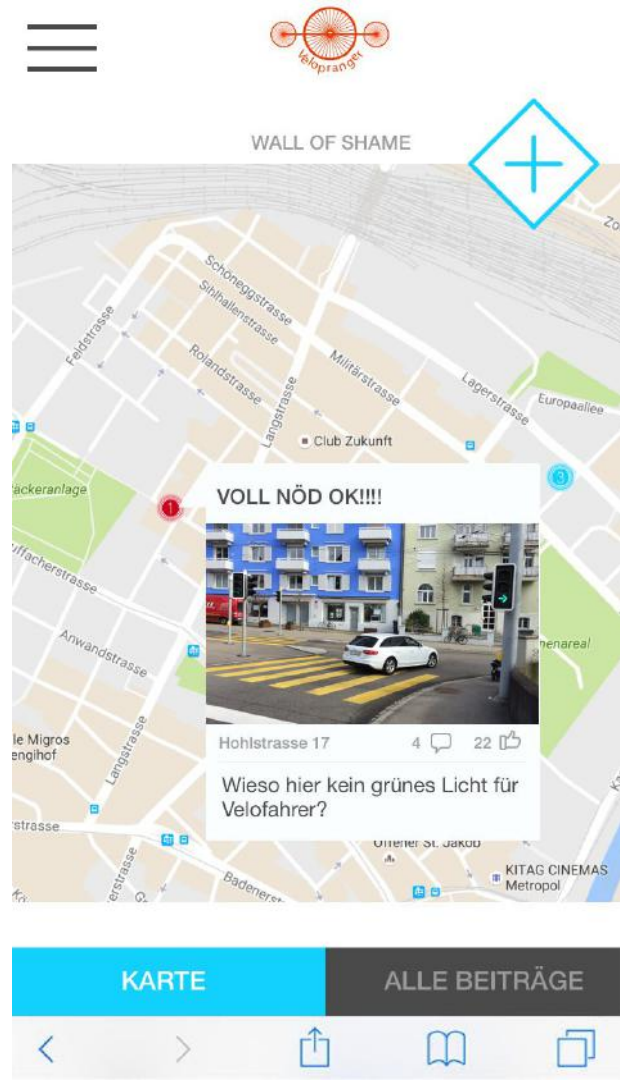


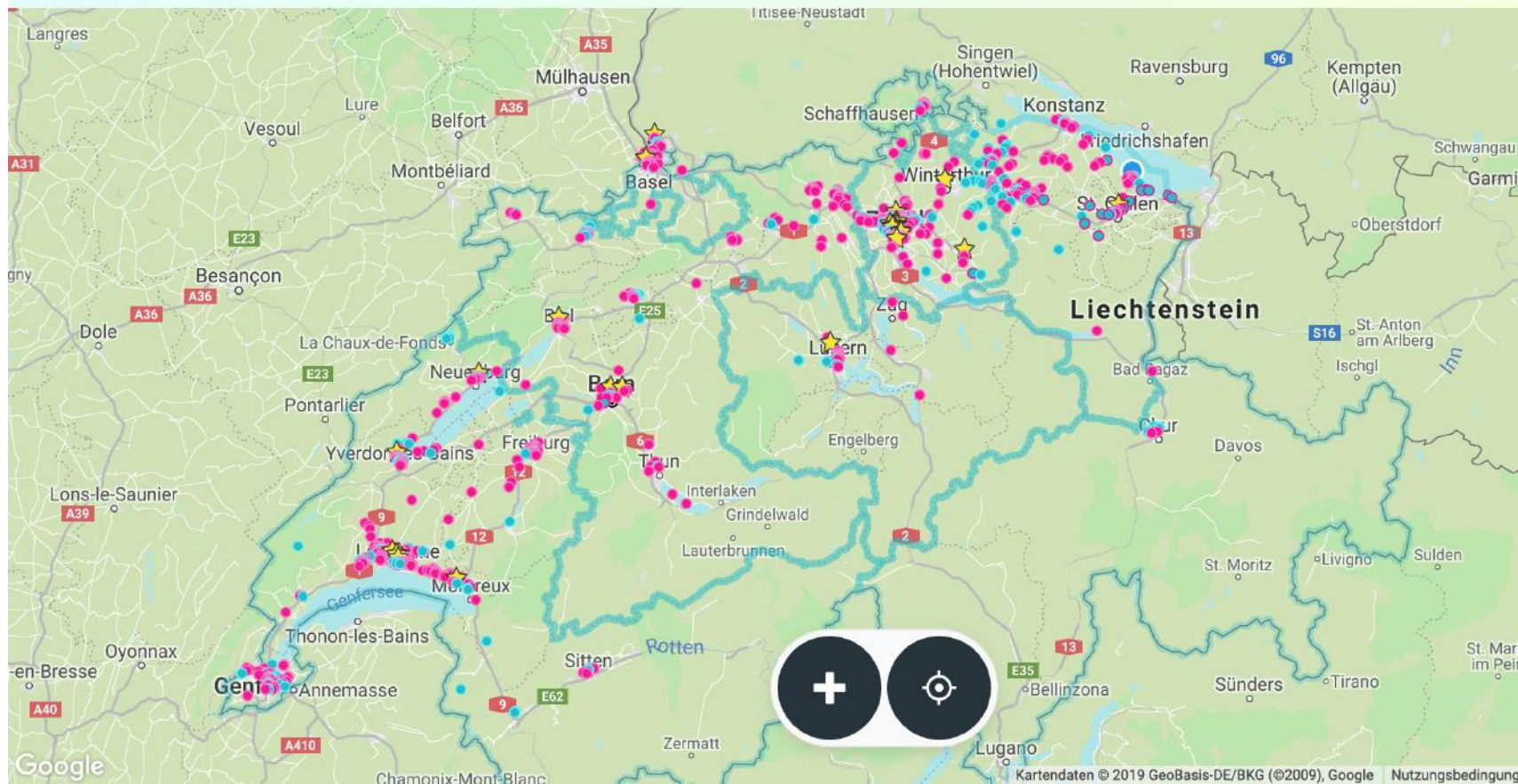




bikeable.ch

- Mär '16 Idee
- Jan '17 Start Umsetzung
- Feb '17 Verein
- Apr '17 Crowdfunding
- Sep '17 Vollversion
- Jun '18 Mehrsprachigkeit
- Jun '18 Partnerschaft Pro Velo CH
- Dez '18 Partnerschaft Clemo.ch
- Mai '19 Launch iOS App





Bikeable Team



Marc Gschwend



Nora Gailer

Seraina Manser



Elise Acheson

Samuel Alder



Luca Naterop

Tobias Wildi



Alexandros
Coutsicos

Hannes Heller



Civic Tech - Einführung

- “Civic technologies” are tools we use to create, support, or serve public good. (*Civic Hall*)
- Civic Technology steht für technische Konzepte (insbesondere aus dem Bereich der Informationstechnik), die Engagement und Beteiligung von Bürgerinnen und Bürgern fördern. Schwerpunktbereiche bilden dabei die Schaffung von Kommunikationsplattformen, die Verbesserung öffentlicher Infrastrukturen und Technik-zentrische Verbesserungen des Allgemeinwohls. (*Wikipedia*)

Typen:

- Projektpartizipation
- Leitbildpartizipation
- Offene Partizipation
- Mark-A-Spot
- Bürgerhaushalt

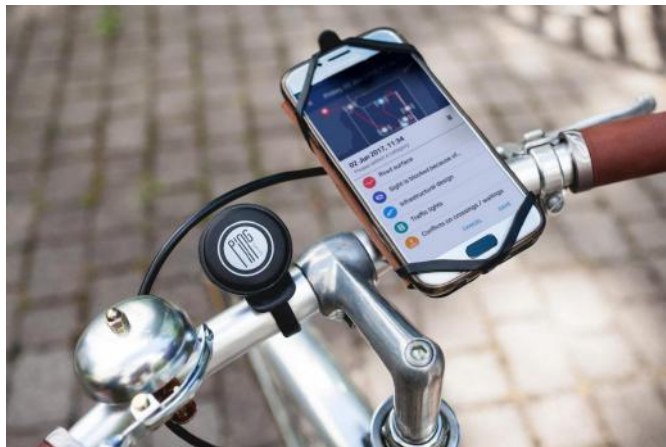
Beispiele:

- Leserbrief
- Kommentarspalte
- Informationsabende
- Workshops
- Soziale Medien
- Petitionsplattformen



Civic Tech: Mark-A-Spot

- Züriwieneu
- Fixmystreet.org
- Nextzürich
- Velophone
- Wheelmap.org
- Ping! If you care
- RADar!



STAKEHOLDERMAP AM BEISPIEL VON BIKEABLE.CH



Chancen

- Verbesserungen erzielen
 - Druck erhöhen
 - Bewusstsein fördern
 - Austausch & Vernetzung
- Beteiligung ermöglichen
- Kreis der Beteiligten erweitern
 - Zentralisierung
 - Zeitlich und räumlich
 - Zugangshürden abbauen
- Kommunikation zwischen Experten und Laien
 - Unzugenügende Visualisierungsinstrumente

Risiken / Hürden

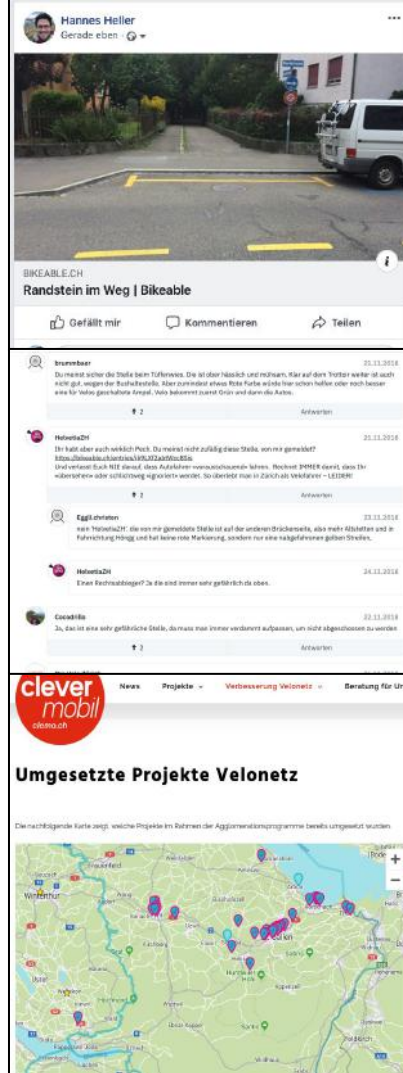
- Aufwand
- Anzahl Kanäle
- Erwartungshaltung
- Informationsqualität
- Missbrauch
- Komplexität
- Politischer Druck vs. Werkzeug



Tools



- Social Media Integration
- E-maildienste
 - Kommentare
 - Spots auf Interessensgebiet
 - Periodizität nach Wunsch
- Kommentarfunktion
 - Statusupdate
 - Verlinkung
 - Weitere Informationen
 - Fragen & Antworten
- iFrame
 - Einbindung auf anderen Webseiten
 - Filterung möglich
 - Nutzung für Referenzen



- Geplant
 - Notification-Center
 - #-Tags (Kategorisierung)
 - Personalisierte Interessensgebiete
 - Android App

Beispiel



**Courlis**
1.8.2018

 [Route de Sullens 2, 1030 Bussigny, Suisse](#)

Vaud

 Foto hochladen







Besten Dank für Ihre
Aufmerksamkeit!

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Quellen:

Neuhaus, Fabian, Matthias Drilling, and Hans-Jörg Stark.
"ATLAS ePartizipation: demokratische Stadtentwicklung." (2015).

