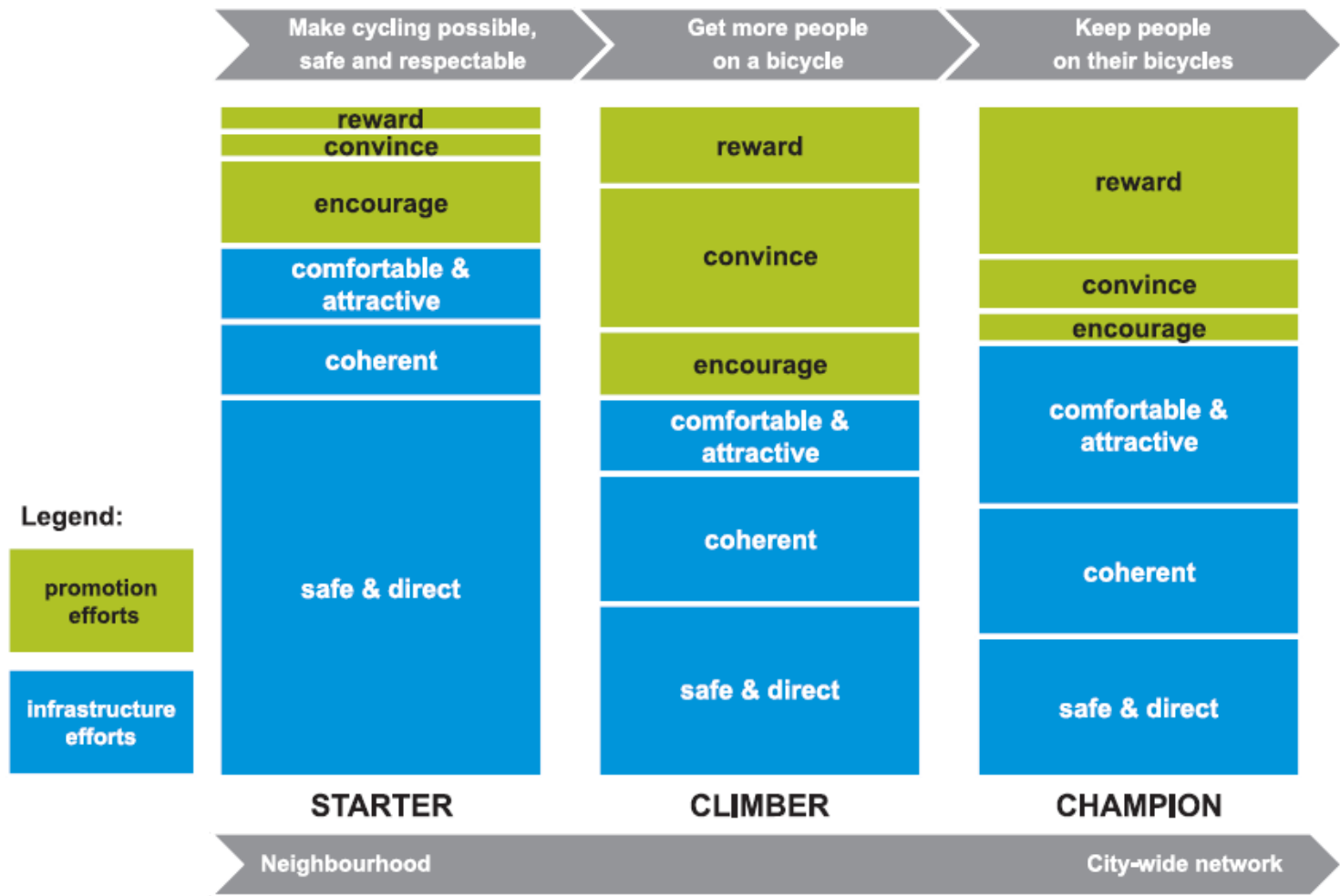


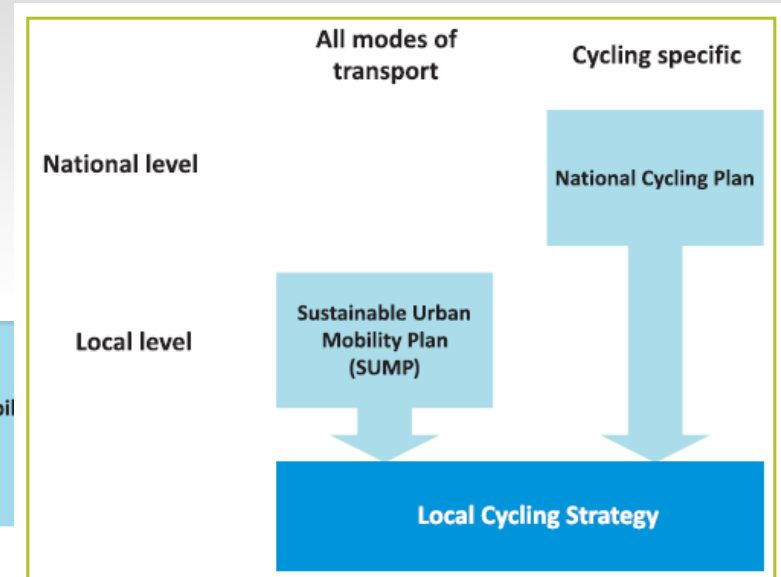
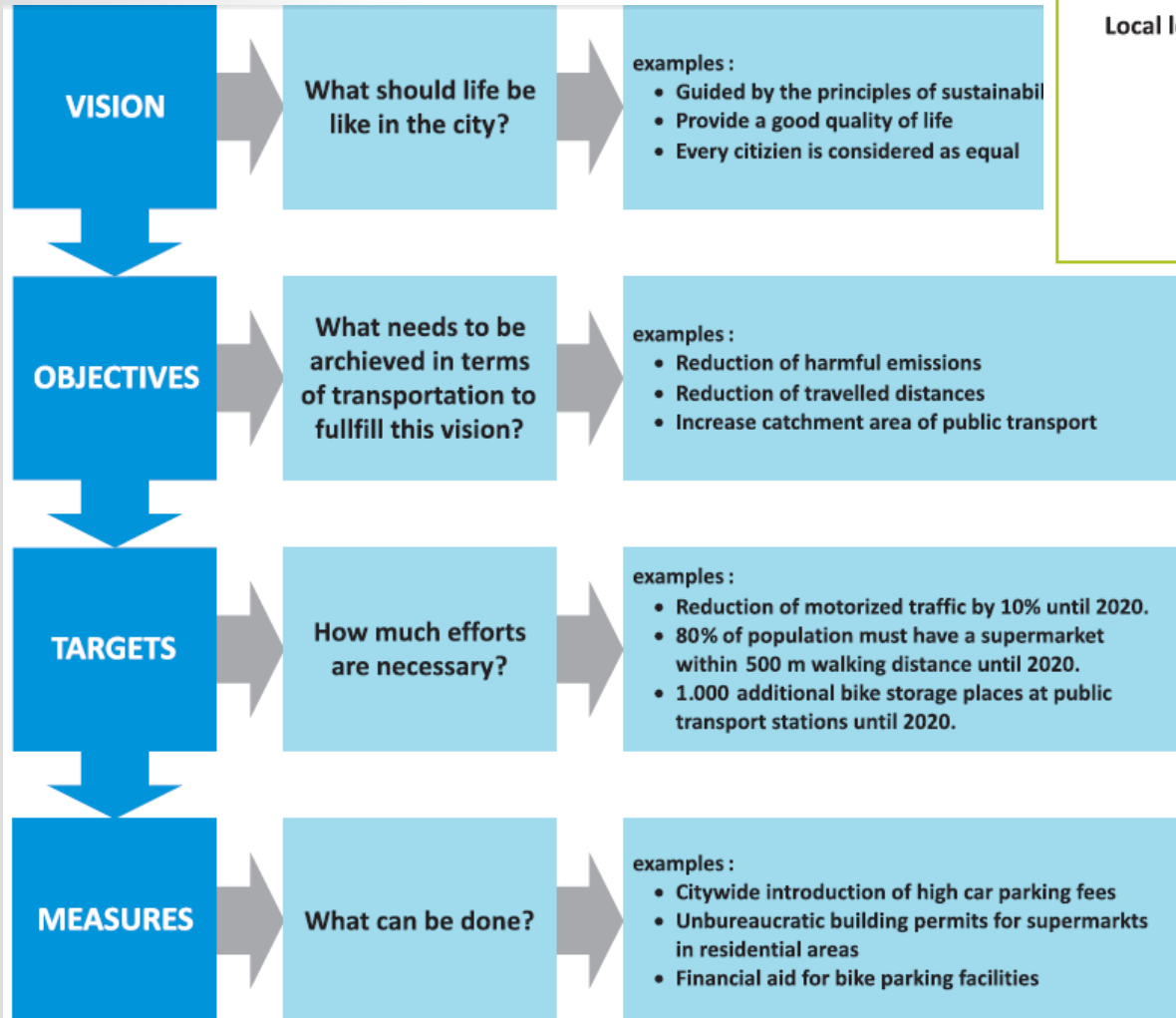
Cycling



Sequence of cycling strategy efforts of PRESTO approach



from visions to measures (including examples)

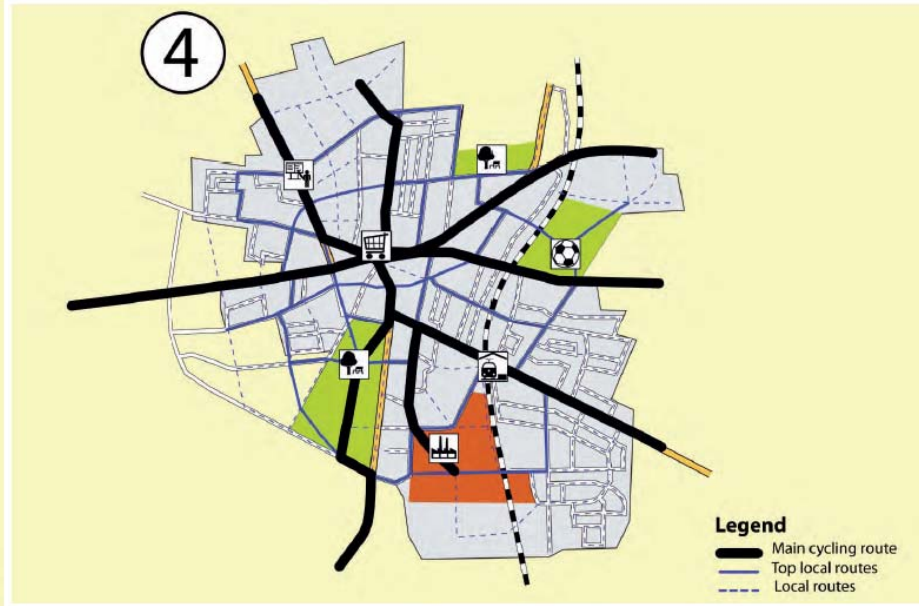
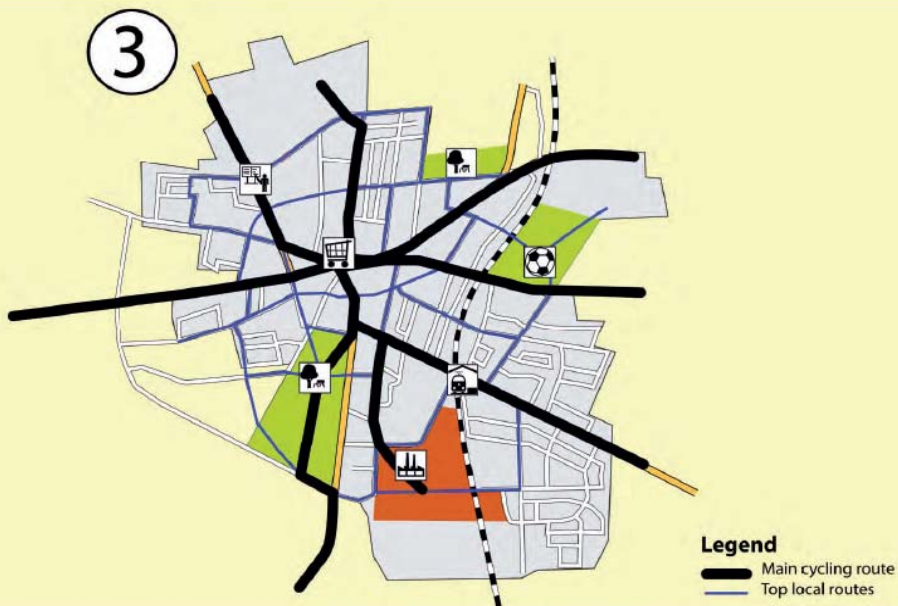
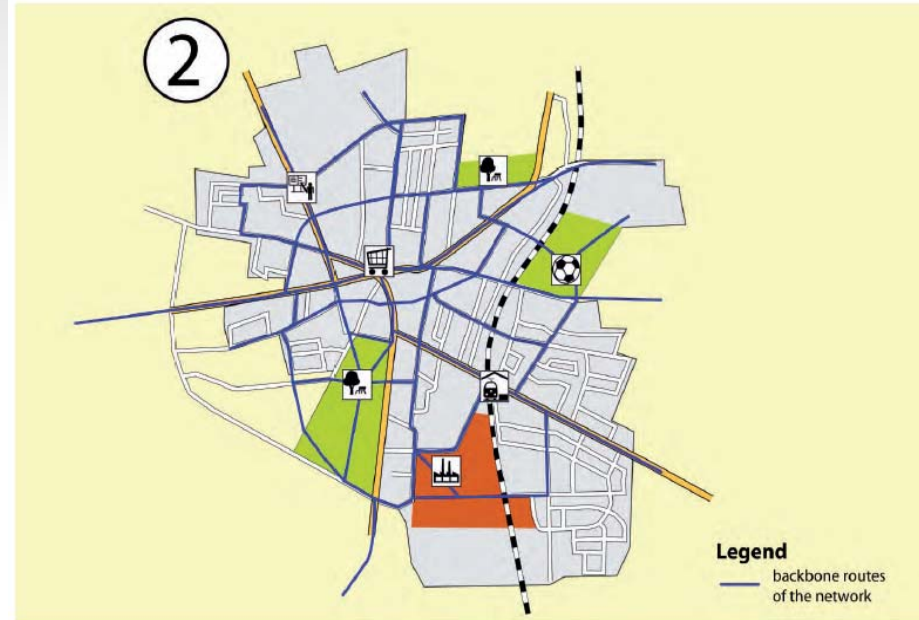
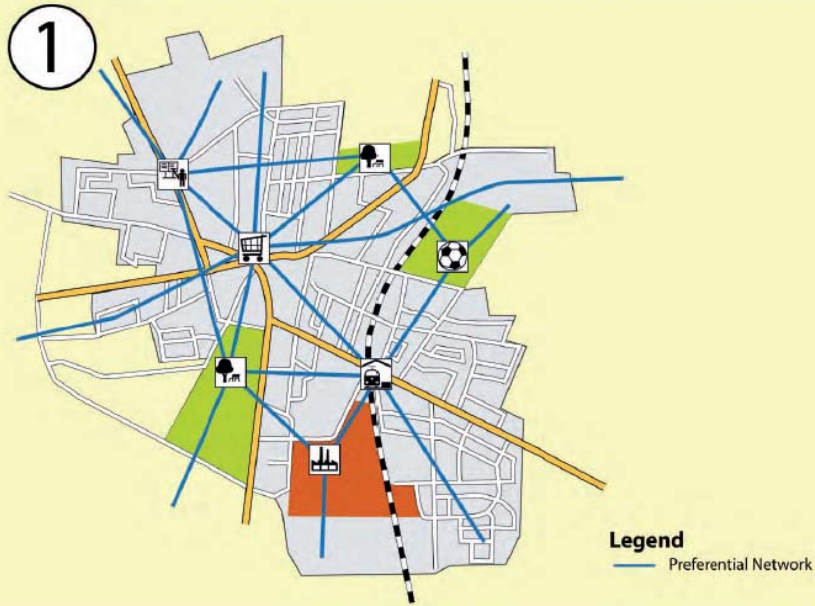


Design principles

Before planning and building new cycling infrastructure it is necessary to consider the main requirements that a bicycle-friendly infrastructure must meet. These five requirements according to CROW (2007) are:

- Safety,
- Directness,
- Cohesion,
- Attractiveness
- Comfort

Strategic planning



Cycle track types- types of cycle infrastructure

1.1. Cycle lane



Figure 5: Cycle lane, Leipzig (Germany)
Source: Rudolph 2011

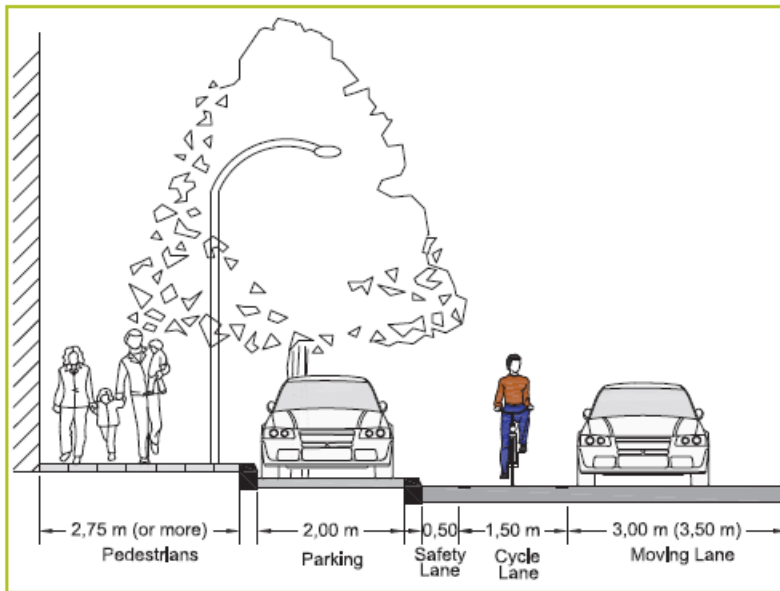


Figure 6: Cycle lane (1,50m)
Source: Own compilation (according to adfc NRW)



Figure 8: Cycle lane (intersection area), Leipzig (Germany)
Source: Rudolph 2011



Figure 9: Cycle lane outside built-up area, bus stop area, Leipzig (Germany)
Source: Rudolph 2011



Figure 10: Cycle lane outside built-up area, Berlin (Germany)
Source: Müller 2011

1.2. Advisory cycle lane

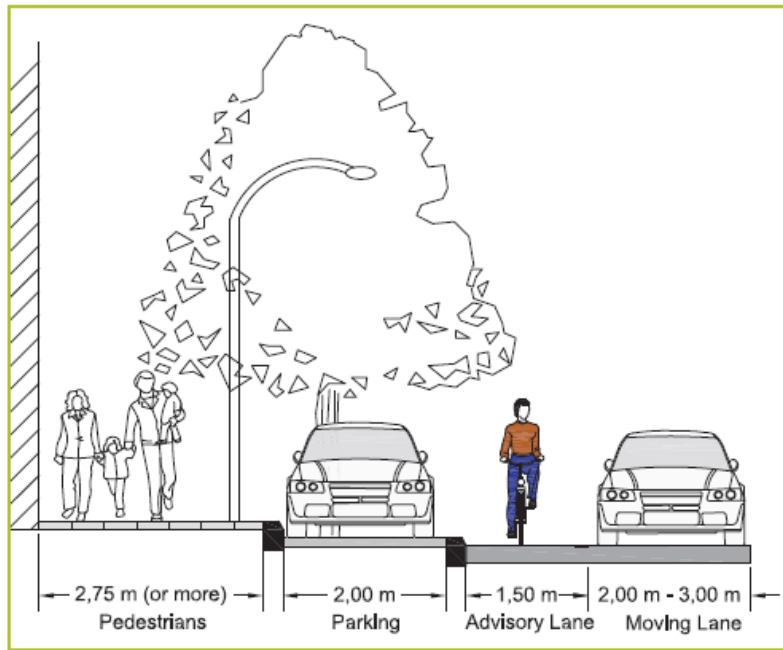


Figure 12: Advisory cycle lane (1,50 m)

Source: Own compilation (according to adfc NRW)



Figure 11: Advisory cycle lane, Hamburg (Germany)

Source: Rudolph 2011

Cycle track

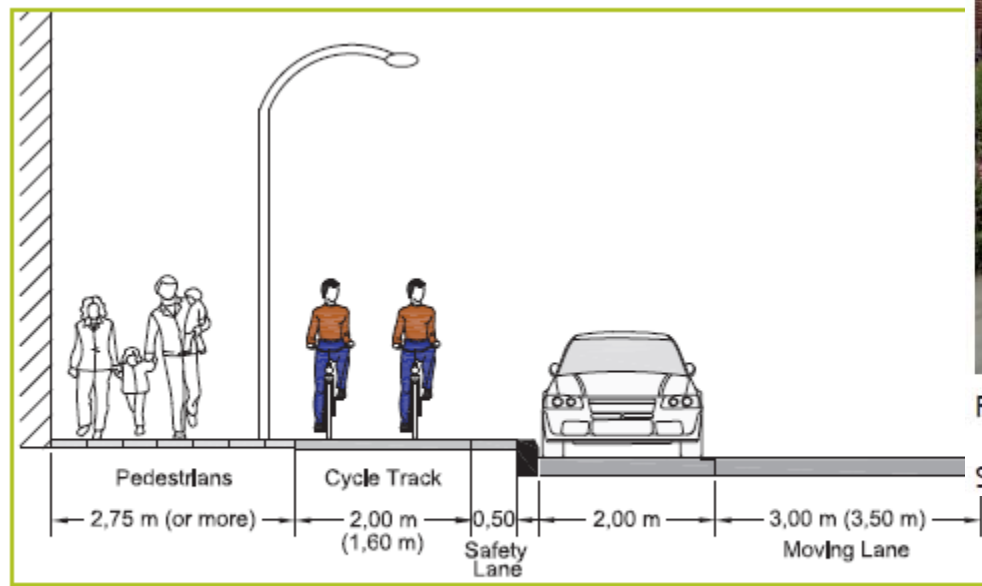


Figure 15: Cycle track (2,00 m)
Source: Own compilation (according to adfc NRW)



Figure 14: Cycle track in residential area, Hamburg (Germany)
Source: Müller 2011



Figure 13: Cycle track inside built-up area
Source: Rudolph 2011



Figure 18: Parallel cycle track, intersection area, Leipzig (Germany)

Source: Rudolph 2011

Figure 19: Two-way cycle track in industrial area, Hamburg (Germany)

Source: Müller 2011

Cycle street

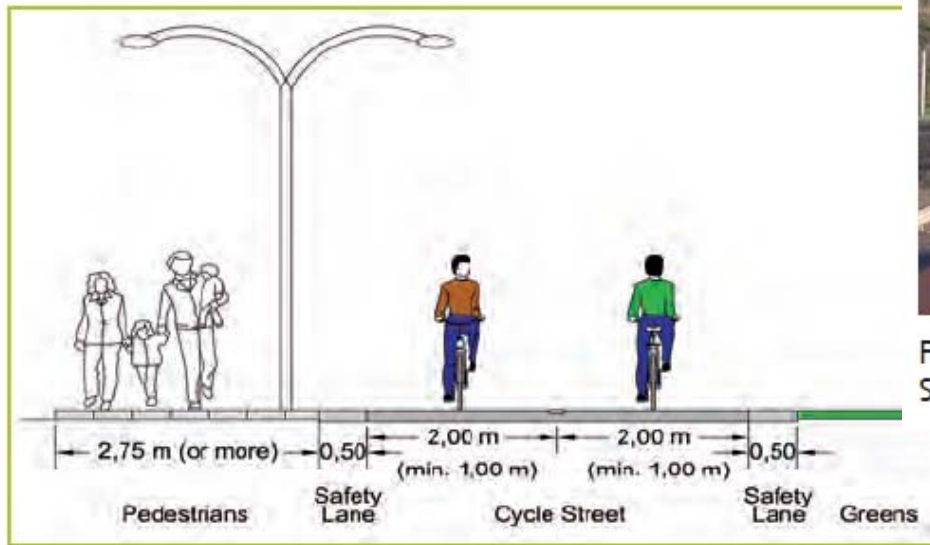


Figure 22: Cycle street (4,0 m (min. 2,0 m))
Source: Own compilation (according to adfc NRW)



Figure 20: Bicycle streets, Zwolle (Netherlands)
Source: Bosch 2011



Figure 21: Bicycle streets, Zwolle (Netherlands)
Source: Bosch 2011

Independent cycle tracks



Figure 24: Independent cycle track physically separated from motor traffic, Bolzano (Italy)

Source: Rudolph 2011



Figure 23: Independent cycle track, Basel (Switzerland)

Source: Rudolph 2011



Figure 25: Independent cycle track, Hamburg (Germany)



Figure 26: Independent cycle track, Bolzano (Italy)

Pamatnostādnes

- jāveido gājējiem un velosipēdistiem piemērota vide un infrastruktūra.
- lielajās pilsētās un to aglomerācijās jāsamazina privātā autotransporta izmantošanas intensitāte, jāveicina sabiedriskā transporta un velotransporta izmantošana.
- jāīsteno pilotprojekti - konkrētas pilsētas teritorijas atvēlot gājēju un velosipēdistu vajadzībām, slēdzot tās autotransporta kustībai.

*Latvijas ilgtspējīgas attīstības stratēģija - Latvija 2030, IV sadaļa
"Energoefektīva un videi draudzīga transporta politika"*

Pamatnostādnes (Liepājas pilsētas piemērs)

- Radīt pēc iespējas labākus apstākļus mazāk aizsargātajiem ceļu satiksmes dalībniekiem;
- Attiecībā uz pilsētas centrālo daļu – saglabāt un nostiprināt prioritāti gājējiem un velobraucējiem.
- Velosatiksmes nodalīšana no autosatiksmes plūsmas;
- Velobūvēm lietot tikai vienu krāsu, ko pārējie ceļu satiksmes dalībnieki saista ar velosipēdistiem.

Veloceliņi :

- kur lieli attālumi starp krustojumiem
- autosatiksmē >50km/h



Velojoslas:

- pie intensīvas gājēju kustības visos virzienos
- pie blīva satiksmes galamērķu izvietojuma
- Autosatiksmē (faktiskā) < 50/h
- Vairumā gadījumu nav jāmaina brauktuves profils



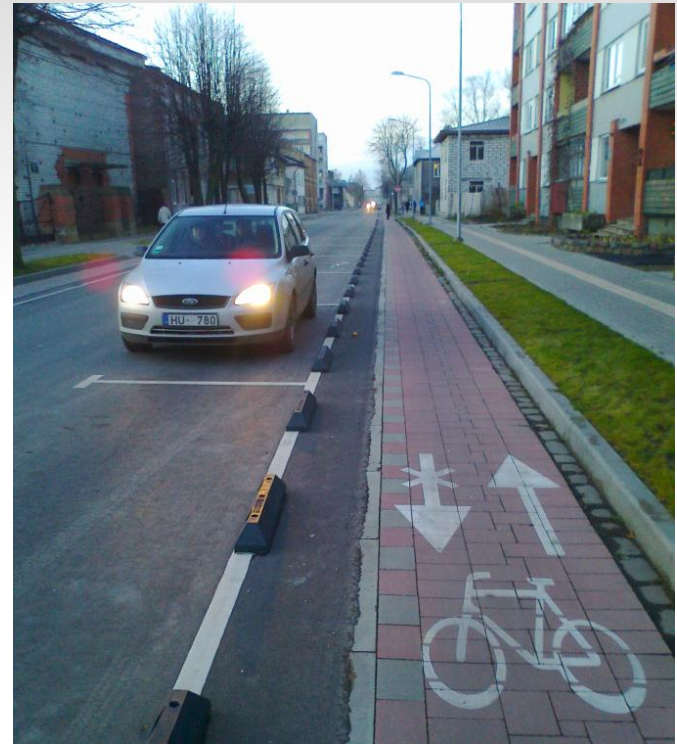
**«Veloceliņiem Liepājā katram ir sava filozofija,
tie ir pilnīgi atšķirīgi.»**

Viesturs Silenieks

Laikraksts «Kurzemes vārds» 2012. 21.septembris

Velosatiksmes izvietojums

- apvienotais gājēju un veloceļš;
- apvienotais gājēju un veloceļš uz ietves;
- velojoslas;
- atsevišķs veloceļš.



segumi, norādes, labiekārtojums



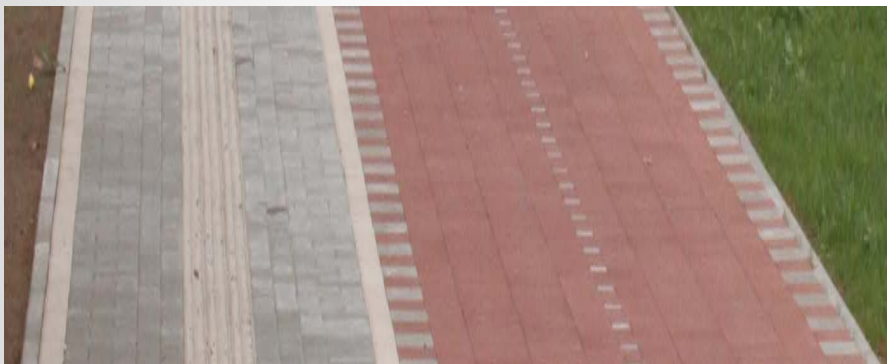
Bruģis, asfalts, grants segums



Gan apvienots ar gājējiem, gan tikai velobraucējiem paredzēts



Ar soliņiem, velonovietnēm, apgaismojumu



Apvienotajos gājēju/velo ceļņos gājēju daļā ir jābūt vadlīnijai - palīgs neredzīgajiem un vājredzīgajiem cilvēkiem, lai tie nenonāktu velobraucēju zonā.

segumi



Brūģis.

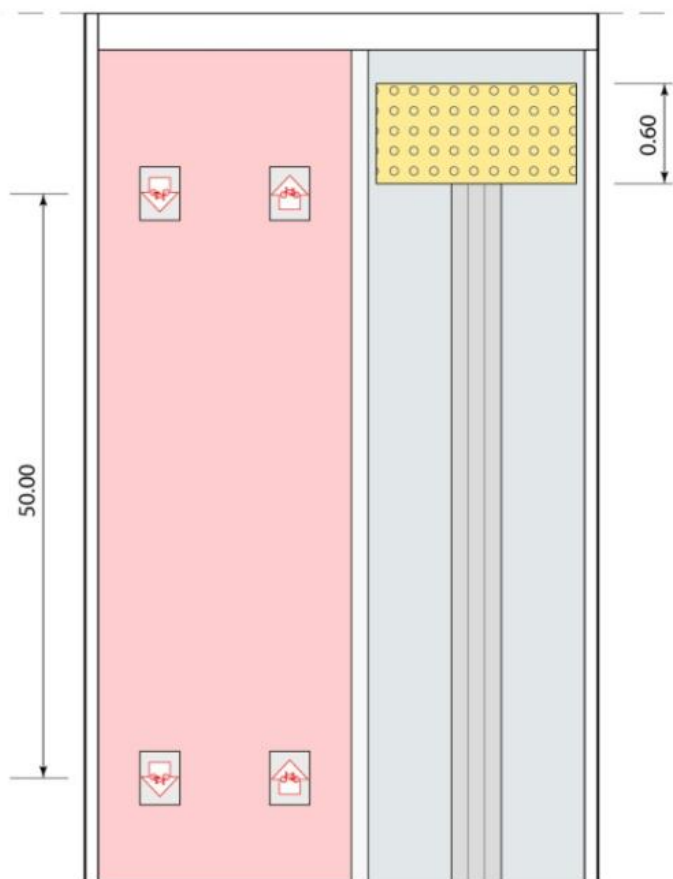
Grants.

Asfalts.

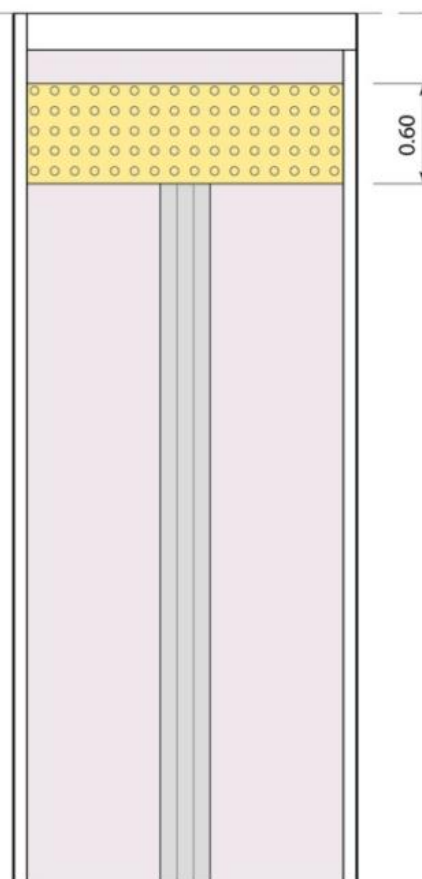
1. Veloceļa segumam jānodrošina līdzena virsma.
2. Pārsvarā bruģis - bieži nepieciešams piekļūt pazemes komunikācijām.



Vides pieejamība



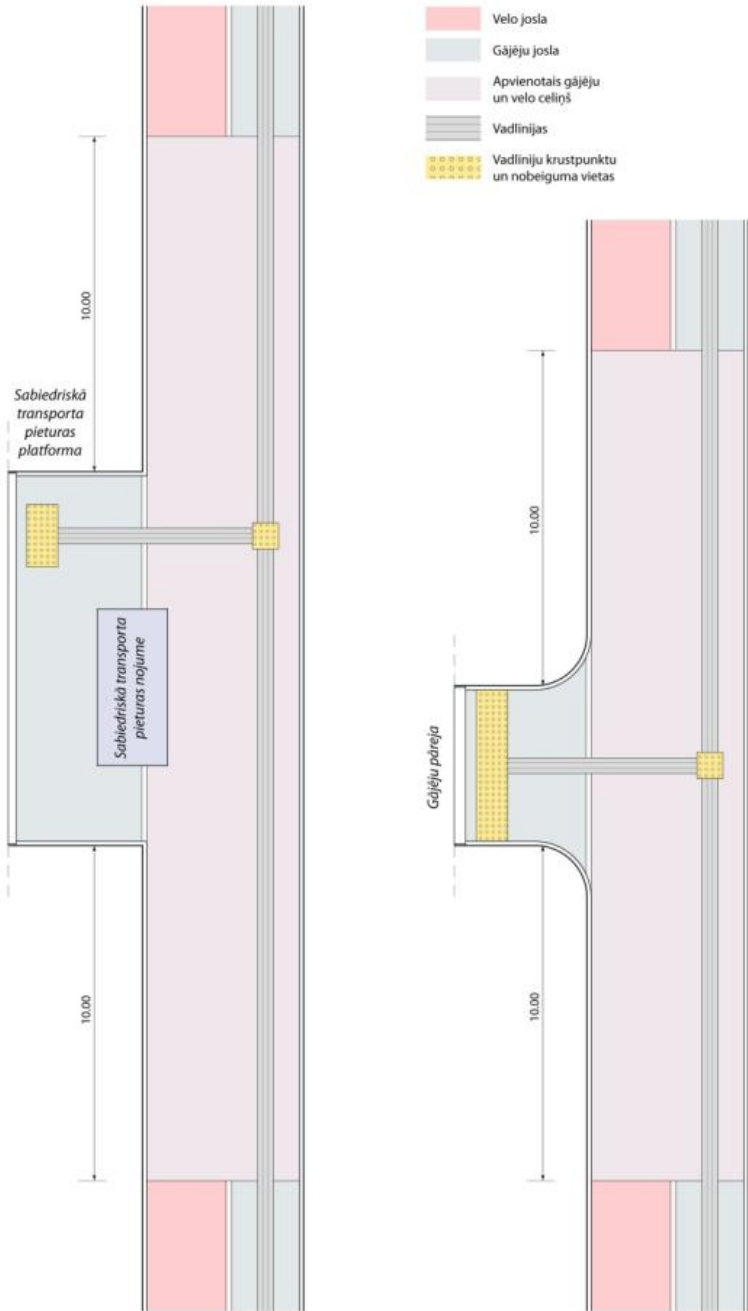
Gājēju celiņš un velo celiņš,
risinājums pie nobrauktuves/noejas



Apvienotais gājēju un velo celiņš,
risinājums pie nobrauktuves/noejas

-  Velo josla
-  Gājēju josla
-  Apvienotais gājēju un velo celiņš
-  Vadlīnijas
-  Vadlīniju krustpunktu un nobeiguma vietas
-  Veloceliņa piktogrammas

- Velo josla
- Gājēju josla
- Apvienotais gājēju un velo ceļiņš
- Vadlīnijas
- Vadlīniju krustpunktu un nobeiguma vietas



Vizuāli atdalītā gājēju ceļiņa un velo ceļiņa pāreja apvienotajā gājēju un velo ceļiņā pie sabiedriskā transporta pieturvietas

Vizuāli atdalītā gājēju ceļiņa un velo ceļiņa pāreja apvienotajā gājēju un velo ceļiņā pie krustojuma vai gājēju pārejas



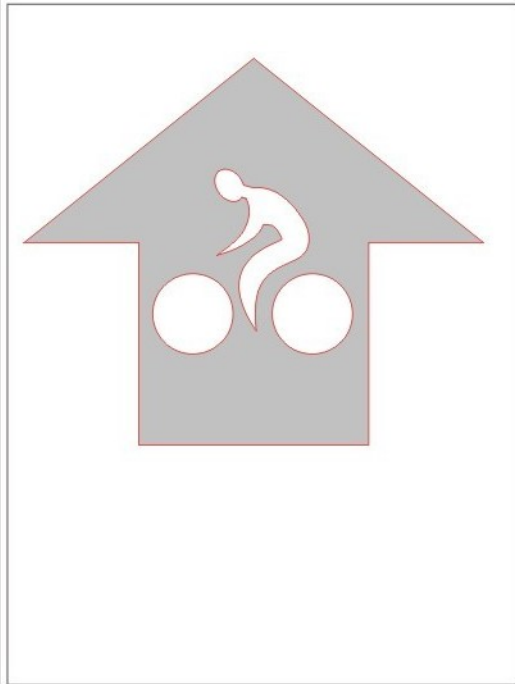
Veloceliņa pāreja apvienotajā gājēju/veloceliņā pie sabiedriskā transporta pieturvietas.



Krustojumos ir padomāts par neredzīgajiem un gājēju/riteņbraucēju plūsmas atdalīšanu ar reljefainu bruģi

Marķējums

Brūģētu vai asfaltētu velosceļu marķē ar segumā iestrādātu piktogrammu.



Velosceļa piktogramma iestrādāta betona bruģakmens plāksnē (plāksnes izmērs 320x240mm). Piktogrammas materiāls – nerūsējoš tērauds.



Velostatīvi un velonovietnes, izvietošanas pamatprincipi



- izvietojums tiešā velosipēdistu maršrutu galamērķu (biroju ēkas, stacijas, izglītības, atpūtas iestādes, sporta un tirdzniecības centri, servisa uzņēmumi, valsts un pašvaldības iestādes u.c.) tuvumā,
- publiski pārskatāma, vēlams, apsardzes uzraudzīta vieta,
- vieta un konstrukcija nedrīkst traucēt gājējus un ielu uzkopšanas tehniku,
- velonovietnes izskatam jāiekļaujas vides arhitektūrā,
- velonovietnēm jābūt labi pamanāmām un atpazīstamām kā velonovietnēm (ar atbilstošu dizainu, marķējumu).

Velosipēdu ilgstošai glabāšanai (arī diennakts tumšajā laikā) izmantojamas slēgtās un apsargājamās teritorijās (piemēram, autostāvvietās) izvietotās velonovietnes.

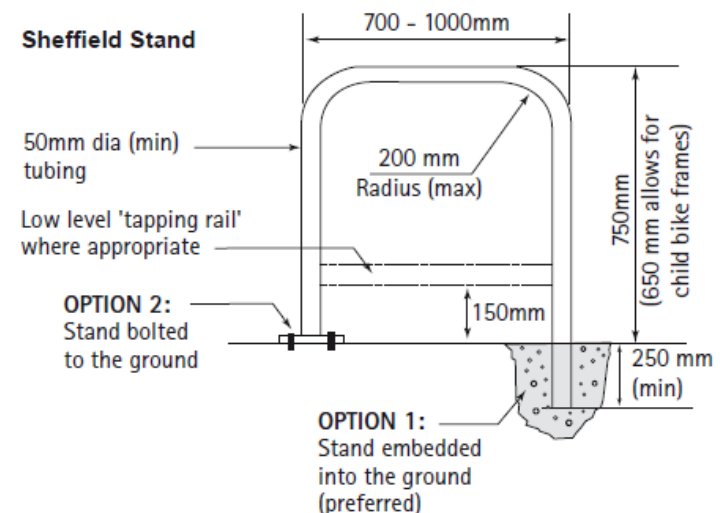
Vadlīnijas velosipēdu novietņu izveidošanai - <http://www.rdsd.lv/box/files/vadlinijas.pdf>



- nedrīkst traucēt citu ceļa lietotāju redzamību, it īpaši krustojumos un gājēju pāreju vietās;
- nedrīkst traucēt piekļuvi publiskiem un privātiem objektiem;
- nedrīkst apgrūtināt durvju atvēršanu gadījumos, kad tā novietota pie autobraucējiem paredzētām ielas autostāvvietām;
- nedrīkst izvietot tā, ka garāmbraucošā satiksme varētu apdraudēt riteņbraucējus, kuri pieliekušies slēdz velosipēdu;
- nedrīkst traucēt piekļuvi ielas aprīkojumam, tādām kā luksofori, ielu apgaismojuma stabi, elektrības sadales skapji, gāzes skaitītāji, hidranti u.c.

Vadlīnijas velosipēdu novietņu izveidošanai

- <http://www.rdsd.lv/box/files/vadlinijas.pdf>



Ieteicamais vietu skaits velonovietnēs

Velonovietnes izvietojums

Aptuvenš vietu skaits velonovietnē
apmeklētājiem/pircējiem

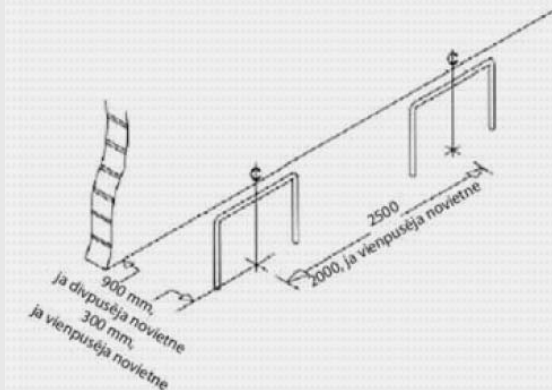
Iestādes, uzņēmumi

1 uz 150 – 450 m² bruto platības

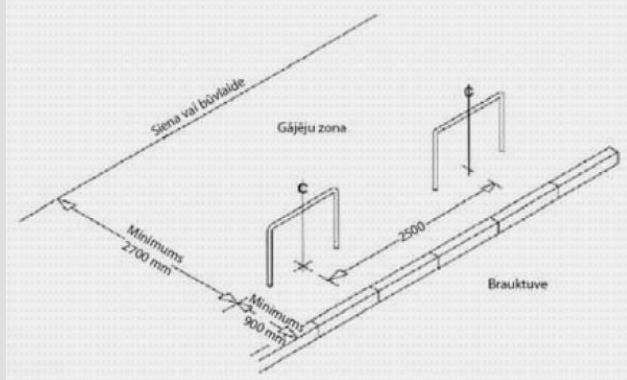
Tirdzniecības centri

4 – 9 uz 100 m² tirdzniecības platības

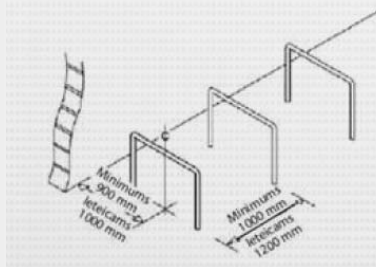
1. shēma: Statīvi novietoti paralēli sienai vai būvklādei



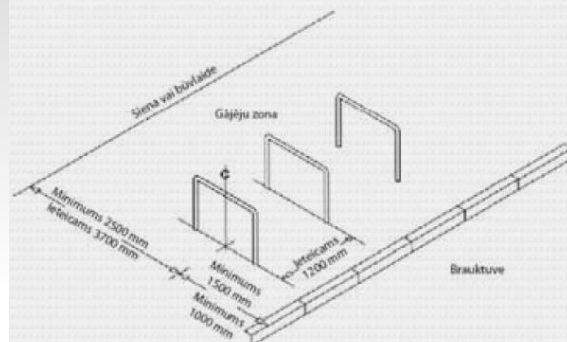
2. shēma: Statīvi novietoti paralēli ietves malai



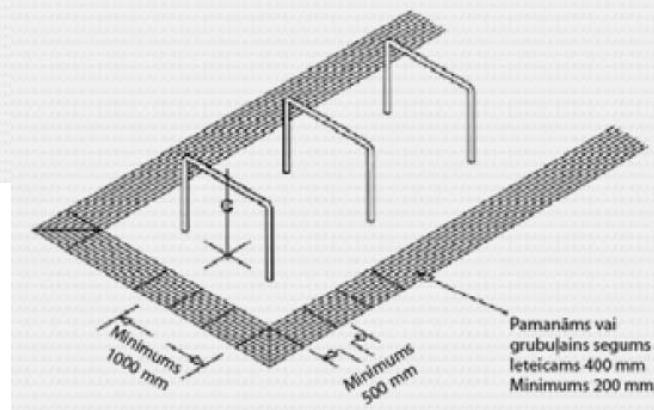
3. shēma: Statīvi novietoti 90 grādu leņķī pret sienu vai būvklādi



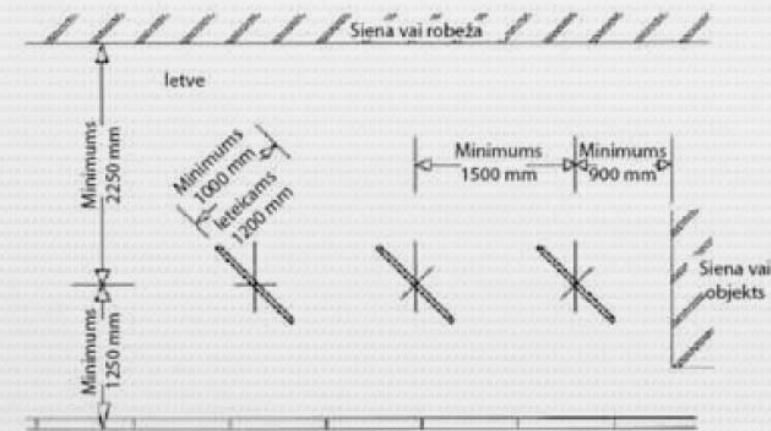
4. shēma: Statīvi 90 grādu leņķī attiecībā pret ietves malu



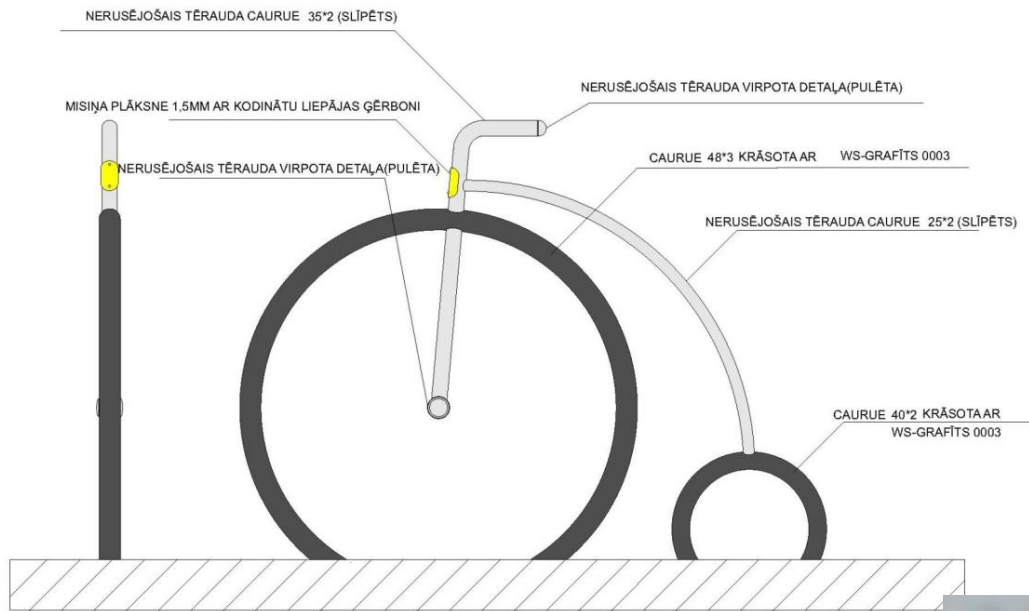
5. shēma: Pamanāms/grubuļains segums



6. shēma: Statīvi 45 grādu leņķī pret sienu vai ietves malu



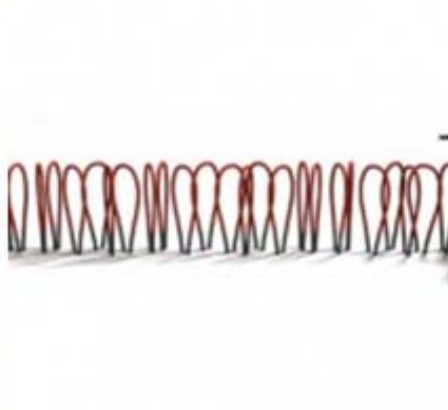
Velonovietņu dizains- Liepājas pieredze



Daudzfunkcionāli velostatīvi



Parastākas un neparastākas velonovietnes





Ventspils



Liepāja



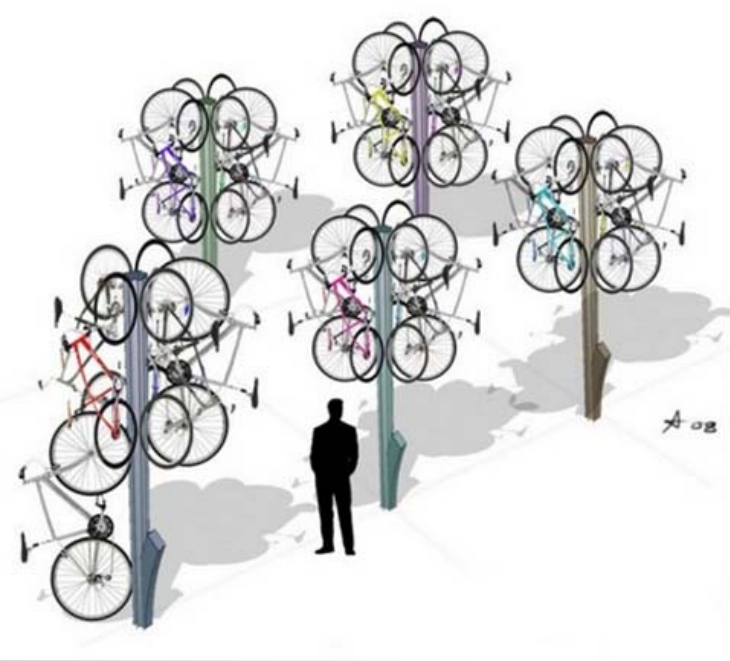
Ventspils



www.bik







<http://www.treehugger.com/bikes/bike-tree-keeps-bikes-off-ground-away-from-sticky-fingers.html>

Noderīgas saites:

<http://www.veloriga.lv>; www.divritenis.lv/

The screenshot shows the homepage of the website **divritenis.veloriga.lv**. The main navigation bar includes links for **VELOZIŅAS**, **PAR PROJEKTU**, **PRESES RELIŽĒM**, and **REKLĀMAS TESPĒJAS**. A prominent banner at the top right reads "Izgatavo drošākos velostafīvus Rīgā!".

The left sidebar contains a menu with categories such as "Latvijas velo karte", "Riteņbraucēju apvienība", "Foto un video", "Velo padomi", "Velo tehnoloģijas", "Velo joki", "Velo dizains", "Velo pasākumi", "Velo drošība", "Velo sports un piedzīvojumi", "Velo kultūra", "Velo satiksmē", "TEDx per velo", "Velosatiksmē Rīgā", "Maršruti Latvijā", "Velošpēdu drošība", "Velošpēdistu drošība", "Velošpēdu veidi", "Jautājumi un atbildes", "Info katalogi", "Draudzīgs velosipēdistam", "Nedraudzīgs velo", "Vipi palīdz velo zagļiem", "Velo dokumenti", and "Meklēšana".

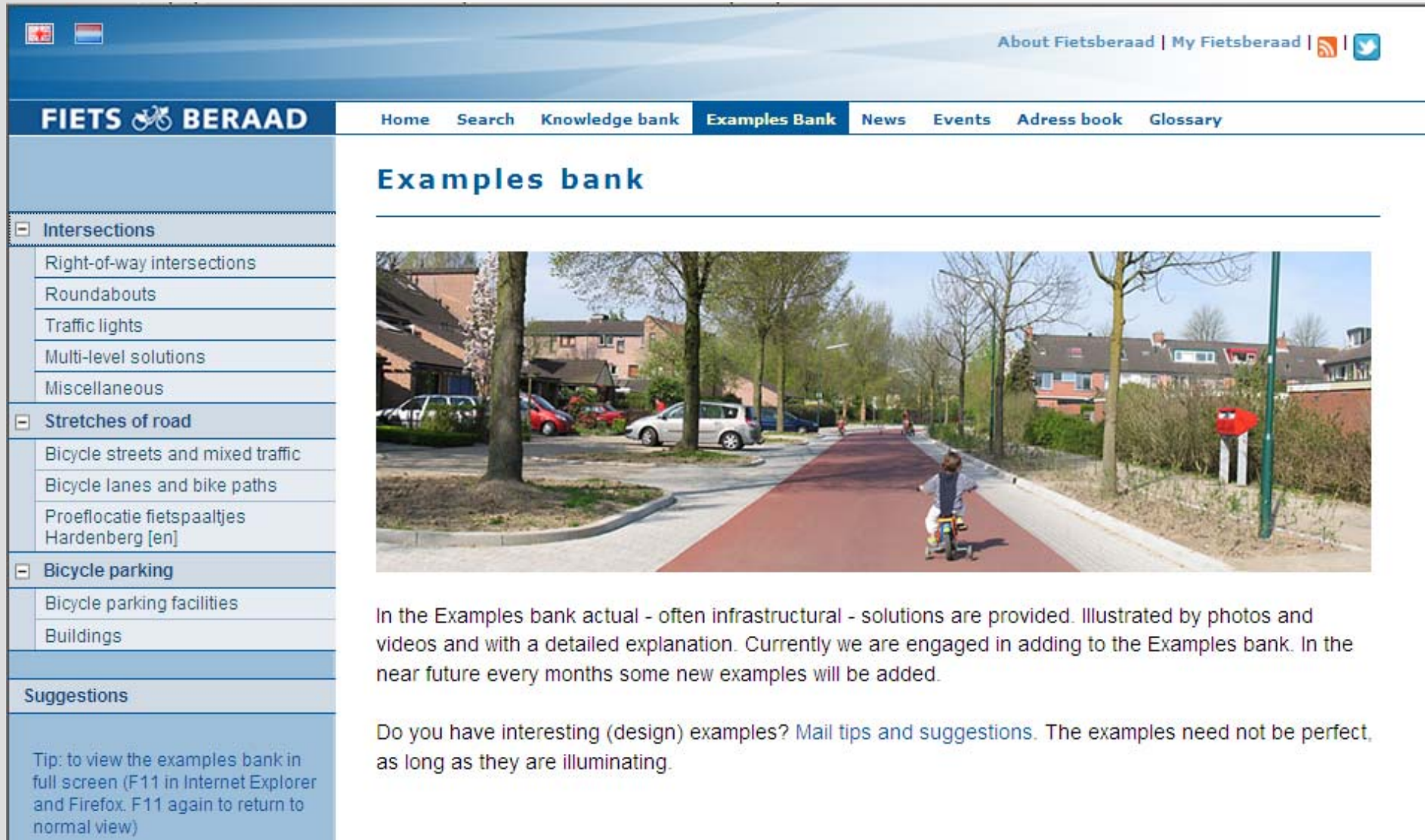
The main content area is organized into several sections:

- Velo padomi**: Includes articles like "Video: kāpēc nevajag pīrkt lētus velosaslēģus", "Drošības noteikumu pamati velobraucējiem", "Kā apkopt savu velosipēdu pēc aktīvākā gājēja uzvesties uz velocelņa", and "ZebraTV lielisks VIDEO".
- Velo padomi (angļu valodā)**: Includes "How to Choose a Bike Lock", "Droša velobraukšana pilsētā", "Kā izvairīties no velosipēda nozagšanas", and "Kā izvairīties sev piemērotāko velosipēdu".
- Velo tehnoloģijas**: Includes "Japānā - automātiskas Čehijā radīts lidojošs velosipēds", "Pat robotam var iemācīt braukt ar divriteni", and "Velošpēds darbojas no spararata".
- Velo joki**: Includes "Asprātīgs video par 'vecmāmiņu-velotriālisti'", "Ādas velosēdekis", "Filinstonbalks?", and "Velo brīmmeris".
- Riteņbraucēju apvienībā**: Includes "VIDEO: Ērēspres uzrunā pasauli", "VIDEO: Viesturs Silenīks TV24.lv sarunā ar Māri Zanderu", "FOTO: Imantas velocelņa inspekcijas braucēji", and "Velocelība arī policistiem".
- Velo dizains**: Includes "Velo spieķu", "Revolūcija velo", "Velo animācija", and "Kā ieminams Porsche".

On the right side, there is a yellow sign that says "PAR DROŠAM VELO STĀV VIETĀM" with a bicycle icon, and a blue banner for "Velosipēdistu SATIKSMĒ". Below these are social media links for "Autobusu pieturas" and "Twitter.com/veloriga".

The Dutch Cycling Embassy - public private partnership established to make the Dutch cycling expertise internationally available.

<http://www.fietsberaad.nl/>



The screenshot shows the website interface for Fietsberaad. At the top, there are flags for the Netherlands and a navigation bar with links: Home, Search, Knowledge bank, Examples Bank (highlighted), News, Events, Adress book, and Glossary. The main heading is 'Examples bank'. A sidebar on the left contains a list of categories: Intersections (Right-of-way intersections, Roundabouts, Traffic lights, Multi-level solutions, Miscellaneous), Stretches of road (Bicycle streets and mixed traffic, Bicycle lanes and bike paths, Proeflocatie fietspaaltjes Hardenberg [en]), Bicycle parking (Bicycle parking facilities, Buildings), and Suggestions. The main content area features a photograph of a child riding a bicycle on a red-paved path in a residential area. Below the photo, text explains that the Examples bank provides actual, often infrastructural, solutions, and that new examples will be added monthly. It also invites users to mail tips and suggestions.

Examples bank



In the Examples bank actual - often infrastructural - solutions are provided. Illustrated by photos and videos and with a detailed explanation. Currently we are engaged in adding to the Examples bank. In the near future every months some new examples will be added.

Do you have interesting (design) examples? Mail tips and suggestions. The examples need not be perfect, as long as they are illuminating.

PRESTO - a project to promote cycling in Europe

In some European cities, cycling is already a significant transport mode, but cycling still has a huge potential that has yet to be activated. PRESTO aimed to remove likely barriers and help to develop a real cycling culture in European cities. Five European cities – **Bremen** (Germany), **Grenoble** (France), **Tczew** (Poland), **Venice** (Italy) and **Zagreb** (Croatia), with varying levels of cycling mode share – provided an ideal arena to address the undeveloped potentials of cycling.

<http://www.presto-cycling.eu/en/policy-guidelines-a-fact-sheets/infrastructure-planning>

English | [Deutsch](#) | [Français](#) | [Hrvatski](#) | [Polski](#) | [Italiano](#)



- Home
- About PRESTO
- Cities and Activities
- Training material
- DOWNLOADS**
- Pedelecs
- Links

Infrastructure

The Policy Guide on Cycling Infrastructure

The policy guide is meant for decision makers who want to develop cycling as a daily urban transport mode, then the cities need to be fit for cycling. It presents its "three levels of cycling in cities" approach. The core topics are: design of bicycle network, implementation of bicycle parking plan (residents, schools, events), interchanges and bicycle stations.

Find here the Policy guide and the Table of contents. These materials are available for free download.

- [Policy Guide Cycling Infrastructure](#) [English]
- [Français](#)
- [Italiano](#)
- [Hrvatski](#)
- [Ukrainian](#)
- [Policy Guide Infrastructure Table of contents](#) [English]



Cycling infrastructure | Cycling promotion | Electric bicycles | General cycling framework

The 15 Fact sheets

The 15 Fact sheets on Infrastructure focus on 4 topics:

1. Network links
2. Intersections and crossings
3. Parking
4. Public transport

All documents are available in English for free download. The IT/Croatian HR/Polish PL] are available below and also in the

1. Networks links



DOWNLOAD MENU :

- > GENERAL FRAMEWORK
- > INFRASTRUCTURE
- > PROMOTION
- > PEDELECS

NEWS :

20/08/2012

PRESTO presents its latest tool: the [pedelecs brochure](#)

08/02/2012

The [Lessons Learnt brochure](#) is now available in 6 languages

27/01/2012

ETRA launches [dealer survey](#)

“mobile2020” - “ More biking in small and medium sized towns of Central and Eastern

Europe by 2020

mobile2020 we want to stimulate the rethinking of planning processes in small and medium sized towns in 11 countries in Central and Eastern Europe. We want to transfer suitable good experiences from Germany, the Netherlands, Italy, Sweden, Denmark, and other countries and make them applicable in our target countrys

www.mobile2020.eu



home > get trained

get connected get trained promotion about country pages

handbook
Video Page

latest updates


Registration open! "Cycling in Central and Eastern Europe" 15/16 Oct 2013 in Ljubljana
08.07.2013
Registration for the conference has started. Click [here](#) to find out more.

Save the date! Conference "Cycling in Central and Eastern Europe" 15/16 Oct 2013 in Ljubljana
10.06.2013
Key topics: Benefits of cycling, Facilitating urban cycling, Regional case studies, cycling culture and cycling in cities of tomorrow. There will be a cycling excursion in Ljubljana and evening programmes, as well as a project market and meet and greet with bike entrepreneurs and enthusiasts.
Here, you can find [More information about the conference and programme](#): Download the conference flyer (PDF 1 MB).

[event tracker](#) – password required.

get trained

A lot in mobile2020 has to do with increasing knowledge and skills and to promote further the good knowledge of others further across Europe. mobile2020 will give Eastern European towns and their staff covering the topic of cycling a chance to get trained in seminars on cycling planning. Representatives from engaged cities will furthermore have the chance to participate in study visits to frontrunner cities in Germany and the Netherlands.



get the handbook here!
To get a the handbook, click [here](#)

National trainings
National trainings will be organised in all participating countries. To find out more, get in touch with your national coordinator by selecting your country page.

Watch our videos of good practice examples and the benefits of cycling

http://www.streetfilms.org/copenhagen's-climate-friendly-bike-friendly-streets/

Cycling Copenhagen, T...

by Streetfilms



View the above videos and more on [vimeo.com](#)

Select Language ▼ Share

Copenhagen's Climate-Friendly, Bike-Friendly Streets

by Elizabeth Press on December 14, 2009 | 39,458 Plays

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Tens of thousands of people from nearly every nation on earth have descended on Copenhagen this month for the UN climate summit. As the delegates try to piece together a framework for reducing greenhouse gas emissions, they're also absorbing lessons from one of the world's leading cities in sustainable transportation. In Copenhagen, fully 37 percent of commute trips are made by bike, and mode share among city residents alone is even higher.

Come see "the busiest bicycling street in the Western world", and lots of other you -gotta-see-them-to-believe-them features including bike counters (featuring digital readouts), LEDs, double bike lanes (for passing) and giant hot pink cars.

Copenhagen wasn't always such a bicycling haven. It took many years of investment in bike infrastructure to reclaim streets from more polluting, less sustainable modes. Last week, I was able to squeeze in a whirl-wind tour with

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