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# Freshbrains – Mönchengladbach

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# Abstract

The following report was created as a result of the Freshbrains Workshop, a cooperation between students of the university of Wuppertal and students of the NHTV Breda. The focus in this report is to make Mönchengladbach a more livable and likable city, which is ready for the future generations.

The group of students was divided into three different working groups which focused on different parts of the bigger picture. One group focused on the Bicycle action plan (BAP), another group focused on the infrastructural cycling network and the last group focused on a more specific area around Eichen. The original idea of the project was a super cycle highway for the city but after a week of exploring and experiencing the city we concluded that this would not be an economic solution for the cities cycling infrastructure.

As research methods mainly first hand observation was used, nevertheless also the research done in the groups using local resources and the internet proved to be important to the project.

# Goal

The goal of this report is to discover any lacking aspects within the city of Mönchengladbach and propose opportunities for the municipality.

To achieve this goal, we gather information through different sources, people and our own experiences.

With this goal we ask ourselves one main research question which will provide us with an answer. With this answer we will be able to formulate a vision for the city of Mönchengladbach and then provide opportunities.

What is the opinion of the citizens towards the image of Mönchengladbach?

We used the following information sources to answer the main research question:

Views from the bicycle group ADFC

Views from city council members

Views from random inhabitants

Views from Norbert Krausse

Views from creators of MG 3.0

Views from the authors of this report

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# Introduction

Life is a steady change of things, reflected in changing environments and behaviours of those living within the environment. If one cannot adapt to those changes it will become increasingly difficult to function at full potential. A city is living off the change happening within. In today's world we face different problems, which might be more severe in some regions than in others. One of the biggest challenges, which affects everyone on the planet is global climate change. One of the measures to adapt to this issue of rising temperatures are less $CO_2$ emission in cities and more effective use of renewable resources. It means that people take the bike to work and around the city and consciously focus on emitting less $CO_2$ than before.

Mönchengladbach is a city that is proud to be a car city, which might not have necessarily been bad in the 1960s but in 2016 it is not contemporary anymore. It is important for the city to work together on new concepts and ideas to implement biking as a mean of transport and as a mean to achieve a more liveable environment and a more lovable city. This goal can be achieved through different measures but it requires everyone to contribute his or her share to it. We as the "Fresh brains-Workgroup" aim to bring new ideas from young minds into a very stagnate environment. Although ideas might sometimes seem impossible or not doable, it is important to remember that change cannot be achieved unless someone takes the first step. This first step might not make everyone happy and it takes effort and resources. Nevertheless it will most certainly be worth the effort.

The following report consists of four main chapters of which one is the advice to the city of Mönchengladbach and Mönchengladbach-Rheydt. The first chapter focusses on the bicycle action plan (BAP), which is aiming to describe measures to take that will implement the bicycle more into the community. The second and third chapters focus more on the infrastructure throughout the city. Whereas the first part describes the larger picture, compared to the second part which will describe the more close-up situation. It is important to mention that although the assignment was started under the focus of creating a cycle highway, it developed into a different direction, which will be described in the following chapters.

Chapter 1: BAP

# Our Final Vision

*"Mein Geliebtes Mönchengladbach"*

Mönchengladbach could become a more likeable und liveable city with a renewed identity.

## Why more likeable?

People come to work to Mönchengladbach (MG) but they do not stay to live here. Many inhabitants of Mönchengladbach leave the city for recreation and other amenities (e.g. going shopping in Düsseldorf). People should be prouder of their city.

There is a study carried out by the Niederrhein Institut für Regional- und Stadtentwicklung at the Hochschule Niederrhein in 2014 showing that many people are not contented with Mönchengladbach. The study asked three different groups (employees in MG, citizens moved from MG and citizens moved to MG). The results are alarming:
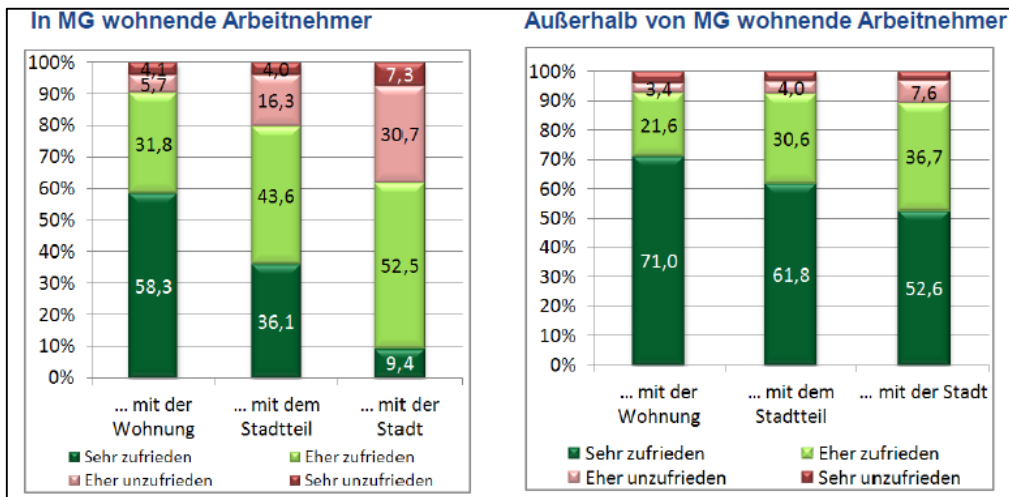


*Figure 1.1 – Comparison between the contentment of people living in MG & people living outside of MG. [1.1]*



*Especially compared with the contentment in other cities of the region, there is still much to do for MG.*
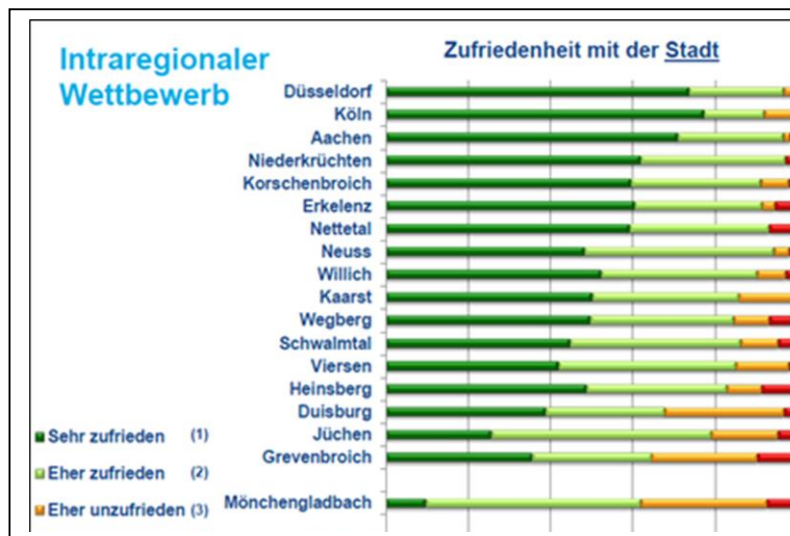
*Figure 1.2 – Contentment with the city. [1.2]*

As an answer to the question "What must be changed in MG, so that you would decide to actually live in MG?" most of the employees in MG mentioned the aspects social life, a more attractive appearance of the town and the road/traffic infrastructure. These results lead to the second part of the vision.

## Why more liveable?

Nowadays MG seems to be a very car-oriented city. It is kind of a challenge to show this just by numbers and statistics. For example the car density (amount of cars per 1,000 inhabitants) in MG is under the average of NRW and Germany (2012: just 480 cars per 1,000 inhabitants compared to 513 cars (NRW) and 524.5 cars (Germany) per 1,000 inhabitants. But a closer look on the modal split shows that the car has a dominating role in daily life mobility. The shares of cars and public transport are above average compared to the modal split in whole Germany. On the other hand the shares of walking and cycling are too low.
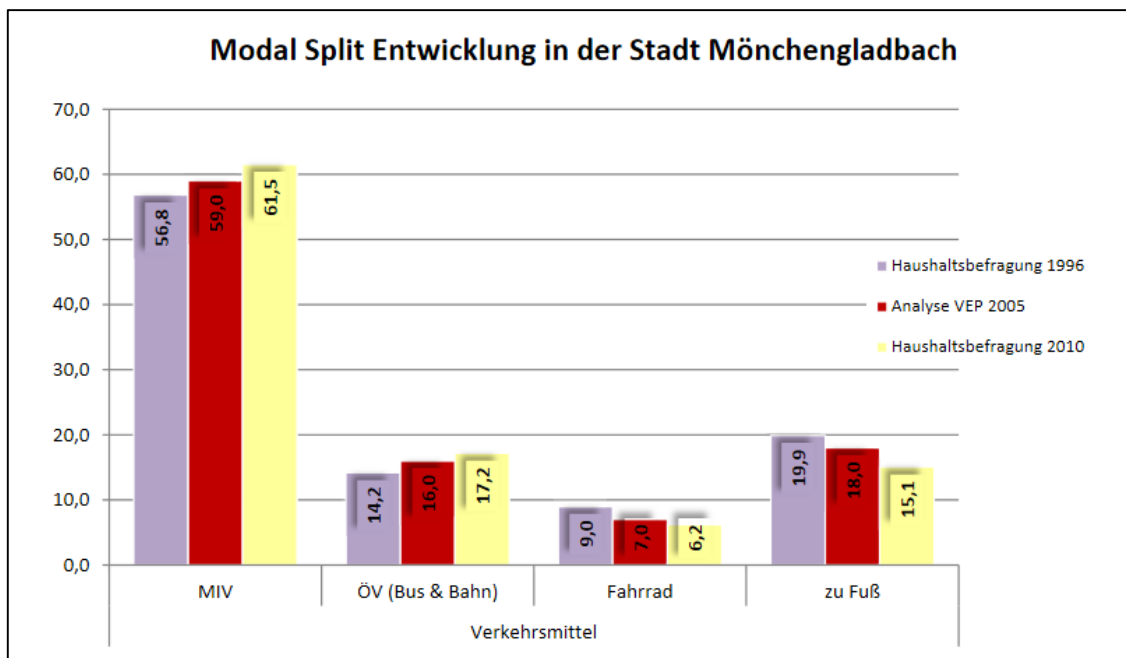


*Figure 1.3 – Modal split in Mönchengladbach (2013). [1.3]*

Instead of just having an eye on statistics it is more important to think about the "felt infrastructure". Especially while walking or cycling around MG it is possible to get a good feeling/impression about for who the infrastructure in MG was really built.

So as a result it is necessary to transform MG into a more human-oriented city to finally improve the main aspects that need to be improved in MG to get more people to actually live in MG (social life, more attractive appearance and better infrastructure).

## Why renewed identity?

Mönchengladbach used to be a very important city in textile production (up to the 1980s). MG was even called "Rheinisches Manchester" these days. Nowadays most of this industry is gone due to globalization. As a result of this transformation MG has lost its former identity ("Strukturwandel"). This gap needs to be closed by a new identity that defines

Mönchengladbach in a unique way. Although it is quite a challenge to find a new identity, there already exist some potential (e.g. the football club Borussia Mönchengladbach, the Hochschule Niederrhein or the new idea of reviving the Gladbachtal (see Masterplan MG 3.0). It seems to be likely that MG will find its new concrete identity by becoming a more likeable and liveable city.

## Target groups

Defining certain target groups and identifying their specific needs is a very important step to find the right means to achieve the created vision. Since the vision is meant to be an individual vision for Mönchengladbach, it is necessary to identify the groups that are relevant and characteristic for Mönchengladbach. These groups are:

### Car lovers

Reason: Cars have a share of modal split of 61.5% in MG which is even increasing. The car seems to be the first choice for daily mobility.

### Cyclists/Pedestrians

Reason: The shares of non-motorized road users are significant low in Mönchengladbach. This fact needs to be changed.

### Low-income people

Reason: The share of people in MG that have officially a low income (like it is defined by the Bundesagentur für Arbeit) is above average compared to the averages of NRW and Germany (MG 22.8%, NRW 18.6%, Germany 20.4%). Furthermore 18.4% of the population in MG are dependent on social benefits (average in NRW: 11.4% and Germany 9.5%) [1.4]

### Immigrants

Reason: Immigrants become a more and more important part of the society in Mönchengladbach (now: 14.0% of the population in MG, tendency increasing). [1.5]

### Students/young people

Reason: Young people are always an important impulse for changing. Especially the Hochschule Niederrhein with its students has the potential to become a leading role in the process of "Strukturwandel".

### Football fans

Reason: With the football club Borussia Mönchengladbach MG has one of the biggest football teams in the Bundesliga. Every weekend during the season up to 54,000 people come to the Borussia Park to watch the matches. The football club could become an important part of the new identity.

A choice of specific needs and wishes of all groups are summarised in the charts on the next page.

| | Car lovers | Cyclists/pedestrians | Low-income people |
|---|---|---|---|
| **Why relevant?** | (increasing) share of modal split: **61.5%** | Significant **low share** of modal split | • **22.8%** of the population of MG has officially a **low income** <br> • **18.4%** is dependent on **social benefits** |
| **Special needs/ wishes** | Getting around **easily** and **quickly by car** <br><br> **Comfortable** and generously **dimensioned roads** <br><br> **No** traffic jams <br><br> **Enough** and **cheap parking** facilities <br><br> **Flexibility** | **Safety** especially **respect** by motorized road users <br><br> **Comfortable** sidewalks/cycling routes (good condition) <br><br> **Enough** space <br><br> **Safe parking** facilities <br><br> **Enjoyable** routes with **places** to **rest** <br><br> **Self-explaining** navigation | **Cheap ways** of daily mobility <br><br> **Nearby** locations <br><br> **Social participation** |

| | Immigrants | Students | Football fans |
|---|---|---|---|
| **Why relevant?** | Important part of the society (currently **14.0%** of the population in MG) | **Hochschule Niederrhein** as an important **impulse** on the **Strukturwandel** | Football club **Borussia Mönchengladbach** as the **heart** and the **soul** of the city |
| **Special needs / wishes** | **Easy** and **understandable** ways to get around <br><br> **Cheap** mobility opportunities <br><br> **Social participation/ Integration** | **Cheap** mobility <br><br> **Fast ways** to get to the **university** <br><br> **Nearby** locations <br><br> **Attractive locations** where people can meet <br><br> **Flexibility** (specific mean of transport is not important) | Getting **to the Borussia Park quickly** before a match <br><br> Getting **home** from the Borussia Park in a **comfortable way** after the match |

*Figure 1.4 – Target groups and their needs.*

Although there are differences in the needs between these groups and also needs that exclude each other (e.g. more space for cars leads to less space for cyclists and pedestrians and vice versa), there are also many aspects in common. For example people with a low income, immigrants and students want cheap mobility.

If these groups would be asked about how they imagine a liveable and likeable city, most of them would agree on the same aspects like a healthy environment, green areas, short distances, being heard and participated in important decisions, a lively social life and community etc. This is the important message: Concerning aspects of liveability and likeability in general people want the same. They only word this in different ways.

## Cycling as a mean

There exist many possibilities to think about suitable means to achieve the vision of a more likeable and liveable city in Mönchengladbach. Fortunately Mönchengladbach is not the first city who wants to improve its urban quality of life. Copenhagen is one of the cities that regularly gets one of the first places on rankings that rate the liveability of cities all over the world (e.g. ranking by the journal "Monocle"). The question is what makes Copenhagen so liveable? One of the obvious answers is their engagement on boosting cycling. In 2011 Copenhagen implemented their bicycle strategy "Good, Better, Best" for 2025. [1.6] Up to that point the modal share of cycling was 36%.

Copenhagen is a good example showing the benefits that cycling can generate. Cycling is a healthy way of transportation. A study from New Zealand carried out that, depending on how much the modal share of cycling can be increased, every single dollar that is invested in cycling infrastructure generates a benefit of 6 to 24 dollars. Mostly because of savings in the health care system (e.g. less air pollution, less accidents, more daily activity etc.). [1.7]

Moreover cycling is cheap – for everyone. On the one hand investments in cycling infrastructure are really cheap – especially compared to investments in car infrastructure (e.g. one kilometre of a so called "super cycle highway" costs about 1,000,000 € - one kilometre of a "Autobahn" costs about 10,000,000 €). Considering the possible economic benefits of cycling there is no cheaper way of really transforming a city into a more likeable and liveable place!

On the other hand cycling is even cheap for the users. Once you got a bike there are no further fees, taxes or operating costs that need to be paid. This is the reason why cycling is also a mean of transport that is really open and accessible for everyone! There is no special knowledge needed, no licence or training. Cycling is an intuitive mean of transportation!

By having the opportunity to cycle from door to door and to use alternative routes and shortcuts cycling is also a fast and flexible mean of transportation – especially on inner city routes.

Last but not least: Cycling is fun! Most of the people love cycling. Cycling offers a completely different way of experiencing a city.

As a conclusion it can be said that considering the different needs of the defined target groups cycling is the perfect mean to achieve the created vision.

## SWOT-Analysis

Before thinking about concrete measures in a bicycle action plan it is necessary to analyse the status quo of cycling in Mönchengladbach. The idea is to analyse the strengths, weaknesses, opportunities and threats of Mönchengladbach from two perspectives:
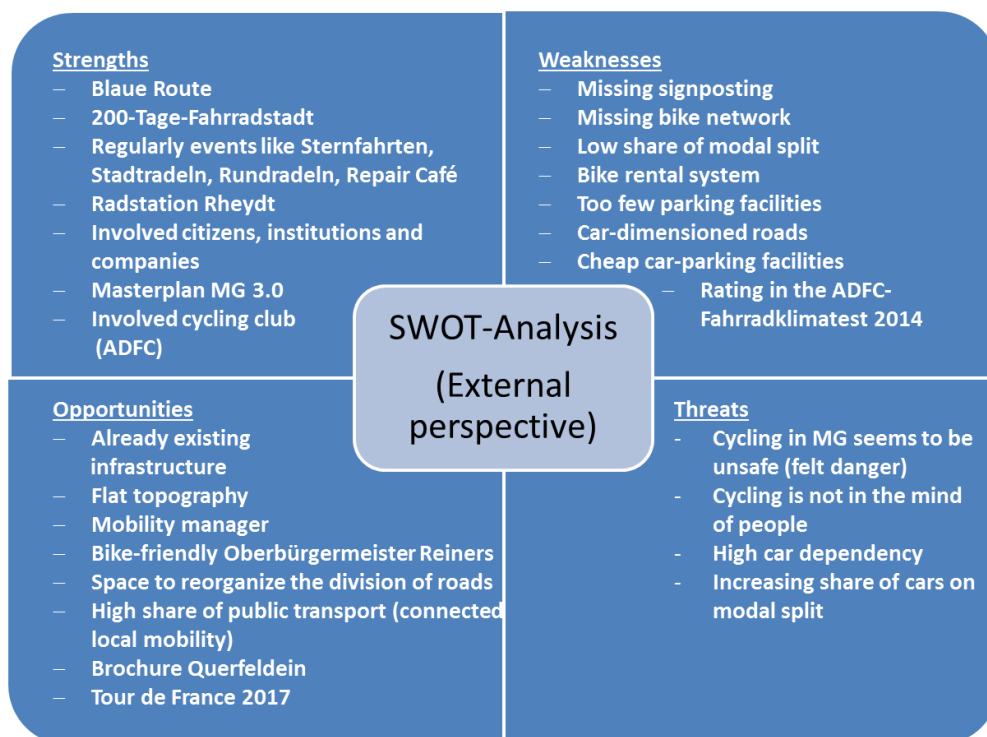
The external perspective of the students of The Bergische Universität Wuppertal and NHTV Breda University of Applied Science considering their gained impressions during the week in Mönchengladbach in early April

The internal perspective of cycling-affine people in Mönchengladbach (ADFC, city council, Norbert Krause and Masterplan MG 3.0)

The last group was asked to answer a checklist to describe the current cycling situation by rating hardware, orgware and software (HOS).

The following charts summarise the results of this two-perspective-analysis:

*Figure 1.5 – External perspective concerning SWOT.*

**Strengths**
- Blaue Route
- 200-Tage-Fahrradstadt
- Regularly events like Sternfahrten, Stadtradeln, Rundradeln, Repair Café
- Radstation Rheydt
- Involved citizens, institutions and companies
- Masterplan MG 3.0
- Involved cycling club (ADFC)

**Weaknesses**
- Missing signposting
- Missing bike network
- Low share of modal split
- Bike rental system
- Too few parking facilities
- Car-dimensioned roads
- Cheap car-parking facilities
- Rating in the ADFC-Fahrradklimatest 2014

**SWOT-Analysis (External perspective)**

**Opportunities**
- Already existing infrastructure
- Flat topography
- Mobility manager
- Bike-friendly Oberbürgermeister Reiners
- Space to reorganize the division of roads
- High share of public transport (connected local mobility)
- Brochure Querfeldein
- Tour de France 2017

**Threats**
- Cycling in MG seems to be unsafe (felt danger)
- Cycling is not in the mind of people
- High car dependency
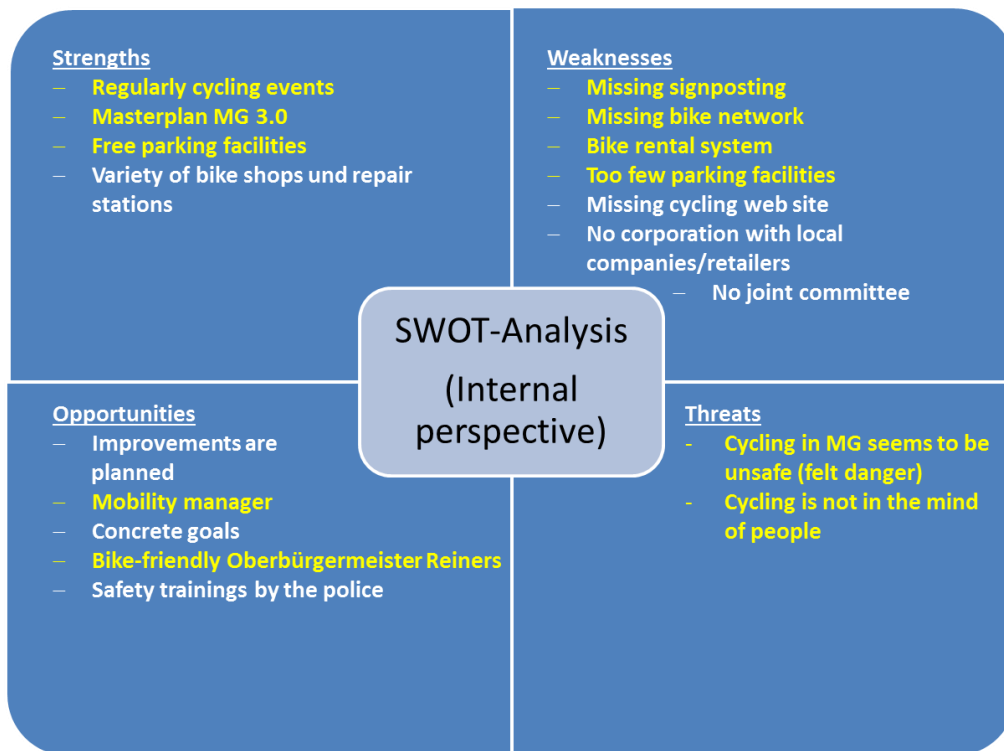- Increasing share of cars on modal split

*Figure 1.6 – Internal perspective concerning SWOT.*

Aspects in common are highlighted in yellow. It turns out that there are many things that need to be improved, especially on the hardware part (signposting, no comprehensive network, bike rental system).

The biggest problem (threats) is that people feel that it is unsafe to ride their bikes in Mönchengladbach since the roads are too car-oriented. Moreover, it seems like people in Mönchengladbach are not even aware of the advantages of cycling at all.

It is kind of surprising that the internal perspective points out more negative aspects than the external perspective does. Here is the good news: The students do not believe (and did not experienced) that cycling in Mönchengladbach is as bad as it seems on the first view. For example the felt danger of cycling in Mönchengladbach is only partly real. On the first view it seems like it is unsafe to cycle in Mönchengladbach, but there are no facts (like statistics etc.) that prove that cycling in Mönchengladbach is more dangerous than anywhere else.

Yes, there are roads and routes that are in a really bad condition for cyclist. It is important to communicate what routes are pleasant and meant to be used by cyclists so far (like the brochure "Querfeldein" does). But to start a process of mind-changing people have to have their own experiences.

Of course the weaknesses and especially the threats need to be focused. Nevertheless it also important to keep in mind that Mönchengladbach has not to start from scratch. Mönchengladbach already has a relatively good infrastructure (e.g. Blaue Route). The software part is very well established (e.g. 200-Tage-Fahrradstadt and its following projects (Rundradeln etc.), ADFC-Sternfahrten, Stadtradeln, Knotenpunkte). There are so many

chances and opportunities which could be used to forge a mind-changing-program in Mönchengladbach.

With the new mobility manager in the city council (since 2014) the start has been made to support human-powered mobility. Concerning the orgware part it is necessary to establish a joint committee that get all relevant cycling-players in MG together to work corporately on improving cycling in Mönchengladbach.

And last but not least: with the Masterplan MG 3.0 Mönchengladbach already has an excellent framework to work on a more liveable and likeable future. The following bicycle action plan is an important complement to the Masterplan to promote cycling as a mean to achieve the vision of a more likeable and liveable Mönchengladbach.

# Bicycle Action Plan

*"The bicycle action plan is the strategy to enhance Monchengladbach's image even further. Our vision for Mönchengladbach is an even more likeable and liveable city and an increased modal split of cycling in the city will be a huge step towards obtaining this vision. In the following chapter we will explain in detail the steps the municipality has to take if they were to adopt this vision. "*

## HOS analysis

After our experiences in Mönchengladbach and information we obtained from several sources throughout the city we have concluded several important things about bicycling for Mönchengladbach. Hardware is hard bicycle infrastructure, orgware is organizations that revolve around bicycling and software is marketing.

Hardware: Before we went to Mönchengladbach we expected a city with barely any bicycle infrastructure, we were told so many things about how Mönchengladbach is a car-orientated city and that there's absolutely no attention for bicyclists. However we were surprised to find out that it wasn't all that bad. There are quite a few bicycle paths and we were very capable of navigating throughout the city on our bikes.

Orgware: According to the sources the orgware part was slightly better than the hardware and software, which means that there is less need for the creation of orgware and instead we can focus our attention and money on hardware and software. Software: In our eyes this is the part which is the most lacking and should be heavily focused on in the Bicycle Action Plan. It is highly important that there is a shift in the mindset of the people. People need to be more aware that bicycling is an efficient transportation tool. Software: In our eyes this is the part which is the most lacking and should be heavily focused on in the Bicycle Action Plan. It is highly important that there is a shift in the mindset of the people. People need to be more aware that bicycling is an efficient transportation tool.

## Hardware
- Missing bike network
- Variety of bike shops and repair stations
- Missing signposts
- Too few parking facilities
- Lacking bike rentals

## Orgware
- No joint committee
- No corporations with local companies/retailers

## Software
- Cycling in MG seems to be unsafe (felt danger)
- Cycling is not in the mind of the people
- Regular cycling events
- Missing cycling website/app

# Visibility

Funding is a big issue when it comes to increasing the number of bicyclists in the city. There is not a lot of talk and public support to invest on infrastructure which means that there is not a lot of funding to use on the Bicycle Action Plan. So we need a plan which is both cheap and effective, luckily software which is the most lacking part of Monchengladbach's bicycle culture is fairly cheap.

The main idea in the Bicycle Action Plan is visibility and branding is an important part of that. Through a recognizable logo which will be used everywhere throughout the city which is related to bicycling the people will be more inclined to perceive the actual existing infrastructure of Mönchengladbach. From there on people will have a better experience trying to figure out where to go which increases the comfort of cycling. For the time being we have created a logo which could function as the logo in question. However the city of Mönchengladbach can choose or design a different one if this one doesn't suit their interest. This logo however should resemble a bicycle with the frame in a M shape for Mönchengladbach. The two wheels can also represent the two city center's in Mönchengladbach. An example of another place where this type of branding is being used is Breda.

The municipality of Breda decided to create one unitary bicycle group under the name of "Breda Bicicletta". Partly, because some people regard the municipality as a negative thing so creating a different name for a group that the municipality has made doesn't trigger that same emotion. Their logo also uses a bicycle but instead has used their dial number of 076 as part of their logo.

The problem with the current bicycle infrastructure in Mönchengladbach is that it's disconnected. There are a lot tracks and paths both next to the road and on the pedestrian area. This makes it very hard for potential bicyclists to find a safe route through the city. Then there are also parts where there's no connecting bicycle path at all. Visibility is a crucial part of the Bicycle action plan as mentioned before. This is why there's a need for a cheap solution.

The first part of this means figuring out where the most important bicycle routes are in the city. Where can it be connected and with which important nodes can we let them pass through. In the chapter: 'A new cycling network for Mönchengladbach' we will discuss these networks with greater detail.

There are multiple ways in which the current existing bicycle paths can be highlighted. Signposting is an example and the logo could be used on those signs to strengthen both ideas. Besides that a route could be highlighted by a cheap line of paint as is illustrated on the drawing below.
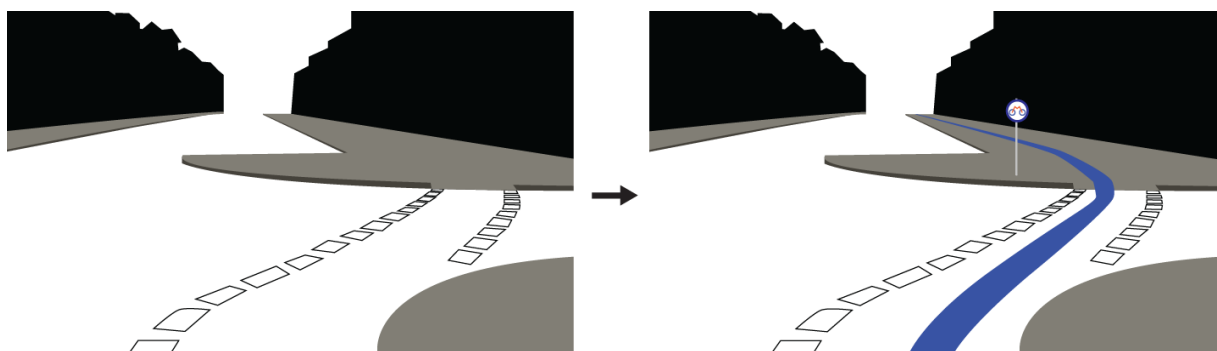
# Smart bicycle development plan *(S)*

As the world gets progressively more and more technologically integrated it paves the way for a lot of opportunities. This is also the case in the Bicycle action plan where the use of mobile phones and GPS-tracking can increase the knowledge about cycling in Mönchengladbach. This is important for the long-term strategy. Besides that it also creates opportunities for the users to see interesting data about their cycling trips that might engage them and others to increase their bicycle trips.

However, the most important feature that helps the inhabitant's cycle is the fact that the app can show the existing cycling routes throughout Mönchengladbach. This will help the citizens navigate their way on the bicycle tracks and make their experience a lot better.



Possible ideas which can be implemented:

> App/website shows different routes (safe, fast and recreational)
>
> App shows locations of bicycle stands in the vicinity of the destination
>
> Collects personal data and progress which the user can share with social contacts which increases the amount of talk about bicycling (amount of distance cycled, km/h, etc.)
>
> Inform people through the app about upcoming local bicycling events

There are already a lot of existing apps orientated on cycling in the world, so there might not even be a need to develop this specifically for Mönchengladbach. But it will not give a good focus on the city and developing an app does not cost that much (approximately €1200,-). This app/website also creates the opportunity to further invest in the identity of Mönchengladbach. It has the ability to inform bicycle users of cultural events in the city thus it can connect people.

# Corporation with local companies

Mönchengladbach is a working city, with a lot of low-income households. A part of our strategy is looking at the different stakeholders and target groups. There are a lot of working people in Mönchengladbach that mainly drive their cars to their job locations. This creates the opportunity to work with the local companies as to see what the city, the employees and the companies can benefit from an increased modal share in bicycle use in the city. When discussing and convincing local companies the following points should be emphasized.

Less parking space needed

> The more employees start using bicycles to work, the less space is needed for car parking and thus economically benefits the company.

No delays for employees ensuring better punctuation

> Bicycles have the benefit of being very small and mobile, cars need a certain amount of space and can be delayed heavily by traffic jams which mean that employees have an increased risk of being late at work. Employees who use bicycles nullify this threat.

Health benefits

> As opposed to travelling by car or in public transport cycling gives the added benefit of a small bit of exercise every day. This increases their health in the long run and prevents illnesses. Having healthy employees not only decreases their sick-days but also increases their productivity and efficiency.
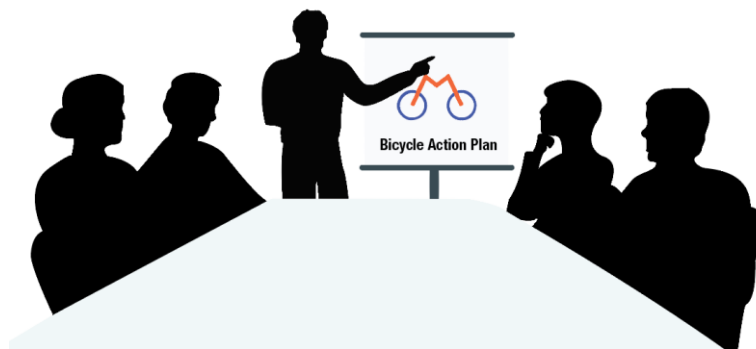


What should the companies do? Promoting cycling within the company is the biggest part, but also supplying the necessary facilities can help enormously with trying to increase bicycle use by the employees. Parking facilities for bicycles are the most important and prominent thing, but also a place where people can freshen up after their cycling trip to the company helps. This is because cycling can mess up people's hair and also cause sweating issues. Other features that companies could initiate would be company bikes which can be rented. The main concern is that people aren't so easily convinced to try a different lifestyle, a different routine. For this reason the companies can take a 'try it, see if cycling can fit your lifestyle' approach. Just tell the employees to do it for a day or a week and let us know what you thought of it.

# Corporation with universities

Besides working people in Mönchengladbach there are also students, however the important difference is that this target group is coming from outside the city. They take the train and from there they use public transport to go to the university, namely Hochschule Niederrhein. There is a great opportunity in trying to get the younger people to cycle. Not only does it help spread the message about cycling which would get cycling into the minds of the population, but students are often those who are most eager to try new things.

Also the "Blaue route" already nearly connects the train station with the university, the only thing needed is facilities at both the train station and the university. Things like bicycle parking spots is the most important feature. This decreases the amount of commuters using the public transport to the university which would mean there's less money needed for this sector. Money which can then be spend on other important things. Other facilities that could be placed at the stations and the university are bike rentals.

Currently there are only a few bikes that could be rented and since students don't tend to bring their bikes in the trains it's important that there are bikes at their disposal at important transport nodes. So it's a great opportunity to involve the university in the Bicycle Action Plan due to the already existing bicycle infrastructure. As well as the fact that students tend to change their ways more easily. This will result in more bicyclists which makes them more visible in the city.
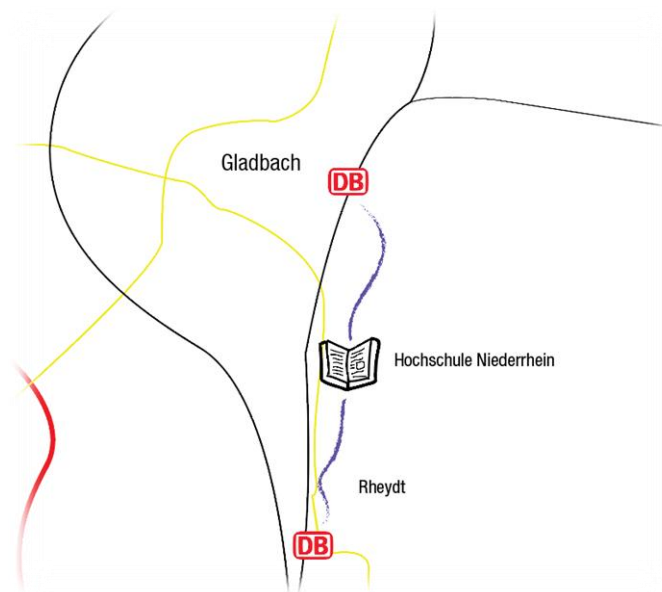


*The "Blaue route" connects the two train stations with the university*

## Initial bicycle campaigning events *(S)*

Bicycle events are mainly a mean with which to make people cycle and help them with changing their attitude towards bicycling. Cyclists need to be visible in a city so as to keep reminding people that it's an alternative way of commuting. Bicycle events can vary in a wide range and a good example of someone who has been working on this stuff for years is Norbert Krause. He is also the person who worked on the 200-tage fahrradstadt.

In recent years there's been more and more talk about cycling as a serious transportation mode and these events have helped in the progress in this. This is why it is important to continue with similar events in the Bicycle Action Plan. Promoting these events should also be important so that a lot of people participate. This can be done through the app and also the internal marketing in the universities and local companies. These events could also be linked to the identity of Mönchengladbach, things related to football for example could help with not only cycling in the city but also strengthen the identity of Mönchengladbach in general. Creating a community in a city is vital for a likeable and livable city and this can be done through events that connects people together.

Ideas for bicycle events

"Bike ball"



> A nice idea which combines cycling with Monchengladbach's main legacy of its football history.

"Wheel Art"

> Specify a small area where a bunch of cyclists come together and put paint on their wheels. See what kind of art can be made by it.

Bicycle race with dogs

> A bicycle race in which dog-owners can compete with their dogs, this will not only strengthen the bond between man and dog, but also between man and their iron steed.

Beer bikes

> Most people like beer, especially on a warm summer day. Why not let people enjoy their favorite beverage on a bicycle?

Bicycle hunt

> A quest on bicycles, whether it's for kids or adults depends on the type of quest. Let them drive all over Mönchengladbach in order to fulfill their quest and have a special celebration in the end for the heroes who stood against the difficulties and obstacles to achieve their goal.

## Long term orientation

The short term phase was focused on getting people to change their way of thinking and helping them overcome the obstacles that obstructed them to cycle in a cheap and efficient way. After some time more and more people should be cycling in the city which means there's more public support to fund more expensive cycling infrastructure. This is by that time also necessary since there's a maximum amount of capacity that the current infrastructure could contain. Which means that if more people start using cycling to get to work there's more space needed for them. The solution as to where this space comes from is very easy and shouldn't be a problem for anybody. Cars take up a lot of space in the city and when a lot of these people start to cycle the city will have a lot more space to work with. This might sound as if car drivers would hate that solution, but it actually is a win situation for both sides.

> There's less car commuters which means less traffic jams
> There are less cars which means more place to park the car

The fact that there are more bicyclists has also other consequences regarding safety. There are less cars which could cause an accident but also since there are more and more bicyclists on the street people by that point will have changed their mindset and are a lot more watchful for this type of traffic.



## Grand bicycle infrastructure development plan

By using data of the GPS tracking in the app the city can look at the most used bicycle routes throughout the city. On these routes the city should then look what kind of bicycle infrastructure could be placed there or improved. This can be simply widening the existing bicycle path or even creating a super cycle highway. The following chapters talk about these opportunities in the city of Mönchengladbach and how they can connect to the identity of the city.

# Pilot Project

*"Streets are more than streets"*

## Proper Public Space on the Streets and the Concept of Placemaking

Streets are a daily part of our life, we use them to get to our daily- and more specific destinations. It is where we experience life; from town parades to markets and public gatherings. From celebrations to get-together's with our neighbors. It's where we bump into friends on our way to the supermarket and gives us the most chance to experience people who are different from ourselves. On the streets humankind has protested against injustice for centuries. Streets are more than streets, they are not just meant for mobility but are a critical public spaces which lend richness to social-, civic-, and economic factors.

*"Streets have been the places where children first learned about the world, where neighbors met, the social centers of towns and cities, the rallying points for revolts, the scenes of repression"*

*– Donald Appleyard*



Streets show the lives of our societies, they show how our world has been exposed to good and bad and make us empathetic, compassionate, and connected citizens. Streets also make us able to travel from one place to another, but many streets in our communities – Main Streets and resident areas – could be more than just traffic. People should start seeing streets in their entirety: not just their function in transporting people and goods but more vitally they play a role in animating the social and economic life of communities. Placemaking is about the community owning and reclaiming their streets, participating in civic life, and having a direct impact on how their public spaces look, feel, and function.

Streets mostly represent the biggest area of public space a city or community has. Chicago's streets and sidewalks represent 24% of all of the cities land area and even 70% of the city's-owned public open space. People also spend large amounts of money to build and maintain our highway networks and streets. Shouldn't a part of this amount be spend on other investments?
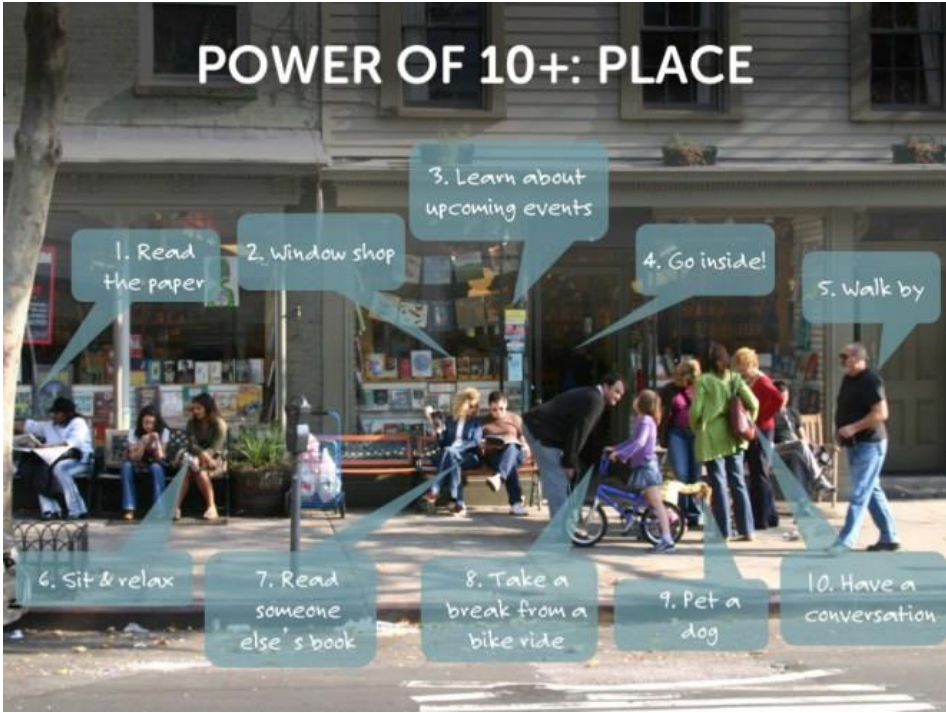
But don't be confused, designing streets that function as great places are more than just a "nice" thing to do. Peter Kageyama, founder of the Creative Cities Summit, explains;

*"No longer is it sufficient to build places that are merely functional and safe. Our Placemaking aspirations must be as high and as grand as our economic goals because they are bound together."*

In a time when people are more mobile than ever and cities and companies compete to attract talent, great streets are necessary in order to boost the economic development and tourism. And great cities need even more than one quality street, they need a big amount of great streets which keep people connected to key destinations and places.

This is where the idea of "The Power of 10 concept" comes in, this is where streets become part of a network that connects a city's best assets and places together, making it easy to access these places. The Power of 10 speaks to the importance of layering multiple activities and uses together – sitting and relaxing, eating, socializing, recreating, shop, and so on – in order to create a dynamic street that will be attractive to people and encourage them to spend time on the streets, on their own, with a group, catching some sun-rays or even to work. Streets, parks and plazas can be key destinations for cities.



POWER OF 10+: PLACE

1. Read the paper
2. Window shop
3. Learn about upcoming events
4. Go inside!
5. Walk by
6. Sit & relax
7. Read someone else's book
8. Take a break from a bike ride
9. Pet a dog
10. Have a conversation

# About Placemaking

*"What is we built our communities around places?"*

As the main idea and a direct approach for improving neighborhoods, cities, or regions, Placemaking makes people motivated to reimagine their public spaces together to make it into the heart of the community they want. This can strengthen the connection between people and the space they share. By definition, Placemaking refers to a collaborative process through which a public space can be shaped in order to maximize the shared value, it facilitates creative patterns and pays particular attention to the physical, cultural, and social identities that define a place and make it possible for it to evolve even further. An important factor of Placemaking is that the community participates in the process, doing so makes it possible for the idea to be inspirational and contributing to the people's health, happiness, and well-being.



| Placemaking *ist* | Placemaking ist *nicht* |
|---|---|
| Beteiligung und Engagement | Von oben herab diktiert |
| Visionär/Innovativ | Reaktionär |
| Funktional | Design angetrieben |
| Anpassungsfähig | Schnell abgeschlossen |
| Inklusiv | Ausgrenzend |
| Schaffung neuer Räume | Auto-orientiert |
| Individuell | Eine Grösse passt allen |
| Dynamisch | Statisch |
| Interdisziplinärer | Diszipline-driven |
| Transformierende | Eindimensionale |
| Flexibel | Abhängig von regelmäβigen Kontrollen |
| Kooperative | In Kosten / Nuzen-Analysen erfassbar |
| Gesellig | Projekt konzentrierte sich |

# For Example

Paris, to return Seine to the people with car-free riverside plan

*"It's the latest battle in Paris's war on the private car: a pedestrian "reconquest" of the banks of the Seine."*

After a long discussion Betrand Delanoë has won his quest to break op the two-lane street that has run along the edge of the Seine since 1960, and returns the riverside world heritage sites to pedestrians and cyclists. From the next month, a part of more than 11km on the right bank near the Hôtel de Ville will see the first narrowing of the road to make way for corridors, walkways, bars and cafes. In spring a masterpiece of reconquered space will be unveiled: a car-free zone on the left bank, between the Musée d'Orsay and the Pont de l'Alma, with a riverside park, pedestrian promenades, floating botanic gardens, flower-market barges, sports courts, restaurants and even perhaps an archipelago of artificial islands.

Delanoë promised his new scheme would "give Parisians back their river", "profoundly change" the city and provide "an opportunity for happiness" for residents. But the mayor, who will not stand for re-election in 2014, also has an eye on his legacy, seeking to be remembered as the man who finally ended Parisian reverence to the car. He has expanded cycle routes and introduced the city's famous short-term bike-hire and car-hire schemes.

# Bogotá: Busses, Bicycles, and people

*"A city of 7 million that had no public transport system since recent. A dozen years ago the city was in danger of being choked in traffic until traffic city leaders took matters into hand."*

Much credit goes to Enrique Peňalosa, who 'waged war with cars' during his three-year term as mayor of the Colombian capital beginning in 1998. He instituted traffic restrictions that cut rush-hours traffic by 40%. He also persuaded the city council to increase the gasoline tax while dedicating half the revenue to the development of the bus system with its trademark red vehicles. This system now serves 500.000 commuters a day. This city shows what can happen once a city invests in the already existing roads.

Peňalosa spearheaded building of bike paths, which are now used by approximately 350,000 cyclers a day. But that's not all, on Sundays and holiday's cars are banned from the main roads and bicycles, skateboards, joggers, and pedestrians are king of the road.
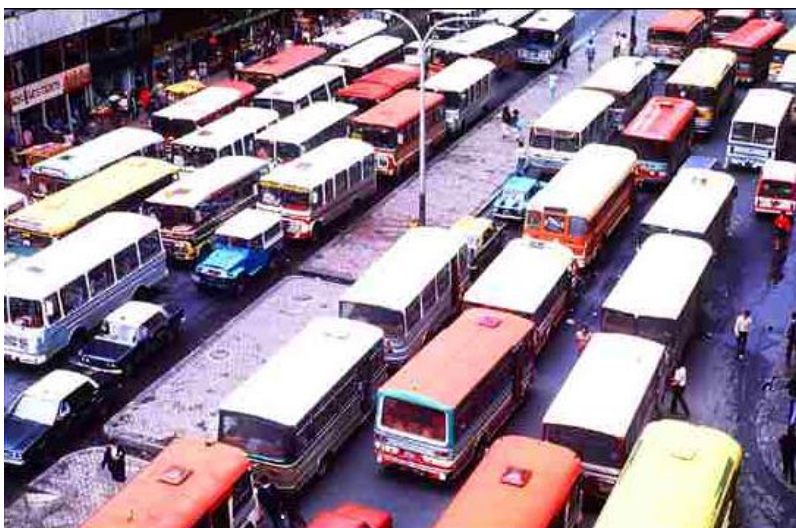
# New York: Big Apple's Green Beach

*"Visitors lounge on beach chairs one weekend in the summer of 2009, soon after launch of a pedestrian plaza in New York's Times Square."*

The intersection of Broadway, Seventh Avenue, and 42$^{nd}$ Street is best known around the world for its scenes of New Year's Eve revelry. But opportunity for streets as Seventh Avenue, but Broadway traffic-free for five famous midtown blocks, it was a compromise born out of rough experience for Mayor Michael Bloomberg.

The previous year, the New York state legislature had killed his idea to institute congestion pricing-an $8 fee at the tunnels and bridges-to discourage cars from entering Manhattan at prime times. Relying on fiat instead of fees, the Times Square pedestrian plaza worked. The city even assembled GPS data showing the limited car-free area improved midtown traffic flow. It also cut the injuries to motorists by 63% and to pedestrians as much as 35%, even though the amount of pedestrians increased by 11%. Before motor vehicle restrictions he pedestrians had to step close to the street and even move on the traffic lanes when extremely crowded. Another side effect of such restrictions is that the levels of nitrogen oxides have fallen dramatically.
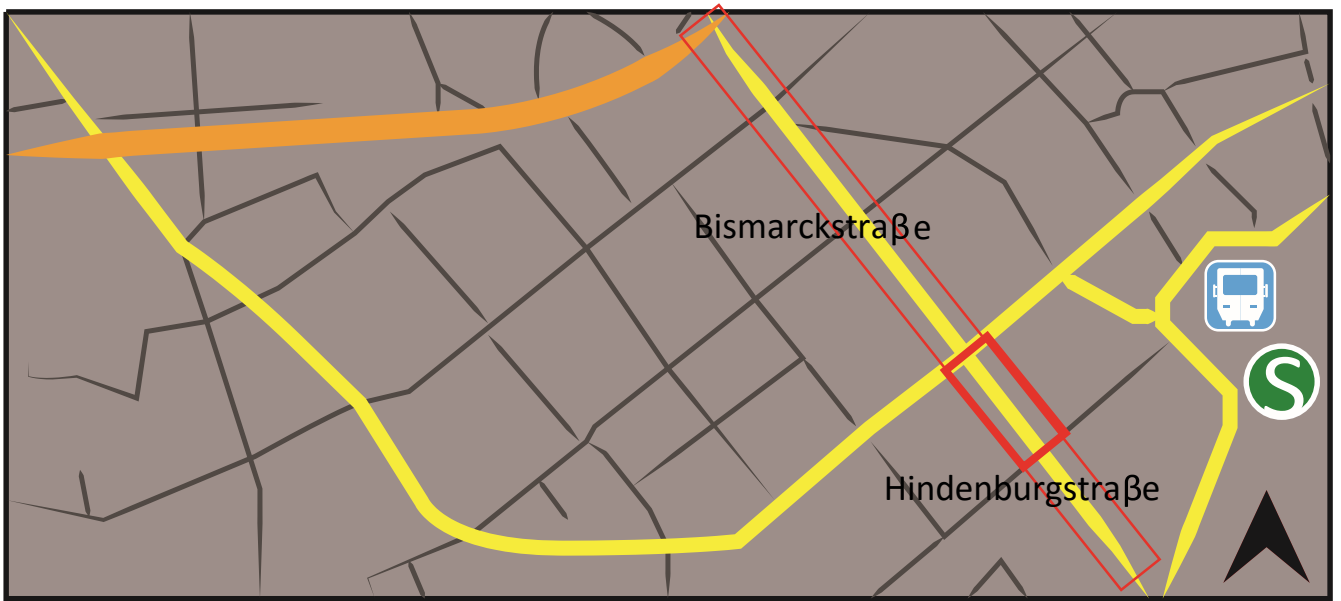
## Why the Bismarckstraβe?

As one of the major traffic arteries in Mönchengladbach, the Bismarckstraβe is an important and well known street for daily commuters who need excess to the "Autobahn". Therefore, an intervention might have bigger results for the street is ingrained into people's orientation of the city.

## Street Hierarchy in Mönchengladbach
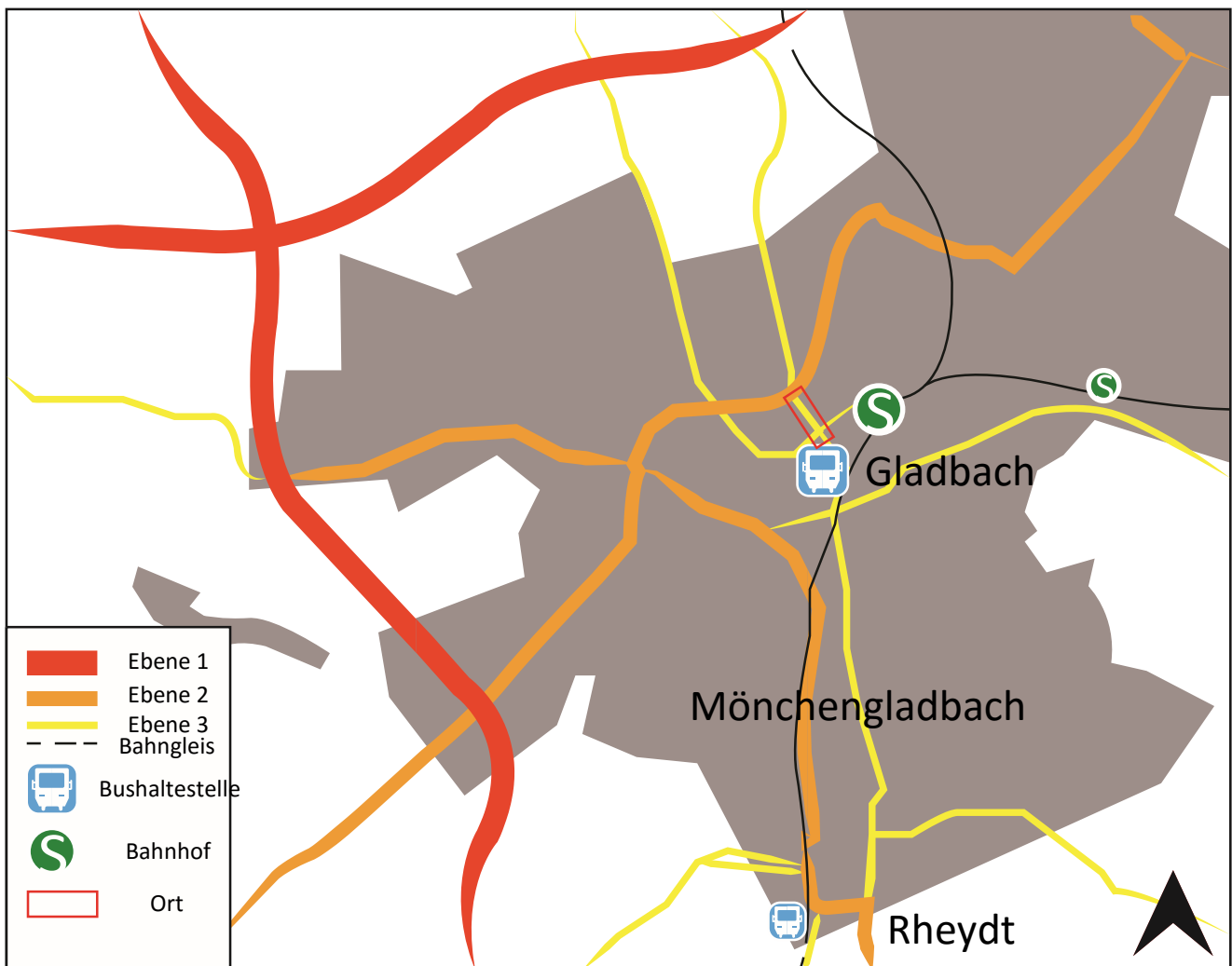


Furthermore, we see that there are several connections to the "*Autobahnen*" and right next to the Bismarckstaβe is another connection which can intercept all the traffic which could not pass through the street. The Bismarckstraβe is also close by the "*Bushatestelle*" and the "*Bahnhof*" and is mainly connected to these places through the Hindenburstraβe, which is a street very different from the Bismarchstraβe, filled with busses, pedestrians and little shops. This could prove to be an excellent connection to a more specific part of the Bismarckstraβe, a part which does not stop the main flow of cars but makes them take another route, for example through the Steinmetzstraβe to get to the "*Autobahn*".

Hindenburgstraße



Bismarckstraße

# The Bismarckstraβe right now

*"The Bismarckstraβe is a tribute to what the lack of multiple functions can do to a street."*

When a street is purely designed for transportation only, other functions are dismissed. The street is not accommodating to the human scale nor does it provide any other qualities like: *Geselligkeit, Nutzungen, Aktivitäten, Komfort or Bild,* than getting through the street. Which is the function of *Acsess and Verbindungen*. This is a sad notion for a street could accomplish so much more when taken into account the other mentioned qualities.

Though Bismarckstraβe functions quite well as one of the city's most important streets for traffic, it sadly lacks most of the above mentioned. When we walked through the Bismarckstraβe, we saw that people and the few cyclists only use the street to go to a destination, practically never to enjoy themselves or to just be there. Even when we asked people what they thought of the street and asked them what they would do with it, given the chance, they said things similar to: "*There is nothing to do here, the place feels unpleasant and I have no reason to be here*".

Most people didn't even want to answer our question because they were in a bad or gloomy mood. One woman didn't answer our question did instead voiced her opinion about the city, saying curtly that she disliked the city. This is a good example of how public space can influence the behaviour and mood of inhabitants, which can also make its importance know in other sectors like the economy and politics.

# Rudelgucken and Mönchengladbach



The idea would be a pilot project, close off the road by simple means like for example: sand, benches, small green or small stands. Make it an event the inhabitants of Mönchengladbach are attracted to like typical German "*Rudelgucken*" when the National Team participates in matches or even when the local team of Mönchengladbach plays a match. As spoken of in the other chapters is the location we advise connected to a pedestrian/bus route, which lead to the historic center and the Bahnhof. Because you attract so many people into one place the local economy will benefit from this event, it will be a good idea to include them into the organization of the event and let them expend their businesses unto the street. This will likely be very interesting for businesses like café's or restaurants.

This way you attract people to a place which normally is only available for cars and people see it in another perspective, while making them both proud of their city and soccer team again while also letting people meet and connect each other, on one of the busiest streets of Mönchengladbach nonetheless.

# Chapter 1: Resources

[1.1] – http://www.hs-niederrhein.de/fileadmin/dateien/institute/niers/pdf/Forum/13/NIERS.13.Forum.MG-Bewegt.pdf

[1.2] – http://www.hs-niederrhein.de/fileadmin/dateien/institute/niers/pdf/Forum/13/NIERS.13.Forum.MG-Bewegt.pdf

[1.3] – http://www.brd.nrw.de/regionalrat/sitzungen/2013/53PA_TOP_7_Datenmosaik.pdf

[1.4] – http://statistik.arbeitsagentur.de/Statistikdaten/Detail/Aktuell/iiia4/zdf-sdi/sdi-365-0-pdf.pdf

[1.5] – http://www.rp-online.de/nrw/staedte/moenchengladbach/gladbach-waechst-ja-aber-aid-1.5758732

[1.6] – http://kk.sites.itera.dk/apps/kk_pub2/pdf/823_Bg65v7UH2t.pdf

[1.7] – http://ehp.niehs.nih.gov/wp-content/uploads/122/4/ehp.1307250.pdf

Figure 2.1 – HOS schematic Mönchengladbach – (own illustration)

Figure 2.2 – Hardware/Orgware comparison – (own illustration)

Figure 2.3 – Branding visibility – (own illustration)

Figure 2.4 – Bicicletta logo Breda (2013) – [2.4]

Figure 2.5 – Network visibility – (own illustration)

Figure 2.6 – Bicycle app Mönchengladbach – (own illustration)

Figure 2.7 – Corporation with companies – (own illustration)

Figure 2.8 – Students (2002) – [2.8]

Figure 2.9 – Blaue route Mönchengladbach – (own illustration)

Figure 2.10 – Bicycle football (2012) – [2.10]

Figure 2.11 – Cycling in Amsterdam (2010) – [2.11]

[2.1] – *no link*

[2.2] – *no link*

[2.3] – *no link*

[2.4] - http://www.076fietst.nl/

[2.5] - http://www.rp-online.de/nrw/staedte/moenchengladbach/die-verkehrsregeln-sind-sie-fit-fuer-das-fahrrad-aid-1.5901807

[2.6] – http://road.cc/content/buyers-guide/175875-19-best-smartphone-cycling-apps-iphone-and-android

[2.7] - http://wowvectors.com/illustration/business-vector-presentation/

[2.8] - https://www.flickr.com/photos/tulanesally/3618969705/in/photostream/

[2.9] - http://www.extra-tipp-moenchengladbach.de/die-stadt/anschub-f-252-r-die-blaue-route-aid-1.5608230

[2.10] - http://listas.20minutos.es/deportes/deportes-no-olimpicos-338999/

[2.11] - https://commons.wikimedia.org/wiki/File:Cycling_in_Amsterdam_2010-1.JPG

Chapter 2: Public Space
and Mobility

# Berliner-Platz as another Example of Placemaking

*"As the bicycle action plan already describes the idea of Placemaking, we find it important to not only include it in the BAP but also in the infrastructural network of cycle ways throughout the city."*

The Berliner-platz was chosen due to the importance of the intersection. It is important for a city to create places that are inviting for the people stay and meet. In the research it was discovered that there has already been a workshop on the redesign of the Berliner-platz as can be seen in the following two illustrations.



The first illustration shows the whole area closed off for cars and a new monument placed in the middle. Overall a nice idea and inviting to the people for relaxation and recreation.

The second illustration did not fully close off the area to cars but rather made it a one-way street, which reduces the traffic flow and at the same time provides some kind of inviting area for pedestrians. Moreover the cyclists are taken into account with a nice big cycle path providing safety and visibility to the cyclists.



The idea of this integration of bikes and pedestrians was highly welcome by the work group and appreciated.

As already mentioned it is not about forcing the people to ride a bike, but rather about inviting the people to do so.

The idea shown in the third illustration is the result of the work group. It focusses on cyclists and pedestrians and it aims for an open space that invites the people to stay, have lunch and enjoy the environment. It is a shared space project were cyclists and pedestrians share the area. It can save costs and people will learn to respect oneanother.

The idea is based on the project Augsburg City, in Augsburg, Bavaria, where a main road was closed off and used for public transport, cyclists and pedestrians.
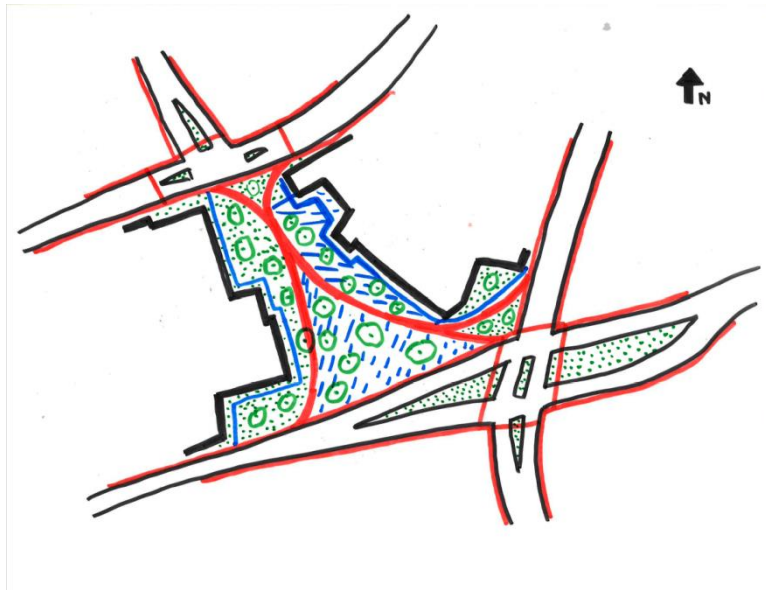
It will create the feeling of a park with opportunities to eat and meet in the buildings around the area. Moreover it should be integrated into the whole cycle network.

It is only one example of how intersections can be redesigned for the people rather than the cars. The overall idea for the whole project is to invite people and thus let them take back their space and let them start loving their city.

People criticising the idea of closing a road for cars might claim that it will lead to traffic jams and chaos but that's a situation for a few weeks and then people will find other ways to get around the city or start using the bike and benefitting from its advatages in daily movement.

# The Three Routes through Mönchengladbach

Mönchengladbach is currently in a situation where the city tries to find its new identity. Many changes are going on and mind-sets slowly start to adapt. The idea for this part is to use the Hochschule as the central point of both city centres with "Blaue Route" connecting both city centres. The students at the moment do not have a good relationship with the city and few live within Mönchengladbach. Nevertheless the students should be seen as the biggest potential for now and the future of the city.

The whole area around the Hochschule should be regarded as a potential area to spread change and attract people with higher income.

The Blaue Route is probably a leading example of the willingness of the city to change. The idea is very good to connect tot wo city centres, Mönchengladbach and Rheydt with each other. Also whilst cycling there it was very inviting to the people and gave a good impression. Nevertheless this idea can be improved and further developed. Creating a network of multiple routes throughout the city and connecting points of interest and recreational areas with each other, can be seen as vital to a more liveable city.

The idea is to create some kind of a „spider web network "focussed around the Hochschule with the "Blaue Route" as the origin of other routes. The following illustration shows the idea described above and will further be evaluated on the next pages. The Blaue Route is extended to the North, through Eichen, which already provides a satisfying infrastructure to cyclists, connecting to the cycle path coming from Willich in the North, connecting the two areas. This would be the first route, built on a short-term.

From the centre, shown in grey, a second route, the Grüne Route, connects the green areas of the city with each other. Moreover, surrounding villages can gain easier access to the city centres as well, without using the car.

The third route shown is what could be called the Borussia Route. It connects the city centres to the football stadium. The football club often seems to be one of the few things people feel comfortable talking about in the city, so there is a potential here to try to get the football club to participate in the project.

The two "new routes" would be projects on a long-term, but crucial to the city's character.

During the different meetings in Mönchengladbach, it was brought up that the football club does not see itself responsible the city as it regards itself as an international cooperation. But especially when you are an international cooperation, isn't it important that the city you are represented by and associated with has a certain reputation?! Borussia Mönchengladbach tends to play internationally almost every year, which means that tourists from cities all over Europe come to visit the city. This is an opportunity that is not yet used by the city. If the Borussia Vfl 1900Mönchengladbach GmbH would take part in improving the city's image it would automatically come back with benefits to the football clubs image. Tourists from other European cities would visit the city a few days prior to the match and enjoy the city and its commodities.

It is most likely not part of our project to suggest a business plan to a football club but the project is about finding new solutions to old problems and by getting everyone involved, no matter how big or small is a key to success in projects like this.

An example would be that prior to football games, people meet up on the bikes in the city and use the bars and restaurants and then bike to the game in a united manner. The football club for example could provide bicycle racks over the city with advertisement, encouraging the people to use their bikes.

Again it is about inviting people to step out of their cars and sit on their bikes. A simple sign-system providing orientation to the people would be enough on a short-term to motivate people.

In the right picture this simple signing system is shown. It is an example from Augsburg, showing different directions for different locations and also the intersecting routes such as the "Via Claudia" the "Bayernnetz für Radler". The signs below the directions, indicate historic or panoramic routes.



# Blaue Route

*"From Hauptbahnhof Monchengladbach to Hauptbahnhof Rheydt a decent Fahrradroute is made by the municipality, and in some parts of this route there is even a separated bike path. The route has*

*some flaws and isn't always safe or attractive to bike on. It still has some dangerous intersections with some main roads in MG such as the Fliethstrasse, Hofstrasse and the Breitestrasse."*

## Ideas and examples

At the Hofstrasse there is one road to cross. The problem that occurs here is not that it is unsafe but simply because it is unclear where the bikers should go. This can both have influence on the bikers' behavior as well on the car drivers' behavior

By simply making it another color or putting an image of a bike on the bike path would simplify this and clear the problems.
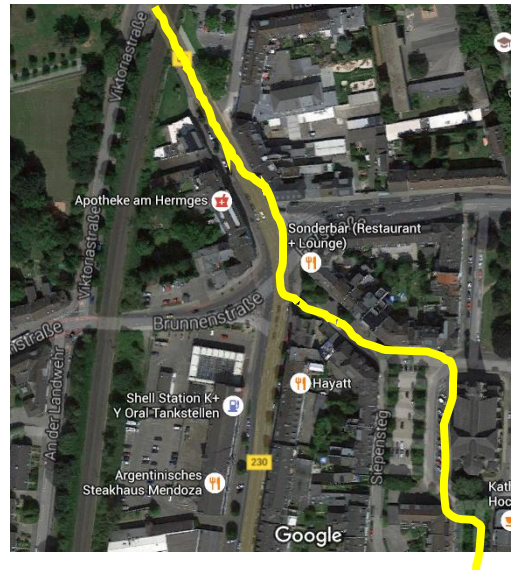


The same problems occur at the Fliethstrasse intersection.

At this intersection you will have to cross the road twice. As you can see on the image on the right there is no difference in color or markings for the bikes.
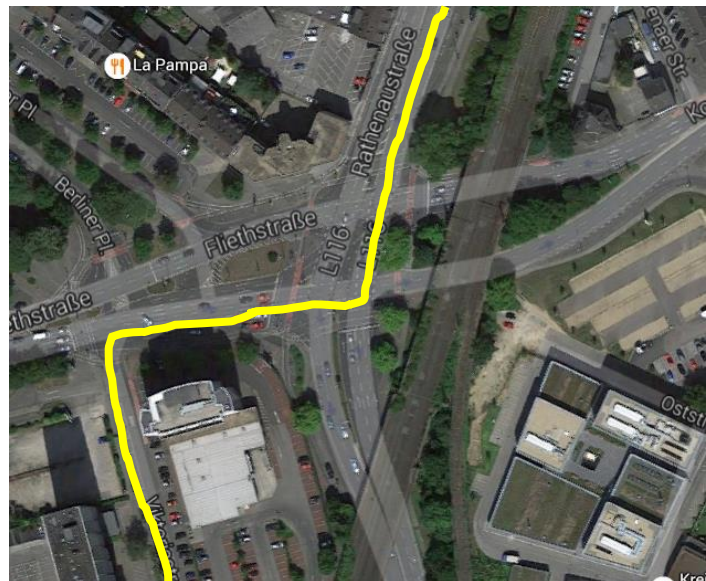
The roundabout at the Breitestrasse is a mixed roundabout for cyclists and cars. The cyclist has to get of the "Blaue Route" and get on the roundabout along with the bikes.

To make this safer, the "Blaue Route" will just cut through the roundabout with the cars still having priority.
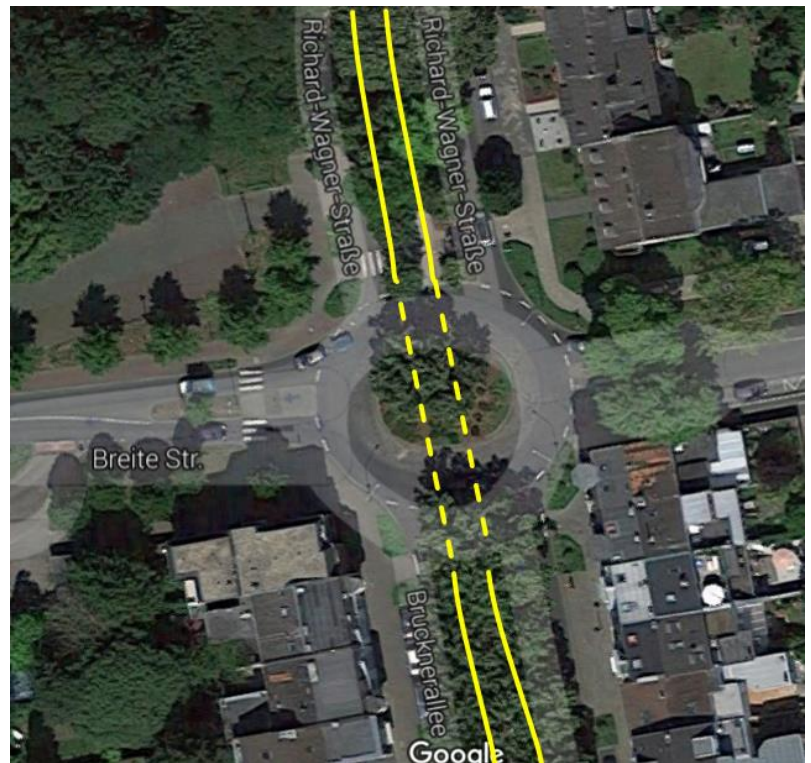
The "Blaue Route" is a great idea and solution for the connection between the two city center's if it is implemented in the right way; clear, safe and simple. The route would be a good aspect of the city of Monchengladbach and will attract more people to travel by bike.

## Excursion: Students as key to changing mobility behavior in Mönchengladbach

### The logic behind it

Given the fact that Mönchengladbach is the place of study for about 8000 students[1], it is a group which can contribute substantially to shaping mobility patterns within Mönchengladbach. Thus, students can also push the development towards an increasing share of cycling as regards the modal split.

Apart from the high number of students, there is a psychological aspect which makes students maybe even the most important target group in terms of promoting cycling: Students are new inhabitants to the city who do not have long-standing structures and practices concerning their modes of transportation within the city because the city is new to them. Thus it´s easier to lead them to alternative means of transportation. What is more,

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[1] https://de.wikipedia.org/wiki/Hochschule_Niederrhein

there is a tendency that the currently young generation is more willing to replace the car by other means of transportation.[2]

Apart from mobility aspects, it is also important to attract students and to make them stay in order to increase the share of well-educated people with high income in the city.

## Pushing students to cycle more

When thinking about the potential mentioned above, it is important to be aware of the current frame conditions:

The current potential is especially limited by the fact, that many students in Mönchengladbach are commuting to the city every day and have to manage distances, which are not well-suited for using the bike. Concretely, only about 540[3] of the 8000 students live in Mönchengladbach. Thus the share of students living in Mönchengladbach is less than 7 %. For this reason, it is important to make sure, that the students move to Mönchengladbach because if they live in the city, they will be more willing to use the bike for their daily travels.
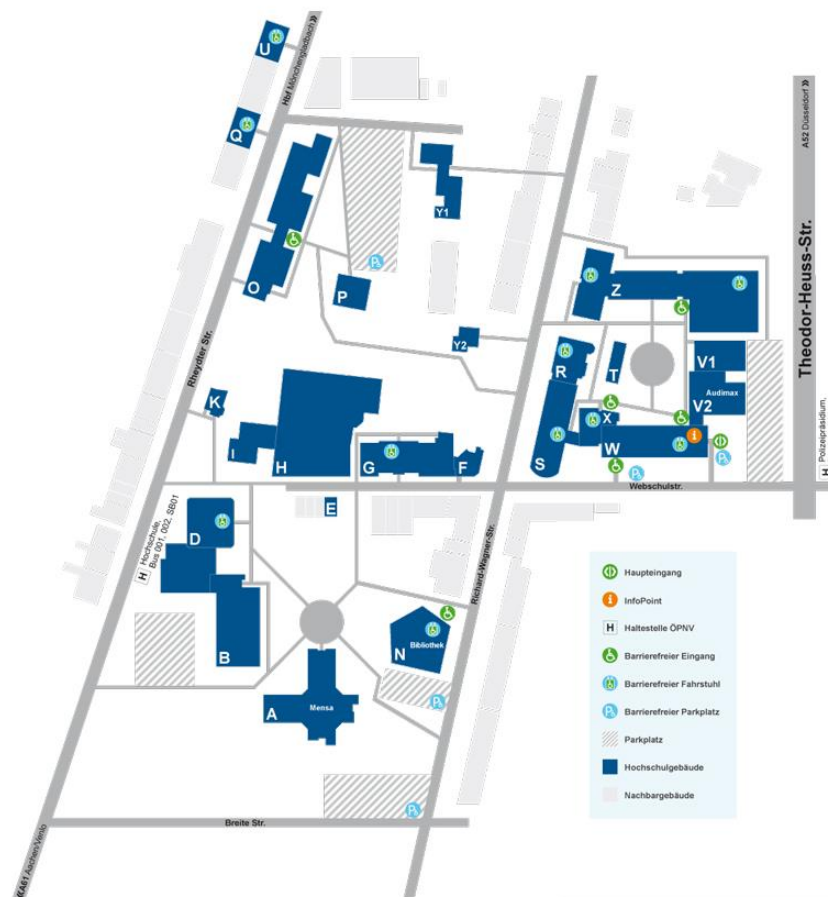
Another factor which limits the potential is that students in North Rhine-Westphalia have the alternative to use public transportation for free.[4] Thus, cycling is faced with public transportation as important competitor. Another competitor – especially in Mönchengladbach – is the car. In particular, the attractiveness for students to use the car is high in view of the huge amount of parking lots offered in the area around the university (see map below). To make cycling the preferred means of transport among students in Mönchengladbach, cycling needs to be competitive in terms of travel time, comfort and safety.

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[2] http://www.bundesanzeiger-verlag.de/fileadmin/Betrifft-Gefahrgut/Dokumente/Fachbeitraege_KFZ/Kfz-SV_6-11_Fachartikel.pdf

[3] http://www.rp-online.de/nrw/staedte/krefeld/hier-wohnen-die-studenten-der-hochschule-niederrhein-iid-1.4390995

[4] http://www.studenten-nrw-ticket.de/faq.html

## Measures to tackle the limiting frame conditions

As outlined before, it is crucial that much more students move to Mönchengladbach. In this context, it´s worth mentioning, that the organisation providing social, financial and cultural support services to students in Germany (Studentenwerk) allows students in Mönchengladbach to apply for student accomodation not only at their place of study but also at Düsseldorf, for example.[5] This should be changed – if possible by linking the opportunity for students at HS Mönchengladbach to apply for accomodation in other cities to additional fees or by restricting it completely. What is more, further financial benefits for students moving to Mönchengladbach could be provided. Especially in cities like Mönchengladbach, which do not have a substantial amount of students living there, the accommodation offered should strongly support social interaction. In Wuppertal, for example, a private investor transformed an old administration building into a house for students which offers private apartments but still facilitates interaction between students by offering a gym and common rooms to meet.[6] Projects like this could also be supported in Mönchengladbach – especially in view of the fact that there is a lot of vacancy in the city.[7] In the long-term, after some more students have moved to the city, the nightlife offer in the area around the university could be extended by providing funding for entrepreneurs who want

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[5] http://www.stw-d.de//Wohnen/Wohnen_Index.html

[6] http://www.apartments355.de/wp-content/uploads/2012/10/Artikel-WZ-apartments355.pdf

[7] http://www.rp-online.de/nrw/staedte/moenchengladbach/kreativ-gegen-den-leerstand-in-rheydt-aid-1.5143459

to open pubs or discotheques there. Otherwise, night buses which go from Kapuzinerplatz/Alter Markt to university (even within the week) could be offered.

Among the limiting conditions for pushing students to cycle more, the strong competition of public transport and cars was mentioned. In order to improve the perception and attitude towards cycling among students, the current college sports offer[8] could be extended by offering a cycling course or get-together for cyclists. The position of cycling could also be strengthened by weakening the attractiveness to use the car. In this context, it is relevant to reduce the currently high offer of parking space in the area around the university or to charge parking fees there. What is more, bike parking space should be offered at attractive locations of the campus, e.g. right next to the entrance of each building.

## Long-term infrastructural potential: Transformation of railway track MG Geneicken – MG Hbf and embedment into a larger system of cycling routes

There is a well-suited long-term perspective to connect Mönchengladbach main station with many important locations (university, industrial district, sights etc.) by a cycle way: Transforming the railroad between the old railway station Geneicken and the main station of Mönchengladbach into a cycle track, which is currently still used a few times a year for transports of heavy freight from a factory located in Mönchengladbach (transformations of Alstom Grid).[9] In view of the facts mentioned, it makes sense to regularly recheck if the company is able to do without this very route. Dr. Jochen Schwarz, the leading manager of Alstom Grid in Mönchengladbach, was at least open for discussions on a dual usage of the railway for bikes and transportation during a political discussion.[10] What is more, recently transformation transports in Mönchengladbach were also carried out via the street.[11]

One concrete idea, how a dual usage - as offered by Dr. Jochen Schwarz - could maybe be implemented, is to construct the cycle track in a way, that it is also capable to endure exceptional usage by heavy transports. Allowing heavy transports on this route could maybe be carried out by granting special approvals each time that Alstom Grid needs this route.[12] Yet, a detailed check of this alternative in terms of planning effort, funding and legal basis would be necessary to judge about whether it´s really a realizable approach.

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[8] https://www.hs-niederrhein.de/fileadmin/dateien/studierendenbuero/Overview_Sports_Monchengladbach.pdf
[9] http://www.moebahn.de/t17126f4-Trafotransport-MG-Geneicken.html
[10] http://www.rp-online.de/nrw/staedte/moenchengladbach/transformatoren-zu-land-zu-wasser-und-zur-schiene-aid-1.3859870
[11] http://www.rp-online.de/nrw/staedte/moenchengladbach/dieser-schwertransporter-transportiert-den-311-tonnen-trafo-bid-1.638005
[12] http://www.bezreg-arnsberg.nrw.de/themen/g/genehmigung_grossraum_schwerlast/index.php

A rough draft of the route is marked on the map in blue.
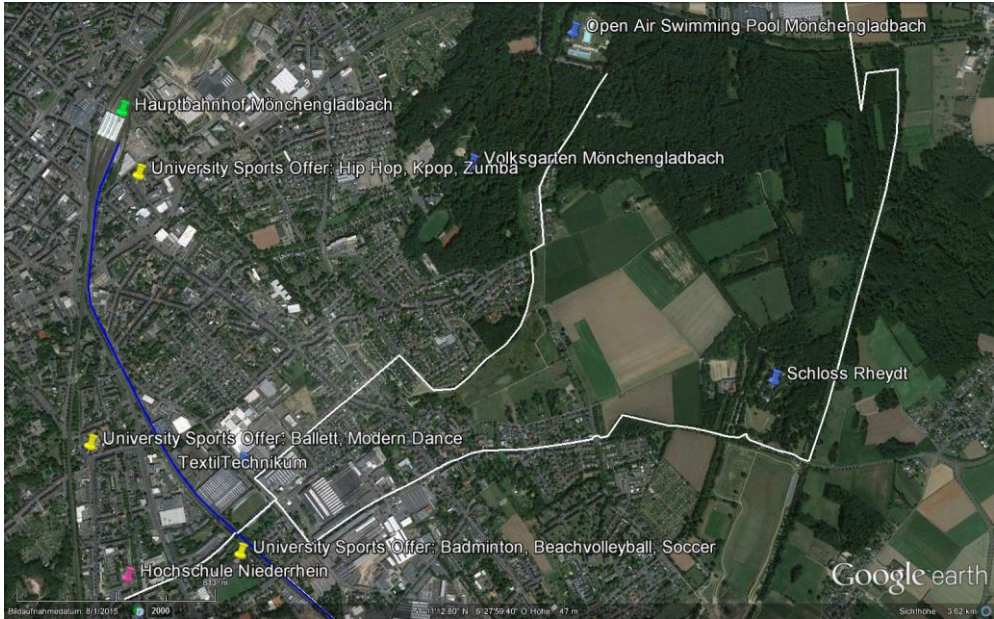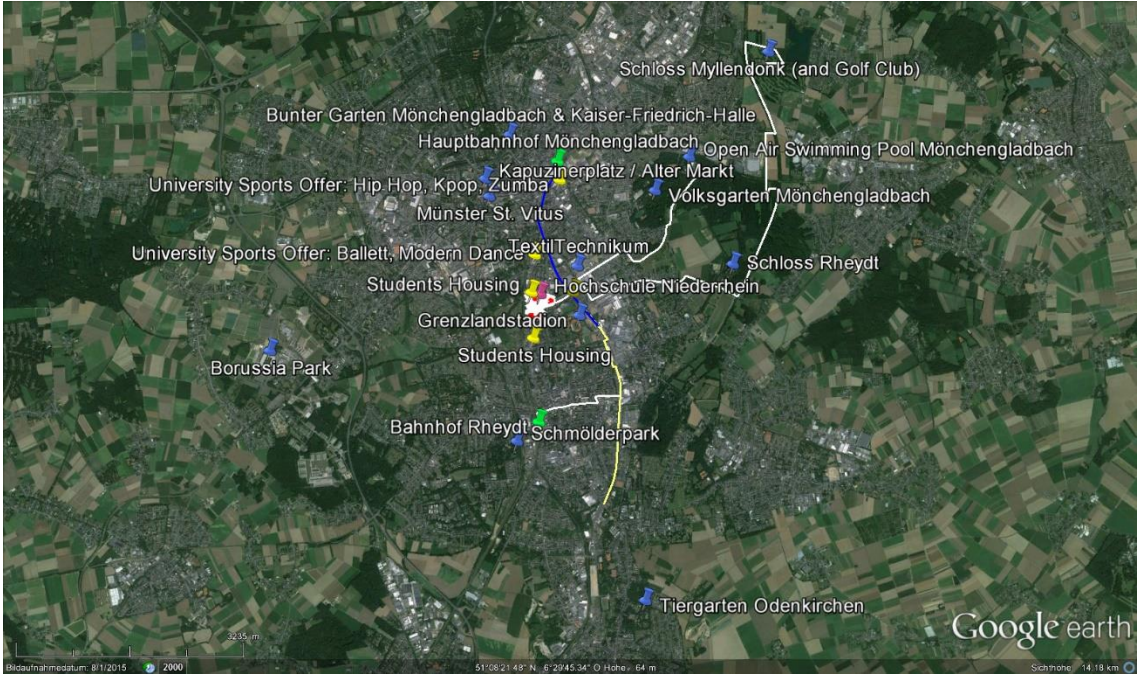
As mentioned above, the route would offer a lot of interesting connections:

It prolongs the existing cycling route from Rheydt Geneicken to Rheydt Odenkirchen (yellow route) up to Mönchengladbach main station.

It offers a quick connection from the main station to university (important for students and university staff) and to the industrial district (important for workers and customers going there). (white routes)

As the route is located pretty central in Mönchengladbach, further branches could provide easy, uncomplicated connections to Volksgarten, the open air swimming pool there as well as to the castles of Rheydt and Myllendonk. (other white routes)



Yet, it needs to be considered, that it offers no direct connection between the train stations of Mönchengladbach and Rheydt. But when taking a closer look, there are still possiblities to connect the main stations by allowing cyclists to leave the current railway at the area around the university, following the "Blaue Route" from there to Rheydt main station. This way, it would even be a quicker connection than using the "Blaue Route" the whole way and in particular, cyclists would be confronted with less intersections if they can use the current railroad in parts.

At the opposite part of the route, which is close to Mönchengladbach main station, the regularly used railroad between the two main stations of Mönchengladbach would run parallel to the cycling path. An example, that this is implemented already at other places, can be seen on the picture below which was taken in Remscheid-Lennep.

## Chapter 2: Resources

http://www.bmvi.de/SharedDocs/DE/Anl age/VerkehrUndMobilitaet/Fahrrad/natio naler-radverkehrsplan-2020.pdf?__blob=publicationFile

http://www.adfc-nrw.de/kreisverbaende/stadt-moenchengladbach/aktuelles/aktuelles/a rticle/adfc-moenchengladbach-will-blaue-bodenlinie-fuer-f.html

http://www.knotennetz.de/download/AD FC-Konzept-Blaue-Route.pdf

https://voba-mg.viele-schaffen-mehr.de/fahrradroute

http://adfc-blog.de/2015/11/adfc-moenchengladbach-will-blaue-bodenlinie-fuer-fahrradroute/

[1] http://www.studenten-nrw-ticket.de/faq.html
[1] http://www.stw-d.de//Wohnen/Wohnen_Index.html
[1] http://www.apartments355.de/wp-content/uploads/2012/10/Artikel-WZ-apartments355.pdf
[1] http://www.rp-online.de/nrw/staedte/moenchengladbach/kreativ-gegen-den-leerstand-in-rheydt-aid-1.5143459
[1] https://www.hs-niederrhein.de/fileadmin/dateien/studierendenbuero/Overview_Sports_Monchengladbach.pdf
[1] http://www.moebahn.de/t17126f4-Trafotransport-MG-Geneicken.html
[1] http://www.rp-online.de/nrw/staedte/moenchengladbach/transformatoren-zu-land-zu-wasser-und-zur-schiene-aid-1.3859870
[1] http://www.rp-online.de/nrw/staedte/moenchengladbach/dieser-schwertransporter-transportiert-den-311-tonnen-trafo-bid-1.638005
[1] http://www.bezreg-arnsberg.nrw.de/themen/g/genehmigung_grossraum_schwerlast/index.php


http://bc03.rp-online.de/polopoly_fs/bahnhof-lennep-endet-bislang-balkantrasse-geplante-1.5536477.1446670114!httpImage/2652317734.jpg_gen/derivatives/d950x950/2652317734.jpg

# Chapter 3: A New Cycling Network for Mönchengladbach

# Introduction and Status Quo

*"As a part of the research project "Fresh Brains "of the Bergische Universität Wuppertal and the NHTV Breda, a workshop took place in Mönchengladbach to develop a central high speed bicycle lane throughout the northern part of the City."*

According to the project idea and description, Mönchengladbach is a city with a very low bicycle modal share (6%). In contrast to this, the infrastructure for cyclists is in a quite good condition in a lot of streets. Some intersections were rebuilt in the last years, including new facilities for cyclist, as you can see in the pictures below.



*Figure 1 – New cycle infrastructure in Mönchengladbach (own pictures)*

The status of the infrastructure found in the city is not an explanation for the low amount of cyclists. During the four days of the workshop, cyclists could be seen on the streets, but taking into account that the topography of Mönchengladbach is in most parts of the city bicycle friendly, there is way to change the modal share.

"Fresh Brains" is not the only and first project about cycling in Mönchengladbach. There are projects and suggestions coming from inhabitants and investors who developed their own ideas and present them to the City Council. In this essay the idea of "Blaue Route" as the first central cycle route will be extended to a cycle network throughout Mönchengladbach.

Beside the new build infrastructure for cyclists, a lot of streets show a poor quality especially concerning the bicycle lanes. Tunnels are too dark and do not invite cyclists to use them. Cycle lanes are too narrow or too demolished by trees to use them. Even if the infrastructure is good the behavior of parts of the population makes it unusable.

*Figure 2 – Existing problems in Mönchengladbach (own pictures)*

Mönchengladbach has a high potential to turn the vision of a likeable and livable city into reality. To reach this goal, cycling can be used as a mean and a cycle network can be established in the city.

## Marketing: Some ideas

Imagine having fun whilst getting to your working place. No more traffic jams in the early mornings, no more grey steams coming up right in front of your windscreen. On a bicycle it is possible to pass all those cars waiting for the traffic lights to turn green, and alongside do something for your health as well.




*Figure 3 - Getting to work on Bicycle [1]   Figure 4 - Kids on their way to school [2]*

Imagine not having to bring your children to school every morning. Save time and be more relaxed whilst knowing your kids to arrive safely at school.



*Figure 5 - Sunday Cycling with the family [3]*

Imagine a sunny Sunday afternoon. Why not entertaining your kids with a cycling tour through the city to your favorite Eiscafé? Children love activity, and ice-cream, and you'll love to get some fresh air and fun on your bike as well.

## The General Idea

Mönchengladbach wishes to find a "Super Cycle-Highway "through the city to connect the cycling-path coming from Willich in the north of the city with the "Blaue Route", which ends at the main station in the city center. One goal of this connection is to get people out of their cars and on their bikes to get to and from work or respectively to cover longer distances by bike at "high speed ". Without doubt, this is a well-intentioned goal. But as it has shown in other cases, it is not as easy to implement. The "Blaue Route" is already a very good kick-off start and with this project people started to recognize that cycling can be an option. Also the project "200 Tage Fahrradstadt" made people aware of cycling. So as we can see, apart from only offering infrastructure for cyclists, propaganda and marketing is just as important to promote and support cycling in your city.



So first of all, we were thinking about the following: Who is supposed to be the main user of the new "Super Cycle-Highway"? And could it be that there are others who might have an interest for the connection from the north-path coming from Willich to the "Blaue Route" as well? Our answer is yes, there might be others who have an interest as well. Those who want to cycle as a leisure activity for example.

So basically, there are two different types of cyclists who might have a wish to cycle on the route in the future: commuters and leisure-cyclists. Both have different demands on the infrastructure. In the first case, the route should be without detours, wide enough so that cyclists can overtake others and with as few traffic lights as possible (maybe even green-phases). In the second case, the route should lead through the beautiful parts of a city and connect tourism attractions or resting places.

So our idea is to create two different routes in the north of the city that connect the path coming from Willich with the "Blaue Route" and the main station. As can be seen in figure 6, the route for the commuting traffic (red line) is supposed to lead along the Hohenzollernstraße. The leisure route (green line) on the other side is supposed to lead all along the Eickener Straße, passing by the pedestrian zone, to get your favorite ice-cream or to take a rest whilst having a cold beer.
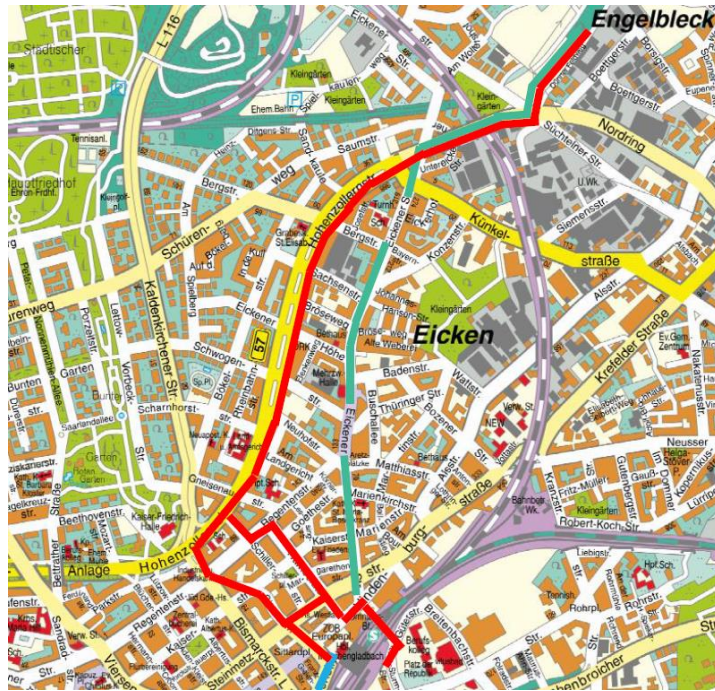
*Figure 6 - Suggested Routes for commuting (red) and leisure (green) (own illustration)*

As already mentioned in the introduction to this paper, there is existing infrastructure available. Figures 7 and 8 show the Eickener Straße and the Hohenzollernstraße as they are today.




*Figure 7 - Eickener Straße (own picture)* Figure 8 - *Hohenzollernstraße (own picture)*

As can be seen on those two pictures, there are existing cycling paths on both streets. So for the beginning, especially for the Eickener Straße, there is no urgent need to rebuild and recreate the road. As a first step, signing and marketing for this route is most necessary (see more on this in chapter 6). The Hohenzollernstraße, on the other hand, is quite dangerous for cyclists to use. Most of the cycle paths are damaged and road works urgently need to be done to improve this situation. How the street could look like is theme of chapter 7.

# Main station and surrounding

Now we will have a closer look at the main station. As surely there will be cyclists who wish to reach the routes from the main station or the other way around. The Eickener Straße can easily be reached from the main station if starting at the front of the station. As there will be a new bike-parking at the back of the station, it is also important to find a way to get from the back to the front of the main station quickly. There is already an existing tunnel, connecting the front with the back. But as figure 9 shows, some deficits might be improved.

The tunnel seems very dark and does not give safety feelings to those who want to use it. So for a start and to make it more attractive and socially safe, lights should be placed at the walls. In addition to the light, it could be an idea to paint the walls. Maybe a (more or less) well known spraying-artist could spray pictures on the walls which have a connection to the city. For example a picture of MG's football club or the Abteiberg. Figure 10 shows an example of a painted wall.



*Figure 9 - Tunnel at MG's Main Station   Figure 10 - Sprayed walls as arts [4]* **(own picture)**

Further, as can be seen in figure 6, there are some options to lead cyclists to the Hohenzollernstraße. For a start, cyclists could use one of the one-way streets parallel of the Bismarckstraße. Signing will be helpful to lead all cyclists the same way. Later it is imaginable to improve one cycle path in one of the one-way streets, for example the Humboldstraße, so that all cyclists, no matter which direction they come from, can use it. Another option for the future might be to make the Bismarckstraße attractive for cycling, also see the "Radverkehrskonzept"of the other group to that idea.

## Create a cycling network throughout the city

In creating the two new routes and with the already existing *Blaue Route*, a start for a cycling-network is done. We want to adapt to the idea of the *Blaue Route*. Mönchengladbach's inhabitants started to identify with this project. We think that it is important to make identification with this project possible for everyone. So the idea is to give names to all the new routes that will be created in the future. The leisure route is then called Eickener Route the commuter route will have the name Bökelberg Route. Why Bökelberg Route? The old Bökelberg-Stadium gives identity to Mönchengladbach and was placed on the Bökelstraße which is just parallel to the Hohenzollernstraße.

In the future, there will be a network of cycling routes, and names like "Blaue Route""Eickener Route", "Bökelberg Route", "Abteiberg Route, Borussia Route and so on will give identity to the routes. People will start to recognize the routes and will start to use them. For more ideas to create new routes to the network, we also refer to "Querfeldein"from Norbert Krause.

## Future Vision

The cycling network is there to connect places throughout the city that are of interest for tourists as well as for the residents of Mönchengladbach. For the places of interest we have to think about a church or a park, and also about companies and stations. The cycling network should easily give access to these places.

The map below shows some of the places of interest that we have already found in Mönchengladbach and that could be indicated in the cycling network.



*Figure 11 - Points of interest (own illustration)*

As mentioned before, the cycling network should connect places of interest throughout the city. But the cycling routes should also have some kind of signing that indicates which way to go for these interesting places.

Our idea is to implement the signing of the "Blaue Route" since it is already spreading throughout the mindset of the people. They know what the "Blaue Route" is and where it leads to. So people already know about the signing of the "Blaue Route".
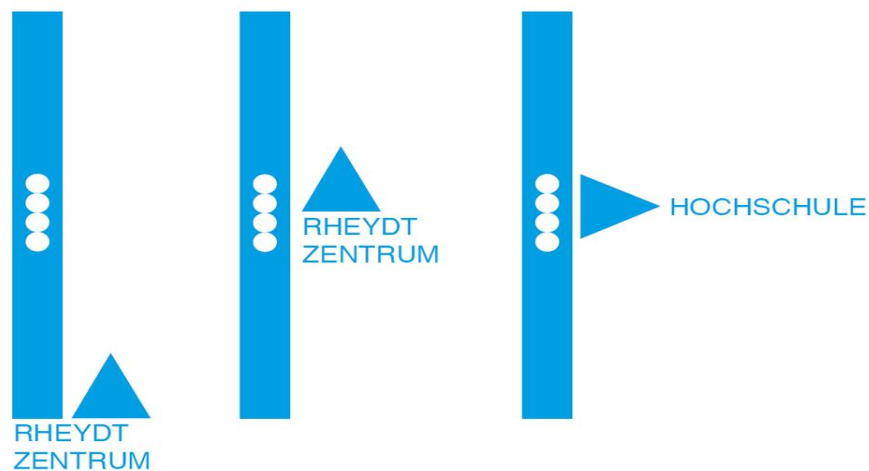


*Figure 12 – Signing of Blaue Route [5]*

The signing of the "Blaue Route" is shown above, and the idea for the other routes in the cycling network stays the same, but will have different colors that fit to the particular routes. We came up with some ideas for the routes and their colors. In figure 13 we give an indication for the two routes we want to create and which colours they have. The "Böckelberg Route" is the fast track and we want to use the color red for this track because we associate red with speed, and the "Böckelberg Route" is there to get from A to B in the fastest way. For the "Eickener Route" we choose for the colour green since it is a leisure track and we associate green with nature and people can take their time in this track to see and do things while following the route.
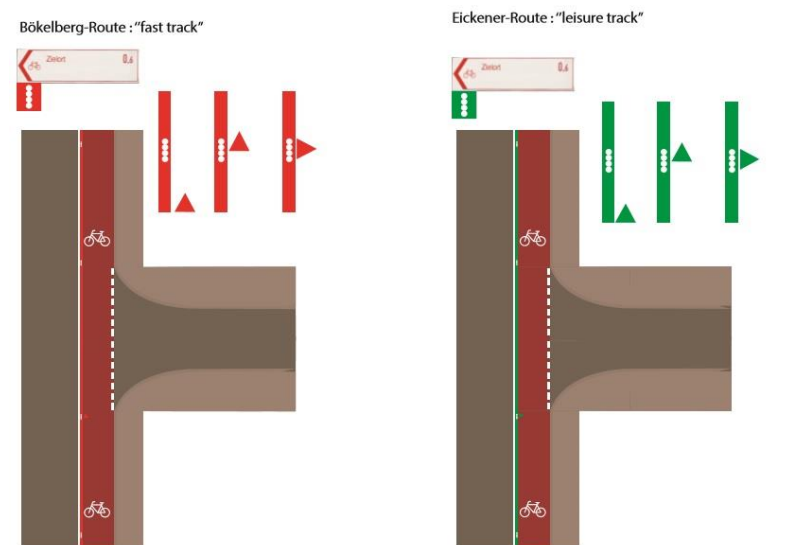


*Figure 12 – suggested color use for fast (red) and leisure (green) (own illustration)*

## Cross-sections

To implement the two new routes throughout the northern part of the city, changes in the infrastructure are partly necessary. The "Eickener Route" can be established without bigger interventions of the infrastructure. But the "Böckelberg Route" needs to be improved especially at the Hohenzollernstraße. Therefore some ideas came up during the workshop. In the northern part of the street, the width allows a generous and creative reconstruction. In contrast to this the space is limited in the southern part. Figure 14 shows the location of the following three examples of cross-sections.
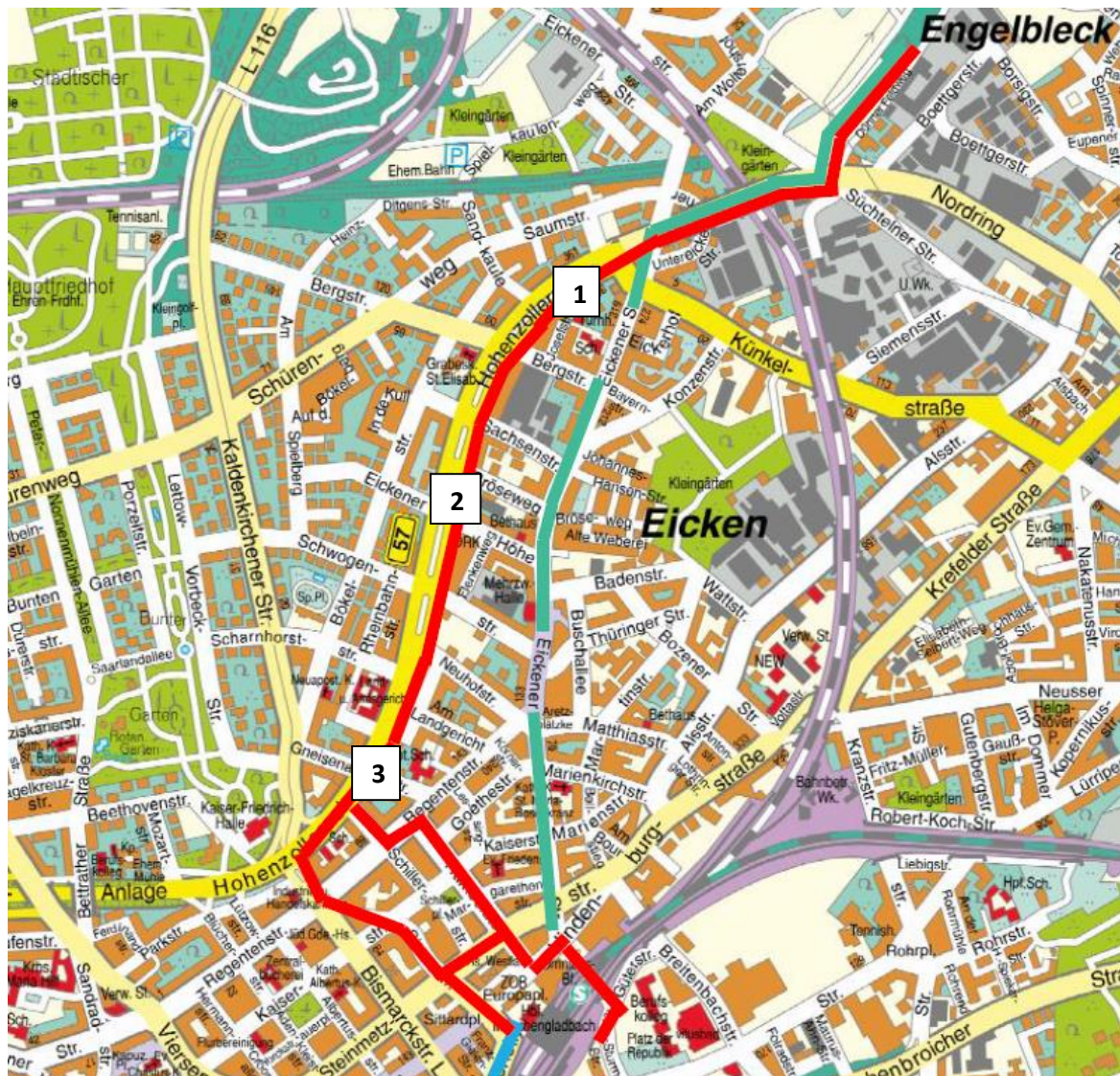


*Figure 14 – Chosen examples of cross-sections (own illustration)*

Number 1

The first proposal for reconstruction is for the Hohenzollernstraße between the intersection of Hohenzollernstraße/Bergstraße and Hohenzollenstraße/ Künckelstraße. In this part of the street an average width of 34m can be used to create larger space for cyclist and still keep the parking area in the middle alley. To increase the security of the street, the parking lots are not reachable from both sides but from an entry to the middle alley. An example for this can be seen in the picture below.
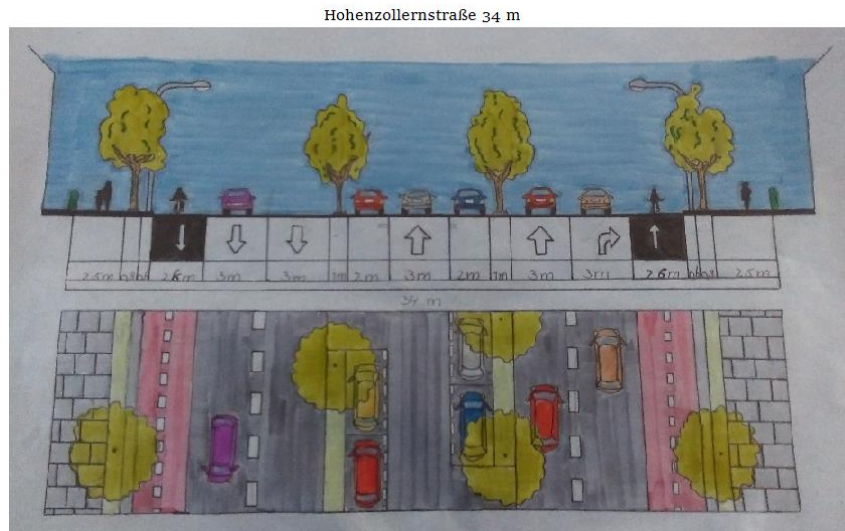


*Figure 15 – Cross-section no. 1 – Hohenzollernstraße width 34m*

| Name | Meter |
|---|---|
| Fußweg | >2,5 m |
| Radfahrstreifen | 2,5 m |
| Fahrstreifen | 3 m |
| Fahrstreifen | 3 m |
| Grünstreifen | 1 m |
| Längsparken | 2 m |
| Zufahrparken | 3 m |
| Längsparken | 2 m |
| Grünstreifen | 1 m |
| Fahrstreifen | 3 m |
| Fahrstreifen | 3 m |
| Radfahrstreifen | 2,5 m |
| Fußstreifen | >2,5 m |



*Figure 16 – Example for parking space [6]*

Number 2

Following the Hohenzollernstraße to the southern part, the street narrows to 27m. To keep the 2,5m cycle lane (two-way-cycle lane on each side), one of the existing car lanes has to be used for cyclists. The parking space in the middle of the street and the alley trees can be kept.

β



*Figure 17– Cross-section no. 2 – Hohenzollernstraße width 27m*

| Name | Meters |
| --- | --- |
| Fußweg | >2,5 m |
| Radfahrstreifen | 2,5 m |
| Fahrstreifen | 3,5 m |
| Grünstreifen | 1 m |
| Querparken | 5 m |
| Grünstreifen | 1 m |
| Fahrstreifen | 3,5 m |
| Radfahrstreifen | 2,5 m |
| Fußweg | >2,5 m |

Number 3

In front of the Landgericht the Hohenzollernstraße has its narrowest part with less than 20m.
There is no middle alley anymore and no green space at both sides of the road. Furthermore
there is already only one car lane for each direction. To improve the existing space for cyclist
and to build a cycle lane as in the northern part of the street, it is necessary to remove the
parking lots and use the space for the cycle lane.



*Figure 18 – Cross-section no. 3 – Hohenzollernstraße width 19,8m*

| Name | Meters |
|---|---|
| Fußweg | >2,5 m |
| Radfahrstreifen | 2,5 m |
| Fahrsteifen | 3 m |
| Fahrstreifen | 3 m |
| Radfahrstreifen | 2,5 m |
| Fußweg | >2,5 m |

# Chapter 3: Resources

Figure 1 – New cycle infrastructure in Mönchengladbach (own pictures)

Figure 2 – Existing problems in Mönchengladbach (own pictures)

Figure 3 - Getting to work on Bicycle [1]

Figure 4 - Kids on their way to school [2]

Figure 5 - Sunday Cycling with the family [3]

Figure 6 - Suggested Routes for commuting (red) and leisure (green) (own illustration)

Figure 7 - Eickener Straße (own picture)

Figure 8 - Hohenzollernstraße (own picture)

Figure 9 - Tunnel at MG's Main Station (own picture)

Figure 10 - Sprayed walls as arts [4]

Figure 31 - Points of interest (own illustration)

Figure 12 – Signing of Blaue Route [5]

Figure 14 – suggested color use for fast (red) and leisure (green)

Figure 14 – Chosen examples of cross-sections (own illustration)

Figure 15 – Cross-section no. 1 – Hohenzollernstraße width 34m (own illustration)

Figure 16 – Example for parking space [6]

Figure 17– Cross-section no. 2 – Hohenzollernstraße width 27m (own illustration)

Figure 18 – Cross-section no. 3 – Hohenzollernstraße width 19,8m (own illustration)

[1]      http://www.welt.de/regionales/hamburg/article144583794/Warum-ein-Leben-ohne-Auto-so-viel-besser-ist.html

[2] http://www.fahrrad-gesundheit.de/blogartikel/fahrradfahren-macht-schlau.html

[3] http://www.inn-salzach.com/de/pressebilder-rad-touren/

[4] http://www.broadwayworld.com/bwwart/article/Spray-Paint-Muralists-Transform-60-Foot-Wall-to-Honor-World-Hepatitis-Day-20150728

[5] http://adfc-blog.de/2015/11/adfc-moenchengladbach-will-blaue-bodenlinie-fuer-fahrradroute/

[6] google street view, Breda

# Conclusion

As a conclusion it is necessary to answer the question "how can the presented ideas and solutions for a more likeable and liveable Mönchengladbach satisfy the specific needs of the defined target groups?" The answer will be shown by these four target groups:

1.  **Cyclists and pedestrians** benefit from the plan the most. By providing a coherent cycling network with different specific routes (Blaue Route, Grüne Route etc.) and some improvements in the infrastructure (e.g. more space at the Hohenzollernstraße) cycling in Mönchengladbach becomes more comfortable and safe. With the hierarchical network system cyclists can choose between fast tracks (e.g. Bökelberg Route) to get from A to B directly and leisure tracks (e.g. Eickener-Route) that are more fun to ride. The presented signposting system allows a self-explaining navigation through the city. Increasing the general visibility of cycling by branding the infrastructure (see the logo in the Bicycle Action Plan) people and especially car drivers will become more aware of cyclist and will respect them more which leads also to more safety. By renewing and restructuring car-dimensioned roads (e.g. Bismarckstraße) and places (e.g. Berliner Platz) pedestrians get more space and possibilities to "bring life on the streets" again so that streets can fulfill their function of animating social and economic life in a community.

2.  With the Borussia Route **supporters of the football club Borussia** Mönchengladbach get an easy and fast way to get to the matches of Borussia Mönchengladbach in the Borussia Park. With specific signposting and the spider web network it will be possible to find the right route to the Borussia Park from every part of Mönchengladbach easily. Also supporters from the opponent team that come by train to Mönchengladbach could use the new improved cycling infrastructure. With the new proposed bike rental stations on the two main stations they can switch from the train to the bike to get to Borussia Park (instead of using shuttle busses for example). If people from outside Mönchengladbach have even time off, they can use the historic Bökelberg Route to learn and experience the interesting places of the football history of Mönchengladbach

3.  **Car users** will also be profiting from the changes in the modal split. Less car users means less cars in general which ultimately leads to less traffic jams within the city causing pollution as well as precious fuel for the drivers. Besides that it will be even easier to find parking spots in the city as there are less cars that need parking places, this also gives the extra benefit of being able to park closer to the destination. Overall it should save fuel and time while commuting which are two important factors besides comfort when it comes down to travelling.

4.  **Low income households** profit from the changes only if they change themselves. Cycling is a much cheaper mode of transportation which is a great opportunity for them as they will have more money to spend on other important things. This is not only beneficiary to the low income households but also for the middle class and even higher class. More money to spend on other things is a good thing as it fuels the local economy of the city.