

**University of Minnesota  
Oberstar-Forum, 10.04.2006**

**Speech of the Mayor of Muenster  
Dr. Berthold Tillmann**

**Muenster, liveable city with a lasting transportation policy**

Good Afternoon, Ladies and Gentlemen!

My thanks to Robert Johns, the Director of the Center for Transportation Studies, for inviting us to Minneapolis, and to the Honorable Congressman Jim Oberstar, America's leading bicycle advocate in the United State Congress, for his passionate commitment to bicycling.

I am very pleased to be here at the Oberstar Forum 2006 to introduce you to the bicycle capital of Germany: Muenster. We are located in the center of Europe, in northwest Germany, 400 km from Berlin and 200 km from the North Sea, and less than an hour away from our neighbors in the Netherlands.

First of all, let me introduce myself: My name is Dr. Berthold Tillmann. I'm the mayor of the City of Muenster, the most important city of the Muensterland region, with around 1.5 million residents, and which is famous in Germany for one thing above all: it's bicycle paradise.



Promenade in Münster

I'm accompanied today by my wife Cornelia and by our bicycle transportation expert, Stephan Böhme, who covers more than 4,000 km per year on his bike. As a weekend bicyclist, I have to admit without a grudge, that I can't quite keep up with my mountain bike.

We both would like to show you how Muenster manages to mobilize around 300,000 of its residents to conduct 35% of their total daily travel by bicycle. And on no account I am referring just to our 50,000 college and university students. Whether to work, to stores, to school, to the theater or just to have fun – the bicycle, or "Leeze" as we fondly call it, is the transportation of choice.

To give you a better perspective, I'll first give a brief account of the cornerstones of Muenster's urban development. Afterwards, a film portrait will offer a look at the cityscape before I present in detail our transportation management measures pertaining to the Leeze.

Ladies and Gentlemen,

As proud as we are: Bicycle transportation is just one piece of the mosaic of lasting urban development which earned Muenster the breathtaking title "Most liveable city in the world" in 2004. Around 450 cities competed for the international Liveable Community competition, called the Liv-Com Award of the United Nations' environmental program. In the category of medium-sized cities in the final round in Niagara Falls (so almost in your neighborhood), Muenster was able to surpass such competitors as Seattle/USA,

Changshu/China and Coventry/Great Britain – with top marks in all areas evaluated. And these coincided almost entirely with the priorities in our city:

- the improvement of the landscape
- the presentation of historical heritage
- an intensive public involvement
- living in awareness of the environment, where of course transportation plays a central role, and
- sustainable plans for the future.



Sustainability and holism have been issues for more than just a few decades. For both, citizens and elected officials, these issues are guidelines for urban development and have been so for generations, yes even for centuries.

Muenster looks back on more than 1200 years of history, and yet today, it is a classical example of a European city. Over the centuries, Muenster developed all things new and heterogeneous in awareness of its history – and that's reflected in the cityscape.

Yet, despite all of the history – Muenster is one of Germany's largest centers of science, and above all, a young city with around 50,000 students in 8 schools of university education. A strong wind of unconventionality and experimental joy sweeps through Muenster's old walls, and this has benefited our mobility for years.

Ladies and Gentlemen,

- without long-term and sustained urban planning,
  - without respect for a city grown out of history, and therefore not suitable for cars,
  - and especially, without the citizens who live here with pleasure and commitment, and for whom a healthy environment is part of the quality of life,
- Muenster wouldn't have become the outstanding city of bicycles in Germany.



So what does a city look like that has at least as many bicycles as residents? Take a look for yourself. With the following film, Muenster competed successfully for the global Liv-Com Award. (information about the film and possibility to download: <http://www.muenster.de/stadt/livcom>)

### 1. **So, Ladies and Gentlemen,**

if you watched the film carefully, you must have noticed one thing in particular: Muenster is flat. Additionally, only 24 km has to be ridden to travel from one end of the city to the other. I admit – those are ideal conditions for biking, and not just these days.

## 2. Transportation policy in Muenster

Muenster was established over 1200 years ago, and its spatial development corresponded with whichever means of transportation were available at the time. It was just horse and wagon in the beginning, later the railway was added. Today local trains transport 35,000 commuters to the city over a radial network of 8 routes. The city itself is served by the buses of the public transportation system. The proportion of bus and railway transportation is 11%.

Even before the beginning of motorization in the 20<sup>th</sup> century, the bicycle in Muenster was the most common means of transportation, as it was in many other German cities. After the Second World War, in which 90% of Muenster was destroyed, as you just saw, the city fathers passed a revolutionary resolution: Separate bike routes were to be built on the main thoroughfares, so that the multitude of bicyclists could no longer disturb the growing automobile traffic.

In the 1970's, the mobility discussion was rekindled about issues concerning the preservation of our basis of life and the environment. As a consequence, significant additional efforts were made in Muenster to promote the use of the bicycle in the city. This effort has been resoundingly successful, with daily motor vehicle and bicycle traffic in Muenster are nearly equal by now: The proportion of motor vehicle traffic in Muenster today is no more than 41%. Bicycles account for 35% of the total volume of traffic.



When such a large part of inner-city transportation is conducted with bicycles, there are clear advantages – and not only for the health of the bicyclist. With fewer roads needing maintenance, and no need to build new roads, our commitment to the bicycle is saving our city money.

But how do we motivate the citizens of Muenster to get on their bikes as often as possible? By ensuring that bicyclists in Muenster can travel safely, conveniently, easily and quickly – and that systematically.

## 3. Bicycle transportation as a system

To have a good bicycle transportation policy, it isn't enough to just build a few bike routes and then request that the citizens use their bicycles. Just as natural as it is for motor vehicle transportation to have parking spaces, signposting, repair shops and gas stations in addition to roads, corresponding service facilities have to be created for bicycle transportation. In Muenster we've often broken new ground in this respect, we've tried new things to make bicycling more pleasant. Many of these innovations were integrated later in technical regulations and laws throughout Germany

We concentrated on the following areas:

- Infrastructure
- Traffic safety
- Public relations

### 3.1 Let's deal with **infrastructure** first, in which I'd like to present the following topics:

- Bike routes, or should I say "bicycle streets," more on that later
- Intersections
- Bicycle transportation in traffic-calmed residential areas
- Parking facilities for bicycles

- Signposting for bicycle transportation

### Regarding bike routes:

In Europe, cities weren't created on the drawing board, but rather, they grew slowly according to the onion peel model. This resulted in a system of roads with an hierarchical structure, usually with radial thoroughfares leading to the city center – as in Muenster. On all of our thoroughfares, we have separate **bike routes** at sidewalk level. They are usually paved red, and with a width of 2 meters, they're broad enough for bicyclists to pass one another.

A few streets are marked only with a bicycle stripe on the pavement. This is less expensive and offers some advantages, but it's not as popular with the bicyclists.

Altogether, 275 km of such independent bike routes are available to the bicyclists. These are supplemented by over 300 km of agricultural roads, which stretch across the farming and foresting regions of Muenster. That's around 70% of the municipal area in the end. These so-called "Pättkes" are ideal for bicycling.



But back to city traffic. On some of the thoroughfares, we've created separate bus lanes to speed up the bus traffic. We've also allowed bikes to travel in these lanes when the speed differences are minimal. These two environmentally friendly means of transportation harmonize extremely well together.



As with motor vehicle traffic, the bicycle traffic from the suburbs becomes more and more dense in the direction of the city center. Accordingly, the bike routes should become increasingly wider to be able to manage the volume of bicycle traffic. Therefore, we've developed a system of major bicycle traffic axes in all directions. That means we've declared the streets in residential areas, where a maximum speed of 30 km per hour strictly applies, to be bicycle streets. These bicycle streets belong to bicycle traffic, while motor vehicle traffic is permitted secondarily.

Our most prominent bicycle street is the Promenade. Located today on the former rampart surrounding the Old Town is a 4.5 km long major loop for distributing bicyclists in all directions. This is not only a fast and safe connection for bicycle transportation, but also one of the loveliest routes. In some sections, over 1,000 bicyclists per hour have been counted.

In the historic Old Town of Muenster, as in all German cities, pedestrian zones were created. This limited the accessibility of the bicyclists – not very motivating. Therefore in low-density pedestrian zones, bicycles are allowed. The remaining pedestrian zones are released for bicycle traffic at night when the stores are closed. This opens up additional connections for bicyclists, and also provides a certain amount of social control.



Bicyclists should make their way into the city not only conveniently and directly, but also safely. Especially the **intersections** require our particular attention here. At all major intersections controlled by traffic lights, special allowances must be made for bicyclists. Only bicyclists turning right are allowed to move freely, whenever possible. Bicyclists headed straight-on have their own traffic light and usually a few seconds head-start, so that they're noticed better by the motor vehicle drivers.

Bicyclists turning left, however, have to cross of traffic, and therefore require

special attention. At major intersections, we guide them indirectly, that means, the bicyclists first cross the cross-street parallel to the motor vehicle traffic until they reach a waiting area in the street. Afterwards, they cross the main street before the traffic on the cross-street. This conducting of bicycle traffic is very safe, but also somewhat circuitous.

On side streets which turn into a main street at intersections controlled by traffic lights, we've developed a convenient solution for bicyclists turning left: the bicycle floodgate. For this, we mark an additional stop line approximately 10 meters in front of the actual stop line at the traffic light. The first line is for the bicyclists, the second one for cars. This creates a space in which 20 to 30 bicyclists can gather during a red light phase. When the light turns green for this direction, the bicyclists can cross the intersection in all directions, that means also directly to the left. The cars follow behind. That way, the car driver always has his eye on what's happening. An especially safe solution.



Depending on the situation, we also work with special green light phases for bicyclists at intersections or with induction loops, with which the bicyclists can call for their green light.

Between the main thoroughfares are the **residential quarters** or other destinations. The streets here are usually declared to be 30 km per hour zones, and therefore are quite suitable for bicycling. But in the 1980's, these residential quarters were traffic-calmed in order to secure the housing quality. Most often, one-way streets and loop systems were developed to keep out motorists trying to move quickly through these neighborhoods to beat traffic lights. For bicyclists, these detours are a real burden.



Therefore, we consistently opened dead-ends and one-way streets for bicycle traffic. We simply removed the one-way street arrow on one side, and added "bicycles allowed" to the "do not enter" sign. We call that a pseudo one-way street, a very safe solution for bicyclists, because the motorists and bicyclists can see each other approaching and get out of the way if necessary.

For newer expansions of town districts, we plan the street system in such a way that peaceful residential quarters are created. Additional attractive bike route connections offer the possibility of bicycling safely and directly, which in turn motivates further use of the bicycle.

But bicyclists don't only need attractive connections, they need a **parking place** for their bicycle as well.

Oh, well that's not hard to find, you say? For *one* bike maybe, but for thousands...? And even one bicycle is cumbersome to carry up and down the cellar steps when the car is parked conveniently in front of the door.



Therefore, the State-Government regulated by law that new buildings must provide parking places for bicycles. In apartment houses, for example, bicycle sheds or cages present themselves as a good solution, while individual solutions can be found for single occupancy houses. Often the bicycles are simply placed in the garage and the car is left outside.

In the meantime, many employers have also recognized the advantage of having many employees come to work on bicycles, and provide convenient and safe storage spaces. This holds true also for all public institutions, schools, universities, sport and leisure facilities.

So far I've shown you a few examples of how one or many bicycles can be stored well. But the real challenge was figuring out how to accommodate a huge number of bicycles attractively – at Muenster's central train station. Thousands of bikes are parked there daily.

Keep in mind that two-thirds of our commuters travel into Muenster. The bicycles they use to get around while in Muenster are left overnight and over the weekend at the train station. There they not only were exposed to theft and vandalism, but they also posed a real problem due to their sheer quantity. More than 4,000 bicycles were counted at the central train station alone.



Central train station before and after setting up the bike station in summer 1999

Of these, 3,300 have disappeared underground: in Muenster's bike station, which was set up under the main train station forecourt in a space-saving design. Good accessibility is provided by two ramps from both sides of the street and steps leading directly to the entrance of the train station. The bike station is open from 5:30 am to 11:00 pm, and besides safe storage, it also offers a bicycle workshop, a bicycle wash, and bicycle rentals. A parking place costs 70 cents per day, 7 euros per month and 70 euros per year. Today more than 6,000 bicycles are parked near the central train station, including in the bike station.

Such a manned operation is not possible at the smaller, peripheral train stations. There we've installed bike boxes or so-called bike cages. These are covered bike racks to which the bicycles can be locked. Long-term parkers with a monthly pass have free access via a key, and are thus able to store their bicycles safely.

Bus stops are also equipped with **bike racks**, some of which are also covered. That pays off, expanding the catchment area of a bus stop significantly. This is especially important in the suburbs.



Of particular importance is the parking of bicycles in the Old Town, where shopping and central institutions are located. Here is where bicyclists compete with streams of pedestrians, open-air cafés and store displays. Although we've already installed more than 8,000 bike racks downtown, these aren't nearly enough. On the other hand, we know that 40% of bicyclists come into the Old Town to go shopping – an important group. That's why we are promoting the mutual understanding and

consideration of one another among bicyclists and pedestrians.



The special attraction of bicycling is that a destination can be reached promptly and rapidly, while remaining as far away as possible from motor vehicles. That's why we've installed special bike route signposting. This signposting to various destinations is borrowed from the Dutch system. Meanwhile the signposting has expanded to all of North Rhine-Westphalia, and a special bicycle route planner is available.

Of course all of these facilities have to be maintained and repaired, but the expenses are much less than those for motor vehicle transportation. For example the bike routes have to be cleared of snow in the wintertime. For this purpose, we've acquired 14 special cleaning vehicles, because we have found that only 10 to 15 % of the citizens of Muenster leave their bikes at home during bad weather.

### 3.2 Traffic safety

The risk of accidents for bicyclists in Muenster is comparatively low. For instance in 2005 in Muenster, out of 370,000 bicycle trips daily, only 848 accidents were registered for the whole year. That's 9 % of all accidents corresponding to bicycle traffic proportion of 35 %. One third of all accidents are caused by cyclists themselves. Thanks to the good infrastructure in Muenster, human error on the part of the bicyclists themselves was the No. 1 cause of accidents.

That's why traffic safety work emphasizes primarily information and education. Driving school candidates are given special training so that they don't overlook bicyclists making turns. People new to Muenster are made aware of Muenster's bicycle traffic by the registry office, neighbors or work colleagues. Employees from the police and city administration explain to the bicyclists in person or through the media about the dangers and proper practices. Children in the 2<sup>nd</sup> and 3<sup>rd</sup> grades receive traffic lessons and learn how to act properly in traffic, also with a bike.



But without enforcement, this information and education wouldn't be very functional. The Muenster police department has organized a special group which travels around the Muenster area on mountain bikes and makes contact with the bicyclists in this way. They also make regular checks of bicycles in order to discover bikes which have been reported as stolen.

One problem is presented by the bicycle lights, which are often defective. Therefore we implemented a billboard campaign reminding cyclists about the importance of using lights. Furthermore we have started an education campaign. For instance, last year we were in a school and educated the children, while checking their bicycles at the same time.

Students and youths usually lack the money needed for repairs. To remedy this, we've set up a repair shop open to the public, where bicycles can be repaired by their owners under guidance.

### 3.3 Public relations

Besides the measures taken to spread traffic safety information, we also emphasize public relations, informative and image-building, in order to further promote bicycle transportation. The bicyclists are informed about news surrounding bike transportation through press releases and brochures. Posters advertise bicycling to different occasions. Every 2 years we organize a bike action day, to which all citizens are invited. Besides information, there's also fun activities, skill competitions and music.



Test reports and information are available on our website. There you can take a virtual bike tour to inspect the bike transportation facilities presented today.  
[http://www.muenster.de/stadt/stadtplanung/index\\_verkehr.html](http://www.muenster.de/stadt/stadtplanung/index_verkehr.html)

### 3.4 Economic importance

Infrastructure, traffic safety and public relations are also for the individual bicyclist tangible effects of systematic bicycle transportation planning. Yet for the City of Muenster there are other aspects which go beyond the pure advantages of transportation predominantly by bicycle:

- economic factor bicycle
- health promotion
- networking
- and of course the question of financing.

Regarding the keyword economic importance:

In Muenster there are about 40 bicycle stores, which means: one bicycle store for every 7,000 residents. That makes Muenster not only the leading city of bicyclists, but also the leading city of commerce and services associated with the bicycle. And there's even a mobile repair service, the Leezendoc, which comes to its customers in a car packed with replacement parts to get their bikes back on the road.

Because the bicycle is usually the fastest means of transportation in the inner city, not only the post office, but also more and more companies, offices, dental laboratories, social institutions, etc. rely on the 50 bicycle couriers with their red backpacks.



Muenster and the surrounding region is one of the most popular destinations for bike tourism. One million overnight stays a year are attributed to bicycling tourists alone. That doesn't include the 12 million day-trippers who appreciate the bike transportation infrastructure in the "Muenster Region Bicycling Park." The hotel and restaurant trades have adapted to the special needs of bicyclists. 4,500 rental bikes, 715 of which alone are in Muenster, are available to the day-trippers. So it's no wonder that an annual profit of approximately 290 million euros is made in this sector, and thereby 6,000 jobs are secured directly or indirectly by bike tourism.



### 3.5 Health effects



Bicycling keeps you in shape and has a positive influence on the body, soul and mind. For instance, regular bicycling exercises the cardiovascular system, lowers high blood pressure, strengthens the immune system – and that even into old age. But even the youngest profit from bicycling. Bicycling trains the sense of balance, improves the ability to concentrate, and promotes the sense of orientation. Children who ride their bikes regularly, are seldom overweight and relieve their parents from having to drive them around so much.

### 3.6 Partnership for the sake of bike transportation

Good ideas need good PR and they should be allowed to be copied. Muenster relies on networking not only to get people on their bikes, but also to implement and spread such ideas. For years, we've been an active member of the "Working Committee for Bicycle-Friendly Cities and Communities in North Rhine-Westphalia," <http://www.fahrradfreundlich.nrw.de/> an association of 36 cities and communities in our federal state which have dedicated themselves to the promotion of bike transportation. In the meantime, the working committee is renowned far beyond the borders of North Rhine-Westphalia, and its collaboration in the implementation of the Federal Government's 1<sup>st</sup> National Bicycle Transportation Plan serves as an example.

### 3.7 Financing

No question about it: Bicycle transportation is the most economical form of transportation in the inner city. Every bicyclist relieves the streets and makes room for necessary motor vehicle traffic. It's inconceivable what it would be like if even half of the bicyclists in Muenster came into town with cars. That's why the city invests approximately 2.50 euros per resident annually in bicycle transportation, and for special measures such as the construction of the bicycle station, it can be much more sometimes. The state of North Rhine- Westphalia supports measures for the promotion of bicycle transportation by up to 70 %, but the funds available are unfortunately not sufficient to realize all of our ideas right away.

## 4. Everyone rides a bike

Ladies and Gentlemen,

We in Muenster experience daily how a city profits from as many people as possible riding their bikes as often as possible. That's why we will continue to rely on a systematic development of bicycle transportation and – promotion.

Now don't go telling me: "You've got it good, it's so nice and flat there." I'm willing to admit that it's not exactly a disadvantage for bicycle transportation. But I'll bet my mountain bike with you that: even if Muenster would lie on seven hills, students and officials, concert-goers and window-shoppers, children and grandmothers alike would still be on their bikes summer as well as winter. We don't ride our bikes because of convenience, but rather out of conviction – that's also why Muenster is such a liveable community and a nice place to call home.

So, consider yourselves cordially invited by the Mayor of Muenster himself: come for a visit and convince yourself.

I hereby cordially invite you: Come for a visit and convince yourself.

