Section 02: Local transport

2 A. Current situation

Around 574,000 residents live in the City of Essen, in an area of 210 km². With a population density of approx. 2,700 people/km², the City of Essen is part of the high-density Ruhr Metropolis conurbation, with its many interwoven transport links.

The urban structure of the region has above all been characterised by industrialisation and the northward migration of coal mining. From the beginning of the 19th century, a characteristically rural settlement structure rapidly transformed into an urban structure characterised by aspiring industrial companies, coupled with a dramatic increase in population. Land was opened up for industrial facilities and transportation systems, workers’ settlements were built, and continue to affect the urban structure to this day.

After the Second World War, Essen was rebuilt for use with cars, often without designating space for cycling or local public transport. This history of development can also be seen in the mobility data from the population. When choosing a means of transport, approx. 54% selected cars; signs of a change in the trend can now be seen. In 2001, the proportion of people cycling was at 3%, and is now at 5%.

The proportion using local public transport has risen by around 3% in the last ten years, up to 19% (1). The traffic situation is also significantly affected by the numbers of commuters, approx. 140,000 incoming commuters and approx. 88,000 outgoing commuters characterise the traffic volume on weekdays (2).

Transport systems and indicators

Essen has 17 km of cycle roads and 89 km of cycle paths (cycle lanes and pavement cycle paths). Of these 89 km of cycle path, 81 km are present on both sides of the road, and 8 km only in one direction. In addition, 7 km are marked on both sides with protective strips, and there are 21 km of approved pedestrian and cycle paths to cycle on.

Including the cycle roads in side streets, the Essen road network has a total of around 110 km of cycle paths. this equates to 0.19 metres of cycle path per resident.
A further 262 km of cycle paths are present in green areas, away from the roads, as joint foot paths and cycle paths. With some overlaps, there are signposted cycle routes for leisure cycling over a length of approx. 150 km.

The facilities for local public transport are divided into:

- Regional rail transport, [authority: Verkehrsverbund Rhein-Ruhr (VRR) administration association], which covers RegionalExpress, RegionalBahn and S-Bahn trains, and connects Essen with neighbouring cities; the S-Bahn also performs important access functions within the city,

and

- the road-bound local public transport, which in turn is divided into the day network and the night network. The day network runs three metro lines, seven tram lines, and 45 bus lines. From 11:30 p.m. each evening, the system switches over to the night network, with 18 bus lines and 20 taxi-bus lines.

A total of 44% of the population is directly connected to the municipal rail transport. Around a third of all residents are only accessible by means of the bus network. The accommodations of 77.3% of the population are within a 300-metre radius of a local public transport stop that is served at intervals of between 5 and 60 minutes.

The local public transport system is supplemented by 2 citizens' bus lines run by volunteers in the district areas of Haarzopf and Kettwig. These are organised under the motto "driven by citizens for citizens", and provide access to areas on the edge of the city (see Fig. 2.2).
54% of all journeys made by the population are shorter than 5 km; this includes all modes of transport. The proportion of private car journeys that are under 5 km is approx. 39% (29% car drivers and approx. 10% passengers).

59% of the bus fleet of EVAG and 29% of private bus fleets comply with the EEV (Enhanced Environmentally Friendly Vehicle) / EURO 5 or 6 exhaust gas standard, making up 57% of all buses (235 buses).

Since 2010, an additional hybrid bus has also been in use.

Approx. 60% of local public transport services are provided by trams or suburban railways running on electricity.
The Rhine-Herne canal also connects Essen to national and international inland shipping routes. Loading and unloading are performed in the city harbour. This is an important incoming bulk goods and general cargo loading point for businesses and industry from Essen, Oberhausen, Bottrop and Gladbeck. Around 1 million tonnes of ship cargo are loaded and unloaded every year. A trimodal logistic model ensures seamless transport processes, thanks to the direct connection of the harbour to road, rails and the shipping routes.

Fig. 2.4: Rhine-Herne canal in Essen (source: Stadtbildstelle Essen)

2 B. Results achieved in the past

Essen’s investigations into mobility over the last 20 years show that the shifts towards local public transport and a growth in cycling are taking place as part of ecomobility. The number of pedestrians is falling. There are no major changes in car use taking place within the city (see Fig. 2.5). Currently at 54%, the proportion of people using private cars remains at a steadily high level (1).

Fig. 2.5: Development of chosen means of transport (all journeys) in Essen according to surveys in 1989, 2001 and 2011 in% (source: Essen Household Mobility Survey 2011, City of Essen 2012)
In order to support these positive trends in chosen means of transport, and to split up the solid block of private car use, extensive measures have commenced in recent years.

These include in particular numerous individual projects for supporting the transition to local public transport:

- **Construction of a new line section for tram line 109**
  Track length approx. 1.4 km, commissioning 20 October 2014, investment volume approx. € 12 million (see Fig. 2.12)

- **Introduction of a night-time bus network**

- **Bus fleet 100% low-floor; progressive changeover to EEV standard**

- **Partial acceleration of tram routes using light signal systems**

- **Barrier-free redesign of approx. 76 bus stops and approx. 16 tram stops, and larger interchange points, e.g. the traffic transport interchange at Steele**

- **Refurbishment of the central station and surroundings, and construction of the central bus station and long-distance bus station.**

![Fig. 2.6: Central bus station at central station (source: Stadtbildstelle Essen)](image)

- **Setting up the 107 tram line as a so-called "Culture Line" for the European Capital of Culture 2010**

- **Setting up the "Lake Line" and a free museum bus for major exhibitions at the Folkwang Museum**

- **Free escort service on local public transport for persons with restricted mobility since 2005 (from 7:30 a.m. - 7:00 p.m.)**

- **Introduction of discounted company tickets.**
  Today, around 18,430 employees in 130 companies claim company tickets.

- **Bus training courses for seniors 50+ and children;**

- **Mobility guarantee for delays > 20 min. free taxi use possible, or long-distance train use with Deutsche Bahn**

- **Expansion of dynamic passenger information at local public transport stops**
• Construction of a local public transport signposting system in Essen city centre

• Introduction of the City of Essen Newcomer Package, with a 7-day EVAG ticket voucher, and car-sharing and bicycle rental vouchers for new residents of the city

• "Flexible mobile" campaign

The services of EVAG bring together bus, tram and train, car-sharing and rental bicycles on a single season ticket, and offer flexible combination options.

Fig. 2.7: Flyer for the "flexible mobile" campaign (source: EVAG 2014)

As a bonus for EVAG season ticket holders, it includes 30 min. free rental bicycle use, and discounts with the car-sharing providers Stadt Mobil and Ruhrauto-e.

A total of 91 car-sharing vehicles are available at approx. 33 stations. A further car-sharing company is close to its market launch, with a further 35 vehicles.

Car transportation traditionally has a high local value in the Ruhr Area, and the plan is to reduce this through targeted measures. In recent years, this has particularly comprised the following approaches:
• **Participation in the dena project "efficient mobile"**
  In particular businesses and municipalities should use the means of mobility management ¹ to targetedly motivate their employees and citizens to move away from private cars to use more energy-efficient means of transport.

• **Participation in the MobilProFit project**
  The target is to introduce a regional network of business-based mobility management in selected companies, in order to support sustainable mobility planning, and to establish quality standards for business-based mobility management.

• **Setting up residents’ parking zones**
  (city centre, East district, Museum and Stern district)

• **Setting up a digital car-park routing system in the city centre**
  The car-park routing system uses over 120 dynamic signboards to control the flow of vehicles to 12,000 parking spaces.

• **Pendlerportal.de for forming car pools using a shared internet portal covering 30 cities and administrative districts in North Rhine-Westphalia**

• **Setting up a Ruhr Area LEZ**
  In order to comply with the objectives of the Clean Air Plan, a continuous, large-scale Ruhr Area LEZ was set up with effect from 01 January 2012. After 01 July 2014, only vehicles with green emissions stickers will be permitted to drive in the Ruhr Area LEZ.

The package of measures for promoting cycling has been composed of various modules over recent years.

The City of Essen is a member of the Working Committee for Cycle-Friendly Cities, Communities and Districts. In April 2010, a decision was made to create the main cycle route network in its current form. This includes the main arteries for cycling, which connect the city districts with the city centre and one another, and integrates the regional routes for the North Rhine-Westphalia cycle route network.

A supplementary network increases the density of the main route network on a city district level, and links the neighbourhoods with one another. In recent years, there have been major city planning and transport system changes in Essen, and these have also had lasting effects on the main cycle route network.

Of these, the following are particularly noteworthy:

- Project development “ESSEN.New ways to the water” ¹
  (see also chapter "Municipal green areas")
- Conversion of former railway trails into foot and cycle paths
- Ongoing development of urban development projects
  (e.g. University district, Kupferdreh, Krupp Belt, Niederfeld Lake) with connecting cycling paths and connection to the cycle route network

¹ Mobility management can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
There are diverse smaller projects and the following major projects ongoing for the further development of the cycle network:

<table>
<thead>
<tr>
<th>Project / cycle route</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zollverein</td>
<td>6.9</td>
</tr>
<tr>
<td>Nordstern path</td>
<td>5.0</td>
</tr>
<tr>
<td>Berne route</td>
<td>8.7</td>
</tr>
<tr>
<td>Water route</td>
<td>18.0</td>
</tr>
<tr>
<td>City route</td>
<td>18.0</td>
</tr>
<tr>
<td>Nature route</td>
<td>16.0</td>
</tr>
<tr>
<td>Rhine Rail + Borbeck connection</td>
<td>6.6</td>
</tr>
<tr>
<td>Gruga trail</td>
<td>11.4</td>
</tr>
</tbody>
</table>

At the addresses: www.neuewegezumwasser.de/essenerfahren/index.html, www.essenerfahren.de/raderlebnis.html and www.perpedal.essen.de, details of the individual projects and cycling facilities can be accessed.

Thus e.g. in the years 2006 to 2013, approx. € 694,000 was invested in cycling paths over a total length of approx. 14,000 m. Within the framework of the project "ESSEN.New ways to the water", approx. € 10.8 million was invested.

A further project is the approval of 267 one-way streets for cycling (3).

It is also planned for the positive developments in cycling to be supported by the successful installation and ongoing development of the Metropolrad bicycle hire system.

The public bicycle rental system "metropolradruhr" is Germany's largest bicycle hire system, and was established in Essen and nine other Ruhr Area municipalities within the framework of a model project specially funded by the Federal Ministry of Transport, Building and Urban Development. In Essen there are 52 automated rental locations with over 400 bicycles in operation.

The bicycle rental system was deliberately set up at busy local transport stops, in order to make changing between the bus / tram / train and the rental bicycle easier. The intermodal use aspired to is intended to strengthen both cycling and local transport, and to offer mobility alternatives.

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2 metropolradruhr can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
3 Intermodal mobility can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
Through the continuous expansion of the station system and numerous marketing campaigns in the last year, the utilisation figures have risen from 5,600 (2011) to 17,705 (2013) (see Fig. 2.9):

**Metropolradruhr – Bike rental at Essen locations**

![Graph showing changes in Metropolradruhr rental figures in Essen](image.png)

**Fig. 2.9: Changes in Metropolradruhr rental figures in Essen**

**Most effective campaigns**

The most effective campaigns in local transportation include the aforementioned steps to strengthen and secure the local public transport services and infrastructure. Despite a drop in the population of Essen, the number of passengers using local public transport has increased.

While in 2011 still 122.8 million passengers used local transport, by 2013 this had risen to 124.1 million passengers. Approx. 340,000 journeys are made daily.

Alongside the further development of the cycling infrastructure, three new north-south routes have contributed to the rise in cycling, as have east-west connections expanded together with the Regionalverband Ruhr (RVR), the former train route from Mülheim towards the Ruhr valley, and the Rhine Rail route.

Also very effective was the opening of 267 one-way streets for cyclists. This improves the effectiveness of the cycle network, and improves access to neighbourhoods and residential districts.
Inclusion of interest groups

The inclusion of interest groups generally takes place on a project-specific basis. Major planning projects, such as the Essen-Werden transport concept, include a citizen's information process as an established component. Comprehensive civic participation⁴ likewise took place during the Essen.2030 strategy process (see chapter 12c).

Online, at local events in the districts, and at special appointments, interested parties introduced their concerns e.g. in relation to transportation topics. In the working committee for cycling, representatives of the interests of cyclists and employees of the administration get together for consultation meetings.

In the working committee for "barrier-free local public transport", the disability associations and the responsible employees of the city administration discuss current developments and requirements in local public transport under the supervision of EVAG. In addition, there are meetings with the passengers' association Pro Bahn on local public transport-related issues in the city, and transportation themes are also discussed with the environmental round table in a fixed series of sessions. EVAG has been issuing invitations to a customer forum twice per year since 2012, at which around 60 passengers have the opportunity to discuss local transport in Essen with representatives of the company.

2 C. Future plans

In deriving its transport policy objectives, the City of Essen utilises the Regional Land Use Plan 2009, which provides the conceptual basis for action. For reasons of Essen's location in the Ruhr conurbation, and other transportation interconnections, regional target models are of particular importance for solving transportation problems.

Specifically, two principles can be formulated (4):

- **Principle 41: Ensure mobility and increase the proportion of ecomobility**
- **Principle 42: Traffic reduction / relocation / optimisation**

In order to be specific on a local level, target figures were defined separately for the individual modes of transport. Starting from the household surveys of the past years, in future modal split values should be achieved in stages:

<table>
<thead>
<tr>
<th>Mode</th>
<th>1989</th>
<th>2001</th>
<th>2011</th>
<th>2020</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local public transport</td>
<td>12%</td>
<td>16%</td>
<td>19%</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>MPT</td>
<td>55%</td>
<td>54%</td>
<td>54%</td>
<td>44%</td>
<td>25%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>4%</td>
<td>3%</td>
<td>5%</td>
<td>11%</td>
<td>25%</td>
</tr>
<tr>
<td>On foot</td>
<td>29%</td>
<td>27%</td>
<td>22%</td>
<td>23%</td>
<td>25%</td>
</tr>
</tbody>
</table>

![Fig. 2.10: Modal split development and target values for proportions of journeys in the City of Essen / * MPT = motorised private transport](image)

⁴Civic participation can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
For purposes of supporting the defined targets, the following activity areas are pursued:

1. **Reduction of overall demand for transportation**

**Retail Master Plan 2011**

The objective is to retain the more evolved retail structures of the city centre and the district centres, in order to counteract the negative effects of the traffic volume (5).

**Truck route planning within the framework of the Ruhr Area Clean Air Plan**

More city-friendly navigation for trucks is being identified within the Ruhr Metropolis (6).

2. **Reduction of motorised private transport (people and goods)**

**Feasibility study Essen North**

The feasibility study identifies fundamental potential for emission reductions through traffic-planning measures (7).

**Research project: "New transportation concepts for the city of the future"**

The project identifies new mobility options and intelligent networking of existing modes of transport for sustainable mobility (8).

3. **Promotion of active means of transport (walking, cycling), more efficient public transport, and CO\textsubscript{2}-free city logistics**

**Cycling projects**

- Further development of the everyday route network  
  (Construction programme for cycling 2020; 500,000 €/a)
- Expansion of cycle trails
- Improvement of the cycling infrastructure  
  (part of the resurfacing programme 2013-2018)
- Public relations for events (ongoing)  
  ("Stadtradeln" campaign, City of Essen cycling calendar)
- Publication of print products
- Setting up the Kupferdreh cycle station and the connecting tunnel at Kettwig railway station  
  (application for funding has been filed)
- Feasibility study for the 100 km Ruhr fast cycleway\textsuperscript{6}  
  (Track planning for the connection of eight Ruhr Area cities between Duisburg and Hamm, cost-benefit analysis, communication concept).

  The pilot project is intended to promote the shift from cars to bicycles, contributing to traffic decongestion through a new form of everyday cycling.

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\textsuperscript{5} CO\textsubscript{2} balance calculation can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12

\textsuperscript{6} Ruhr fast cycleway can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
Pedestrians

- Further development for "City of short journeys"
- District planning
- Expansion of barrier-free accessibility
- Increasing pleasantness of streets

Contribution of local public transport

- Further development of the tram line network. This covers the central station tangents, with direct connection to the Steele district, and opening up the Krupp Belt via Berthold-Beitz-Boulevard (see Fig. 2.12).
Fig. 2.12: Tram concept 2015, with the route of line n.n. (source: EVAG 2014) / (Explanation see 2 D)

- Procurement of 27 low-floor trams (delivery starting in 2014, investment volume approx. € 67 million)

- Extension of tram line 105 towards Oberhausen "Neue Mitte". (length 3.7 km, of which 300 m in Essen) (cf. Fig. 2.12), investment volume approx. € 80.5 million
• Barrier-free expansion of 15 tram stops by 2019, investment volume approx. € 23 million

• Programme for the barrier-free extension of bus stops (1.1 million €/a)

• Conversion of traffic light systems to accelerate local public transport (2 million € / 2014-2017 ff)

• Start of the local public transport quality management system in 2014

• Partnership project between the local transportation companies Essener Verkehrs AG, Duisburger Verkehrs Gesellschaft-AG and Mülheimer Verkehrs Gesellschaft through a joint venture company, Via-Verkehrsgesellschaft. Via performs the entire operational local transport business.

• RheinRuhrExpress (RRX)\textsuperscript{7}: the RRX is the largest transportation project in North Rhine-Westphalia. In future, an RRX will travel the key route between Cologne and Dortmund every 15 minutes. The will create a more tightly scheduled and time-saving rail service, as well as the necessary expansion of the railway infrastructure, facilitating improved operational performance on the high-demand Rhine-Ruhr corridor between Dortmund and Cologne via Bochum, Essen, Mülheim an der Ruhr, Duisburg and Düsseldorf. With a maximum speed of 160 km/h, the journey times will be comparable to those of the long-distance railway.

\textsuperscript{7} RRX can also be found in sections 1|2|3|4|5|6|7|8|9|10|11|12
The investment requirements for systems, buildings, vehicles and operating equipment within the Essen local public transport system for the years 2013–2017 stands at approx. € 234 million, and is anchored in the financial planning of the company.

In order to finance the local public transport, the City of Essen makes an annual contribution in the order of approx. € 75 million through the loss adjustment process.

The current range of regional rail transport is funded by the City of Essen with an annual allocation of approx. € 1.6 million, alongside approx. € 1.4 million for services of the transport association and other operators.

**Intermodal mobility**

This is a key project of the *Essen.2030* strategy process, and covers the networking and further development of urban mobility services from door to door. The environmental alliance (local public transport, walking and cycling) is to be expanded by modules for car-sharing / bike-sharing.

A major element is the development of mobility stations, distributed around the municipal area, where all transportation options are clustered together, where new possibilities can be created and transfers simplified.
4. Promotion of environmentally friendly technologies, fuels (including renewable energies), codes of conduct and practice for passenger and freight transportation

**Electromobility**

- **Electric car charging infrastructure**
  In the municipal area there are currently approx. 40 charging stations supplying around 80 car parking spaces. The number is continuously being increased.
• **RUHRAUTOe project**
  Mobility concept with 20 electric hire cars, forming a car-sharing network with 11 locations in residential areas and in the city centre of Essen (9).

• **e-bike**
  Cycle stations at central station and in Kupferdreh provide 15 e-bikes for rental. There are currently 12 charging stations accessible within the municipal area. The range of locations is to be continuously expanded.

**Updating the vehicle fleet of the local public transport system**

Around 50 of the remaining Euro III vehicles of EVAG are to be retrofitted with SCRT filter systems, increasing their exhaust gas classification to EEV standard. Further buses will again be purchased, starting in 2017.

5. **Acceptance and implementation of the plans for sustainable municipal mobility plans, and other integrative approaches**

The Council of the City of Essen asked the administration at the end of 2011 to draw up an Integrated Transportation Plan. The individual modes of transport had hitherto been treated as separate sectors, e.g. local public transport in the local transport plan, which will be developed further in Autumn 2014.

The Regionalverband Ruhr (RVR) is currently working on a new Regional Plan for the Ruhr Area; this plan will identify objectives and principles for the development of regional transportation.

6. **Reduction of traffic jams and improvement of regional mobility flow.**

Traffic jams within the municipal area of Essen predominantly affect the highways and sections of autobahn passing through, and the following measures are used:

- 10 access limitation systems at autobahn on-ramps
- Closing an on-ramp during the morning hours
- Control programs for the traffic lights
- Traffic information using the signs of the car-park routing system
- Ruhrpilot traffic management system
- Banning trucks from access roads during certain time windows

2 D. References

**EVAG customer satisfaction measurement**

Surveys of the satisfaction of individual user groups with the local transport services are only available for the local public transport. EVAG performs a customer satisfaction measurement every two years, in which questions are asked about characteristics of the service, and changes can be inferred. Overall satisfaction is determined as an indicator. The subsequent analysis also leads to the development of measures to increase customer satisfaction.
The last customer satisfaction measurement shows an increase in passengers of EVAG who are very satisfied with the services of the company.

The customer satisfaction survey 2014 is currently being evaluated. On the basis of 1,022 random samples, 31 individual criteria are being analysed. Results are expected in autumn 2014, with results anticipated at a similar level to 2012.

Notes:

(1) Essen Household Mobility Survey 2011, City of Essen, 2012
   http://www.essen.de/de/Leben/Verkehr/haushaltsbefragung_zur_mobilitaet.html

(2) Regionalverband Ruhr, Unit 3, as of: July 2013, based on the new commuter calculations for 2011 from the State Enterprise for Information and Technology of North Rhine-Westphalia

(3) Essen city map (KV-Verlag) and official cycle map 2013: http://www.adfc-nrw.de/kreisverbaende/kv-essen/service/radkarten/fahrradstadtplaene.html

(4) Regional Land Use Plan, Ruhr Municipal Region Planning Group, 2009
   http://www.staedteregion-ruhr-2030.de/cms/allgemein_2.html

(5) City of Essen, Retail Master Plan 2011
   http://media.essen.de/media/wwwessen.de/aemter/61/dokumente_7/aktionen/masterplan_einzelhandel/Masterplan_Text.pdf
(6) Ruhr Area Clean Air Plan 2011 – Western section, Regional Government of Düsseldorf
http://www.brd.nrw.de/umweltschutz/umweltzone_lufterinhaltung/pdf/Internetfassung_LR_P_Teilplan_West_korr_1.pdf

http://www.lanuv.nrw.de/veroeffentlichungen/fachberichte/fabe41/fabe41.pdf

(8) Mercator Foundation project, New mobility for the city of the future, Essen 2013
http://www.stiftung-merca-tor.de/media/downloads/3_Publikationen/Newe_Mobilitaet_fuer_die_Stadt_der_Zukunft_Gesamtergebnisse.pdf

(9) Project for electromobility in the Ruhr metropolis:
http://www.ruhrauto-e.de/

(10) Green Centre of Essen
http://www.gruene-mitte-essen.de/startseite/

(11) Nature Line 105
http://www.naturlinie105.de/naturlinie-105/

(12) Explanation Fig. 2.12

<table>
<thead>
<tr>
<th>GERMAN</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erschließung Krupp-Gürtel durch das neue Straßenbahnkonzept 2015</td>
<td>Opening up the Krupp Belt with the new Tram Plan 2015</td>
</tr>
<tr>
<td>Linie xxx</td>
<td>Line xxx</td>
</tr>
<tr>
<td>Neubaustrecke Linie 109 (Fertigstellung 20.10.2014)</td>
<td>Newly built route Line 109 (completion date 20 October 2014)</td>
</tr>
<tr>
<td>Linie n.n.</td>
<td>Line n.n.</td>
</tr>
<tr>
<td>Hauptbahnhofstangente</td>
<td>Central station tangents</td>
</tr>
<tr>
<td>Krupp-Gürtel</td>
<td>Krupp Belt</td>
</tr>
</tbody>
</table>

(13) Explanation Fig. 2.15

<table>
<thead>
<tr>
<th>GERMAN</th>
<th>ENGLISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilstation Bahnhof Essen-Sued</td>
<td>Mobility station at Essen-South rail station</td>
</tr>
<tr>
<td>Car-Sharing</td>
<td>Car-sharing</td>
</tr>
<tr>
<td>Taxi</td>
<td>Taxi</td>
</tr>
<tr>
<td>Fahrradabstellanlagen</td>
<td>Bike racks</td>
</tr>
<tr>
<td>Dynamische Fahrgastinformation</td>
<td>Dynamic passenger information</td>
</tr>
<tr>
<td>Zugang zur S-Bahn Station</td>
<td>Access to suburban rail station</td>
</tr>
<tr>
<td>Straßenbahnhaltetestelle</td>
<td>Tram stop</td>
</tr>
<tr>
<td>Bike-Sharing Station</td>
<td>Bike-sharing station</td>
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<tr>
<td>Radfahrstreifen</td>
<td>Cycle lane</td>
</tr>
<tr>
<td>Fußgängerverwege</td>
<td>Pedestrian overpasses</td>
</tr>
<tr>
<td>Radboxen</td>
<td>Bicycle boxes</td>
</tr>
</tbody>
</table>
2 E. Good practice

A. Brownfield development

For the sustainable avoidance of traffic, the City of Essen consistently promotes brownfield development. Many recent urban development projects indicate this, such as the "Green Centre of Essen", University district" (10).

The Green Centre is a new district between the core city centre and the university (see Fig. 2.17). It combines housing, work and leisure on a former freight station location. In the immediate vicinity are a central local public transport station and access to the Rhine Rail cycle trail, and shopping facilities and cultural attractions are within walking distance.

B. Marketing activities of the local public transport company, Nature Line 105

With the target of generating leisure journeys for the local transport system, EVAG is marketing Nature as a theme for local public transport. The newly created brand "Nature Line 105" opens up special green spaces along its track and draws attention to attractions.

The Nature Line is based on the role model of the Culture Line 107. Both products pursue the objective of improving the image of local public transport.