

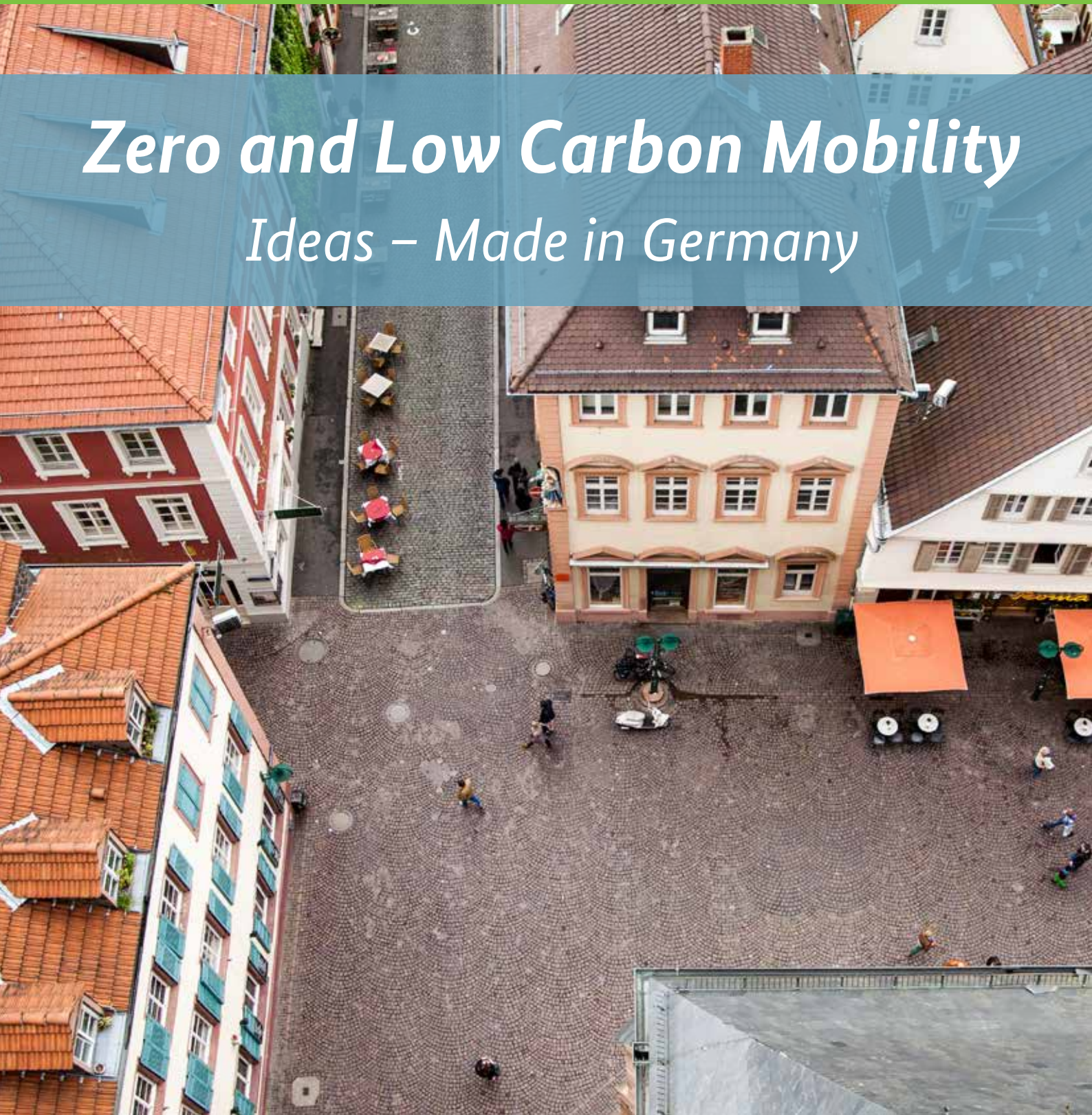


German Partnership for Sustainable Mobility

Sustainable Mobility – Made in Germany

WWW.GERMAN-SUSTAINABLE-MOBILITY.DE

Zero and Low Carbon Mobility *Ideas – Made in Germany*



The German Partnership for Sustainable Mobility (GPSM)

The German Partnership for Sustainable Mobility (GPSM) is serving as a guide for sustainable mobility and green logistics solutions from Germany. As a platform for exchanging knowledge, expertise and experiences, GPSM supports the transformation towards sustainability in developing and emerging countries. It serves as a network of information from academia, businesses, civil society and associations.

The GPSM supports the implementation of sustainable mobility and green logistics solutions in a comprehensive manner. In cooperation with various stakeholders from economic, scientific and societal backgrounds, the broad range of possible concepts, measures and technologies in the transport sector can be explored and prepared for implementation.

The GPSM is a reliable and inspiring network that offers access to expert knowledge, as well as networking formats. The GPSM is comprised of more than 100 reputable stakeholders in Germany.

The GPSM is part of Germany's aspiration to be a trailblazer in progressive climate policy, and in follow-up to the Rio+20 process, to lead other international forums on sustainable development as well as in European integration.

Integrity and respect are core principles of our partnership values and mission. The transferability of concepts and ideas hinges upon respecting local and regional diversity, skillsets and experiences, as well as acknowledging their unique constraints.

Paris Process on Mobility and Climate

The German Partnership for Sustainable Mobility (GPSM) is a member of the PPMC, an open and inclusive platform that supports effective action on transport and climate change. The PPMC is created to strengthen the voice of the sustainable transport community in the UNFCCC process, especially with a view to the upcoming Conference of Parties (COP21) in December 2015 in Paris. COP21 is expected to result in a new global agreement on climate change, which will shape climate policy in the years to come at a global, regional and national level. By bringing together different actors and stakeholders in the sustainable transport community it will be possible for the transport sector to have its voice heard and speak with one voice on the important contribution that sustainable mobility can make to the mitigation of, and adaptation to climate change.



PARIS PROCESS
ON MOBILITY AND CLIMATE

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Reduction of CO₂ Emissions in Transport in Germany

At the 2015 Paris Climate Summit, the Conference of Parties (COP21) will negotiate a legally binding and universal agreement on climate change. As the transport sector is among the greatest producers of energy-related CO₂ emissions it must be addressed if a 2-degree global temperature rise scenario is to succeed. An integrated approach in the transport sector that combines modern technology and low-tech solutions can potentially meet considerable reduction targets.

The tremendous growth of motorised transport poses a challenge to sustainable development worldwide. The transport sector produces 23% of global energy-related CO₂ emissions – the second highest share - and is the fastest-growing sector in terms of greenhouse gas emissions. Most emissions currently come from industrialised countries, but significant growth is expected in developing countries. These two alarming trends require urgent action and sustainable mobility solutions.

Germany's Climate Action Programme

In Germany, the transport sector accounts for almost 20% of all greenhouse gas (GHG) emissions, 95% of which are emitted by road transport. The Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) has developed a comprehensive strategy to tackle this issue on behalf of the German Federal Government. With the Climate Action Programme 2020 it has set the ambitious goal to reduce GHG emissions by 40% by 2020 relative to 1990 levels. The programme mentions concrete reduction potentials and measures. As for transport, the proposed measures have the capability to reduce the GHG emissions in the sector by 7 to 10 million tons CO₂ equivalent by 2020.

Germany's core approach for sustainable mobility is the “avoid-shift-improve” approach. Avoiding transport demand is tackled through integrated urban and spatial planning. Mode shifting can be achieved through concrete monetary measures. Car taxes and road charges for trucks play a significant role. The programme also addresses the strengthening of public transport and rail freight as well as other sustainable modes such as walking and cycling as further actions for a shift towards sustainability.

Concrete measures to improve transport-related emissions include fuel economy regulations and air quality standards. The diffusion of electric mobility and the development of other alternative fuels are keys to reach long-term reduction goals. With the upcoming Climate Action Programme 2050, the strategy will be carried forward and further elaborated for long-term action.

Climate-Friendly Innovation - Made in Germany

With its extensive climate protection strategy, Germany has provided a fertile framework for innovation. Many diverse mobility solutions have been developed and implemented by German companies, cities and initiatives. This brochure presents ten hands-on approaches to climate-friendly mobility and green logistics. It includes concrete projects in the areas of urban passenger and freight transport, covering:

- *integrated and sustainable mobility concepts (mobility stations, Match Rider, smartPORT & cargobikes),*
- *effective promotion (city cycling),*
- *innovation in technologies (eBus & eHighway),*
- *smart assessment (PTV, EUREF campus)*

While this selection is not meant to be comprehensive, it may provide new ideas and inspiration to utilise smart mobility solutions to reach substantial GHG emission reduction in the transport sector – made in Germany, but applicable worldwide.

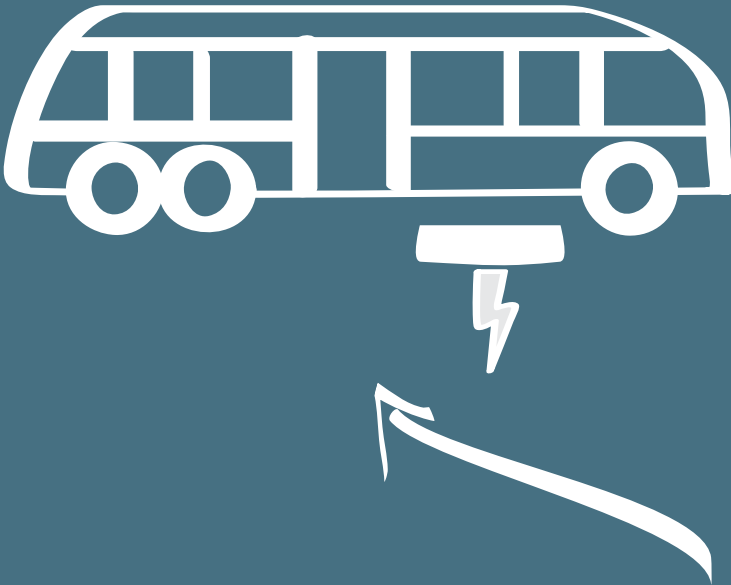
One of the central aims of the German Partnership for Sustainable Mobility (GPSM) is to bring together a broad range of expertise from various involved stakeholders. Initiated by the Federal German Ministry for Economic Cooperation and Development (BMZ) and the Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the GPSM serves as a guide to sustainable mobility and green logistics solutions from Germany. As a platform for exchanging knowledge, expertise and experiences, GPSM supports the transformation towards sustainability in developing and emerging countries.

The German Partnership for Sustainable Mobility bundles companies, research institutions and civil society around the topic of climate-friendly mobility, fostering sustainable development paired with CO₂ mitigation.

Urban Passenger Transport

Recognising the challenge of rapid urbanization, motorization and air pollution, metropolitan areas worldwide seek for solutions for their overloaded transport systems. There are plenty of zero and low carbon mobility solutions for moving people in cities. Sharing has become a major driver of sustainable development.

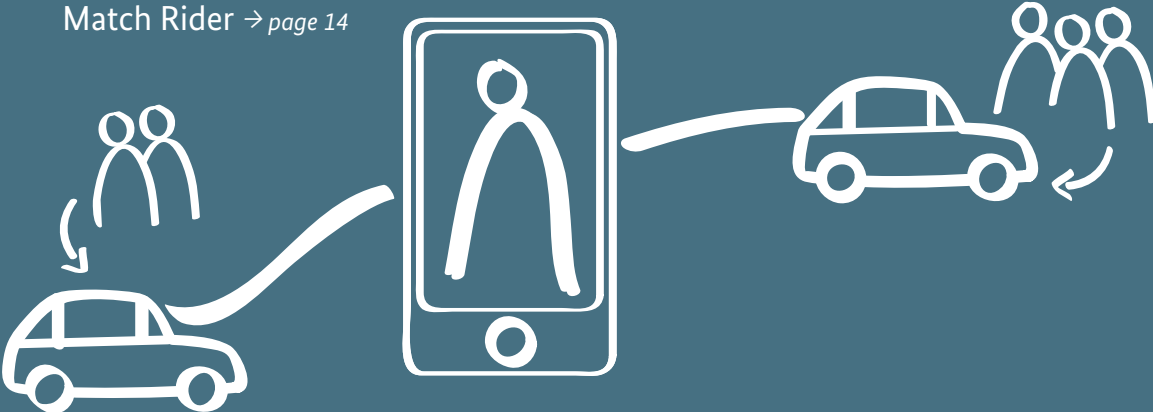
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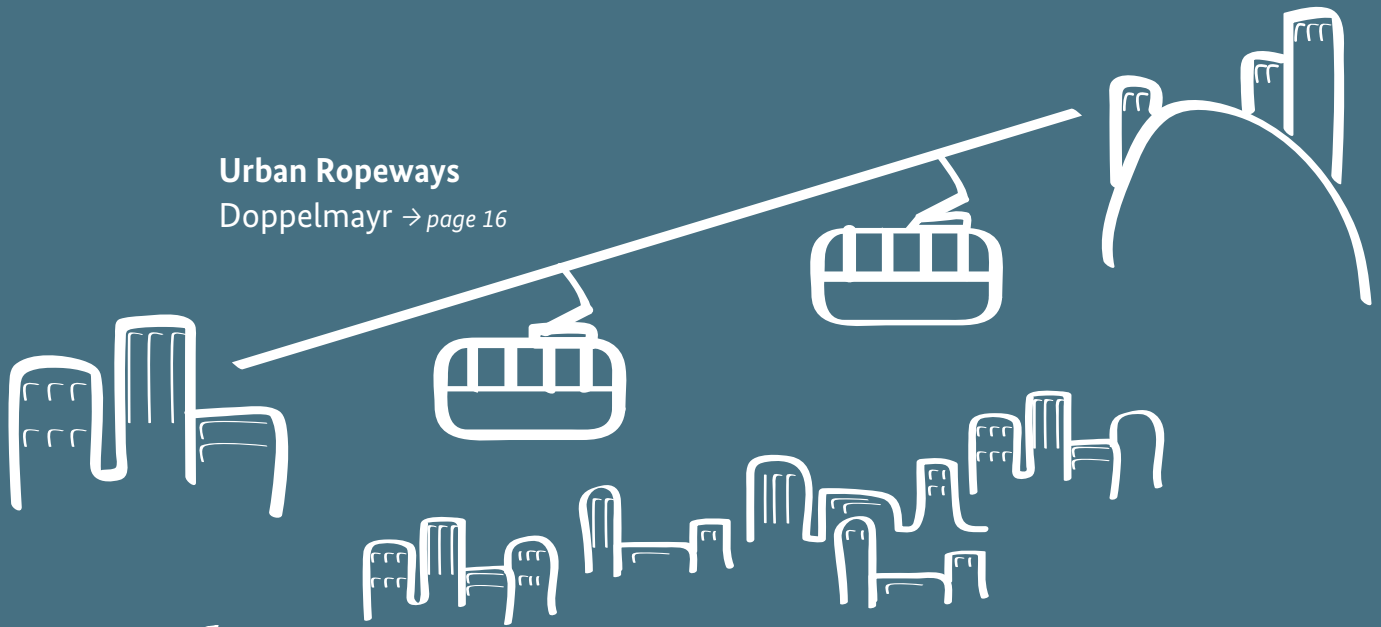
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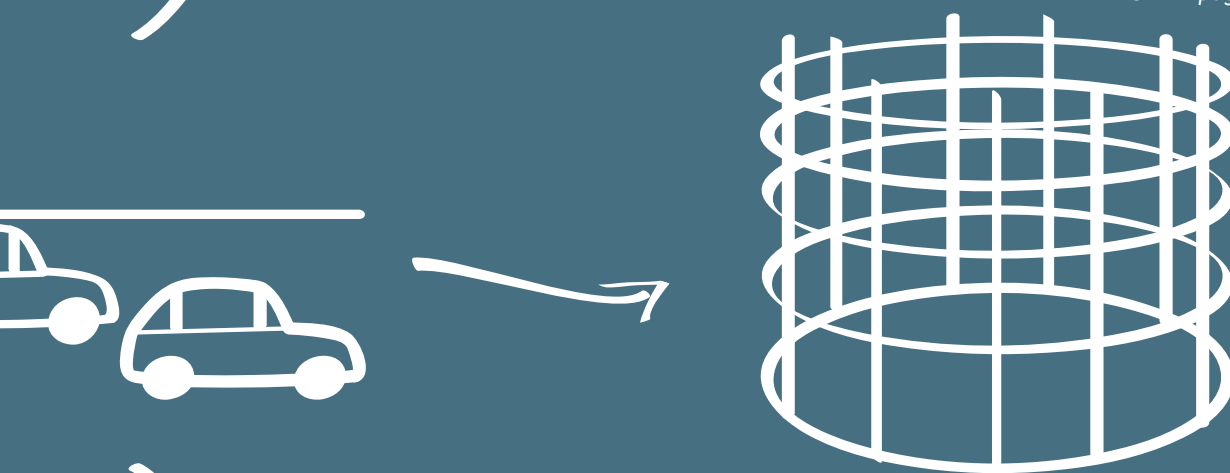
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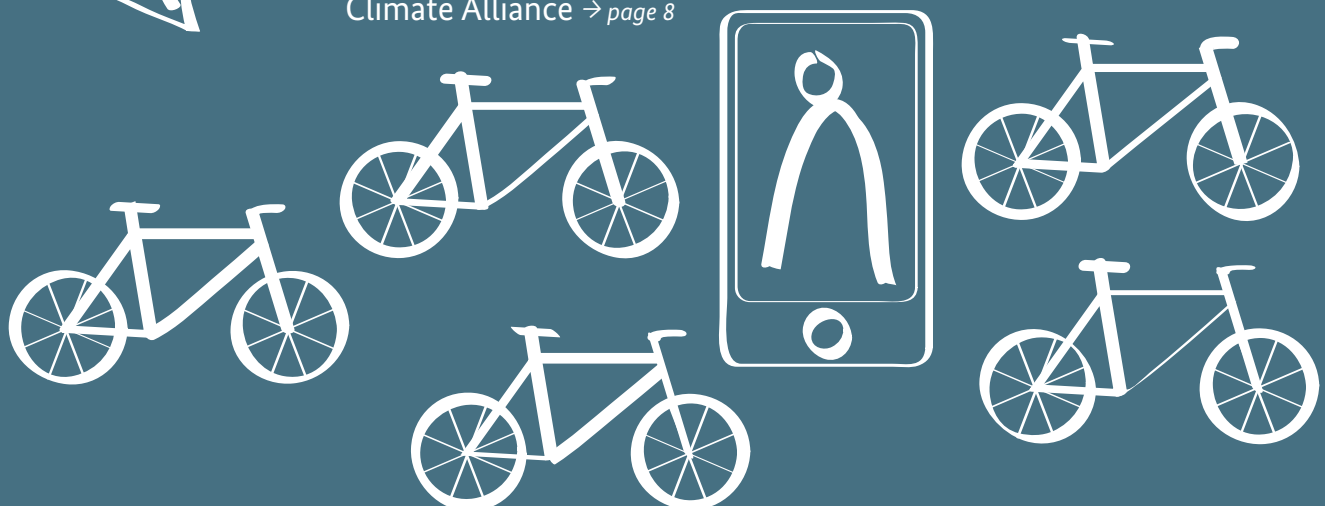
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CITY CYCLING

Cycling for a Better Climate

The CITY CYCLING campaign, organised by Climate Alliance, promotes cycling as a zero-emissions mode of transport and advances awareness of climate change mitigation.

There is great potential to reduce CO₂ emissions through climate-friendly modes of transport: if 30% of all short-range trips in German inner-cities were made by bicycle rather than by car, around 7.5 million tons of CO₂ could be avoided. On average, however, only 10% of all trips in Germany are made by bike, even though 78% of all Germans own a bicycle.

In this context, CITY CYCLING (German: STADTRADELN) aims to increase the modal share of cycling by motivating citizens to use their bicycle as an everyday mode of transport. Additionally, CITY CYCLING involves local authorities and decision-makers as role models. Cycling is promoted as an active, collective and fun form of climate change mitigation.

Organised as a competition, the campaign takes place every summer: participants ride as much as possible on 21 consecutive days, on their way to work and during their spare time. The distance is recorded in an online cycle calendar and awards are conferred to the cyclists, teams and municipalities that have cycled the most kilometres, and to municipalities with the highest participation. In addition, councillors can opt to become so-called CYCLE-STARs, which involves switching completely to using their bike for three weeks and blogging about their daily experiences. With its integrated RADar! cycling reporting tool, CITY CYCLING is the ideal instrument for promoting cycling, as the campaign provides local authorities with a combined communication, planning and citizen participation tool.

Impressive results have been achieved: In 2015, 341 participating municipalities and around 130,000 cyclists, including almost 2,500 local representatives, rode about 24.8 million km (or 619 times around the equator!) and thus avoided the emission of more than 3,500,000 kg of CO₂.

Climate Alliance is the largest network of European cities, municipalities and districts committed to protecting the world's climate.

➔ www.climatealliance.org

To learn more about CITY CYCLING, please visit:

➔ www.city-cycling.org



CITY CYCLING
Cycling for a better climate

A campaign by



Climate Alliance



DEM WAHREN SCHOENEN GUTEN

Mobility Stations - an Essential Contribution to Urban Mobility

Mobility stations link public transport, car and bike sharing facilities and safe parking in one location, guiding people towards more sustainable mobility.

An integrated approach to urban mobility is crucial to reach substantial emission reductions. About 40 % of all CO₂ from road transport is emitted in an urban context. Mobility stations can play a key role within new mobility concepts and facilitate a shift to sustainable modes, making them a component of the climate change agenda while substantially reducing CO₂ emission. They make multi- and intermodal travel behaviour easy by providing shared cars and bikes, and safe bike parking facilities at the same place – usually right next to bus or train stations. By reducing transfer distances and times, they give people the opportunity to use climate-friendly means more often than private cars.

Mobility stations differ in size and complexity according to the requirements of the specific location. Central criteria for the implementation of mobility stations, according to a catalogue by team red, are the link to a railway or bus network, existing demand for sharing systems, and social and economic suitability in the neighbourhood.

Mobility stations are already a reality in a few German cities. The so-called “mobil.punkte” were first established in Bremen in 2003, where they have already shown a role in solving parking issues. Since 2013, more mobility stations have been established: in Hamburg (called “switchh“), in Munich, Offenburg and Leipzig.

team red has defined four classes of mobility stations, containing different minimum numbers of cars and bikes. Secure bike parking facilities can be found in all stations; charging points for e-bikes, Wi-Fi access points, city information, cash dispenser, post services etc. are optional supplements.





team red was founded in 2002, working on innovation topics in mobility, transportation and tourism ever since. Offering a broad spectrum of knowledge – ranging from traditional planning to communication expertise and information technology – their promising intermodal and interdisciplinary approach is the perfect basis for international exchange.



➔ www.team-red.net/index.php?id=29&L=1

Berlin – The First Capital City with a Wirelessly-Charged E-bus Line

A milestone has been reached in the development of electric mobility in Berlin. Four new e-buses that are charged wirelessly will significantly improve the city's environmental performance.

With undergrounds, trams, and four solar-powered ferries, the communal public transport provider Berliner Verkehrsbetriebe (BVG) already transports almost two-thirds of a billion passengers per year by electric traction. Since August 2015, Germany's biggest public transport company has run electric buses. Line 204 between Südkreuz and Zoologischer Garten (Hertzsallee) now operates exclusively with four Solaris Urbino 12 electrics.

Thanks to Vossloh Kiepe's electric drive, these vehicles are not only emission-free but also produce low vibration and noise benefitting passengers, local residents and the environment at the same time. The buses charge like an electric toothbrush at home, wirelessly and contactless, but with a far greater capacity and performance. Bombardier's inductive PRIMOVE technology enables the buses to recharge in just a few minutes at the final stops.

Like all the BVG's electric powered vehicles, the new Solaris Urbino 12 electrics are powered exclusively with green electricity, produced by Austrian hydropower stations. Within one year, the four electric buses on the line 204 will run a total of approx. 200,000 kilometers, saving 260 tons of CO₂ emissions. Around 250 private cars would have to be electrified to reach the same effect.

The pilot project "E-Bus Berlin" will provide valuable experience on the operation of battery buses on inner-city lines. The Technical University of Berlin will carry out a technical and economic evaluation alongside the project. The operational phase of the e-bus 204 as part of the "Berlin-Brandenburg International Showcase for Electromobility" will run until autumn 2016. The project is funded by the Federal Ministry of Transport and Digital Infrastructure.

The Berlin-Brandenburg International Showcase for Electromobility is coordinated by the Berlin Agency for Electromobility eMO and funded by the German Federal Government and the States of Berlin and Brandenburg.

➔ www.emo-berlin.de





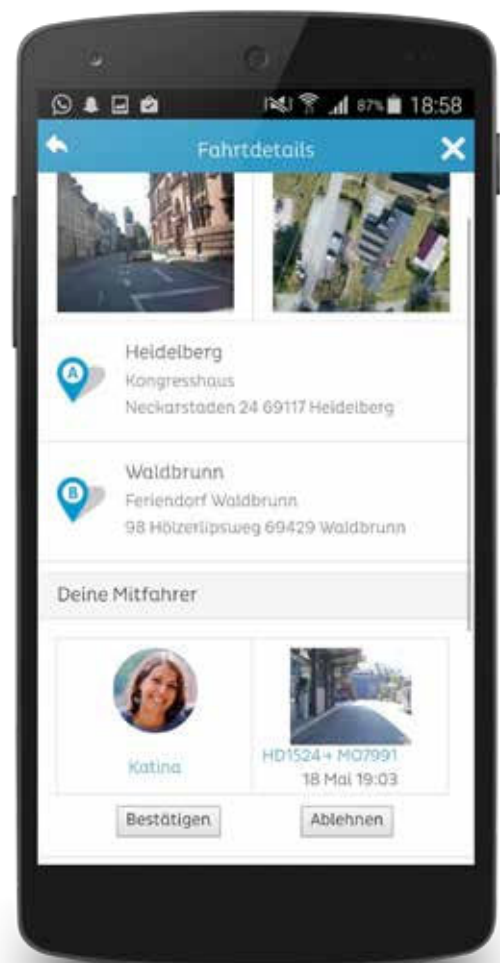
Optimising Business Mobility through Dynamic Ridesharing with Match Rider

Millions of empty seats are a valuable resource in commuter traffic every day. Dynamic ride-sharing platforms on professional level can help people make use of this space and reduce traffic amounts.

In rural regions of Germany, more than 70% of the working population gets to work by private car – occupied by only 1.1 persons on average. Making use of those empty seats by bundling rides and thus alleviating congestion, air pollution and CO₂ emissions is Match Rider's aim. Its web and mobile platform is designed to help people share rides over short to mid-distance routes. Drivers using the digital service set their route and Match Rider determines the best pick-up and drop-off points along the route (called Match Points). Each Match Point has a schedule associated with it, just like a bus stop. Passengers can book drivers at specific times and locations online or via app.

To help reduce commuter traffic, Match Rider has a branded Ride Board platform for companies and organizations, where members can share rides within their respective communities. The Ride Board is an easy-to-implement tool for businesses to promote carpooling to their employees. It promotes interdepartmental communication, contributing to a better work culture, and helps to reduce costs for fuel and provision of parking spaces substantially.

Match Rider combines environmental considerations with social components and financial incentives for both employers and employees. By reducing car trips, it helps cutting down CO₂ emissions and peak hour traffic.



Match Rider recently launched a pilot project at the Adlershof Technology Park in southeast Berlin. After just two short weeks the project could already prove to be a money and environmental saving measure:



Registrations



Ride Offers



driven together



Ride Bookings



CO₂ saved*



Commuters with a new way to go to work

*174g CO₂ saved for every km driven together. Assumes that the 18 passengers would have otherwise driven the route alone in their car.

Potential savings per month



fewer cars on the road



less parking cost



less CO₂ emissions



parking spots saved



not driven

Assumptions: 1,000 employees / 5% usage / 20 trips per month / one-way trip 50km / 174 CO₂ emissions/km / carpools are formed in pairs

Create your own intermodal mobility network together with your employees and Match Rider! Match Rider (www.matchrider.de) is a web and mobile platform designed to help people share rides over short to mid-distance routes (less than 100 km), especially regularly scheduled commutes. Want to learn more about Match Rider and how they can help you optimise your business mobility?



➔ www.matchrider.de/ForCompanies



Ropeways as Alternative Transport Modes in Urban Areas

Urban ropeways can be a viable mobility solution for dense cities. Especially when powered by renewable energy, they are low in emissions.

Being environmentally friendly and efficient, ropeway systems provide an answer to present and future traffic problems. Ropeways can be a cost-effective and fast mode of urban transportation most notably in dense cities with difficult terrain. They are quickly implemented and require comparatively little space. Bridging existing infrastructure without causing traffic hindrances, they easily link residential areas and other points of interest. In combination with smart urban planning concepts, they stimulate interaction between communities and activate creative potential.

This safe mode of transport also offers new possibilities for disadvantaged groups of society. Barrier-free loading and unloading make ropeways a positive experience for wheelchair users as well as passengers with strollers or bicycles.

In 2014, the world's biggest urban ropeway network went into operation in La Paz, Bolivia. It currently comprises three lines, each of them being used by one million passengers per month.

Looking at climate issues, modern ropeways such as the system in Koblenz (Germany) consume as little as 0.1 kWh to carry one passenger over a distance of one kilometre, based on a capacity of 3,600 passengers per hour and direction. When powered by renewable energy, this goes along with emissions of 5 grams of carbon dioxide only, even when taking infrastructure production costs into account. A car powered by fossil fuels emits 150-200 grams over the same distance. Hence, further distribution of urban ropeways provides great potential for GHG emission reduction.

The Doppelmayr/Garaventa Group is the quality, technology and market leader in ropeway engineering. To date, the Group has built more than 14,500 installations for customers in over 88 nations. Doppelmayr understands that it is essential to find new solutions to current and future transport problems. Aerial ropeways can be part of the solution by providing an innovative and attractive approach to public transport.

→ www.doppelmayr.com/en/





EUREF-Campus - A Cluster for the Future of Mobility and Energy

The EUREF-Campus in Berlin is a showcase quarter for research about decentralized energy supply with renewable energies for sustainable urban development. Electric cars are part of decentralized energy networks and play an important role in energy transition strategies.

Ecologically and economically sustainable global stakeholders are clustered on the joint research location EUREF-Campus. You can find diverse energy, mobility- and ICT-start-ups as well as established companies on the campus. InnoZ is part of this community, offering a platform and a laboratory for electrical and digital integrated mobility.

One major topic on the campus is rethinking mobility in the context of a turnaround in energy policy. The project Mobility2Grid, a broad public-private partnership for innovation, aims to realise electric mobility in interconnected urban areas. For the integration of commercial and residential electric road vehicles in decentralised energy networks, it would be sustainable to charge them mainly when spare green energy is available. The goal is to make the supply of renewable electricity and transport affordable, safe and entirely by means of new technological options.

The EUREF-Campus in Berlin serves as a field test and reference quarter for the basic parameters of a decentralised utility sector towards sustainable urban development.

Transportation related CO₂ emissions can be gradually reduced when the share of electric vehicles grow significantly. The Mobility2Grid concept has high potential to contribute to a climate-friendly, demand-based and user-orientated energy and mobility development in urban quarters. Altogether, the EUREF-Campus unites various ideas and concepts towards low-carbon urban development. In 2014, it already attained the German Federal Government climate goals for 2050.

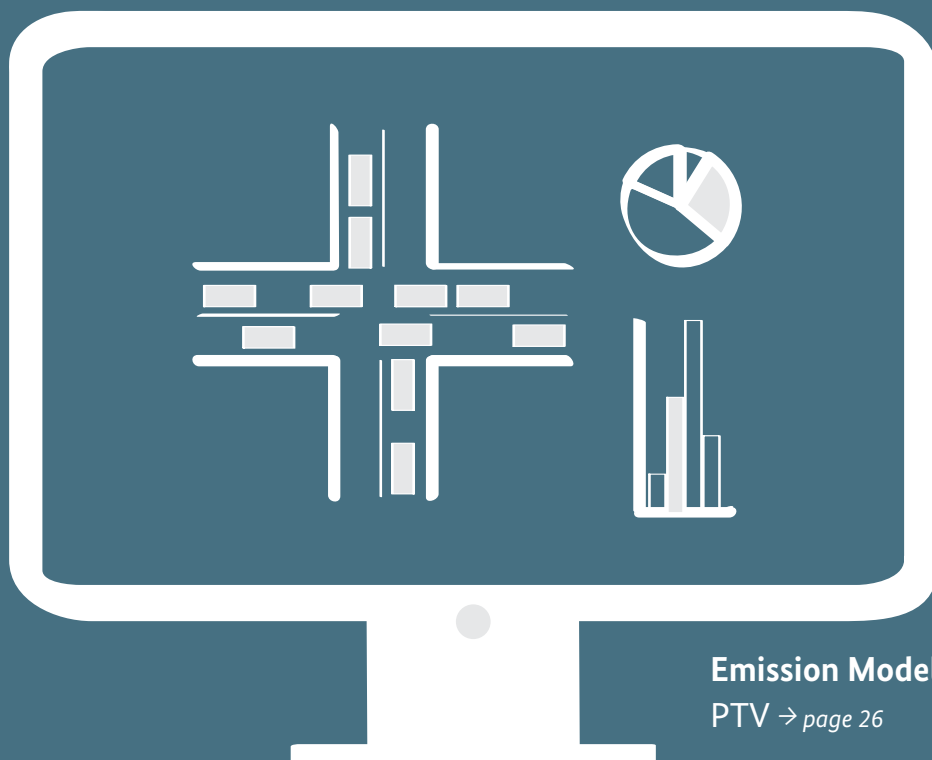
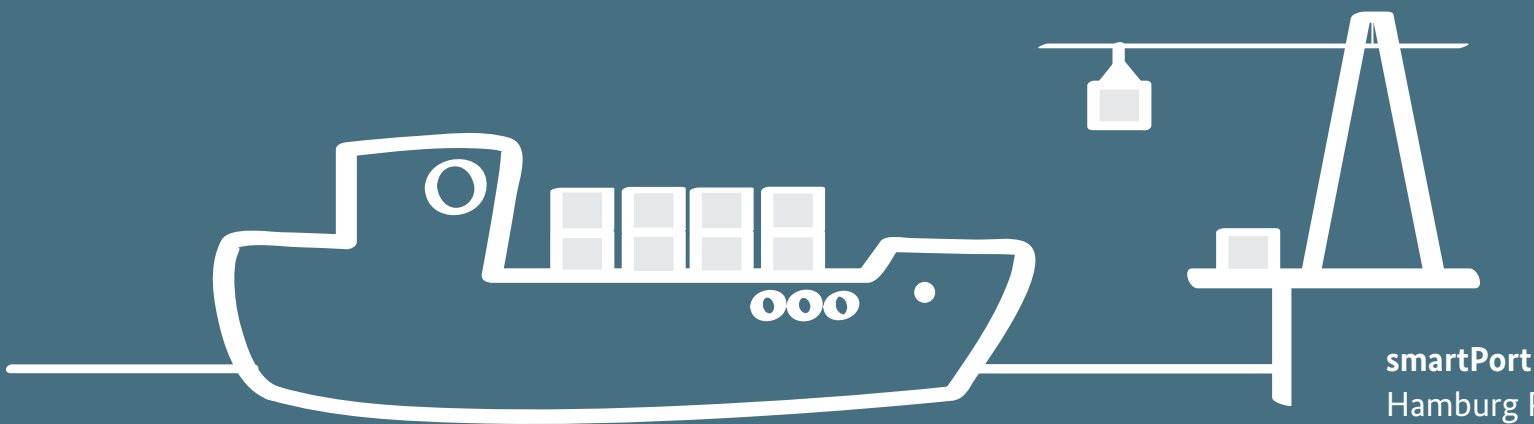
As an integrated research, testing and consulting company, InnoZ develops innovative system solutions for the smart city of tomorrow, together with industry, science, municipal authorities and civil society. In the context of mobility and societal change, InnoZ develops products and services from the idea to market launch. In this framework, InnoZ works with partners on key issues in the context of the turnaround in energy and mobility policy.



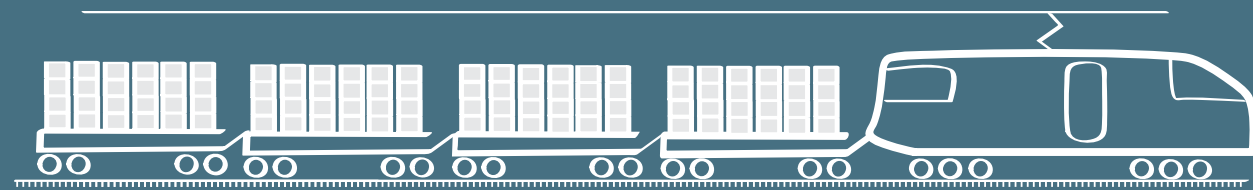
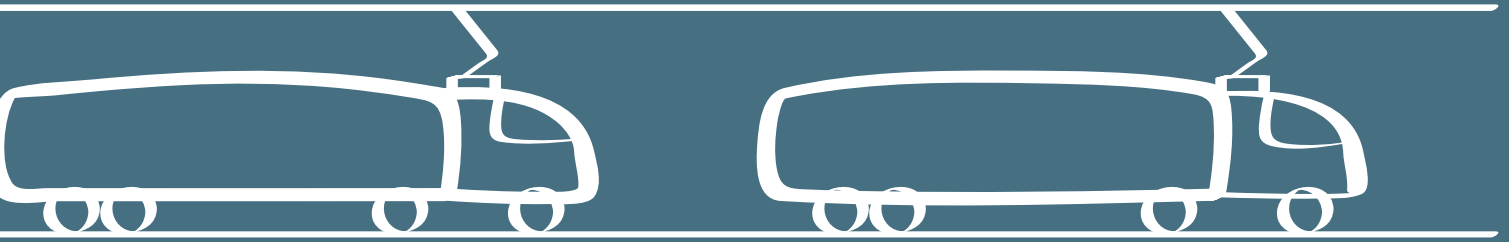
→ www.innoz.de/

Cargo

In Germany, the logistics sector includes the transportation of around 3,800 billion tons of goods over a distance more than 620 billion kilometres every year. It is responsible for about 30% of transport-related CO₂-emissions. Consequently, there is plenty of potential for reducing those. Good news is that innovative concepts and solutions for green logistics do exist.



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The smartPORT Strategy

More Traffic and Goods - Less Emissions

Through an integrated logistics and energy concept, the Hamburg Port Authority (HPA) shows how greenhouse gas emissions and pollution can be tackled at the tie points of global trade flows.

The ever-increasing international commodity flows on global oceans heavily rely on carbon-intensive fossil energy sources. Replacing these with more environmental-friendly technologies contributes to climate change mitigation. However, a lot of additional trips are performed on-shore at ports and other transport hubs. Efficient, fast and eco-friendly clearance and onward transport of goods offer great potential for CO₂ emission reduction that is directly addressed by the port management.

With more than 145 million tons of goods transhipped in 2014, the port of Hamburg is the third biggest port in Europe. The local port management HPA has committed itself to sustainability. Therefore, HPA launched the smartPORT strategy, which focuses on both logistics and energy.

The heart of the smartPORT logistics concept is the intermodal Port Traffic Centre, where real-time information concerning all available modes of transport (including rail, autonomous carriers and lorries) is collected, processed and provided for decision makers. It enables choosing the most favourable mode of transport in every single case, organizing traffic and trade flows more efficiently in both economic and ecological aspects.

The reduction of CO₂ emissions and air pollutants is an aim of the smartPORT energy concept. Its measures include:

- *supply of harboured ships with wind and solar energy*
- *support of alternative propulsion systems by providing LNG and hydrogen*
- *utilisation of electric vehicles for onshore-logistics*
- *shift of onward transport from road to rail and waterways.*

Since 2005, the HPA has provided future-oriented port management from a single source and takes care of the Port of Hamburg's security and efficiency. Waterside and landside infrastructure, ship traffic, the dock railway, real estate management and economic conditions all lay within its responsibility. The HPA meets the port's growing demands with intelligent and innovative solutions.



→ www.hamburg-port-authority.de/en/





G 360

DUP 833

eHighway

Innovative Electric Road Freight Transport

Siemens' eHighway combines the efficiency of the railroad with the flexibility of trucks into an innovative freight traffic solution that is efficient, economical, and environmentally friendly.

Growing demand for transport will increase road freight emissions from 1.1 Gigatons (Gt) of CO₂ in 2010 to 4.5 Gt by 2050, according to the International Transport Forum (ITF). The ITF predicts emissions from surface freight transport will overtake those from surface passenger transport. It is imperative to curb emissions caused by road freight transport if climate goals are to be achieved.

Road freight is anticipated to remain a large and vital part of the transport system. Solutions to improve its efficiency and performance are therefore essential.

The eHighway system uses reliable infrastructure and is able to combine the efficiency of railway with the flexibility of road transport. The direct transmission of electric current maximizes efficiency: 80-85 % from substation to the wheel, twice that of diesel engines. The key innovation of the eHighway system is the active pantograph. It can connect and disconnect the vehicle to the contact lines at all speeds. The hybrid drive system enables full electrical operation within the electrification infrastructure. On sections outside of the contact line, or when overtaking, the hybrid drive ensures the necessary flexibility.

A test track is in operation on a private road outside Berlin. This is being followed by demonstration projects on public roads in Sweden, in cooperation with Scania, and near Los Angeles, in cooperation with vehicle partners such as Volvo. Other near term applications are shuttle routes characterized by a high volume of transport. Implementing the eHighway on these routes can reduce emissions and catalyse economic benefits.

Siemens is a global powerhouse positioned along the electrification value chain – from power generation, transmission and distribution to smart grid solutions and the efficient application of electrical energy – and in the areas of medical imaging and in-vitro diagnostics.

➔ www.siemens.com/entry/cc/en/

SIEMENS

Improving Transport Planning with Microscopic Emission Modelling

Vehicle traffic is a major source of air pollution and GHG emissions with its negative effects on global warming. This explains the rising need to consider traffic-induced emissions in transport planning and management.

In transport planning, simulations are used to examine the effects of various traffic planning or management strategies before their implementation. With software, it is possible to model CO₂ and air pollutant emissions along with traffic flows. PTV's software Vissim provides multi-modal simulations, taking into account motorised individual transport as well as more climate-friendly modes such as public transport, cycling and walking. The software simulates traffic on a microscopic level, meaning that traffic participants are modelled individually with all relevant characteristics. These characteristics can include specific vehicle classes, fuel types and pollutant classes, speeds and accelerations. Also, interactions between different participants are simulated. In combination, this allows for detailed calculation of vehicle emissions.

The easy-to-understand presentation of the results enables decision-makers to compare CO₂, NO_x and PM₁₀ emissions for different scenarios and choose the most air quality and climate-friendly solutions for their needs.

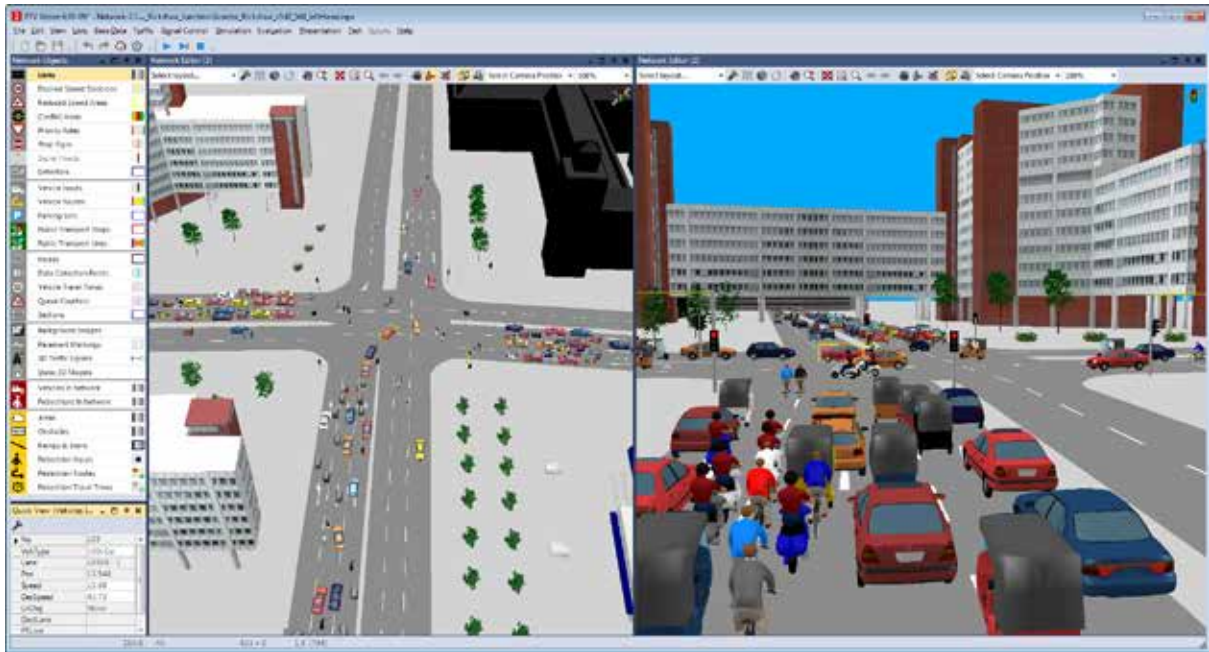
In short, transport simulations have the capability to calculate the emission-reduction potential of transport measures in great detail. By improving the knowledge and understanding of decision-makers, they can contribute substantially to the mitigation of CO₂ emission.

PTV Group plans and optimises everything that moves people and goods worldwide – be it transport routes, distribution structures or private and public transport. The company offers software, data, content, consulting and research. Thanks to expert knowledge in traffic and transport planning, PTV occupies a unique position.

→ www.ptvgroup.com



the mind of movement



With the PTV Vissim simulation software you can take into account individual vehicle characteristics and driving dynamics.





Cargo Bikes - A Smart Solution for City Transport

Cargo bikes are ingenious. Every kilometre they save CO₂ without causing noise and air pollution. Compared to fossil-fuel cars and vans, delivering goods by bikes can even reduce costs.

Cargo bikes are a smart solution for cities, bringing the advantages of cycling into freight transport.

- *Far lower costs than for motorised transport*
- *more environmental friendly mode of transport – consuming no fossilised energy, thus being CO₂-free*
- *significant health care savings due to increased physical activity*
- *better air quality*
- *reduced noise levels*
- *fewer road fatalities*

Cargo bikes are therefore a key element for transport in sustainable cities - but why should companies switch to bikes?

Cargo bikes account for lower purchase and maintenance costs than cars and vans. They can deal with narrow roads and congestion, need less parking space and have fewer access restrictions, e.g. they can easily serve pedestrian zones. In city traffic on short distances of up to 4 km, they are even faster than motorised vehicles, especially at peak hours. According to a study by the European Cyclelogistics Project, 51% of all motorised goods transport in European cities could be carried out by cargo bikes. Today, the last mile delivery costs are up to 70% of the total transportation bill; cargo bikes thus offer a great cost-saving potential. As transport demand from e-commerce grows this becomes more and more relevant.



Electrical support engines in pedelec or electric cargo bicycles increase speed, cargo loads and range, making the vision of zero-emission inner city logistics a realistic one.

In short: cargo bikes save money, go fast, face fewer access restrictions, cause less air pollution and GHG emissions and improve the image of companies.

Case Study Delivery Bicycles: Kiezkaufhaus

The online marketplace Kiezkaufhaus enables users to order at local stores and get their purchases the same day, transported by cargo e-bikes. For customers this combines the comfort of online shopping with the benefits of supporting local, independent merchants. For society it boosts local retail and reduces unnecessary CO₂ emission from transportation; inner city traffic calms down and the region benefits from commerce tax.

The online marketplace Kiezkaufhaus combines social and regional components with ecological considerations and an individual service concept that is tailored to individual users. The incorporation of small and micro suppliers, personal advisors and local vendors helps to reinforce local value chains. Through a series of touch points, the online shopping platform convincingly connects the digital with the interpersonal.

➔ www.kiezkaufhaus.de/

KIEZKAUFHAUS

VCD is a German NGO advocating sustainable transport in Europe. VCD promotes cargo bikes with its projects “cargo on bikes” and European Biking Cities as part of the EU LIFE+ project Clean Air

➔ www.cleanair-europe.org/en/projects/vcd/ebc/

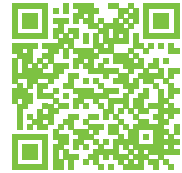
For further information, please visit

➔ www.vcd.org/startseite/ (in German language)



Publications

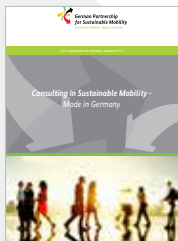
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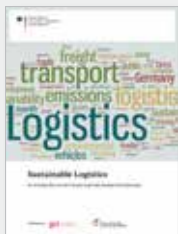
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SUSTAINABLE MOBILITY – MADE IN GERMANY

“Sustainable Mobility – Made in Germany” stands for sustainable, proven, resource efficient, innovative, trustworthy and flexible solutions for all domains of mobility and logistics services.

Germany has a long history of successful changes and transformations in the transport sector – including

- the establishment of comprehensive funding schemes
- the re-emergence of walking and cycling as safe and viable modes of transport
- the reorganization of the public transport sector
- the continuous development of progressive regulations
- the development of efficient propulsion systems
- the integration of different modes of transport, including multimodality in logistics and ecomobility

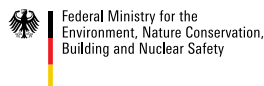
Academia, businesses, civil society and associations have gathered invaluable experience and skills in framing these transformations.

The German experience is worth of study. Due to the scarcity of energy resources, the high population density and number of enterprises, as well as the compactness of the country, Germany opted early on for energy-efficient, integrated and smart solutions in the transport sector.

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