



Federal Ministry  
of Transport and  
Digital Infrastructure

Germany 2030 – a cycling nation

# National Cycling Plan 3.0



Germany 2030 – a cycling nation

# **National Cycling Plan 3.0**

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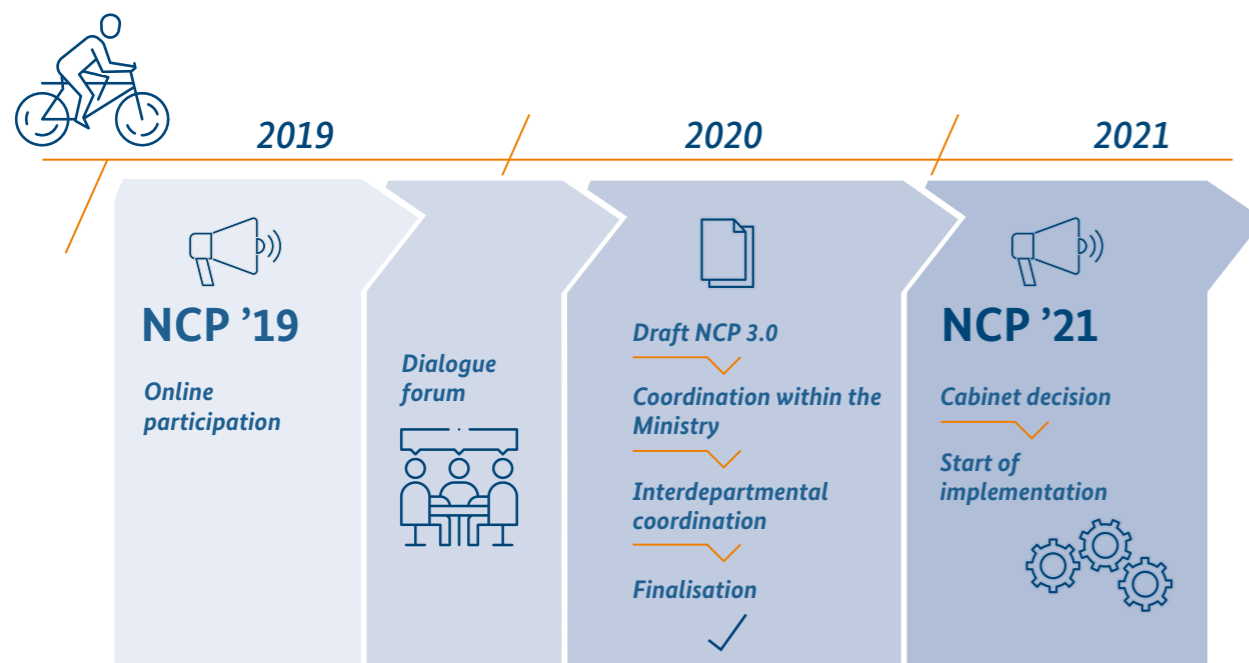
# Shaping cycling together

## Civic participation and dialogue forum

The NCP 3.0 is the product of many minds, bringing together experts from academia, business, associations, public administrations and civil society. In an **online participation** process, citizens were also able to submit and rate over 2,000 ideas for improving cycling and vote on the guiding principles of the NCP 3.0. They rated seamless cycling in Germany as by far the most important guiding principle. Great importance was also attached to bicycle commuting and bicycle-friendly structures in politics, administration and society, as well as the targeted promotion of cycling in urban and rural areas.

Finally, experts from a wide range of disciplines met in a **dialogue forum** and jointly developed approaches for the further promotion of cycling in Germany. They discussed all important topics concerning cycling and the guiding principles of the NCP 3.0 set by the Federal Government.

The results of the discussions in the dialogue forum ultimately led to the NCP 3.0.



Source: Illustration by the authors



## The NCP 3.0 at a glance

### National Cycling Plan 3.0

Germany 2030 – a cycling nation	Vision for more, better and safer cycling	What will Germany look like as a cycling nation in 2030?
	The potential of cycling for people, the economy and the environment	What are the benefits of more, better and safer cycling for Germany?
Great potential: The initial situation		What have we already achieved?
Living the vision: More, better and safer cycling	Principles of active cycling promotion	What do we need to change to make Germany a cycling nation in 2030?
	The four pillars of cycling promotion	Which guiding principles and measures will we use to make the vision of 'Germany as a cycling country in 2030' come true?
	Fields of action	

Source: Illustration by the authors

In terms of personnel and job description, the measures described herein are contingent upon the respective local authority having sufficient funds.



# Germany – a cycling nation in 2030

## A vision for more, better and safer cycling

Mobility is a basic need for everyone. The bicycle stands for personal, sustainable, resilient, time-flexible and cost-effective mobility that is also good for one's health.

In 2030, cycling will be a matter of course and diverse. People will enjoy cycling and feel safe doing so. In short, cycling will be attractive to everyone, a way of life and an opportunity to experience and engage with the world in a new way. The bicycle will be the means of transport of choice on more and more routes, both in everyday life and for leisure.

More, better and safer cycling throughout Germany is an issue that concerns everyone, the Federal Government, federal states and local authorities, the people of Germany as well as companies and service providers. The only way that we will be able to implement the measures and suggestions for the design of sustainable mobility laid down in this cycling strategy is through joint effort and continuous exchange. Exchange and communication promote good ideas and ensure a fair balance of interests. With seamless cycling networks and high-quality infrastructure, people in Germany will have a better quality of life, both in rural areas and in smaller or larger cities alike. They will be able to get around quickly and safely by bike. German's bicycle industry will profit from products that are in demand in Germany, Europe and also worldwide. Cycle tourism in Germany will become very popular, both nationally and internationally. Quality of life and people's health will be enhanced thanks to increased physical activity through cycling.

### More cycling

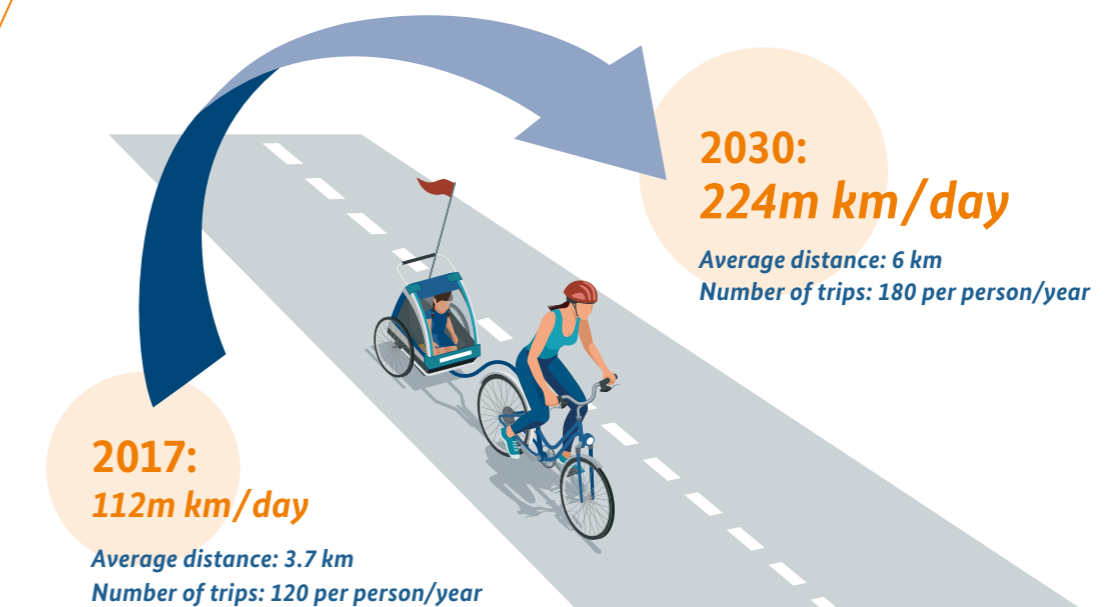
Inviting infrastructures, liveable public spaces, innovative mobility offers, a relaxed coexistence in traffic and an openness of politics for cycling – bicycles, cargo bikes and pedelecs will thus become a matter of course in everyday private and business mobility.

Specifically, the miles travelled by bicycle will double by 2030 compared to 2017 due to significantly more and longer trips:

- The number of trips will increase from about 120 in 2017 to 180 trips per person per year.
- The average length of trips made by bicycle will increase from 3.7 kilometres<sup>2</sup> to six kilometres.



### More cycling



Source: Illustration by the authors, 2017 figures: MiD 2017

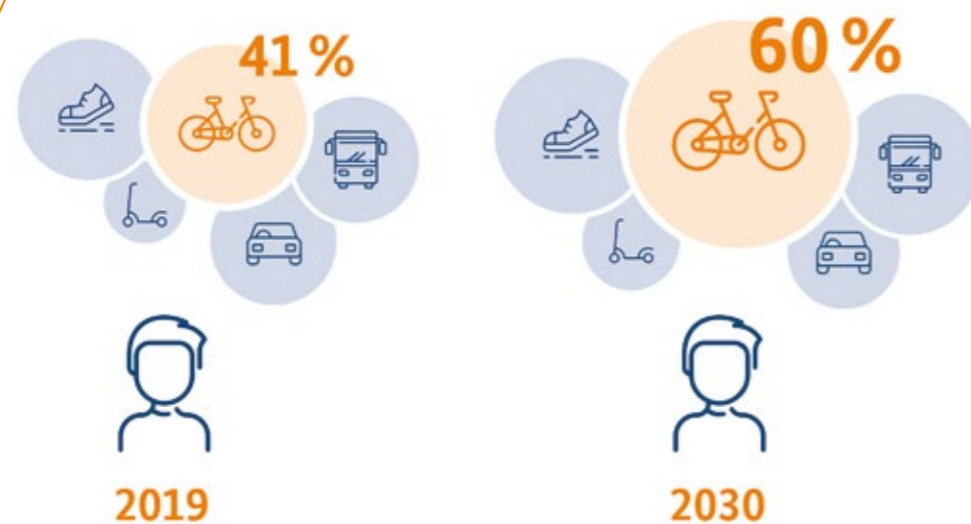
### Better cycling

Cycling will be very attractive in 2030: The broad-based measures to promote cycling will have significantly improved the general conditions. Thanks to targeted infrastructure measures and technical innovations, more and more people will feel comfortable on their bicycles and can imagine using them more often and also for longer leisure trips, but especially for everyday trips.

→ In 2019, 41% of Germans planned to cycle more in the future<sup>3</sup>. This approval rating will rise to 60% by 2030.



#### Which means of transport are you planning to use more in future?



Source: Illustration by the authors, 2019 figures: Fahrrad-Monitor 2019

### Safer cycling

With safer infrastructures, traffic rules will be respected by all and there will be more fairness in mutual interaction in road traffic, a trend reversal for safer cycling can be achieved by 2030. Our guiding principle is 'Vision Zero'.

→ Compared to 2019, the number of cyclists killed in traffic will be reduced by 40% – despite significantly more cycling.

## The potential of cycling for people, the economy and the environment

### Cycling brings many benefits for people, the economy and the environment

#### 1 Cycling is healthy, cheap and fast

Regular cycling significantly extends healthy life expectancy.<sup>4</sup> For example, cycling just 30 minutes a day reduces the risk of cardiovascular disease by over 50% and can prevent obesity and other typical lifestyle diseases, such as diabetes.<sup>5</sup> The positive effect of exercise clearly exceeds the effect of exposure to pollutants, even on busy roads.<sup>6</sup> What's more, it is also up to 70% cheaper to cycle than to use a car.<sup>7</sup> In this way, the promotion of cycling also contributes to greater social equality in mobility. For distances up to four kilometres in urban areas, the bicycle is often the fastest means of transport. For a pedelec, this speed advantage even exists for the first nine kilometres.<sup>8</sup>

#### 2 Sustainable mobility for more attractive cities and municipalities

Besides many other factors, the quality of life in cities and municipalities can be measured by the amount of green spaces and the quality of stay in the public space. Especially in densely built-up neighbourhoods, the pandemic has once again demonstrated how important public space is as a place for exercise, recreation and relaxation. With appropriate measures and investments in cycling, cities and municipalities can significantly improve their attractiveness and quality of stay and protect resources. Bicycle-friendly cities are considered to be particularly liveable.

Dedicated cycle lanes in cities take up to 67% less space than motor vehicle lanes of equivalent capacity. Bicycle parking facilities even require only 10% of the space required for cars.<sup>9</sup>

#### 3 Companies benefit from an active and mobile workforce and a high-quality cycling infrastructure

Quality of life and a high-quality range of environmental services are important location factors for the vast majority of companies too. This includes a high standard of cycling infrastructure throughout. This is particularly appreciated by companies in the service sector, start-ups and young, well-trained specialists, and gives employers an edge on the national labour market.

By reducing the number of trips to work by car, companies and their employees can save time and parking space and help avoid congestion. Physically active employees are more resilient and productive and, on average, they have a third fewer sick days.<sup>10</sup> In this way, up to €2.1 bn in production losses can be avoided every year.<sup>11</sup> In addition, retail turnover is on average 10% higher for purchases made by bicycle.<sup>12</sup>

#### 4 **Cycle tourism strengthens rural and structurally weak regions**

Cycle tourists staying overnight are estimated to have spent an average of €70 to €100 per day in 2019, predominantly on hotels and catering.<sup>13</sup> Examples show that with suitable cycling infrastructure, turnover growth of up to 40% is possible for hotels and restaurants, while tax revenues, employment rates and the regional image can be significantly increased.<sup>14</sup>

The volume of cycling tourism and the density and quality of tourism, including hospitality, in rural areas are mutually reinforcing. Cycle tourists are of great importance for economic development in many structurally weak rural regions.

#### 5 **The bicycle sector contributes to economic growth**

Between 2013 and 2018, turnover in bicycles and bicycle accessories increased from around €11 bn to around €17 bn.<sup>15</sup> The sector's resilience to crises was demonstrated, for example, during the Covid 19 pandemic. The bicycle trade is recording stable turnover despite the Covid-induced general economic slump. And the sector expects to see further growth.<sup>16</sup> Surveys and data from measurements also confirm that people are increasingly relying on bicycles.<sup>17</sup>

The bicycle industry, bicycle retailers and service workshops as well as bicycle services provided around 66,000 local and crisis-proof jobs for diverse skill levels in 2019.<sup>18</sup> There is significant potential for growth in this area. Furthermore, markets for services, bicycle rental systems and bicycle tourism could triple by 2030. The mostly decentralised distribution of workplaces taps into a particularly high potential since the predominantly artisanal businesses of the bicycle retail trade and bicycle manufacturers are also located outside the large conurbations.

## 6 **Cycling is climate and environmental protection**

Cycling is emission-free and saves space and therefore helps to achieve national environmental and climate protection goals and, not least, the United Nations' Sustainable Development Goals. Even the emissions from the production of the battery for a pedelec are paid off after around 165 kilometres if a pedelec is used instead of a car.<sup>19</sup> The increase in the number and length of journeys by bike targeted by the NCP 3.0 by around 50% each can help to save three to four million tonnes of carbon each year compared to 2017.

In cities, greenhouse gases and air pollutants can be reduced by 14% if the share of cycling is increased by ten percentage points at the expense of cars.<sup>20</sup> At the same time, this decreases noise pollution and reduces the incidence of numerous physical and psychological secondary diseases caused by motorised traffic.

### *The bicycle at the heart of sustainable transport development*

#### IN FOCUS

More cycling can make our mobility patterns more climate-neutral and sustainable. Especially when replacing car traffic, cycling will help to achieve climate policy goals both at national and international level.

Specific measures in the Federal Government's Climate Action Programme 2030 are designed to reduce greenhouse gas emissions by 2030 to the level specified in the Federal Climate Change Act, i.e. in the transport sector by 42% to 95 million tonnes of carbon compared to 1990.

By promoting cycling, the Federal Government supports the majority of the United Nations' 17 Sustainable Development Goals (SDGs) and contributes towards the implementation of the Pan-European Masterplan on Cycling Promotion<sup>21</sup>. At European level, cycling is part of the Green Deal, the Strategy for Sustainable and Smart Mobility, and the Urban Mobility Strategy.

# Enormous potential: The initial situation

## Travelling by bike

Almost everyone in Germany owns a bicycle. In 2020, there were around 79 million bicycles, including over seven million electrically assisted ones.<sup>22</sup> In 2017, cyclists made 28 million trips, covering a distance of 112 million kilometres every day. A trip with a conventional bicycle was on average 3.7 kilometres long, with a pedelec 6.1 kilometres. Overall, people used bicycles for 11% of their trips. This represents a moderate growth of two percentage points compared to 2002.<sup>23</sup> While there were hardly any regional differences in bicycle use in 2002, this had clearly changed by 2017. The stock-taking overview of the NCP 2020 shows that cycling is integrated into everyday mobility to a much greater extent in urban regions than in rural areas.<sup>24</sup> People used bicycles for 15% of their trips in metropolitan areas, regional centres and large cities. In small towns and villages, cycling accounted for just 7% of trips.<sup>25</sup>

## Infrastructure with development potential

In 2019, 41% of federal main roads (*Bundesstraße*), 27% of federal-state main roads (*Landesstraße*), and 18% of county roads (*Kreisstraße*) had bicycle traffic systems in place, albeit with major differences between the individual federal states.<sup>26,27</sup>

Seamless cycling networks that integrate a wide variety of infrastructure elements and consist of user-friendly and adequately sized bicycle traffic systems throughout are the exception, at both regional and municipal level. The quality of cycling infrastructure also varies widely.

There is also a substantial backlog when it comes to the construction of bicycle parking facilities. In 2018, approximately 400,000 parking spaces of very different quality were available at the approximately 5,400 railway stations in Germany.<sup>28</sup> The Federal Government and the federal states support the expansion of Bike & Ride facilities with various programmes.

## Cycling safety is a central field of action

Road safety work is becoming increasingly important for cycling in order to reverse the trend in cycling accidents. This is necessary because around 87,000 cyclists were injured and 445 lost their lives on Germany's roads in 2019. The number of cyclists killed increased by approximately 17% between 2010 and 2019.<sup>29</sup> A particularly high number of cycling accidents (90%) occurred in urban areas.<sup>30</sup>

## The bicycle industry on a growth path

Germany's bicycle industry is growing. It benefits from the promotion of cycling and, with its innovations, products and services, generates incentives for greater bicycle use.

In 2020, over five million bicycles were sold, including two million electrically assisted bikes. Bicycle sales generated turnover of €6.4 bn. In particular, sales of electrically assisted bicycles have been growing at an above-average rate for several years, steadily increasing the average selling price per bicycle, most recently (2020) to €1,279.<sup>31</sup>

Cargo and transport bikes are becoming an increasingly important part of the bicycle fleet. In 2020, around 103,000 were sold, 78,000 of which were electric.<sup>32</sup> In 2021, approximately 70 municipalities in Germany offered purchase incentive programmes for private and commercial cargo bikes.<sup>33</sup>

More recent business models around the bicycle are gaining in importance. More and more organisations and their employees are taking advantage of company bike leasing schemes.<sup>34</sup> Public bicycle rental systems are spreading, especially in cities. In 2019, the bicycle services sector (sharing/rental, leasing) employed around 2,000 people in 560 companies, recording turnover of around €560m.<sup>35</sup>

The bicycle industry employed around 21,000 people in 2020. Bicycle retail, including service workshops, provided about 43,000 jobs and apprenticeships in 2019 and has a dense network throughout Germany. Some 2,000 people are employed in the bicycle-related services sector, and another 11,000 or so people work in upstream and downstream industries.<sup>36</sup>

Cycle tourism is an important factor for the German cycling industry, with 5.4 million cycle tourists with at least one cycle trip over three days and 34.3 million day trippers (2019).<sup>37</sup> By comparison, in 2019, around 45 million travellers spent all or part of their holidays in Germany.<sup>38</sup> In 2019, more than 200,000 people were counted as employed in Germany's bicycle tourism industry.<sup>39</sup>



### Support for cycling

Between 2020 and 2023, the Federal Government will provide €1.46 bn in funding for cycling. Further funding will be provided, among other things, by the *Urban Logistics (Städtische Logistik)* programme, the mFUND, the *Climate Protection through Cycling (Klimaschutz durch Radverkehr)* competition, the Municipal Guidelines and the two guidelines for the promotion of micro depots and electric cargo bikes of the National Climate Initiative. The federal states, districts, cities and municipalities account for the largest share of cycling promotion. In total, funding for cycling for the period from 2020 to 2023 amounts to around eleven euros per person and year. Leitprojekte des NRVP 2020:

The **National Cycling Congress (NRVK)** takes place every two years and promotes networking and the exchange of information.

The **Bicycle Monitor** regularly provides information on cycling-related topics in the form of a representative survey.

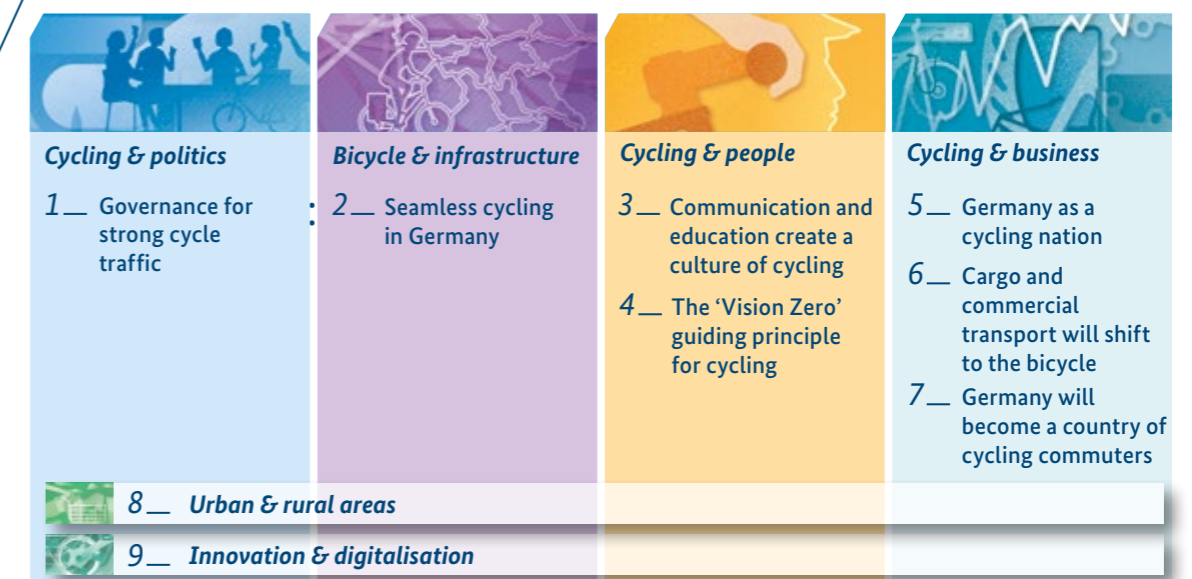
The **Cycling Climate Test** measures the general atmosphere in municipalities with regard to cycling.

The **Bicycle Academy** organises seminars and training courses, especially for employees in local authorities.

The **German Cycling Award** honours and publicises exemplary projects that promote cycling.

# Living the vision: More, better and safer cycling

## At a glance



Source: Illustration by the authors

What's needed for more, better and safer cycling:

- A **policy** that is open to cycling and promotes it consistently and actively across all disciplines
- Well planned and built cycling **infrastructure** throughout the country
- **People** who enjoy using the bike safely and with enthusiasm
- A steadily growing and innovative cycling **economy** and a commercial transport sector that relies more on cycling, as well as employers who make cycling the mode of choice for their employees/for business trips

All aspects concern both **urban** and **rural areas** with different emphases.

Last but not least, the use of modern technologies and **digital solutions** can create good framework conditions for sustainable and interconnected cycling.

Over the years, conditions will change and new technologies and services will emerge. It is therefore important to regularly evaluate the measures and instruments of the NCP 3.0 in a regional and national context and to adapt them accordingly in the spirit of a 'learning system'.

## Principles of active cycling promotion



### Cycling & politics

#### Governance for strong cycle traffic

- Cycling is an important component of sustainable future-enabled mobility. What is needed is a political and social paradigm shift in order to ensure that the number of kilometres travelled by bicycle in Germany more than doubles by 2030 compared to 2017. Essential prerequisites are a modern legal framework that allows active promotion of cycling and sufficient funding.
- Sustainable mobility must be lived and begins in the minds of decision-makers. The NCP 3.0 supports them in rethinking transport policy and in planning a new and integrated approach across disciplines, in expanding education and training and in making intensive use of networks for exchanging experience.
- The Covid 19 pandemic has taught us that digital interaction can replace physical mobility to some extent. Transport services are demanded at different times and for different purposes than before. People are cycling more often and ever-longer distances are being covered by bicycle. A clear course needs to be set so that the mobility trend brought about by the pandemic will continue and the bicycle can be strengthened as a crisis-resistant means of transport. The strong growth in the bicycle industry can also be sustained in this way.

### Bicycle & infrastructure

#### Seamless cycling in Germany

- The nationwide development of **attractive cycling infrastructure that is understandable to everybody** is crucial for more, better and safer cycling. Seamless and safe cycling networks are made up of several infrastructure elements, ranging from fast cycle connections even over longer distances, for instance, for commuters, to safe junctions and cycle lanes right through to well-designed cycle lanes in the secondary network for pleasant and safe cycling.
- **Easily accessible and high-quality parking facilities** must be provided at public transport interchange points and at places like schools, colleges, administrations, businesses and retail locations.



### Cycling & people

#### Communication and education create a culture of cycling

- The bicycle is used as a **natural means for everyday transport**. This includes population groups for whom cycling has so far played a lesser role. Safe and welcoming infrastructure, specific and versatile bicycle types, target-group-specific communication strategies, education on the health benefits of cycling and mobility education are the key building blocks for diverse cycling.
- It is particularly important to **motivate children and young people to cycle**. This lays the foundation for more sustainable mobility in adulthood, and the bicycle becomes part of everyday life throughout all phases of life.

#### The 'Vision Zero' guiding principle for cycling

- The 'Vision Zero' guiding principle for cycling will be consistently pursued. In the sense of **shared responsibility**, everyone must work to achieve cycling safety – politics, administrations, planners, the police and road users.



## Principles of active cycling promotion



### Cycling & business

#### Germany as a cycling nation

- Germany will be increasingly perceived as a cycling nation: **Innovations by local industry** and the outstanding **offerings for tourism** deserve special mention here. As a host for international cycling conferences and congresses, the international community will also see Germany as a cycling nation. The leading international position of the German bicycle industry will be supported and the market launch of new products and services facilitated.
- **Cycle tourism** will be promoted as an important part of regional **economic development**, especially in structurally weak regions. In cities, cycling will become a central element of **sustainable urban tourism**.

#### Cargo and commercial transport will shift to the bicycle

- Cargo bikes as well as conventional bicycles and pedelecs will gain importance in local cargo and commercial transport. The establishment of a **clear-cut legal framework** and **support of new logistics concepts** will integrate bicycles into fulfilment processes.

#### Germany will become a country of cycling commuters

- The bicycle will become the **mode of transport of choice** for many employees, students and pupils, both on short and long commutes as the only mode of transport or in combination with public transport. Cycle expressways, well-developed rapid cycle links, cycle priority routes and direct-route cycle lanes will ensure quick and safe commuting for cyclists.

### Field of action: Urban & rural areas

#### Cycling will make its inroads into cities

- **Cities** will create space for high-quality cycling infrastructures. Public space will be designed in such a way that people enjoy spending time there. For this purpose, areas will be rededicated, even at the expense of motor vehicle traffic. In this way, the central objectives of urban development policy will be implemented, such as the target dimension of the green city called for in the New Leipzig Charter.

#### Cycling will make its inroads into rural areas

- **Rural areas** will also benefit from the cycling boom. The use of bicycles will increase strongly in everyday life and leisure: Mobility as well as urban development and (local) supply networks will be designed and planned in an integrated way. Seamless cycling networks will be created. Appropriate cooperation and organisational structures will be established.



### Field of action: Innovation & digitalisation

#### Data as a basis for planning and innovation

- **Up-to-date and, if possible, comprehensive data** will support cycling planning. It can improve the safety, performance and user-friendliness of cycling. Freely available and high-quality data on bicycle traffic will form the basis for innovative products and services 'Made in Germany'.





# Cycling & politics

## Cycling & politics


### Guiding principle: Governance for strong cycle traffic

Strengthening cycling is a societal task that involves many fields of action, from legislation and the financing of transport to the transformation of settlement spaces and mobility systems. A strong alliance between politics, business and civil society is needed to implement the NCP 3.0 in the areas of infrastructure, safety, acceptance and participation as well as business and innovation. Interdisciplinary cooperation has an important role to play in this context.

The aim is for the bicycle to become an everyday means of transport for everyone. This calls for a reliable and effective policy framework. The NCP 3.0 therefore stands for the modernisation of the legal framework, it identifies the necessary resources and structures for local and regional authorities and encourages a reallocation of public land.

A modern legal framework makes it possible to balance the interests of all road users, from safety to climate and health protection right through to social participation.

### Germany 2030 – a cycling nation

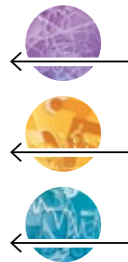
 A modern legal framework established by the Federal Government and the federal states will have firmly enshrined the goals of climate, environmental and health protection and will enable comprehensive promotion of cycling.

### What's most important ...

**Modernise the legal basis!** The Federal Government will create the legal framework to encompass the 'Vision Zero' guiding principle, climate, environmental and health protection. The Federal Government and the federal states will regularly review the relevant legal framework on cycling to ensure it is up to date and consistent and thereby create legal certainty.

**Extend the scope for action of municipalities and federal states!** The Federal Government will enable ordinances to promote cycling in order to provide local governments with the flexibility they need to promote cycling.

**Simplify design options in the public space!** The framework conditions created by the Federal Government will provide, for instance, how and where bicycle





rental systems can use public space, where parking facilities for cargo bikes can be designated and how junk bikes are dealt with. This will create legal certainty and at the same time promote solutions that are compatible with the city.

**Advance infrastructure development!** The Federal Government, federal states and local authorities will work together to speed up planning approval procedures and to make plan amendments more flexible and simpler. The Federal Government will support the rapid expansion and conversion of the network and create the necessary conditions for this under road traffic law. In particular, it will make it easier for municipalities to set up bicycle lanes. Regionally important cycle expressways will be treated as equivalent to federal-state main roads and will hence be given appropriate consideration in planning, construction and maintenance.

#### IN FOCUS

### *Legal framework for more innovation in cycling*

→ **Anchor cycling in building and planning law!** The Federal Government, federal states and local authorities will integrate cycling needs in regional planning, planning law and building regulations.

→ **Lay the foundations for safe coexistence!** The Federal Government will review the obligation to use cycle lanes for cargo bikes and the right to use cycle lanes outside urban areas for speed pedelecs. It will align the legal framework for visibility rules at intersections with technical standards and rules. In this way, cyclists will become more visible in road traffic.

→ **Strengthen the legal framework for commercial bicycle use!** The Federal Government will examine a clarification of the technical regulations for cargo bikes. It will support the efforts of the associations to create uniform European standards for superstructures and digital interfaces.

→ **Set standards!** The Federal Government will create the legal basis for opening data interfaces of mobility service providers and thereby enable municipalities to control their offerings and to integrate these into their mobility planning.

→ **Push & pull for relaxed coexistence in traffic!** The Federal Government, federal states and local authorities will promote cultural change in the way road users interact with each other. Essential preconditions for this are educational measures as well as communication and information tailored to specific situations and target groups. Compliance with traffic rules must be consistently monitored and offences must be punished. The federal states will support the police and municipal authorities in their enforcement measures. The Federal Government will constantly review the catalogue of fines.

Generous funding and easily accessible grant programmes will enable all stakeholders to achieve the NCP 3.0 guiding principles.

### Germany 2030 – a cycling nation



Financial support for cycling from the Federal Government, federal states and local authorities will be oriented towards around €30 per person per year during the term of the NCP 3.0.



Support programmes for municipalities and businesses will be designed to be user-friendly and low-threshold, so that these funds can be accessed promptly and comprehensively.

### What's most important ...

**Consider doubling subsidies!** The financial resources of the federal and federal-state funding programmes guarantee a large-scale expansion of cycling infrastructure. This calls for comprehensive planning legislation. Consideration should be given to doubling annual investment and non-investment funds compared to 2020. An average expenditure of around €30 per person and year will serve as an orientation for the stakeholders on the ground.

**Design user-friendly support!** The Federal Government and the federal states will gear their support programmes more closely to the needs and possibilities even of smaller municipalities. To this end, they will extend project terms and reduce de-minimis limits. They will also make it easier to bundle funding applications.

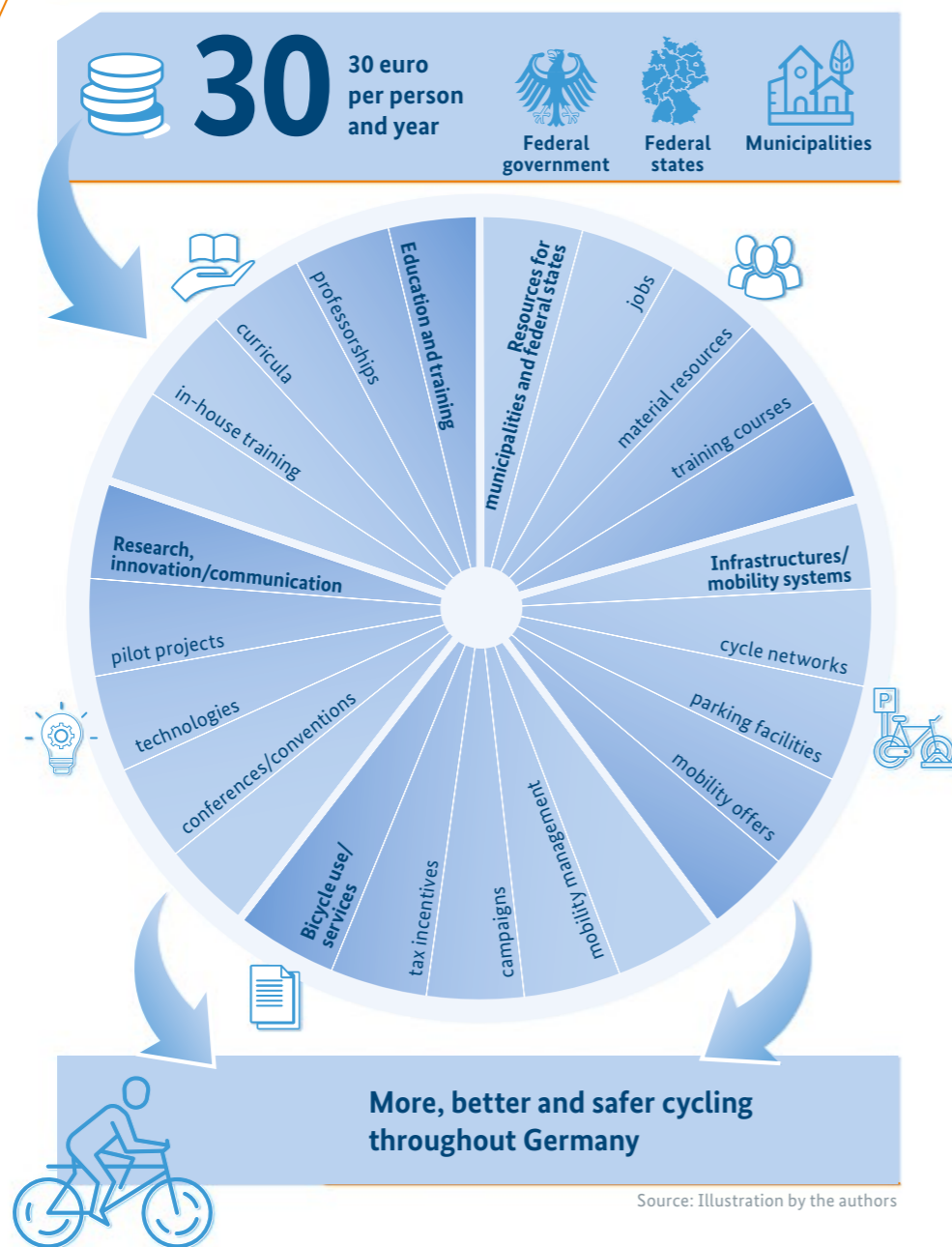
**Ensure a high level of quality in infrastructure development!** The Federal Government and the federal states will award subsidies on the basis of the applicable technical standards and rules. In the medium to long term, they will also require safety audits to be carried out.



**IN FOCUS** *Areas of support for cycling until 2030*

In order to implement the measures of the NCP 3.0, funding must be significantly expanded. The aim is to directly encourage the use of bicycles through infrastructure investments, campaigns or tax incentives, and to ensure effective implementation of the measures through jobs, education and research.

**Areas of support for cycling**



Strong structures in the administration enable rapid and determined promotion of cycling.

**Germany 2030 – a cycling nation**

- Cycling will be firmly established as a cross-sectional task at all administrative levels.
- All areas of politics will have come to recognise the bicycle as a natural means of transport.
- The role of the districts as important stakeholders in cycling policy will have been significantly strengthened.

**What's most important ...**

**Establish cycling as a binding cross-sectional task!** Cycling will become a cross-cutting issue at all levels of government. The Federal Government, federal states and local authorities will create administrative structures, jobs and permanent contact persons to coordinate and implement the tasks of promoting cycling and to incorporate these tasks into integrated concepts. They will provide for continuous professional development of managerial and technical staff.

**Create strong networks!** The districts will significantly expand their coordination function in regional cycling policy and planning. They will perform service tasks for smaller municipalities. In order to support the districts and municipalities, the federal states will qualify existing networks to become supra-regional, nationally interconnected 'cycling competence centres'.

**Active communication at administrations!** The Federal Government, federal states and local authorities will establish a lively culture of discussion within and between administrative units for the broad promotion of cycling. They will design decision-making structures in an open and transparent manner. They will also make active use of existing offerings for networking, outreach and further training.

**Establish structures across administrative boundaries!** Districts, cities and municipalities must work together in many areas of responsibility in order to align mobility and spatial development with sustainability goals. The municipalities will establish broad-based alliances of politicians, planning and supervisory authorities, business and civil society in order to quickly implement the necessary measures.

**Make cycling a firmly established part of municipal mobility management!** Projects to promote cycling are a natural part of municipal mobility management.

IN FOCUS

### Good examples of bicycle-friendly administrative structures

Municipalities, federal states and the Federal Government will establish structures for cooperation across administrative boundaries. The following examples are representative of successful approaches<sup>40</sup>:

Initiative	Goal	Core elements	Partners
<b>Kieler Fahrradforum</b> (Kiel Bicycle Forum)	Continuous improvement of cycling infrastructure and comprehensive outreach and participation	Advisory board to several city committees: Regular meetings, excursions in the cycling network, suggestion management and public relations work	Politics, administration (civil engineering office, office for residence and regulatory affairs, cycling commissioner), public transport, associations, police and universities
<b>Bündnis für den Radverkehr Hamburg</b> (Hamburg Alliance for Cycling)	25 % share of cycling through infrastructure development for inner-city cycling, commuters and tradespeople	Cooperation structures, participation procedures, resource allocation, measures	District offices, authorities for industry and transport, interior affairs, urban development and environment as well as various state-run enterprises
<b>Berlin Mobility Act</b>	Climate-neutral transport 2050, 'Vision Zero' and land-use efficiency by promoting the environmental alliance	Several successively elaborated building blocks on general goals, public transport, cycling, walking and new mobility	Senate Department for the Environment, Transport and Climate Protection, citizens' initiatives, associations and coalition factions
<b>Bündnis für moderne Mobilität</b> (Alliance for modern mobility)	The alliance addresses the local mobility fields of action. Close exchange between the Federal Government, federal states, municipalities and associations for better mobility in rural and urban areas	The alliance is the interface between municipalities, federal states and the Federal Government for coordinated action and a continuous exchange of experience, information on the legal situation and funding instruments, promotion of innovation	Federal Ministry of Transport and Digital Infrastructure (BMVI), Conference of Transport Ministers of the Federal States and Municipal Umbrella Organisations
<b>Nationales Kompetenznetzwerk für nachhaltige Mobilität (NaKoMo)</b> (National Competence Network for Sustainable Mobility)	Support for municipal stakeholders in the implementation of sustainable mobility projects	Nationwide networking as well as information and knowledge transfer through workshops and lectures; provision of a free digital exchange platform	Federal Government, federal states and local authorities

Bicycle-friendly neighbourhoods, liveable public spaces and intermodal mobility offerings make cities and regions more attractive and encourage people to use the bicycle.

### Germany 2030 – a cycling nation

-  The integrated municipal urban development policy will automatically and consistently take cycling into account at all levels, from strategic development planning right through to detailed road space planning.
-  The majority of municipalities will design their mobility services as well as road and public spaces in line with their specific needs. This policy will pursue the development goals of sustainability, resilience, environmental and climate protection, and quality of stay.
-  Municipalities will interconnect the different transport modes and will have greatly improved the integration of cycling into intermodal services.

### What's most important ...

**Accelerate paradigm shift!** Future-oriented strategic design principles will be geared towards sustainability, quality of life, health and resilience. Federal states and municipalities will take up successful examples of sustainable transport and settlement planning from Germany and other nations and use the legal and financial scope that has been created.

**Think and plan mobility in an integrated way!** The majority of municipalities and transport companies as well as the federal states will create and implement integrated mobility strategies and bicycle-friendly concepts for neighbourhoods and urban development. The objective is to shift traffic from cars to environmental alliance concepts and in particular to the bicycle.

**Attractive public spaces for all!** Public spaces should be accessible to all citizens and encourage them to stay. Cities and municipalities will pursue a policy of transparent balancing of these goals with commercial use of public space, for instance, for restaurants, retail, or mobility services. The space needed for a better quality of stay and for the environmental alliance will also be recouped at the expense of motor vehicle traffic.





**Promote innovation in the design of public space!** New possibilities will exist for flexible and temporary use of public space. These options must undergo practical testing. The Federal Government will initiate model projects that support municipalities in reallocating land and creating cycling infrastructure. Innovative approaches will also be developed and tested. Successful solutions will be communicated nationwide and quickly transferred to a broad application.

**Toolbox for urban redevelopment!** The Federal Government and the federal states will provide local authorities with a hands-on collection of successful examples and new findings. This will help to transform public space and develop cities in a sustainable way. Core elements will be cooperative and participatory planning, design and communication processes, also as a tool for promoting urban development.

## Concepts of bicycle-friendly neighbourhood structures

### IN FOCUS



The bicycle's strengths lie especially in shorter and medium distances. It is therefore particularly attractive as an everyday means of transport in compact and mixed-use settlement structures. More bicycle and pedestrian traffic in turn strengthens the function of public spaces as places to stay.

→ Regional planning and rural development concepts: Plan and realise housing developments with connections to public transport and express bicycle links, thus making cycling attractive for commuters.

→ Urban development: Align cities to the principle of the 'city of short distances': From the construction of new residential areas to the creation of additional living space in existing neighbourhoods along with the targeted development of green and recreational areas. Create decentralised facilities for local services and social infrastructure as well as easily accessible areas for local recreation, which is also called for in the 'New Leipzig Charter – the transformative power of cities for the common good'.

→ Neighborhood planning: Regulate motor vehicle parking consistently. Concentrate parking spaces in neighbourhood garages and keep public spaces largely free.

Proactive communication and participation are prerequisites for the successful development of cycling.

## Germany 2030 – a cycling nation



It will be a natural part of municipal policy to involve all sectors of society and the economy in an open and transparent manner in order to shape settlement areas, public spaces and mobility systems.



Participation procedures and decision-making processes will be inclusive, faster and more efficient thanks to innovative approaches and digital support.

## What's most important ...

**Value competencies!** The Federal Government, federal states and local authorities will use the experience and expertise of citizens in all planning and decision-making processes in a public, cooperative and open-ended discourse. Participation procedures will recognise the diversity of interests and the need for self-determination of the population. As far as possible, they will involve all social and cultural groups.

**Address the issue of a clear framework for tolerance standards!** Mobility patterns will become more individualised and demands on personal mobility will grow. This means a greater risk of conflict when scarce public land is used. The Federal Government, federal states and local authorities will use participation procedures to weigh up individual or economic interests against general interests and to make balanced decisions. Smart temporary projects can help to make the pros and cons of design changes tangible.

**Use the opportunities of citizen participation!** The Federal Government, federal states and local authorities will increasingly use idea competitions and digital formats for participation. They will work together with civil society initiatives to make cities and regions more bicycle-friendly. Those responsible will provide comprehensive information at an early stage about plans and projects, possible alternative solutions and the relevant financial, legal and technical framework conditions.







# Bicycle & infrastructure

## Bicycle & infrastructure

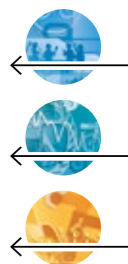
### Guiding principle: Seamless cycling in Germany

A seamless network of safe paths and roads that can be intuitively and conveniently used is key to making cycling the transport mode of choice for people of all ages and for all user groups. A seamless cycling infrastructure also includes easily accessible and convenient bicycle parking facilities at destinations and at home. The bicycle also offers significant strengths as an intermodal mode of transportation. As a precondition for this, bicycle parking facilities at railway stations and public transport stops must become a basic service, bicycle transport on public transport must be improved and bicycle rental systems must be planned and implemented in an integrated manner.

Action is needed when it comes to expanding the network, developing parking facilities and linking cycling with public transport. This is the only way for a seamless cycling network to become a reality in 'Germany as a cycling nation' in 2030.

The prerequisite for this is a political framework that allows for a reallocation of space for cycling. Well-trained planners must be able to develop convincing integrated concepts and implement them quickly. The better the conditions for cyclists, the more successful the cycling sector will be. An encouraging cycling infrastructure must be available if more high-quality bicycles are to be purchased, public bicycle rental systems used or transport services shifted from cars to bicycles. Last but not least, cycling infrastructure must meet the needs of diverse user groups. Road safety has the highest priority.




It is important that cycling infrastructure be maintained at a high level and that existing deficits be remedied. Cycle lanes that are too narrow, poor surfaces or projecting tree roots are an obstacle to more cycling. Since bicycles will be used more and more throughout the year, a winter service that quickly and permanently clears cycle paths of snow and ice will also be standard.





Cyclists want to reach their destinations safely, conveniently and quickly. For this, they need seamless cycling networks where different infrastructure elements interlock seamlessly.

**Germany 2030 – a cycling nation**

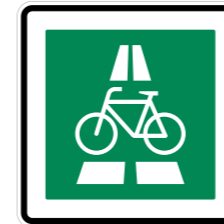
-  All federal states and districts will have qualified cycling network plans that they consistently implement. The networks will be coordinated with each other and with the cities and municipalities.
-  Cyclists will be able to reach their destinations safely and conveniently in and outside cities, on interconnected everyday and tourist routes, in and out of town on continuous cycling networks.
-  The share of federal, federal-state and district roads with cycle lanes will have grown significantly.

**What’s most important ...**

**Develop and build closed cycling networks!** Federal states and districts will plan seamless, hierarchical cycling networks and implement them in a coordinated manner. To this end, they will work together with cities and municipalities. The needs of different user groups will be taken into account and points of conflict reduced early in the network planning stage.

**Plan for vulnerable road users!** Planners will draw from a wide range of infrastructure solutions. They will give priority to separated and barrier-free cycling infrastructure on main roads, both along routes and at junctions. They will also consider aspects of safety for society as a whole in order to make cycling attractive for everyone.

**Mixed traffic only at low speeds and low motor vehicle density!** Guiding cyclists in mixed traffic with motor vehicles is only a permanently good solution in cities and out of cities at low motor vehicle speeds and traffic volumes. Municipalities will accompany this with speed-reducing installations. Official regulations will set clear limits for use in mixed traffic in terms of vehicle traffic volume, share of heavy traffic and maximum vehicle speed.



Cycle path

**Roll out nationwide cycling infrastructure!** The Federal Government, federal states and local authorities will rapidly expand Germany’s cycling network, taking into account the requirements of everyday cycling. They will implement cycle priority routes and express cycle connections, especially in all metropolitan regions. When new federal, federal-state or district roads are built or extended, accompanying cycling infrastructures will also be generally built too. In the existing road network, the development of separate cycling infrastructure will be strongly promoted wherever this is necessary in view of limits of use. The expansion of cycling routes that are defined in the cycling networks of the federal states and municipalities will be handled as a matter of priority.



Cycling zone

**In cities: Create space for good cycling infrastructure!** Space for cycling by redistributing moving and stationary traffic enables the implementation of city-compatible concepts and the construction of high-quality and sufficiently wide cycling infrastructure on main roads. In the secondary network, municipalities will use cycle lanes as a self-evident infrastructure element.



**Test and establish new concepts!** The Federal Government, federal states and local authorities will initiate model projects, testing, for instance, flexible road cross-sections and solutions to reduce the risk of accidents caused by tram tracks in cities, and integrating new mixed traffic solutions and agricultural roads into the cycling networks outside cities. The Federal Government will create the conditions under road traffic law for new solutions and support the model projects with financial resources. Following successful testing, the road authorities will then implement these solutions.



## IN FOCUS *Create seamless networks*



### ... with differentiated infrastructure solutions outside cities

→ Roads with a regional or supra-regional connection function and a high volume of motor vehicle traffic, a high proportion of heavy goods vehicles or a high permitted motor vehicle speed will be made safe for cyclists by providing dedicated cycling infrastructure. The requirements of pedelecs and speed pedelecs will be taken into account.

→ Agricultural roads (agricultural and forestry roads as well as suitable service routes along waterways) will become infrastructure elements in cycling networks and can fill numerous network gaps.

→ Flexible solutions will be tested on other roads outside cities.



### ... with new solutions for safe cycling in cities

→ Protected bike lanes will become a standard design element in Germany.

→ Safe junctions will be implemented. A prerequisite for this is the establishment of a safe crossing design.

→ Concepts for flexible road cross-sections, for instance, with low-speed lanes, will be developed to enable diverse inner-city traffic.

→ Bicycle lanes will create bicycle routes in the secondary network with low motor vehicle traffic. Clear priority rules with regard to intersecting roads will allow cyclists to move forward quickly and safely.

### ... through efficient supra-local infrastructures

→ Commuters, in particular, will benefit from well-developed express cycle connections, priority cycle routes and directly guided cycle paths, as well as their good connections to public transport.

Infrastructure encourages cycling if it is self-explanatory and error-tolerant, if it can be used all year round and allows for growing demand.

## Germany 2030 – a cycling nation



Self-explanatory and error-tolerant cycling infrastructure will be a reality. More than 75% of cyclists will feel safe in road traffic. Guidance of bicycle traffic separate from motor vehicle traffic, safe guidance at junctions and independent signalling will be natural elements of urban cycling networks.



Intersections will be intuitively understandable and self-explanatory for all road users. They will offer a high level of safety and accessibility for vulnerable road users. They will be designed in such a way that cyclists are highly visible and that cyclists too can easily see other road users.

### What's most important ...

**Build self-explanatory and error-tolerant cycling infrastructure!** The relevant technical standards and rules for planning cycling infrastructure will be adapted to current developments. They will be supplemented with intersection alternatives with protected guiding systems as well as design recommendations for protected bike lanes. They will also address the requirements of special bikes, such as cargo bikes. Based on this, the Federal Government will provide examples of cycling infrastructure on routes and at junctions and highlight safety-relevant aspects. Furthermore, the Federal Government will compile realistic approaches as well as best-practice examples for the promotion of cycling as a 'toolbox' for all types of spaces.

**Uniform appearance nationwide!** The Federal Government and the federal states will develop a uniform design ('corporate design') for road markings and signposting for the German cycling network, so that cyclists will find it easier to recognise route guidance and directional information. These standards can be transferred to the networks of the federal states and municipalities.

**Pay attention to future developments!** More people will cycle in the future. This must be taken into account in the construction and modification of cycling facilities. Similarly, the standard must also consider special bikes, especially cargo bikes and bikes with trailers, with a view to width, speed and riding dynamics.

**Rapidly redesign inadequate cycling infrastructure!** The Federal Government will develop a decision support tool for evaluating existing infrastructure. Municipalities and federal states will apply this tool and revamp infrastructure to correspond to the latest state of the art.

**Maintain and service cycling infrastructure!** The Federal Government, federal states and local authorities will ensure appropriate maintenance and service management in their respective areas of responsibility and make sufficient funds available for this purpose. This includes a winter service to ensure that bicycles can be used safely and comfortably all year round.

**Seize the opportunities of digitalisation!** Up-to-date digital infrastructure and demand data as well as planning tools will make it easier to plan attractive cycling infrastructure. The Federal Government will launch research projects in which data-based planning tools are newly developed or upgraded. In addition, the Federal Government and the federal states will support municipalities in the increasing roll-out of ready-to-use technical solutions. The focus will be on speeding up cycling, for instance, with phased traffic lights or traffic signal control based on bicycle traffic.

**Build and fund encouraging cycling infrastructure!** The Federal Government and the federal states will implement high-quality cycling infrastructure on federal and federal-state roads.

They will promote, in particular,

- the development of the long-distance cycling network,
- the construction of express cycle links, priority cycle routes and other inter-urban cycle links,
- the upgrading of agricultural roads to cycle paths suitable for everyday use,
- the conversion and expansion of cycling infrastructure in municipalities and
- measures to increase road safety at junctions.

Funds will be paid out on the basis of the applicable technical standards and rules. More spacious designs and justified exceptions to standard widths will be possible in order to create encouraging and 'intuitive' cycling infrastructure.



## Safe and understandable design of junctions

IN FOCUS

Attractive cycling networks need consistently safe and easy-to-understand junctions. After all, these are the most critical infrastructure elements for the road safety of cyclists. The following principles must be observed:

- Make right-of-way rules for cyclists at intersections and junctions intuitively recognisable with suitable paving and colours; avoid bidirectional cycle paths whenever possible.
- Remove visual obstructions on an ongoing basis since good visibility at intersections is critical to safety.
- Dedicated traffic signal phases for cyclists (and pedestrians) in order to be seen by turning motor vehicles, especially at intersections with many turning vehicles or high accident rates.
- Defuse conflict zones by providing sufficient standing and clearance areas and, if necessary, by structurally separating bicycle and motor vehicle traffic.
- Rules for left and right turns for cyclists that are understandable for all road users, for instance, by dedicated traffic light control.

At a general level: The Federal Government and the federal states will initiate research and model projects for the safe design of intersections and support local authorities in redesigning intersections.



Readily accessible bicycle parking facilities close to the destination, also in residential areas, are crucial for increasing the use of bicycles.

## Germany 2030 – a cycling nation



Cyclists will be offered readily accessible and user-friendly bicycle parking facilities in sufficient quantity at their destinations and homes. The increasing requirements of cargo and special bikes will be taken into account.



Municipalities will have redistributed public space in favour of the means of transport of the environmental alliance and will have designed this space with quality in mind. This will also free up space for stationary bicycle traffic.



### What's most important ...



**Plan strategically!** Municipal bicycle parking concepts as part of integrated urban development concepts will take growing and changing demand into account as well as the specific (space) requirements of special bicycles, especially cargo bikes.



**Active municipalities!** Municipalities will create more bicycle parking facilities in the public space. In areas with high demand and at the same time high competition for use, they will build bicycle parking garages as well as large, central parking facilities. They will work towards the conversion of easily accessible car parking spaces into multi-storey and underground car parks. They will also raise awareness among private partners for the construction of bicycle parking facilities and support them with specific implementation advice.



**Redistribute spaces!** Municipalities will gradually create space for bicycle parking in public areas, also by converting car parking spaces. They will support this with the necessary parking space management for motor vehicle traffic together with concepts for loading and delivery traffic.

**Be a role model!** The Federal Government, federal states and local authorities will build bicycle parking facilities in sufficient quantity and quality at all public facilities, thereby setting an example for the private sector.

**Remove junk bikes!** Municipalities will take advantage of opportunities to manage junk bikes.

**No new construction without readily accessible and high-quality bicycle parking!** The Federal Government and the federal states will adapt the specifications in the model building code and the federal-state building codes. Municipalities can regulate details, according to local conditions, by statutes.

**Cover pent-up demand in and at existing buildings!** The Federal Government will provide financial support to housing associations, homeowners' associations, employers and retailers to build bicycle parking facilities in and at existing buildings.

### Bicycle parking facilities that invite use

IN FOCUS

- ... are located close to destinations, are compatible with urban design and easily accessible without barriers.
- ... provide good support for bicycles and allow the bicycle frame to be secured.
- ... have a roof as weather protection at locations designed for longer parking times.
- ... enable safe operation and easy cleaning.
- ... are big enough and also proportionally meet the space requirements of cargo bikes and bicycles with trailers.

Construction of adequately sized Bike & Ride facilities at stations and stops is the most important measure to strengthen the bicycle as an intermodal means of transport.

### Germany 2030 – a cycling nation



The bicycle will have become considerably more important as a means of transport to railway stations and public transport stops. The share of Bike & Ride users will have risen steadily.



Sufficient bicycle parking facilities will be available at railway stations and many public transport stops.

### What's most important ...

**Identify demand!** The specific need for bicycle parking facilities at stops and stations will be quantified in local transport plans. Local transport plans will contain binding statements regarding the provision of Bike & Ride facilities at stops and railway stations.

**Roll out Bike & Ride facilities nationwide!** Cities and municipalities will create bicycle parking facilities at public transport stations and stops. The federal states will expand their funding programmes. The Federal Government will develop a programme of *bicycle parking facilities at railway stations* and provide funding. Together with DB AG, the Federal Government will expand the Bike & Ride campaign to build safe bicycle parking facilities. In city centres, measures for reorganising stationary traffic will create parking facilities close to bus stops.

It should be generally possible to transport bicycles on public transport whenever the means of transport is suitable for this.

### Germany 2030 – a cycling nation



It is essential for cyclists to take their bicycles with them on public transport: At least 50% of users will give the quality of bicycle transport on trains, trams and buses a positive rating.

#### What's most important ...

**Expand and harmonise bicycle transport offerings!** The Federal Government is committed to expanding the offerings for taking bicycles on long-distance trains. Public transport authorities will set rules for transporting bicycles when tendering services for local rail passenger transport. They will determine the fare and transport conditions for transporting bicycles on trains in a comparable manner and make these conditions attractive and transparent. The federal states will promote possibilities for transporting bicycles on or in buses, especially in rural areas.

**Make railway stations barrier-free!** Deutsche Bahn will support the transport of bicycles, including special bikes, on trains. To this end, it will make stations barrier-free, in particular, with ramps and lifts.



Public bicycle rental systems can sensibly complement established mobility services if they are integrated into municipal, regional and supra-regional mobility planning and public transport.

### Germany 2030 – a cycling nation



Public bicycle rental systems will be a natural part of urban and regional mobility concepts. They will be linked to each other by fare systems and digitally to local and long-distance public transport.

#### What's most important ...

##### **Expand bicycle rental systems regionally and ensure targeted management!**

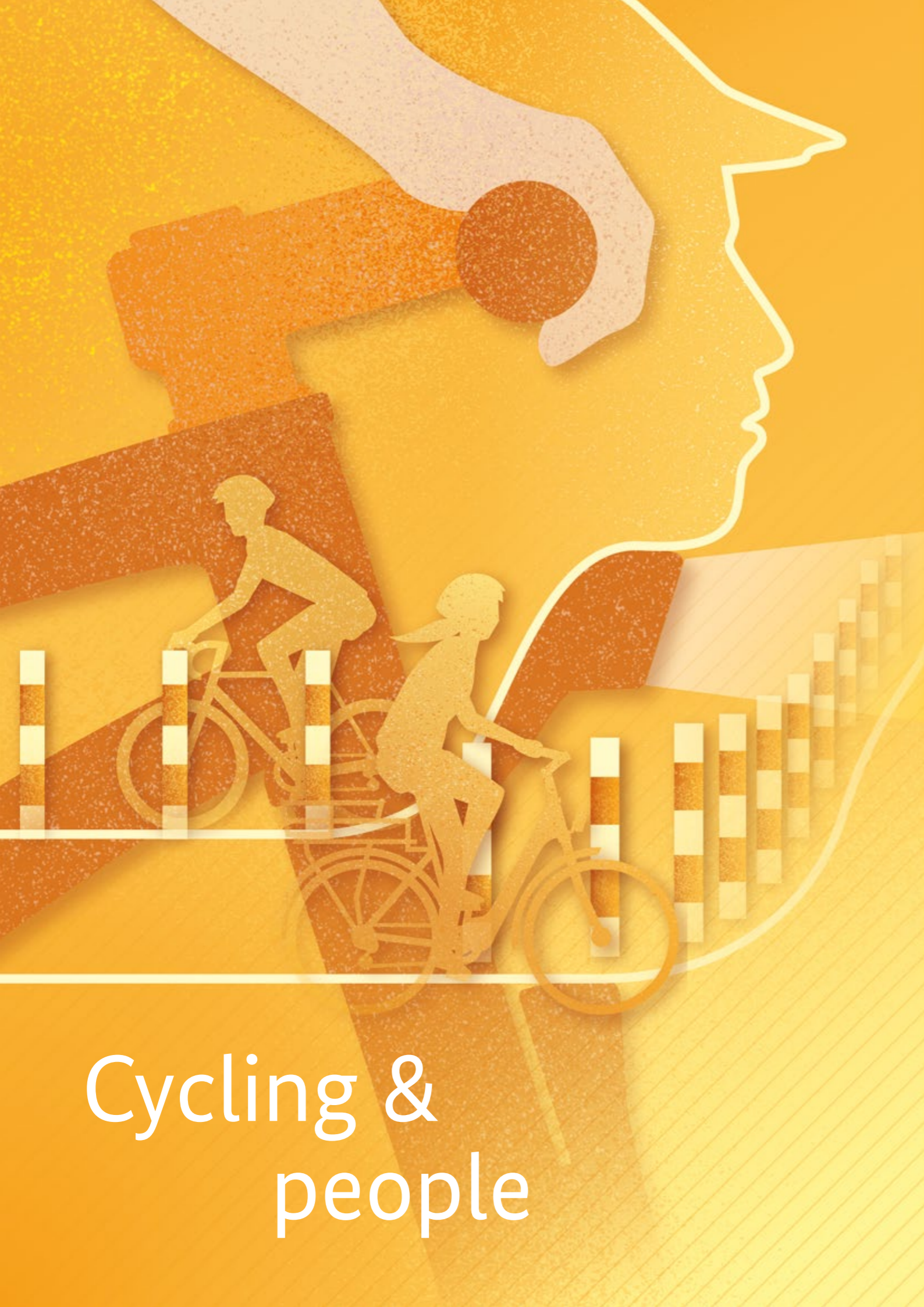
Municipalities and federal states as well as regional planning and public transport authorities will define the quality characteristics of public bicycle rental systems. They will enter into binding agreements with operators. The Federal Government and the federal states will create legal certainty with regard to regulation of public bicycle rental systems and the parking of rental bicycles.

The Federal Government, the federal states, public transport authorities, transport companies and operators of public bicycle rental systems will work together on geographic, fare and digital integration. Both the local transport plans and the possibility of licensing companies will serve as steering tools.

**Use data!** The Federal Government will oblige operators of bicycle rental systems to provide an open, standardised interface for real-time information regarding bicycle locations and rental status. Municipalities that commission bicycle rental systems will additionally regulate the provision of data in their contracts. In this way, they can control the bicycle rental systems and integrate them into their mobility concepts.







# Cycling & people

## Cycling & people

### Guiding principle: Communication and education create a culture of cycling



When the bicycle is a natural means of transport in everyday life and in leisure time, in all groups of society, in the city and outside, for young and old, we refer to this as a vibrant cycling culture. This presupposes that political action is clearly aligned with the overarching goals of 'more, better and safer cycling'. And it requires the existence of an attractive, error-tolerant infrastructure and that the needs of different user groups, especially of vulnerable road users, are taken into account.



Extensive educational offerings are needed for a vibrant cycling culture. It is therefore important to start early with good and comprehensive mobility education and to consolidate learned behaviour in all phases of life, also with a view to promoting physical activity, which corresponds precisely to the idea of lifelong learning. There is also a need for easy-to-understand and targeted campaigns which also appeal to people who have not cycled much up to now.

**Cycling culture starts with children and youths:** Comprehensive mobility education, including education on the health benefits of cycling, as well as cycle-friendly and safely designed school and leisure routes, introduce young people to regular and responsible cycling. This is the basis for integrating cycling into everyday life in the following phases of life as well.

### Germany 2030 – a cycling nation

-  A comprehensive mobility management system will be introduced at all schools, with cycling being given a central role.
-  Mobility education at schools will be intensified and extended to all grades. It will introduce children and young people to the use of bicycles and thus lay the foundation for integrating cycling into active everyday life.



### What's most important ...

**Establish mobility management at schools!** The Federal Government and the federal states will set up funding programmes for mobility management at schools. Schools and municipal authorities will draw up school mobility plans and cooperate closely in this regard. The plans will address cycling as an important form of mobility for children and young people.

**Expand mobility education!** The federal states will give age-appropriate, modern and sustainable mobility education a permanent place in the curricula for all types of schools across all grades. They will ensure that sufficient teachers are available for mobility education. The Federal Government and the federal states will support schools with educational and training materials.

**Create plans for cycling to school!** The federal states will oblige municipal authorities and secondary schools to draw up and communicate plans for cycling to school. In this way, they will ensure that schools can be reached safely by bicycle, even across municipal boundaries. The Federal Government and the federal states will provide appropriate tools and planning guides as well as best-practice approaches to school route safety and mobility education.

**Make educational facilities bicycle-friendly!** The Federal Government and the federal states will promote the bicycle-friendly infrastructure design of educational facilities. Key to this is the connection of schools to the cycling network and the construction of bicycle parking facilities.

**Reach out to children and young people outside of school!** Municipalities, associations and local clubs will teach children and young people to enjoy cycling. Suitable leisure activities will also reach socially disadvantaged families in particular.

**Start early!** The federal states will make mobility education a permanent part of educational programmes at day-care centres in order to arouse children's interest in cycling from an early age.

Mobility education for adults increases road safety for cyclists and contributes towards a vibrant cycling culture.

### Germany 2030 – a cycling nation



The Federal Government will have further developed driving school training (for driving a motor vehicle) to include aspects for increasing safety for cyclists.



Bicycle retailers will offer buyers of pedelecs additional cycling training to complement existing training.

### What's most important ...

**Organise mobility education for adults!** The Federal Government, the federal states, municipal authorities and other stakeholders (such as bicycle retailers) will promote and implement age-adapted and low-threshold cycling training. Besides practical exercises and teaching current traffic rules, participants will also reflect on their own mobility habits and learn about the benefits of cycling, including health aspects.

**Upgrade driving school training!** The Federal Government will develop driving school training to give bicycle safety a higher priority. Through a change of perspective, the behaviour of cyclists of different age groups and potentially dangerous situations will be explained to learner drivers.

**Learn from mistakes!** The federal states and municipalities will provide more information about the effects of traffic rule violations on other road users. They will combine this with control and punishment of traffic violations.

**Promote fair coexistence in traffic!** A change in culture when it comes to interacting with other road users and a focus on vulnerable road users will reduce dangerous situations. Cycling will become generally more pleasant and relaxed. The Federal Government, federal states and local authorities will promote fairness in traffic through broad campaigns and outreach measures for all age groups and segments of the population.

Bringing cycling culture to everyone: Communication measures will be used to systematically address precise target groups. This specifically includes population groups for whom cycling has so far played a lesser role.

### Germany 2030 – a cycling nation



Target-group-specific communication measures will ensure widespread and safe use of the bicycle as an everyday means of transport. The measures will be designed as a long-term programme that is evaluated regularly.

#### What's most important ...

**National cycling culture campaign!** The Federal Government will conduct a national cycling culture campaign. The campaign will associate cycling with a good attitude towards life, freedom and flexibility. The federal states will implement cycling culture campaigns for specific target groups.

**Communication at many levels!** Municipalities and public institutions will address people directly 'on the ground' through campaigns and actions. Public health stakeholders will inform about the positive health effects of cycling.

**Increase the effectiveness of campaigns!** The Federal Government, federal states and local authorities will continuously evaluate their campaigns and communication measures and coordinate these with each other. This will perpetuate the messages. The Federal Government will compile a collection of best practices and a 'toolbox' for use by public bodies and companies.

**Promote cycling culture holistically!** The Federal Government, federal states and local authorities will regularly conduct interdisciplinary dialogue processes to promote a bicycle-friendly mobility culture in politics, administration, business, academia and society.

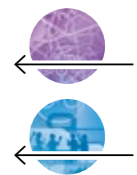
**Be a role model!** Politicians at all levels will be role models and cycle regularly.

### Guiding principle: The 'Vision Zero' guiding principle in cycling

The 'Vision Zero' guiding principle is key to promoting cycling: Cycling must become much safer if more people are to use the bicycle in their daily lives and for leisure.

Implementing the NCP 3.0 will help reduce traffic fatalities by at least 40% by 2030 compared to 2019.

High-quality and error-tolerant infrastructure is important for the safety of cyclists. In particular, intersections need to be designed in a safe and understandable way. It is equally important to reduce speed differences between road users in mixed traffic. Ultimately, dangerous situations will also be reduced when all road users adopt intuitively correct behaviour. Mobility education 'from an early age' (→ Guiding principle 'Communication and education create a culture of cycling') ensures that children and adults move safely and routinely in road traffic. In addition, a cultural change is needed in interaction with other road users. Vulnerable persons must be given special consideration.



**Good road safety management forms the basis for the 'Vision Zero' guiding principle. Cyclists must be able to move safely in traffic.**

### Germany 2030 – a cycling nation



Despite significantly more cycling, the number of cyclists killed on roads will be reduced by at least 40% compared to 2019. This will contribute to the achievement of national road safety targets.



Safety and integrity of vulnerable road users will be paramount in all cycling promotion measures.



Safety-relevant technologies will be used, for instance, in new motor vehicles. Existing fleets (HGVs, buses, waste disposal vehicles) will be rapidly retrofitted and a high level of penetration achieved.

## What's most important ...

**Introduce mandatory safety management!** The Federal Government, federal states and local authorities will adapt road infrastructure safety management procedures more closely to the needs of cycling; for example, in the work of the Accident Commission, through extended road inspection, planning and inventory audits as well as safety analyses of road networks. They will make these measures mandatory for all roads in cities and outside. The application of the procedures and the implementation of the results will be regularly reviewed.

**Perform safety audits!** In the medium to long term, the Federal Government and the federal states will make the awarding of subsidies for the expansion of cycling infrastructure conditional on the performance of a safety audit. The audits will constitute a traffic safety analysis of shortcomings in draft plans. Results may be disregarded only in justified cases.

**Safety technologies in motor vehicles protect cyclists!** The Federal Government will have campaigned at international/European level for assistance systems, such as turning or braking assistants, to be made mandatory in new vehicles. It will also promote the voluntary retrofitting of existing fleets with funds and through communication measures. The federal states and municipal authorities will make arrangements to disseminate these assistance systems, for instance, to equip their own vehicle fleets with assistance systems or to award public transport contracts only to operators of equipped vehicles. The local road traffic authorities will take the necessary measures to prevent serious turning accidents, for instance, by banning heavy goods vehicles on specific routes. Manufacturers will be committed to the further development of assistance systems.

**Motivate cyclists to contribute to their own protection!** The Federal Government will promote voluntary bicycle helmet use, adequate safety equipment for bicycles and increased visibility for cyclists throughout.

**Gain new knowledge!** The Federal Government and the federal states will increasingly initiate research projects to improve cycling safety.

## Good data for road safety

### IN FOCUS

Good safety management for cycling requires detailed knowledge of accident patterns and road traffic hazards. This information must be used consistently.

→ The federal states will arrange for additional information relevant to cycling safety management to be recorded in police accident reports.

→ The Federal Government and the federal states will include appropriate data in official road traffic accident statistics. They will, for instance, create the conditions for hospital data to be used for road safety management. The Federal Government will commission further studies on near misses in order to make a broader database available for road safety management.

→ The federal states and, above all, municipal authorities will make intensive use of available accident data and tools for data evaluation. They will introduce mandatory accident analyses and use the findings in planning, operation and maintenance. They will identify safety-relevant aspects of new forms of mobility through regular monitoring.

→ Road traffic authorities will inspect accident-prone junctions even faster than before, draw up action plans and implement them promptly.



# Cycling & business

## Cycling & business

### Guiding principle: Germany as a cycling nation

The bicycle sector includes manufacturers, retailers and service providers. With its innovative and attractive products, it generates important momentum for increased bicycle use. Conversely, it also benefits from the comprehensive promotion of cycling. The following factors are decisive if people are to cycle more in everyday life, for leisure and tourism:

- well-developed infrastructure,
- adapted structures in politics and administration,
- increased road safety and a vibrant cycling culture.

Bicycle traffic ensures higher turnover and rising employment figures. The bicycle sector will benefit from the fact that bicycle use is becoming more diverse and that demand for different types of bicycles, from folding to cargo bikes, for private and commercial use is increasing. Changed demand will also lead to new business models, such as company bike leasing, various forms of bike rental systems and sharing services.

The high national and international reputation of the German bicycle industry will make a major contribution to the perception of Germany as a 'cycling nation'.





Germany as a cycling nation will be characterised by a strong and growing bicycle sector. Innovative and attractive products will be specifically promoted. This will provide the necessary impetus for more cycling.

### Germany 2030 – a cycling nation

-  The German bicycle sector will continue to record dynamic growth and will have consolidated its leading position in the world market.
-  The German bicycle sector will contribute to increased bicycle use through further innovation. It will be seen as one of Germany's particular strengths.
-  A high density of bicycle retail outlets, a wide range of services and information on cycling as well as networking platforms will reflect the increased importance of cycling.

### What's most important ...



**Bring innovations to life!** The Federal Government, federal states and local authorities will support demonstration projects that enable all relevant target groups to get to know and try out innovative products and services as well as new infrastructure solutions.



**Make funding permanent!** The Federal Government and the federal states will consider the establishment of a foundation to promote cycling culture. Possible donors are the Federal Government, the federal states and the bicycle sector. The foundation will support start-ups as well as medium-sized enterprises. It will promote basic research and the market launch of innovative products and services for sustainable mobility.



**Drive innovation!** The Federal Government, federal states and local authorities will support model projects and innovation hubs. These will be used to test digital services and develop prototypes, especially for special bikes.




**Recognise successes!** The Federal Government will highlight cycling in innovation awards and other formats. Examples include the German Bicycle Award and the German Mobility Award.

**Reduce costs!** The Federal Government will examine the option of applying the reduced VAT rate to bicycle purchases and bicycle-related services and implement this as soon as possible.

**Strengthen the international position of Germany as a cycling nation!** The bicycle sector will strengthen 'Bikes made in Germany'. The associations of the bicycle sector will align themselves with the 'Logistics Alliance Germany' initiative in order to market the innovative products and services in the bicycle logistics sector internationally. The Cycling Embassy will also support the marketing activities.

Cycle tourism will be promoted as an important part of regional economic development in rural and structurally weak regions. In cities, cycling will be promoted as a central element of sustainable urban tourism.

### Germany 2030 – a cycling nation

-  Cycling for tourism and leisure will be popular among all groups of the population. The share of cycling tourism in German tourism will have increased.
-  Cities and regions will make use of the locational advantages associated with cycle tourism. Germany will also be increasingly perceived internationally as an attractive cycling destination. The number of foreign cyclists will have increased significantly.
-  The German cycling network, the German sections of the EuroVelo network and other long-distance cycle routes will have been developed and signposted according to uniform standards.

### What's most important ...

**Upgrade and expand tourist cycling infrastructure!** The German cycling network, the cycling networks of the federal states, the German sections of the EuroVelo network and the other long-distance cycle routes will have been developed and signposted according to uniform standards. The possibilities of digitalisation will be used for planning and routing, among other things.



## IN FOCUS

**Strong structures for cycle tourism**

The Federal Government, federal states and districts will create the organisational structures for a coordinated expansion of Germany's cycling network. This will also benefit local, regional and supra-regional cycle tourism offerings.

→ The Federal Government will set up a central coordination office for the German cycling network and also promote its expansion through investment measures. It will communicate regularly with regional and federal-state tourism organisations, districts and federal states. Together with the federal states, tourist organisations and ADFC, the coordination office will develop standards for expansion, signposting and digitalisation and implement them in a joint effort.

→ The Federal Government and the federal states will agree on a mandatory quality management system for the German cycling network. They will promote the networking of cycle route planners.

→ Regional tourism organisations and districts will appoint permanent contact persons for the cycle tourism infrastructure.

→ The federal states and district administrations will design and implement tourist and everyday cycling infrastructure jointly and in a coordinated manner. Funding programmes by the Federal Government and the federal states will support the coordinated expansion. Special incentives will be created for structurally weak regions.

**Expand service offerings!** Tourism organisations, with the support of the coordinating office, will provide advisory services, guidelines and best practices. This will enable more businesses, such as those in the retail, catering and hospitality sectors, to cater to the needs of cycle tourists. In addition, new businesses and services can be established along (long-distance) cycle routes.

**Strengthen marketing!** The tourism organisations will market their cycle tourism offerings in a targeted manner, for instance, through campaigns. The Federal Government and the federal states will support these marketing activities financially and as coordinators in order to inspire people who were previously less interested in cycling to travel by bike.

**Promote cycling tourism in cities and municipalities!** The cities and municipalities will support the creation of cycling tourism offerings. They will orientate the offerings (such as bicycle rental systems) in such a way that they are also attractive and usable for target tourist groups. One example is bicycle rental and return across municipal boundaries.

**Increase international perception!** A 'Cycling Embassy' will market Germany's cycle tourism expertise and provide advice on this at international level. In this



regard, it will cooperate, for instance, with the German National Tourist Board and the federal-state marketing organisations.

**Motivate people to come to Germany by public transport!** The Federal Government, rail transport companies and local rail passenger transport authorities will gear their bicycle transport services more closely to the needs of tourists. Information on bicycle transport for rail passengers will be more easily accessible via apps and websites. The federal states and public transport authorities will promote regional bicycle bus and bicycle rental systems.

**Create a good data basis!** The Federal Government will conduct studies on cycle tourism in Germany at regular intervals. The tourism regions and districts will supplement these studies with regional surveys and bicycle traffic censuses. The data will be communicated in order to increase the perception of cycle tourism as an important economic and location factor.

**Use potential for everyday transport!** The Federal Government will finance research projects on the correlation between bicycle travel and increased bicycle use in everyday life.

Germany will become visible as a cycling nation through targeted communication and marketing of innovative solutions. The focus will be on infrastructure and land use, tourism, innovative technologies and services.

**Germany 2030 – a cycling nation**

Germany will be perceived as a cycling nation at both national and international level.



Germany will regularly host international conferences and congresses in the cycling sector, including a Velo-City.

**What's most important ...**

**Targeted marketing!** The Federal Government will support a 'Cycling Embassy' that presents Germany as a cycling nation, for instance, at international events, trade fairs and conferences.

**Host international events!** The Federal Government, together with the bicycle sector, associations, federal states and universities, will actively apply to host international bicycle congresses and conferences. One example is the Velo-City conference of the European Cyclists' Federation (ECF).





**Visibility through political backing!** High-profile political representatives of the Federal Government and federal state will attend national and international cycling events, illustrating the importance of cycling for Germany.

Cycling benefits from more and better trained professionals.

### Germany 2030 – a cycling nation



Cycling will be an integral part of the curricula of relevant studies and of training programmes in vocational education.



A central training facility for sustainable and multimodal mobility systems will have been firmly established for public administration as well as the construction and transport industries.



There will have been a noticeable increase in the number of trainees and employees in the bicycle sector, as well as in the number of well-qualified specialist planning personnel.

### What's most important ...



**Cycling in education!** The federal states will anchor cycling – beyond endowed professorships – at universities. The federal states and universities will add cycling-specific content to the curricula of relevant disciplines. They will facilitate the establishment of master's degree programmes on cycling, involving accreditation agencies. Targeted research programmes will support capacity building at universities and ensure that the knowledge imparted is up-to-date.

**Expertise in cycling planning and promotion!** The Federal Government will set up a road transport academy with a range of training courses devoted to other topics of sustainable mobility in addition to cycling. The offering will be aimed at staff in the public sector as well as in planning and consulting firms and will draw on the expertise and experience of the Bicycle Academy.

**Exchange experiences!** The federal states and working groups of bicycle-friendly cities and municipalities will step up networking activities in order to exchange experience and expertise.

**Use information!** The information provided on the federal bicycle portal (<https://nationaler-radverkehrsplan.de/de>) will be used by all stakeholders for the targeted promotion of cycling.

**Attract skilled workers!** The federal states, municipal authorities, the German Chamber of Industry and Commerce and the bicycle sector will design a comprehensive training initiative for bicycle-related professions. The initiative will address growing demand for skilled workers at an early stage. The bicycle sector will create more internship offerings. It will conduct campaigns in order to be perceived as an attractive employer.

## Guiding principle: Cargo transport and delivery services by bicycle

Bicycles can be used in many different ways in commercial transport, for instance, in the trades, for delivery and parcel services, for pharmaceutical and catering logistics or for service and factory transport. In particular, (e) cargo bikes and bikes with trailers can expand the range of possible applications enormously. At the same time, they place high demands on cycling infrastructure regardless of whether they are used for private or commercial purposes. In general, speedy delivery and parking of bicycles close to the destination will have a major role to play in commercial traffic. Barrier-free and well-developed infrastructure is needed. This is the only way that the commercially used bicycle can become established as a fast and economical alternative to the motor vehicle over short distances, while at the same time being compatible with the city. Cargo bikes must be used without conflict and in a way that is compatible with vulnerable road users, even with well-developed infrastructure. Regulation with regard to the dimensions of cargo bikes seems necessary.

**Increased use of commercial bicycles will make urban commercial transport more compatible with the city and more climate-friendly. The public sector and companies will continue to develop the necessary structures.**

### Germany 2030 – a cycling nation



Bicycles will be widely used by businesses and administrations as an alternative mode of transport.



Courier, express and parcel (CEP) services will increasingly use cargo bikes. Logistics companies will integrate them into supply chains in a targeted manner.

### What's most important ...

**Promote widespread commercial use of bicycles!** The Federal Government and the federal states will provide attractive financing options and guarantees to help establish commercial fleet solutions. The Federal Government, federal states and local authorities will expand their support programmes and measures for the purchase of cargo bikes.

**Innovation for commercial cycling!** A wide variety of bicycle types are needed for commercial use. The Federal Government will therefore create incentives

for the bicycle industry within the framework of research funding in order to advance the development of bicycles for commercial use.

**Set a good example!** Where possible, public authorities and state-owned companies will increasingly tender transports as cargo/bicycle trips. They will also create incentive models to promote the use of bicycles for business trips, create fleets of company bicycles and make greater use of cargo bike sharing services.

**Use the potential of bicycles!** Bicycles make it possible to organise part of delivery and commercial transports in a way that is compatible with the city, especially in urban core areas and pedestrian zones. Municipalities will support their use, for instance, by regulating access rights for bicycles.

**Provide logistics space for bicycles!** Municipalities and CEP services will jointly design urban logistics concepts, such as microdepots, mobile microdepots or city hubs. In this way, they will create perfect conditions for the use of cargo bikes. Municipalities will facilitate the establishment of logistics areas in public spaces that can be used by multiple service providers. Their needs will be taken into account at an early stage in both land use and integrated urban development planning. The Federal Government and the federal states will revise building codes where necessary and encourage microdepots. Municipalities will adapt their bylaws to reflect local requirements.

**Promote safe cargo bike use!** Chambers of industry and commerce, chambers of crafts and trade associations will offer advice on the use of cargo bikes in companies and on available funding. They will allow riding tests for potential commercial customers. The Federal Government will examine the possibility of mandatory training for the commercial use of cargo bikes of certain dimensions and characteristics and in this regard cooperate closely with the associations. The aim here is to ensure the safe and, as far as possible, conflict-free use of cargo bikes in commercial applications.

**Make cargo bikes competitive!** The Federal Government will review rules for the compulsory use of bicycle lanes for cargo bikes and define exceptions, when necessary. The right for cargo bikes to use bicycle lanes will be maintained, however, subject to their dimensions and characteristics. The Federal Government and the associations will work to create uniform European standards for cargo bikes, for instance, for interchangeable containers, digital interfaces and software solutions.

**Expand cargo bike sharing!** The federal states and municipalities will promote the acquisition of cargo bikes for joint commercial and private use.



## IN FOCUS

## Cargo bikes and bike trailers: Wide range of applications even in the private sector

Bicycles offer enormous potential for replacing trips by car. The use of cargo bikes and bike trailers will boom in the private sector. They will be used to transport purchases or other 'cargo'. Parents can use 'family bikes' to transport their children. This will familiarise children with the bicycle as an everyday means of transport at an early age.

→ The NCP 3.0 promotes the private use of cargo bikes and trailers in many ways:

→ When expanding or converting cycling infrastructure, special requirements will be taken into account, both on the road and for parking. People who use cargo bikes and trailers privately often have a particularly high need for protection, for instance, when transporting children or other persons. Their needs are different from commercial riders who primarily want to get around quickly.

→ The federal states and municipalities will promote both the private purchase of cargo bikes and their shared use in various forms, from large-scale organised commercial sharing services to shared use in neighbourhoods or at retailers.

→ Municipalities will communicate the many facets of using bicycles. For example, they will inform parents about the possibility of transporting their children by bike. They will work together with day-care centres, parents' initiatives and associations.

## Guiding principle: Germany as a country of cycling commuters

The bicycle can become the transport mode of choice on trips to work and to the place of education with a riding time of up to 60 minutes or in combination with public transport. Bicycle commuters want to get to their destinations quickly and safely, whether they are travelling across municipal boundaries or within municipalities. For this, they need seamless networks with an infrastructure that invites daily use. It pays off for companies and public institutions to promote bicycle commuting. In this way, they benefit from healthier and more resilient employees and can score points as bicycle-friendly companies in the competition for skilled workers.



Employees use bicycles to get to work when they can get to their destinations via seamless networks on high-quality infrastructure. Companies will additionally promote cycling, creating incentives to change mobility behaviour.

### Germany 2030 – a cycling nation



For many employees in companies and public institutions, the bicycle will be the means of transport of choice for commuting to work.



Many large and medium-sized companies as well as public institutions will have a corporate or official mobility management system in place that specifically promotes cycling.

### What's most important ...

**Ensure accessibility by bicycle!** Municipalities will be obliged to take into account accessibility by bike when designating commercial areas and locating companies and authorities.

**Use the potential of supraregional infrastructures!** The Federal Government and the federal states will take the special needs of commuters into account when they develop the German cycling network and other supraregional cycle links. When developing intermodal interfaces, they will connect priority cycle routes, express cycle connections and the German cycling network.

**Promote mobility management at companies and public authorities, support companies!** The Federal Government and the federal states will continue their funding programmes for 'corporate mobility management'. Municipalities will exchange information with companies and public institutions when planning



and implementing measures to promote cycling. They will coordinate cross-company activities as part of their municipal mobility management. Public authorities and companies will set an example by establishing an official mobility management system and providing a sufficient number of company (e)bicycles.

**Implement a wide range of measures at companies and public authorities!**

Companies and public institutions will promote cycling among their workforce as part of corporate mobility management and health programmes. For example, they will provide high-quality bicycle parking facilities close to the workplace as well as service stations and other infrastructure, such as showers and changing rooms. Bonus payments and compensatory time off for bicycle commuters will create additional incentives.

**Make the bike the new 'company car'!** Companies will introduce mobility budgets instead of company cars and thereby also promote bicycle use. The Federal Government, federal states and local authorities will support these activities. Companies will expand their company bike leasing programmes.

**Reward climate-friendly mobility behaviour!** The Federal Government and the federal states will support other stakeholders in promoting bicycle commuting (for instance, bonus programmes offered by health insurance companies).



Fields of action

Urban & rural areas



## City

### Initial situation and potential

Large cities and metropolitan areas will experience a cycling boom. The bicycle will be considered to be a flexible means of urban transport and will have become a status symbol for many people. Cycling will become more diverse. Different groups will use different types of bicycles for private and commercial purposes on an increasing number of trips.

**But:** High motor vehicle density, high motor vehicle speeds and often still inadequate cycling infrastructure are obstacles to cycling. Cycling in the city is not always fun, it sometimes feels dangerous and involves a comparatively high accident and health risk. Moreover, in most high-density cities, land for good cycling infrastructure is scarce. A paradigm shift in land use allocation in favour of sustainable transport has yet to take place.

**Potential:** Cities with compact structures and short distances can become 'bicycle cities'. Particulate matter, nitric oxides and noise will decrease. People in cities will benefit from the fact that the quality of stay in public spaces and the overall quality of life increase.

### Key areas for action

**Create space for the bike!** Both moving and stationary motor vehicle traffic currently requires a lot of space. Space should be distributed in such a way that urban-friendly traffic concepts with high-quality cycling infrastructure become feasible, for instance, with protected bicycle lanes or road cross-sections with low-speed lanes. These can also handle large volumes of bicycle traffic with different types of bicycles. In the secondary network, bicycle lanes will be a natural element of infrastructure.

**Organise stationary traffic!** Convert motor vehicle parking spaces, consistently manage parking for motor vehicle traffic and establish zones for loading and delivery traffic: This will create space for bicycle parking and avoid conflict situations.

**Watch the trend!** More people will cycle in the future. This must be taken into account in the construction and modification of cycling facilities. The standard must hence also consider special bikes, especially cargo bikes and bikes with trailers, with a view to width, speed and riding dynamics.

**Increase road safety!** Municipalities will not only build safer cycling infrastructure. They will also use the possibilities of speed-reducing installations and consistently design junctions in a safe and comprehensible manner.

**Regulate the use of public space!** The Federal Government will regulate the use of public space through bike rental systems, the parking of cargo bikes and the handling of junk bikes. This will create legal certainty and support solutions that are innovative, compatible with the city and consider vulnerable citizens.

**Handle commercial traffic in a way that is compatible with the city!** Municipalities and CEP services will jointly design urban logistics concepts in order to create the perfect framework conditions for the use of (e)cargo bikes in delivery and commercial transport.

## Rural area

### Initial situation and potential

Rural areas still benefit very little from the rise of the bicycle as a means of transport in everyday life, despite basically good conditions for the use of bicycles: Many everyday trips are over a distance of less than 10 kilometres. Pedelecs are already available in 14% of households, which can also be used to cover longer distances. Lower motor vehicle traffic volumes, a dense network of agricultural roads and the compact structures of small and medium-sized towns will contribute towards a positive cycling experience.

**But:** Progressive demographic change can dilute (local) supply options and thus cause longer journeys. These often proceed along out-of-town roads with fast-moving motor vehicles, without separate cycling facilities, with the associated effects on road safety. Cycling promotion is more difficult to implement in small and rural municipalities in view of the personnel and financial capacities of the municipal administrations. Districts lack the coordinating competence centres needed to set up comprehensive cycling networks.

**Potential:** Cycling will enable people in rural areas to travel independently, participate in social life and be self-sufficient even if they do not own a car. This is particularly important as they often have limited access to local public transport. However, there is particular potential in linking cycling infrastructure and public transport. The positive effects of tourist cycling on the economic structure and the attractiveness of rural regions should not be underestimated.

### Key areas for action

**Strengthen the role of districts!** Districts will take over service tasks in network planning for smaller municipalities. They will provide bicycle connections between larger municipalities. 'Cycling competence centres' at federal-state level will advise rural municipalities.

**Expand and adapt promotional measures!** The Federal Government and the federal states will gear their support programmes more closely to the needs and possibilities of smaller municipalities. They will provide a simple toolbox for bicycle traffic planning in rural areas. (Local) supply and mobility will be planned in an integrated manner, and research and model projects will be carried out as required.

**Learn from others!** Many municipalities in rural areas have implemented exemplary cycling projects as part of their municipal mobility management. Examples and implementation aids for this can be found, for instance, in the 'Mobilikon' online mobility reference document ([www.mobilikon.de](http://www.mobilikon.de)).

**Link cycling and public transport!** Bicycle parking facilities will be built not only at railway stations, but also at bus stops throughout the city. Bicycles will also be allowed on buses whenever their design permits.

**Expand separate cycling infrastructure!** Roads outside cities with a (supra)regional connection function and a high volume of motor vehicle traffic or a large proportion of heavy goods vehicles can be made safe for cyclists by building dedicated cycling infrastructure. The requirements of pedelecs and speed pedelecs will also be addressed.

**Close network gaps!** On other roads outside cities, flexible solutions with compatible vehicle speeds will be tested. Agricultural roads can also close many gaps in the network. The requirements for aspects of safety for society as a whole must be taken into account.

**Space for bicycles at cross-town roads!** In cities, space will be created for bicycles, especially on narrow cross-town roads.





Fields of action

# Innovation & digitalisation

## Innovation & digitalisation

Innovative cycling technologies, services and infrastructure solutions can help to increase cycling and keep cyclists safe. The potential of cycling can be better exploited if the bicycle is integrated into interconnected digital mobility services.



Cycling data will be used by digital service providers or, for instance, to improve infrastructure planning. The data will be up-to-date, as comprehensive as possible and freely accessible.



Application-oriented and broad-based cycling research as well as pilot and model projects will lead to trailblazing new solutions. An innovation-promoting regulatory framework by the Federal Government and the federal states will help to quickly develop and introduce new products and solutions.

### Key areas for action

**Implement innovation on a broad scale!** The Federal Government and the federal states will support municipalities by providing financial assistance for the increased use of mature technical solutions. Examples include geofencing, ITS solutions for traffic management, turn assistance systems for motor vehicles as well as multimodal mobility platforms and services.

**Promote developments!** The Federal Government, federal states and local authorities will promote and support the new and further development and testing of innovative technical solutions for the bicycle, such as the serial hybrid drive, for bicycle accessories, new services, digital planning tools and infrastructure solutions through

- funding programmes,
- contract research (such as the Urban Transport Research Programme (FoPS)),
- model and demonstration projects,
- innovation hubs/digital hubs,
- hackathons,
- innovation awards.



**Planners are ‘up to date’!** In their education and training at universities and academies, cycling transport planners will learn how to use digital data and planning tools and how to integrate cycling into innovative services, transport management and multimodal mobility platforms.

**Use potential!** Flexible forms of service and automated systems in public transport and at mobility service providers will take the bicycle into account. Infrastructure, data and fare systems will be linked. The digitalisation of transport, including automated driving, can lead to greater space gains in certain circumstances. The Federal Government, federal states and local authorities will work at an early stage to use these areas for sustainable forms of mobility as well as attractive public recreation and meeting spaces.

**IN FOCUS****Cycling in research**

The Federal Government will support research into cycling and pedestrian traffic. The Federal Government will expand the model and research projects on sustainable transport, including those covered by the NCP 3.0. The federal states will also step up their research activities. Municipalities will be available as real-life partners and carry out model projects.

The Federal Government, the federal states and universities will communicate successful projects promptly, so that they can quickly find broad application.

**Possible research topics:**

- Politics & philosophy: Establishment of a new mobility culture (for instance, climate protection and social self-image)
- Infrastructure & planning: Development of new solutions (for instance, flexible road cross-sections in urban areas, digital planning tools, integration of agricultural roads into cycling networks)
- Road safety: Testing of concepts to protect vulnerable road users, parameters for the use of (e) cargo bikes and e trailers (for instance, width, height, payload)
- Bicycle sector & tourism: Commercial bicycles, new bicycle-related services
- Psychology: Factors impacting mobility patterns/bicycle use
- Health: Benefits of cycling for motor development, health promotion and prevention of lifestyle diseases, including the effects of a bicycle-friendly infrastructure

**Data for cycling****IN FOCUS**

Innovative services for cyclists and infrastructure planning need up-to-date and reliable data.

**Activities:**

- The Federal Government and the federal states will expand the digital recording of infrastructure data. They will offer freely accessible data through the Mobility Data Marketplace (MDM) and allow the data to be used in other services, including Open Street Map. This will also serve to implement Delegated Regulation 1926/2017/EU.
- To this end, the federal states will contribute their databases on cycle route infrastructure, including available municipal data, to a nationwide service (Bicycle Route Planner Germany).
- The Federal Government will support the federal states in the expansion of digital services for cycling via a joint office. This will define, for instance, rules for collecting and updating cycling data and its processing in accordance with data protection requirements. The office will also set quality standards for the data provided.
- The Federal Government will drive and facilitate the central provision of realtime data (for instance, route closures, bicycle rental systems). It will oblige mobility providers to provide standardised, open data interfaces.
- The Federal Government will support the (further) development of technologies and methods for automated data collection in cycling traffic via targeted project calls.

# Glossary

## Accreditation agencies

Accreditation in the higher education sector is a cross-federal-state and cross-university procedure for the assessment of curricula in Bachelor's and Master's degree courses offered by federal-state or state-recognised higher education institutions. This procedure is carried out by independent accreditation agencies.

## Working groups of bicycle-friendly cities and communities/municipalities (AGFKen)

In twelve federal states (as of 2020), municipalities and other stakeholders have joined forces to form working groups to promote (walking and) cycling: AGFK Baden-Württemberg, AGFK Bayern, AGFK Brandenburg, AGN Hessen, AGFK Mecklenburg-Vorpommern, AGFK Niedersachsen/Bremen, AGFS Nordrhein-Westfalen, Rad.SN Sachsen, AGFK Sachsen-Anhalt, Rad.SH Schleswig-Holstein, AGFK Thüringen.

## Public transport authorities

Pursuant to section 8 of the Passenger Transport Act (Personenbeförderungsgesetz), the authorities designated by the federal states are responsible for ensuring that citizens are adequately served by local public transport services. In local rail passenger transport, there are currently (as of 2020) 27 public transport authorities. Some federal states perform this task themselves in the form of companies owned by the federal states, whilst municipal special-purpose associations or transport associations are responsible for this in other federal states. For the remaining local public transport, the districts and urban districts usually assume the role of public transport authorities.

## Bike & Ride

Bike & Ride is the linking of the bicycle with the → public transport system. This includes the following forms: The route from the starting point to the starting stop is covered by bicycle (bicycle in pre-transportation) and/or the route from the destination stop to the destination (bicycle in post-transportation). Bike & Ride also includes the transport of bicycles on public transport.

## City hub

A city hub or microdepot is a stationary or mobile interim storage facility in an urban area where consignments for the immediate vicinity are stored. Large delivery vehicles do not have to drive right up to the front doors. The short distances from the city hub/

microdepot to the destination can be covered, for example, with (e )cargo bikes or handcarts. (→ See also: microdepot)

## Carbon equivalent

Carbon equivalents (CO<sub>2</sub>e) are a unit of measurement used to standardise the climate impact of different greenhouse gases. Besides carbon dioxide (CO<sub>2</sub>) as the most important greenhouse gas, there are other greenhouse gases, such as methane and nitrous oxide.

## CORONA/COVID 19

COVID 19 is a lung disease caused by a coronavirus that first appeared in Europe in February 2020. In March 2020, WHO declared the global spread of COVID 19 to be a pandemic.

## Cycling embassy

So far, examples of cycling embassies exist in the Netherlands and Denmark, but also in the UK, Sweden and Japan. Cycling embassies are public-private networks and provide a platform for promoting cycling and marketing the 'cycling nations'.

## Delegated Regulation 1926/2017/EU

The aim of Delegated Regulation (EU) 2017/1926 is to provide travellers across borders in the EU with multimodal, high-quality and consistent travel information before and during their entire journey.

## Bicycle Academy

The Bicycle Academy, which has been based at the German Institute of Urban Affairs (Deutsches Institut für Urbanistik (Difu)) since 2007, is an advanced training institution aimed primarily at municipal stakeholders. Its mission includes further training, information, networking and the exchange of experience among stakeholders in promoting cycling. The Bicycle Academy is funded by the Federal Ministry of Transport and Digital Infrastructure (BMVI).

## Cycling climate test

ADFC's bicycle climate test is a non-representative survey of cyclist satisfaction in Germany. It addresses the cycling and transport climate, the importance of cycling, safety and comfort of cycling as well as infrastructure and the cycling network. The Federal Ministry of Transport and Digital Infrastructure (BMVI) has been funding ADFC's bicycle climate test since 1988. This project is implemented by Allgemeiner Deutscher Fahrrad-Club e. V.

## Municipal Cycling Conference

The Municipal Cycling Conference is held annually by the Federal Ministry of Transport and Digital Infrastructure (BMVI) and the German Institute of Urban Affairs (Deutsches Institut für Urbanistik (Difu)) in cooperation with leading municipal associations. Its purpose is to enable networking between those responsible for cycling at municipalities and to promote the exchange of experience, and it is held at different locations.

## Bicycle Monitor

Bicycle Monitor is a representative biannual survey of the subjective mood of cyclists in Germany. The surveys have been conducted on behalf of the Federal Ministry of Transport and Digital Infrastructure since 2013.

## Bicycle portal

The bicycle portal is an information and communication platform for cycling. It compiles up-to-date information about cycling for experts from administrations and research, but also for citizens. It is funded by the Federal Ministry of Transport and Digital Infrastructure.

## Governance

The term governance describes new, non-hierarchical forms of political control and 'governing in networks'. Unlike traditional forms of government, it stands for governance that relies on coordination. Governance is characterised, among other things, by broad participation of non-state stakeholders (civil society).

## Innovation hubs/digital hubs

Innovation hubs provide a framework for brainstorming, designing, implementing and exploiting innovative solutions. Stakeholders from different companies and institutions work together on (digital) innovation.

## Intelligent Transport Services (ITS)

Intelligent Transport Systems (ITSs) are applications where information and communication technologies are used to collect, transmit, process and exchange transport-related data and information.

## CEP services

CEP stands for courier, express and parcel services. This includes logistics and postal companies that primarily transport shipments with relatively low weight and volume, such as letters, documents, parcels and small unit loads.

## Rural areas

Rural and urban areas cannot be clearly distinguished from each other. In order to define the degree of a region's 'rurality', the Thünen Institute, for example, uses the following indicators: sparse residential development, low settlement density, high proportion of agricultural and forestry land, peripheral location at large centres as well as a low number of inhabitants in the surrounding area. The spectrum ranges from very sparsely populated peripheral areas (extremely rural) to highly dense metropolitan centres (hardly rural).

## Cargo bike

A cargo bike is a bicycle that is used to transport cargo and/or people and is equipped with various features and superstructures depending on its intended use. (also: transport bike)

## Logistics Alliance Germany (LAG)

A public-private partnership dedicated to marketing Germany as a logistics location under the motto 'Logistics made in Germany'.

## Microdepot

A city hub or microdepot is a stationary or mobile interim storage facility in an urban area where parcels for the immediate vicinity are stored. The short distances from the city hub/microdepot to the destination can be covered, for example, with (e )cargo bikes. (→ City hub)

## Mobility Data Marketplace (MDM)

The MDM is a neutral data platform with defined standards for data exchange and is funded by the Federal Ministry of Transport and Digital Infrastructure (BMVI). Delegated Regulation 1926/2017/EU provides that there should be a national access point for mobility data in each EU member state. In Germany, the MDM serves as this national access point.

**Mobility management**

Mobility management describes the target-oriented and target-group-specific management of mobility behaviour. Coordinating, informational, organisational and advisory measures are primarily used. Corporate mobility management encompasses the measures taken by companies to manage the traffic they generate, to reduce it or to make it more compatible with the city and the environment. Municipal mobility management coordinates the planning and actions of the specialist departments of municipal administrations that are relevant to mobility and transport with a focus on more sustainable mobility development. School mobility management includes measures that help to make transport to and from schools safer, more sustainable and more environmentally friendly, as well as measures to boost awareness among children and youths with regard to their mobility behaviour.

**Local transport plan**

The local transport plan is the tool provided for in the local transport laws of the federal states for the management of local public transport by the → public transport authorities.

**Nationales Kompetenznetzwerk für nachhaltige Mobilität (NaKoMo) (National Competence Network for Sustainable Mobility)**

Since 2019, the National Competence Network for Sustainable Mobility has been supporting municipal stakeholders in the implementation of sustainable mobility projects by providing a digital exchange platform ([www.nakomo.de](http://www.nakomo.de)) and hosting workshops and events for networking and knowledge transfer.

**National Cycling Congress**

The National Cycling Congress has been organised every two years since 2009 by the Federal Ministry of Transport and Digital Infrastructure (BMVI). It is the largest cycling congress in Germany and serves as a platform for exchange between politics, administrations and experts.

**New Leipzig Charter**

The 'New Leipzig Charter – The transformative power of cities for the common good' is the mission document for a contemporary urban policy in Germany and Europe. It was adopted by the Ministers responsible for Urban Development of the Member States of the

European Union on 30 November 2020 under the German Presidency of the Council of the EU.

**Public bicycle rental systems/bikesharing**

Bikesharing is a form of bicycle rental where bicycles are usually available in public spaces or at publicly accessible stations.

**Public transport**

In the NCP 3.0, 'public transport' is used as an umbrella term for local and long-distance public transport.

**Local public transport**

Local public transport is the transport of passengers by means of regular services and alternative forms of urban, suburban and regional transport.

**Local public road passenger transport**

Local public road passenger transport is that part of → local public transport that is provided on the basis of the Public Transport Act (PBefG, Personenbeförderungsgesetz), i.e. buses, trolley buses, trams, light rail vehicles and underground trains.

**Long-distance passenger rail transport**

Long-distance passenger rail transport is the transport of passengers by rail trains over distances of more than one hour or more than 50 km.

**Local rail passenger transport**

Local rail passenger transport is that part of → local public transport that is provided on the basis of the General Railway Act (AEG, Allgemeines Eisenbahngesetz) (for instance, suburban and regional trains).

**Bicycle Route Planner Germany**

Under the 'Bicycle Route Planner Germany', the federal states have joined forces in a joint project to provide cross-border and large-scale planning of bicycle routes and information. The aim is to offer routing for (multi-day) cycling tours on the well-signposted 'premium routes' of the federal states. The project is funded by the Federal Ministry of Transport and Digital Infrastructure (BMVI).

**Pedelec**

The Pedelec (Pedal Electric Cycle) supports cyclists while pedalling with an electric motor up to a maximum of 250 watts and up to a speed of 25 kph. Pursuant to section 1 (3) of the Road Traffic Act (StVG, Straßenverkehrsgesetz), it has the same legal status as a bicycle.

**Commuting**

The NCP 3.0, generally understands 'commuting' as all journeys to work/education, regardless of whether these take place across or within municipal boundaries.

**Protected bike lanes**

Protected bike lanes are bike lanes on roadways that are separated from car traffic by structural barriers (bollards, concrete elements, flower pots, etc.) and are hence protected from being driven over by cars or used for parking. They are usually separated from the pavement by the curb. They are often colour-marked.

**Junk bike**

Characteristics of junk bikes are, for example, that they are apparently not roadworthy, with sometimes only the skeleton being left, and they can no longer be made roadworthy.

**Speed pedelec**

S-pedelecs function like → pedelecs, but motor assistance reaches up to a speed of 45 kph. The maximum permissible continuous rated power of the motors is 500 watts. Speed pedelecs are classified as mopeds. An insurance license plate is required.

**Protective lane**

Pursuant to the General Implementation Rules for the Road Traffic Regulations (VwV-StVO, Allgemeine Verwaltungsvorschrift zur Straßenverkehrs-Ordnung), a protective lane is a part of the carriageway that is marked by sign 340, i.e. a dashed line, and additionally marked at regular intervals with the 'bicycle traffic' symbol. It may be marked within cities on roads with a maximum permitted speed of up to 50 kph if the protective lane is only rarely used by motor vehicle traffic.

**Serial hybrid drive/digital chain**

In the case of the serial hybrid drive, the physical transmission of power during pedalling is indirect via a generator that transmits the electric current through a battery to the motor in the rear wheel.

**Special-purpose bikes**

Special-purpose bicycles are defined in NCP 3.0 as bicycles with increased space requirements. These include, for example, cargo bikes, tandems, adult tricycles and bikes with trailers.

**German cycling network**

The German cycling network consists of twelve long-distance cycle routes and the 'German Unity Cycle Route'. It has a length of approx. 11,700 km and connects all regions of Germany with each other. All D-routes run along existing long-distance cycle routes.

**Resilience**

Resilience is the ability of systems to withstand disruption.

**Urban areas**

Urban and → rural areas cannot be clearly distinguished from each other. In order to define the degree of a region's 'rurality', the Thünen Institute, for example, uses the following indicators: sparse residential development, low settlement density, high proportion of agricultural and forestry land, peripheral location at large centres as well as a low number of inhabitants in the surrounding area. The spectrum ranges from very sparsely populated peripheral areas (extremely rural) to highly dense metropolitan centres (hardly rural). Conversely, this delimitation of 'rural areas' results in a delimitation of 'urban areas'.

**Vision Zero**

In the context of road safety, 'Vision Zero' is understood as the vision of road traffic without fatalities.



## Abbreviations

bn	Billion
CEP	Courier, express and parcel services
CO <sub>2</sub>	Carbon dioxide
DB AG	Deutsche Bahn AG
FoPS	Urban Transport Research Programme
i.e.	That is
ITS	Intelligent Transport Services
km	Kilometre
kph	Kilometres per hour
m	Million
NRVK	National Cycling Congress
NRVP	National Cycling Plan
t	Tonne

### Symbols

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Goals



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