Agora Verkehrswende

Joint venture for the cabinet

Recommendations for inter-departmental climate action in the transport sector as a prelude to competitiveness and social justice

POLICY PAPER

Imprint

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Cover image: picture alliance / dpa | Kay Nietfeld

Version: 1.0

Publication: February 2025 (original German version), April 2025 (English translation)
125-2025-EN

About the cover image:
The photo shows the desk in the chancellery. In the middle of the table is the square desk clock with four faces which Konrad Adenauer introduced, while in the background is expressionist painter Ernst Ludwig Kirchner's *Mountain Farmers on Sunday* which hung in the cabinet office back when Germany was still divided.

Please cite as:
Agora Verkehrswende (2025): *Joint venture for the cabinet. Recommendations for inter-departmental climate action in the transport sector as a prelude to competitiveness and social justice.*

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Foreword

Dear reader,

In Germany, cabinet is another term for the totality of government, consisting of the chancellor and federal ministers. The term is derived from the French *cabinet* and originally described a small room or chamber, often with no windows and difficult to heat. Among European monarchies, it was a side room where the sovereign received his advisors in secret. With the rise of democracy, the monarchs lost their power, yet the place where the leading representatives of a government deliberated and made their decisions continued to be referred to as the cabinet. This side room became the centre of government, with its own space and large windows in the chancellery.

In this paper, we plead for the mobility transition to be firmly anchored in the federal cabinet – in other words, at the heart of common government efforts. Until now, the mobility transition has tended to be relegated to the smaller chambers of politics, rather than the great halls of power. The progress that has been made so far falls well short of the mark of achieving net zero by 2045. At the same time, the pressure to act is increasing in a number of areas and is about more than just cutting greenhouse gas emissions.

On the path to e-mobility, the German and European automotive industry is lagging behind its international peers. Greater urgency is also needed in the expansion of charging infrastructure, the integration of e-mobility into the energy network, the digitisation of mobility services, and the training of workers in the new requirements. Roads, bridges and railway lines are in need of renewal. Cars are stuck in traffic jams, trains are delayed, and millions of people have virtually zero access to public transport. At the same time, it is hard to imagine how the German government might use the old tools to cope with the investments required in future-ready transport infrastructure and to encourage private investment. Local authorities would not be capable of living up to the key role they play in climate-neutral transport with their current resources either.

All of these tasks and challenges are related to transport and mobility, but their impact goes much further. That is why political responsibilities are spread across multiple departments – from finance, business, digitisation and energy, to social, health, rural development and international cooperation. In this new legislative session, it is vital that these responsibilities be properly amalgamated and that the German government pursue the mobility transition as a combined effort. This can help make the mobility transition a success and turn it into a flagship project with huge added value for business and society – as a sort of joint venture for the cabinet.

Over the following chapters, we explain what must be done in order to achieve a successful mobility transition from a fiscal, social and environmental policy perspective, and how tasks are spread among different areas of policy. We hope that this paper can contribute to a successful new legislative session. We look forward to the continued debate and hope you enjoy reading this report.

Christian Hochfeld and **Wiebke Zimmer**
on behalf of the Agora Verkehrswende team
Berlin, February 2025

Contents

List of abbreviations

AFIR	Alternative Fuels Infrastructure Regulation
BMWK	Bundesministerium für Wirtschaft und Klimaschutz (Federal Ministry for Economic Affairs and Climate Action of Germany)
CBAM	Carbon Border Adjustment Mechanism
ELV	End-of-Life Vehicles Regulation
EnVKV	Energieverbrauchskennzeichnungsverordnung (German Ordinance on Passenger Car Energy Labelling)
EPBD	Energy Performance of Buildings Directive
ESR	Effort Sharing Regulation
ETCS	European Train Control System
ETS1	European Emissions Trading System 1
ETS2	European Emissions Trading System 2
GDP	Gross domestic product
GEIG	Gebäude-Elektromobilitätsinfrastruktur-Gesetz (German Act on Building and E-Mobility Infrastructure)
GHG	Greenhouse gases
GVFG	Gemeindeverkehrsfinanzierungsgesetz (German Regional Transport Financing Act)
HPC	High Power Charging
ICAO	International Civil Aviation Organization
IMO	International Maritime Organization
IPCEI	Important Projects of Common European Interest
IRA	Inflation Reduction Act
KfW	Kreditanstalt für Wiederaufbau (German state-owned investment and development bank)
RED III	Renewable Energy Directive
StVG	Straßenverkehrsgesetz (German Road Traffic Act)
StVO	Straßenverkehrs-Ordnung (German Road Traffic Ordinance)
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
VwV-StVO	Allgemeine Verwaltungsvorschrift zur Straßenverkehrs-Ordnung (German Administrative Regulation on the StVO)
WHO	World Health Organization
ZEV	Zero Emission Vehicles

A plea for a cross-departmental mobility transition

Climate action did not decide the federal elections in Germany in February 2025, but it will be one of the deciding factors in the success of the new government. That is because measures which advance the mobility transition count towards targets in other areas of policy too. The mobility transition – or the shifting of transport to more environmentally friendly vehicles and means of transport (the mobility and logistics transition) and the move towards electric engines and renewable energies (the engine and energy transition) – is more than just an environmental or transport project. It is also a future-oriented project for state finances and infrastructure investments, competitiveness and jobs, energy supply and purchasing power, quality of life and social cohesion.

In this policy paper, Agora Verkehrswende illustrates how climate action in the transport sector is anchored in core policy areas and what tools and measures a new government can use to advance these efforts. This illustration shows clearly that this job cannot be the responsibility of one ministry alone. Finance, business, digitisation, energy, health, social, international cooperation – all of these policy areas play an important role in the mobility transition, alongside the areas of transport and environment. The Federal Ministry of Finance, for example, recently led the charge on vehicle tax, while the Federal Ministry for Economic Affairs pushed the envelope with subsidies for purchasing electric cars, and the Federal Ministry of Education and Research took the lead on funding innovations in battery technology.

Exceeding past successes will require all relevant departments in the new government to work together closely. This sort of inter-departmental cooperation, coordinated by a climate cabinet, say, requires a clear division of roles and responsibilities, as well as a common understanding of what is to be done and how best to go about it. This paper therefore begins by mapping out where Germany is in relation to climate action in transport and what priorities should be set across departments for the coming legislative session. Subsequent chapters set out in more detail what this means for individual policy areas.

From the COVID pandemic and the war in Ukraine, to recessions, loss of purchasing power and anxieties over social divisions, the climate crisis may have received less public attention of late amongst the maelstrom of other crises, but in the political arena, there is no getting around it. The climate crisis cannot be postponed and protecting against its consequences is firmly anchored in the constitution: the Basic Law of Germany establishes the duty to protect the natural foundations of life and the freedoms of young and future generations. The Paris Agreement imposes obligations on Germany under international law to limit global warming to well below 2°C above pre-industrial levels, and ideally to 1.5°C. EU law also provides for environment policy directives. Regardless, consistent climate action is also in Germany's interests in relation to its industrial, fiscal and social policy: good environmental policy safeguards and improves the health of the economy and society, while without it, costs, risks and damages increase dramatically.

Climate-neutral transport by 2045 is achievable

The path to climate-neutral transport has proven one of the most difficult tasks for climate action stakeholders in politics, business and society. The transport and environmental policy targets set for 2030 are becoming increasingly out of reach, with a lack of sufficient effective tools and measures underpinning them. The modal shift targets which the German government has set – such as doubling the capacity of passenger rail, or rail achieving a 25 % market share in freight traffic – are almost entirely unrealistic at this point. The same can be said of the target of 15 million battery electric cars on the roads – a key criterion for a successful transformation of the German automotive industry.

Since 2021, greenhouse gas emissions generated by the German transport sector have strayed further and further from the necessary pathways to reduction – this despite the COVID pandemic and economic slump which caused a temporary drop in transport performance. According to estimates by Agora, the transport sector will exceed the emissions target agreed in the German Climate Action Act of 125 million tonnes of CO_2 in 2024 by 19 million tonnes. The German environmental protection agency, the UBA, estimates that under current conditions, the transport sector could exceed its targets by a total of around 180 million tonnes of CO_2 by 2030. For the

moment, other sectors, especially energy and industry, are able to compensate for the transport sector's breach of emissions targets. But this cannot and will not be sustainable long-term. Ultimately, all sectors must jointly reduce their carbon emissions to net zero by 2045.

The latest version of the Agora Study *Climate-Neutral Germany* shows clearly how much transport must also cut its emissions by 2030, if the cross-sector target of a 65 % reduction by 2030 is to remain achievable. Additionally, the European Effort Sharing Regulation (ESR) threatens to impose hefty penalties on those who do not meet their climate targets. Immediate action is also necessary with a view to achieving net zero by 2045, especially in the transport sector, specifically: the electrification of car and van transport, shifting travel to buses and trains, shared mobility, and walking and cycling as modes of transport. Conversely, this study also shows that this gap can still be made up without major disruptions to the economy; that at least the cross-sector target for 2030 is still achievable; and that there is still a prospect that the transport sector can become climate-neutral by 2045. The new government has a decisive role to play in whether and how this is achieved.

The key to a competitive mobility economy

A path to successful climate action policy is already emerging at an EU level. The Green Deal, passed during Ursula von der Leyen's first term as President of the Commission, is being followed by the Clean Industrial Deal. This move is intended to align environment and industrial policy. One of the foundations underpinning this approach is the September 2024 report *The Future of European Competitiveness* by former Italian PM and former President of the European Central Bank, Mario Draghi.

The Draghi Report emphasises that a green transformation is only possible with a strong economy and that, conversely, economic success is increasingly linked to sustainable innovations. This requires an effort far greater in magnitude (when measured as a percentage of gross domestic product (GDP)) than the US' Marshall Plan, which assisted with the rebuilding of Europe after the Second World War. According to the Draghi Report, the impending competitiveness agenda will require financing of around four to five per cent of the European community's GDP. The report also highlights the need for a tightly coordinated policy which integrates a number of action areas, from trade policy and assistance programmes, to digitisation, resource use and environmental standards. Establishing a concrete, sector-specific version of the Clean Industrial Deal in the form of the Automotive Action Plan is particularly important for the German automotive industry, if it is to coordinate climate action and competitiveness as complementary goals.

Following the example of the European Commission, the new German government should also tackle the transformation towards net zero and use this as the key to competitiveness. As well as a common willingness and strategy, the various relevant departments must be closely linked at a federal level and influence other areas of action – from a local and federal level, to the European Union and United Nations.

Areas of focus with added value for the whole of society

Building on the linking of climate action to competitiveness, the mobility transition can be utilised to create further added value for society. It also acts as a way of facilitating social participation, improving health and quality of life, and distributing the costs and opportunities of the transformation fairly. Many people on low incomes, for example, cannot afford to travel long distances. This results in less social participation or – in the case of those reliant on a car, in particular – puts a greater strain on people's wallets and prompts them to go without in other areas of life. That is because in many communities, social, healthcare, shopping, education, leisure and culture amenities are hard to reach without a car. This limits poorer people and, in particular, young people and the elderly, and people with disabilities in their ability to participate in society. This is frequently the case in rural regions with poor public transport connections. Very low-income communities and communities that are heavily reliant on cars are therefore particularly vulnerable in the face of rising fuel prices.

The net zero, competitiveness, and social justice in transport initiatives which the new government should

launch in the 21st legislative session can be broken down into four key areas:

- **Fostering well-being and social justice through financial reform and an investment offensive:** Germany can achieve net zero in the transport sector by 2045 – without reducing mobility and without additional costs above what would have to be spent by 2045 without a net zero ambition. In order to expand the necessary infrastructure and public transport capacities, the German government devises a reliable and constitutionally valid financing strategy, as well as a finance architecture which can be used to ensure a sufficient volume of public investment quickly and long-term. A cross-modal National Highways and Mobility Plan, focused on climate targets, defines how much investment is needed in a future-ready transport system. For private investments – especially in more environmentally friendly vehicles and systems for supplying these vehicles with energy – businesses and households need a framework which guarantees planning certainty and climate action equally. Central to this is a reform of taxes, duties and subsidies on passenger cars based on carbon emissions – from company car and vehicle tax schemes, to carbon pricing with climate dividends and a pay-per-use passenger car toll. This will allow the opportunities and efforts which the transformation entails to be distributed more evenly within society, and individual hardships to be further mitigated through a socially equitable spending of revenues, focused on environmental policy.

- **Jobs and competitiveness safeguarded thanks to industrial transformation:** The long-term success of Germany as a business hub requires industry to take decisive steps to continue on its transformation to become a climate-neutral sector. The greatest future opportunities for the automotive industry lie in a rapid ramp-up of e-mobility. Guidance, plannability and a strong leading market for electric vehicles in Germany are pivotal to this endeavour. For that reason, a stronger link must be established between industrial and environmental policy over the next few years, at both a national and EU level. This effort will continue to be founded on ambitious fleet-wide CO_2 emission targets, which must be underpinned by policy – using tools for expanding e-mobility in commercial fleets, financial incentives which make smaller electric cars, in particular, more affordable, and a continued rapid expansion of charging infrastructure and affordable charging prices. At an EU level, the German government can assert its position in discussions concerning a concrete version of the Clean Industrial Deal for the automotive industry. It also advocates for: more investment in the battery value chain, accommodating the arrival of Chinese battery and vehicle manufacturers based on common rules for the European market, and the international harmonisation and continued development of methodologies for calculating CO_2 emissions along the value chain. Vehicles and vehicle components will ultimately be almost 100 % recyclable, in line with the *Circular Car* vision, and will be produced using secondary raw materials as far as possible.

- **Reducing costs by integrating e-mobility into energy networks, bringing the age of fossil fuels to an end with sustainably produced renewable fuels:** The ability to charge bidirectionally – from the grid to the battery and from the battery to the grid – poses enormous potential for reducing costs for both the energy and mobility transition. Effective management of charging demand helps to satisfy energy requirements more efficiently, while at the same time reducing the need to expand energy networks. The resulting cost savings can bolster the move to electric cars. In order to unlock these potentials, the German government develops a clear vision and establishes relevant framework conditions. Sustainably produced renewable fuels are an important complementary factor for climate action in transport, wherever battery electric solutions are not available – in air and maritime transport, in particular. E-fuels manufactured using renewable energy and CO_2 captured from the atmosphere will, however, foreseeably be expensive in the coming decades and their availability limited. Their production must therefore be targeted and they must be used efficiently. Thus far, the production of these types of fuels on an industrial scale has encountered significant stumbling blocks. A long-term, cross-modal and cross-sector policy concept which develops additional mechanisms and incentives ensures planning certainty beyond 2030, as a way

of minimising the financial risks of setting up production facilities.

- **Guaranteeing equal social participation in cities and rural areas through affordable mobility:** Prices of petrol and diesel will continue to rise as the offsetting of public costs for burning fossil resources increases. It is conceivable that prices will rise significantly in 2027 if the European Emissions Trading System is expanded to the sectors of building and road transport. This makes it all the more necessary to devise a holistic strategy for how people on low incomes, in particular, who have so far been reliant on private combustion engine vehicles, can make the switch to climate-neutral alternatives – be that in the form of affordable electric vehicles, or an attractive combination of bus, rail, flexible sharing and pooling services, and active mobility (walking and cycling). In light of the labour shortage and staff costs, the expansion of public transport services will rely, in the medium-term, on automated vehicles in particular. The aim is a mobility guarantee which safeguards a minimum level of service in public transport across the country, thereby making it easier for people to participate in society. Digital information and booking systems make it easier to access public mobility services and electric car sharing. Additionally, a new offensive for e-mobility in public and private transport can improve the situation in rural areas. In cities, the task is to ensure clean and safe mobility for all, and to design the valuable public space in such a way that it offers greater liveability and climate resilience.

This paper looks at the areas of financing, economy, energy and social participation in more detail in later chapters, considering how these relate to the transport sector and what tools a German government has at its disposal and how it can use these. Two further chapters address areas of action that are closely linked to these areas: digitisation and climate action.

There are also other relevant areas of action and transversal issues, such as boosting the role of local authorities in shaping the mobility transition (Chapters 1.3, 1.4), giving special consideration to rural areas (Chapters 4.2, 4.3, 5.3), EU policy and international cooperation (see the passages in each chapter marked with the corresponding symbols), and research support. In addition to technology-specific research on issues like electric batteries and stores, data platforms, or the circular economy, inter-disciplinary research can investigate the factors that influence individual decisions on the use of specific modes of transport. Relevant perspectives include those from sociology, economics and psychology. Building on these perspectives can lead to a better understanding of what tools and measures are best suited to encouraging environmentally friendly decisions. Policy can thus reach target groups who are currently uncertain, but who can be convinced by corresponding arguments and offers, more effectively and with more targeted incentives and information offers (Chapter 4.6).

Most of the tools and actions described in this paper are not new. Some of them have been the subject of discussion among experts for years; while successful examples of others have already been established outside of Germany. The challenge lies in bringing them together into a coherent, holistic policy concept and turning them into well coordinated government actions. Climate action, or protecting the natural foundations of life, does not necessarily have to be the primary motivator here. The mobility transition is also the most reliable way of putting economic competitiveness and social cohesion front and centre. The new German cabinet has the opportunity to set this course.

Image: iStock | Asergieiev

01

Financing and Planning: Right of way for future investments

Challenge

Modernising the transport system requires significant investment, including public spending, in order to keep the industry competitive and to ensure that everyone can participate in society. At the same time, the lull in the economy and the judgment regarding the German Climate and Transition Fund are putting a squeeze on the already tight public purse strings under the so-called 'debt brake'. A lack of certainty over financial planning is pushing costs up and causing delays in public spending on railway infrastructure, bridges and bike lanes. In addition, the system of taxes, duties and subsidies is sending contradictory signals regarding the transition to climate-friendly technologies, hindering private investment. Local authorities play a vital role in implementing the mobility transition, yet lack sufficient resources and are not sufficiently involved in conversations around financing. The German government's National Transport Plan (Bundesverkehrswegeplanung) lacks an inter-modal strategy with a coherent focus on climate action targets.

Objective

The government stipulates how much investment is needed in a future-ready transport system, with a national, inter-modal transport and mobility plan focused on climate targets. Taxes, duties and subsidies are reformed to make climate-friendly action worthwhile. Subsidies which harm the environment have been scrapped, externalities priced, and user financing strengthened. Following constitutional reforms, investments for the future are financed through borrowing, without harming future generations. Infrastructure budgets are easier to plan and can be spent more flexibly. State-owned enterprises, like DB InfraGo and Autobahn GmbH, and local authorities all have real budgets, with legally agreed targets. Local authorities get stable, adequate financing, giving them certainty when it comes to planning for infrastructure maintenance, climate action and climate adaptations. The federal government abides by the connectivity principle and finances even those tasks which it delegates to local authorities.

1.1 Establish new financing architecture with three pillars

Significant portions of transport infrastructure in Germany are in a dire state and in need of renewal. There is a serious spending gap, creating issues such as traffic jams on the highways and an unreliable rail network. Further investment is urgently needed to make Germany's transport system future-ready, to maintain the competitiveness of industry, and to foster social participation. Spending is required for the targeted expansion of the highway and, in particular, railway networks (Chapters 1.3 and 1.4), the transformation of the automotive industry and modernisation of vehicles on the road (Chapter 2), investments in digitisation and automation (Chapter 5), and the establishment of a charging infrastructure network and capacities for generating sustainably produced renewable fuels (Chapter 3). A significant portion of this spending falls directly under the remit of public policy, while other investments require at least initial public financing. Here, too, the state is required to ensure social participation for all by providing appropriate basic public mobility services, and to mitigate social hardship during the transition to net zero (Chapter 4). There is consequently a huge need for additional public spending over the next few years, somewhere in the region of €150 billion by 2030 according to various studies. At the same time, due to the current economic lull, the German Constitutional Court's decision regarding the Climate and Transition Fund, and a drop in revenues from energy taxes, there is increasingly little room for manoeuvre within the present national fiscal framework. Managing the (financial) challenges associated with the mobility transition requires a reformed financing architecture, based on three pillars:

Scrapping subsidies and benefits which harm the environment (Pillar 1): The first pillar of financing supporting the required investments for the future – and a principle of rational fiscal policy – is the scrapping of subsidies and tax benefits which favour environmentally harmful activities and technologies, while at the same time resulting in public spending or significantly reduced tax revenues. These privileges not only harm the environment, they also frequently undo the work of distributive policies, since they predominantly benefit high earners. Scrapping them – gradually, in some cases, for reasons of legitimate expectation – thus promises to yield returns in three respects by fostering climate action, solidifying public finances, and contributing to social justice. From an environmental and social perspective, there is an urgent need for reform with regards to **taxing company vehicles** (Chapter 2.4). The same is true of **tax exemptions for aviation fuels**. The **flat-rate tax relief for commuters** will be transitioned to a **non-means-tested mobility subsidy** (Chapter 4.1), and the lower rate of taxation on diesel (**diesel privilege**) will be brought in line with the rate for gasoline (Chapter 6.1).

Pay-per-use user financing and pricing externalities (Pillar 2): Similarly to the first pillar of financing, this pillar also links the generation of revenues to cost incentives, as a way of encouraging greater sustainability in investment decisions and mobility behaviour. While the aim behind user financing of infrastructure is that beneficiaries pay for a public service, externalities are priced in order to pass on the later costs caused by environmental damage and adverse health effects to those who create these costs – at present, these costs are still paid for out of the public purse. Since there is no direct link to a service-in-kind, the pricing of externalities offers greater freedom in terms of how funds are spent, meaning that they can be used for investments or, equally, redistributed within society (Chapter 4.1). Nevertheless, both approaches follow the basic principle that those who create costs for the public purse should also bear these costs and factor them into their decisions. This increases the efficiency of the transport system for society as a whole. With respect to user financing, a further broadening of the **HGV toll** and the introduction of a **passenger car toll**, in particular, are expected to have a significant impact on financing and incentivisation (Chapter 1.4). A core tool of climate action is the internalisation of the external cumulative economic damage caused by climate change, which is achieved by **carbon-pricing fuels**. This is currently accomplished via the national emissions trading system and, from 2027 onwards, will be managed first and foremost within the EU Emissions Trading System for Buildings, Road Transport and Additional Sectors (ETS2); in future, a reliable and sufficiently ambitious carbon pricing pathway will be ensured through a national minimum carbon price within the framework of **adjusted energy taxation** (Chapter 6.1). Reforming **vehicle tax** will play a key role in encouraging users to switch to more

environmentally friendly engine types (Chapter 2.4). In air and maritime transport, the **expansion of emissions trading** and the prospective **inclusion of non-carbon effects will strengthen the carbon pricing system and make it more impactful (Chapter 6.2 and 6.3).** The market ramp-up for sustainably produced renewable fuels can be financed by an **e-fuel duty** (Chapter 3.4).

Government loans and participation of future generations (Pillar 3): Given the significant need for additional resources for the mobility transition, it is worth questioning whether the first two financing pillars are sufficient. Moreover, any increase in the pricing of environmentally harmful behaviour can only be done gradually, so as to give people and businesses sufficient time to adapt. Care should also be taken concerning tax increases outside of the mobility sector, taking into account the object and amount of taxation in each case. It is therefore sensible to exhaust the potential of the first two financing pillars as far as is socially and economically acceptable, and additionally to take out government loans. With these loans, future generations who, without a carbon-neutral transport system, would lack one of the fundamental prerequisites for leading a good life can participate in these investments, which are so urgently needed.

1.2 Reforming the debt brake and facilitating alternative borrowing options

Reforming the debt brake: The government investigates the possibility of reforming the debt brake and devises a strategy for generating more money in the regular national budget for investing in the mobility transition by issuing government bonds. The government's justification for its preference for increasing state borrowing is that investments will strengthen the growth potential of the German economy and thereby contribute to the sustainability of state finances. This strategy also stems from the realisation that this approach will make the financing costs lower for society than they would be if private investors, with their expectations to achieve returns, were more heavily involved in mobility structures. Potential reforms to the debt brake include simple adaptations of the law, as well as changes to the Basic Law of Germany. At a sub-constitutional level, more room can be made for borrowing by exploiting the rules for **strengthening the economy** that are stipulated for periods of economic slack.[1] The existing proposals for amendments to the Basic Law of Germany concern an **increase in the nominal deficit limits** and **exemptions for investments or productive spending**.[2] In considering the reform, the government is cognisant of both EU fiscal rules and the capital markets' confidence in the ability of government bonds to retain their value. The government considers both mobility transition investments in the narrower sense, such as investments in railway infrastructure or the electrification of city buses, and public funding for education programmes on climate action to be sensible investments for the future.

Special fund for the mobility transition: Even without reforming the debt brake, investments for the future can still be made through extra budgets. These budgets are earmarked, ensuring that funds acquired through additional borrowing are spent sensibly. With a special mobility transition fund, following the model of the special armed forces fund, the government could directly invest large sums in the mobility transition, quickly and for a limited period, by passing an amendment to the Basic Law of Germany. A special fund of this sort can be allocated resources from the budget, or can be financed using its own revenue stream or borrowing authorisations. An extra budget, financed at least in part by borrowing, represents a transitional solution that could be used prior to a structural reform of the debt brake.

1 The debt brake contains an "economic activity component", according to which the amount of new borrowings can be increased or decreased in line with the economic landscape. Utilisation is calculated as the difference between the estimated production potential of the economy and actual gross domestic product. If utilisation of the economy is below its potential, the state may take on additional new debt according to a set key (see: Dezernat Zukunft, *The German debt brake* [in German], www.schuldenbremse.info, accessed: 11/02/2025).

2 According to the debt brake, the deficit, when adjusted for economic factors (structural or nominal deficit), must not exceed 0.35 % of GDP. This deficit limit could be made more flexible by linking it to the debt ratio, for example. If the debt level overall were low, then a higher deficit would be permissible (see: German Council of Economic Experts, *The debt brake after the Constitutional Court ruling: Increase flexibility – maintain stability [in German]*, 30 January 2024).

Greater use of financial transactions: The government also makes greater use of the financial transaction as an existing tool which can be implemented without any amendment to the Basic Law of Germany. Subsequently, the issuing of additional government bonds does not fall under the debt brake, provided these additional funds are used to create material assets which the state retains possession of (public capital stock) and provided it is clear that reliable repayments of debts can be expected. Recoverable **loans or equity increases** fulfil these requirements and can be financed through borrowing accordingly. The government has a preference for using loans to public companies as a vehicle for financial transactions. The recipients must serve a defined purpose in the interests of the mobility transition. DB InfraGO AG, for example, invests in the maintenance and expansion of the Deutsche Bahn railway network, in line with its byelaws. The loan can be repaid using either DB InfraGo's own revenue from route charges or state subsidies which, in the later years of the budget, must be planned for year-by-year. In this way, investments made today can be distributed to current and future generations via rail ticket prices (which include route charges) and taxes (which feed into federal budgets). With the primary goal of maintaining motorways and highways, the government also endows Autobahn GmbH with a right to borrow.

1.3 Increasing plannability and flexibility in how infrastructure budgets are managed

Planning certainty thanks to multi-year funds: The government increases public spending on the mobility transition as described above. However, in addition to the volume of spending, the ability to use these funds efficiently and the reliability of their availability are also hugely important issues. The government therefore sets up investment funds or investment schemes which accelerate the renewal and expansion of the railway network or the expansion of capacities for more public transport options through the sole fact that the actors involved, such as federal enterprises or local authorities, can draw up multi-year plans with confidence. **Construction projects** can then be packaged together, for example, whereas previously the financing of these projects was incompatible with the project logic of the state budget, because they were linked to different budget years or funding programmes and so on. If expansion budgets can be spread flexibly across multiple years, in line with the needs of a project, and provided these budgets are large enough, then this makes it more worthwhile for developers to invest in additional staff and new machinery. This subsequently mitigates increases in building costs caused by surcharges applied to short-term contracts. When managing the funds, the government ensures that spending is prioritised consistently and that inefficiencies are avoided. For example, it anchors the **prioritisation of infrastructure investments** according to the doctrines of rail before road and maintenance before new infrastructure as a guiding principle in the organisation of infrastructure funds. Whether there are ultimately separate railway funds, one for renewing and maintaining the existing network and one for expansions and new infrastructure, depends on the chosen financing methods.

Better financial resources for local authorities: A large portion of transport infrastructure is operated by local authorities who play a key role in implementing the mobility transition. At the same time, many local authorities in Germany are heavily in debt and do not possess the tools to rid themselves of theses debts under the current federal finance system. Therefore, at the start of the legislative session, the government establishes the legal basis for providing local authorities with debt relief, adhering to the so-called **connectivity principle**. This means that every task which the federal government delegates to local authorities must come with reliable financing commitments from the state. In order to improve local authorities' financial capabilities as a whole, the federal government increases their share in **revenue from joint taxes**, such as income tax, corporation tax and VAT. With better financial resources, local authorities are also better equipped to increase their headcount. The government should address the labour shortage that is already emerging in public administration through additional **training schemes**. These initiatives could be linked to the Scheme for Financing Climate Action Managers, for example, or the Planrad Career Change Training Scheme.

More decision-making powers and greater say for local authorities: So that they can take greater responsibility for themselves, local authorities receive a greater total

of financing overall and, above all, **financial resources** which can be drawn down as lump sums and which allow **medium-term planning** – similarly to basic funding that is not exposed to fluctuations in tax revenue. They can use these funds as they wish over a period of several years and can link them to target agreements where applicable. Subsequently, several of the numerous **funding programmes**, which are subject to tight restrictions on content and timeframe, can be merged or even abolished. The federal government also gives local authorities greater responsibility for their own transport planning by expanding the allocations of resources made via the **German Regional Transport Financing Act (GVFG)** and creating a framework for a nationwide **pay-per-mile passenger car toll** on all roads. This gives local authorities the ability to set their own congestion charges, the revenue from which can be invested in expanding bus services, for example. The federal government works with local authorities to assess whether climate action should be a **mandatory task**. Subject to sufficient financing (see above), this would strengthen the autonomy of local authorities. In order to better align climate action efforts within the federal multi-level system, comprising local authorities, states and the federal government, the federal government makes climate action and climate adaptation a so-called **joint task** which is set out in the Basic Law of Germany and allows the federal government to act and provide financing even across levels. For a more efficient interaction between the federal levels, the involvement of local authorities in political decision-making processes is improved as a whole – through **meetings between the federal government and local umbrella organisations**. **Minimum deadlines** are established, so that local authorities are adequately heard within the context of federal level legislation.

Expanding and firming up international climate action financing: Successful global climate action is founded on solutions tailored to local conditions. Given the rapid advance in motorisation in Global South countries, the government strengthens its financial commitment within the context of Germany's special responsibility for global climate action. In line with the international agreement to triple the collective finance goal for climate action, the German government increases its **financing commitment for newly industrialised and developing countries** and bundles and intensifies its **bilateral and regional support** for developing sustainable transport systems, e.g. via IKI, DKTI, KfW (Chapter 6.3). The government also expands the **lever for strengthening private investment** for international climate action, including as part of sector-specific country platforms (Chapter 2.2), and broadens this lever to include innovative financing models.

1.4 Aligning investments in railways and highways with net zero

Target scenarios for transport planning: The government modernises the National Transport Plan by making plausible assumptions concerning what the carbon-neutral transport system will look like in 2045, what costs it will incur, and how it will be financed. It will create a target scenario, incorporating, for example, the finding that even in 2045, energy from renewable resources will be scarce and it is more energy-efficient to run a higher percentage of passenger-kilometres and tonne-kilometres on railways. In addition to the first version of the Transport Forecast 2040, which has already been released, the government also publishes the politically **ambitious Forecast Version 2040** as a matter of priority.

Anchoring integrated planning principles in law: In the medium-term, the processes and methodologies used for national transport and mobility planning will be governed by law. The following planning principles and targets for the overall transport system will be anchored in law: Adhering to climate action goals, maintaining existing infrastructures before building new roads, and taking inter-modal alternatives into account. For example, the possibility of expanding parallel railway routes could be investigated as a way of eradicating a bottleneck on a motorway. Criteria are also established for selecting and prioritising projects. The government modernises the planning process, for a **National Transport and Mobility Plan 2040**. New principles are introduced for assessing infrastructure projects, such that developments which are incompatible with climate action goals and are not yet under construction are halted. Important stages in the expansion of the railways are prioritised instead.

Passenger car and HGV toll for financing highway maintenance and some railway expansions: Currently, revenues from taxes on petrol and diesel are the most important pillars of financing with regards to road-building. With the transition to electric vehicles, these revenues will continuously decline. It therefore makes sense to also establish a pay-per-mile passenger car toll system, alongside the existing HGV toll system, as a way of financing the maintenance of existing roads. The new passenger car toll and the existing HGV toll are charged on roads. The government prepares to roll out this system gradually during this legislative session. While the infrastructure components of the passenger car toll are used for maintaining infrastructure, revenues from the pricing of air pollutants, noise, and loss of nature and natural spaces can be used to boost alternatives to private passenger cars. The government uses the revenues as financing components for a fund for highway maintenance and funds for maintaining and building new railways.

Modernisation of the route charge system: The government initiates a reform of route charges, such that henceforth railway operators are primarily responsible solely for costs associated directly with railway operations (marginal cost principle) and not for all costs (full cost principle). This creates incentives to make better use of existing capacities, with additional options offered. The shortfall compared to full cost financing is compensated for using public funds. Until such an adaptation of the route charge system takes effect, the government effectively combats route charge increases in the course of the equity increases at the DB Group – by making adjustments to equity yields and providing alternatives to the equity increase.

Aligning expansion of the railway network with the public interest: The government defines a target scenario for the expansion of the German railway network and derives a strategy for implementation. This is based on Deutschlandtakt and the recommendations of the Acceleration Commission for Railways (Beschleunigungskommission Schiene). The implementation strategy defines concrete stages of the expansion for Deutschlandtakt, linked to a reliable financing mechanism. This approach is described for five years in advance and updated every year in the form of the **Infraplan**. This plan constitutes a programme of work for DB InfraGo, progress on which is monitored using integrated metrics. A clearer separation of infrastructure and the competing business segments working within the railway group should improve management. For that purpose, the contract of domination and the profit and loss transfer agreement are terminated and the supervisory board of DB InfraGo is appointed independently. The government draws up **testable criteria** for the new company in relation to transparency, fair competition, and developing the railway network in the public interest. If DB InfraGo does not satisfy these criteria by the middle of the 21st legislative session, one potential consequence must be the complete transfer to a state railway network company which is unaffiliated with DB AG.

High priority for railway network renewal: The government focuses planning, building and financial resources on the on-going renewal and modernisation of the main network, followed by expansions for Deutschlandtakt. An **investment fund** ensures multi-year planning certainty (see 1.3). Reactivations of lines will be pursued only in a few cases where the benefit-cost ratio is particularly favourable. Small and mid-sized hubs without a rail connection are instead more frequently connected to the network using **express bus routes**. This means that improved mobility options can be achieved in relevant regions in the near term. This requires close cooperation between local authorities and states, which the federal government supports with growing **regionalisation funds**.

Clear vision for managing Deutsche Bahn: The government develops a transparent **ownership strategy** for the DB Group. This strategy defines the principles for developing the German railway network, as well as criteria and targets for developing rail subsidiaries. These criteria include, for example, the basic provision of railway services, climate action targets for the transport sector and modal shift, and the nature of competition. The guidelines for developing the railway network are operationalised via the aforementioned implementation strategy and the Deutschlandtakt and Infraplan tools.

Improving efficiency in railway freight: The government supports developing railway freight into an efficient, climate-neutral system which is optimised for the future demands of logistics. For that purpose,

the government ensures that Deutschlandtakt also strengthens railway freight via so-called **system paths**. Furthermore, the government pushes the roll-out of **Digital Automatic Coupling** (Chapter 5.3) and encourages the expansion of existing and building of new **multi-modal transshipment facilities**. Single wagonload traffic and sidings must continue to be promoted in the short-term, but can be discontinued in the medium-term as progress is made on the roll-out of Digital Automatic Coupling. Following a transition period, therefore, independent commercial transport should take the form of single wagonload traffic only.

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02

Business and Industry: Competitiveness and jobs through transformation

Challenge

The automotive industry finds itself in the midst of a fundamental structural transformation. The number of new electric cars being registered is growing worldwide. Yet in 2024, Germany saw a significant decrease in new registrations, causing the market average in Europe to stagnate. The Draghi report attests to Europe's lack of competitiveness as an automotive centre. A variety of different trends are exacerbating the situation: generally weak sales figures, slumping turnover on the Chinese market, product defects, technology deficits and structural dependencies along the battery manufacturing value chain, and minimal progress in vehicle software and in autonomous and networked driving. The task, then, is to support businesses in this transformation, without undermining the aims of the *European Green Deal*, with the help of EU industrial policy (Clean Industrial Deal, Automotive Action Plan). Whether or not this will be successful is largely up to the German government.

Objective

Germany has established itself on the international stage as a centre of e-mobility, climate-neutral vehicle production and circular economy. It has now laid the foundations for providing secure jobs and ensuring that the automotive industry remains competitive long-term. This success was reliant on a number of different factors: the German government's commitment to e-mobility, an action plan for increasing demand for electric vehicles, the establishment of new value-added segments like battery manufacturing, and working with European and international partners on the Clean Industrial Deal. Regions that are particularly affected by the structural transformation have managed to benefit from this transformation and to boost value creation locally. The demand for labour can be satisfied. Workers whose earlier qualifications were less in demand have found new employment in or outside of the automotive industry.

2.1 Ensuring planning and investment certainty long-term

Assisting the transformation with a Clean Industrial Deal: The competitiveness of the German automotive industry can only be secured long-term by transitioning to e-mobility. The German government supports the EU Commission's plan to boost the competitiveness of businesses during the transformation with a Clean Industrial Deal and an **Automotive Action Plan** based on this deal, thereby helping to achieve the aims of the *European Green Deal*. With regards to regulating the agreed **fleet-wide CO_2 emission targets for cars,** the aims remain unchanged – including phasing out combustion engines by 2035. The government supports maintaining this legislative framework due to its significance for planning and investment certainty, for clarity of direction in the transformation, and for the establishment of the battery industry.

Developing a long-term strategy for achieving net zero: The government devises a strategy which defines the regulatory framework for achieving net zero in the automotive industry by 2045. Businesses need reliability. so that they can invest in modernising their facilities, developing new business models and upskilling their employees, investments which are necessary for their transformation. This strategy also ensures a long-term supply of climate-neutral basic materials, like steel and aluminium, so that value creation in the automotive industry as a whole can be decarbonised.

Strategy platform for transforming the automotive sector: The government retains its body of experts working on the transformation of the German automotive industry in this legislature as well, engaging relevant government departments, the automotive sector, trade unions, civil society and stakeholders in scientific research. The platform uses long-term political and technology scenarios to draw up recommended actions for configuring the structural transformation and backing it up with policy. It also pushes the implementation and evaluation of these actions collaboratively. The platform furthermore promotes networking and coordination with strategy dialogues at the state level (Bundesland).

2.2 Establishing new value chains

Strengthening fair international conditions for competition (*level playing field*): The government advocates a strong international and European market for electric vehicles and components, with fair conditions for competition. Its focus is on **removing barriers to trade**, such as by reducing import duties and signing new **free trade agreements**, specifically with growing markets in the Global South. Free trade which adheres to equivalent social and environmental standards accelerates the global ramp-up of e-mobility and reduces the cost of vehicle production in the interests of consumers, thanks to intensive competition.

Chinese automotive and battery firms set up shop: New competitors in e-mobility compete with the European automotive industry. Chinese manufacturers, in particular, are among the global leaders in the electric vehicle, battery and vehicle software segment. Stronger competition is positive for supply and pricing, and conducive to a ramp-up of the technology. Consequently, the German government advocates for a **European strategy** for the arrival of Chinese firms on the continent, based on common rules to promote fair competition. The aim is to increase supply for consumers using common European standards (*local content requirements*), to protect at-risk production sites, to become more competitive through joint ventures on developing technologies, and to localise value chains. This, combined with the Clean Industrial Deal, has the potential to reduce the enormous dependence on the Chinese market in the medium and long-term (*derisking*).

Promoting the transformation of the automotive industry in Global South countries: The German government supports the electrification of road traffic, including developing and transitioning the vehicle industry in the Global South via **sector-specific country platforms**. Not only does this reduce emissions, it also enables partner countries and also Germany, as a centre of industry, to develop and diversify new supply chains and markets for mutual benefit – from rare raw materials to entire vehicles and mobility services. The German government – together with European partners where applicable – passes a **lighthouse initiative** with Global South countries at the start of the legislative session (Chapters 1.3 and 6.3).

Resilient supply chains for electric vehicle batteries in Europe: In order to make international automotive value chains more resilient, the government supports the introduction of minimum quotas for locally produced materials **(**local content requirements*) for passenger cars and HGVs and their batteries at an EU level.* This regulatory move is seen as an opportunity to strengthen Europe as a centre of production and to guarantee high or equivalent environmental and social standards. For that reason, the German government also swiftly passes the **Critical Raw Materials Act** into law. It continues its programme of **investment support** for the battery industry and research, and for the upstream value chain, laying the foundations for achieving greater resilience.

Modernising guidelines on state aid: The German government advocates revising the current guidelines on state aid at an EU level, such that Europe is able to sponsor future technology companies in a manner similar to the US Inflation Reduction Act (IRA). This means sponsorship which is based on concrete numbers of units or production volumes and is linked to conditions for more production in Europe, and which follows standardised rules. This would also help with the structural transformation in local communities.

Attractive location factors for industry: The government makes Germany a more attractive location for establishing new value chains. To do this, it ensures, first and foremost, the availability of qualified workers, affordable energy and favourable financing options. The government also removes bureaucratic obstacles, simplifying and accelerating the approval processes for building industrial facilities, for example.

2.3 Orienting production towards transformation

Decarbonising the automotive value chains: The German government advocates for a globally coordinated harmonisation of **carbon accounting methodology** along the automotive value chains. With the increasing electrification of vehicles and decarbonisation of the energy sector, the significance of greenhouse gas emissions in automotive value chains increases. The Paris Agreement requires these value chains to be largely climate-neutral by the middle of this century as well. Standardised rules on measuring carbon emissions are required to be able to map and compare reductions in emissions along the value chains efficiently and reliably. Political tools based on carbon accounting (such as CBAM) are useless without them. The German government argues, in particular, for coherent and consistent **carbon accounting in energy and heat generation** in the various EU regulations, not least of all so that figures can be verified efficiently.

Safeguarding jobs through training and qualifications: The government approves funding for the so-called regional transformation networks and transformation hubs, which have been established in recent years, beyond 2025. The job of these **regional transformation networks** is to bring relevant local actors together to develop regional strategies and, in particular, to support training and qualifications for workers. The **transformation hubs** share findings from research and development regarding current trends in the automotive industry, thereby assisting with the transformation within businesses.

State-level strategies for the structural transformation in local communities: The **automotive industry strategy dialogues** already initiated in some German states, such as Baden-Württemberg, are continued and established in other relevant states. They are embedded in the strategic monitoring of the transformation at a federal level (Chapter 2.1). Not only do these strategy dialogues increase knowledge around challenges, helping businesses to develop new products and business models, they also assist in identifying, developing and implementing regional approaches to managing the transformation. One question they address, for example, is what new contributions to value creation and what new sectors can be established in their community.

2.4 Creating a strong domestic market for electric vehicles

Successfully transforming the automotive industry requires a strong domestic market for electric vehicles. A number of laws and instruments are central to achieving this:

Electrifying private vehicles: The **fleet-wide CO_2 emission targets for cars and vans** is the central pillar of the ramp-up of e-mobility, and so the government advocates against a weakening of these targets and related sanctions. This is the only way to give leading companies competitive advantages in Europe and to ensure German climate targets for transport remain within reach. At the same time, the government develops a **socially equitable grant scheme to help private individuals purchase electric passenger cars** as a matter of priority. The government makes it easier to purchase inexpensive and energy-efficient fully electric passenger cars as a way of closing the prevailing profitability gap. A variety of procurement models are considered (purchase, leasing), as well as both new and used cars. This means that low-income households are also helped to transition to e-mobility. Following the loss of trust triggered by the abrupt ending of the Environmental Bonus, it is important that the grant scheme guarantee plannability for potential customers. For that reason, eligibility for grants is subject to a time limit in the purchase/lease agreement itself, while a sliding scale for withdrawing from the scheme is clearly communicated at the start. In order to avoid consumer restraint, the government also provides the option of retroactive grants (backdated to the announcement of the scheme). Establishment of the grant scheme goes hand-in-hand with a **vehicle tax reform**. While initially electric passenger cars continue to be exempt from vehicle tax, the tax rate for combustion engines is gradually increased as carbon emissions rise. The reformed vehicle tax applies in full upon first registration. This increases its disincentivising effect and makes the tax burden more equitable. This revenue is used to refinance the grant scheme.

Electrification of commercial and public fleets: The government establishes conditions for a more rapid electrification of company cars and vehicle fleets. In regards to the **taxation of company cars**, the taxable benefit in kind for using passenger cars with combustion engines for private purposes is increased from 1 % to 1.5 %. In order to further promote the electrification of company fleets, the government introduces **innovative financing instruments** (such as degressive depreciation options, guarantees and sureties). These financing instruments hedge potential residual value risks which arise when binding **electrification targets for commercial and public fleets** are achieved.

Better framework conditions for charging infrastructure: More affordable charging has a positive impact on the total cost of electric vehicles compared to combustion engines. For that reason, the government lays the groundwork for **charging prices** to be reduced, especially for public rapid charging points, and for electric vehicles to be better integrated into the energy network (Chapter 3.3). It also ensures that charging is customer-friendly (Chapter 3.2).

Financial support for electrification of commercial vehicle fleets: With investment grants for **converting public bus depots and fleets**, the government aims to convert all buses to electric buses by 2030. This can be undertaken within the context of opening up and replenishing the finances under the **Regional Transport Financing Act (GVFG)**, in order to keep the funding landscape streamlined. Electric vans are already more cost-effective overall compared to diesel vans for multiple applications, and so the government opts against increasing grants for purchasing vehicles. The government does, however, help smaller logistics firms, in particular, with the high cost of upfront investments, with better **depreciation options and, above all,** grants for setting up charging infrastructure **(Chapter 3.2) at company facilities.**

2.5 Growing the circular economy into a hi-tech sector

Supporting the circular economy in the automotive industry: The government continues its work on the roll-out of a decarbonised circular economy in the automotive industry, as a way of strengthening strategic resilience in relation to critical raw materials. Its aim is to grow the area from a more waste-centred logic to a hi-tech strategy, and to further expand Germany's strength in the recycling industry. The guiding principle behind this move is the **concept of the *circular car***, that is, the vision of a vehicle that is completely recyclable and which requires a minimal quantity of primary raw materials to produce. The government supports the initiation of an **Important Project of Common European Interest (IPCEI)** for the automotive circular economy. It also advocates at an EU level for better traceability of the whereabouts of vehicles in the EU, as part of negotiations concerning the **End-of-Life Vehicles Regulation (ELV)**. The government

also assesses the effectiveness of **recycling quotas** and supports the suggestion of establishing **leading markets for green steel** in the automotive sector. In addition, the government initiates an **international partnership in relation to vehicle flows** with the UN Environment Programme (UNEP), with the aim of promoting a more sustainable recycling economy in African partner states.

Strategic partnerships for critical raw materials: If Germany is to establish itself on the international stage as an attractive European location for e-mobility and circular economy, it needs a stable supply of critical raw materials. The German government therefore supports the establishment of strategic raw material partnerships, in particular as part of the Critical Raw Material Act and within the framework of the envisaged G7 Critical Raw Materials Club, since secure access to critical raw materials is vital to a competitive European battery – and therefore vehicle – industry. A **targeted raw material foreign policy** links German and partner interests, fosters local value creation, and strengthens innovation for mutual benefit. This requires **concrete industry projects**, in particular, backed up by the **promotion of foreign trade and investment** by the Federal Ministry for Economic Affairs and Climate Action and additional financial instruments, such as the KfW **raw materials funds**. At the same time, the government ensures that mining projects adhere to the highest **environmental and social standards**.

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03

Energy: Synergies from electricity, stores and fuels

Challenge

Transitioning energy use in transport to renewable energies is an important stepping stone on the path to achieving climate action targets. Central to that effort is electrifying vehicles, increasing their efficiency and supplying them with renewable power. The number of charging points has continued to increase in recent years. However, the integration of electric vehicles into the energy system and, in particular, the expansion of rapid charging infrastructure continue to lag behind what is possible. The charging infrastructure master plan has been only partially implemented. Moreover, emissions in air and maritime transport, where opportunities for direct electrification are very limited, have scarcely been reduced. So far, the production of fuels like e-fuels, which are necessary for this step, has struggled to get off the ground. In addition, uncertainties around the use of available alternatives like advanced biofuels are prompting a drop in prices within the greenhouse gas reduction quota (GHG quota).

Objective

Charging infrastructure is set up quickly, efficiently and smartly, so that the network of charging points provides proper support for e-mobility. Since they largely charge bidirectionally, electric vehicles provide the energy system with valuable flexibility and contribute to affordable energy prices for all consumers. This makes e-mobility more cost-effective for drivers. Removing obstacles to investment and bureaucracy, and standardising and digitising the processes for connecting to the grid allow for electric vehicles to be integrated into the energy system, accelerating the ramp-up of charging infrastructure. The stuttering ramp-up of e-fuel production for air and maritime travel is sped up and the difference in price compared to standard fuels is offset by charges on producers of emissions. At the same time, the groundwork is laid for avoiding fraud in relation to the eligibility of renewable fuels.

3.1 Increasing energy efficiency

Fiscal and regulatory instruments for improving vehicle efficiency: Instruments designed to reduce specific carbon emissions cause final energy consumption in combustion engine vehicles to fall simultaneously. This sort of regulation is insufficient in relation to electric cars because they do not emit any CO_2 at the exhaust pipe. Energy is a precious asset, however, and should be utilised as efficiently as possible. The digitisation and automation of vehicles is also creating new *on-board* energy consumption for the continuous processing of data (Chapter 3.3). The government therefore draws up a **strategy for increasing the efficiency of passenger cars**, targeting energy consumption in all vehicle types, such that continuous advances in efficiency reduce energy costs for consumers and preserve scarce resources. Vehicle efficiency is added to the grant scheme for electric passenger cars as a prospective criterion and is taken into account when taxing these vehicles. At an EU level, the German government advocates adding an energy efficiency metric to the **fleet-wide emission targets for cars** and calls for this to be maintained beyond 2035 as a form of **efficiency regulation**.

Reforming the German Ordinance on Passenger Car Energy Labelling (Pkw-EnVKV): The only way to rapidly make the car fleet in Germany more efficient and more environmentally friendly is with clear and easy-to-understand information on the energy use, carbon emissions and running costs of new and used cars. Amended in 2023, the Pkw-EnVKV contains important improvements for providing consumers with more information when purchasing passenger cars. The German government starts work on important improvements, which have so far only gone through review, promptly and ambitiously. This work relates to **classifying the efficiency of electric cars** in accordance with their energy use, providing more comprehensive **information on running costs** over the entire service life, and expanding the **information obligations in relation to used cars**. Information obligations in the digital arena are also tightened.

3.2 Ensuring more and better charging infrastructure

Inter-ministry coordination on implementing the charging infrastructure master plan: While Germany is currently on a good path in terms of the ratio of charging points to licensed electric vehicles, this tempo has to be maintained going forwards. The speed of **growth of ultra-rapid charging points** should continue to increase, so as to meet the targets set for 2030 in the National Centre for Charging Infrastructure's intensive use of charging hubs scenario (HPC Scenario). The government prioritises implementation of the charging infrastructure master plan. For that purpose, it intensifies coordination between all ministries that are relevant to charging infrastructure, in particular as a way of further defining the framework conditions on the energy market for additional investments in charging infrastructure (Chapter 3.3).

New law (EIG) containing requirements for more charging infrastructure at supermarkets, places of work and service stations: The government works to quickly pass the new E-Mobility Infrastructure Act, as this is a precondition for employers, supermarkets and service station operators to invest in more charging infrastructure at these sites. This also requires that the processes for connecting to the grid be accelerated and simplified (Chapter 3.3) and that building permit processes be made even easier.

Concept and grant scheme for more inexpensive charging without a dedicated parking space: Car owners who live in rented accommodation without a dedicated parking space have less opportunity to procure their own affordable charging energy, such as by installing solar panels. They are therefore reliant on public charging infrastructure – which in some cases is subject to high charging prices at present. In order to unlock new consumer classes, the government devises a concept for inexpensive charging for cars without a dedicated parking space and launches a corresponding grant scheme.

Financing HGV charging infrastructure: A seamless network of charging infrastructure is necessary for HGV charging and is also required by EU guidelines. This requires additional financing for public HGV charging

infrastructure on public and third-party land, as well as the promotion of commercial rapid charging at business facilities. This, too, requires that the processes for connecting to the grid be accelerated and simplified (Chapter 3.3).

Promoting charging infrastructure concepts in local communities: The federal government finances a grant scheme for devising charging infrastructure concepts in local communities, with the aim of planning charging infrastructure for a 100 % electric vehicle fleet. The scheme is based on the previous financing of *Green City* plans. The government also sets up a grant scheme for electric car-sharing fleets.

3.3 Using network integration for the mobility and energy transition

Expanding intelligent metering systems for bidirectional charging: Electric vehicles have the potential to act as valuable stores for the energy system. The targeted charging and discharging of electric vehicles accelerates the energy transition at the lowest possible cost. In order to unlock this potential, the government initially focuses on rapidly expanding intelligent metering systems. This lays the groundwork for exploiting the storage potential of vehicle batteries, for efficient operation of the grid and as a way of compensating for volatile renewable energies.

Accelerating the process of connecting to the grid: Connecting charging infrastructure to the grid should be quick and easy, so that commercial operators can offer sufficient charging infrastructure and private users have prompt access to their own charging infrastructure. The government rolls out a number of initiatives for this purpose. In particular, it requires grid operators to provide a **digital map showing available grid capacities**. This allows operators of public charging infrastructure to submit targeted grid connection requests for charging locations, significantly reducing the time it takes to connect to the grid.

Reducing energy prices by making the process of connecting to the grid efficient: Connecting to and using the energy grid is priced in such a way that charging infrastructure is affordable and is a feasible business model. The government advocates, among other things, for **time-of-use network charges** to be offered at higher voltages as well. This results in a more efficient configuration of the grid infrastructure and reduces the need to expand the grid such that costs for expanding the grid, and therefore network charges for all consumers, including both commercial and private operators of charging infrastructure, can be reduced.

3.4 Sustainable production and targeted deployment of renewable fuels

Orienting regulatory framework towards targeted e-fuel ramp-up: Regulatory framework conditions for the market ramp-up of e-fuels include the national roll-out of **RED III**, the continuation of the **GHG quota**, and implementation of the **ReFuelEU Aviation and FuelEU Maritime Regulations**. The government establishes these framework conditions in such a way that e-fuels are predominantly used in air and maritime transport, since there are no foreseeable alternatives for phasing out fossil fuels in these sectors. While e-fuels are also required for the existing fleet, targeted production is required for transport sectors which do not have more efficient and environmentally friendly alternatives, such as direct electrification.

Promoting sustainable fuels for air and maritime transport specifically: In the upcoming legislative session, the government focuses on accelerating the stuttering ramp-up of production of electricity-based fuels for air and maritime transport. Thanks to government backing, producers sign **long-term purchase agreements** with airlines and shipping companies. For this purpose, the government implements the relevant EU guidelines promptly and uses state guarantees, appropriate funding guidelines, or replenishment of funds for the H2Global Mechanism.

Introducing an e-fuel levy to finance the market ramp-up: In addition to the high investment costs, large-scale production of e-fuels also struggles with very high initial manufacturing costs. In order to bridge the difference in price compared to standard fuels, an additional e-fuel levy is charged on all fuel sales in air and maritime transport. These costs can then be financed via a pay-per-use system. In turn, this earmarked levy is deployed specifically for political instruments aimed at ramping up e-fuels, such as the H2Global double-auction mechanism.

Implementing RED III at national level and continuing GHG quota: RED III is promptly passed into law by the new German government, together with the GHG quota, in order to also achieve a continuous phase-out of fossil fuels among the existing fleet of vehicles. At the same time, the **mechanisms of adjustment** for automatically increasing the GHG quota when charging current is over-credited is scrapped. Air and maritime transport are integrated into the GHG quota targets as an ambition. At the same time, disincentives for conventional biofuels (such as sensible **upper limits**) or advanced biofuels (such as abolishing **double accounting**) are avoided both in this sector and in road transport. In addition, an indicative **roadmap** is devised for beyond 2030 in order to reach 100 % renewable energies in transport by 2045.

Reliable certification and fraud prevention in fuel imports: Environmentally friendly fuels, and e-fuels in particular, will have to be imported from other EU countries long-term. For that reason, the German government advocates internationally for establishing environmental and social **sustainability criteria for e-fuels**. Corresponding certification systems and proof of sustainability requirements will also be required to ensure that these criteria are, in fact, being fulfilled and that fraud can be consistently avoided. For that reason, conditions are created whereby environmentally friendly fuels can only be offset against the GHG quota if **on-site audits** are possible.

Establishing e-fuel partnerships: Drawing on existing energy or hydrogen partnerships, the government advocates for e-fuel partnerships with countries with favourable production conditions. The e-fuel partnerships can help connect German businesses to local governments, and can be backed up by **the promotion of foreign trade and development aid** (Chapter 1.3). It is important that the projects funded observe socio-economic and environmental **sustainability standards**. For this purpose, the government presents a comprehensive catalogue of criteria as part of its revision of the **Hydrogen Import Strategy**.

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04

Social and Health: Clean and safe mobility for all

Challenge

In recent decades, the combustion engine car stood for comprehensive mobility. However, the political, financial and infrastructural focus which this was used to justify led to social inequalities: not all people can afford their own car and switching to electric vehicles is not a viable financial option for many people. Consequently, as fuel prices rise, these people find themselves stuck in a fossil cost trap. The health effects of car traffic impact the general public and largely affect low-income groups. In many areas, cycling and walking options are not attractive or convenient enough. Around 20 million people, mostly in rural areas, do not have basic public transport services where they live. In addition, vulnerable groups, such as children, the elderly or people with disabilities, are poorly protected in the transport sector and their mobility options are severely restricted.

Objective

The mobility transition is no replacement for social policy, but it can promote social equity and health, and create more equal living conditions in cities and in rural areas. The government adds tools for social cushioning to transformation initiatives that entail cost increases. Low-income groups are given support for transitioning to climate-neutral technologies. The government also adopts a mobility guarantee so that people everywhere are more mobile. Public transport is expanded for this purpose and supplemented, where sensible, with sharing and pooling services. Providing rural areas with better resources makes them more attractive and brings basic public services closer to citizens. Active mobility is promoted as a way of exhausting its growth potential and contributing to everybody's health. The government's focus on traffic safety and the needs of vulnerable transport users ensures safer roads, cleaner air and liveable cities.

4.1 Guaranteeing affordability

Social cushioning through climate dividends: The revenue generated by carbon pricing (Chapter 6.1) is, for the most part, added to the Energy and Climate Fund. The money in this fund is largely earmarked for climate action investments, such as transitioning to low-emission alternatives like electric vehicles. Some of these funds are soon used to pay out per-capita climate dividends. These are means-tested payments which are calculated as soon as they are introduced or as quickly as possible thereafter. Consequently, particular attention is given to low and middle-income households who do not have the financial means to transition their homes and vehicles to more carbon-efficient alternatives as the price of carbon increases. In order that households with very low incomes can also benefit, the climate dividends do not count towards benefit payments.

Submitting and actioning the German Social Climate Plan promptly and properly: The Social Climate Fund was set up as part of EU-ETS2 and is intended to support groups who are particularly hard hit by rising carbon prices. So that it can use those EU funds that have already been provided, the German government submits a national plan ahead of the deadline of 30 June 2025, setting out in detail how these funds are to be used. The planned initiatives are suitable for achieving the goals of the Social Climate Fund. The plan is then rolled out consistently and adjusted where necessary over time so as to maximise its effectiveness.

Factoring social aspects into funding instruments: The German government increasingly factors social aspects into initiatives which offer an alternative to private fossil-based transport, such as **grants for e-mobility** (Chapter 2.4) or the **Deutschlandticket** (Chapter 4.2). This ensures that even low and middle-income groups have the ability to transition to environmentally friendly mobility and not become stuck in a fossil cost trap. Social aspects can be factored in using means-tested criteria for assessing eligibility for grants or by calculating the amount of support that can be provided using a means-tested sliding scale, plus other needs-based criteria where sensible.

Replacing the commuter flat rate with a non-means-tested mobility subsidy: The government also reviews existing funding instruments for their impact on social redistribution, making adjustments where appropriate. It replaces the mileage flat rate with a mobility subsidy. This is a fair way of reducing commuting costs. The mobility subsidy is deducted directly from taxes owed during a taxpayer's income tax assessment, instead of it reducing their tax base. Whereas the mileage flat rate calculates tax savings based on the rate of income tax, such that taxpayers on a higher income save more than those on lower incomes, the tax saving generated by the mobility subsidy is not dependent on income. This benefits low-paid commuters in particular, while commuters on higher incomes are incentivised to reduce their commuting. The mobility subsidy helps low-income households, in particular, to manage the rising costs caused by carbon pricing and the introduction of a mileage-based road use charge (passenger car toll) (Chapter 1.1).

4.2. Launching a public transport offensive

Three-pronged strategy for expanding public transport: In order to increase supply, demand and quality in local public transport, the federal government pursues three primary goals: simple and affordable fares, ensuring a nationwide mobility guarantee, and expanding and modernising over-stretched and outdated infrastructure. The government combines these initiatives into one coordinated strategy, concluding a **Public Transport Future Pact** with the states and local authorities for expansions, modernisation and employment as part of the roll-out. This pact stipulates a huge expansion of services by 2030, aligned with climate action targets in the transport sector. The pact takes into account the possibilities of automation and, equally, the need to improve working conditions, pay and training opportunities for employees. Ultimately, the pact must include a corresponding **financing concept**. Here, revenues from a passenger car toll on municipal and state roads could provide additional support in future for operating cost subsidies (Chapter 1.4).

Mobility guarantee with bus and rail: The government creates framework conditions whereby people are no longer forced to rely on their own car. In partnership with the states, local authorities and general public, the government defines quality targets for public transport in rural areas in the form of a **mobility guarantee**.

Thanks to Germany-wide **public transport monitoring** and a **financing tool** tailored to the particular needs of rural, disadvantaged communities, these quality targets can be achieved gradually. The government pushes the development and use of shared autonomous vehicles (***on-demand* transport**) which complement high-performance scheduled services specifically in rural areas (Chapter 5.3). For this purpose, they fund large-scale, transferable **pilot schemes**.

More funds for regional mobility options: The government promotes closely synchronised and growing regional railway services. The **regionalisation funds** are replenished for this purpose. This expansion of services is based on Deutschlandtakt. Another aspect of these expansion projects involves improving **access to railway stations** with modern bike infrastructure and secure parking facilities, for example. This makes changing between different modes of transport easier and improves the connectivity of rural areas. Central locations which are currently not on railway lines become better connected thanks to modern, regional **express bus routes**. The federal government finds solutions for also supporting local authorities in relation to the public transport offensive, whether through better financial resources or grant schemes (Chapter 1.3).

Deutschlandticket – simple, affordable and permanent: With the Deutschlandticket, local transport remains simple and affordable. The price and financial subsidies provided by the federal and state governments are set several years in advance, in order to give passengers and the public transport sector planning certainty. Price changes are aligned with the long-run rate of inflation. Following the example of the Deutschlandsemesterticket, a discounted **Jugend- und Sozialdeutschlandticket** for young people and those on benefits is devised and standardised across Germany.

4.3 Improving living conditions in rural areas

Expanding optic fibre, energy and mobile networks: The government improves conditions for an accelerated expansion of key infrastructure for digitisation, electrification and accessibility, including in rural areas. This improves the quality of these areas as locations and creates the conditions for e-charging stations at social amenities and autonomous transport. This also bolsters the ability to work from home: The government establishes a qualified **right to work from home**, with protected framework conditions for those jobs and businesses where remote working is possible.

Improved amenities in rural areas: As well as transport options, local amenities are also expanded in order to improve basic public services and establish equal living conditions: mobile supermarkets, doctor's surgeries and local government agencies, plus advances in digitisation (Chapter 5.1), bring key private and public services to the people and prevent congestion. The government helps to set up and coordinate these services, funding them where they do not have the financial means to support themselves. In rural areas, in particular, this improves the provision of public services and creates new opportunities for shared spaces.

4.4 Making it easier for local authorities to act and implementing advances in traffic law

Advances in traffic law: The new aims for traffic law adopted in the most recent legislature (climate and environmental action, health and urban development) are actioned by the local authorities in the coming legislature. The new federal government now brings the amendment to its logical conclusion: to that end, it further strengthens local authorities' freedom to act and adds both the principle of prevention and the **principles of deterrence and prediction** to local transport planning. Additionally, it rewords the opaque norm under **para. 45(9)** of the German Road Traffic Ordinance (StVO) and repeals para. 45(9)(3) StVO, thereby strengthening the focus on the safety of all road users, as established in the latest amendment. This makes it much easier to apply the StVO, with a view to reducing bureaucracy. The government also broadens the trial clause to create an **innovation clause**, meaning that local authorities can run pilot projects aimed at trialling new forms of transport with legal security and long-term plannability.

Strengthening local options for parking management: The federal government gives local authorities clear **legal bases** for digitising parking management (Chapter 5.1).

Standardised, legally compliant criteria are established for introducing **means-tested fees for resident parking permits**. Resident parking is also opened up to craft enterprises located in the area. Additionally, the government gives preference to the **commercial use of charging zones** and expands these into **service zones**, such that they can also be used by craft businesses, care services and other business enterprises.

4.5 Eliminating all road deaths (Vision Zero)

Zero road deaths as an aim in the StVG (German Road Traffic Act) and StVO: The speed of motorised transport has an enormous impact on road safety, especially in relation to the weakest road users. For that reason, the federal government defines a **standard speed limit of 30 kph in inner city areas**. It allows local authorities to set a speed limit of 50 kph on main roads in exceptional cases, provided this does not negatively impact road safety.

Speed limits on motorways and state roads: The federal government introduces a general speed limit of **130 kph on motorways** and **80 kph on state roads**. This improves road safety and can drastically reduce the number of deaths on the roads. Additionally, a speed limit makes it easier to use automated vehicles which also improve road safety and cut carbon emissions.

Recognising special protections for vulnerable groups: The mobility and safety needs of non-motorised road users, the elderly, children and young people are used as the **benchmark for transport planning**. It can therefore be ensured that all people can enjoy good and safe mobility. The overarching goal of Vision Zero also follows the suggestions approved at the Conference of Transport Ministers in 2021 to **amend the legal framework** in order to improve the safety and attractiveness of travelling on foot. These suggestions should be actioned wherever this has not yet been done. In order to promote road safety and active mobility, the government **focuses on safety on the way to school**, so that all children and young people can make these everyday journeys safely, actively and independently. For **temporary or permanent school roads** (traffic calming areas with no car traffic), a legal basis for issuing rules is created in the StVO, regulating application consistently across the country and in compliance with the law and thereby helping to reduce bureaucracy for local authorities and citizens. Regarding the application of the new regulations, **interpretations are anchored in the German Administrative Regulation on the StVO (VwV-StVO)** in order to assist local authorities with implementation.

4.6 Promoting healthy lives through active mobility, clean air and minimal noise

Promoting active mobility: Active forms of mobility are an integral part of attractive eco-mobility and indispensable components of affordable and healthy mobility for all. In order to exploit the huge potential for walking and cycling in Germany, the federal government commits to provide states and local authorities with significantly greater funds for promoting active mobility, and to maintain this level of funding in order to give these stakeholders planning certainty. Walking could be given greater consideration here as part of the minimally bureaucratic **"Town and Country" Initiative**. The federal government provides greater financial resources to the existing **cycling and sustainability centres of excellence** in the states and helps them offer local authorities easy-access advice. The National Pedestrian Strategy, adopted in February 2025, and the current National Cycling Plan 3.0 are developed further and implemented consistently, with **quantifiable targets for 2035 and 2040**. For this purpose, the federal level coordinates with the states and local authorities on an **estimate of the need for expansion and investment** for a nationwide cycling network which promotes climate and environmental action, and which also factors in rural areas and includes cycle highways that are suitable for everyday use on relevant routes. Safe and convenient **connections between cycling and public transport** are also taken into account – especially on routes connecting cities to surrounding areas.

Establishing target group-specific mobility advice programmes: The government acknowledges that in addition to the necessary expansion and improved financing of eco-mobility, funds and resources must also be invested in motivating people to change their mobility behaviour. **Grant schemes** are created for this purpose, so that states and local authorities can engage with local

residents concerning their mobility habits. Depending on the demand, situation and individual needs, people are informed of new mobility options, health benefits, and ways to save time and money. Mobility advice programmes must not aim to transition residents to public transport or cycling; in rural areas, in particular, switching to an electric car can also be a good option.

Clean air for healthy living: The government sets itself the goal of significantly reducing the environmental impact of fine dust and nitrogen oxide generated by vehicles. For that purpose, it coordinates with the local authorities on concrete steps to allow cities to comply with the significantly stricter **EU standards for air quality** coming into effect in 2030. Among other things, the federal government establishes the legal preconditions for local authorities to be able to set up **zero emission zones or even expanded environmental zones** where necessary. These zones also help to protect the environment and create additional incentives to renew vehicle fleets. At the same time, the government works on complying with the significantly stricter **World Health Organization (WHO) recommendations for air quality**, since every delay in improving air quality results in additional illnesses, higher hospital costs and more premature deaths, especially among vulnerable groups.

Ambitious noise control: The government acknowledges that motorised private transport entails numerous costs for human health further down the line, and that it is often low-income groups who suffer the most from traffic noise and air pollution. The government commits itself to the **EU Noise Pollution Targets 2030** to reduce the number of citizens affected by transport noise by 30 %. The government actions the existing proposal for a **Noise Pollution Act** and funds binding **noise action plans**. In doing so, it helps states and local authorities take action to reduce noise. Ensuring effective protections and promoting health in the transport sector helps to increase local quality of life, and therefore the attractiveness of an area, and reduce hospital costs for health insurers and employers.

Creating blue-green infrastructure: The government acknowledges the urgent need to unseal surfaces so that they can be used for blue-green infrastructure – especially in urban areas. These networks of natural and naturalistic green spaces and bodies of water ease the strain on the local environment and increase climate resilience in cities and communities, especially during the progressively long, very hot summer periods and heavy rainfall. The government therefore publishes a **Climate-Resilient Cities Action Plan** and lays the legal groundwork for rezoning public spaces, in particularly in large cities which are heavily affected. These spaces are consequently made more attractive for pedestrians and cyclists and improve overall quality of life in the city.

Image: iStock | martinwimmer

05

Digitisation and Automation: Data in service of the common good

Challenge

Although Germany is traditionally a centre of innovation when it comes to mobility technologies, it is not exploiting its potential to the fullest. While established vehicle manufacturers, mobility service providers and tech start-ups are engaged in forward-thinking developments, like autonomous driving and *mobility as a service*, they risk dropping back from the head of the pack. The domestic market is often too small or too fragmented. Public transport providers and state institutions are suffering from a prolonged labour shortage and outdated analogue processes. This makes it difficult for them to fulfil their duties and guarantee adequate mobility for all.

Objective

Automated public transport using minibuses allows users to get around without their own car, even away from busy transport arteries. Highly automated trains transport growing numbers of passengers around urban spaces. Technology and mobility services, predominantly developed in Germany and Europe, guarantee high safety standards and careful handling of personal data. They are predominantly used in environmentally friendly forms of mobility. Dependence on non-European providers and data platforms is minimal. Government agencies are able to run key processes digitally, such as automated monitoring of compliance with parking regulations. Digital information and booking systems make it easier to access public mobility services and electric car sharing. There are more and more highly skilled jobs in the public transport sector; new technologies contribute to worker satisfaction and efficiency.

5.1 Growing data architecture and modernising administrative tasks

Data platforms for simple, multi-modal transport: The government helps transport companies digitise their operations, sales, passenger information and vehicles, such as through the **mFUND** initiative. Transit authorities and states receive support for establishing regional, multi-modal platforms which allow passengers to access real-time information and purchase tickets across different modes of transport. At the same time, non-industry actors have the opportunity to sell tickets as well. In particular, the government is tasked with achieving inter-operability between different regional platforms. At a European level, the German government and Deutsche Bahn work towards an **EU-wide information and booking platform** for international rail travel.

Better availability of mobility data: The government takes on an instrumental role in the availability of mobility data for the general public, administrators, mobility sector and researchers. To that end, the offering and quality of **Mobilithek** as a national access point for public mobility data is constantly expanded to include things like real-time occupancy information for charging points, passenger numbers, and vehicle counts on roads. Improved data availability fosters innovation, which in turn boosts value creation. The comprehensive information gathered as part of the multi-year *Mobility in Germany* study is supplemented by **annual mobility surveys** and the continuous collection of traffic data. This makes it possible to get an up-to-date snapshot of traffic events and mobility behaviour at any time. Mobility transition initiatives can be evaluated and adjusted promptly. The government continues work on the draft **Mobility Data Act**, additionally taking into account the special needs of data providers who are in competition with one another, and passes the act into law.

Modernising administrative tasks: As part of its digitisation offensive, the German government broadens the framework conditions for **filing and processing applications digitally** for the most important public procedures. It also offers the underlying technologies to all local authorities. Sufficient federal funds are provided for this purpose and workers are hired at every federal level to manage this process. This eases the strain on administrative bodies' already stretched human resources in the medium-term, while citizens and businesses save journeys, time and money. This is evident in areas such as the digitisation of parking management. The government promptly concludes the work already begun on the legal prerequisites for rolling out **digital support for parking enforcement**. This eases the strain on local agencies and administrative offices in relation to both issuing and monitoring parking permits.

5.2 Facilitating new business models

Promoting micro-mobility and sharing services: Multi-modal options play an increasing role in individual, sustainable and affordable mobility. They ease congestion, reduce emissions and complement local public transport services. The government promotes these options by **integrating them into mobility data platforms**, expanding public charging infrastructure, setting up a **national register for ride hailing and taxi licences**, launching a **grant scheme for electric car-sharing fleets**, and **supporting local public transport**. The government also fosters **dialogue and networking** between regional actors as a way of disseminating tried-and-tested solutions and enabling stakeholders to learn from one another.

Freedom of choice for workers thanks to mobility budget: A growing number of businesses offer their employees an individual budget for different mobility options and modes of transport. The government supports this alternative to company cars because it incentivises workers to focus their mobility on low-emission options. To do this, it reduces the high administrative costs for businesses and providers, making it easier to **recognise the benefit in kind** and applying a **standardised flat rate of tax** to different budget elements, for example. The proposed 2024 reform of the **Annual Tax Act** includes the necessary approaches.

5.3 Rolling out autonomous driving on roads and railways

Political roadmap for environmentally friendly automated driving: The government develops a political roadmap which ensures that automated driving contributes to the mobility transition and reduces the energy consumed by transport. Failure to do so could result in the increasing automation of private passenger cars cancelling out savings and increasing the demand for energy as a result of longer journeys and the transfer and processing of large quantities of data, for example (Chapter 3.1). If its potential is to be exploited, automated driving must be embedded in an umbrella strategy that foregrounds both climate action and the mobility transition. At a European and global level, the German government pushes for **harmonised regulatory procedures**.

Accelerated ramp-up of autonomous driving in public transport: Building on the most recent **Federal Strategy** for autonomous driving on the roads, the market ramp-up of autonomous driving should be accelerated, as a complementary element of public transport. Self-driving *on-demand shuttles* can contribute to sustainable mobility and an improvement in transport options, especially in rural and suburban areas. The government should pursue the aims of this strategy consistently during the 21st legislative session in order to create the world's largest contiguous operating segment for autonomous vehicles. To achieve this, it launches a **Roll-Out Alliance**, made up of the states, local authorities, operators, businesses, transit authorities and research partners. Funding is strategically focused on a maximum of three large-scale, long-term **pilot schemes** in suburban and rural areas. Several thousand autonomous vehicles will be on the roads by 2030. This will create a relevant market for manufacturers. The pilot regions act as a blueprint for other regions. The licensing and approval processes for autonomous *on-demand* mobility services are simplified and regulatory uncertainties and ambiguities are amended.

Funding automated trains in urban areas: Despite driver shortages and limited capacities on many inner-city railway lines, there is still a lot of untapped potential for additional public transport options. The high and full automation of underground and overground railway systems generates additional capacity through more dense scheduling. The driverless U-Bahn in Nuremberg demonstrates that even existing lines can be converted, while at the same time further improving the reliability of the system. The German rail industry is head and shoulders above the rest of the world in this area of technology. So far, however, it has struggled with low demand on its domestic market. A targeted grant scheme helps with the high investment costs involved in making public transport even more efficient long-term. Trials also move ahead with driverless trams, thanks to an efficient inter-linking of research, industry and politics.

Improving efficiency by digitising the railways: The efficiency and reliability of railway infrastructure is given a boost by accelerating the digitisation of signal boxes and installing the modern European Train Control System (ETCS) on railway lines. Investments are also made in corresponding *on-board* vehicle equipment. The government should initially interrogate the previous cost estimate contained in the **Digital Railways Programme** and present a plausible concept on costs, financing and roll-out. This programme is pivotal to achieving the agreed European harmonisation of train control systems, getting greater capacity out of the over-stretched existing network, and reducing the need for operating staff who are in short supply.

Funding for automated freight car coupling: Freight transport will also be made more efficient and cost-effective, thanks to the automation of transshipment facilities and freight cars. Digital Automatic Coupling (Chapter 1.4) plays a pivotal role here, helping to reduce loading, shunting and transport times and eradicating heavy physical labour. The German government advocates for combined federal and EU funding for retrofitting automatic couplers.

Image: iStock | kemalbas

06

Climate: Guidance and planning certainty at all levels

Challenge

Germany is not on track to achieve net zero by 2045. The transport sector, in particular, is a long way off course. Scrapping binding sector targets has muddied the clear responsibilities of individual ministries. Political discussions around issues such as diluting the fleet-wide CO2 emission targets are making it difficult to achieve the goals that have been set and will weaken the German economy in the long run. Moreover, failure to achieve targets set under the European Effort Sharing Regulation (ESR) would result in hefty penalties. Starting in 2027, the national carbon price will be transferred to the European Emissions Trading System for Buildings and Road Transport (ETS2). This move must be completed in a responsible manner with regards to environmental, fiscal and social policy. The US' withdrawal from the Paris Agreement poses a challenge to the global community, at a time when greater international cooperation is needed on climate action and the mobility transition.

Objective

The German government is consistent and ambitious in its continued development of national, EU and international environmental policy. It makes individual ministries more accountable for reducing CO2 in their sectors, and links industrial and environmental policy together at both a national and EU level. Germany stays the course in relation to the fleet-wide CO2 emission targets for cars and vans. In order to create a fundamental building block for climate action in the transport sector, fleet-wide emissions targets are backed up by an EU industrial policy that seeks to achieve net zero. Pathways to reducing carbon emissions in the European Emissions Trading System (ETS1 and ETS2) result in a predictable and socially cushioned price rise for fossil technologies and facilitate investments in climate-neutral technologies. On the international scene, German climate diplomacy continues its work on ambitious framework conditions and supports partner countries with the mobility transition and the ramp-up of e-mobility.

6.1 Setting transport on a course to net zero nationwide

Stronger sector accountability in the Climate Action Act: The German Climate Action Act ensures compliance with the targets set out in the EU Effort Sharing Regulation (ESR). A simple continuation of transparent, sector-specific forecasting of future emissions trends is not enough. Further action must be taken on environmental policy wherever non-compliance with the ESR is anticipated. In this case, the German government approves a **package of special measures** for sectors impacted by the ESR. This package requires each individual ESR sector to present proposals for carbon-cutting measures based on their predicted target shortfall. The government also places an emphasis on transport when preparing its **mandatory climate action programme**, following the start of the legislative session. At the same time, the Climate Action Act is expanded, such that the Federal Ministry of Finance must **lay out the financial risks** which failure to fulfil national obligations under the ESR would entail. The government also utilises **projections beyond the 2030 time horizon** to ensure that annual emissions targets for the years after 2030 can be achieved and that Germany is on a good path to achieving net zero by 2045.

Step-by-step concept for decarbonising transport: The government approves additional tools and measures that are necessary in order to get the transport sector back on course for net zero 2045 by the year 2030. It consequently draws up a binding plan for political action (step-by-step concept). Where a minimum target is not achieved by a set milestone, the government implements or tightens previously established measures. This applies in particular to additional national tools for supporting the ramp-up of e-mobility – through a gradual reform of company car taxation and vehicle tax, for example (Chapter 2.4).

Hedging a reliable and ambitious carbon price: A national carbon price has been in effect in Germany since 2021. This carbon price is a pivotal tool for climate action in the transport sector. A legal definition of the national carbon price in Germany, set out in the national Fuel Emissions Trading Act (BEHG), is valid until 2026. In 2027, this price will be transferred to the European Emissions Trading System for Buildings and Road Transport (ETS2) (Chapter 6.2). As a result of free pricing within the European system, the price may also rise or fall dramatically compared to the 2025 German price. In order to ensure a smooth transition from the national to the European carbon trading system for transport, the government raises the **price corridor for 2026** further. At the same time, it ensures a plannable and sufficiently ambitious carbon pricing pathway by **introducing a national minimum price** within energy taxation; at the same time, **taxation** of diesel is brought in line with gasoline and a mechanism is added for adjusting for inflation. Revenues from ETS2 are used, among other things, to finance **climate dividends** as a way of easing the strain of higher fossil fuel costs on citizens and to support investments in climate-neutral technologies (Chapter 4.1).

6.2 Collaborating on ambitious European environment and industry policy

Implementing Green Deal instruments consistently at a national level: The government takes ambitious steps in its implementation of the **AFIR** (Alternative Fuels Infrastructure Regulation), the **EPBD** (Energy Performance of Buildings Directive), and the **ReFuelEU Aviation** and **FuelEU Maritime** Regulations. The latter two, in particular, should be closely linked to the implementation of **RED III** in Germany.

Consolidating the Green Deal and backing it up with the Clean Industrial Deal: When reviewing the core tools provided for in the Green Deal, it is important to maintain the ambition that has already been set. The German government therefore also advocates for the **fleet-wide CO_2 emission targets for cars and vans** agreed on in the EU Green Deal. It distances itself from further discussions around phasing out combustion engines and easing sanctions, establishing a clear direction and creating investment certainty. It supports backing up the Green Deal with a Clean Industrial Deal and an ambitious fiscal policy which sees Europe as a centre of future technologies (Chapter 2.1).

Affirming EU Emissions Trading: At an EU level, the German government also argues in favour of affirming the pathways to reducing carbon emissions under ETS1 and ETS2. It also advocates for including international flights and non-carbon emissions from air travel in the EU Emissions Trading System.

Working towards an ambitious 2040 target: While the Green Deal stipulates a 55% reduction in emissions by 2030 and the target has been set for climate neutrality in the EU by 2050, it is now time to adopt a European target for 2040. This target is the most important milestone on the path to achieving net zero in the EU by 2050. The German government therefore calls on the EU to commit itself to an ambitious reduction target for 2040, in line with the recommendations of the EU Climate Advisory Board.

6.3 Strengthening institutions and cooperations internationally

Ambitious climate action policy within the UNFCCC: The Framework Convention on Climate Change is a core element of international climate efforts and provides an important framework for national and EU policy. In this forum, German climate diplomacy continues to advocate ambitious climate targets and, in particular, a move away from fossil fuels. The German government aspires to reach an international agreement which stipulates a clear pathway for phasing out fossil energy sources. It encourages the **setting of sector targets** within the UNFCCC and increases the relevance of the transport sector in climate finance – internationally and bilaterally (Chapter 1.3). International credibility depends on **achieving targets at a national level** (Chapter 6.1). Here, the German transport sector makes an important contribution to achieving the EU targets set within the framework of the UNFCCC.

Ambitious continued development of EU targets under UNFCCC: New EU targets must be drawn up within the framework of the UNFCCC by the end of the next legislative session. The German government supports **raising the target for 2035** and setting an **ambitious target for 2040**. Implementing existing targets and measures consistently is essential if the goals set are realistically to be achieved by 2040 (Chapter 6.2).

Supporting the mobility transition in multi-lateral forums: Within the **G20, G7, IMO and ICAO** forums, the German government encourages a rethinking of industrial, fiscal, transport and foreign policy that promotes a shift towards environmentally friendly and sustainable modes of transport and sources of energy (Chapter 4.4). In the IMO, it also advocates for introducing a global price for greenhouse gas emissions generated by international maritime transport. With respect to growing motorisation, in particular, stakeholders should cooperate with countries on the African continent, as part of the G20 or **Compact with Africa**, for example. Partnerships are also developed with important, like-minded industrial nations outside of Europe, such as members of the **ZEV Transition Council**. Existing partnerships focus more on decarbonisation in the transport sector in line with the share of emissions generated by the industry. New international transformation partnerships, in the form of **sector-specific country platforms**, link industrial and environmental policy (Chapter 2.2).

International cooperations on the energy transition in transport: The German government advocates boosting the global ramp-up of e-mobility for industrial and environmental policy interests. This includes fair competition for electric vehicles, components and necessary raw materials. Consistent and reliable **Carbon Accounting** (Chapter 2.3), ideally with uniform international standards, plays an important role here. In addition, **local and regional value chains for e-mobility** are promoted in partner countries (Chapter 2.2). The German government also advocates for **e-fuel partnerships** with countries with favourable production conditions (Chapter 3.3) and for **strategic partnerships on critical raw materials** (Chapter 2.2).

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Agora Verkehrswende is a think tank for climate-neutral mobility headquartered in Berlin. A non-partisan charitable organisation, Agora advocates for a complete elimination of greenhouse gas emissions in the transport sector, in dialogue with stakeholders from politics, business, research and civil society. The team develops scientifically substantiated analyses, strategies and proposals for solutions.

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Agora Verkehrswende is a joint initiative of Stiftung Mercator and the European Climate Foundation.