

Mobility Transformation

: Legal and Institutional Improvements



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1. Introduction

To facilitate transport transition, a wide variety of stakeholders for all modes of transport must work together in a coordinated manner. Legal certainty also plays an important role in this process.

This chapter provides an overview of important topics related to the transport transition, its legal framework, and relevant institutions; it also identifies important challenges related to these issues. First, it discusses the influence of international, European, and national climate legislation on Germany's transportation sector. Subsequently, the topics of electric mobility in motorized private transport, legal innovations concerning autonomous and connected driving, smart mobility and mobility data, and the concept of mobility laws are examined.

2. Impact of climate protection legislation on the transport sector

Climate legislation at the international, supranational (European), and national levels provides the necessary legal framework for the successful global transformation of all sectors, including the transport sector. Only through the development of accountability and legally binding targets and processes can the measures necessary to reduce emissions be verified and enforced. Depending on the level of legislation, different institutions operate by using the different legal instruments at their disposal.

International Climate protection law and its legally binding effect

The United Nations Framework Convention on Climate Change (UNFCCC), which took effect in 1994, is one of the three Rio Conventions adopted at the first Rio Earth Summit in 1992. For the first time, the international community recognized global climate change as a serious problem and committed to action. With 198 Parties, the Convention has near-universal membership. The UNFCCC Secretariat, based in Bonn, Germany, is a United Nations entity tasked with supporting the global response to the threat of climate change.¹ The signatories meet annually for the Conference of the Parties (COP). In 1997, the parties concluded the Kyoto Protocol, which introduced the first legally binding targets for industrialized countries to reduce emissions. The Protocol envisaged a top-down scheme with fixed national climate-protection contributions. In 2016,² the Paris Agreement (PA) entered into force as a follow-up agreement to the Kyoto Protocol, opening a new chapter on international climate protection law. More than 190 countries agreed to the ambitious climate protection target to hold the increase in the global average temperature to well below 2°C above pre-industrial levels.³

German CO₂ emissions, including those from the transport sector, must decline drastically if the Paris targets are to be met. To meet the more ambitious 1.5°C target, transport emissions must fall by 53% by 2030 compared to 1990 levels. To meet a 2°C target, Germany would need to reduce its transport emissions by 44% by 2030.⁴

The PA replaced the top-down scheme from the Kyoto Protocol with a bottom-up process with voluntary national commitments.⁵

The Agreement binds the parties through a hybrid structure featuring political enforcement control by a global environmental public

- ¹ https://unfccc.int/about-us/about-the-secretariat?gclid=CjwKCAiA3aeqBhBzEiwAxFIOBrViy1ORmV7oVnUvW7QmNwilJ8GYD9hLcv0mBYWFEQqb4EnhKMN2HxoCWdsQAvD_BwE
- ² Both the Republic of Korea and Germany signed the Paris Agreement on 22 April 2016.
- ³ Art. 2 I b) Paris Agreement, https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.
- ⁴ Agora Verkehrswende (2019): En route to Paris? Implications of the Paris Agreement for the German transport sector
- ⁵ NWwZ 2017, 1574.

combined with the authority of national courts, which can be seen as decentralized judicial control.⁶ Parts of the PA are, therefore, fully specified provisions that precisely designate the subject and object of the obligation; this does not leave compliance to the discretion of the contracting parties. The most important provision qualified in this way was the mandatory participation of all Parties in the “bottom-up” process of developing, transmitting, and implementing nationally determined contributions (NDC) (Article 4 II PA). The firm legal quality is captured in the use of the indicative mood in the treaty text, as opposed to “shall” requirements for Parties, such as in Art. 4 IV PA.⁷ In this context, the International Transport Forum, an intergovernmental organization with 59 member countries, reviews the updated NDC submissions every five years to assess how ambitious their transport commitments are.⁸

European Union and EU climate legislation

Germany is one of the six founding countries of the European Union.⁹ For member states, EU law has far-reaching effects on national legal areas.

EU Law and Institutions

The European Union (EU) is an economic and political union of 27 member states. This unique legal and political system is supported by the member states and the EU institutions. The European Commission is solely responsible for drafting proposals for new European legislation and implementing the decisions of the directly elected European Parliament and the Council of the EU, which sets the union's general policy objectives and priorities.

Similar to the way sovereign states distinguish between their constitutional laws and other legislation, the EU law differentiates between primary and secondary laws.¹⁰

The Treaty on European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU) comprise EU primary law; the two treaties set out the principles and objectives of the EU, as well as the scope for action in its policy areas. The aims set out in the EU treaties are achieved through several types of legal acts.¹¹

- ⁶ ZUR 2021, 131
- ⁷ NWwZ 2017, 1574
- ⁸ ITF, Transport CO₂ and the Paris Climate Agreement; Reviewing the Impact of Nationally Determined Contributions, p. 7, <https://www.itf-oecd.org/sites/default/files/docs/transport-co2-paris-climate-agreement-ndcs.pdf>.
- ⁹ In 1951, Belgium, Germany, France, Italy, Luxembourg and the Netherlands founded the European Coal and Steel Community. It was the first predecessor organisation of the European Union.
- ¹⁰ Pechstein/Nowak/Häde, Frankfurter Kommentar EUV/GRC/AEUV/Häde, 1. Aufl. 2017, AEUV Art. 1 Rn. 4.
- ¹¹ https://european-union.europa.eu/institutions-law-budget/law/types-legislation_en.

A "regulation" is a binding legislative act and must be applied in its entirety across the EU. In addition, there is the possibility of adopting an EU legal act as of a "directive," which sets out a goal that EU countries must achieve. However, it is the responsibility of individual countries to devise their own national laws on how to achieve these goals. Although EU law holds precedence, it does not nullify the national laws of member states. However, national law is not applicable as long as EU law is relevant (the principle of the primacy of EU law). European legal acts often represent the lowest common denominator among member states. Nevertheless, EU member states are permitted to exceed the minimum legal requirements of EU legislation. In cooperation with the courts of member states, the European Court of Justice (ECJ) ensures the uniform application and interpretation of EU law.

European Green Deal

The European Green Deal, which was signed by the EU and its member states in 2015, is a package of policy initiatives to set the EU on the path to green transition. It was launched in December 2019 as part of the implementation of the PA.

In July 2021, the European Commission proposed several legislative revisions to the Green Deal under the "Fit for 55" policy package. These measures enshrine the climate ambitions of the Green Deal into law¹² by introducing the European Climate Law. The legislative package also included revisions to the EU Emissions Trading System (ETS) Directive¹³ and Effort Sharing Regulation (ESR).¹⁴

EU climate legislation constitutes an important lever to facilitate the EU-wide decarbonization of the transport sector.

· European Climate Law

The European Climate Law¹⁵ entered into force in July 2021 and set out the EU's target to reduce greenhouse gas (GHG) emissions by at least 55% by 2030 compared to 1990 levels. It includes a legal objective for the EU and its member states to reach climate neutrality by 2050. It is a European regulation and includes a mechanism for keeping all member states on track, with regular reporting of progress and tools to catch up in case any country falls behind.

¹² <https://www.consilium.europa.eu/en/policies/green-deal/>

¹³ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union and amending Council Directive 96/61/EC

¹⁴ Regulation (EU) 2023/857 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by member states from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement, and Regulation (EU) 2018/1999.

¹⁵ REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32021R1119>.

· Effort Sharing Regulation

The ESR establishes legally binding emission reduction targets for each EU member state based on their economic performance in the transport, buildings, agriculture, and waste sectors. It initially affected all sectors not covered by the EU Emission Trading System (see 2.2.2.3), which contribute 60% of total EU emissions. The country targets range from -10% (Bulgaria) to -50% (e.g. Germany).¹⁶ The ESR legislation, first adopted in 2018, was revised in 2023 to deliver a 40% reduction in emissions covered by the ESR by 2030 compared with 2005. Having considered the intended use of flexibility options, if the Commission determines in its annual assessment that a member state is not making sufficient progress in meeting its commitments, the member state shall submit a corrective action plan to the Commission within three months. From 2013–2020, across the EU, the overall emissions ceilings for the transport and buildings sectors up to 2020 were met within the European effort-sharing mechanism, because several member states outperformed their climate targets. By contrast, Germany failed to meet the binding EU targets in the transport, buildings, industry, and agriculture sectors. Germany had to buy more than 11 million annual emission allowances from other member states (Bulgaria, Czechia, and Hungary) and pay several million euros in 2022.¹⁷

· Emission Trading System I and II (ETS)

The ETS is the EU's key tool for reducing GHG emissions.¹⁸ The legal framework of the system is outlined in the ETS directive. Approximately 40% of all GHG emissions generated in the EU have been covered since the 2005 EU-ETS I, which includes electricity, heat generation, energy-intensive industry, and air traffic in the European economic area. The ETS requires EU producers to buy allowances for GHG emissions. One allowance provides the right to emit one ton of CO₂ (carbon dioxide equivalent). The carbon price in the European market reached €100/t of CO₂ for the first time in spring 2022.¹⁹ The system works on the "cap and trade" principle. A cap is a limit set on the total amount of GHG emitted by the producers covered by the system. The cap is reduced annually in line with the EU's climate target. Since 2005, the EU ETS has helped bring down emissions from power plants and industry by 37%.²⁰ The revenues are fed into national budgets and various EU funds.

A new ETS (EU-ETS II) will be established in 2025 as a separate self-standing trading system. Entities that release GHG through fuel combustion in the buildings and road transport sectors must trade

¹⁶ Annex I, Regulation (EU) 2023/857 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by member states from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement, and Regulation (EU) 2018/1999.

¹⁷ <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/10/20221024-germany-acquires-emission-allowances-for-failures-to-meet-climate-targets-between-2013-and-2020.html>

¹⁸ <https://www.consilium.europa.eu/en/infographics/fit-for-55-eu-emissions-trading-system/>

¹⁹ Current prices see: <https://www.statista.com/statistics/1322214/carbon-prices-european-union-emission-trading-scheme/#:~:text=The%20price%20of%20emissions%20allowances,of%20CO%E2%82%82%20in%20February%202023.>

²⁰ https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/what-eu-ets_en

allowances within this ETS. This reform is welcome, as the expansion of emissions trading to other sectors will lead to decarbonization of these sectors, as long as emission prices are implemented.

The emissions cap for EU ETS II will be set beginning in 2026 and decrease over time to reach emission reductions of 43% by 2030 compared to 2005 for the targeted sectors.

Carbon pricing cannot overcome all of the barriers to the deployment of low- and zero-emission solutions in the road transport sector. Therefore, the ESR will remain applicable. This means that the transport sector will be decarbonized by both the ETS II instrument and national policies based on the ESR. Additionally, some member states have already established a national ETS for transport and buildings (e.g., Germany, see Section 2.3.2) that will have to be coordinated with the new EU ETS II. In this regard, legal amendments must be made to the Fuel Emissions Trading Act (Brennstoffemissionshandelsgesetz, BEHG²¹).

Carbon prices set out by the ETS across all sectors are also further impacted by fossil fuel subsidies and other harmful fiscal measures (e.g., energy tax concession for diesel fuel); in Germany, this amounts to €65 billion²² to maintain firms' competitiveness and avoid increases in the cost of living.²³ However, these harmful policies should be evaluated a balanced manner and gradually eliminated.²⁴

· **Euther relevant EU legislation**

Further relevant EU legislation concerns e.g. renewable energy, emission standards for vehicles and requirements for the aviation and shipping sector. This is not an exhaustive list of relevant legal acts.

Amendments to Directive (EU) 2018/2001 on the promotion of the use of energy from renewable sources (Renewable Energy Directive, referred to as RED III)²⁵ propose decarbonization targets for EU member states across the transport, industrial, buildings, heating, and cooling sectors. The amendments expand the use of renewable fuels of nonbiological origin, such as green hydrogen.

Regulation (EU) 2023/851²⁶ sets standards for reducing CO₂ emissions from new cars and vans. The emissions of new passenger cars and vans registered in the EU shall be reduced by 55% and 50%, respectively, by 2030. By 2035, the emissions shall be reduced by 100% for both new passenger cars and new light commercial vehicles.

²¹ Fuel Emissions Trading Act of 12 December 2019 (Federal Law Gazette I p. 2728), which was last amended by Article 7 of the Act of 22 December 2023 (Federal Law Gazette 2023 I No. 412)

²² Burger, A. and W. Bretschneider (2021), Environmentally harmful subsidies in Germany.

²³ OECD Economic Surveys: Germany 2023, Key policy instruments for a net-zero economy, https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-germany-2023_9642a3f5-en

²⁴ OECD Economic Surveys: Germany 2023, Key policy instruments for a net-zero economy, https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-germany-2023_9642a3f5-en

²⁵ Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023L2413>

²⁶ Regulation (EU) 2023/851 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition, <https://eur-lex.europa.eu/eli/reg/2023/851>

In the spring of 2023, the European Commission submitted a proposal to revise the CO₂ emission standards for heavy-duty vehicles.²⁷ The legislative process is still ongoing. Furthermore, the ReFuelEU Aviation²⁸ and FuelEU Maritime²⁹ regulations were adopted to boost the uptake of renewable and low-carbon fuels in these transport modes.

· **Current developments**

In May 2023, the EU and the Republic of Korea launched a Green Partnership. Both sides confirmed their willingness to increase cooperation under the UNFCCC, Paris Agreement, and Convention. Both sides recognize their respective green deals and the importance of carbon pricing, including emission trading systems, in achieving sustainable growth, jobs, and competitiveness, along with net-zero, nature-positive, circular, and resource-efficient economies by 2050. Furthermore, both sides intend to enhance cooperation on green mobility and technologies such as batteries.³⁰

German climate protection legislation

In addition to the EU targets, Germany has set its own climate protection targets to guide national legislation.

National climate legislation

The German Federal Climate Protection Act (Klimaschutzgesetz-KSG)³¹, which mandates GHG neutrality by 2050, came into force in December 2018. It forms a legislative framework and imposes binding obligations on public entities. Its main purpose, according to Section 1, is to "ensure the fulfillment of national climate protection targets and compliance with European targets," which are in turn based on the PA (see above)³².

However, in the view of the Federal Constitutional Court, the Climate Protection Act was partly unconstitutional. Its regulations on national climate protection targets and the annual emission levels permitted up to 2030 were deemed to be incompatible with fundamental rights, as sufficient requirements for further emission reductions from 2031 were missing. According to the Court, the regulations irreversibly postponed high emission reduction burdens to periods after 2030.

²⁷ COM, https://climate.ec.europa.eu/system/files/2023-02/policy_transport_hdv_20230214_proposal_en_0.pdf

²⁸ Regulation (EU) 2023/2405 of the European Parliament and of the Council of 18 October 2023 on ensuring a level playing field for sustainable air transport (ReFuelEU Aviation), <https://eur-lex.europa.eu/eli/reg/2023/2405>

²⁹ Regulation (EU) 2023/1805 of the European Parliament and of the Council of 13 September 2023 on the use of renewable and low-carbon fuels in maritime transport, and amending Directive 2009/16/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R1805>

³⁰ <https://www.consilium.europa.eu/en/press/press-releases/2023/05/22/european-union-republic-of-korea-green-partnership/>

³¹ Federal Climate Protection Act of December 12, 2019 (Federal Law Gazette I p. 2513), which was amended by Article 1 of the Act of August 18, 2021 (Federal Law Gazette I p. 3905)

³² BerlKommEnR/Ehrmann, 5th ed. 2022, TEHG § 1 marginal no. 21.

³³ Article 20a GG: Mindful also of its responsibility towards future generations, the state shall protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order.

The German Constitution(Grundgesetz, GG) stipulates that GHG emissions must be reduced. Achieving the Paris target of limiting the increase of global average temperature to 2°C or, if possible, 1.5°C above the pre-industrial level would constitute the realization of Article 20a.³³

The immediate consequence of the decision was an amendment to the act calling for GHG to be reduced by at least 65% rather than 55% by 2030. The year 2040 was added as a new interim target for a reduction of 88%. Finally, climate neutrality is to be achieved five years earlier(2045 as compared to the initial target of 2050).

One distinctive feature of the act in its current version³⁴ is that it contains annual emission quantities for individual sectors(energy, industry, transport, buildings, agriculture, waste management, and miscellaneous) specified exactly in millions of metric tons of CO2 equivalent for the individual years from 2020 to 2030 (see Section 4 in conjunction with Annexes 1 and 2 of the act). In the transport sector, the annual emission volume stipulated in the KSG was exceeded by 2 and 9 million tons in 2021 and 2022, respectively. The Federal Ministry for Digital and Transport(BMDV³⁵) therefore submitted proposals for additional climate protection measures in the transport sector.

In June 2023, the German government coalition, which consisted of socialists(SPD), greens(Die Grünen), and liberals(FDP), launched a new version of the KSG. The draft stipulates that in the future, a multiyear and cross-sectoral overall accounting of emissions will be the decisive factor for further measures. This means that the focus will be on whether GHG emissions are reduced overall, regardless of the sector in which GHG are produced. However, the climate targets remain unchanged.

According to the Federal Government's own statement, the current draft of the Climate Action Program 2023 will not achieve the climate targets in total for the years 2021–2030, across sectors, or for individual sectors (e.g., transport)³⁶.

Furthermore, the 2023 climate protection program is not suitable for complying with the ESR goals (see Section 2.2.2). If Germany misses the targets, it will have to pay penalties and purchase emission allowances from other EU member states, amounting to several billion Euros³⁷.

If amendments to the KSG are passed as proposed by the current

³⁴ Current version of November 2023.

³⁵ The Ministry is headed by the Minister(currently Volker Wissing,(FDP). He is appointed by the Federal Government.

³⁶ German Council of Experts on Climate Change, Statement on the draft of the Climate Protection Program 2023, In accordance with Section 12(3) No. 3 of the Federal Climate Protection Act, 2023, p. 23, German report: https://expertenrat-klima.de/content/uploads/2023/09/ERK2023_Stellungnahme-zum-Entwurf-des-Klimaschutzprogramms-2023.pdf, The Expert Council on Climate Issues is an independent panel consisting of five experts from various disciplines. It was established in September 2020 and is mandated by Sections 11 and 12 of the Federal Climate Change Act(KSG).

government, it can be assumed that the Federal Constitutional Court will review its constitutionality.

National Emission Trading

In December 2019, the BEHG³⁸ was passed, mandating national emissions trading for the heat and road transport sector, which began in 2021. Under the BEHG, a fuel is deemed to have been placed on the market if a tax liability arises for it according to the Energy Tax Act.³⁹

The German Emissions Trading Authority of the Federal Environment Agency was appointed to enforce this act.

³⁷ EURACTIV, Costly gap: Germany to fall significantly short of EU climate targets, 2023, https://www.euractiv.com/section/energy-environment/news/costly-gap-germany-to-fall-significantly-short-of-eu-climate-targets/?_ga=2.216910495.860992198.1699371569-724419037.1699008856.

³⁸ Fuel Emissions Trading Act of December 12, 2019 (BGBl. I p. 2728), which was last amended by Article 2 of the Act of November 9, 2022(BGBl. I p. 2006)

³⁹ <https://www.dehst.de/SharedDocs/Newsletter/DE/2022/2022-11-28-nehs-behg-novelle-zertifikatspreise-behg-novelle.html>.

3. Electro Mobility – Public stationary charging

To achieve a transition towards sustainable energy use in the transport sector, German strategies and legislation prioritized the increased utilization of renewable energy sources for drive systems. Battery-electric mobility is a key technology for the design of a sustainable transport sector and for achieving climate protection goals. As the electromobility market rises, it will make a tangible contribution to climate protection and the improvement of air quality, especially in cities. Finally, electromobility offers important industrial policy opportunities for Germany as a business location.

The German Federal Government promotes the development of electromobility by setting the necessary framework conditions using a comprehensive package of measures that are continuously evaluated, expanded, and adapted. These include support for research and development, a purchase premium for electric cars,¹ expansion of charging infrastructure, uniform charging standards, procurement targets for the public sector, and privileges for electric car owners (e.g., parking). The successful market ramp-up for electromobility also requires a coordinated and clear legal framework. Regulatory measures for the electromobility sector can be found at European, national, and local levels.² Implementation is primarily conducted through cooperative collaboration between government agencies, municipalities, network operators, charging-point operators, and other stakeholders.

Deployment of Infrastructure and competition

A privately available charging infrastructure is the most important condition for the widespread adoption of electric passenger cars. The second most frequent charging location is the workplace. While public charging infrastructure is currently the third most frequent location for charging, electric vehicle owners without garages or parking spaces of their own, who represent a minority of vehicle owners in Germany, are particularly dependent on them³.

Deployment of public infrastructure in the EU and Germany

As part of the “Fit for 55”-package, the EU’s plan for a green transition, the Alternative Fuels Infrastructure Regulation(AFIR) was adopted in

- 1 As of September 1, 2023, only individuals are eligible to apply and plug-in hybrid vehicles will no longer receive support through the environmental bonus.
- 2 BMDV, Regulatory landscape for electric mobility, 2022, <https://www.now-gmbh.de/wp-content/uploads/2022/09/Regulatory-landscape-for-electric-mobility.pdf>
- 3 <https://publica-rest.fraunhofer.de/server/api/core/bitstreams/b33abb5b-f66b-47d4-9986-0d53661cbea2/content>

September 2023. It will be fully applicable from April 2024 onwards. This legal act lays down mandatory minimum targets for the deployment of publicly accessible and user-friendly electric recharging infrastructure for light-duty and heavy-duty electric vehicles, Art. 3 and 4 AFIR.

On behalf of the German Federal Ministry for Digital and Transport, the National Centre for Charging Infrastructure(Nationale Leitstelle Ladeinfrastruktur) coordinates and manages activities to expand the public charging infrastructure in Germany.

According to the German government’s Charging Infrastructure Master Plan II⁴, one million charging points should be available to the public in Germany by 2030⁵. For fast-charging infrastructure on highways (“Deutschlandnetz”), public tenders were held. In Germany, twice the charging capacity required by AFIR has already been installed.⁶

Missing competition in public charging

The Charge Point Operator(CPO) is responsible for the operation of the charging points and their connection to the IT infrastructure. The CPO often owns the charging points. According to the Charging Point Ordinance(Ladesäulenverordnung, LSV)⁷, a CPO is a person who, considering legal, economic, and factual circumstances, has a determining influence on the operation of a charging point. During stationary charging, CPOs operate the infrastructure and supply electricity simultaneously.

No Unbundling

Unlike household electricity customers, charge-point customers in Germany cannot choose their electricity suppliers. The legislature has made the combined offer of infrastructure provision and electricity supply from a single source legally possible by considering the CPO as an “end consumer”(Letztverbraucher) pursuant to Section 3 No. 25, Hs. 2 of the German Energy Industry Act(Energiewirtschaftsgesetz – EnWG).⁸ This means that the CPOs are not subject to the strict access and fee regulation of the EnWG; they are not considered electricity suppliers pursuant to Section 3 No. 31a of the EnWG; and they can therefore devote themselves to infrastructure development without any restrictions that they would have otherwise. However, this approach does not foster competition for electricity, which can lead to higher prices.

- 4 https://nationale-leitstelle.de/wp-content/uploads/2023/05/Masterplan-Ladeinfrastruktur-II-der-Bundesregierung_Englisch_barrierefrei_2023_05_03.pdf.
- 5 The target of one million charging points by 2030 is technologically outdated. The decisive factor is the charging capacity which is relevant according to the AFIR.
- 6 BDEW, Elektromobilitätsmonitor, 2023, https://www.bdew.de/media/documents/BDEW-Elektromobilit%C3%A4tsmonitor_2_2023_SmMJoQW.pdf
- 7 Charging Point Ordinance of March 9, 2016(BGBl. I p. 457), as last amended by Article 1 of the Ordinance of June 17, 2023(BGBl. 2023 I No. 156)
- 8 Energy Industry Act of July 7, 2005(Federal Law Gazette I p. 1970; 3621), last amended by Article 24 of the Act of October 8, 2023(Federal Law Gazette 2023 I No. 272)

Currently, giving customers the right to choose their own energy supplier when using charging points is optional for the CPO, thus ensuring more effective competition for electricity prices. However, this also increases the complexity of energy market processes, which is why this model is not widely applied by CPOs. Nevertheless, in the near future, CPOs should be obligated to provide access to different energy suppliers so that charge-point clients can choose between them.

· **Regional monopolies of public charging points**

The operation of public charging points is currently characterized by a monopoly structure in certain German regions, as some CPOs have a dominant market position. In some regions, up to 91% of public charging points are in the hands of a single operator, which restricts price competition⁹. This lack of competition among charging-point operators might have the potential to slow the expansion of electromobility in Germany. It deprives CPOs of the incentive to lower charging prices because their stations face no competition. CPO competition accelerates the expansion of the charging network. With no competition, no further network expansion is required to become the most attractive provider¹⁰.

Competitive and nondiscriminatory access for CPOs to suitable areas is crucial for the emergence or maintenance of competition in the field of publicly accessible charging infrastructure. Away from highways, municipalities decide how areas and surfaces can be used. Therefore, their allocation behavior is particularly significant.

In 2021, the Federal Cartel Office (Bundeskartellamt) called for "greater promotion of the emergence of competitive market structures by means of a legal requirement to award public land."¹¹ Instead of allocating space through special use permits (Sondernutzungserlaubnis) or concession agreements, municipalities should opt for public tendering on a more regular basis.

Sector coupling

How can the increasing electricity consumption of electric cars be reconciled with the limited capacity of electricity grids? Two provisions of the EnWG¹² that attempt to answer this question are explained in this section. The main challenge with these legal provisions is their implementation. Technical and administrative conditions must be

⁹ <https://www.lichtblick.de/presse/monopolanalyse2022/>.

¹⁰ EnWZ 2023, 147, 148.

¹¹ EnWZ 2021, 433 (434).

¹² Energy Industry Act.

satisfied to enable these processes.

Grid control via electric vehicles

The distribution grid operator is given the opportunity to regulate the energy consumption of electric vehicles charging in private households to maintain secure grid operation (see Section 14).

This can only be controlled as much as is absolutely necessary. A complete shutdown is not permitted. In return, the end consumers are granted a flat-rate discount on the grid fee. These processes require the installation of smart metering systems, which represents a challenge for the responsible metering point operators.

Consideration of electromobility in grid planning

Operators of electricity distribution grids have to draw up a so-called "regional scenario," which forms the common basis for the respective grid expansion plans of the operators in their region (see Section 14 d (3) No. 3 of the EnWG). For integrated planning, suitable assumptions must be made regarding the development of other sectors within the scenarios. Particular attention must be paid to the rapidly advancing electrification in the transport and heating sectors¹³.

¹³ BT-Drucksache 20/1599, <https://dserver.bundestag.de/btd/20/015/2001599.pdf>, p. 55.

4. Autonomous and connected driving

Autonomous driving also plays an important role in the mobility transition. Germany sees itself as a pioneer in this area and allowed vehicles with SAE-Level 3¹ in 2017². A few years later, Germany became the first country in the world to create a framework to allow autonomous vehicles with SAE-Level 4. In addition to national laws, European and international legal requirements must also be observed.

National Law

The Autonomous Driving Act came into effect in Germany on July 28, 2021³, ushering in substantial and comprehensive changes to the German Road Traffic Law (Straßenverkehrsgesetz-StVG)⁴. A key aspect of these changes is the precise criteria for vehicles equipped with autonomous driving functions, aligned with the SAE-Level 4 classification⁵. This legislation now allows for the operation of autonomous vehicles without a physically present driver but only within specified operation areas and under so-called "Technical Supervision."

This refers to a human backup who remotely monitors vehicles and can intervene in critical situations. Consequently, Germany has played a pioneering role in establishing technical prerequisites for the operation of autonomous vehicles and defining the fundamental responsibilities of the parties involved during operation.

Alongside these revisions, a new centralized approval process for autonomous vehicles was introduced, a process overseen by Germany's Federal Motor Transport Authority (Kraftfahrt-Bundesamt-KBA). In addition, the associated implementing ordinance - "Autonomous Vehicle Approval and Operation Ordinance" (Autonome-Fahrzeuge-Genehmigungs-und-Betriebs-Verordnung - AFGBV)⁶ - was adopted in 2022. It specifies and supplements the newly introduced regulations in the StVG (Sections 1d to 1l).

Impact on Mobility Transition in Germany

The New Autonomous Driving Act is expected to have a significant impact on public transportation in Germany, with public transportation being one of its primary beneficiaries. The main goal of the legislation was to streamline the introduction of new mobility services including

- ¹ SAE = Society of Automotive Engineers; see all levels: <https://www.sae.org/blog/sae-j3016-update>.
- ² Eighth law amending the StVG, BGBl. Part I, p. 1648.
- ³ BT-Drs. 19/27439.
- ⁴ Road Traffic Act in the version published on March 5, 2003 (Federal Law Gazette I p. 310, 919), last amended by Article 16 of the Act of March 2, 2023 (Federal Law Gazette 2023 I No. 56)
- ⁵ <https://www.sae.org/blog/sae-j3016-update>.
- ⁶ Autonomous Vehicles Approval and Operation Ordinance of June 24, 2022 (Federal Law Gazette I p. 986), which was amended by Article 10 of the Ordinance of July 20, 2023 (Federal Law Gazette 2023 I No. 199).

autonomous shuttle services, robot taxis, and various modes of public transport.⁷ German authorities anticipate that the implementation of this act will lead to improved traffic safety by reducing human error, which is responsible for more than 80% of accidents, through the increased integration of autonomous vehicles on German roads. In addition, policymakers in Germany foresee positive environmental outcomes, such as a reduction in CO₂ emissions, resulting from the greater adoption of autonomous vehicles, which can enhance passenger transportation efficiency.

For example, CO₂ emissions can be minimized by providing passenger transport on an on-demand basis. Furthermore, the introduction of autonomous vehicles implies decreased reliance on private vehicles in rural areas and potentially fewer individual trips. By increasing the frequency of trips, policymakers aim to use autonomous shuttles to enhance connectivity between cities, suburban areas, and rural regions that have historically had inadequate access to public transportation. Offering on-demand public transportation is considerably more cost effective than providing inflexible services with lower demand during off-peak hours. Labor costs can also be reduced by eliminating the need for a driver and having a single technical supervisor oversee multiple vehicles.

Approval process

First, an operating license for a vehicle with autonomous driving functions, in accordance with Section 1e(4) of the StVG, must be available. To secure a license, the vehicle manufacturer must submit an application to the KBA⁸, and the vehicle must meet the technical requirements of Section 1e(2) of the StVG. It is also necessary for the manufacturer to submit a declaration in accordance with Section 1f(3) No. 4 of the StVG in the so-called operating manual. In this declaration, the manufacturer makes a binding declaration that the vehicle fulfills the technical requirements.

If the requirements are met, the KBA issues an operating license in accordance with section 1e(4) of the StVG. Vehicles with autonomous driving functions can be used only in defined and approved operational areas. A legal definition of the operating area can be found in Section 1d (2) of the StVG:

- ⁷ BT-Drs. 19/27439 S. 15.
- ⁸ Section 3 AFGBV in conjunction with Annex 1

"A defined operating area within the meaning of this Act refers to the locally and spatially defined public road area in which a motor vehicle with an autonomous driving function may be operated if the requirements pursuant to Section 1e(1) are met."

The area is defined by the vehicle owner and must include areas dedicated to road traffic that are accessible to the public⁹.

The application for the approval of the operating area must be submitted to the local state transport authority. Depending on the type of road, the responsibility may arise from federal or state laws.

The application must include the following aspects in accordance with Section 8 of the AFGBV. The area in the application must be displayed on a map, and the operating purpose and conditions must be specifically described. In addition, the manufacturer must provide proof that autonomous driving functions can be deactivated at any time in the operating area and that control over driving maneuvers can be released at any time¹⁰.

The operating area must also be suitable, within the meaning of Section 9(2) of the AFGBV. If the local state transport authority determines that the motor vehicle can independently perform a driving task in a specified area, the area will be deemed suitable. If the motor vehicle is not technically capable of fulfilling traffic regulations in an area owing to complexity or necessary interactions with other road users, the respective operating area is not considered suitable. In addition, the road infrastructure along the relevant route must meet the technical requirements for the operation of motor vehicles with autonomous driving functions.

Technical Supervision

From the control center, the technical supervisor oversees the system of the autonomous vehicle, occupants, and other road users. A legal definition of Technical Supervision is provided in Section 1d(3) of the StVG. The technical supervisor is a human operator who must be able to deactivate a motor vehicle at any time during operation¹¹ and to approve driving maneuvers.¹²

The range of tasks performed by a technical supervisor is described in Section 1f(2) of the StVG. An alternative driving maneuver proposed by

⁹ BT-Drs. 19/27439, 20.

¹⁰ Section 8(1) No. 2 AFGBV.

¹¹ Section 1e(2) No. 8 StVG.

¹² Section 1e(2) No. 4 and(3) StVG.

¹³ Section 14(3) sentence 1 AFGBV in conjunction with Annex 1 no. 4 AFGBV.

the vehicle must be evaluated in accordance with Section 1e, Para. 2 No. 4, Para. 3 of the StVG, and, if necessary, approved. Section 1e (3) of the StVG provides an exception. In the case of other impairments that result in the vehicle being unable to perform the driving task independently, driving maneuvers can be specified by the technical supervisor. This makes it possible to resolve atypical situations that would otherwise be handled by human drivers and other road users through cooperative actions.

In the event of a technical defect, the driving task must be performed manually by technical supervisor until the defect is rectified¹³. If road safety is at risk, the vehicle must be immediately removed from the road and inspections must be carried out¹⁴. If the vehicle is in a condition that minimizes risk, Technical Supervision must immediately contact the occupants and take necessary measures to ensure road safety.

Permanent monitoring of the vehicle by Technical Supervision is not required; however, the vehicle must be ready to deactivate autonomous driving functions immediately at any time¹⁵. Therefore, monitoring is limited to evidence checks¹⁶.

Sand box for autonomous driving functions

Section 1i(1) of the StVG introduced the possibility of testing autonomous driving functions in motor vehicles. This new experimentation clause was intended to make it easier for manufacturers to test new autonomous driving functions. The requirements for granting test permits are specified in Section 16(3) of the AFBGV. After an operating license is granted, modifications must be made to the vehicle to equip it with automated or autonomous driving functions.

Furthermore, the owner must submit a development concept that adequately describes the driving functions to be tested, compliance with the current state of the art (Section 1e (2) of the StVG), and the permanent monitoring of operation. Furthermore, non-personal data and events related to technological progress in the development stage must be included.

The autonomous vehicle system must also be able to be deactivated at any time and overridden onsite. Test approval must be limited in time

¹⁴ Section 14(3) sentences 4 and 5 AFGBV.

¹⁵ Section 1e (2) No. 8 StVG.

¹⁶ König, in: Hentschel/König/Dauer, § 1f Rn. 9; Gatzke, NZV 2022, 62(66).

in accordance with Section 16(2) of the AFGBV and may not normally exceed four years. It can be extended for a further two years in each case if the conditions for granting approval continue to apply. The validity area is limited to a specific test vehicle. In contrast to the approval for regular operation, the operating area is not limited to a "defined operating area" from the outset by the wording of the law. This was intended to allow for a larger operating range when testing the manufacturer's vehicles. However, Sections 1i Para. 2 S. 2 and 3 of the StVG stipulate that the KBA can restrict the operating range by means of an ancillary provision to ensure safe operation.

Complications

Although the law on autonomous driving has been in force in Germany for almost two years, the KBA has not yet issued permits for vehicles with autonomous driving functions. The biggest problem is that currently no manufacturers can produce a large number of vehicles and meet all technical requirements of the legal framework. There are still many research projects in Germany that aim to integrate autonomous shuttles into public transport as an on-demand service; however, delays are expected because no suitable vehicles are available.

Another problem arises in the implementation of Technical Supervision. As previously explained, the monitoring it provides in the background is a mandatory component of the concept. However, the monitoring density, that is, the number of vehicles that one technical supervisor can or may monitor, has not been defined by law. Therefore, the issue remains controversial. A monitoring ratio of 1:1 is not economically attractive to public transport operators. There would be no reduction in the number of required personnel, and the cost of purchasing autonomous driving systems would render them unprofitable. It seems sensible to start with a low ratio of 1:5, for example, and to expand this ratio depending on the state of research. Higher ratios make the use of autonomous vehicles more economically viable.

European regulations

Since 2022, a vehicle manufacturer can also apply for EU-type approval, which applies throughout Europe. The basis for this is the Implementing

Regulation(EU) 2022/1426.¹⁷

At the request of the manufacturer, the KBA can provide an EU-type approval for motor vehicles with autonomous driving functions in a small EU series. Article 1 of the Implementing Regulation EU 2022/1426 covers fully automated vehicles in categories M and N. The small series may include a maximum of 1,500 vehicles.

EU-type approvals may be granted to vehicles designed and built for passenger or freight transport within a defined area or to vehicles designed and built for passenger and freight transport on a defined route with fixed starting and ending points. Vehicles that have a fully automated driving mode for parking applications in predefined parking facilities are also eligible. The regulation governs the technical specifications and requirements of the motor vehicles. Annex III, Part 2 of the regulation contains a description of the application documents that must be submitted.

The manufacturer is required to submit a documentation package that describes the basic design of the vehicle with an autonomous driving function in a general and functional manner. The package should give access to the means by which it is connected to other vehicle systems or directly controls output variables. An operation manual for the autonomous driving function must be included. Information on the hardware and software external to the vehicle and the remote functions must also be included. The manufacturer must also submit a safety concept that confirms that the vehicle does not pose any disproportionate risks to vehicle occupants and other road users. A valid certificate of conformity for the safety management system is also required.

Applicants must also complete an initial assessment. The initial assessment is a KBA pre-approval procedure to determine whether the future approval holder is suitable. It is mandatory to use model information documents deposited in Annex I of the Regulation.

Area of operation

According to Article 1 of the Regulation, the EU approval is only intended for vehicles that operate within a fixed area or on a fixed route. Depending on the EU member state in which the operating area is

¹⁷ COMMISSION IMPLEMENTING REGULATION(EU) 2022/1426 of 5 August 2022 laying down rules for the application of Regulation(EU) 2019/2144 of the European Parliament and of the Council as regards uniform procedures and technical specifications for the type-approval of the automated driving system(ADS) of fully automated vehicles, <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32022R1426>.

located, national regulations on the operating area must be considered. For vehicles used in Germany, Section 1d(2) of the StVG applies. The application for the approval of the operating range must be submitted to the locally responsible state authority. The EU approval is the basis for the approval of the national operating range(Section 9 AFGBV).

Technical Supervision

The manufacturer decides whether Technical Supervision is provided for in the vehicle concept. If Technical Supervision is provided, the legal requirements depend on the respective national regulations.

If the vehicle is to be operated in Germany, Technical Supervision is mandatory(analogous to Section 1e, StVG). This must satisfy the requirements of Sections 13 and 14 of the AFGBV. The assessment of technical supervision is not the responsibility of the KBA but of the authority responsible for the approval of the operating area.

5. Smart Mobility legal developments

There are also constant legal adjustments and new laws for smart mobility and innovative digital mobility services in Germany. Consequently, mobility as a service(MAAS) has become increasingly important in the implementation of the mobility transition in Germany. The following section will focus on the Amendment of the Passenger Transportation Act(Personenbeförderungsgesetz–PBefG) as well as the laws on handling mobility data and the drafting of a new mobility law.

Innovations in German Passenger Transportation Law

The amendment¹, announced on April 27, 2021, encompasses numerous changes within the PBefG² and related regulations.

This amendment aims to address the growing emergence of "alternative service models" that present significant challenges to traditional public transportation(ÖPNV) in Germany².

These challenges include app- and smartphone-driven models that enable demand-oriented provision of transportation services through intelligent bundling. These services are bundled and offered to multiple passengers at different destinations independent of predefined routes³.

The previous lack of clear categorization of flexible service models within the transportation system was addressed by the PBefG amendment, primarily through the introduction and definition of two new transportation forms: scheduled on-demand transportation as part of public transportation(see Section 44 of the PBefG) and bundled on-demand transport as occasional transportation outside public transportation (see Section 50 of the PBefG)⁴.

These changes are designed to ensure a fair balance(the so-called "level playing field")⁵ between different modes of transportation⁶ and provide states and municipalities with appropriate control mechanisms.

Scheduled on-demand transport under Section 44 S. 1 PBefG allows for the transportation of passengers with prior requests, without fixed route lines between specific boarding and disembarking points, and within a designated area and specified service hours.

This new form of transportation integrates platform-based on-demand

- 1 Act on the Modernization of Passenger Transportation Law of 16.4.2021(BGBl. I 822).
- 2 Passenger Transportation Act in the version of the announcement of 8.8.1990 (BGBl. I 1690), which was last amended by Art.1 of the Act of 16.4.2021(BGBl. I 822).
- 3 BT-Drs. 19/26175, 1.
- 4 BT-Drs. 19/26175, 1.
- 5 BT-Drs. 19/26175, 1.
- 6 BT-Drs. 19/26175, 23.

transportation offerings into public transport for the first time, giving transportation service providers the opportunity to establish efficient demand-driven services that complement traditional line transportation. Outside of public transport, bundled on-demand transport ensures that new occasional transportation forms (e.g., ride-pooling) attain legal approval. This allows for individual seat rentals and the bundling of passenger requests along similar routes.

By enshrining these provisions in the law, both service offerings now undergo changes in their approval processes and requirements according to the PBefG. Thus, the previously required recourse to the provision in Section 2 Para. 6 of the PBefG⁷ and the so-called experimentation clause in § 2 Abs. 7 of the PBefG ("modified type constraint")⁸ or other special permits are no longer necessary for the mentioned service forms. For scheduled on-demand transport according to Section 44 S. 1 of the PBefG and for bundled on-demand transport according to Section 50 Para. 1 S. 1 of the PBefG, the requirement for approval will now be based on Section 2 Para. 1 No. 3, Section 2 Para. 1 No. 4, and Section 46 Para. 2 No. 4 of the PBefG.

Scheduled on-demand transport

Section 44 of the PBefG sets clear criteria for on-demand transport services for the first time in passenger transport law and integrates them into local public transport. According to Section 44 S. 1 of the PBefG, on-demand services operate between certain boarding and alighting points within a defined area and at defined times, subject to prior ordering via an application.

This means that many on-demand services that previously did not fit into a specific type of service are now included as a special form of scheduled service in accordance with Section 42 of the PBefG. The new on-demand service will be introduced as an attractive replacement for scheduled services, especially on the outskirts of conurbations and in rural areas. This is particularly true in service areas where low demand regularly prevents economically viable public transport. As it is classified as a scheduled service, the corresponding rights and obligations (in particular, comprehensive accessibility) also apply. Surcharges may be levied on regular service tariffs (Section 44, sentence 3, PBefG).

⁷ See Heinze/Fehling/Fiedler, PBefG, § 2 Rn. 49 on the concept of types and the type constraint in the PBefG.

⁸ Art. 1 Law on the Amendment of Passenger Transportation Regulations of 14.12.2012 (BGBl. I 2598).

⁹ See also Eickelmann/Krampitz/Bußmann-Welsch/Stegmaier, Rechtliche Rahmenbedingungen autonome Shuttles (Hub Chain), 2020, 14.

Bundled on-demand transport

The central feature of bundled on-demand transport is the bundling of several transport orders along similar routes (Section 50(1), S. 1, PBefG). In practice, bookings are usually made via applications that can also be used to identify transport routes and destinations. The main transport policy function of this form of service is the bundling of separate transport orders along a route, which is intended to contribute to the further containment of motorized private transport. In the future, bundled on-demand services (Section 50, PBefG) should also ensure regular eligibility for the approval of new forms of service in the area of shared use (e.g., Uber) other than local public transport. As part of the occasional services, they are not subject to the rights and obligations of scheduled services. This new form of transport is largely determined by local authorities.

In urban and suburban transport, the licensing authority must set a bundling quota in agreement with the public transport authority. The quota sets the proportion of bundled transport orders to be fulfilled in a given period within the area in which the transport is operated (Section 50(3) S. 1 PBefG). It must also provide regulations on minimum transport charges that ensure sufficient distance from the transport charges of the respective local public transport systems (Section 51a(2) S. 1 PBefG). To this end, the respective public transport authorities, companies operating in the district of the licensing authority, and the chambers of industry and commerce must be consulted (Section 51a(3) S. 1 PBefG).

Mobility data

Approach for a new Mobility Data Act

Following a broad-based stakeholder consultation, the BMDV developed and published initial key points for the new Mobility Data Act (Mobilitätsdatengesetz-MDG)⁹.

The regulation of mobility data is strongly influenced by European legal requirements, including the directive on the introduction of intelligent transport systems in road transport and their interfaces with other modes of transport.¹⁰ The aim of the BMDV's legislative initiative is to implement existing national and EU requirements that provide data

⁹ https://bmdv.bund.de/SharedDocs/DE/Anlage/K/eckpunkte-mobilitaetsdatengesetz.pdf?__blob=publicationFile.

¹⁰ Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport Text with EEA relevance, <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32010L0040>

accessibility at the National Access Point(NAP) in a bundled manner. Based on the mobility data infrastructure, the law should not only coordinate the provision of data in the area of multimodal travel, including the Passenger Transport Act (PBefG), but also include additional transport infrastructure data that must be made centrally accessible at the NAP in accordance with EU law. It is also intended to regulate what data companies must provide in the future, when, and in what form. This should include travel and local transportation infrastructure data, such as scheduled timetables, stops, and information on the occupancy of truck parking spaces on freeways or construction sites. The vehicle data should not fall within the scope of the MDG.

Mobility data should be openly available free of charge to users via the NAP. The maximum permissible number of real-time data retrievals (rate limit) should be set to protect technical systems from overload. In addition, there will be a requirement to use the "Creative Commons Public Domain Dedication"(CC0 license) for further data use. There should only be an obligation to provide data if it is actually available(rather than an obligation to collect data).

The decision to collect data should be the responsibility of the transport companies and public transport authorities. The tasks of the mobility data coordinator should be defined according to the law.

The federal government has assumed a more active role than ever before. Examples of tasks mentioned include the definition of quality standards and support for data holders operating nationwide and internationally. The aim should be the uniform bundling, structuring, quality assurance, and publication of data via a data coordinator.

However, consumer protection associations view this approach as insufficient.¹¹ Among other issues, they have criticized the lack of rules regarding access to vehicle data. The currently established privileged access of vehicle manufacturers to vehicle data must be eliminated, as the de facto data sovereignty of car manufacturers restricts the freedom of choice for consumers and prevents competition and innovation.

Only with fair, consumer-friendly, and independent access to vehicle data can the data that are important for the mobility transition remain in Europe. However, the Association of German Transport Companies (Verband Deutscher Verkehrsunternehmen - VDV) fears that this might

¹¹ https://www.vzbv.de/sites/default/files/2023-08/23-08-04%20STN%20Mobilitaetsdatengesetz_final.pdf

create competitive disadvantages for its members.¹²

It argues that privately organized companies must be prevented from achieving profit margins in sales when the transport associations undertaking all of the investments and bearing the costs in a "business that cannot be operated profitably."

New legislative approach: Mobility Laws

Unlike the EnWG, the German transport law lacks comprehensive objectives for road, rail, air, and inland waterway transport. It also lacks horizontal and cross-modal planning and vertical coordination between various levels of government. German transport planning is based on the extrapolation of historical trends and bottleneck analyses.

Instead of uncoordinated individual planning and financing, there should be more integrated transport planning in which the individual means of transport are treated as part of an overall transport system. This lack of an overarching policy strategy in the transport sector could be countered by introducing a federal mobility law¹³ that balances ecological and public welfare criteria. In concrete terms, this means that planning authorities would have more leeway to implement the transport transition.

Mobility laws have already been passed at the state level¹⁴, in places like Berlin. § 1(1) of the Berlin Mobility Act¹⁵ states: "The purpose of this Act is to preserve and further develop a safe, barrier-free transportation system that is geared towards the mobility needs of the city and surrounding areas and is designed to be urban, environmentally, socially and climate-friendly [...]. The purpose of the law is also to ensure the efficient and economical use of the scarce resource of public road space."¹⁶

The mobility regulated by this Act encompasses the special requirements of all mobility groups: pedestrians, cyclists, local public transport, commercial transport, and private motorized transport; it also ensures the priority of the environmental alliance(Umweltverbund) (see Preamble of the Berlin Mobility Act)¹⁷.

A federal mobility law does not yet exist in Germany. However, at the state level, Brandenburg is developing its own mobility law¹⁸. In this respect, the federal government's task is to take up regulatory proposals from society, examine them, and make sensible additions to the legal framework under traffic laws.

¹² <https://background.tagesspiegel.de/mobilitaet/kampf-um-geschaeftsgeheimnisse-1>

¹³ Federal association Verkehrsclub Deutschland e.V., Proposed legislation on the Federal Mobility Act(Bundesmobilitaetsgesetz - BuMoG), 2021, https://www.vcd.org/fileadmin/user_upload/Redaktion/Themen/Bundesmobilitaetsgesetz/Hermes_Kramer_Weiss_Gesetzentwurf_BuMoG_final_nach_letzter_Aenderung.pdf

¹⁴ The federal republic of Germany consists of 16 federal states.

¹⁵ Berliner Mobilitaetsgesetz, Vom 5. Juli 2018* Stand: letzte beruecksichtigte Aenderung: mehrfach geaendert, Abschnitt 5 abgeaendert zu neuem Abschnitt 5 mit §§ 60 bis 68 und Abschnitt 6 mit § 69 durch Gesetz vom 04.10.2023(GVBl. S. 337), <https://gesetze.berlin.de/bsbe/document/jlr-MobGBErahmen>.

¹⁶ § 1(1) 2 Berlin Mobility Act.

¹⁷ <https://gesetze.berlin.de/bsbe/document/jlr-MobGBEV1ELS>.

¹⁸ <https://mil.brandenburg.de/mil/de/presse/detail/~05-09-2023-kabinett-beschliesst-Invp-und-mobilitaetsgesetz#>.

6. Conclusion



The PA had far-reaching consequences for European and German climate legislation and the transportation sector. As signatory states can decide how high their CO2 reduction targets should be and what measures they want to take to achieve the goals of the agreement, it is up to the national governments, the corrective powers of society, and, if necessary, legal proceedings to ensure that national climate laws are designed in a target-oriented manner and consistently pursued.

The European Green Deal is an important EU initiative. Many proposed legal acts have already been adopted or are about to be. However, these must not be weakened significantly in the course of the EU legislative process, and the implementation of the directives and application of the regulations in the Member States must be consistent. Otherwise, legal proceedings before the ECJ or expensive compensation payments, as with the failure to meet the ESR targets, will place an additional burden on national budgets after 2030.

The charging point market must continue to develop as part of the energy transition for vehicles. At present, legislation still focuses on the installation of charging points and the establishment of a barrier-free user experience at charging points. However, as the market develops, more regulation is required to ensure effective market and pricing mechanisms.

Autonomous and connected driving can also contribute to the mobility transition if the momentum created by the new legal framework in Germany is utilized and the new technology is developed for innovative mobility services. Public transport will benefit from this, and private transportation can be reduced. However, international regulations are required to make autonomous driving accessible across national borders and thus create an incentive for manufacturers to drive technical development forward even faster. It is time to achieve the ambitious goals that the industry and transport providers have set themselves so that the mobility transition can succeed.

Smart mobility and MAAS, such as scheduled and bundled on-demand transport, are also important elements for a successful national and international mobility transition. They can encourage people to say goodbye to private cars. Public transport must be made more attractive in the future and the range of services must be expanded. On-demand



services are particularly helpful for expanding the diversity of services in rural areas. In addition, increasing amounts of mobility data must be used sensibly and be easily accessible. Politicians in Germany and the EU have now also recognized that mobility data is the “oil” of the mobility transition and must be used to make new services safer, facilitate intermodal transport, and increase efficiency.

This approach to the mobility law is convincing. Although the implementation of these innovative planning and legal approaches remains uncertain, they represent an interesting approach for meeting the challenges of the transport transition in the future.

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