4. Case Studies in Transport Policy

Having presented the discourse on transport policy and having drawn up a topography of the relevant actors in the field of transport policy, this fourth chapter will use recent developments in the transport sector as examples to demonstrate the consequences of current transport policy. This requires an examination of Germany's federal political system at the different political levels – starting with the federal government, the state level and the municipalities. For our study, well-researched, exemplary cases have been selected that are situated at different political levels in the federal system of government.

4.1 German Transport Policy in the Multi-Tiered Political System

Starting with the national level, the most recent developments in the freight transport sector are first described on the basis of the restructuring of Deutsche Post AG. Then, using the example of the joint regional planning department of Berlin-Brandenburg, the consequences for transport policy of a failed regional policy are presented at the level of the federal state. Lastly, developments at the local level are presented through the evaluation of projects within the framework of the research initiative of the Federal Ministry of Education and Research, "Mobility in Urban Areas". A separate chapter is then devoted to the European level, in accordance with its importance for national transport policy.

4.1.1 Federal Transport Policy – the Example of Deutsche Post AG

While the concrete national transport policy has so far been examined primarily on the basis of passenger transport, these observations will now be supplemented by references to significant current developments in the freight transport sector (cf. Hesse 2008). This is exemplified by the restructuring of Deutsche Post AG, a case that makes it possible to grasp central trends in the freight transport sector, as if viewed through a magnifying glass, and which apply in a similar fashion to other areas of business in the sector.

With its restructuring, Deutsche Post AG, like other companies, is reacting above all to a profound change in the operating environment and the organisation of goods distribution. The process involves various intertwined and mutually-reinforcing developments. The progressive differentiation of production processes based on the division of labour and the "mass individualisation" inherent in the consumer goods industry means that it is becoming less and less possible to transport mass-produced consumer goods from A to B in bulk. Instead, a fine distribution is required that allows those mass-produced goods with individual attributes to be brought to the consumers. This is illustrated by examples such as the dispatch of books via the online shop "Amazon" or the Internet-based auction house "eBay". Users search for and find what they want based on personal preferences, nationwide and beyond. The selection is based on individual needs and appraisals of the costs. Fulfilling the specific demand thus occurs over ever greater distances. While "Amazon" guarantees personal book delivery to the home, "eBay" enables the individual selection of second-hand consumer goods in connection with favourable delivery rates. For example, via "eBay, the Berlin-based author of the present book found the used pram of his choice in the Düsseldorf suburb of Meerbusch, 500 km away. Personal taste and the price of a new pram diverged to the point that they could only be reconciled by the internet auction, with the successful bid amounting to one third of the new price. The scarcity, in tandem with the pronounced demand, forced a purchase beyond the limits of the city. Logistics plays a decisive role in this process, by making it conceivable in the first place (until a few

years ago, parents-to-be were still dependent on searching local second-hand shops for suitable prams and had considerably less choice). On the one hand, it is not a decisive cost factor, and on the other hand, it offers trouble-free and prompt delivery, with both aspects being mutually conditional. It is only new logistical procedures that bring the fulfilment of specific desires into the realm of possibility and thereby simultaneously open up new spaces of consumer demand. "In this respect, the development of distribution is driven by two imperatives of competition: first, to offer high quality; second, to reduce costs. Its main task is to bundle the spatio-temporally differentiated ("atomised") flows of goods into an economically and organisationally controllable transport structure. Both sides are in perpetual conflict with each other: the tendency of the flows of goods to diffuse, and the attempt to control these flows in terms of transport logistics or to rationalise them economically. This is attempted above all in two ways: on the one hand, there is the necessity to achieve the highest possible degree of control over the logistics chain; on the other hand, stocks of goods are "mobilised" as much as possible – above all by reducing warehousing in order to lower capital costs" (cf. Hesse 2005).

The strategies resulting from these new demands on freight transport companies are demonstrated particularly impressively by the restructuring of Deutsche Post AG. The company emerged in the early 1990s from the privatisation of the – at the time – state-owned company Deutsche Bundespost. Due to the deregulation of the market for courier, express and parcel services (CEP services), which took place at the same time, the new private company was thereby exposed to international competition. It reacted to the new requirements in the logistics sector described above (small consignment size, flexible demand, standardised and thus cost-effective service provision) by developing and establishing a new freight concept. Whereas the old concept was based on combined transport of rail and road and was characterised by personnel-intensive and thus cost-intensive intermediary steps between the modes of transport, the new concept relies solely on road freight transport by truck. The establishment of 33 new greenfield freight centres on the outskirts of cities with motorway access replaced the 150 parcel handling centres

that had operated in the cities until then. Whereas the urban locations still had railway sidings, the new freight centres can only be reached by truck.

This decentralised choice of location necessarily meant spatio-temporal fragmentation. It is true that concentrating on a few, largely automated freight centres and avoiding frictional losses at the interfaces of rail and road enabled a significant increase in efficiency and an associated reduction in costs. At the same time, however, considerably greater distances had to be covered. This meant that sophisticated, integrative logistics were required in order to countervail the disintegrating effects of location-conditioned, spatio-temporal fragmentation.

"Deutsche Post's new concept of transport and location illustrates the consequences that internal strategic decisions can have for the effects of location and traffic on the way logistics is organised. The reorientation and modernisation of the provision of logistical services (especially the rationalisation in handling), which is understandable from a competitive point of view, has a) led to the relocation of freight centres from the city centres to the periphery, b) parcel transport, which in long-distance transport used to be essentially railway-based, was replaced by an initially 100 percent truck-based logistics. With these two consequences, freight is sent down a path of spatial fragmentation and an accompanying fragmentation of transport, while the logistics organisation is characterised by a high degree of integration (and at the same time closed to the outside). Thus, this model, which also underlies the logistical organisation of CEP services as a whole, outwardly has a disintegrating effect. It is true that the company explicitly claims to be committed to assuming responsibility for the environment and society. However, the competitive dynamics have de facto prepared the ground for an individualisation and virtual independence of the individual company concepts, so that an integration of procedures is only possible within the individual company operations (i.e. in-house), not across companies" (Hesse 2005: 40f.).

The internal restructuring of Deutsche Post AG is thus an example of a one-sided economic integration strategy, with particularly obvious consequences. While internally the company contributed to extensive ef-

ficiency gains and associated cost savings through a high degree of integration, externally it closed itself off as a result of a systematic decoupling from former cooperation partners. However, the internal integration logic, which is oriented towards criteria of economic efficiency, has shown itself to be largely insensitive to social or even ecological dimensions that lie outside its own sphere of interest. Accordingly, there is no room for systematic consideration of the consequences of the company's actions for socially just and ecologically viable urban development.

In light of the developments in the freight transport sector outlined here, the programmatic demand for an integrated transport policy admittedly seems somewhat naïve. Instead of repeatedly opposing real developments with a model that completely contradicts them, one should first reflect on the conditions for making the model a reality. One would need to clarify the regulatory environment that would have to be created in order to lend more weight to the strategy of social and ecological integration. Perhaps the most important political measure that has been repeatedly put forward in the past is the demand for an internalisation of the external costs of road freight transport (cf. Becker et al. 2012; Brenck et al. 2016). But it was not possible to push through this undoubtedly necessary political measure even in the early 1990s, when the sensitivity to this problem was greatest, at both national and European level.[1]

1 On the economic cycle of the debate on internalisation in the context of European transport policy, cf. chapter 6.

4.1.2 Transport Policy at the Level of the Federal State – The Example of the Joint Planning Commission Berlin-Brandenburg[2]

Shortly after reunification the two federal states of Berlin and Brandenburg came together to reach an agreement on how to manage the expected dynamic of urban and transport development (Provisorischer Regionalausschuss, 1990; Senatsverwaltung, 1993). At that time the situation at the outset for urban and transport development was in many ways exceptional. Particularly remarkable was the low level of urban sprawl in the urban hinterland of Berlin. While in the past the containment of West Berlin by the Wall rendered an outwards orientation impossible, the centralised, state-dominated politics of the German Democratic Republic placed strong restrictions on individuals settling in the outlying areas. Accordingly, the amount of commuter traffic between the inner-city of Berlin and the urban hinterland was quite low.

In contrast, after the fall of the Berlin Wall, a dynamic of development was expected that would be comparable to the 1920s and 1930s (cf. IfS, 1993). In light of this expectation, planning was determined by two goals, which were not necessarily mutually compatible. On the one hand, the focus was on an extensive development of the metropolitan region; on the other hand, the planners wanted to avoid the often undesirable aspects of such development, characteristic of large West German cities. From the 1990s on, a rash of residential concepts were developed that attempted to meet the two requirements (Wesseling, 2000, 25ff.). At that time the debates still took place in anticipation of the fusion of the two Federal states Berlin and Brandenburg, which

2 As part of the study, interviews were conducted with two employees of the Joint State Planning Department and a representative of the Berlin Senate Department for Urban Development. In addition, reference should be made here to the master's thesis by Maximilian Friedrich (2020), which is well worth reading, in which Friedrich interviewed eight of the most important actors from the post-reunification period on transport development planning in the Berlin-Brandenburg region.

was planned for the year 1995 (Benz and König, 1995). As a result, in 1994 Berlin and Brandenburg presented the outline of a "Development Plan for Tighter Regional Integration in Brandenburg-Berlin" (*Landesentwicklungsplan engerer Verflechtungsraum Brandenburg-Berlin*). The *State Development Plan* (LEP) projected residential development along railway lines and, furthermore, pursued a strategy of decentralised concentration. This approach was complemented by the establishment of so-called regional parks, which were largely pristine areas (*Gemeinsame Landesplanungsabteilung* GL, 2001). On this basis, in April 1995 the state planning contract was approved. Ever since then, the Joint Planning Department (JPD) of the Länder Berlin-Brandenburg has been following the overall concept of decentralised concentration.[3]

The mission statement of the joint Berlin/Brandenburg state planning sets out an integrated approach on several levels to this day. On the one hand, the two federal states strive to combine their different interests into a common strategy. In addition, the two portfolios of urban and spatial planning and transport planning are required to coordinate their field-specific perspectives in the framework of a joint concept. Lastly, the substantive core of the joint state planning is an integrated transport concept, which in particular aims to establish stronger linkages at the interfaces of the various modes of transport. The overall aim is to achieve sustainable settlement and transport development.

The map illustrates the central ideas behind the guiding principle. (Fig. 15).

The areas in red along the radials of the railway lines mark the existing settlement locations along the rail-bound transport, where increased settlement was planned. This so-called 'axis model' (*Achsenmodell*) explicitly referred back to planning from the 1920s. It aimed to counteract urban sprawl, as well as private transport in favour of public transport. In particular, those commuting to and from Berlin were supposed to make greater use of public transport.

3 Shortly afterwards, in May 1995, the fusion of the two Federal states failed, but the joint development plan nevertheless came into force (LEP, 1998).

Figure 15. Development Plan for Tighter Regional Integration in Brandenburg-Berlin

Source: LEP, 1998

However, the concepts that initially consistently followed this approach and envisaged its implementation by fostering the appropriate measures, did not prevail (Wesseling, 2000: 31ff.). In 1995 the transport researcher Eckhard Kutter confronted those responsible with what he considered to be their completely inadequate concepts for political action. He argued that simply wishing for less automobile traffic is not enough; that – in light of the expected urban and transport development – what is actually required is a comprehensive concept, in order to be able to react appropriately to these development processes, in accordance with a strategy of sustainable transport development.

> "The outlined trends in transport behaviour and secondary effects in the locational structures of the Berlin-Brandenburg region have a high degree of probability. On the one hand, they are supported by empirical figures from regions in West Germany; on the other hand, they take into account the actual hinterland development of the Brandenburg region and other regions in the East in the recent past. Berlin's transport policy, however, ignores such alarming facts" (Kutter, 1995: 204).

Eventually, the *axis model* was supplemented – some would say replaced – by the model of *decentralised concentration*. Even though, officially, settlement along the railway lines remained the goal, new agglomeration centres for intensive settlement were designated, but at a distance from the axis of the railway lines, which favours the use of private cars. In conscious contrast to the 'axis model', this model was able to claim a certain sense of reality in that it abandoned the previous aspiration of comprehensive political control and instead attempted to manage urban sprawl in a way that was conducive to sustainable transport development (cf. Wesseling, 2000: 35). The uncontrollable processes of suburbanisation are meant to be channelled and, in the context of a polycentric settlement structure, focused on selected settlement centres.

Ultimately, this concept was also modified by identifying so-called 'potential settlement areas', which are outlined in black on the map. Some of these 'grease spots' encroach on undeveloped conservation areas, classified as areas of extensive resource conservation or even placed under special environmental protection, thus indicating a real development that the joint state planning had precisely sought to prevent. In addition, an exemption clause was included in the LEP which allows the so-called type 3 municipalities, where further settlement growth was originally to be avoided, unlimited population development as long as the settlement development remains within the area map (i.e. within the area of the "potential settlement areas") (cf. LEP 1998 chapter 1.1.2). Since these municipalities generally lack a rail connection, the exemption is extremely problematic from a transport planning point of

view (cf. IVU 2002: 37). Finally, the situation was exacerbated by further potential settlements, secured by the municipalities before the joint LEP came into force in 1998 (cf. also Priebs 2019: 233ff.).

In fact, a survey of regional transport development over the last twenty years reveals a significant deviation from the original goals of the JPD, a situation that presumably will only worsen in the future. For instance, the goal of a modal shift in passenger traffic from private cars to public transport was not achieved. On the contrary: whereas in the period from 1990 to 2005 within the common planning area car traffic (MPT) increased by about 26 percent, the share of public transport decreased by about 16 percent, even though the frequency as well as the quality had been significantly improved. The prediction for passenger transport in Berlin/Brandenburg is also not encouraging in this respect (cf. Table 6).

Table 6 Passenger Transport Services by Mode of Transport in Percent

	Berlin		Brandenburg	
	2006	2025	2006	2025
Motorised Private Transport	36.3%	36.3%	55.0%	54.6%
Public Transport	26.7%	26.8%	7.2%	7.6%
Bicycle	11.5%	12.4%	10.0%	10.5%
On Foot	25.5%	24.5%	27.8%	27.3%

Source: Land Berlin/Land Brandenburg, 2009: 48 ff.

In freight transport, the situation is even more dramatic when measured against the original goals. The shares of rail and inland waterways in the modal split have not increased. On the contrary, both modes of transport have even suffered losses in absolute terms. In particular, the plan to shift long-distance transport to rail and inland waterways has been completely unsuccessful. Here, too, there has been a contrary de-

velopment in favour of road transport. In light of this, it is not surprising that interfaces between road and rail, by means of freight centres (GVZ), have also been unsuccessful. In view of the lack of demand, the responsible parties are increasingly wondering whether it makes sense to continue promoting these GVZs.[4]

At the end of the 1990s researchers predicted that, if barriers of geographical distance continued to be removed, this development would continue (Holz-Rau, 1997; Kutter and Stein, 1998). Under the prevailing conditions, the concept of the 'central location' as well as the 'axis concept' were deemed to have failed, not only in the capital region Berlin-Brandenburg but also in Germany as a whole (cf. Saller, 2000). The predicted continued increase in traffic volume has been attributed to the trends towards individualisation and flexibilisation of the social structure and the form of the economy, which were described in detail in the previous section on German freight transport: "The suburbanisation and large-scale functional segregation in the entire conurbation, which has been evident since the beginning of the 1990s, will continue in the years to come, even though the total population is no longer growing. This is one of the most important factors causing traffic in the joint planning area. The associated increase in traffic, particularly as a result of longer journeys, will thus continue throughout the region"(IVU, 2002: 39).

If this growth in the volume of passenger traffic therefore mainly benefits private motor vehicles, in freight transport a similar development in favour of road transport was also expected: "According to the present revised forecasts of the Federal Transport Plan to the year 2015, the growth dynamics of regional road freight transport will continue in the coming years in the entire planning area. Rail is expected to play a greater role in the growth of freight transport than it has so far. Nevertheless, a further decline in the modal split share of rail and waterways as environmentally friendly modes of transport is expected" (ibid.: 42). Ten years later, these fears have been confirmed (cf. ROB 2013).

4 The disappointing experiences with the use of GVZs in the Berlin-Brandenburg region are exemplary for the entire federal territory (cf. in detail Hesse 2005).

The discrepancy between programmatic aspiration and real developments with respect to the overall model of an integrated transport policy, which is also apparent in this instance, is the result of obstructions in the multi-tiered Federal political system. In the case of the joint planning of the states Berlin and Brandenburg there are two overlapping lines of conflict. *First*, after the fusion of the two federal states failed, the collaboration was dominated by the pursuit of interests held in common but lacking an overarching commonality of interests. In fact, the two Federal states began to compete against each other by vying for businesses as well as seeking to attract residential populations in order to guarantee tax revenues. Conflicts of interest inevitably come to the fore, working against a common strategy for action, such as the proclaimed concept of integrated transport and settlement.

Second, transversely to the interests of the two state governments, there were conflicts with the interests of the municipalities. This has an especially problematic impact in the case of Brandenburg. Even when the two Federal states agreed on a joint course of action, this was thwarted by particular interests, especially those of the Brandenburg municipalities. As mentioned above, already at the beginning of the 1990s, long before the State Development Plan (*Landesentwicklungsplan*) came into force in 1998, the municipalities had sought to identify potential areas for settlement. Independently of the respective transport connections in terms of the concept of integrated transport, the Brandenburg municipalities had designated extensive areas for settlement, potentially encouraging urban sprawl. The already-mentioned exemption rule for Type 3 municipalities formulated in the SDP constituted a further encouragement of suburbanisation and the concomitant traffic growth.[5]

5 Apart from the fact that the connection assumed here between the expansion of transport infrastructure and economic development has not yet been proven and has not been confirmed in the case of eastern Germany, this strategy runs counter to sustainable transport development (cf. Blum 2004).

The transport researcher Eckhard Kutter, mentioned earlier, thus attributes the failure of the programmatic integration goals to a lack of administrative integration:

> "At the planning level, public authorities develop concepts of spatial order; however, since the individual municipalities within this framework offer areas of land 'in competition with each other', and this competition is 'encouraged' or 'financed' in an uncoordinated manner, the result is 'free choice' for the individual decision-makers, who are also insufficiently informed about the consequences of their actions, which ultimately leads to the disorganised development of the overall structure. In this 'disarray', on the one hand the public authorities debilitate themselves through inconsistent application of the various instruments at their disposal, but on the other hand they don't pay sufficient attention to the diverse individual (economic) motives" (Kutter 2001: 76)

The cause-effect relationships of regional development demonstrated by the metropolitan region Berlin-Brandenburg exemplify the spatial and transport development of capitalist societies generally. It has led to a situation in which about 80 percent of the traffic volume in Germany originates in the private residential sector and from the economic activity in regional areas (cf. Kutter, 2015).

From a present-day perspective, more than twenty years after the State Development Plan came into force in 1998, the situation has not changed. At the time, a study by the Wuppertal Institute came to the conclusion: "Inter-communal competition and the inadequate provision of regional planning with legal and financial instruments are the reasons why decisions concerning economic opportunities are often more likely to win the day than planning principles" (Wuppertal Institute 1998: 118).[6]

6 Strictly speaking, this problem, like the idea of integration as a whole, has been known since the 1960s and has been lamented publicly time and again. As early as 1968, for example, the urban sociologist Heide Berndt concluded in her study of the German urban planning clique: "The present divisional structure of the administration is outdated in relation to the tendencies to expansion in today's

Whereas back then it was still possible to hope that the effects of the regional development plan would make themselves felt, today it is apparent that this window of opportunity has now also closed. This means that Berlin and Brandenburg find themselves at best at the beginning of the development of a joint planning perspective. Unlike in the 1990s, those in positions of responsibility can no longer wait for the formal compulsory fusion of the two states, which would have automatically led to a common planning culture. Rather, joint planning successes would now have to be communicated to the public as examples of best practice that would make a fusion of the states seem desirable in the first place. In the early 2000s, observers saw the temporary end of new commercial settlements as an opportunity to replace the egoistic goals pursued in competition with a new strategy of cooperation (cf. Herrschel/Newman 2003: 554). In the meantime, the situation has changed again and Berlin's population is growing again. It is unclear whether a joint settlement and transport development strategy that relies on cooperation can be established under this intensifying competitive situation (cf. Bodenschatz 2016). The prerequisite for this would be to identify and make public the reasons for the undesirable developments of the past, so that they are not repeated in the future. However, there are no signs of this so far; on the contrary, in 2016, the state of Brandenburg announced a *Mobility Strategy 2030* in anticipation of the emerging new development dynamics, and in 2021 the state of Berlin published its new *Urban Development Plan Mobility and Transport 2030*. Against the background of historical experience, the question arises why the two federal states have not developed a joint transport development strategy.

In this respect, the example of joint regional planning in Berlin/Brandenburg demonstrates once again the consequences for the transport sector when it is dominated by the principle of competition. As was already shown in the freight transport sector by the example of

large cities and prevents effective control over urban growth, *especially integrated transport planning* (emphasis added). Planning communities between large cities and the small municipalities adjacent to them are only a stopgap in the face of an outdated administrative divisional structure" (Berndt 1968: 163).

Deutsche Post AG, an enterprise that strives to be globally competitive and whose logic of action – oriented exclusively to economic requirements – has a fragmenting effect on the logistics system as a whole, here too competition between the regional authorities has made clear the consequences for transport development of political competition to attract businesses, which is oriented one-sidedly towards criteria of economic efficiency. Other aspects that transcend particular interests, such as sustainable settlement and transport development, are lost in the process. The function of the guiding principle of an integrated transport policy, as pursued programmatically by Berlin and Brandenburg, is thus increasingly reduced to mere window dressing.

The State Secretary of the Berlin Senate Chancellery, Volker Kähne, had already warned of this danger in the mid-1990s when he emphasised in his conclusions on the debate on the reform of joint regional planning in Berlin/Brandenburg that joint state planning has to be accountable: "It must not be limited to symbolic political policies" (Kähne 1995: 189). That this has nevertheless come about is due to the fact that with the establishment of the joint state planning commission only the first phase of the reform concept presented at the time by Benz et al. (1995) was implemented. In this first, low-threshold phase, the second, much more far-reaching phase was to be prepared, which envisaged the establishment of an interregional planning association for the more immediate region, equipped with the corresponding powers and competence. This never happened, meaning that the current debate could pick up here, without having to start from the beginning.

In this case, too, the guiding principle of integrated transport policy – if it is not to serve solely as a legitimising fig leaf for transport development that runs counter to it – must be examined in terms of its realism (cf. Kunst 2004). As a result of such a review, two options are conceivable in principle. *Either* one comes to the conclusion that the guiding principle is fundamentally incompatible both with trends in social development and constellations of socio-political interests, so that its implementation is neither conceivable nor desirable, because it is opposed to all social megatrends as well as the interests of most people. In this case, one would have to bid farewell to the guiding principle. *Or* the re-

sult is that the guiding principle is in principle compatible with trends in societal development and is also in conformity with a collective interest. In this case, rather than elucidating the guiding principle, future discussions should instead address the political blockades that stand in the way of its realisation.

4.1.3 Local Transport Policy – The Example of the Research Initiative 'Mobility in Metropolitan Areas'[7]

One of the most important research initiatives in the field of transport studies were the flagship projects "Mobility in Metropolitan Areas", which were funded by the Federal Ministry of Education and Research with more than 80 million euros over a period of five years (cf. BMBF 1998). They formed the "cornerstones of a future-oriented policy in mobility research", which the Federal Cabinet adopted in December 1996 with the "Mobility Research Framework" (cf. BMBF 1997a). The strategy formulated in the cornerstones marks the conceptual transition from the "strategy of traffic avoidance" to the "decoupling strategy" (cf. the excursus in chapter 2.24 of the present book). While traffic avoidance always tended to affect economic growth, the decoupling strategy in the "Mobility Research Framework" aims to promote technical developments in the industrial sector, which are also meant to contribute to

7 The assessment of the results and effects of the research initiative "Mobility in Metropolitan Areas" is based on an explorative study. The empirical basis is formed by the final reports of the individual projects, the evaluation report of the research initiative and various publicly accessible publications. In addition, five expert interviews were conducted with people who were involved in the research initiative at the time. It is striking that in a publicly funded research initiative, both the final reports and the overall evaluation report have not been made publicly accessible to date. While the final reports are only accessible from a database for a fee, the evaluation report has been kept under lock and key to this day. In addition, requests for interviews have been repeatedly refused by the project sponsor, TÜV (Technical Inspection Authority) Rheinland. The evaluation report is available to the author, so it is quoted publicly here for the first time.

traffic reduction. The approach is primarily based on the conventional philosophy of traffic flow (cf. Schmucki 2001), which envisages using new information technologies in order to ensure smoother traffic flow: "For delimited and manageable problem areas, practical proof is to be provided that innovative concepts can contribute to a noticeable improvement in traffic flows with a significant reduction in traffic pollution (pollutants, noise, accidents, space requirements, etc.)" (BMBF 1997b: 2). The central concern is the "decoupling of growth in mobility and traffic congestion" (BMBF 1997a: 3) – i.e. reducing the negative effects of traffic that stem from a growing demand for mobility. In contrast to the strategy of the transport turnaround, which focused primarily on traffic avoidance, this approach in principle accommodates both economic growth and growth in traffic, provided that the negative side effects associated with these in the past can be prevented or at least limited in the future.

An integrated approach is explicitly pursued, although the diverse stakeholder interests in the field of transport policy, from politics and business as well as from civil society, would have to be brought together. The unclear social relations with their complex constellations of actors would require diverse cooperative relationships (cf. Kesselring et al. 2003). Lastly, the different modes of transport were also to be coordinated with each other and linked by a network of information technologies to form a unified transport system. Those behind this approach expected it to increase the attractiveness of public transport in particular.

Funding was provided for a total of five network projects at the municipal level, some of which were very comprehensive, in the urban regions of Cologne, Munich, Stuttgart, Dresden and in the Rhine-Main area, as well as the "special project" *cash car*, which was located in Berlin but formally assigned to the Munich Mobinet network. All of the "Mobility in Metropolitan Areas" projects aimed to solve specific traffic problems in the areas in question. The solutions, however, were intended to be generalisable. The lead projects and their principal sub-projects were:

- "Stadtinfo Köln": Here the focus was on the development and integration of various traffic information and parking reservation systems. Corresponding software and an information technology link between car parks and parking ticket machines were developed.
- "Mobinet Munich": The main objective of the project was to optimise inner city traffic with the help of adaptive control and information procedures, not least via variable signposting and electronic information boards. In addition, the management of parking space in the city centre was promoted and incentives for the use of public transport were created, for example through park-and-ride facilities for cyclists. Noteworthy were some smaller sub-projects with an experimental character, such as new shopping boxes and intermodal mobility courses for school children.
- "Mobilist Stuttgart": In addition to electronic booking options for public transport tickets and parking space reservation via the internet, new routing offers, ride-sharing services and additional intermodal offers were to be developed and tested. Teleworking and online services for citizens were also tested with mixed success in the Stuttgart region.
- "Inter-Mobil Dresden": The project centred on traffic management based on the use of video cameras and the development of an electronic ticket for public transport. In addition, a flexible S-Bahn (city and commuter surface rail) service was to be tried out and, in a subproject, mobility advisory services for private individuals and companies were to be tested and examined for their long-term effects.
- WayFlow RheinMain": In several sub-projects, the development of an information platform based on multi-agent systems, so-called floating-car-data (FCD), multimodal routing offers and the management of peak traffic loads were developed and tested, partly in extensive field trials.
- cash car: This project stood out both because of its relatively modest funding volume of 2.6 million euros (compared to 30–40 million euros in the other lead projects) and because of its conceptual approach. Here, the focus was not so much on traffic telematics applications, but rather on exploring the opportunities and limits of in-

novations in usage. The cash car project was devoted to the development and testing of an innovative leasing concept that aimed to link a car used 'in portions' with public transport and thus to professionalise car sharing in Germany (the goals and results of this ambitious social experiment have been presented in detail elsewhere, cf. Project Group Mobility 2004).

Measured against the ambitious goals, the results of all the "Mobility in Metropolitan Areas" projects are sobering. Apart from the fact that a number of planned pilot applications in the fields of e-learning and teleworking did not even materialise, only a few survived the funding period. And even in these cases, hardly any of the desired changes in the choice of means of transport in favour of public transport came about. The transport effects in terms of a modal shift were modest or even counterproductive (cf. BMBF 2005).

How it was possible for such unintended consequences to come about can be demonstrated using the example of a Cologne arterial road, which was equipped with traffic guidance systems as part of the lead project "Stadtinfo Köln" in order to achieve a smooth traffic flow on the road in question, which is congested at peak times. A public transport railway line runs parallel to this main artery, so that the obvious option was to shift traffic from road to rail. For this purpose, information panels were installed in connection with Park & Ride offers, which provided the necessary information for changing from one mode of transport to the other. In addition, road users were informed about how long their journey would take with the respective mode of transport. This was meant to persuade car drivers stuck in traffic jams of the attractiveness of public transport.

However, at the same time, a number of measures in traffic flow management were implemented for road traffic, which led to an accelerated traffic flow. As a result, public transport again lost its advantage and the originally intended modal shift largely failed to materialise. This course of action was based on the illusion of "equal opportunities for all modes of transport". Although public transport benefited from the measures implemented, its structural disadvantage again came

into effect, since at the same time the disadvantages of individual motorised transport were eliminated. Obviously, there was no clear political strategy that favoured public transport over private transport because of its social and environmental advantages. Instead, these very different means of transport with their respective specific stakeholders confronted each other as supposedly equal partners in a cooperation.

In addition, the large collaborative projects were faced with formidable tasks of coordination in order to hold the large number of partners together and to attain a common denominator vis-à-vis the local public and the professional public. This task was often taken on by experienced project managers from the participating car manufacturers, who also determined the public face of the research network, because they were able to present the lead projects professionally and effectively highlight the specific technical elements in the overall undertaking.

In summary, it can be said that the lead projects as a whole had a heavy technical character. The responsible parties hoped that the information provided by the new telematics systems would prompt a readjustment of traffic flows in favour of public transport. The relevant information transmitted in real time was supposed to open up a flexible choice of means of transport and make it possible to switch easily between modes. In the process, the willingness of road users, whose transport behaviour is characterised by "entrenched" routines, to repeatedly rethink their choice of transport mode was overestimated, as was their willingness to pay for traffic information.

Of course, the strong orientation towards the conventional traffic flow approach is particularly surprising. After all, it has long been proven by researchers that improving traffic flow leads to additional traffic, if the contextual conditions remain the same (cf. Gerike 2017). The abovementioned example of the simultaneous encouragement of private and public transport has made this point clear yet again: increasing traffic permeability on the roads counteracts the programmatic goal of shifting traffic in favour of public transport. In this connection, project structures based on constellations of supposedly cooperative actors seem problematic, since in reality actors with antagonistic interests are

confronting each other. If politicians retreat to the position of observers who restrict themselves to ensuring 'fair' competitive conditions, then, as in the case described here, one ends up with two sets of measures placed in a competitive situation, whose effects on transport at best cancel each other out.

By contrast, the genuinely political task would be to ensure the implementation of the goals of transport policy in accordance with the political objectives. This raises the central question of the political willingness to push through accompanying measures designed to secure the intended effects (cf. Rommerskirchen 2003). This in turn would provoke the articulation and disclosure of conflicting interests. Ultimately, a political decision in favour of or against certain measures is required. By contrast, the semantics of cooperation favoured in the context of an integrated transport policy all too often feigns a harmonious reconciliation of interests, concealing the lines of conflict that actually exist and thus distracting from the necessary political decisions. The results of the evaluation of the "Mobility in Metropolitan Areas" flagship projects thus prove to be the consequence of a tendency to depoliticise transport policy. This explains the lack of connection between sets of objectives in transport policy and real transport development.

4.2 European Transport Policy

After explaining the discrepancy between the aspirations and the reality of German transport policy on the basis of the national constellation of actors and illustrating this discrepancy with concrete case studies, the analysis will now be supplemented by a corresponding examination of European transport policy. This is necessary for a realistic assessment of the scope for action of national transport policy since the latter must increasingly be regarded as an integral part of the process of European integration. On the one hand, federal German transport policy has an impact on European transport policy and helps to determine it (cf. Schwedes et al. 2015). Conversely, federal German transport policy is also influenced to a not insignificant degree by decisions at the Euro-

pean level (cf. Bandelow et al. 2014). One does not have to deny national particularities in order to nevertheless come up against boundaries that are delimited by European transport policy. Therefore, to conclude, the relationship between German and European transport policy requires examination. After all, the European Commission has also made the guiding principle of an integrated transport policy the programmatic foundation of its transport policy and also expects that this strategy will lead to sustainable transport development. This raises the question of the extent to which European transport policy can possibly act as a corrective to the less than successful German transport policy.

4.2.1 Aspirations

European transport policy has taken on a new quality since the early 1990s. After the common transport policy had played a subordinate role for decades, it was explicitly given a special position in the Maastricht Treaty signed in 1992 (cf. Frerich/Müller 2004). The goal formulated in the Maastricht Treaty of bringing the common internal market to completion made it seem imperative to also push for the integration of national transport markets. With this goal in mind, the European Union saw its primary task in opening up the largely closed national transport markets in order to support economic integration. At the same time, however, the deregulation of the European transport market, which has been pressed ahead with since then, has led to a conflict of goals that is a peculiar characteristic of any transport policy. While on the one hand the environmental debate reached a highpoint in 1992 with the United Nations Conference on Environment and Development in Rio de Janeiro, where a worldwide reduction of pollutant emissions was decided, the opening of the European transport markets and the resulting growth in traffic, a development in the opposite direction loomed. Since then, European transport policy has been caught between programmatic statements with the goal of sustainable transport development on the one hand and the demands of market integration, expedited through the transport markets on the other (cf. Dyrhauge 2013).

If one examines the programmatic statements on European transport policy from the beginning of the 1990s until today, on the basis of the Green and White Papers, it can be shown that the policy objectives and real developments are moving ever closer together. At the same time, however, the social and ecological dimensions of sustainable transport development are increasingly taking a back seat to the economic perspective. Both the Green Paper published in 1992 and the White Paper published in the same year were initially characterised by a uniform strategy encompassing the entire European transport sector (cf. COM 1992a; 1992b). For the first time, the topic of traffic-induced environmental pollution was dealt with extensively. In particular, the Green Paper thematised the costs of transport growth, which are primarily generated by road traffic and are not included in transport costs. At the time, these externalised costs were recognised as a key factor in influencing transport growth, and a number of studies had already been devoted to calculating them. There was a broad consensus that by imposing on road transport the social costs it itself generates, there should be an increase in the costs of road transport in order to achieve a modal shift in favour of the more environmentally friendly rail transport.

But in the Green Paper published three years later "Toward Fair and Efficient Pricing in Transport. Policy Options for Internalising the External Cost of Transport in the European Union", which was explicitly dedicated to this topic, a different strategic orientation is already to be found (cf. COM 1995). Here, special attention is paid to external costs generated by traffic congestion. In addition, climate-damaging CO_2 emissions were factored out, without a word of justification. In this way, the old "dream of traffic flow" (Schmucki 2001) was able to be reactivated at the European level. This is particularly noteworthy, since studies carried out by transport researchers in recent decades, investigating the effects of eradicating traffic jams and the resulting increase in traffic flow, for instance using the example of local bypasses, have repeatedly come to the conclusion that this simply induces more traffic in the medium and long term (cf. Gerike 2017).

The new strategic orientation of the Green Paper from 1995 was essentially directed towards optimisation of the system. It was no longer

the transport system as such, dominated by road traffic, that was problematised, but rather the system-internal frictions were to be remedied by a system-immanent solution. The road transport system, which is obviously overloaded and/or inefficient in congestion situations, was to be adapted to requirements through infrastructure measures and/or increases in efficiency. This was the starting point for the White Paper published in 2001, which forms the programmatic basis of European transport policy (cf. COM 2001). Explicitly mentioned was the guiding principle of an integrated transport policy with the goal of sustainable transport development. However, in contrast to the 1992 Green Paper, the White Paper neither envisaged the possibility of politically imposed traffic restrictions, nor did it pursue a modal shift from road to rail. Instead, the White Paper was based on an integration scenario that assumed further growth in traffic. Initially the ambition was formulated to maintain the modal split at the 1998 level: "The third approach (Option C) […] comprises a series of measures combining tarification, revitalisation of modes of transport other than road transport and targeted investments in the trans-European network. This integrated approach makes it possible to stabilise modal shares at 1998 levels in order to achieve a more balanced distribution by 2010" (COM 2001: 14). Furthermore, a gradual decoupling of economic and transport growth was also supposed to be achieved by 2010. The 2011 White Paper essentially picks up where this left off, but with the decisive restriction that the goal of decoupling economic growth and transport growth is no longer mentioned (cf. COM 2011).[8]

Measured against their own ambitions, which date back to the beginning of the 1990s, it seems appropriate to draw up an interim balance after 15 years in order to gain a realistic impression of the effectiveness of transport policy strategy at the European level. We will now examine the development of transport from the beginning of the 1990s until the present day in the light of the ambitious objectives.

8 The new White Paper on Transport, which is currently being prepared, is also based on this strategic orientation: https://www.bmvi.de/SharedDocs/DE/Artikel/G/europaeische-verkehrspolitik.html

4.2.2 Reality

At the beginning of the 1990s, the Transport Commissioner at the time, Neill Kinnock, pointed out in the above-mentioned White Paper that the "majority of EU households do not own a car" (COM 1992a: Foreword). At the time, this was explicitly seen as an opportunity to influence the further development of transport in favour of public transport. A dominance of road transport was to be prevented from the outset. Less than ten years later, the White Paper on Transport points out that in the meantime "two thirds of all households have a car" (COM 2001: 25).

After the enlargement of the EU from 15 to 27 Member States through the accession of the Eastern European countries, the situation is similar to that at the beginning of the 1990s: once again, the majority of households do not have a car. However, this has not led to a perspective on transport policy conducive to sustainable transport development. Rather, it is now generally assumed that the overall level of motorisation will largely converge with that in Western Europe. In light of traffic development over the last ten years, this forecast seems realistic.

At the same time, the European Commission initially placed explicit emphasis on the unusually high share of rail in the total modal split in the Eastern European accession countries (Commission 2001: 103). One of the goals had to be to maintain rail transport there at a high level. However, the development in the course of the gradual opening of the Eastern European transport markets since the beginning of the 1990s already showed an unmistakeably contrary trend. In most countries, rail passenger transport has fallen by 50 percent since then, while the degree of motorisation on the roads has increased accordingly (cf. Table 7).

Table 7 Development of rail transport in Central and Eastern Europe 1990–2000 – transport performance

		1990	1994	1995	1998
Czech Republic	passenger km (billions)	/	8,5	8	7.0
	tonne km (billions)	25*	23	22	19
Poland	passenger km (billions)	50	28	27	26
	tonne km (billions)	82	66	69	62
Hungary	passenger km (billions)	11.4	8.5	8.4	8.8
	tonne km (billions)	16.8	7.7	8.4	8.2
Bulgaria	passenger km (billions)	7.8	5.1	4.7	4.7
	tonne km (billions)	14.1	7.8	8.6	6.2
Baltic States ***	passenger km (billions)	10.5	3.9	2.9	2.0
	tonne km (billions)	45	21	21	27
Slovakia	passenger km (billions)	/	4.5	4.2	3.1
	tonne km (billions)	14.4	12.5	13.8	11.8
Slovenia	passenger km (billions)	1.4	0.6	0.6	0.6
	tonne km (billions)	4.2	2.5	3.1	2.9

* = 1993 ** = 1994 *** = Latvia, Estonia and Lithuania

Source: Own presentation, based on Commission 2002: Tables 3.5.21 and 3.4.23

The eastward expansion of the EU was expected to further accelerate these trends. This is especially true for freight transport. While rail freight transport only decreased by about one third on average and thus not as dramatically as passenger transport by rail, nevertheless, by 2012 road freight transport had increased by a third, while rail freight transport as a share of total freight transport has meanwhile fallen from 20 to 18 percent (cf. Eurostat 2015).

The forecasts are in turn cited by politicians as a reason and legitimisation for a major increase in infrastructure expansion of road transport routes. It is still disputed to what extent the expansion of the road infrastructure is a reaction to increased demand or, conversely, to what extent it creates the increased demand in the first place. In any case, it is striking that the European road infrastructure was continuously expanded in the 1990s, while the rail infrastructure was reduced by ten percent in the same period (cf. Table 8).

As a result of the specific burdens it imposes, road freight transport is of great importance in the context of an integrated transport policy aimed at sustainable transport development. Thus, in conclusion, we will examine the question of what the transport policy situation in the freight transport sector looks like at the European level, and what developments can be expected in the future.

Table 8 Traffic and Transport Infrastructure in the Territory of the EU-15 1970–2001

	1970	1980	1990	2001
Railway Routes (km)	172,809	167,437	161,465	153,398
Electrified Routes	/	/	/	78,230
High-Speed Routes	/	285	700	1,395
Long-Distance Roads (km)	/	/	/	325,038
Motorways	16,051	30,454	39,242	52,762
Tramway and Light-Rail Systems	108	91	92	102*
Metro-Systems	14	22	24	28
Internal Waterways (km)	32,338	30,620	29,637	29,500
Pipelines	12,060	17,825	19,085	22,000

* = 2000 ** = 1998

Source: Own presentation, based on EU Commission 2002. The statistics given for the period before 1990 include the route network of the Reichsbahn in the GDR. * = 2000 ** = 1998

4.2.3 New Constellations of Actors in European Freight Transport Policy

The development of freight transport in Europe has a lot in common with the development of freight transport in Germany, described above (cf. chapter 4.1.1). This applies to both CEP (Courier-Express-Parcel-Service) transport and intermodal transport. Both transport segments have also undergone an astonishing process of transformation at the European level. The changes in the process of industrial production here also led to a so-called "freight structure effect", which necessitated the complete reorganisation of the transport and logistics sector. As

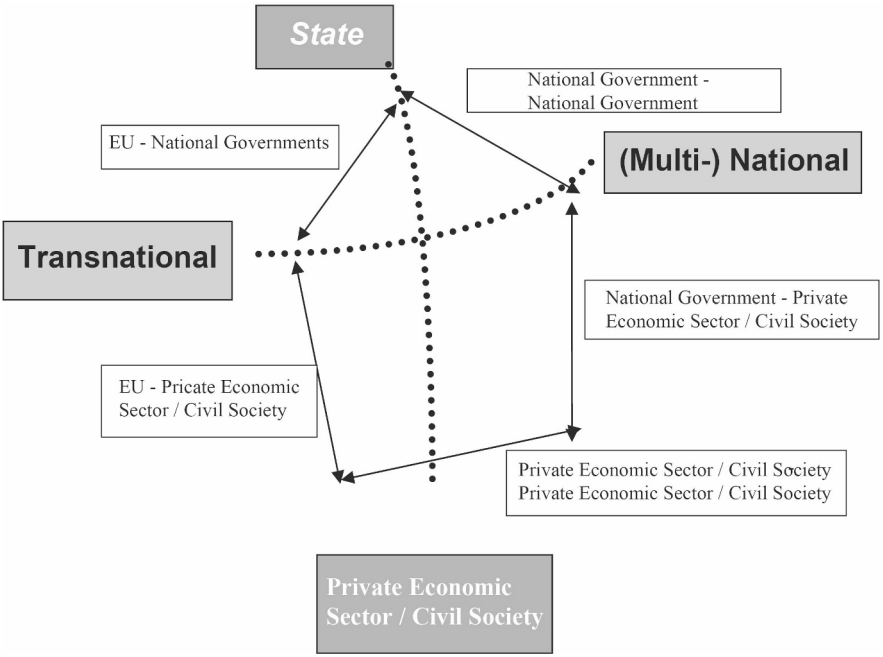
the production of higher-value, light goods in small batch sizes gained significantly in importance, the traditional modes of transport of bulk freight (rail, inland waterways) came under pressure. By contrast, flexible road freight transport was able to fully exploit its advantages on the well-developed road infrastructure. This development was given additional impetus by the gradual liberalisation of cabotage (domestic transport by foreign providers) in the course of the completion of the single European market, which was finalised in 1998.

Against the background of the new challenges in the transport and logistics sector, a dramatic concentration process then took place (cf. Wolf 2006). While the CEP markets within Germany are essentially dominated by the formerly state-owned postal company DHL, as discussed earlier, at the European level a total of four large corporations share the market, which, in addition to DHL, include Federal Express, TNT and UPS. These companies are mainly active in road and air transport and have at least partially acted as 'integrators' in these sectors by systematically integrating both of these transport segments as a fundamental part of their transport and logistics chains. However, this internal integration was accompanied by external disintegration: increasingly excluded from this strategy were precisely rail and ship, which are central components of an integrated transport policy with the goal of sustainable transport development. Accordingly, the development of intermodal transport – an essential mainstay of integrated transport policy – remained insignificant at both national and European level.

With the reorganisation of the CEP markets by the transnationally-oriented large corporations, the EU regulatory level in road freight transport was established as the decisive authority. This does not mean that the European institutions alone decide on the type and manner of market regulation policy in road freight transport. Just as an explanatory approach derived from nation-state policies hardly does justice to the complex processes of negotiation at the European level, the one-dimensional derivation of European transport policy via institutional procedures does not get to the heart of EU governance in the field of transport policy. Rather, the latter is characterised by a multi-dimensional net-

work of relationships, mediated by conflicts, which encompasses the EU and national governments as well as the private sector and actors from civil society. This conflict-laden domain can be illustrated by an institutionalised "five-corner relationship" between public and private actors (cf. Figure 16)

Figure 16. Institutionalised "five-corner relationship" at EU level



Source: Dieter Plehwe 2005, based on "triad relationships" between states and companies, designed by Stopford et al. (1991: 22).

The powerful consequences of this configuration of social power relations at the European level, which is constantly shifting as a result of conflictual relationships, can be demonstrated in the context of the restructuring of the CEP segment, using the example of the postal markets.

With the opening of the postal markets, which had previously been largely protected by state-owned postal companies, a dynamic of deregulation and privatisation was unleashed, which was reflected in particular in a reorientation of the transnationally-oriented postal companies that transcended national borders. At the level of the EU, this development was articulated in an institutional reorganisation of the postal sector. While the operational postal companies founded the European pressure group *Post Europe* in 1992, its predecessor (CEPT: *European Conference of Postal and Telecommunications Administrations*) was transformed into a European regulatory authority. "The constellation of actors shifted extensively in this context: as from 1992, the opposing interests of postal organisations and private integrators had been equally able to influence the arenas of European negotiation and decision-making processes, in the form of European business associations. Although important dynamics of postal policy continued to be located at the national level – for example, individual member countries such as the Netherlands and Germany commercialised and privatised the Post more rapidly, while other member countries pursued more structurally conservative adjustment strategies – for all member countries and postal organisations the arenas of negotiation and the decision-making processes were located at the EU level" (Plehwe 2005). In this context, very different connections of actors to different thematic fields reveal a relative openness of the processes of negotiation at the European level. It was not possible to hold back the dominant dynamic of the transnational corporations, the integration of air and road freight, and this had a disintegrating effect on the system as a whole. This was mainly due to the fact that the national associations of haulage companies and carriers, which – unlike the major transnational corporations – were interested in a more protectionist strategy, did not succeed in establishing powerful pressure groups at the European level.

Maintaining a limited postal monopoly to finance universal postal services was a different matter. Initially, a cross-institutional consensus emerged at the EU level regarding the gradual restriction of the postal monopoly. Both the Commission and the Council as well as the Parliament pursued a common goal in this regard in the course of the 1990s, with a series of Green and White Papers. At the same time, however, the first postal directive established the universal postal service as an integral part of services of general interest. Unlike in the field of road freight transport, the factions pushing for complete market integration were unable to prevail here. Instead, a universal service alliance was formed across all political levels, consisting of the majority of postal organisations, trade unions, national governments and regional interest groups from rural regions, which managed to win out against the radical market forces. The dynamics of social struggles in the EU's multi-level political system illustrate the commitment of consumer organisations in this context. For example, the liberalisation alliance, which is strongly represented in the EU Commission, was able to gain the support of the European consumer organisation, which is co-financed by the Commission. Conversely, the opponents successfully mobilised national consumer organisations at the European level.

The example of the dispute over the universal postal service provides an impression of the diverse political and strategic options that have opened up in the course of the European integration process, most of which have probably not even been recognised, let alone tried out. At the same time, however, this explains the dominance of economic power in the European transport sector to this day, despite all the partial, socio-political successes.[9] "Not only the presence, but also the relative strength and the ability to act of the private and public interests associated with certain discourses and positions prove to be decisive in order to successfully intervene in political decision-making processes that have increasingly shifted from national institutional contexts to supranational-European arenas of negotiation. Extremely effective

9 On the effects of the European deregulation strategy on the labour market and the welfare state, cf. Deppe et al. 2005.

political guiding principles, even the most successful guiding principle in the history of European integration, namely the completed European internal market, are being concretely defined and configured on the basis of interests and alliances. On the one hand, we have the comprehensive liberalisation of the European market while maintaining – in part – strongly heterogeneous, national market conditions in the area of road transport; on the other hand, we have the gradual – to be negotiated – liberalisation of the market in connection with the (economically secured) guarantee of universal services in the area of postal markets" (Plehwe 2005).

4.2.4 Summary

Thus, in answer to the question whether European transport policy can be expected to rectify the problematic trends in Germany with respect to the model of integrated transport policy and sustainable transport development, one remains sceptical.

As explained, the objectives of European integration also date back to the beginning of the 1990s. It is thus possible to look back on a horizon of experience of more than thirty years, which permits a realistic assessment of the effectiveness of the integration model so far (cf. Humphreys 2011). Accordingly, it can be stated that the dynamics of development in transport policy, contrary to the programmatic announcements, is still substantially characterised by a logic of economic integration (cf. Plehwe 2016). This has a problematic effect on a strategy of political integration, particularly in freight transport, since here the strategy is worked out through competitive relationships mediated by individual or business interests. While this kind of development has led to impressive achievements in integration and associated gains in economic efficiency at the company or corporate level, it has simultaneously forced the same companies to hermetically seal themselves off from the outside world, resulting in increasing fragmentation in the field of transport policy.

As in the German transport market, intermodal freight transport (CT) has not been able to develop further under these conditions. To this day, although politically desired, CT is not economically competitive,

with the transhipment of goods at the interfaces of the different modes of transport repeatedly proving to be the central weak point, since it is there that additional frictional losses occur. A major prerequisite for achieving a convergence of competitive conditions here would therefore be, in the first place, extensive state support to optimise the interfaces. In addition, the CT companies are dependent on close cooperation, which is difficult to achieve in the current milieu, dominated as it is by a dynamics of competition mediated by the market. Ultimately, through its framework directives, the EU not only promotes the conditions that disadvantage CT, it also opposes both state funding that distorts competition as well as efforts at cooperation on the part of companies active in rail and intermodal transport, which have been condemned and banned by the Commission as illegal practices of market closure.

European transport policy is thus also characterised by a discrepancy between aspiration and reality, which manifests itself in the structural contradiction between cooperation and competition (cf. Givoni & Banister 2010). The EU has tried to resolve the contradiction, as expressed in the formula "regulated competition", but it has not succeeded, at least not in the transport sector. While the integrated transport policy called for in the objectives is dependent on the most diverse forms of political cooperation, this approach is in fact thwarted by a policy of liberalisation that still prevails today. Given this situation, European transport policy can, at a national level, at best be expected to provide only a weak impetus for an integrated transport policy aimed at sustainable transport development. The repeated attempts by the European Parliament, such as the gradual tightening of the limits for CO_2 emissions, are an expression of an end-of-pipe strategy that relies one-sidedly on technical innovations, and they do nothing to alter the overall assessment (cf. Bahn-Walkowiak et al. 2012). In the past, these innovations have not led to a systematic correction of the direction taken by transport policy at EU level. On the contrary, to this day they are repeatedly counteracted in European transport policy by lobbying initiatives from the member states (cf. Schwedes et al. 2015).

Accordingly, the *European Commission* itself comes to the conclusion that transport development in Europe is still not on the path to

sustainable development (cf. COM 2011). The consequences of a lack of far-reaching political changes are described in drastic terms: "If everything continues as before, the dependency of transport on oil is likely to remain only slightly less than 90 percent, and renewable energy sources will only marginally exceed the target of 10 percent for 2020. CO_2 emissions from transport would be one third higher by 2050 than 1990 levels, and congestion-related costs will increase by around 50 percent by 2050. The gap between central and peripheral regions will widen, in terms of accessibility. The societal costs of accidents and noise pollution would continue to rise" (COM 2011: 5). This assessment was recently confirmed once again by the European Parliament and became the starting point for deliberations on how effective measures can be politically implemented, in order to finally come closer to the goal (cf. EP 2015).

Here, too, the prerequisite for a political-strategic readjustment in favour of approaches designed to achieve social and ecological integration would be a corresponding shift in the configuration of social power relations at the European level.

4.3 Third Interim Summary – Camouflage in Transport Policy

The starting point of this study was the widespread guiding principle of integrated transport policy and planning. The guiding principle, it seemed, constitutes a general consensus in transport policy that is not seriously contested by any side. At the same time, we observed that current transport policy at national and European level is increasingly characterised by a sharp contrast between programmatic strategy and concrete measures. Should this superficial impression be confirmed, then the important research question concerning the reasons for this disparity would need to be raised. In fact, the impression was confirmed in two respects. A survey of stakeholders in transport policy revealed that to date there are no material objections to the concept of integrated transport policy with the goal of sustainable transport development. The analysis of real transport development, on the other hand, has shown

that it is regularly at variance with the political aspirations. Thus, the realism and practicality of the widely recognised model of integrated transport policy is fundamentally up for negotiation (cf. Schwedes & Rammert 2020).

In light of this, we formulated the hypothesis that the various actors in the field of transport policy associate distinctly different ideas with the model of integrated transport policy. Although it was possible to gather the transport policy makers with their conflicting interests under a common guiding principle, this did not result in a (transport) policy 'solution'. Rather, the old conflicts of interest continue to lead to disparate strategies on the part of the individual actors, which do not fit into an overall political concept. The programmatic approaches move between the two conceptual poles of cooperation and competition. While the idea of integration aims to achieve different forms of cooperation, the market philosophy dominating the transport sector insists on the creative power of competition or even destruction.

Since this profound conflict of interests has not really been solved politically by the integration model, so the thesis goes, it depends on the stakeholders in transport policy and their respective position in the field as to which interests or policies are able to prevail. On the one hand, through a topography of the actors in the field of transport policy, we were able to identify three strategies of integration. Three groups of actors were each assigned to an economic, a social and an ecological integration strategy. In a further step, the three groups of actors were weighted according to their respective importance. It was shown that the resources of the representatives of an economic integration strategy clearly exceed the collective resources of the representatives of a social and ecological integration strategy. In addition to the material disadvantages, our study revealed a further weakening of the latter group through internal and bilateral lines of conflict. In contrast to the representatives of an economic approach to integration, who repeatedly manage to achieve an impressive unity beyond all the divergences that undoubtedly exist among them, the representatives of a social and ecological integration strategy compete both between and among themselves on individual issues.

As a result, transport policy is dominated by the representatives of the philosophy of economic integration, the principal aim of which is economic optimisation, meaning increased cost efficiency. This particularistic view is at variance with the strategic orientation of an integrated transport policy and has a corresponding effect on transport development. Contrary to what is planned within the framework of an integrated transport policy, the individual economic strategies do not fit into an overall political concept in which social and ecological dimensions can also be adequately articulated in a way that is conducive to sustainable transport development. Instead, the market-driven competitive dynamics of the economic integration strategy tend to have a disintegrating effect on the overall transport system.

By limiting itself primarily to optimising the conditions for economic integration, this policy hopes to activate potential innovations that also benefit sustainable transport development. Innovative products, for example in the area of new powertrain technologies, are supposed to help avoid the negative consequences of transport. Policymakers expect impetuses for integrated transport policy in particular from information and communication technologies, which in future are supposed to ensure tighter links between different modes of transport.[10] But it is precisely in the area of transport telematics that the consequences of a dominant economic integration strategy are particularly evident. This is because the new technologies have so far barely been used to optimise the transport system as a whole, but mostly to improve individual modes of transport or subsystems (cf. Klumpp 2002; Stopka 2003). Apparently, the centrifugal forces of a competitive dynamic generated by particular interests cannot be reined in through technical innovations alone.

This confirms a long-known dilemma that transport researcher Fritz Voigt described more than 50 years ago as a structural problem of the

10 This approach is the distinctive feature of the BMBF-funded project network "Mobility in Urban Areas", as well as the follow-up project "Traffic Management 2010" and the current "High-Tech Strategy" of the Federal Government.

transport sector. Concluding his observations on the economic significance of the transport system, Voigt emphasises the values of the market economy and especially competition: "But this does not change the fact that, in the course of generations, a purely market-based transport economy necessarily results in excessively stark differences in what were, originally, equal opportunities for development. In the long run, such a market economy can cost every nation and every state dearly" (Voigt 1960: 314). The current dominance of the philosophy of economic integration in the transport sector, which, as has been shown, systematically hinders sustainable transport development, appears to confirm this early insight.

The current debate in transport policy tends to deny the lines of conflict that we have outlined. The guiding principle of integrated transport policy fulfils a central ideological function. Since it is essentially based on the idea of a possible and desirable compromise, overarching the various interests and that can be more or less harmoniously achieved to the satisfaction of all participants, it in fact contributes to the de-thematisation of the prevailing conflicts of interests. Transport research colludes in this with advisory studies in which it semantically reconciles the structural conflict between cooperation and competition by means of the artificial term "co-optition" (cf. Beckmann & Baum 2002). The result is transport policy as camouflage!

In the course of the present study, this procedure has proved to be problematic, because behind the façade of the guiding principle of integrated transport policy, powerful special interests are able to impose themselves, repeatedly discrediting the idea behind the guiding principle. The results of the present study therefore indicate a different approach. Instead of preserving the impression that the divergent interests of stakeholders in transport policy can all be integrated equitably in a compromise formulation, these interests should – first of all – be worked out and identified as different but legitimate concerns. In a second step, the legitimate interests of the various actors should be opened up to public discussion.

Since it is scarcely possible to change the underlying power relations in the short and medium term, the aim in a democratically constituted

community must be to exert influence on the decision-making process in transport policy by means of relevant 'checks and balances'. To achieve this, it is first necessary to raise the socio-political status of transport policy. Instead of reducing transport policy to a special part of economics – as is still common in economics today – the manifold social influences at work in transport policy should be made clear. Transport policy must not be regarded as a derived variable, as an ancillary economic science, so to speak, but rather as a central aspect of coping with life in modern societies. The task is therefore to free decision-making processes in transport policy from their restricted arcanum and to publicly convey an understanding of transport policy as a central component of social policy, in order to raise its *political* status accordingly.

Only in the context of a successful politicisation of transport policy does it seem sensible to pursue further conceptual deliberations. There is certainly no lack of promising approaches. Especially if one continues to make the idea of integration the basis of practical strategies for action, it is possible to build on comprehensive concepts that were developed in the 1990s (cf. UBA 2014). However, Martin Wachs had already pointed out the dilemma of these conceptually undoubtedly convincing models, a dilemma that remains valid today. Instead of yet again making the guiding principle of an integrated transport policy the basis for conceptual deliberations, the political circumstances that stood in the way of implementation in the past should be reflected upon: "I firmly believe that transport policy-making is primarily a political exercise, and that analytical approaches by technical experts are invariably less influential than the pull and tug of influential interest groups" (cf. Wachs 1993: 337).

In other words, transport policy does not suffer from a poverty of ideas. Fed by transport research, it has sufficient knowledge and model-theoretical deliberations in order to shape transport policy. Instead of adding another concept to this, the present study has aimed from the outset to answer the question of why the existing knowledge has to date not been employed to a greater extent. Within the relatively limited framework of selected examples, we have been able to indicate the relevance of an analysis of the policy field (which has been neglected in the past) but without always ensuring sufficient depth. This opens

up a field of research that should be further explored in the future with concrete individual case studies.