

International Public Policy Association, ICPP4, Montréal 2019  
Panel: Public Policy and Diversity in Federations

# Transportation Infrastructure Policy in Germany

## A Comparative Study on the Role of the German Federal States

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**Abstract**

Research on federalism in Germany successfully identified several drivers of diversity among the federal states (*Länder*). Nevertheless no coherent analytic framework exists which would provide a systematic approach for the causes of diversity in Germany. This paper proposal introduces such an analytic framework into academic discussion.

First, it discusses the explanatory value of six theories (party difference hypothesis, socio-economic theory, path dependence, veto point theory and Europeanisation). Particularly the contribution investigates the adaptability of this theories to the sub-national level in federations and explores valuable hypotheses emerging from them. The goal is to find factors driving diversity in federations with this theoretical framework. Second, the paper proposal delivers a proof of concept by applying the newly developed theoretical framework to transportation infrastructure policy of the German *Länder*. This proof of concept uses a set of four qualitative case studies in different *Länder* to generate plausible hypotheses.

## 1 Introduction

Who is deciding in practice about which infrastructure to invest in? Regarding the case of transportation infrastructure, current research suggests the importance of the German federal states (*Länder*) in both decision-making and implementation of transportation infrastructure projects (Bandelow and Kundolf 2018, p. 163; Fichert and Grandjot 2016, pp. 138-141). Especially approval of and financial contribution by the *Land* to a specific transportation infrastructure project appears to be crucial (Berthold and Fricke, 2012, p. 121). Approvingly, cases of major transportation infrastructure projects in Germany which became politically controversial highlight the importance of *Länder* politics in the decision-making process, most notably the spectacular case of *Stuttgart 21*. After a long series political debates this railway infrastructure project became the main issue of the 2011 Baden-Württemberg state elections and finally lead to a state-wide referendum (Brettschneider and Schwarz, 2013, pp. 294-296). But do *Länder* politics really determine the success of transportation infrastructure projects in Germany? Contrary to the suggestions above, there are signs for lesser importance of the *Länder* regarding transportation policy, too. Institutional set-up, especially the joint decision trap<sup>1</sup> seem to set narrow boundaries for the *Länder* to shape their own policies (Benz 2016, pp. 61-65; Sturm 2015, pp. 200-203). Also there is a lack of empirical evidence for different outcomes of transportation policy in among the *Länder* (Schwedes and Ruhrort, 2016, pp. 223-224). In summary, this inconclusive state of research points in two directions. First, the leeway of the *Länder* within the given federal set-up to implement their own transportation infrastructure policies is unclear. Second, the lack of empirical evidence in this policy field does not resolve the problem either. Therefore, this paper aims to develop and apply an appropriate analytical perspective on diversity among the Germany federal states in transportation infrastructure policy.

*Why would the Länder be differently committed to transportation infrastructure projects?* Which determinants could influence their political commitment to a project? To find possible determinants, this paper draws on six theories of policy analysis (party difference hypothesis, power resources theory, socio-economic theory, policy difference, veto player theory and Europeanisation), derives hypotheses from them and operationalises them for empirical analysis. *But is there variation to observe between the Länder?* Besides the attention-getting *Stuttgart 21* case, several other major projects provide valuable empirical evidence. In fact major transportation infrastructure projects vary significantly in reaching their branch-specific benchmarks. More interestingly, variance among the *Länder* covers for example average cost overruns from 108 percent in North Rhine-Westphalia compared to 23 percent in Baden-Württemberg (Kostka and Anzinger, 2015, pp. 15-19). Hence, this paper analyses four cases of transportation infrastructure projects in different *Länder* and tries to find the relevant political determinants which influence the outcome of this projects. These four cases include the A14 highway gap closure<sup>2</sup> (SA, MV)<sup>3</sup>, the Munich Airport

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<sup>1</sup>In German, the joint decision trap is commonly referred to as *Politikverflechtungsfalle*.

<sup>2</sup>The A 14 highway gap closure is a 112km long highway (*Autobahn*) between the cities of Magdeburg and Schwerin, with approx. costs of 1.2 billion Euro.

<sup>3</sup>Codes for the different *Länder* according to ISO 3166-2:DE.

Third Runway (BY), the JadeWeserPort harbour<sup>4</sup> (NI, HB) and the VDE 8.2 high-speed railway<sup>5</sup> (TH, SA, SN). The guiding thesis is that *Länder* politics did unfold a serious impact on the chance of success of these projects. This paper contributes to research in two aspects. First, this thesis adds empirical evidence to sparsely studied topic of *Länder* transportation infrastructure policy. Second, it postulates determinants of variation which are tested for plausibility using process tracing in the above mentioned cases. To this end, the paper uses a qualitative database generated from primary sources and expert interviews.

The structure of the paper proceeds as follows: First, the research gap and the methodology are outlined. Second, the research outline introduces the dependent and the independent variables. Third, the preliminary findings are presented and discussed.

## 2 Current state of research

Transportation infrastructure policy<sup>6</sup> in general is considered to a topic of lesser importance for political science. Most research comes from the engineering and economic perspective (Schwedes, 2018, p. 14), which only dip in the role of the *Länder* in policy-making. Full-featured studies focusing on the role of *Länder* in transportation policy are hard to find. However, it seems to be commonplace to presume an important role of the *Länder* in surface transportation planning (Bandelow and Kundolf 2018, p. 163; Fichert and Grandjot 2016, pp. 138-141). Bandelow et al. (2016) outline transportation infrastructure governance as system of bargaining between the federal and the state level. This is supported by the important role of the *Länder* in formulation of the Federal Transport Infrastructure Plan<sup>7</sup>, as highlighted by Heuser and Reh (2016). Garlich (1980, pp. 106–114, 134-139), who provides an overview of federal and state government cooperation in highway planning, backs the conception of surprisingly weak federal influence. Both come down to the conclusion that the federal level does not decide about the exact implementation of a specific transportation project, but rather assigns fixed financial quotas to the *Länder* for implementation and only checks the basic need for a specific project. In fact, the federal government and the *Länder* decide on the specific transportation projects in bilateral negotiations (Heuser and Reh, 2016, p. 240). A *Land* can only access federal funding, if it shows political support for the project and contributes financially on its own as well (Berthold and Fricke, 2012, p. 121). In this regard, German cooperative federalism is different to the US model, where the states exert political influence less through intergovernmental negotiations but through lobbying for federal funding in Congress (Dilger, 2009; Gamkhar and Ali, 2007; Gordon, 2005). Also in comparison, the Swiss model of transportation infrastructure planning is very unique: It allows for much political leeway of the cantons despite dense federal regulations (Neidhart, 2002; Hirschi

<sup>4</sup>The JadeWeserPort is Germany's largest maritime harbour project, located at Wilhelmshaven, with approx. costs of 1 billion Euro.

<sup>5</sup>The VDE 8.2 is a 123km long high-speed railway stretching from Erfurt to the cities of Halle and Leipzig, with approx. costs of 2.8 billion Euro.

<sup>6</sup>In this paper, transportation infrastructure policy encompasses road, rail, airport and waterway infrastructure policies.

<sup>7</sup>*Bundesverkehrswegeplan* in German.

et al., 2006; Gallez et al., 2013). For comparative overview of the systems, also see Watts (1999) or (Leunig, 2010, pp. 188–191). Furthermore, increased socio-economic and financial heterogeneity after German reunification required also custom-build responses for East German states regarding their shrinking transport infrastructure (Canzler, 2008). This is even more important regarding the fact that a study, showing variation between the *Länder*, conducted by Garlich (1980) before the reunification indicates weak federal influence; by implication, this means that variance is most likely to have grown since 1990. In this regard, this contributes the general discussion about growing variation between the *Länder* since the reunification (e. g. Turner (2011), Benz (1999a), Wolf and Hildebrandt (2016) or Jeffery and Pamphilis (2016)). So far, literature seems to support the idea of strong *Länder* regarding transportation infrastructure planning. But there are signs for the opposite, too. In general, the theory of German federalism heavily relies on the joint decision trap theory developed by Scharpf (1978, 1994, 2009). In a nutshell, he postulates a gridlock between the federal and state level which results in policy uniformity. This drive to uniformity especially does not enable policy-makers to allocate resources (such as federal funds for infrastructure) efficiently between the states. Lehbruch (2002, p. 63) also highlights the path dependency of a unitary political culture of federalism. Benz (2009, 2016) develops Scharpf’s theory further and differentiates between policy fields which require different decision-making processes. Benz reveals that the joint decision trap can be weakened in some situations when the role of intergovernmental negotiations becomes more limited or when they are conducted as bilateral rather than multilateral (mostly between all 16 *Länder* and the federal government) negotiations.

All in all, current state of research is wicker. This problem could be solved by more empirical evidence. Sadly, since Garlich (1980) only SchwedesRuhrt (2016) conducted a study on the transportation policies of the *Länder*. Their ad-hoc-study could only scratch the surface of this uncharted policy field: Drawing on few data, they study could not reveal variation in the transportation policies of the states. Neither could they answer the question if transportation policy in general is only trailing behind other policy fields, which would mean that deviation rarely occurs. Nor could they answer the question if the joint decision trap is the responsible mechanism for the lack of diversity (Schwedes and Ruhrt, 2016, pp. 230-231). But their study is nevertheless highly valuable for breaking new ground and serves an immediate predecessor for this paper. Therefore, this paper aims to continue their work with a broader analytical framework and contribute to the literature thereby.

### 3 Methodological approach

Since there is no current theoretical debate to draw on regarding the research question (see section 2), hypothesis-testing approaches, most quantitative methods seem not adequate. Also the small number of possible cases excludes most statistical methods. Therefore this paper applies qualitative methods. In the following, instead hypotheses are derived from general theories of policy analysis or related fields. Within the cases, it looks therefore for independent variables (determinants) which affect an dependent variable through a certain casual mechanism (in general see King et al. (1994)). The study pursues a key objec-

tive: Finding independent variable across different *Länder* which determine the success of their projects (Bennett and Checkel, 2015). Aim of this research is to elicit the plausibility of these hypotheses to generate a theory of which possibly answers the research question across and hopefully beyond the scope of the examined cases (Starke, 2015, p. 459).

Therefore, process-tracing<sup>8</sup> is applied as a method to the mentioned four cases (see p. ??). Qualitative data is generated by both archival research and expert interviews. At the final stage, this database should include interviews with 45 decision-makers at the federal, state and local levels. This data-gathering approach is meant to complement the specific weaknesses of both data generation methods and ensure the richness of data within the cases.

## 4 Research outline

This paper essentially constitutes a comparative study of four cases, which are chosen due to their specific as a major transportation infrastructure project where *Länder* politics play a significant role. First, this chapter outlines the different phases of transportation infrastructure projects. This is necessary since large-scale transportation infrastructure project involves different decision-making processes during its different phases. Second, it explains the dependent variable, which is a compound index dealing with possible political aims of different large-scale transportation infrastructure projects.. Third, it derives the independent variables from theories of policy analysis. Fourth, it explains the case selection.

### 4.1 Phases of transportation infrastructure projects

This paper transfers the concept of the policy cycle (Wenzelburger and Zohlnhöfer, 2015; Jann and Wegrich, 2014) to the projects. Sager (2016, pp. 126–127) demonstrates the applicability of the policy-cycle to transportation infrastructure projects, too. As transportation infrastructure project can hereafter be divided in thee phases:

1. The **initiation** phase itself comprises of the (a) the problem definition and (b) the agenda-setting stages. Both of them are genuine political processes where key decisions regarding selection, priorities and problem structure are made (Jann and Wegrich, 2014, p. 107). In this phase the *Länder* governments are heavily involved e.g. though making proposals to the Federal Transport Plan (Heuser and Reh, 2016, p. 241). In practice also state or local-level associations like civil initiatives or party organisations bring in their own ideas for transportation problems.
2. The **policy formulation** phase involves formulation of exact policies and the discussion of alternatives (Jann and Wegrich, 2014, p. 110). Regarding our cases this mostly refers to plan approval<sup>9</sup> of the specific project. The plan approval process is mostly executed by the *Länder* administrations (Stüer and Probstfeld, 2016, pp. 23–25). Also the *Länder* need to conduct negotiations with the federal government to get funding by federal law.

<sup>8</sup>For process-tracing in general, see the edited volume by (Bennett and Checkel, 2015).

<sup>9</sup>*Planfeststellung* in German.

3. The **implementation** phase consists of concretisation, resource allocation and deciding on minor problems during the execution phase (Jann and Wegrich, 2014, p. 114). In this phase much relies on the allocation of enough money to the project by both the federal and respective state governments (Heuser and Reh, 2016, p. 241). Also the constructing authority (e.g. the Deutsche Bahn AG or the Flughafen München GmbH as publicly owned companies) has an important role while realising the project.

## 4.2 The dependent variable

Major transportation projects in Germany often suffer from cost overruns and time delays. The Federal Ministry for Transportation and Digital Infrastructure (BMVI) did even set a commission to deal with the technical causes of the project failures (Bundesministerium für Verkehr und digitale Infrastruktur, 2015). *This study derives its dependent variables from the possible political goals of large-scale transportation infrastructure projects.* Also this dependent variable needs to be adopted for the different phases of the projects. Goal is to get a list composed of indicators regarding the political goals and link this indicators to the determinants (independent variables) later on.

Regarding this approach only some previous research exists this paper can draw upon, since most research on infrastructure projects does not take the political decision-making process into account. The index has three main components<sup>10</sup>:

### 4.2.1 Economic Goals

1. Delivery of infrastructure for (predicted) transportation needs. In this case, the motivation of a *Land* when providing for transportation infrastructure through a large-scale project originates from the inherent need for improving and adapting the transportation infrastructure, e.g. for to improve traffic flows or to react to increasing traffic.
2. Promotion of the economy in certain regions. Large-scale infrastructure projects are often used by decision-makers to stimulate the economy in disadvantaged regions. This dimension goes beyond the mere improvement of traffic flows, since it often aims to generate economic and other activity through improved infrastructure.

### 4.2.2 Project Implementation

1. Cost overruns and time delays in reference to the first plans of the projects in the initiation phase. This part of the index takes political disturbances into account which occur during the formulation and implementation phases.

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<sup>10</sup>The index composition shows the dilemma dealing with transportation infrastructure policy from the political science perspective. While there exists literature on the effectiveness of implementation originating from economics, no previous methodology exists which would provide a measurement for the effectiveness of the first two phases which involve more genuinely political processes.

2. The success is set by default to 0, if the entire project has not been finished (yet). No finishing means failure during policy implementation.<sup>11</sup>
3. Cost overruns according to a methodology developed by Flyvbjerg et al. (2003, 2006), which has later been completed by Cantarelli et al. (2012). Their method compares the estimated costs at the date of decision-making ("go ahead") with the actual costs at the end of the project. This part of the index allows for measuring the success of the implementation phase.

#### 4.2.3 Ecological Goals

1. Promotion of environmentally friendly transportation modes. Often decisions regarding transportation infrastructure are shaped by the intention to promote a certain type of transportation mode. Since transportation is closely connected to many goals of environmental policies, it is often shaped by the environmental aspects.
2. Nature conservation. Large-scale infrastructure projects imply many consequences for the surrounding nature and are often controversial regarding their impact on nature. Hence often nature conservation issues influence the goals of a transportation infrastructure project.

### 4.3 The independent variables

#### 4.3.1 Socio-economic theories

Since transportation policy is most perceived as a domain of engineers and economists, who highlight the importance of necessities in infrastructure planning dictated by economic needs (? , p. 14), obviously so-called functionalist or also socio-economic theories of policy analysis provide a valuable starting point. As one of the older lines of thought, socio-economic theory dates as far back as Marx. Easton (1957) outlined that the political system is embedded in its environment, processing demands and support originating from this environment. This input is later translated into specific policies. Its major strength is that it highlights the connection between socio-economic developments, constraints on the one hand and public policy on the other. Especially, it creates a strong correlation between high economic development and high public spending (Schmidt and Ostheim, 2007b). The level of economic development therefore becomes a key variable (Obinger, 2015, p. 38). Regarding transportation infrastructure, assuming economic benefits for a certain region through more transportation infrastructure is commonplace (Wieland, 2016, p. 360). Thus, one would expect that economically underprivileged *Länder* would be more committed to the successful completion of their transportation infrastructure projects, as also Benz (1999b) suggests. On the contrary, Sturm and Winkelmann (2014) propose that *Länder* on tight budget, which is correlating to low economic performance, may not have leeway to realise their own policies. Since this is the *argumentum e contrario*, it enhances the relevance of socio-economic hypothesis. But it need to be further differentiated to match the different phases of the project, since they imply different political processes.

<sup>11</sup>The one case this condition applies to is the Munich Airport third runway case, which has been postponed indefinitely during the implementation phase. No cases are looked into which failed during the first two phases since the results would not be comparable enough.



**Hypothesis 1** *The lower the economic performance of a Land is, the higher the success of transportation infrastructure projects.*

**Hypothesis 1.1** *The lower the economic performance of a Land is, the higher political demand there is for more transportation infrastructure in the initiation phase of a project.*

**Hypothesis 1.2** *The lower the economic performance of a Land is, the higher political support there is for more transportation infrastructure in the implementation phase of the project.*

#### 4.3.2 Party-difference hypothesis

As Tufte (1978) emphasized, the party composition of a government does have significant impact on how a government does distribute public goods. Party members in official positions are both affected by mechanisms of vote-seeking and policy-seeking (Alesina and Cukierman, 1990, p. 829). Vote-seeking especially is heavily dependent on the political environment. Already Tufte underlined the importance of the economic context regarding party influence on policies (Schmidt and Ostheim, 2007a), something which this paper already covered with H1. For purposes of this paper, policy-seeking parties are more important. Thereby, it is important to notice that transportation policy rarely allows political parties to profile themselves in front of the electorate (Bandelow et al., 2016, pp. 165–166). Therefore, highly valuable is the hint by who shows the connection between transportation and environmental policy (Becker, 2018, pp. 85–86). Hereby broadening our scope, we can apply the party-difference hypothesis now. Regarding environmental policy, many studies underline that party positions do not only influence *Länder* policies (Wurster, 2010, p. 263), but especially that Green parties are successfully pushing more strict environmental policies (Knill et al., 2010; Carter, 2013; ?; Wenzelburger, 2015; Töller, 2017). Since traditional transportation policies do only partially take environmental issues into account (Becker, 2018, p. 81), it is very likely to assume that the Green party<sup>12</sup> is sceptical of traditional infrastructure projects and therefore they act as an objector against large-scale transportation infrastructure projects. This is most likely to happen in the formulation and implementation phase of a project.

**Hypothesis 2** *The higher the influence of the Green party is in a Land, the less successful the transportation infrastructure projects are.*

But what about political parties promoting infrastructure projects? Since most parties do not distinguish themselves using their respective transportation policies, it is likely that they have unclear positions or intra-party divisions related to a infrastructure project. This makes it unlikely that in the initiation phase party positions play a significant role. In the formulation phase though, it is likely that political parties develop a supporting positions for a project. Nevertheless, this aspect is not attached to a single party or party-family like the environmental issue is attached to the Greens; especially larger parties tend to be divided on infrastructure projects more on regional than on ideological basis. As a consequence, party positions on the formulation phase are later dealt with from the institutionalist perspective.

<sup>12</sup>Officially BÜNDNIS 90/DIE GRÜNEN.

### 4.3.3 Veto-point theory

Institutions are crucial in the policy-making process. One traditional approach is the veto player theory developed by Tsebelis (1995, 2002). But Scharpf (1978, 1985, 1994, 2009) and his joint decision trap theory point in a different direction: Actually, in unitary federalism the more flexible veto-point approach as proposed by Immergut (see Immergut (1990, 1992); Immergut and Orłowski (2013); Immergut and Abou-Chadi (2014)) seems more appropriate. Veto points are 'bottlenecks' created by a combination of constitutional rules and political majorities at any given point in time. They are defined as a political arena with the jurisdictional power to veto a proposal, in which the probability of a veto is high (Immergut, 2006, p. 567). The application to decision-making on transportation infrastructure, where the joint approval of both federal and *Länder* institutions is needed, seems promising. Especially the respective *Land* administrations do play a significant role during the entire policy-cycle. But later on, the *Länder* parliaments have to approve the project, too. But in addition, federal institutions like the Federal Ministry for Transportation and Digital Infrastructure has to push the project on the political agenda. Furthermore, the *Bundestag* and the *Bundesrat* have to approve single projects by federal law and by providing the necessary funding. Similar applications of the veto point theory are known from Swiss (Vatter, 2006) or American federalism (Beverlin et al., 2006).

**Hypothesis 3** *The fewer veto-points are blocking a project, the more successful of a transportation infrastructure project is.*

**Hypothesis 3.1** *The higher the support of the Land government is for a project, the more successful of a transportation infrastructure project is.*

**Hypothesis 3.2** *The higher the support of the Land parliament is for a project, the more successful of a transportation infrastructure project is.*

**Hypothesis 3.3** *The higher the support of the federal government is for a project, the more successful of a transportation infrastructure project is.*

**Hypothesis 3.4** *The higher the support of the federal parliament is for a project, the more successful of a transportation infrastructure project is.*

### 4.3.4 Europeanisation

Europeanisation affects policy-making on national level undeniably. As already the Treaty of Rome calls for a Common Transport Policy, it seems natural to assume a European impact on transportation infrastructure policy of the *Länder* as well. To this day, scholars mostly focused on the European impact on the federal institutional arrangement in Germany (see exemplary Scharpf (2008) or Börzel (2002)). Regarding transport infrastructure policy, an impact of European policies is more likely if at the (sub-)national level a certain constellation of actors uses the European policies to push through their interests (Windhoff-Héritier, 2001). An impact of European policies is more likely if there is an antagonism in the actor constellation at the respective (sub-)national level (Sack, 2016, pp. 196–197). This is in line with the rationalistic model of top-down Europeanisation (Börzel and Panke, 2015, p. 227). The EU indeed promotes large

transportation infrastructure projects through the Trans-European Transport Networks (TEN-T) concept, which have seen several reforms since its beginning in 1993 (Sack 2016, pp. 196–197; Dühr et al. 2010, p. 299–302). Since the EU provides financial incentives, political and administrative support for a project, it is reasonable to expect that TEN-T-backed projects are more successful than projects only backed by Germany authorities.

**Hypothesis 4** *The higher support the project gets by TEN-T, the more successful of a transportation infrastructure project is.*

#### 4.3.5 Path-dependency

Transportation infrastructure projects are by nature prone to path dependency. High set-up and start-up expenditures are followed by comparably low costs for maintenance. This is not only true for building and operation, but also for the political decision-making process seen in subsection 4.1. But maybe even more important is the quasi-irreversibility of decade long projects spanning several iterations. Decisions made in the past are extremely hard to alter by decision-makers in the present. Therefore, the sequence of decisions is influential. Especially critical junctures are important for the decision-making process, since they lead to an separation of different possible paths (Collier, 1993; Mahoney, 2001; Beyer, 2015). Regarding transportation infrastructure, it is necessary to highlight that in the later phases of the policy-cycle this separation means narrowing down the political leeway in the implementation phase to a yes-no question. Contrary to first impression, this actually might lead to *less* success in the implementation phase, since political opposition to the project can not articulate itself other than delaying the implementation of a (prepared) project, instead of trying to change it. *Länder* governments might for example inherit unloved projects from their predecessors that they do not want to implement.

**Hypothesis 5** *The higher the path-dependency of a project, the less successful the implementation phase of a transportation infrastructure project is.*

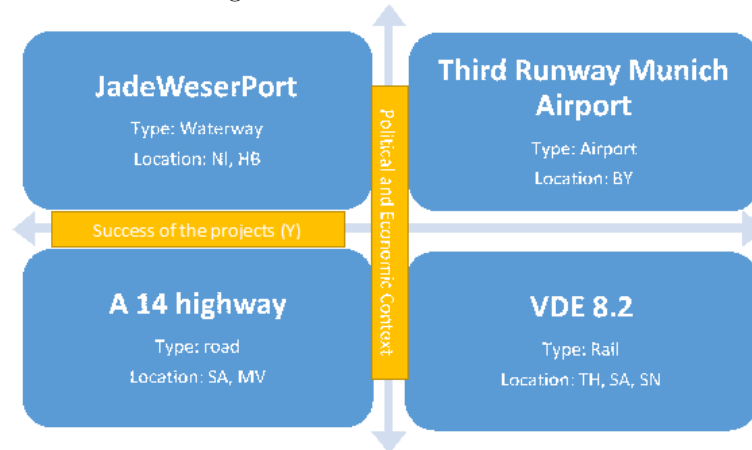
## 4.4 Case selection strategy

What set of possible cases do we have? A possible transportation infrastructure projects has to fulfil some criteria to be relevant for this paper. First, it has to be a *new* project, which excludes all maintenance and extension projects, since there is no full decision-making cycle in these cases like portrayed in subsection 4.1. Second, the project has to be relevant for *Land* politics. This is mostly measured by the size of the project (ranging from 0.5 to 3 billion Euro), but also by the political attention received in the respective *Land*. Projects not meeting one of these two criteria are seen as projects of regional or local importance. Third, to meet the need for currency, only projects that began after 1990 are considered. This narrows down the set of possible cases to max. 15.

But which cases to select? To meet the requirements for a theory-generating case selection strategy emerging from section 3, this paper uses the diverse cases method (Levy, 2010; Starke, 2015). Aim is to proof causal mechanisms in different contexts. The first selection this paper makes is to choose one rail, airport, waterway and road project each. Next, this paper arranges the cases to a matrix according to two dimensions. First, it differentiates between different

*Länder* according to their economic welfare and political culture. Especially former East Germany constitutes one end of this dimension. This reflects likely variations of the independent variables in different contexts. Second, it arranges the cases according to their respective success, which describes variation of the independent variable. The result is following matrix:

Figure 1: Case-selection matrix



## 5 Preliminary findings

### 5.1 Discussion of possible determinants

In the following subsections, the hypotheses are discussed regarding their explanatory values. Later on, this study wants to come to thorough testing of these hypotheses according to the process-tracing approach (van Evera 1997, p. 31–32; Bennett 2004, p. 210). Right now only indications and a limited discussion can be provided for.

Figure 2: Preliminary indications for the explanatory value of the hypotheses

	1. JadeWeserPort	2. A14	3. VDE 8.2	4. Munich Airport
Socio-economic theory	+	++	+	++
Party-difference hypothesis	--	-	-	++
Veto-point theory	++	++	++	++
Europeanisation	-	-	--	--
Path-dependency	-	-	-	++
Power resources theory	-	--	-	++

- **Socio-economic theories.** First, these theoretical approach indicates that projects managed by *Länder* in former East Germany should perform better in the initiation phase (theorempart 1.1). This should be due to the fact that there is political demand for investment in more infrastructure in the initiation phase. If we look at the VDE 8.2 case, this is surely the true: Thuringian Minister-President did push VDE 8.2 vigorously already in 1991 and 1992. His government's key aim was to boost economic development in Thuringia through investments in infrastructure. Later Thuringian Prime-Minister Vogel forced through the line via Erfurt, his *Land* capital, instead of Jena. The A14 highway case also shows the government of Sachsen-Anhalt initiating a project study in 1993 to actively promote infrastructure projects in the economically weak-performing region north of Magdeburg. Highly interesting is the JadeWeserPort case. Although Lower Saxony is not considered to be an especially weak-performing country, the port city of Wilhelmshaven itself did see an economic decline in succession of losing transportation share to other North Sea ports, especially Hamburg. This did also threaten the entire regions economic performance, including the nearby *Land* of Bremen. This lead to the initiation of the project by the port merchant's association of Wilhelmshaven, receiving quickly the backing of the *Land* governments of Lower Saxony and Bremen. Bremen, also one of the less performing West German *Länder* regarding economy, wanted to profit from increasing trade in the region. But was there less support for the Munich Third Runway, located in well-performing Bavaria during its initiation? The project itself was initiated by the Munich Airport itself, also quickly gaining political support of the Bavarian government. Judging the value of this observation, the hoop test seems an acceptable approach. The absence of this observations would have made theorempart 1.1 invalid, but the presence of them does not confirm the causal inference that theorempart 1.1 suggests.

Second, social-economic theory demands for support during the implementation phase due to economic reasons (theorempart 1.2). The VDE 8.2 case shows heavy financing issues during the implementation, which lead to heavy delays. Less severe, but the A14 case shows similiar shortcomings during the implementation phase. Very interesting is the JadeWeserPort case: As legal battles did emerge during the implementation phase, the parliament in Lower Saxony even introduced an investigation committee to resolve implementation problems. In Munich, the implementation phase did fail completely. Several sources indicate that actually the economic success of the region did hinder the implementation. Since problem pressure was low, the incentive for the Bavarian government to push forward the issue after the negative referendum<sup>13</sup> in this controversial matter was low. 'The economy is running anyway' is a motto often heard. How to interpret this findings? While the Third Runway and JadeWeserPort suggest a passing of the straw-in-the-wind test, VDE 8.2 and A 14 did not pass even this weakest test for detecting causal inference. An elimination of this hypothesis seems therefore appropriate.

<sup>13</sup>The referendum was only legally binding for the City of Munich, which holds a minority share of the airport.

- **Party-difference hypothesis.** To this point the results are highly inconclusive, so that no conclusions can be drawn regarding the influence of parties (theorem 2). Nevertheless, it is interesting that in the JadeWeserPort case, the respective Lower Saxony and Bremen governments did include the Greens as coalition partners, but this seems to have no effect on the project. In Bavaria meanwhile, the successful negative campaign of against the Third runway was led by the Greens.
- **Veto point-theory.** All four sub-hypothesis emerging from the veto-point theory seem to be highly relevant. In all cases, Hypothesis 3.1 passed at least the Smoking-Gun test. Further data collection aims to proof the Doubly Decisive test as well. *Land* governments play a vital role in all phases of the projects. Mostly this is also valid for the role of the *Land* parliaments (theorem part 3.2). Parliaments generally support the policies of their executives, although further research is needed to explore possible hidden conflicts between the institutions. Most interesting case for this is the Third Runway in Munich, where the majority faction was split concerning the Third Runway project. Some MPs of the governing party openly spoke out against their own government. Possibly this deviant case shows that *Land* parliaments do stop their governments from pursuing unwanted policies.

The veto-point theory also asks for the role of the federal institutions. The necessity of the consent from the federal government is vividly demonstrated by the fact that in 1998, the Schröder cabinet did suspend funding for the VDE 8.2 project. In fact this highlights the influence the federal government exercises through controlling the funding for transportation projects. Further research aims to proof that Hypothesis 3.3 does pass the Doubly Decisive Test as well. As for the role of the federal parliament, more data collection is needed especially on the role of the Bundesrat. Some data point in the direction that some *Länder* did try to obstruct the projects of others in order to receive more federal support for their own.

- **Europeanisation.** Although three of the cases (JadeWeserPort, VDE 8.2., Munich Airport) were listed in the list of TEN-T projects, the cases show very little evidence for European policies promoting success of the projects. The small or even non-existing financial contributions severely limited the impact of TEN-T policies. A small exception was the notoriously underfinanced VDE 8.2 case, which did receive 57 million Euros from the EU. Surprisingly there are no signs that the EU did act as agenda-setter or that it provided substantial political backing for a project, too.

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