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Conflicts in Urban Future-Making

Governance, Institutions, and Transformative Change

[transcript]

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10. Navigating conflictual cooperation

Temporary power coalitions in the planning and approval of large-scale Chinese green technology projects in Eastern Germany

Hannes Langguth

Introduction

Large-scale green energy and technology projects are pivotal for driving the European Union's energy and mobility transition. Spurred by investment from multinational corporations, they encompass offshore and onshore wind farms, solar photovoltaic and solar thermal technologies, green hydrogen and hydropower plants, and large-scale facilities for the manufacturing and recycling of electric vehicle (EV) battery cells. However, the expansion of these projects, which predominantly affects peripheral and rural regions across Europe, brings significant challenges such as uneven spatial development and land-use conflicts, emerging frictions amid the shift away from fossil fuels, and tensions between implementation and public interest objectives (see Gailing and Röhring, 2015; Eichenauer, 2018; Bosch and Schmidt, 2022). In addition to increasing calls for streamlined planning and approval procedures, planning disciplines thus face the crucial task of managing the multitude of conflicts that arise during the implementation of large-scale green energy projects and their associated infrastructures.

In international planning theory, planning conflicts have increasingly been addressed through the concept of agonistic planning (Pløger, 2004; Collins, 2010; Gualini, 2015a; Roskamm, 2015; Kühn, 2021). This builds on earlier critique of consensus-oriented communicative and deliberative planning (Huxley and Yiftachel, 2000; Flyvbjerg and Richardson, 2002; Purcell, 2009) and views conflicts as productive political negotiation processes that either allow an exploration of relational dynamics of the consensus–conflict binary

(Legacy et al., 2019) or advocate for the re-politicization of planning (Gualini, 2015b; Gribat et al., 2017). Concerning conflicts over large-scale green energy projects, in recent years, scholars have primarily focused on the confrontation between planning and public protest, particularly addressing questions of social and economic justice (Eichenauer, 2023), the ambiguous role of participation (Kühn, 2023), and local co-optation by right-wing populist movements (Beveridge et al., 2024).

However, emerging conflicts among institutions involved in the actual planning and approval procedures of large-scale green projects, especially within Germany's multilevel governance system, remain largely unexplored. Amid increasing international investment in Europe's green transition, these conflicts provide critical insights into how transnational cooperation unfolds. This is particularly pertinent given the European Union's technological dependence on East Asian, particularly Chinese, corporations in key transition technologies (MERICS, 2022). Against this backdrop, conflicts arise due to differing planning cultures, legal frameworks, or divergent institutional and corporate objectives, impacting interactions among professionals in planning, administration, and politics, as well as with investors, businesses, subcontractors, and the public. Professionals must navigate these complexities to facilitate project implementation, guided by institutional responsibilities, political mandates, and prevailing regulations. Understanding professionals' interactions illuminates how conflicts are negotiated from local to national levels and reveals the underlying interests and power dynamics of projects.

This chapter addresses planning conflicts arising in the implementation of large-scale Chinese EV battery cell gigafactories and associated manufacturing, logistics, and energy infrastructures in Eastern Germany. The novelty, complexity, and scale of these projects, combined with divergent conceptions, interests, and cultural norms in Sino-German cooperation, put pressure on professionals, especially on the local level, leading to conflict-laden implementation processes. The examination presented here thus mirrors the growing interest in studying the (trans)local urban effects of China's global expansion (see Zheng et al., 2021; Shin et al., 2022; Apostolopoulou et al., 2023). Contrary to 'singling out, essentializing and demonizing' (Lee, 2022: 317) China's global activities, this analysis understands China's increasing presence in Europe as a 'collaborative power project' (ibid.). It moves the host states and their place-specific conditions, histories, and power structures to the fore in order to study how vested interests are negotiated locally across various levels, actors, and institutions.

Applying methods of institutional and non-local ethnography (Smith, 2006; Feldman, 2011), this analysis examines the planning and approval procedures of a successfully implemented gigafactory in Thuringia and a failed one in Saxony-Anhalt. It draws from 21 qualitative expert interviews conducted between January 2023 and June 2024 with professionals from local to state authorities, external planning firms, consultancies, and Chinese EV battery cell manufacturers. In addition, ethnographic and participatory observations were conducted at planning meetings, information events, town hall gatherings, trade fairs, and conferences. Textual sources such as urban development plans, architectural layouts, expert reports, approval documents, legal texts, newspaper reports, local gazettes, and social media posts were also analysed.

The chapter shows how planning conflicts in Sino-German cooperation are pivotal moments when contested interests become empirically tangible. It explores how conflicts arise, are navigated, and managed, highlighting institutional frameworks that govern professionals' interactions. Its findings reveal that despite similar conflict fields, responses differed between the two cases and were shaped by different power coalitions. Thuringia saw successful project implementation through intense state intervention and a coalition with Chinese investors. In contrast, Saxony-Anhalt faced resistance despite state efforts, leading to a coalition marked by a sceptical attitude towards Chinese involvement. The chapter thus underscores using planning conflicts as analytical lenses to study power dynamics in large-scale green energy projects, emphasizing their importance in future research.

The next section integrates qualitative policy research into planning research, broadening the conceptual and methodological framework of agonistic planning theory in relation to planning conflicts. After that, the two case studies of new Chinese EV battery cell gigafactories in Eastern Germany are presented, followed by a section which outlines the planning and approval procedures that shape both cases and introduces the roles of professionals and their interactions with other cooperation partners during implementation of the two projects. Subsequent sections highlight the conflict fields arising in Sino-German collaboration, then mobilize the identified conflicts to trace emerging power coalitions, and discuss resulting conflict lines. The concluding section evaluates the conceptual relevance of the empirical findings.

From agonistic planning to planning conflicts as formations of the political

Agonistic planning scholarship resonates with earlier work on the political, economic, and social power relations inherent to planning (Flyvbjerg, 1996; Flyvbjerg and Richardson, 2002; Burkhardt, 2004). It draws from Mouffe's political science theory of agonistic pluralism (2013), which views conflicts as constituting elements of pluralistic democracies. This aligns with critiques of post-political planning (Swyngedouw, 2013; Metzger, 2018), which highlight how technocratic and consensus-driven tendencies sideline dissent and conflict within hegemonic planning structures. Instead, agonistic planning views conflicts and the actors behind them as productive forces for social and institutional change and actively seeks to cultivate respectful 'strife' in planning (Pløger, 2004).

While I agree with agonistic theory's view of conflicts as stimuli for change, I also acknowledge recent critiques of the concept's entrenched confrontation between planning and public protest, as well as its lack of precise insights into how conflicts can actually become productive (Bertram and Altrock, 2023). In my view, the theory's main shortfall lies in overlooking the changing nature of the power relations in which planning procedures are embedded, particularly regarding the interactions between planning, policy, and administrative professionals – an overarching gap in international planning theory. Professionals interact within institutional frameworks, routines, and regulations. Their actions are coordinated through formal procedures but are also shaped by individual relationships, interests, and institutional cultures. By integrating agonistic theory with qualitative policy research approaches, I aim to cultivate an expanded understanding of planning conflicts that leverages conflicts as entry points for exploring professionals' interactions within and across institutions, time, and scales.

Qualitative policy research views policies as dynamic political actions (Shore and Wright, 1997; Wedel et al., 2005), offering analytical insights into broader societal transformations, governance mechanisms, and power dynamics (Shore et al., 2011: 12). This perspective challenges the conventional view of policies as linear sequences of rational actions imposed from state to local levels to solve presumedly objective issues (Shore and Wright, 1997). Instead, anthropologically informed policy research sees policies as 'central organizing principles' that, akin to concepts such as 'class', 'nation', or 'citizenship', are socially constructed and reciprocally shape everyday lives (Shore

and Wright, 2011: 2). Adam and Vonderau (2014) adopt this approach, framing policies as productive and performative 'formations of the political'. They draw on Bourdieu's 'political field' (Bourdieu, 2001), expanding its scope beyond the elitist realm of state power to encompass the intricate and ever-evolving dynamics of diverse, often improvised and transient, power configurations that emerge from policy practices.

Adopting this concept of formation of the political in planning research enhances agonistic planning theory in at least three ways. First, it shifts away from agonistic planning's entrenched confrontation between planning and the public, instead foregrounding interactions among planning professionals, including their institutional and societal entanglements. Second, it accounts for the dynamic and fragmented negotiation and decision-making processes underlying planning conflicts, including their multi-scalar configurations of actors and power. And third, by tracing these dynamic power relations and networks, it holds the inherent potential to generate a better understanding of how conflicts actually become productive in stirring change and, relatedly, who benefits from these processes and who does not. These goals are achieved by mobilizing planning conflicts as empirical instances to analyse individual interactions and decision-making processes across institutions and scales. Here, my focus lies on individual actions of the involved planning, administration, and policy professionals and their cooperation partners. Before I do so, in the next sections, I briefly outline my two case studies.

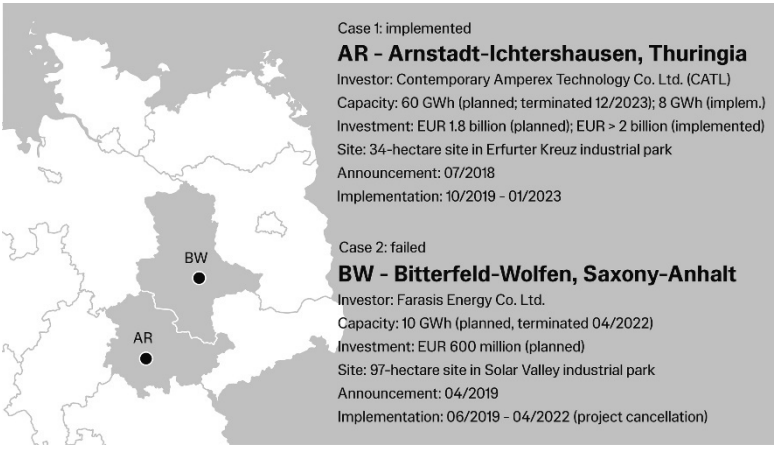
The cases: Arnstadt-Ichtershausen and Bitterfeld-Wolfen

This analysis centres on the planning and approval of two Chinese EV battery cell gigafactories and associated infrastructures in Eastern Germany (Figure 1). Announced and implemented nearly simultaneously, these were their investors' first factories outside mainland China and the first large-scale Chinese construction projects in Germany's new federal states (*Neue Länder*). Both locations, marked by industrial decline and post-reunification outmigration, saw a revival as industrial hubs focusing on 'future-oriented' flagship projects (AR04, 2023; BW09, 2023).[1] Thus, the Chinese investments became pivotal in

1 Information from interviews regarding the two cases is cited using a code system: Arnstadt-Ichtershausen (AR) and Bitterfeld-Wolfen (BW) are specified, whereas individual interview participants are anonymized and identified only by an assigned number

regional politics, sparking intense competition among federal state ministries aiming to secure regional prosperity (AR03, 2023; BW08, 2023) and between German car manufacturers aiming to diversify their production networks across Europe (AR09, 2023; BW09, 2023). Both projects also encountered similar challenges during implementation, including Covid-19 travel restrictions, supply chain disruptions, and increased construction costs exacerbated by the war in Ukraine. The cases thus offer comparative lessons on emerging planning conflicts and power dynamics in Sino-German cooperation on large-scale projects.

Figure 1: Localization and main facts of the two selected case studies of Chinese EV battery cell gigafactories in Thuringia and Saxony-Anhalt.



Source: Author.

The first case is a project by Contemporary Amperex Technology (CATL) in Arnstadt-Ichtershausen, Thuringia, implemented between 2018 and 2023. In addition to the new EV battery cell factory itself, CATL acquired a vacant office and module assembly complex, established a joint research centre with the Fraunhofer Institute for Ceramic Technologies and Systems (IKTS), and planned a new Rail Logistics Centre with DB Cargo. It has also utilized Opel's

(see Appendix). Interviews were conducted in German; interviews and non-English quotations have been translated by the author.

freight station in nearby Eisenach and leased warehouses in Erfurt-Vieselbach and Magdeburg-Sülzetal. Initially budgeted at €1.8 billion, the investment escalated to more than €2 billion in late 2023. The actual factory construction site is a 34-hectare plot in the western extension of the Erfurter Kreuz industrial park. It falls under the jurisdiction of Ichtershausen, a part of the larger administrative district Amt Wachsenburg. Ichtershausen itself has a population of 8,000 and is situated on the northern outskirts of Arnstadt, a town with 28,000 inhabitants. Initially planned as a three-stage construction project, with an additional 70 hectares reserved for CATL, the plans for extension were officially cancelled in December 2023. In early 2024, around 750 Chinese (office employees and engineers) and 750 non-Chinese workers (mainly assembly and logistics staff) were employed on-site (AR13, 2024).

The second case is a failed project by Farasis Energy in Bitterfeld-Wolfen, Saxony-Anhalt, which was planned between 2019 and 2022. The intended investment amounted to €600 million for a total of 12 facilities, encompassing manufacturing, research, and logistics. The preliminary manufacturing capacity was announced at 10 GWh per year, envisioning 600 new on-site jobs (BW03, 2023). After purchasing land and a vacant factory complex in mid-2019, construction of the factory project was scheduled to start in February 2020 on a 97-hectare site in the Solar Valley industrial park. The site is located at the western outskirts of the town Bitterfeld-Wolfen, which has a population of 37,000. Following the planned completion of the construction phase of the building shell in April 2021, the delivery of the first cells was slated for early 2022. However, after Farasis failed to provide necessary information and materials for planning and approval, causing multiple delays to the schedule, the project was terminated by the town of Bitterfeld-Wolfen in April 2022.

Formal planning and approval procedures and the role of professionals

Implementation of the two projects, including their related manufacturing, logistics, and energy infrastructures, has been governed by three formal planning and approval procedures within Germany's multilevel governance system. These include the amendment of the local development plan (*Bebauungsplan*) according to the German Building Code, the approval procedure (*Genehmigungsverfahren*) under the German Federal Immission Control Act, and the planning approval procedure (*Planfeststellungsverfahren*) under the

German Administrative Procedure Act. These regulatory frameworks form the legal basis for interactions among planning, administration, and policy professionals, as well as their cooperation with partners such as Chinese investors, subcontractors, and German car manufacturers. The regulations encompass emission standards, environmental and public safety protections, and requirements for public participation and handling objections. Additionally, investment and development contracts establish shared goals and responsibilities among the partners, while practices already established from previous project implementations also shape cooperation among professionals. In the following, I introduce the different procedures and related cooperation practices in both cases to clarify the roles, responsibilities, and relationships of the professionals involved.

Amendment procedure of the local development plan according to the German Building Code

The amendment procedure of each municipality's local development plan, regulated by the German Building Code (Baugesetzbuch, BauGB),[2] is the tool that establishes legal planning conditions for the factories' implementation. According to §8 BauGB, the plan navigates legally binding determinations to maintain the urban development order. This includes specifying land use, building dimensions, setback areas, natural climate protection, and ensuring supply and mobility infrastructure. Derived from the local land use plan, the development plan is approved as a statute by the respective municipality and must be publicly accessible.

To meet safety measures required for building approval and to accommodate CATL's factory layout requirements, amendments to the Erfurter Kreuz West development plan were necessary. These included expanding traffic areas, establishing a new helicopter emergency landing site, and securing rights of way for drinking water pipelines. The first amendment cycle was initiated by the responsible municipality of Amt Wachsenburg using a simplified procedure in October 2018, before CATL's property purchase. According to §13 BauGB, the simplified procedure allowed the omission of early public notification and objections, justified by the assessment that the amendments

2 Baugesetzbuch in der Fassung der Bekanntmachung vom 3. November 2017 (BGBl. I S. 3634), das zuletzt durch Artikel 3 des Gesetzes vom 20. Dezember 2023 (BGBl. 2023 I Nr. 394) geändert worden ist.

would not significantly impact the environment or alter fundamental planning principles and the character of the surroundings.

However, after local criticism over CATL's lack of transparency occurred and objections from the Amt Wachsenburg municipality against a planned high-voltage power line were rejected by the power grid operator, the investor, and the responsible authorities, municipal representatives aimed at 'finding a healthy balance between CATL's development and the prosperity that the municipality gains from it' (AR01, 2023). In early 2020, the council renewed plan amendments, adding enhanced environmental protection measures and requiring an environmental report. They issued a position paper to CATL and state-level authorities, making further amendments contingent on key demands: stopping large-scale projects such as overhead power lines, providing financial support for municipal housing and education, and improving fire and disaster protection (ibid.). Consequently, the local council withheld plan approval in order to exert pressure during negotiations.

The subsequent demands made by the Amt Wachsenburg municipality on CATL and state-level authorities became necessary due to the municipality's otherwise weak negotiating position. Despite the municipality's role in approving plan amendments, the State Development Corporation of Thuringia, acting on behalf of the Thuringian Ministry of Economic Affairs, Science and Digital Society, set the initial conditions in a bilateral investment agreement with CATL in July 2018. The municipality of Amt Wachsenburg was only informed about the project's implementation afterwards. The reason dates back to the late 1990s post-reunification restructuring of former East Germany, when the State Development Corporation acquired the land in question. Since then, it has been responsible for developing the land into fully prepared industrial sites to be offered to international investors (AR06, 2023). Unlike other new federal states where development corporations typically serve solely as intermediaries, Thuringia stands out by empowering its State Development Corporation to directly purchase land. This unique authority enables direct contractual engagements with international investors, circumventing the need for involvement from local municipalities.

In Bitterfeld-Wolfen, the municipality directly negotiated with Farasis, with the Investment and Marketing Corporation Saxony-Anhalt only initially involved. Unlike in Thuringia, the earmarked land consisted of 84 individual plots sold by the municipality and private owners. Farasis's factory required significant changes to the local development plan, including building new roads, relocating a brine pipeline, and adjusting building plots, heights, and

infiltration facilities (BW04-06, 2023). Public objections and Farasis's constantly changing requirements led to three revisions of the local development plan, each involving public consultations. Despite strong municipal commitment, Farasis failed to meet the schedule and became 'the first and so far the only investor we had to chase up' (BW04-06, 2023).

The approval procedure was underpinned by a bilateral urban development agreement in accordance with §11 BauGB, signed between Bitterfeld-Wolfen's town administration and Farasis in November 2019. It detailed mutual responsibilities, the plan amendments, and preparatory measures to be carried out at Farasis's expense (BW02, 2023). However, in April 2022, the town administration terminated the agreement after Farasis did not comply with its terms. After the project's failure, two new amendment proposals were launched to reverse the changes and establish small-scale manufacturing with on-site renewable energy (BW04-06, 2023). At the time of this writing, the plan amendments remain unresolved and are still pending approval because Farasis retains ownership of parts of the land (ibid.).

Approval procedure under the German Federal Immission Control Act

The approval procedure under the German Federal Immission Control Act (Bundesimmissionsschutzgesetz, BImSchG)[3] governs the planning, implementation, and operation of large-scale industrial facilities processing harmful substances. It consolidates all environmental regulations into a single assessment, ensuring compliance with standards for hazardous material storage, air toxin emissions, and waste discharge. The procedure aims to expedite planning and coordinate authorities. Compliance imposes requirements on implementation and operation, monitored continuously by state and local authorities.

In the Arnstadt-Ichtershausen case, due to the project's complexity and tight schedule, CATL adopted an iterative approach called rolling wave planning (*rollierende Planung*). This method involved refining and adjusting plans across eight application cycles. The main approval authority, the Thuringian State Office for Environment, Mining, and Nature Conservation, in Weimar,

3 Bundes-Immissionsschutzgesetz in der Fassung der Bekanntmachung vom 17. Mai 2013 (BGBl. I S. 1274; 2021 I S. 123), das zuletzt durch Artikel 11 Absatz 3 des Gesetzes vom 26. Juli 2023 (BGBl. 2023 I Nr. 202) geändert worden ist.

was responsible for checking application completeness, publishing notices, receiving feedback, coordinating hearings, and issuing decisions. It also classified the project according to the act's Appendix 1, the ordinance on installations subject to authorization. However, since CATL's EV battery cell factory was the first of its kind in Germany, it was classified as a 'facility for surface treatment of PVC films', which allowed it to bypass a detailed environmental impact assessment that would have required additional planning time (AR07, 2023).

A leading role in CATL's approval procedure was taken by the general planning firm GICON-Großmann Ingenieur Consult, which have extensive experience with the planning approval of large-scale industrial projects. GICON handled the application process and gathered necessary information, documents, and expert reports from specialist engineers and firms, supported by the project management firm Pro Terra Team (AR05, 2023). The planning of the cleanroom – the factory's manufacturing area with constant air purity, temperature, and humidity – was done by Exyte, which joined the project in mid-2019 (AR12, 2024). They took over the original planning from the Chinese firm SEEDRI, which prepared the project's first approval application. Exyte subcontracted the construction work to the firm Goldbeck Ost (ibid.). The actual manufacturing facilities were imported from China and installed by the Chinese firms Wuxi Lead Intelligent and Shanghai SK Automation (AR13, 2024).

The total of eight approval notices contained hundreds of regulations that CATL had to consider, covering both the construction and operation of the factory. The first partial approval, granted in July 2020, issued permission for the construction of the manufacturing building and ancillary facilities but also stated structural and occupational safety requirements.[4] The second and third partial approvals focused on operationalization and emphasized compliance with air quality, water management, and environmental conservation.[5] Extensive fire safety regulations were addressed throughout all approval notices. In sum, the requirements necessitated numerous additional and cost-intensive expert reports throughout the procedure (AR06, 2023).

The additional reports and permits conflicted with CATL's ambitious schedule. With approval for preliminary measures, CATL began construction

4 TLUBN, Thüringer Landesamt für Umwelt, Bergbau und Naturschutz, Genehmigungsbescheid Nr. 11/19, 14.07.2020.

5 TLUBN, Thüringer Landesamt für Umwelt, Bergbau und Naturschutz, Genehmigungsbescheid Nr. 18/20, 17.01.2022 and Genehmigungsbescheid Nr. 05/23, 18.10.2023.

in October 2019, risking dismantling at their own expense if full approval was not granted. The second partial approval, for starting two manufacturing lines in test mode, was handed over by Thuringian ministers in April 2022 during an effective publicity event on-site. Although CATL couldn't manufacture battery cells due to incomplete facilities (AR12, 2024), this event politically adhered to the original schedule of a planned manufacturing start in 2022. In fact, significant delays occurred due to additional expert reports and Covid-19 restrictions (AR03, 2023). Consequently, in 2023, even with the final approval, CATL couldn't fully process raw materials into electrodes and battery cells in the new Arnstadt-Ichtershausen factory (AR12, 2024). Instead, orders were fulfilled with imported cells from China and modules assembled on-site (AR13, 2024).

In the Bitterfeld-Wolfen case, the BImSchG approval procedure never fully commenced. However, significant groundwork was laid in the first half of 2019. This included Farasis commissioning the general planning firm Drees & Sommer to prepare application documents and coordinate the procedure. It also involved several jour fixe meetings between the investor and local-, county-, and state-level authorities, organized by the town administration. These rounds with the authorities (*Ämterrunden*) stemmed from collaboration habits in previous projects and took place bi-weekly during the initial months (BW02, 2023). The meetings aimed to prepare for the June 2019 scoping meeting, the first coordinating step of the approval procedure.

Although the two cases are not directly linked, professionals from both projects were indeed in contact with each other. Employees of the State Administrative Office in Halle leveraged personal contacts with the approval authority and the State Development Corporation of Thuringia to gain insights on how things were handled in the CATL case in Thuringia (BW03, 2023). Additionally, annual informal meetings among senior officials from the State Administrative Offices of Saxony-Anhalt, Thuringia, and Saxony further facilitated mutual exchange (ibid.). And at the ministerial level, personal contacts were utilized to stay mutually informed about the projects' respective statuses (BW08, 2023).

Planning approval procedure under the German Administrative Procedure Act

The planning approval procedure under the German Administrative Procedure Act (Verwaltungsverfahrensgesetz, VwVfG)[6] does not concern the factories themselves but the associated large-scale infrastructure projects related to CATL's developments in Arnstadt-Ichtershausen. These included a new 110 kV high-voltage overhead power line and a new Rail Logistics Centre. According to §72 VwVfG, they fall under the formal procedure due to their exceptional spatial dimensions and impacts (noise, environment, costs), affecting various public and private interests. The procedure aims to negotiate and balance occurring tensions between affected stakeholders. In the case of the overhead power line, the Thuringian State Administration Office in Weimar acted as the approval authority. For the Rail Logistics Centre, due to its relevance for national freight logistics, the German Federal Railway Authority would have led the procedure had the project not first been cancelled.

The construction of a new 110 kV high-voltage overhead power line and transformer substation was prompted by CATL's energy needs. In November 2019, Thüringer Energienetze, the regional grid operator, initiated the plan approval process by applying for a scoping meeting with the Thuringian State Administrative Office, which was held in January 2020. Following that, a preliminary assessment was conducted to determine if a formal spatial planning procedure (*Raumordnungsverfahren*) was required. However, in June 2020, the Thuringian state planning authority denied the necessity of such a procedure, as the project complies with Thuringia's current 2025 development programme and the Mittelthüringen regional plan.

In the first half of 2020, the approval authority reviewed initial objections. While an alternative substation site was approved, the Amt Wachsenburg municipality's proposal for a significantly costlier underground cable, which they intended to provide the extra costs for (AR01, 2023), was rejected. The authority stated that 'there are no spatial planning reasons to justify the professional ne-

6 Verwaltungsverfahrensgesetz in der Fassung der Bekanntmachung vom 23. Januar 2003 (BGBl. I S. 102), das zuletzt durch Artikel 1 des Gesetzes vom 4. Dezember 2023 (BGBl. 2023 I Nr. 344) geändert worden ist.

cessity of underground cabling over the planned overhead line'.[7] Consequently, the decision for the initial overhead version was published two years later, with public consultation in July 2022. Despite the municipality's persistent objections, the planning approval was upheld in September 2023. In November of the same year, the municipality challenged this decision in a lawsuit filed with the Thuringian Higher Administrative Court, which was dismissed in March 2024.

Parallel preparatory measures for the planning approval procedure for the second infrastructural project, a new Rail Logistics Centre (RLC), began in July 2021. DB Cargo initiated the project with CATL and acted as the leading contractor. The aim of the proposed RLC was to reactivate and extend Arnstadt's vacant freight station to handle CATL's raw materials and battery cells via rail. This involved repurposing the freight yard by constructing new tracks, a transshipment hall, container parking spaces, a DispoTower, two gantry cranes, and a noise barrier to shield nearby residential areas. In October 2021, DB Cargo held an on-site information event. Initially estimated at €12 million, construction costs were later calculated to be €30 million (AR09, 2023). Construction was scheduled for 2023, with commissioning planned for early 2024. However, the project did not progress beyond preparatory measures and failed before submission to the approval authority. It was officially cancelled in April 2023.

Frictions, obstacles, and disputes in Sino-German cooperation

During the aforementioned planning and approval procedures, numerous frictions, obstacles, and disputes arose in both projects. These can be analysed in terms of three fields of conflict: lack of preparedness of Chinese investors regarding local planning contexts, differing conceptions of cooperation formats and communication, and non-compliance with contracts and agreements.

Ignorance, unpreparedness, and distinct planning cultures

Chinese investors faced significant challenges in navigating German approval procedures, causing conflicts and delays. Reflecting on the Bitterfeld-

7 TLVwA, Thüringer Landesverwaltungsamt, Stellungnahme Errichtung 110-kV-Anschlussleitung Erfurter Kreuz incl. Umspannwerk durch die Thüringer Energienetze GmbH & Co. KG (TEN) in der Gemeinde Amt Wachsenburg, Ilmkreis, 07.09.2020, 14.

Wolfen case, a Saxony-Anhalt government representative expresses frustration: 'Via video conference, I repeatedly dictated to the CEOs [of Farasis] what they needed to do. […] None of it worked' (BW09, 2023). The Chinese firm overlooked the fundamental preparatory steps. A local administrative representative notes, 'We repeatedly emphasized that you must first purchase the land before you can even begin to submit a building application […]. Then, everything that needs to be done in Germany, like archaeology surveying or disposal of contaminated soil' (BW02, 2023). Repeated delays and failures in providing necessary information led to growing frustration among partners, causing officials to become obstinate and suspend meetings until progress was seen (BW08, 2023).

In Arnstadt-Ichtershausen, frictions stemmed from the project's approval procedure and the Federal Immission Control Act's legal requirements. CATL initially hired a Chinese planning firm due to too high quotes from three German planning firms (AR15, 2024). This led to confusion, as a state representative highlights: 'They [CATL] immediately asked, "What kind of law is this? Can you send it to us? […] We would like to take it and translate it into Chinese. Then we will give it to our planning firm so that they can plan accordingly." […] They actually did that. […] Again and again, it failed' (AR03, 2023). In general, CATL felt frustrated by numerous regulatory and environmental requirements. A transport and logistics company employee remarked, 'CATL was pretty upset about the conditions in Europe, particularly the numerous local requirements' (AR09, 2023).

The approval procedure incurred costs for permits, consultation dates, and public announcements totalling around €465,000 between 2020 and 2023. Numerous expert and inspection reports, along with structural adjustments such as extensive sprinkler systems, resulted in additional and unforeseen costs for CATL. The issue intensified with the legal stipulation that 'defensive fire protection must be able to carry out effective firefighting operations 24 hours a day, 7 days a week, within 5 minutes of being alerted',[8] which CATL could only accomplish with a costly in-house emergency response team. Consequently, CATL 'encountered a scenario where costs spiralled out of control. […] They significantly underestimated the approval procedure. The biggest letdown for them was the costs' (AR03, 2023).

8 TLUBN, Thüringer Landesamt für Umwelt, Bergbau und Naturschutz, Genehmigungsbescheid Nr. 11/19, 14.07.2020, 36.

The lack of transparency and disregard of local interests caused further frictions. A district-level official highlights that compared to non-Chinese firms, past projects had stronger public engagement and information policies (AR06, 2023). Another official acknowledges that 'too little reached the citizens' (AR05, 2023). And a local politician cites an information event where citizens' concerns about energy supply and pollution were dismissed. Shortly after, the municipality learned about planning approval for a new 110 kV high-voltage line and 'from that moment on, all minds changed' (AR01, 2023). The municipality then opposed the power line project, partly restricting access for federal state authorities and planning firms to the affected properties.[9]

Thus, CATL's and Farasis's ignorance of German planning and approval procedures created a range of conflict-laden situations, increasing pressure on federal state and local authorities. In Thuringia, the state government struggled to balance diverging interests, knowing that 'regional acceptance doesn't concern the firm [CATL] at all' (AR03, 2023). Parallel to this, pressure was further amplified by conflicting statements from the investor. A local policy representative notes, 'If the Chinese feel that this is not profitable in the medium term or if the hurdles become too great, they just pack up and leave immediately […]. That was a clear statement [from CATL] already in 2019. Not in public events, but behind closed doors, when we were in the ministry' (AR01, 2023). This highlights the demanding behaviour of the Chinese investors, who exerted considerable pressure on their partners to advance the projects.

Misconceptions, conflicting expectations, and (non)communication

During the planning and approval procedures, German cooperation partners faced unanticipated expectations from the Chinese investors regarding political support and the streamlining of procedures. Significant displeasure arose at the ministerial level in Saxony-Anhalt, where it was expected that the state 'should push prices [for land purchases] or procure generous banking conditions' (BW09, 2023). The expectation of political support was also evident in

9 TLVwA, Thüringer Landesverwaltungsamt, Planfeststellungsbeschluss, Errichtung einer 110-kV-Freileitung zwischen den Umspannwerken Thörey und Wachsenburg, Änderung der 110-kV-Leitung Thörey-Gotha/ Vorhabenträgerin: Thüringer Energienetze GmbH & Co. KG, 19.09.2023, Anlage 2: Information über die Durchführung von Untersuchungen für das Vorhaben Trassierung des 110-kV-Anschlusses UW Wachsenburg der Fa. CATL, 26.02.2021, 1.

Thuringia, where 'the Chinese thought "Okay, the minister is here. So he approves everything"' (AR03, 2023). And regarding the RLC project in Arnstadt, a cooperation partner notes, 'Even though we are Deutsche Bahn and somehow belong to the state – which they [CATL] made a point of – we are a company that must operate economically' (AR09, 2023).

Divergent views on land prices, the number of Chinese employees in Germany, and cost assumptions heightened tensions during contract negotiations. In Arnstadt-Ichtershausen, a federal state official recalls, 'There were simply points in the [investment] contract that we couldn't sign, but CATL really wanted them in there' (AR03, 2023). In Bitterfeld-Wolfen, the urban development contract led to ongoing friction between the town administration and Farasis. As Farasis faced delays, land for their gigafactory was sold to new investors, leading to contract termination due to no response from Farasis (BW02, 2023). The town administration tried to repurchase land from Farasis to enable new development, offering compensation for preparatory costs. However, the town couldn't meet Farasis's higher price, leaving local officials with limited influence over land development (ibid.).

Mutual communication issues and a lack of contact persons and decision-makers on the Chinese side presented significant challenges. Regarding the failed RLC project, a partner expresses frustration: 'We had to find a way to communicate about a problem that is not ours. Rather, it's a political problem: a problem with how China, or how CATL, manages its direct investments here. And they don't manage them at all' (AR09, 2023). Other issues included CATL's sudden and unannounced visa applications to the local immigration authority, which caused great discomfort among clerks (AR03, 2023). In Bitterfeld-Wolfen, senior state officials travelled to Farasis headquarters in China for face-to-face meetings, only to return uncertain: 'Not much happens in their faces and behaviour […]. We flew back and didn't know what actually happened' (BW08, 2023). The town administration echoed frustration, noting ongoing communication breakdowns: 'Everyone who was here on-site said, we can't decide anything, we have to pass it on […]. That's where communication always faltered' (BW02, 2023).

These examples demonstrate that intercultural differences, lack of communication, diverging expectations, and mutual uncertainty regarding responsibilities significantly shaped cooperation in the two Sino-German projects. Chinese investors expected more direct support from federal state governments, whereas German partners struggled with the hierarchical but non-transparent decision-making structures of Chinese firms. State representatives from

Saxony-Anhalt describe Farasis's communication as 'so non-transparent that we didn't even realise there was no transparency' (BW08, 2023). However, in Thuringia, state officials acknowledged, 'You must at least have a hint of an idea how the company is structured. […] You also need to discuss things with the boss directly. And I can't discuss that with the boss, as I don't hold his rank. Instead, we'll need to let the minister handle it again' (AR03, 2023). This demonstrates that the established communication and decision-making formats of the host state actors clearly reached their limits with the new Sino-German projects.

Deception, false promises, and unfulfilled obligations

Tensions among partners arose due to the lack of information provided by Chinese investors. An employee of a planning firm working with Farasis recalls, 'It's always the case in every project that you have to chase things a bit to get them in […], but then we realized that nothing was coming in at all' (BW07, 2023). Another individual involved summarizes Farasis's lack of details on manufacturing capacities, material flows, and production processes, saying, 'it was always very tough […]. They couldn't provide this information, partially due to the lack of knowledge (BW08, 2023). Similarly, CATL failed to provide information about their Thuringian site's manufacturing capacity and material flows, especially when it came to the development of the RLC. A cooperation partner states that CATL employees were repeatedly asked, 'What kind of goods are coming in? What are the material flows? Again we said, show us your volumes so that we can understand what we need to plan for now. The answer was "Oh, that's not certain yet, and we don't have that information"' (AR09, 2023). This lack of commitment led to political escalation and meetings involving CATL and Wolfgang Tiefensee, Thuringia's Minister of Economic Affairs, Science and Digital Society. Ultimately, the RLC plans failed, officially attributed to a restructuring within CATL in January 2023.

Another conflict source was the failure to uphold contracts and agreements. CATL's lack of commitment regarding the RLC planning caused controversies with Volkswagen (VW), whose supply chains largely depend on rail freight transportation. Promised rail deliveries of battery cells could not be fulfilled due to the RLC's failure, 'which led to massive tensions at VW as well […] so that VW increased pressure [on CATL] from their side and said, we need this [rail freight]. Please make sure you get it done. How, we don't care. You guaranteed it in the contract' (AR09, 2023). However, the problems

with the RLC also originated from inaccurate assurances made by the State Development Corporation of Thuringia during the project's coupling phase, as CATL was promised an existing railway connection that later proved unsuitable. Nevertheless, this dilemma was mainly triggered by CATL themselves, as they 'did not think much about logistics and did not adapt to how logistics work in Europe, especially in the automotive sector' (AR08, 2023), leading them to underestimate the issue and enter into agreements that they couldn't entirely fulfil.

Another issue that further exacerbated tensions was the failure to meet payment deadlines. Whereas CATL settled accruing costs for approval procedures and certificates in Arnstadt-Ichtershausen only after multiple reminders, invoices in Bitterfeld-Wolfen went partially unpaid. A local planning firm commissioned by Farasis stopped work due to non-payment (BW04-06, 2023). Another contracted planning firm also terminated cooperation with Farasis in 2019 because of similar issues: 'We actually had the contract with the German subsidiary, but it turned out that they didn't have any money, yet they were still entering into contracts. And eventually, the Chinese main firm was unwilling to pay for the fees' (BW07, 2023). However, according to involved parties, outstanding payments were settled only after a lengthy legal dispute. This shows that the German subsidiaries of the Chinese investors in both cases had limited authority, and their cooperation with partners was always dependent on decisions and payments from the firms' headquarters in China.

Tracing temporary power coalitions and the emergence of new conflict lines

Conflicts in the two Sino-German projects highlight moments of tense negotiation among planning, administration, and policy professionals and their partners. Embedded in complex 'project ecologies' (Grabher and Ibert, 2011), these involve federal, district, and local authorities, Chinese investors, Chinese and German planning firms, German car manufacturers, and subcontractors. While they act on behalf of their institutions, and their interactions are shaped by institutional and legal frameworks and routines, their practices are also influenced by personal ties, interests, and experiences. By viewing the identified conflictual situations as 'genuine ethnographic moments' (Adam and Vonderau, 2014: 24), my ethnographically inspired approach traces these mul-

tiple connections and thus the ways 'power creates webs and relations between actors, institutions, and discourses across time and space' (Shore and Weight, 1997: 14). In the following, I map the formation of two temporary power coalitions that both underlay the Sino-German conflicts and resulted from how those conflicts were handled. These coalitions significantly impacted project implementation and led to the entrenchment of new lines of conflict.

In the case of Arnstadt-Ichtershausen, the first temporary coalition was formed between CATL's operational management and Thuringian state authorities, particularly the State Development Corporation. Initially, state officials focused on building rapport at top decision-making levels and personally travelled to Ningde with the Thuringian Minister for Economic Affairs, Science and Digital Society to advocate directly with CATL's management (AR02, 2023). A bilateral investment agreement encouraged close ties, providing practical support such as a 150-square-metre shared office space at the development corporation's office building in Erfurt (AR03, 2023). This partnership extended to shared daily routines such as having lunch together, allowing state-level actors to oversee critical implementation points in a more informal setting. Ministry-led working groups regularly brought together planning professionals, CATL managers, and stakeholders to address key issues, resulting in significant adjustments. These included transitioning to a specialized German planning firm, engaging a cost-effective German construction firm known from previous cooperations with the State Development Corporation, and the Thuringian Ministry of Economic Affairs, Science and Digital Society issuing official letters to Chinese authorities to facilitate unrestricted travel for over 1,400 Chinese engineers during Covid-19 restrictions (AR03, 2023).

The powerful coalition between Thuringian state-level actors and CATL thus facilitated a range of necessary adjustments for successful project implementation but resulted in neglecting the demands of other actors, particularly at the local level. Local municipal officials complained about the lack of understanding for their positions, which were brushed aside by state-level authorities without response (AR04, 2023). The demands of both the Amt Wachsenburg municipality and the town of Arnstadt were repeatedly disregarded, leading to aborted negotiations. Local officials in Amt Wachsenburg have viewed the top-down planning approval procedure regarding the overhead high-voltage power line as a state-led intentional circumvention of local planning decisions, feeling their planning autonomy was violated, and thus developed a list of demands to be met (AR01, 2023). State-level officials, on the other hand, have felt validated in their approach and express incomprehension

towards the local demands (AR03, 2023). The conflict eventually escalated into court proceedings.

In contrast, in Saxony-Anhalt, a temporary power coalition emerged between state-, district-, and local-level officials and their German cooperation partners, following failure and subsequent lessons learned. In this case, officials struggled to establish a strong connection with Farasis's management at any stage of the project. Their efforts seemed almost futile, as conversations with the investor's representatives yielded no tangible results (BW08, 2023). Despite continuous attempts, they could not identify the right stakeholders and were often unable to gauge the intentions of their counterpart (ibid.). As a result, local authorities now insist on having on-site project teams for future Chinese investments, with communication in German or English, plus specific contract terms to prevent land speculation (BW02, 2023). At the ministerial level, a strong commitment to negotiating binding investment agreements and conducting thorough company assessments emerged, particularly regarding ties to Chinese state-owned enterprises (BW08, 2023). And the involved planning firm demanded prepaid arrangements for further cooperation with Chinese partners (BW07, 2023). Subsequently, the new coalition exhibited a critical evaluation of their own actions, accompanied by growing scepticism and 'China-as-threat' rhetoric (Rogelja and Tsimonis, 2020) towards Chinese investors.

In sum, the analysis underscores that the project implementations have depended on both the intervening role of host state actors as well as the flexibility of Chinese investors in adapting to the respective contexts (Lee, 2017; Tsimonis et al., 2019). Both projects' planning and approval processes were significantly shaped by interventions by actors from the federal state level, with differing outcomes. While in Thuringia, professionals from state ministries and authorities were able to achieve a series of adjustments for successful project implementation by forming a coalition with the Chinese investor, state-level officials in Saxony-Anhalt, despite significant efforts, were unable to exert much influence on the project's progress. Their attempts to build a closer partnership with the investor failed, fuelled by the latter's lack of flexibility and willingness to adapt to the context. Instead, a coalition of host state professionals and German cooperation partners became increasingly hostile to the project. Concurrently, officials in Thuringia and Saxony-Anhalt adjusted to aspects of Chinese 'speed urbanism' (Chien and Woodworth, 2018), which involves speculative investment with heightened demands on host state decision-makers. This has fuelled intense competition between states for

the speed of project implementations. Interventions by host state actors are thus pivotal in facilitating large-scale Chinese projects and infrastructures as 'capital fixes' outside mainland China (Wiig and Silver, 2019).

Conclusion

This chapter examines planning conflicts that have arisen during Sino-German cooperation in both a successful and a failed implementation of Chinese battery cell factories and associated infrastructures in Eastern Germany. By focusing on the projects' formal planning and approval procedures, the study leverages emerging conflicts to grasp the underlying interests and power relations among planning, administration, and policy professionals and their cooperation partners such as Chinese investors, subcontractors, and German car manufacturers. The chapter thus brings agonistic planning theory and qualitative policy research into closer dialogue with each other to productively enhance our conceptual and analytical capabilities for unpacking the dynamic nature of power that shapes the implementation of large-scale projects.

The analysis highlights that both projects have had disruptive effects on local planning and approval procedures, with host state actors – particularly federal state ministries and authorities – actively intervening in the processes. While interventions by host state actors are also evident in other, non-Chinese, infrastructure projects, typically due to their economic and political relevance and cost overruns, interventions in the cases studied differ primarily in terms of nature and scope. Here, due to the inexperience and lack of preparedness of Chinese investors, federal state officials have gone beyond their usual responsibilities, such as bargaining, concluding investment agreements, or engaging in political advocacy. Instead, driven by ongoing conflicts in Sino-German cooperation and the constant threat of project failure, they have aimed at creating and cultivating close partnerships with Chinese investors and planning firms, with measures ranging from ministerial directives to shared on-site offices.

However, these interventions have had different effects in the two cases studied, leading to the emergence of diverging temporary power coalitions that, in turn, create new conflict lines. In Thuringia, a close alliance between federal state authorities and the Chinese investor has led to the latter adapting to local planning conditions, thus becoming an important component in the project's success. At the same time, the coalition has resulted in increasing disregard for local demands and an open conflict between local- and state-

level authorities, which hardened over the course of the project's implementation. In contrast, in Saxony-Anhalt, despite extensive efforts, federal state actors failed to counteract the Chinese investor's lack of commitment. Instead, the project's failure has led to a coalition between officials at the federal state, district, and local levels which is constituted by self-assurance in their own actions, a critical assessment of shared futures, and growing opposition to Chinese investors.

In conclusion, using planning conflicts as analytical windows exposes dynamic, improvised, and often covert interactions among professionals and their multinational partners. These interactions shape, expand, and sometimes challenge formal planning procedures. Applying an ethnographic approach to the analysis of planning conflicts thus complements the conceptual considerations of agonistic planning theory in several ways. First, it sheds light on the often-elusive interactions and decision-making processes of professionals and their cooperation partners within and across institutional settings. This addresses agonistic planning's limitation in advocating for an open-ended and publicly inclusive negotiation of interests that is usually in conflict with actual decision-making on the ground (Hesse and Kühn, 2023). Second, it transcends specific conflict sites, offering a multi-scalar and multi-temporal analysis of interactions. Third, by scrutinizing planning conflicts as empirical moments, it unveils underlying power dynamics and interests, clarifying who does and does not benefit from the projects' implementation. This study's findings underscore the role of host state actors in project implementation, as they use their influence to advance interests and thereby strengthen entrepreneurial and technocratic planning (Raco and Savini, 2019). This, in turn, raises doubts about the transparency of outcomes in large-scale projects and intensifies the need to balance interests during the projects' implementation (Kühn, 2023). As global green investments rise, future planning research should boldly pursue ethnographic inquiries into planning and governance in order to reveal complex transnational power dynamics often obscured behind the closed doors of authorities, investors, and planning firms.

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Appendix

All interviews were conducted by the author between January 2023 and June 2024. The interviews were semi-structured and lasted on average 90 minutes. Quotes from the interviews are presented in anonymous and non-attributable form. The following chart provides an overview about the interviews, referencing either the Arnstadt-Ichtershausen (AR) case or the Bitterfeld-Wolfen (BW) case.

Code	Pers.	Date	Position
BW01	1	19 January 2023	Local policy, representative
BW02	1	16 February 2023	Local administration, division manager
AR01	1	02 March 2023	Local policy, representative
BW03	1	17 March 2023	Federal state administration, division manager
BW04-06	3	07 March 2023	Local administration, planners
AR02	1	03 April 2023	Private planning firm, division manager
AR03	1	04 April 2023	Private planning firm, division manager
BW07	1	13 April 2023	Private construction company, engineer
BW08	1	13 April 2023	Federal state policy, representative
AR04	1	02 May 2023	Local policy, representative
AR05	1	03 May 2023	District administration, division manager
AR06	1	03 May 2023	District administration, division manager
AR07	1	14 June 2023	Federal state administration, staff
BW09	1	30 June 2023	Federal state policy, representative
AR08	1	14 July 2023	Private transport company, logistics planner
AR09	1	14 July 2023	Private transport company, logistics planner
AR10-11	2	20 July 2023	District administration, division manager and staff
AR12	1	17 April 2024	Private planning firm, lead engineer
AR13	1	19 April 2024	Private battery company, logistics planner
AR14	1	17 June 2024	Private planning firm, manager
AR15	1	27 June 2024	Private construction company, division manager

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