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## **Integrating Effort in Emerging Pluralistic Organizations: A Study of Planning the UK High-Speed 2 Railway**

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# **INTEGRATING WITHOUT AUTHORITY: THE ‘WICKED’ DIVISION OF LABOUR BETWEEN MANDATED COORDINATION AND POLITICIZED COOPERATION**

This empirical study investigates the integration of effort without a unified authority. Our insights are grounded on the planning of a new railway network in the UK, the High-Speed 2 project – a classic ‘wicked’ problem rooted in the diffusion of decision-making power over strategic choice. We show this problem is linked to a calculated choice to co-opt multiple actors in the environment, trading off less uncertainty with a loss of decision-making autonomy. Our main contribution is to illuminate how division of labour leverages individual authority structures to fill the inter-organizational vacuum of authority. Specifically, we show how integration of effort revolves around a fundamental division of labour: i) resolving the coordination problem is the job of officials which are mandated to share and process information; and ii) building consensus is the job of elected leaders which are, however, rewarded by the environment to bargain tough. We reveal variance in the efficiency of the integration of effort contingent on goal congruence and urgency to build consensus. We conclude by discussing logic that links this pluralistic form of organizing work to organizational performance.

## **INTRODUCTION**

The integration of effort is a fundamental problem in the design of organizations, and revolves around resolving the problems of coordination and cooperation (March and Simon 1958, Lawrence and Lorsch 1967, Burton and Obel 1984, Puranam 20xx). Organization theorists argue that the coordination problem is resolved by the provision of information, whereas the cooperation problem is resolved by the provision of rewards. This seminal conceptualization of organizing is premised on the presence of a unified authority empowered to design structures that mandate the subordinates to integrate effort (March and Sutton 1997, Galbraith 1973, Thompson 19xx). Within the organization, unified authority is vested in ownership stakes, employer-employee relationships, and regulation. Across organizational boundaries, unified authority is simulated through contracts (Stinchcombe xxx, Williamson 1985), knowledge (Brusoni, Prencipe, and Pavitt 2001, Tuertscher, Garud, and Kumaraswamy 2014), and meritocracy (O’Mahoney and Ferraro 2007).

Scholarship on organization design has been invaluable for understanding the structural, political, and behavioural tenets that inform strategic choice, but is limited by the assumptions of unified authority. In this study we build upon these ideas, but shift our focus to the problem of integrating effort without a unified authority. Furthering our understanding about how structure helps to integrate effort without unified authority is crucial to extend organizational design ideas to public and regulated private sectors. In these pluralistic settings, the decision rights over strategic choice are diffused across multiple independent actors with discordant preferences (Mintzberg 1979, Cohen et al. 1972, Denis et al. 2001, Jarzabkowski and Fenton 2006). This makes it unlikely one actor can gain enough authority to impose her preferences on other actors against their will

(Pettigrew 1973). Hence, a prerequisite for strategic choice is to build consensus, this is, get all the participants to agree upon the collective goals and plans (Van de Ven 1976).

When integration of effort hinges on building consensus amongst multiple autonomous actors with discordant preferences, management scholars argue that the problem is ‘wicked’ (Churchman 1967) in that it represents a classic case of a problem difficult to define and solve - as Rittel and Webber (1973) put it, ‘the plurality of objectives held by pluralities of politics makes it impossible to pursue unitary aims’. Specially, three factors make the problem wicked. First, multiple interests and values make it hard to formulate a problem and attain a definitive solution because communication and coordination quality declines with group size and heterogeneity (Cemerer and Knez 1996). Second, problem-solving may be urgent, but consensus is invariably hard to rush as actors need to hold lengthy talks to make sense of complex problems and communicate to coordinate collective action (Ring and Van de Ven 1992). And third, the lack of goal congruence and well-defined rules due to a plurality of logics makes it hard to eliminate wicked problems—“at best”, argues Rittel and Webber (1973), “they are only re-solved—over and over again”.

If democratic politics make integration of effort a wicked problem, organization design cannot be reduced to a problem of designing structures to help operate efficiently and implement strategy effectively. As Williamson (1993) puts it, ‘politics really is different’. Rather, the structures in ‘mutual-benefits’ organizations (Smith and Ari 1964) need to account for inefficient and ineffective functioning that result from political compromises not checked by competition in the product and capital markets. However, the fact that integration of effort is in part political does not mean that structure has no role to play. A case in point is Elinor Ostrom (1990)’s political theory of managing common-pool resources—resources owned by multiple independent actors with rivalrous interests. A commons has no unified authority. Still, Ostrom was able to distil principles to design the commons that encourage the participants to integrate effort. Ostrom’s work shows that structure matters. But managing a commons is not a wicked problem in that the problem is rooted in self-interest, not in the plurality of goals, interests, norms, and belief systems.

More to the point of this paper are insights on the structure of pluralistic settings derived from the strategy-as-practice literature (Denis et al. 2011, Jarzabkowski and Balogun 2009). This cognitive lens suggests that structure rather than facilitating integration of effort can actually get in the way. The crux of the problem is the fact that participants in pluralistic settings employ practices validated in authority hierarchies. These practices produce classic coordination structures such as deadlines, targets, budgets, and plans which restrict the solution space and make it harder to build consensus. The intent behind these practices is well known: commitments to these structures fill the void created by the ambiguity in value creation, and thus create legitimacy to encourage contributions of resources and prevent defections (Stone and Brush 1996, Denis et al. 2011, Denis, Langlely, and Rouleau 2015). But it can be difficult to integrate effort without relaxing the very same structures. This leaves the participants with a catch-22: if they relax the structures, they erode the legitimacy to operate. If they stick to the structures, a risk of impasse ensues.

Extant studies that suggest that structure amplifies the wickedness of the problem of integrating effort without unified authority arguably contributed to shift the attention of management scholars to the value of informal organizing (e.g., Pitsis et al. 2003, Ansari, Wijen, and Gray 2013, Beck and Plowman 2014). The extent to which the emphasis on individual behaviours and institutional logics has come to dominate management literature on pluralistic settings is in marked contrast to our vast body of knowledge of both the formal and informal organization in unified authorities. Let’s be clear: we are not saying that the study of informal interactions is not critical to understand

how pluralistic settings work. Indeed, this literature has been illuminating. And in settings with unified authority, new insights are resulting from studying how formal and informal organization influence each other and are potentially co-determined (Gulati and Puranam 2009, McEvily, Soda and Tortoriello 2014, Van de Ven 2013, Soda and Zaheer, 2012). However, we cannot aspire to achieve a similar holistic understanding about managing pluralistic settings if we allow our knowledge of the formal organization to fall behind. Hence, there is merit in extending classic organizational design ideas to pluralistic settings. Organizational theorists argue that the problem of integration of effort is valid whether the organization is a firm, or a 'meta' form of organizing which unifies independent actors under an identifiable system goal (Gulati, Puranam, and Tushman 2012, Puranam, Alexy, and Reitzig 2014). Hence a starting point to extend organization design ideas to pluralistic settings is to explore how structure affects the coordination and cooperation tasks without unified authority.

To further our understanding of integration of effort in a pluralistic setting we undertook an in-depth empirical study of the planning for a new national railway in the UK, the High-Speed 2 (HS2) project. Inductive studies are useful for exploring areas in which little previous research exists (Eisenhardt 1989). Planning a capital-intensive infrastructure creates the quintessential 'wicked' problem. In the HS2 case, the scheme is promoted by a coalition of two actors: the national government and Network Rail, the private company (underwritten by a public guarantee) that owns the railway infrastructure. But the coalition lacks legal power to buy land compulsorily and thus needs to negotiate its plans with multiple local actors. This site was particularly attractive for research because planning unfolded remarkably fast in light of the history of floundered planning efforts for large transport systems in the UK.

Our main contribution is a conceptualization of integration of effort without unified authority that sheds light on how structure contributes to resolve this wicked problem. We first trace the diffusion of decision-making power to a calculated choice to co-opt multiple environmental actors. We then illuminate how the organization members fill the inter-organizational vacuum of authority by deploying individual authority structures. Specifically, we show a fundamental division of labour between management and politics. Resolving the coordination problem is the task of officials who are incentivized to provide and process information by their employers; resolving the cooperation problem is the task of elected leaders even if these are rewarded by their constituencies to bargain. In addition, we shed light on variance in the efficiency of the integration of the effort which is contingent on the degree of goal congruence and urgency to build consensus.

We organise the remaining of this paper as follows. We first review what we know about designing pluralistic settings. We then introduce our research site and data. In the analysis, we first examine how selective co-opting gives rise to a manageable pluralistic setting. We then examine how division of labour leverages individual authority structures to fill the vacuum of collective authority by pairing management and politics to the coordination and cooperation tasks. We conclude by establishing logic between structure and performance, and discussing policy implications.

## **BACKGROUND: INTEGRATING EFFORT IN A PLURALISTIC SETTING**

The interdependency with the environment is a basic threat to organizational survival because of the uncertainty it creates. Hence a good deal of classic organization design literature pivots around defining formal structures to absorb the uncertainty (Thompson 1967, Galbraith 19xx, Pfeffer and Salancik 1978, Burns and Stalker 1961, Child 1972). One way is to co-opt, this is, absorb new

actors into the leadership structure of the organization to avert threats to its stability or existence (Lawrence and Lorch 1967). In endogeneizing nominally independent actors, organizations create a ‘negotiated environment’ (Cyert and March 1963). However, if the power players can set up a ‘dominant coalition’ to resolve disputes, internalising contingencies makes integration of effort more predictable. This logic raises the issue of how to integrate effort if power remains diffused—a central problem in pluralistic settings, also called ‘value-rational’ (Satwo 1975) or ‘professional bureaucracies’ (Mintzberg 1979). In these mutual-benefits settings, the problem of integrating effort is also not one that can be resolved with contracts because it involves resources which are hard to measure and transact. Still, pluralistic settings are not self-organizing – co-opting is a choice of the leader (Denis et al. 2001). Hence, it is also up to the leader to design structures to help resolve the wicked problem of integration of effort which co-opting creates.

Organization design theorists argue that the coordination problem is resolved by information provision—a mechanism that enables actors to develop the predictive knowledge necessary to anticipate and coordinate the needs and interests between interacting and interdependent individuals (Puranam, Raveendran, and Knudsen 2010). Information provision occurs through face-to-face interaction, common procedures, goals, targets, mutual observation, learning, and (joint) decision-making (Tushman and Nadler 1978). But implicit here is the idea that a “superior” role mediates the interactions among subordinates in order to maximize efficiency and reduce the complexity of information flows (Katz and Kahn 1966). Pluralistic settings are different. Because power is diffused, they are rife in politics and bargaining—actions that consume scarce resources (attention, memory, time), and get in the way of efficient information provision and development of the cognitive structures needed to process information effectively (Baer et al. 2013).

Complicating coordination in pluralistic settings are three structural aspects. First, is strategic ambiguity in the form, for example, of vague goals and procrastination of decision-making. This ambiguity is necessary to create space for conflicting goals, but makes communication a challenge (Denis et al. 2001). This, in turn, makes it harder for the agents to predict the other’s actions (Puranam et al. 2011). A second obstacle to coordinate is premature commitments to ambitious performance targets. These commitments give legitimacy to the ideas and make it hard for people to defect, but can lead to two coordination failures: one is impasse if slack is insufficient to reconcile differing interests (Denis et al. 2011); another is escalation of commitment to a losing course of action if there are plenty of resources (Ross and Staw 1993). A third problem is the proliferation of rules mandating the use of rational means to settle disputes, which can lead to ‘paralysis by analysis’ if the disputants keep challenging each other’s logics (Langley 1995).

Our understanding of how structure can facilitate the cooperation problem if decision-making power is diffused is also underdeveloped. Cooperation problems are rooted in divergent interests and the prioritization of actors’ self-interest. Uncooperative behaviour makes actors behave with no regard for unenforceable commitments or moral obligations. Uncooperative actors claim more benefits than agreed via misappropriation of partner resources or through the exploitation of a superior bargaining position (Gulati et al. 2012). For organizational design theorists, the cooperation problem is resolved if the perceived value of the rewards provided to encourage cooperation exceeds the perceived costs of not cooperating (Gavetti et al. 2007, Simon 1965, March and Simon 1958). However, it is unclear how a reward structure can be provided if the interacting parties are autonomous. If cooperation revolves around voluntary talks, the reward for cooperating materialises ex-post bargaining as the parties strike a consensus. Seminal studies of consensus-oriented collective action show that self-interest makes it a struggle to cooperate

without a clear reward structure (Hardin 1968, Olson 1965). Later findings set a more optimistic tone—cooperation without a reward system is possible if the self-interested agents get other organizational structures right (Ostrom 1990, 2005, Dietz et al. 2003). However, cooperation problems rooted in self-interest are not as ‘wicked’ as those rooted in the plurality of logics.

A classic wicked problem in a pluralistic setting in which the role of structure remains underexplored is the planning of capital-intensive infrastructure. This problem arises after the designated leader gives decision rights to multiple autonomous actors in exchange for their resources. Put simply, the resource-rich stakeholders become ‘development partners’. As the strategizing process gets mired in politics and bargaining, a problem of integration of effort ensues. Matters are further complicated because infrastructure planning involved long-lived strategic choices hard to reverse, and thus people are less likely to cede ground in negotiations (Miller and Lessard 2000, Gil and Tether 2011). As Latour’s (1996) said on the failed planning for a public transport system, “the people involved appeared to be bound together in a system through which it was hard to let the project go, but impossible to bring it to fruition”. Still, despite multiple accounts of planning failures, some are successful. This raises the question on the extent to which structure helped the participants to integrate effort without a unified authority. We turn now to discuss how we set up to investigate this question by studying the planning of a new railway in the UK.

## **RESEARCH METHODS, SETTING, AND DATA**

This inductive research adopts a single case study design, a method useful for supporting exploratory inquiry into underexplored areas (Yin 1984, Eisenhardt 1989). Case studies allow incorporating temporal and contextual dimensions in the research, and thus reveal the complexity of social settings (Eisenhardt and Graebner 2007). This makes this method appropriate to investigate how structures can encourage integration of effort in the context of planning capital-intensive infrastructure—an effort that lasts many years and is enmeshed with the context.

Our research site is the organization formed to plan a multi-billion pound project to develop High Speed 2 (HS2), the first railway network to be built in the UK since the Victorian times. The scheme was promoted by the UK government in coalition with Network Rail (NR), the public company that controlled the UK railway infrastructure. The idea was rooted in a NR 2004 report, but only gained momentum after the financial crisis. In January 2009, the UK government and NR designated an executive agent, HS2 Ltd, to lead the planning effort. Most technical and leadership positions in HS2 Ltd. were filled with staff recruited or seconded from NR. The idea was controversial and planning unfolded under intense public scrutiny. And yet, five years later, the principle of the project was approved by Parliament, a feat in the UK.

This outlier created a rare opportunity to investigate integration of effort without a unified authority. Accordingly, we focused our study on the interactions between the project promoter and local, resource-rich actors. These interactions gained momentum in 2012 after the UK government announced the route and initial performance targets. We arrived to the research site one year later when talks with the local governments and local transport agencies were ongoing to decide where to exactly locate the city stations. Legally, the promoter could go ahead unilaterally with its preferred strategic choices after consulting the local actors; if the latter objected, they could ask the UK Parliament to overturn the decisions and/or use politics to force disruptive late changes. Aware of the risks these actions posed to the survival of the project organization, the promoter chose instead to co-opt the local actors and commit to make strategic choices by consensus.

Case studies with an embedded unit of analysis and a diversified sample permit replication and extension of emerging logics, which allows for developing a more elaborate theoretical picture (Eisenhardt and Graebner 2007, Siggelkow 2007). Accordingly, to theorize how effort was integrated without unified authority, we formed a sample consisting of five groups in major cities linked by HS2. Table 1 summarizes, for each unit of analysis, the data sources, the participants in decision-making, the degree of goal congruence and urgency to build consensus, and the outcome.

*<insert Table 1 about here>*

We built this sample to vary two attributes of the decision-making process that we expected to directly affect integration of effort, and thus increase the generalizability of our insights. First, the cases differ by the urgency to strike a consensus. The initial plan was to deliver HS2 in two phases: the first connecting London to Birmingham by 2026, and then complete the national network by 2033. Two units of analysis (London Euston and Birmingham) belong to the first phase. For these two, urgency to build consensus was high because the UK government was keen to get planning approval before May 2015, the month of national elections. The other three units (Leeds, Sheffield, Manchester) are in the second phase which started at the same time as the first phase. However, the plan was to complete planning for this phase around 2021, and thus there was much less urgency to build consensus. We know consensus cannot be rushed. But we wished to determine how urgency could impact the effectiveness of the structures set up to coordinate and cooperate.

Second, we varied our sample by the extent the participants in the local decision-making groups were unified by the local goal. In two cases (Euston, Sheffield) goal congruence was low. Euston was the location of the HS2 London terminus which was chosen by the promoter together with two local actors: Greater London Authority and Transport for London. But Camden Council, the local government with planning jurisdiction over the area was excluded from the decision-making process. This decision stoke discord with the council, and a legal battle ensued. Likewise, in Sheffield, the key local actors had antagonistic preferences. Some actors argued for locating the station in the city centre whereas others argued for it to go to the periphery. In the other three cases there was high goal congruence around a city centre station albeit lower-level disagreements. We know that lack of goal congruence complicates integration of effort. But we were unclear if would find different structures surrounding integration of effort according to the level of goal congruence.

## **DATA COLLECTION**

To mitigate informant bias (Jick 1979, Miller, Cardinal, and Glick, 1997) data collection included both semi-structured interviews and analysis of archival data. Our sample of 47 interviewees included respondents working both for the promoter, local governments, and local transport agencies; we also triangulated interview data by talking with top managers, elected leaders, and technical officials. We gained access to staff in the promoter organization after asking the chairman of HS2 Ltd. authorization to conduct an independent study. Independently, we contacted the other actors participating in the strategizing process. We identified our respondents by using a ‘snowball sampling technique’ (Biernacki and Waldorf 1981) in which, for each unit of analysis, we asked a respondent to suggest other people to talk to. We followed recommendations from qualitative scholars to design our interview protocol (Langley 1999, Yin 1984). Hence our questions were guided by our interest on how organization design contributed to resolve the planning problem. We used our units of analysis to keep the informants focused on the series of events, facts, and contextual factors which were critical to agree the decisions to locate the stations. We conducted interviews at different times as the decision-making process unfolded. This

enabled to collect both real-time and retrospective data, a practice useful to mitigate retrospective bias and develop richer and more reliable theory (Leonard-Barton 1990). In our case, this practice was also necessary to observe the evolution and outcomes of the collective searches. In addition, we invited five officials to give talks and stay for lunch, and took verbatim notes of the more informal conversations. Still, we promised confidentiality to motivate the informants' accuracy.

We triangulated interview data with the analysis of thousands of pages of secondary data to improve the accuracy of our findings and strengthen the validity of our constructs. The HS2 scheme is a public project, and we found numerous technical and strategic reports produced by the promoter available online. We also examined information released under the Freedom of Information Act, and reports produced by four watchdogs of public spending (National Audit Office, Committee of Public Accounts, House of Commons, Major Projects Authority). We triangulated this data against technical and strategic documents produced by the local actors. Another data source were the petitions against the promoter's plans submitted to Parliament by the local actors, the promoters' responses, and the verbatim records of the debates in Parliament. Finally, we examined multiple interviews given by the promoter and local actors to the media.

Our data collection period lasted three and a half years. This timespan was necessary to account for variance in the progress and final outcomes of the coordination and cooperation efforts. We stopped collecting data in the end of 2016 after we reached theoretical saturation (Glaser and Strauss 1967). By then, our sample of collective strategizing was all resolved with one exception (Sheffield), but this exception replicated a pattern which we had identified for Euston.

## **DATA ANALYSIS**

Following recommendations from qualitative scholars, we cycled between data analysis and the development of our argument to sharpen the fit between evidence and emerging logic (Langley 1999). We started the analysis by producing a detailed factual and chronological account of the decision-making process to locate the stations to guard against account bias (Miles and Huberman 1994). We published this account and shared it with our respondents to get feedback on its accuracy. We then gradually built inferences about integrating effort without unified authority, and sifted through our data to refine our ideas. We derived our initial codes to make sense of our data from the organizational design literature, notably the ideas that integration of effort revolves around information provision (coordination) and reward provision (cooperation). During the analysis, we followed recommendations to produce tabular displays and diagrams to reveal patterns (Langley 1999). Following the cases in our sample for several years gave us an insight about how division of labour between politics and management enabled to deploy individual authority structures to fill the space created by the lack of a unified authority. In addition, as we contrasted variance in the consensus-building speed and quality of the outcomes, two contingencies emerged that directly impacted the efficiency of the integration of the coordination and cooperation efforts. We leveraged these insights to established logic between pluralistic organizing and organizational performance. We turn now to present our analysis of the findings.

## **ANALYSIS**

We start the analysis by examining how the HS2 promoter created a pluralistic setting by sharing decision rights over local strategic choices with multiple autonomous actors in the environment. We then look at the pairing of management and politics to the coordination and cooperation tasks. We use the case of London Euston to illustrate how this division of labour was both an enabler of



integration of effort, and a source of much inefficiency. We then use the other cases to illuminate the impact of two salient contingencies on the efficiency of the integration of effort: i) the degree of goal congruence between the claimants to strategic choice; and ii) the urgency to build consensus.

### **DESIGNING A PLURALISTIC ORGANIZATIONAL STRUCTURE**

Central to pluralistic organizing is diffuse power over strategic choice. This was exactly the case of the organization formed to plan HS2 in 2009. But power was not diffused from the outset. Up to mid-2010, the promoter controlled decision rights to avoid blighting property values, or as one official put it, to avoid ‘having the whole country up in arms’. In this period, after holding confidential consultations, the promoter changed the system goal from a single line (London to Birmingham) to a Y-shaped network connecting multiple cities, and adapted the cost forecast and budget (cost forecast plus contingency) commensurately (see the evolution of the cost forecast and a layout of the route in Figure 1). The new system goal fuelled critique in the environment. The government argued that a NR 2009<sup>1</sup> report claimed that ‘a new high-speed line to Scotland more than pays for itself’. But opponents were not convinced, and argued that HS2 was a ‘flawed vanity project ‘and a ‘gravy train’. Controversy notwithstanding, the promoter forged ahead with planning, knowing that the ultimate word rested with the UK Parliament, the regulator of land use. And in a calculated choice, the promoter co-opted powerful local players of the cities to be linked by HS2. This action led to a loss of decision-making autonomy, but the promoter deemed the organization would be better off by sharing local decision rights. One HS2 official explained:

You have to have the right people in the room, the people who understand where the city is going, understand how the city works and are able to make decisions...we’re injecting something into the cities, we cannot just say, ‘give me this and do all this’ ... No! Hang on a minute, it’s a partnership

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<sup>1</sup> Network Rail. 2009 Meeting the Capacity Challenge: The Case for new Lines

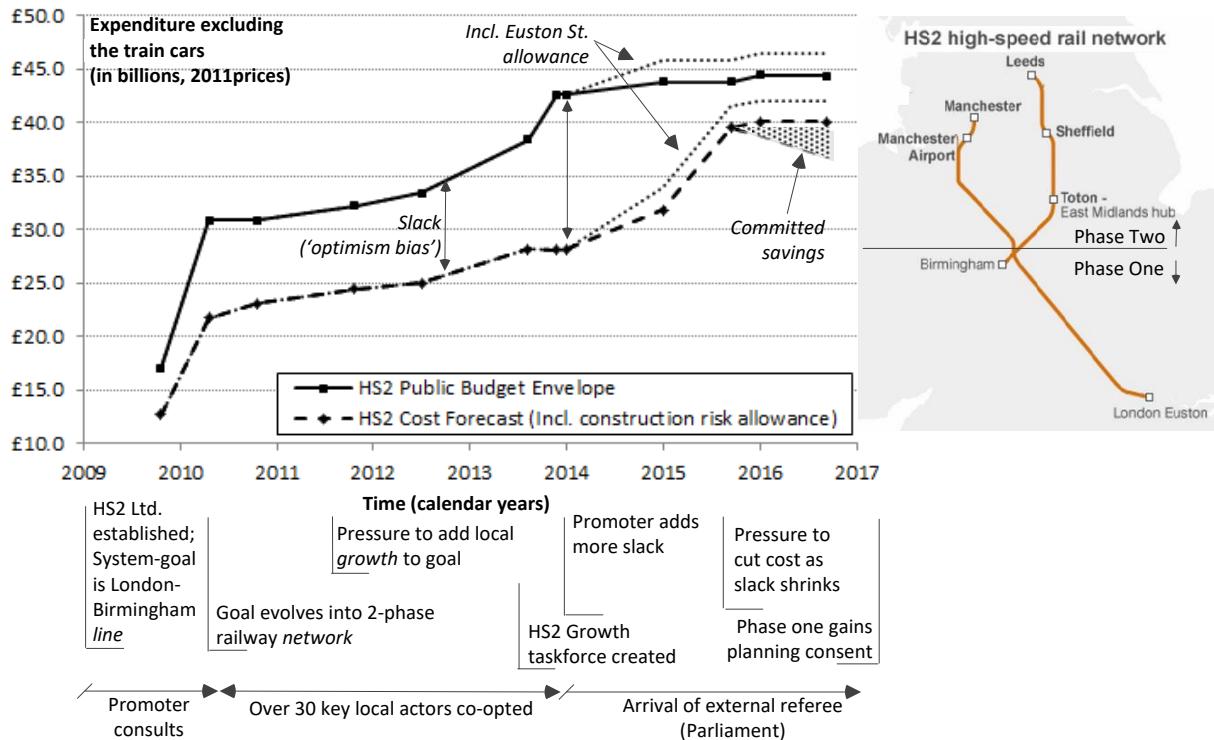


Figure 1 – Evolution of the HS2 Cost targets and Structure of Participation in Strategic Choice (Data compiled from public sources)

The decision to co-opt multiple environment actors enabled the promoter to pool critical resources to achieve the system goal. The HS2 promoter had the finance to develop plans and fend off legal challenges. In turn, the local actors had knowledge and beliefs of what was in the best interests of each city, as well as statutory power over local planning decisions. Co-opting was, however, selective. Only local actors that were perceived to be power players were brought ‘into the tent’ as one HS2 official said since the promoter was wary of oversharing decision rights.

The London Euston case in Figure 2 is a good example. The figure summarises in four longitudinal patterns the integration of effort between 2010 and 2016, the year when the promoter and the key local actors achieved consensus on the major strategic choices. We differentiate between the coordination and cooperation tasks, and show how the performance targets evolved over time. As Pattern 1 in Figure 2 shows, the promoter co-opted upfront two actors to help on the decision to locate the HS2 London terminus: Transport for London and Greater London Authority, two London-wide agencies governed by the powerful Mayor of London, an elected leader. But it chose to exclude the 32 London local governments from the strategizing process. The promoter justified the decision with a need to avoid rumours about the terminus location which could sow discontent in the environment. And only after a decision was made to go to Euston was Camden Council, the local government with planning jurisdiction, asked to join the strategizing process.

<insert Figure 2 about here>

In addition, to further reduce management complexity, the promoter decomposed the organization formed to plan HS2 by purpose, and restricted the decision rights of the co-opted local actors. Hence, London actors could only influence London choices; Manchester actors could only

influence Manchester choices, and so on. Still, the organization was not fully decomposable. First, the promoter kept centralised control of the system architecture and system-wide performance targets; and second, local strategic choices and thus local groups remained interdependent—not only more money committed to one station would leave less capital to spend elsewhere, but also any local concessions could create a tricky precedent.

In agreement with management literature, the wickedness of the problem of integration of effort was exacerbated by announcements of ambitious targets. Right in March 2010, as Figure 1 shows, the Ministers of the Cabinet<sup>2</sup> announced a HS2 cost forecast with “appropriate provision for risk...in the region of £30 billion (2009 prices)”<sup>3</sup>; Cabinet also announced that planning for the first phase would be done by 2015. These announcements were made at a time when the local actors were already mounting pressure on Ministers to add economic growth considerations to the system goal. Complicating matters, the architectural and engineering fraternities had joined the fray, with one leading architect insisting on ‘city-centre super stations’<sup>4</sup>. And yet, for Ministers, it was critical to stay within the 2010 targets so as to honouring their pledges and thus ‘disempower adversaries’ (Denis et al. 2015). We turn now to examine how this wicked problem of integration of effort was facilitated by leveraging individual authority structures in the division of labour.

#### MANDATED COORDINATION WITHOUT COOPERATION

Coordination is in essence a problem of information provision. In the HS2 case, this task was predominantly carried by officials who reported to the elected leaders. The job of HS2 officials was to search jointly with local officials for solutions that could be mutually advantageous. Officials were mandated by their employers to resolve the coordination problems using rational criteria. But the coordination problem was not trivial since the interdependence with the environment impaired the quality of the information flows. For example, the 2010-11 targets were widely seen as unrealistic. But with the Cabinet having publicly committed to get the first phase approved before the national elections, the Ministers ruled out relaxing the targets. This was to the extent that when the Major Projects Authority, a public watchdog, rated the project ‘amber-red’ and said the project was ‘in danger of failing’ in 2012, the government embargoed the report and a legal fight ensued.<sup>5</sup> For their part, the HS2 top officials (who enjoyed remunerations way above public sector pay scales) toed the line—“they [deadlines] may not be drop dead, but feel pretty real to us”, said one official, whereas another said that politics held the budget constant. Only by the end of 2013, as Figure 1 shows, the elected leaders accepted defeat, and hiked the contingency to £14.4 billion, a decision that provoked a public outcry—‘a heck of a lot of public money...why so

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<sup>2</sup> The Cabinet is the collective decision-making body of the UK Government, composed of the Prime Minister and the most senior of the government ministers.

<sup>3</sup> DfT 2010. High Speed Rail Command Paper, Department for Transport, London, The Stationery Office, March

<sup>4</sup> Wynne, A. 2010. High Speed 2: Terminal Velocity. New Civil Engineering

<sup>5</sup> The watchdog was proved right since the first phase only gained planning consent two years later in February 2017

much?, asked the Chair of the Public Accounts Committee.<sup>6</sup> Further complicating coordination were concerns that concessions could set a precedent, or that opponents could use leakages of information to undermine the scheme. Hence, the local actors were asked to sign confidentially agreements and information flows were restricted: meetings had no minutes and documents could not leave the room.

Difficulties notwithstanding, the officials were paid to coordinate interests. To this purpose, interorganizational groups of officials were formed and tasked with whittling down long lists of options to locate the stations to two or three options within each city using cost-benefit analysis. This “Options Sifting Process” involved regular face-to-face meetings and exchange of individual documents. Throughout the process, the officials kept their respective leaders informed of progress through political oversight groups. But no high-stakes meetings to reconcile divergences would be arranged until the solution space was coordinated. One official described this division of labour:

we [HS2] had to try and get them [city officials] to understand what a high-speed station is ...we gave them a A0 scale map and some magnetic rectangle blocks and said, ‘right, where do you want to put a station?’... we only involved local senior officials, never politicians. I’m not trying to be catty in any shape or form. But politicians always have a different agenda; they only came near the end when we have one or two solutions left

The Euston case in Figure 2 is a good example of how this division of labour was simultaneously an enabler to integrate effort and a source of much inefficiency. Once a strategic choice was made to set the HS2 London terminus in Euston in 2010, the local government (Camden council) launched a legal challenge- ‘if HS2 goes ahead with these plans, Camden suffers all of the pain with none of the benefits’, said the Council political leader. The decision impacted local businesses and almost 500 local families, and the elected leaders chose to side with their constituencies. And yet, the same leaders could see that the scheme created opportunity to remodel Euston, a station that had not seen major upgrades in fifty years. Hence the council officials were asked to meet regularly with the HS2 officials. This coordination effort was voluntary since the promoter ruled out paying the Council. But engaging in coordination would enable Camden to influence the final solution in case it lost the legal fight; as one HS2 official said, ‘they, Camden leaders, say we’re doing nothing.. [but] behind the scenes, we are making progress, definitely.’

Mandated coordination without cooperation – Pattern 2 in Figure 2- enabled to make progress but led to an impasse. Camden officials tabled demands for a full modernization on the old Euston station, which the HS2 officials argued was outside their mandate. Whilst officials jointly developed one option to reconcile the interests, the HS2 officials deemed that costly option the ‘fairy godmother scheme’. For their part, Camden officials felt frustrated that the HS2 officials refused to cave in to their demands– ‘we get the demolition, but retain the bad bit...we feel hard done’, said one official. We could argue this coordination breakdown was rooted in the late decision to co-opt the local council. But we observed the same pattern in the interaction between HS2 officials and the officials with the London-wide agencies. Already in 2011, the Mayor of London had stated that support to HS2 was conditional, ‘without changes...I cannot support the

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<sup>6</sup> House of Commons (2013). High Speed 2: a review of early programme preparation. House of Commons Committed of Public Accounts. Twenty-second report of session 2013-1`4. London: The Stationery Office Limited

current proposal'.<sup>7</sup> Among a string of demands was a request for better integration of the HS2 station with the existing transport network, a demand with a price tag around half a billion pounds. Lacking authority to relax the targets, the HS2 officials refused to concede. As the coordination talks dragged, one official of Transport for London said, "at times they [HS2 Ltd.] treated us like a stakeholder rather than a development partner." However, inasmuch this division of labour was inefficient, shielding coordination from the politicized cooperation that was about to ensue enabled the organizations to search for rational ways to bridge their interests; one official of HS2 said:

HS2 Ltd, if you like, are the infantry out there; actually doing what they're told by [central] government. So HS2 Ltd get all the fights, appear to have all the fights, are the bad boys, but they are really only doing what they are instructed to do.

We turn now to examine how elected leaders were in charge of the cooperation task.

### **THE POLITICIZATION OF COOPERATION**

Cooperation revolves around the notions of reciprocation and compromise (March and Simon 1958). The challenge in our setting was how to encourage these norms to develop since there was no explicit structure to reward consensus building. HS2 was a central government idea. So why should local leaders cooperate if they reckoned that by playing hard ball they could extract more benefits for the constituencies that had voted for them? And yet, our findings show that politicized cooperation was invariably necessary to integrate effort since the coordination efforts rarely succeeded to bridge differences. Pattern 3 in Figure 2 shows a first period of iteration between coordination and cooperation before the involvement of the regulator. Cooperating was the task of interorganizational leadership groups; as one senior HS2 official said about the difficulties to agree a solution for the Euston station, 'at the end of the day, it's going to be the people at the tops of the organisations who are going to have to sit down and say, "OK, how are going to carve this [budget] up?'. And yet, the solution space within which to find agree a politically possible solution was not unconstrained. Rather, any political solution needed to exist within the coordinated solution space to survive scrutiny from the environment and legal challenges.

Further constraining the cooperation effort was the reluctance of the politicians to relax the cost forecast. By 2013, when the UK government realised that the pressure to make concessions on strategic choices would not go away, the HS2 contingency funds were hiked as Figure 1 shows. This decision to increase the budget was made at closed doors and took the top HS2 officials by surprise – 'we have nothing to do it', said one. It is fair to say that from this point onwards Ministers could, if so they wished, use the slack to 'quasi-resolve conflict (Cyert and March 1963). And indeed, the local leaders increased the pressure on the Ministers to make further concessions. But for the Ministers the problem was not that simple. The HS2 officials had told the Ministers in to expect well over 2,000 petitions to be lodged against the plan to be submitted to Parliament – this was because regulation enabled any actor that would be materially impacted to lodge a petition; even actors which had been co-opted were expected to petition to try to extract more concessions. Hence, the Ministers were advised to use slack prudently so as to enter into the regulatory process with a full 'war chest' In addition, Ministers understood that it was not politically possible to increase the budget again in a short period of time. Concerns that the

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<sup>7</sup> Mayor of London (2011). High Speed 2 – Consultation response from Boris Johnson, Mayor of London. Greater London Authority, Mayor's Office. City Hall. London

planning effort could collapse if they run out of contingency meant that the solution space to build consensus was restricted, complicating the collective searches for local consensual solutions.

The case of the Euston station is telling, and pattern 3 in Figure 2 shows how inefficient the unregulated integration of effort was. For example, following the coordination breakdown in 2013 between the Camden council and the Ministers, the relationship between the two actors proved tenuous throughout. The council leaders were principally against the scheme. But the Ministers and the London-wide agencies remained behind the goal, with the Mayor of London insisting that the idea of not going to Euston was ‘the Ryanair solution’, a derogatory comparison with low-cost carriers. Sensing defeat, the Camden leaders continued to oppose to the idea in public, but at the same time entered into a coalition with the London-wide actors to convince the Ministers to increase the scope of the Euston station. To this purpose, the local leaders asked the local officials to develop a ‘Euston Area Plan’. Still, the Ministers refused to budge. The same difficulties to strike a compromise were observed between the Mayor of London and the Ministers. The Mayor insisted it could not support HS2 unless the Ministers committed to build another railway line in London, so-called Crossrail 2. The evidence that HS2 would bring chaos to Euston unless Crossrail 2 was built was, however, disputable. And thus the Ministers saw in the Mayor’s claim an uncooperative act of blackmail –“this is saying, ‘I want something far bigger than I’ve got’”, explained a top official. By the end of 2013, the Ministers accepted that cooperation with the London actors had failed. And mindful that time was running out, the Ministers went ahead with their preferred options when the formal plans were submitted to Parliament. In response, the local leaders lodged petitions against the promoter’s plans; one local official explained:

If we end up petitioning, that’s because we failed as a collective. Or alternatively, HS2 didn’t persuade us that our points were wrong nor did they persuade us that their points were right. Petitioning give us some comfort that we’ve the ability to correct what we feel is a mistake, to convince someone about what’s going on; ultimately, it’s about making your case

With unregulated coordination and cooperation both failing, the chances were high that the organization could collapse. But our findings suggest that for the division of labour between politics and management to work, another step was to regulate the integration of effort.

### **REGULATED INTEGRATION OF COORDINATION AND COOPERATION**

The risk of pluralistic organizing ending in impasse is real (Denis et al. 2011). And yet, our findings suggest this risk could be mitigated by regulating the integration of effort. But how could new cycles be instigated to avoid impasse if there was no unified authority? Our findings show that it was up to the elected leaders to initiate a new cycle of coordination if cooperation failed. By exercising individual authority, the leaders could relax deadlines and ask officials to search for new solutions; and if the officials failed again to coordinate interests, it was up to the leaders to compromise and further relax the solution space. If Ministers refused to make concessions, the disputants could threaten to ask the regulator, to settle the dispute.<sup>8</sup>

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<sup>8</sup> The mandate of Parliament was broader, and involved, for example, also resolving disputes between the promoter and actors in the environment who had just been consulted. But this problem is outside the scope of our analysis

An analysis of how consensus finally emerged around the strategic choices for the Euston station is telling. After failing to break the logjam in 2013, the Camden council asked the Parliament to force the promoter to commit on a full redevelopment of Euston, and a new cycle of integration of effort started (pattern 4 in Figure 2). The difference with the previous cycle was that integration of effort was now unfolding under the eye of the regulator. Legally, the government could challenge the recommendations of Parliament, but the political cost made this scenario hypothetical. The task the Parliamentary committee was not that dissimilar to that of officials. The committee was expected to ask all disputants to table their evidence and present their arguments before making recommendations – put it in theoretical terms, the Parliamentary committee was expected to *only* coordinate. Lacking any prior knowledge of the dispute, the Parliamentary committee was very slow to integrate effort. Unexpectedly, a credible threat of a protracted dispute resolution process encouraged leaders to cooperate behind the scenes.

In the case of HS2 Euston, for example, by 2014, with regulated coordination in full motion, the Ministers signalled for the first time in public willingness to make concessions – “maybe we should go for a really big re-development of Euston,” declared the Chancellor after the local leader of Camden council derided the plans as a “a shed being bolted to an existing lean-to”. And by late 2015, the promoter and the Camden council forged a first agreement outside of the Parliamentary process that gave the Camden leaders a place on a future board to oversee the Euston works. Hence, whilst coordination unfolded regulated by Parliament, cooperation occurred outside the Parliament. The agreements forged outside Parliament then halted the regulated coordination inside Parliament, and were incorporated into law. By mid-2016, all major disputes had been settled outside Parliament—the UK government committed to fully redevelop Euston, but the building works would be prolonged for another 7 years to spread the capital cost. In addition, in order to ring fence the HS2 budget, the cost overrun of a full redevelopment would have to be financed by a source yet to be identified—“this is all the art of possible...keep options open, because we don’t have time for a grown up conversation”, said an HS2 board member. With this new compromise, the Camden council withdrew its formal petition.

We could argue at this point that the Euston unit of analysis was an outlier within the HS2 case attending to the political influence of the local actors. But our findings suggest that the division of labour occurred across the sample. Still, we found differences in the speed to integrate effort, and we turn now to examine two salient contingencies: goal congruence and urgency.

## **CONTINGENCIES IMPACTING THE INTEGRATION OF EFFORT**

So far our findings reveal that after a calculated effort to co-opt environmental actors, the integration of effort first revolves around mandated coordination. Politicized cooperation then ensues to resolve trade-offs. If the leaders fail to forge a consensus, more coordination follows. If cooperation then succeeds, the reward is a negotiated consensus. We discuss now how urgency to build consensus does not alter this pattern, but impacts the speed at which it unfolds. Figure 3 shows variance in the speed of integration of effort across the remaining four cases in our sample varying from the efficiency in Birmingham to still unresolved problems in Sheffield. Table 2 summarises our data on the division of labour and integration of effort across the four cases.

<insert Figure 3 and Table 2 about here>

## INEFFICIENCIES EXACERBATED BY LACK OF URGENCY

.We know that consensus is hard to rush. But our findings show that a lack of a sense of urgency to build consensus exacerbates the inefficiency in the integration of effort. The reason seems to boil down to the limited capacity of the elected leaders to get involved simultaneously in multiple disputes, and thus a need to prioritize their attention and time. Indeed, in our focal case, the disputes in the first phase were resolved much faster than those in the second phase. Outside London, all groups of local actors were happy to see their cities on the HS2 route. But the local actors viewed the goal more broadly. For them, HS2 should also be about catalysing growth. To unify the promoter and key local actors, a HS2 Growth Taskforce was set up bringing together all elected leaders, and the goal was adjusted accordingly (see Figure 1).

Setting up a new identifiable system goal did not, however, eliminate divergences a level below. The Sheffield case is a good example of a situation where the coordination problem turned out intractable. For the HS2 promoter and *some* local actors, the HS2 station should go to a vibrant commercial area on the periphery (Meadowhall) to catalyse regional growth, a 5min train ride from the city centre. Because of the low building costs, this strategic choice was viable in the view of the HS2 officials. Yet, other local actors notably the Sheffield City Council vehemently opposed to this choice, arguing that the region would be best served if the HS2 station was located in city centre. However, the HS2 officials ruled out this much more costly alternative. Unlike the Euston case, however, there was limited urgency to reach a decision since the Ministers had targeted to get planning consent for the second phase around the 2020 elections. As a result, between 2011 and 2015, the HS2 officials and the local officials failed to make progress. In agreement with the idea of ‘paralysis by analysis’ (Langley 1985), economic analyses commissioned by the disputants exacerbated the chasm between them. In a cooperative attempt to overcome impasse, the advocates of a city centre station volunteered to partly subsidize the shortfall. Wary of being perceived to play favourites, however, the HS2 officials refused to cave in. And in a formal report in 2014, the HS2 chairman summarised the dilemma to the secretary of state<sup>9</sup>

The debate over the final location of the HS2 station in Sheffield is essentially one between the differing economic impacts and costs of a city centre versus a hub location..... I remain of the view that Sheffield Meadowhall is the right answer. My hope is that, as has happened elsewhere, a consensus is reached on the way forward to which Ministers can respond.

For the Ministers, however, the priority was to resolve the Euston problem, and limited cooperation occurred in Sheffield. This was to the extent that by the summer 2016, the local disputants remained at loggerheads—‘each of the perspectives’, said the Chairman of HS2 Ltd, ‘is entirely valid from the viewpoint of those who hold them, but they have tended to be incompatible’. However, things were now different since a sense of urgency emerged that a decision was due if the promoter was to keep to the initial timetable. The HS2 officials then recommended the Ministers to drop plans to for a Sheffield station in a report<sup>10</sup>—‘no station’ was a third alternative which was also in the initial space of coordinated solutions. An advantage of this choice was that it produced a billion pound savings at a time when the HS2 budget was under

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<sup>9</sup> Department for Transport (2014). Rebalancing Britain. From HS2 towards a national transport strategy. High Speed Two (HS2) Limited. London

<sup>10</sup> Department for Transport (2016). Sheffield and South Yorkshire Report. HS2 Ltd. London



pressure due to other concessions. Similar to the Euston case, the recommendation delighted some local actors (“fantastic news”). But it infuriated others (“this has come as a bolt from the blue”) who pledged to fight it in the Parliament in case the Ministers opt to heed to the HS2 officials.

We conclude by examining how goal congruence (or lack of) impacted integration of effort.

#### **THE IMPACT OF GOAL CONGRUENCE (OR LACK OF)**

So far we have looked at instances where goal congruence was low. Lack of goal congruence was not an impediment to coordinate interests, but complicated cooperation. In addition, we learned that the inefficiencies to integrate effort were exacerbated if there was no urgency. These findings beg the question as to whether these observations hold if goal congruence was high. To address this question, we want to control for urgency. Like the Euston case, the Birmingham case unfolded under conditions of urgency. Unlike the Euston case, however, there was high goal congruence in Birmingham. The elected leaders in Birmingham were all rooting for locating the HS2 station right in the city centre. Still, the elected leaders did not trump the division of labour, and local officials were tasked to coordinate the local interests with the HS2 interests. And this is where cooperation problems emerged after both parties concluded that the single best option for locating the station was a parcel of land already committed to a local developer. Negotiating a way out of this situation was beyond the mandate of the officials. Under urgency to resolve the problem, however, the elected leaders quickly mobilized their attention and capital resources into the problem. The trick was to convince the private developer to waive its development rights—“with a little bit of imagination, we can still do the development we want”, said a Birmingham elected leader. What is remarkable in this case was how high goal congruence enabled to rapidly resolve the cooperation problem, and in one year a deal had been forged with the developer.

High goal congruence also contributes to understand the relative speed with which effort was integrated in the Manchester case when compared to the other cases in the second phase. In this regard, it is worth contrasting the dynamics between Manchester and Leeds. In both cases, we observed a clear division of labour. But whereas effort took one year to integrate in Manchester, it took two additional years in Leeds. We trace the variability in efficiency to differing degrees of goal congruence. In the Manchester case, the initial coordination led to three possible choices with one, Piccadilly (the location of the main city station), standing out as superior on a cursory analysis. But this choice involved two main compromises. First, the UK government would have to let the cost target slip relative to its preferred choice (Salford); and second, one local actor (Salford council) would have to forego the much desirable idea of getting a HS2 station in its own land. A first round of cooperation was inconclusive, and called for more socio-economic analysis. In the second round of coordination, new analysis revealed that a drawback with the Salford option was a large number of demolitions; the analysis also showed that the Piccadilly case was more compelling from an economic perspective. New information resolved the coordination problem, but was insufficient to fully integrate effort. Here, goal congruence between the local leaders played a major role. Colloquially referring to themselves as the “greater Manchester family”, the local leaders had agreed priorities for transport by consensus through the Association of Greater Manchester Authorities—“we haven’t run a vote for 3 ½ years,” said one local elected leader. Through dialogue, the local leaders coalesced their interests around the Piccadilly option. They then leveraged this local consensus to convince the promoter to support local strategic choice—“when I go there, I find a very organised lobby,” said one HS2 official.

In marked contrast, the Leeds case illustrates a more inefficient integration of effort. Similar to Manchester, there was limited urgency to reach consensus; the city was also happy to be on the HS2 route. But unlike Manchester, diverging subgoals complicated matters. The divergences were rooted in the promoter's reluctance to co-locate the HS2 station with the existing city station, a local demand. The coordination effort suggested major savings by keeping the two stations apart (5-minutes' walk), and by 2013 the HS2 officials thought they had convinced the local officials—"as soon as we showed them the line of route," said one HS2 official, "they said, ah, yes, we were wrong; we understand now why all this time you've been pushing for that option". And yet, the local leaders did not buy into the idea, and sent a letter to the Ministers asking government to reconsider. The letter encouraged another cycle of coordination, and in a 2014 report<sup>11</sup>, the HS2 officials recognised the local actors had a point—"as with any problem, there is also an opportunity...[we] need to continue working together". The Ministers heeded to the advice, and in 2015 the Prime Minister announced that the HS2 Chairman had been tasked with relooking at the options.<sup>12</sup> With no urgency to resolve the issues, however, the problem dragged for another two years—"HS2 went into a bunker", said one local official. During this period, the local actors pooled resources to commission more studies, published reports, and gain bargaining power. HS2 Ltd. in turn submitted an interim report to the Ministers recognizing that the original proposal fulfilled their brief, but 'did not sufficiently take into account the changing nature of the wider factors.'<sup>13</sup> Still, the new proposal would hike significantly the cost. Whilst there was sufficient slack to mask slippages, only government could make that decision, which it did in 2016. But by then, the HS2 cost forecast was worryingly close to the budget, and government commissioned studies to find efficiencies elsewhere to bring the costs down-see committed efficiencies in Figure 2. The extent such effort will actually produce the promised results remains indeterminate.

In sum, our analysis shows a clear division of labour between mandated coordination and politicised cooperation. Officials are paid by their employers to search for mutually consensual solutions, and rewarded to carry the task within the constraints created by the rhetoric discourse of the elected leaders. Elected leaders, in turn, are rewarded by their constituencies to politicize cooperation, and thus to shy away from making concessions unless there is no other alternative to avoid impasse. The less urgent the need to integrate the effort, and the lower the goal congruence amongst disputants, the more inefficient integration of effort is. And yet, it is this very same division of labour that enables to deploy individual authority structures to integrate effort.

## DISCUSSION

The integration of effort is a fundamental problem in any form of organizing work. Its resolution requires information provision and processing (coordination) and reward provision (cooperation) (March and Simon 1958, Lawrence and Lorsch 1967, Galbraith 1973, Tushman 1978; Puranam et al. 2012). In extant studies, integration of effort is enabled by procedures and fiat institutionalised

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<sup>11</sup> Department for Transport (2014). Rebalancing Britain. From HS2 towards a national transport strategy. High Speed Two (HS2) Limited. London

<sup>12</sup> Connecting the Northern Powerhouse. High Speed Rail for Leeds City Region. Rethinking Leeds HS2 Station July 2015. West & North Yorkshire Chamber of Commerce.

<sup>13</sup> Department for Transport 2015. The Yorkshire Hub. An Interim report on the redevelopment of Leeds Station. High Speed Two (HS2) Limited. London.

by ownership stakes, regulation, contracts, or merit. This leads to our core question: how does integration of effort occur without a unified authority?

To address this question we studied empirically the planning of a capital-intensive infrastructure, a classic wicked problem of integration of effort. In our setting, the HS2 promoter committed resources to advance its preferred system goal: increase railway capacity. To reduce uncertainty, the promoter selectively co-opted multiple resource-rich actors in the environment—a decision in agreement with organization design predictions (March and Simon 1958, Lawrence and Lorsch 1967). But in spite of decomposing the problem by restricting the decision rights of the co-opted actors, decision-making power over local strategic choices remained diffused. To facilitate the integration of effort without unified authority, labour to carry on the coordination and cooperation tasks was divided by leveraging the individual authority structures. Separating analytically the cooperation and coordination problems is difficult because the interplay between the two tasks is necessary to integrate effort. However, in our focal case, we could separate the two tasks because problem-solving was allocated to different groups of employees. Figure 4 illustrates how this division of labour was important to facilitate integration of effort.

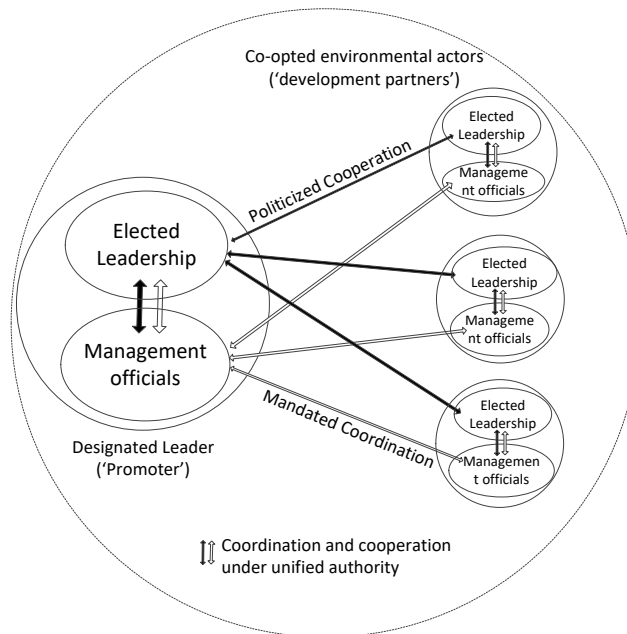


Figure 4- Division of Labour to Integrate Effort without a Unified Authority

It was the job of officials to exchange and process information in order to develop sufficient predictive knowledge to enable a collective search for a restricted set of potential options. The lack of unified authority was not a problem because the officials were mandated to coordinate. But the alternatives put forward by officials were seldom ‘strategic complements’ in that one action of one actor would raise the rewards or lowers the cost for the interacting actor (Levinthal 1988). Rather, the alternatives were often ‘strategic substitutes’ in that one action would raise the cost or lower the reward for the interacting actor. Hence cooperation was necessary to resolve the trade-offs. Negotiating without violating the coordinated space was the job of elected leaders. The problem of cooperation was complicated to resolve because there was no reward systems ex-ante to encourage compromise and reciprocation. Rather, to a degree, it is fair to say that elected leaders were rewarded by their constituencies to act uncooperatively, and bargain hard. Further complicating

cooperation was the lack of known mechanisms to encourage cooperation including group identity, sanctions, and a strong shadow of a future (Baker, Gibbons, and Murphy 2002). The Sheffield case is a good example. There was high goal congruence, but no incentives for the local leaders to settle for less than their preferred choice. And yet, in spite of the difficulties to forge a consensus, no decision-making participant defected. After all, a failure to compromise could kill the opportunity, and in this sense there was a positive interdependence between the claimants to strategic choice.

In practice, the integration of effort iterated between coordination and cooperation until a mutually consensual solution emerged. This iteration unfolded first unregulated, and it invariably led to impasse if goal congruence was low – no interacting actor wanted to incur a sucker penalty, although the rewards to defect were also not large enough. Ministers did not want to relax targets neither to stop dialogue, two outcomes that would hurt them politically. Local actors, in turn, did not want to cave in, but also were not ready to defect. As a new cycle of integration of effort ensued under the eye of the regulator, the logjam was broken and a consensus emerged—a finding consistent with the idea in game theory that monitors and sanctions encourage cooperation (Alchian and Demsetz 1972). The sanction would be the delay to reconcile interests if integration of effort would be left to the regulator. But why did integration of effort proceed faster in some cases than in others? One contingency was the degree of conflict between subgoals. The more the subgoals were compatible, the less strategic substitutability there was. The other was the degree of urgency to integrate effort- the effort and time of the leaders was with the most urgent problem - as Clark 1996 observes, talk is seldom cheap because communication itself is a coordination problem.

The fact that division of labour facilitated integration of effort resonates with organization design literature. Baldwin and Clark (2000), for example, note how knowledge of the design architecture can be leveraged to enable division of labour that facilitates the integration of effort; put differently, modular structures eliminate the need to cooperate. However, our insights are different because our problem was not fully decomposable. Here, the division of labour was enacted not to eliminate the need to cooperate, but to avoid problems of cooperation from getting in the way of the problem of coordination. Elected leaders could not resolve the cooperation problem. But at least, they could mandate coordination, and restrict the solution space.

#### LINKING ORGANIZATIONAL STRUCTURE TO ORGANIZATIONAL PERFORMANCE

Establishing logic between organizational structure and performance is the cornerstone of organization design studies (March and Sutton 1997). As we have a better understanding of how integration of effort happens within a pluralistic form of organizing, we are also in a better position to understand how these organizations perform. Classic organization theory predicts that if the mechanisms that encourage integration of effort are lacking, we should expect poor organizational performance. However, we do not have unified authority. Hence, it seems inappropriate to extend canons of organizational performance valid to the authority hierarchies to our focal organizations. Furthermore, our analysis shows that announcements of performance targets precede decisions to co-opt. Hence, it also seems incorrect to blame performance failures to pluralistic organizing. Here, we propose structure-performance logic that attends to longitudinal integration of effort. Figure 5 summarizes our conceptual model, and we turn now to explain the embedded logic.

*<Insert Figure 5 about here>*

## **STAGE 1: SETTING A PLURALISTIC ORGANIZATION**

Co-opting is a strategic choice in the face of environmental uncertainty (Lawrence and Lorsch 1967). This uncertainty is rooted in the diffusion of direct control of interdependent resources across legally independent actors. Co-opting is also a judgmental process of selection with a view to grow an organization more capable to survive opposition in the environment. Not all environmental actors need to be invited to join the strategizing process, only those that are resource-rich. In this sense, co-opting is also about, as Baldwin (2015) puts it, creating the conditions to resolve system bottlenecks. In the Euston case, for example, the promoter and the London-wide actors excluded the local councils from the initial coordination effort. From their perspective, opening up the organization prematurely could turn the environment against it. What is important to acknowledge, however, is that even before co-opting occurs, the organizational leader is under pressure to announce numeric performance targets. The strategy-as-practice literature tells us that the environment leaves the leader with no other option. These targets are necessary to gain legitimacy to acquire resources (Denis et al. 2011). But co-opting incurs a loss of decision-making. The targets will restrict the initial coordination efforts to produce mutually consensual solutions. But privately, both the leader and the co-opted actors know that the targets are not the end in itself. They are a means to an end. And thus co-opting creates a wicked problem.

### **Stage 2 Mandated Coordination**

Resolving the coordination problem is critical to prevent private interest and opportunism to hold sway over the collective good (Puranam et al 2012). In wicked problems, coordination hinges on voluntary provision of information and technical interaction. Whilst the leader may not pay the claimants to strategic choice to coordinate, the division of labour enables to mandate coordination without cooperation. However, two complications to coordinate arise. First is the difficulty in breaking apart the interdependence between the organization and the environment. This interdependency with the environment can be attenuated by keeping informal flows covert, but cannot be eliminated. This is a problem because as the claimants to strategic choice coordinate their interests, pressure mounts to let the performance targets evolve. However, doing so can put at risk the survival of the organization because enterprises with ambiguous goals need commitment to gain legitimacy to acquire resources (Stone and Brush 1996, Denis et al. 2011). But if the targets cannot be relaxed, and slack resources are insufficient to enable concessions and reconcile differences, the coordination problem cannot be resolved and impasse ensues.

A second complication to coordinate is the difficulty to decompose the pluralistic organization. If a complex system is nearly-decomposable, different parts of the system can adapt to local uncertainties without compromising the integrity of the whole (Simon 1962, Baldwin and Clark 2000). However, pluralistic organizations are hard to fully decompose. In our example, capital was a 'subtractable' resource (Ostrom 1990). The participants expected the promoter to finance all coordination problems. But the more capital was committed to one problem, less capital was left to resolve other problems. Disputes over capital allocation translated into a form of 'reciprocal interdependency', a cyclical situation where the output of one actor becomes the input of another and vice-versa (Thompson 1967). In our setting, a trade-off acceptable to one actor could be unacceptable to another claimant to the same choice. The risk that spending more locally could set precedence amplified the coordination problem. This coordinating structure resembles the notion of 'polycentric structure' (Ostrom 1990), this is a structure consisting of multiple, interdependent centres of decision-making that need to flex to local concerns and show capacity for mutual

adjustment. In this structure, it was the promoter's job to lead a collective search for multiple consensuses. But consensus required relaxing targets, an action that involved cooperation.

### **STAGE 3: CYCLING BETWEEN COOPERATION AND COORDINATION (UNREGULATED)**

In organization design literature, cooperation revolves around rewarding compliance to top-down instructions (Lawrence and Lorsch 1967; March and Simon 1958; Burton and Obel 1984). In our focal problem, the absence of a unified authority limits the ability to 'buy' cooperation through the upfront provision of rewards. Even in the Birmingham case, where the local council bought back the planning rights from a developer, the reward was the outcome of a negotiation. Rather, resolving the cooperation problem revolves around an inefficient search for a compromise. Cooperation is facilitated by repeated face-to-face interaction at leadership level, which contributes to avert opportunism at the expense of collective interest (Van de Ven 1976). But the presence of high-level authorities complicates cooperation since it makes it more challenging to convince the participants that resources are limited (Ostrom et al. 1992). And indeed, our findings show many instances where the interacting parties were unwilling to compromise. Alternatively, cooperation problems could be resolved if government relaxed the targets. Adaptation is a property of complex systems in which interdependent agents adapt their behaviour in response to interaction and learning from each other (Anderson et al. 1999). And this was exactly what happened in some cases. In the Leeds and Manchester cases, for example, both local councils insisted with government to relax the capital constraint. In both cases, government ended up conceding. But cooperation turned out more complicated if either government was unwilling to concede, or the local actors were asking government to play favourites. This brings us to the role of regulation.

### **STAGE 4: CYCLING BETWEEN COOPERATION AND COORDINATION (REGULATED)**

Our findings suggest that where goal congruence was low, the capacity of adaptation of the local groups made it really hard to build consensus. This situation occurred both in the Euston and Sheffield cases. In Sheffield, the local actors' antagonistic interests could not be reconciled with the resources available. And in Euston, the council's political concerns were incompatible with the strategic preferences of the other actors. Whilst the promoter had authority to draw from contingency funds or move the deadline, it also did not want to act that way. In part it was pure negotiation tactics; in part, it was the need to protect targets to preserve legitimacy to operate. Unexpectedly, however, our evidence suggests that the threat of a late intervention of a regulator undercut the risk of organizational failure. Literature in consensus-oriented collective action tells us that conflict-resolution structures attenuate the risks of impasse, power battles, and political manoeuvring (Gray 1989, Ostrom 1990). But the threat of intervention of a third party also creates a negative precondition for the parties to self-resolve their differences (Reilly 2001). The risk is that if the environment provides a structure to resolve disputes, the disputants may reckon that appealing to an external agent will leave them better off than compromising ex-ante. Furthermore, deferring disputes to an external agent is inefficient because it triggers a late cycle of coordination.

Our analysis does not refute these insights. But it suggests that the presence of a regulatory structure encouraged late cooperation. The regulator's intervention was not costly in pecuniary terms for the disputants. But the intervention had a massive cost in terms of time since it aimed to integrate effort only through coordination, requiring the regulator to process all the information provided by the disputants. Hence, unless the disputants cooperated further, the disputants faced a risk of major delays and breakdown of the relationship. This downside risk encouraged late

cooperation. The Euston case is telling. After years of inconclusive talks, a compromise emerged—in exchange for the promoter’s commitment to fully redevelop Euston, the council withdrew the petitions. The content of the commitment agrees with the idea that procrastination creates space for conflict (Denis et al. 2011). Indeed the promoter did not commit HS2 money, but rather committed to resolve the shortfall. Still, the threat of a regulatory intervention enabled the decision-making participants to autonomously break the impasse.

## **CONCLUSION AND POLICY IMPLICATIONS**

In this study we illuminate how organizations can integrate effort without a unified authority, and thus resolve a ‘wicked’ problem. We show how division of labour that leverages individual authority structures facilitates the integration of effort. We also show that integrating effort without a unified authority puts unrelenting pressure to relax the performance targets. This logic helps us move forward a long-standing puzzle over why capital-intensive project organizations regularly ‘fail’. Offering competing explanations are two research strands which are premised on different behavioural assumptions. The first strand assumes that performance targets slip because the promoter, at best, succumbs to optimism bias (Flyvbjerg, Bruzelius, and Rothengatter 2003), escalation of commitment (Ross and Staw 1993), or fails to invest in planning (Morris 1994); at worst, a Machiavellian promoter distorts or misstates facts (‘lies’) in response to incentives in the strategizing process (Jones and Euske 1991, Wachs 1989, Flyvbjerg et al. 2003) A more benign strand assumes that the promoter is benevolent and competent, but also hostage to the interests of powerful actors in the environment (Rittel and Webber 1971, Miller and Lessard 2001, Dvir and Shenhar 19xx). Difficulties in accessing data—extant insights are derived from datasets that ‘blackbox’ the strategizing process - have stuck the debate for 20 years (Pinto and Winch 2016).

In this study, we recognize that the initial strategic choices reflect both the promoters’ objectives, as well as individual cognitive limitations and constraints on the time available to process information (Simon 1965). However, as autonomous actors are co-opted, consensus building becomes a prerequisite to integrate effort. This insight does not refute cognitive explanations that argue the promoter leaders succumb to optimism bias. But it links this optimism to a cognitive bias to underestimate the costs of building consensus. As such, this optimism bias is an enabler of this pluralistic form of organizing. Our insights also do not refute the claim that performance slippages are linked to the interests of powerful ‘external’ actors. But they suggest merit distinguishing between two types of actors in the environment. Some environment actors are co-opted, others not. This differentiation has important implications to public policy.

First, we know that leaders of capital-intensive organizations are under pressure to make commitments to performance targets early on. This is problematic because where one begins a search affects the speed and quality of the search process (Simon 1981). In our focal settings, division of labour suggests that officials coordinate interests, but elected leaders have the last word. This division of labour enables to go around a problem of lack of unified authority. But it leads to targets that reflect political realities. Optimistic targets can be relaxed to enable organisation survival, but not without much inefficiency in the strategizing process. And because the environment punishes leaders if performance targets slip, it is tempting to build substantial slack to mask the cost of building consensus. But slack arguably weakens the bargaining position of the leader, amplifying pressure to relax targets. By establishing logic between pluralistic organizing and the cost of building consensus, this study suggests policymakers want to accept that

performance slippages are endemic to pluralistic organizing. This, in turn, can attenuate the temptation of leaders to commit scarce resources to slack in order to mask performance slippages.

A second implication of the logic between structure and performance pertains to the role of regulators. In our setting, any participant could petition against the promoter's plans. It is thus tempting to blame the regulator for performance overruns since democratic decision-making processes do not scale up well (Rothschild and Russell 1986). The inefficiencies of regulated integration of effort have fuelled calls to eliminate regulation—'it acts as a constraint,' is a common critique. But the debate has bogged down because policymakers are wary of unintended effects of centralising decision-making power over strategic choice. Our study is indeterminate if the threat of regulatory intervention to settle unresolved disputes by is a source of inefficiency because we lack evidence on the counterfactuals. However, we show that the threat of regulatory intervention encouraged cooperation. Thus, prudence is advisable before eliminating regulation.

Worth noting, there are important limitations to the structure-performance logic established by this study. The case study method suits research with public policy implications because it allows for considering longitudinal interdependence with the environment. But this bounds the validity of our insights. Our focal case is enmeshed in the UK context. This environment makes available multiple autonomous actors to monitor strategic choice including court systems, parliament, press, and watchdogs. These monitors are accountable to all the organizational members, and can sanction those who skirt their commitments. For example, if a promoter forges ahead with choices not backed up by solid evidence, it risks an outcry in the court of public opinion as well as seeing its plans overturned in court. Likewise, local actors asking for concessions disproportional to their stakes can see their claims denied by third-parties. Monitors, sanctions, and affordable dispute resolution mechanisms are principles to design arenas of collective action which encourage cooperation (Ostrom 1990 p.90). But these structures are not always available. Hence it remains indeterminate the extent to which our insights extend to more fragile settings.

In conclusion, our study shows that integrating effort without a unified authority hinges on a division of labour between mandated coordination and politicised cooperation. This division of labour facilitates integration of effort by leveraging individual authority structures, but is also a source of much inefficiency. This structure also makes it hard to predict performance. Still, to conform to deep-seated norms, organizations succumb to pressure to commit early on to performance targets, exacerbating the wickedness of the problem. It is time to debunk this myth.

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Table 1- Summary of the Empirical Database and Units of Analysis

Unit	Interviews (*)	Key local actors	Archival local data (§)	Congruence in the local goal	Lower-order divergences	Urgency	Integration of effort	Impact on Performance targets
Birmingham	#18	#5: Local government; 2 local transport agencies; 2 landowners	HS2 Strategy and Planning documents: 22  <i>Local actors' documents:11</i> <i>HS2 (local) documents:6</i> <i>Parliamentary documents: 6</i>	High <i>arriving by high-speed train in the centre will be uplifting experience [City Plan]</i>	Promoter's preferred location requires back pedalling on plans already committed	High	Rapid negotiated consensus  <i>~5 months of talks</i>	Stable schedule, but cost escalation  <i>From £300-400m into ~£500m</i>
London	# 22	#3: London government (GLA) and transport agency (TfL); local borough (Camden council)	Local Strategy and Planning documents: 36  <i>Local actors' documents:14</i> <i>HS2 (local) documents:11</i> <i>Parliamentary documents: 11</i>	Low <i>Not going to Euston is the Ryanair (low-cost carrier) solution [Mayor] vs. It's open heart surgery on a conscious patient [Camden Council]</i>	London-wide agencies support promoter's preference (Euston), but local council opposes	High	Slow negotiated consensus  <i>~ 5 years of talks</i>  <i>Dispute resolved after regulator steps in</i>	Major slippages (time, cost) <i>End of works slips from 2026 to 2032;</i>  <i>Cost: £1.2bn to £2.0bn to £1.6bn to &gt;£4.5bn</i>
Manchester	# 26	#4: Local transport agency; 3 local governments	Local Strategy and Planning documents: 7  <i>Local actors' documents:5</i> <i>HS2 (local) documents:2</i>	High <i>'No transport equals no trade, no trade no jobs....HS2 is crucial to unlock the potential of the North' [City Leader]</i>	Local actors' preference (Piccadilly) costs more than promoter's preferred choice (Salford)	Low	Rapid negotiated consensus  <i>~18 months of talks</i>	Cost escalation  <i>Extra ~£200m for tunnel (40% cost increase)+ integration cost with old station(undisclosed)</i>
Leeds	# 18	#3 (evolved to 13): Local transport agency; 2 local governments; 10 actors joined later	Local strategy and Planning documents: 9  <i>Local actors' documents:3</i> <i>HS2 (local) documents:6</i>	High  <i>'Once in a 100-year opportunity for major sustainable development' [City leader]</i>	Local actors' preference (co-location) costs more than promoter's preference (5-10 minutes' walk)	Low	Slow negotiated consensus ('Yorkshire hub')  <i>~ 4 years of talks</i>	Major slippages (time, cost)  <i>New cost forecast undisclosed; consensus 2 years late</i>
Sheffield	#17	#5: transport agency; 2 regional agencies; 2 councils	Local Strategy and Planning documents: 9  <i>Local actors' documents:4</i> <i>HS2 (local) documents:5</i>	Low <i>'evidence suggests Meadowhall is the best location' [HS2 official] vs. 'this is committing economic suicide ' [City]</i>	Promoter prefers location outside city centre (Meadowhall); some local actors concur, others want it in the city centre	Low	No consensus  <i>~5 years of talks</i>  <i>Dispute resolution deferred to regulator</i>	Impasse unresolved  <i>~£760m savings if promoter last proposal (no station) goes ahead</i>

(\*) 13 interviews with top senior managers discussed the same issues across the five units of analysis as opposed to focus on a single unit of analysis

(§) In addition, we examined #74 documents on the development as a whole including: #13 reports from watchdogs; #13 reports on the economic case; #36 HS2 strategy and planning documents, board minutes; formal letters; and #12 power point presentations

Table 2 – The Division of Labour between the Coordination and Cooperation Tasks to Facilitate Integration of Effort (4 cases)

Unit	Coordination mechanisms	Cooperation mechanisms	Integrating Effort	Illustrative quotes on the interplay of coordination and cooperation
Birmingham	<p>Planning documents <i>Many: modelling reports (~2 from local actors); HS2 design versions; city masterplans;</i></p> <p>Technical interaction <i>working group (monthly)</i> <i>Planning forum (monthly)</i> <i>Consultation (~14 actors)</i></p>	<p>Visionary documents <i>City vision</i></p> <p>Leaders interaction <i>HS2 Strategic board (6-8 weeks)</i> <i>Ad hoc bilateral meetings</i></p> <p>Monetary compensation</p>	<p>Information processing whittled 15-20 options down to 3, and then to single option</p> <p>But it was cooperation effort that enabled to struck a local deal with landowners including monetary compensation and concession (temporary powers)</p>	<p>Coordination: <i>Of the three options, one just worked perfectly well.... the issue was that the Council had that land already committed to a developer [HS2 official]</i></p> <p>Cooperation (compromise): <i>this is the right location and we believe we can rejig our masterplan .... we can sell this on the basis they're going to get something better [ Local elected leader]</i></p> <p>Cooperation (reward provision): <i>The HS2 announcement has been a huge frustration ...this [alternative] is partial solution pending ... the restitution of abortive costs [Project director, 2010]</i></p>
Manchester	<p>Planning documents <i>Many: economic/transport modelling reports (~5 from local actors); HS2 design versions ; city masterplans</i></p> <p>Technical interaction <i>working group (monthly)</i> <i>Consultation (~51 actors)</i></p>	<p>Visionary documents <i>City vision</i></p> <p>Leaders interaction <i>HS2 Steering group (every 4-6 weeks)</i> <i>5 local forums(6-8 weeks)</i> <i>Ad hoc bilateral meetings</i></p>	<p>Information processing whittled 17 options down to 6 and then 3; it also revealed that Piccadilly was the best economic option</p> <p>Compromise was then required from Salford council (who would lose the new station) and from HS2 (who would have to incur significant cost increase)</p>	<p>Coordination : <i>We didn't have a preconceived notion ... It had to follow that consensus around being able to demonstrate economic value [HS2 official]</i></p> <p><i>Salford and Manchester spent a lot of time trying to get consensus. We produced the evidence together, and shared the conclusion [Local elected leader]</i></p> <p>Cooperation: <i>it was really a compromise. ... Salford reps kind of wanted it..it was good HS2 recognised we had a better grip of modelling our city; they could say, 'forget it'[Local official]</i></p>
Leeds	<p>Planning documents <i>Many: economic/transport modelling reports(5 from local actors); HS2 design versions; city masterplans</i></p> <p>Technical interaction <i>working group (monthly)</i> <i>Consultation (~40 actors)</i></p>	<p>Visionary documents <i>#5 (4 local; 3 HS2); e.g., Yorkshire Hub; One North, Rebalancing Britain, HS2Plus</i></p> <p>Leaders interaction <i>HS2 Strategic board;</i> <i>Economic Board ; Combined Authority</i> <i>Ad hoc bilateral meetings</i></p>	<p>Information processing whittled 24 options down to 8 and then 3, but then trade-off emerged.</p> <p>Cooperation effort enabled compromise: HS2 promoter had to accept cost increase, and local actors had to accept more blight on city centre property</p>	<p>Coordination: <i>This is not just about transport, it's about the city aspirations, the connections we can make ...the proposal of a separate HS2 terminus is not commensurate with our ambitions [Chamber of Commerce]</i></p> <p>Cooperation (compromise): <i>The original proposals fulfilled HS2's brief, but did not sufficiently take into account the changing nature of the wider factors... The sum would have been lesser than the parts [HS2 Chairman in HS2 Plus report]</i></p>

Figure 2 – Summary of the Longitudinal Integration of Effort and Performance Consequences for the HS2 Euston Station

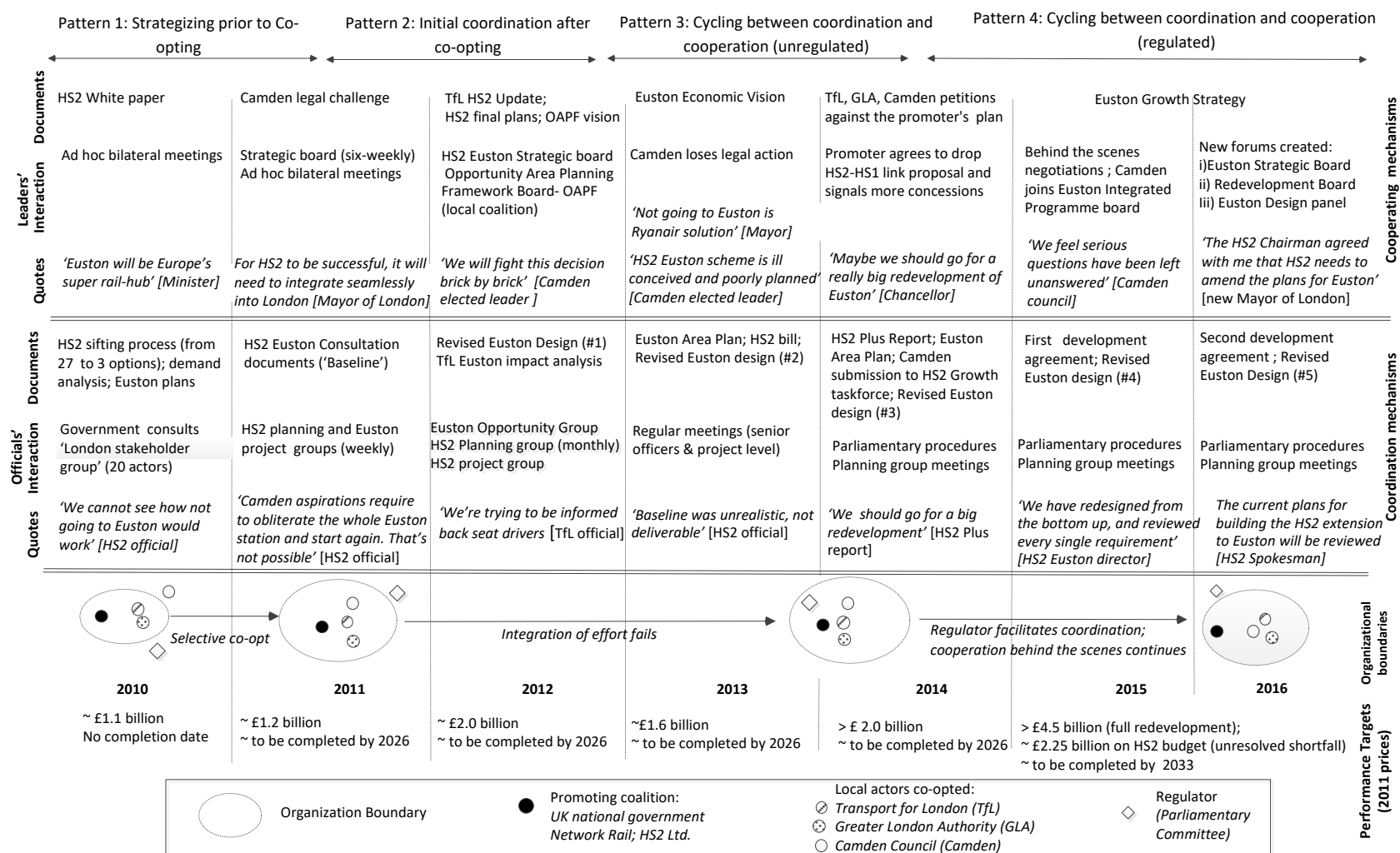


Figure 3 –Stylized Summary of the Interplay between the Coordination and Cooperation Efforts (four cases)

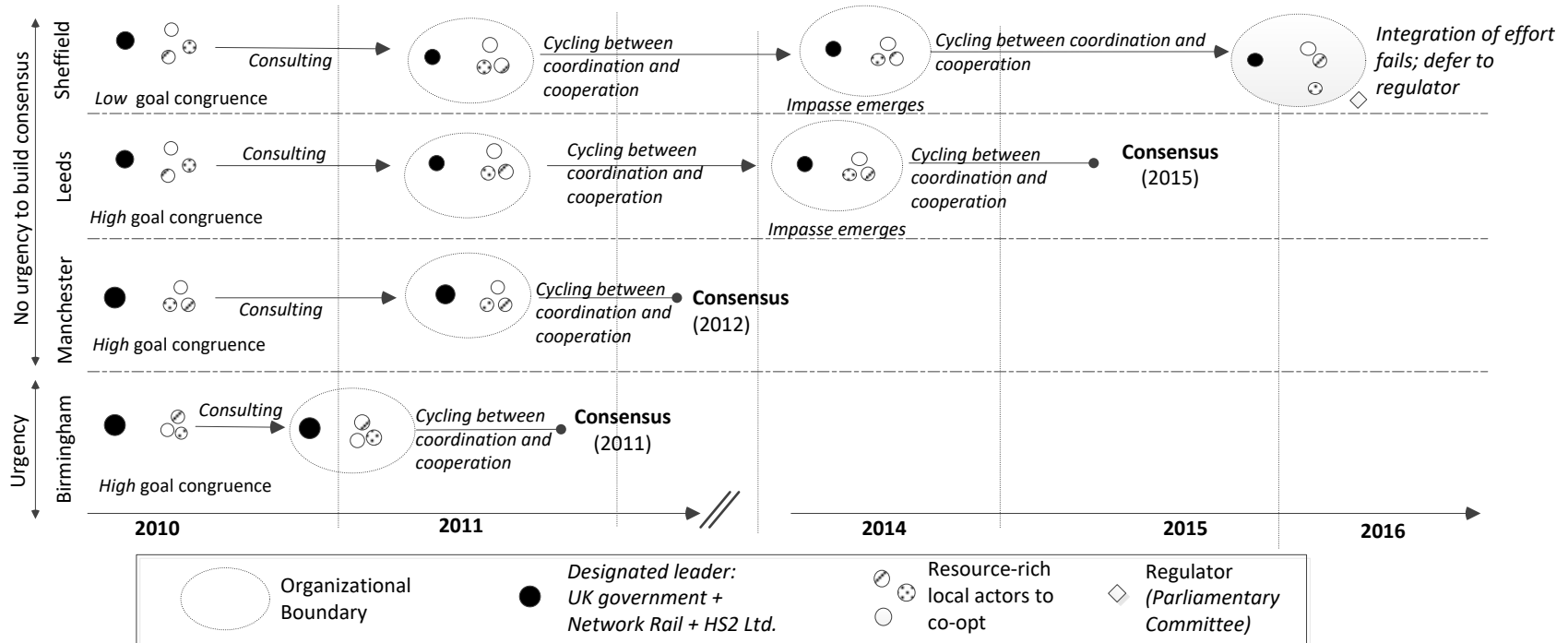




Figure 5 –Integration of Effort in a Pluralistic Setting and Organizational Performance

