



## THE FORMATION OF PUBLIC-PRIVATE PARTNERSHIPS: LESSONS FROM NINE TRANSPORT INFRASTRUCTURE PROJECTS IN THE NETHERLANDS

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Despite high expectations, in The Netherlands the formation of public-private partnerships (PPPs) in the field of transport infrastructure is stagnating. This article addresses the question of why this is the case. On the basis of a comparative analysis of 9 case studies concerning the building of partnerships, 3 patterns are identified. The first is the successful formation of partnerships resulting in enriched projects. The second pattern is that of early interaction resulting in ambitious proposals for which there is no support. The third pattern shows ineffective market consultations followed by unilateral public planning, leading to stagnating contract negotiations.

These patterns are coherent and are caused by a number of generic factors. An important explanation for stagnation is the lack of interaction. As a result, public and private parties will fail to reach a common understanding, will be unable to contribute to the enrichment of the project content and will fail to develop mutual trust. If parties engage in early interaction, the lack of embeddedness of their efforts may result in an uncritical piling up of ambitions and an absence of the capability to realize trade-offs and generate support. These explanations are related to the absence of conscious and systematic attempts to manage and arrange interaction processes aimed at the formation of PPPs. On the basis of these findings the author formulates a number of suggestions to improve the quality and effectiveness of these processes.

In The Netherlands, despite high expectations, the formation of Public-Private Partnerships (PPPs), aimed at the development of transport infrastructure projects, has become stagnant. This article addresses the question

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of why this is the case. It presents the findings from a comparative analysis of 9 cases concerning the building of PPPs in this field.

Although each case has evolved in its own specific way as a result of a unique configuration of actors and factors, on the basis of the comparison, 3 patterns can be identified. The first is the successful formation of PPP resulting in an enriched project. The second pattern is that of early interaction leading to (over-)ambitious proposals for which it is difficult to find support by the relevant parties. The third pattern is characterized by hesitance on the part of those engaged in public-private interactions leading to unilateral public planning, followed by difficult contract negotiations.

In this article, a number of the generic factors, which underlie these patterns, are identified and discussed. An important factor has proved to be the presence or lack of interaction which might have facilitated or prohibited joint image building, the enrichment of project content and the creation of mutual trust. The second pattern – derailing early interaction – resulted from a lack of commitment and inadequate embedding in the broader decision-making context. This prevented trade-offs, support-building and appropriate selection to occur. Furthermore, the occurrence of these patterns was related to the extent to which the formation processes were consciously and systematically managed and arranged. On the basis of these findings, a number of suggestions are made to improve the quality and effectiveness of the processes by which PPPs are built.

## INTRODUCTION: WAITING FOR PPP

At the time it was formed in 1998, the second liberal-social democratic administration of Prime Minister Wim Kok faced an enormous challenge with regard to the realization of transport infrastructure. It was clear at the time that there were insufficient public funds available to meet the various desires, so private contributions to public projects were considered as a possible solution. Thus, public-private partnership (PPP) in the transport sector was put onto the political agenda. Central government identified a variety of projects in which private parties could be involved. These included various motorways (such as the A4 Delft-Schiedam, the A59 Geffen-Oss, the N31 Leeuwarden-Drachten and the N301 Hilversum-Haarlem), the second Maasvlakte (expansion of the Rotterdam dockland area through land reclamation), the Betuwe Line (a new railway for the transport of goods between the Port of Rotterdam and Germany), and high-speed railways between Amsterdam and the Belgian and German borders including the development of various high-speed railway stations and the areas surrounding them (Ministry of Finance 1998; Hörchner 1999).

A number of years on, the results of initiatives to realize public-private partnerships in transportation infrastructures are disappointing. In most projects, successful partnerships have been elusive (Expertise Centre PPP 2002; Dutch National Audit Office 2002). Some initiatives have been abandoned altogether. So far, the only projects which have proved successful in

realizing PPP are the high-speed railway link between Amsterdam and the Belgian border, the A59 motorway (between Geffen and Oss) and the Sijtwende project (a combination of road construction and real estate development in the municipality of Voorburg).

The difficulty experienced in the realization of public-private partnerships in transport infrastructure raises questions about its underlying causes and possible remedies. While expectations of PPP are high, there is little understanding of either the problems that attempts to create these partnerships encounter or the manner they should be dealt with.

In 2000, this knowledge lacuna provided the rationale for an interdisciplinary group of researchers from Erasmus University Rotterdam and Delft University of Technology to undertake an investigation into the structure of PPP formation processes and especially into the factors that contribute to or obstruct the formation of PPP in transport infrastructure projects. As part of this research, 9 projects were chosen and case studies were conducted to determine the actual progress of PPP in those projects (Van Ham and Koppenjan 2002).

In this article, the findings and conclusions of the comparative analysis of these case studies are presented. In the section that follows, the concept of Public-Private Partnership is illuminated. In the next two sections, research questions and the research outline are described. These discussions are followed by an examination of the findings on the course and the outcome of PPP formation processes. Explanations for these findings are discussed in the penultimate section. In the final section conclusions are drawn.

## **PUBLIC-PRIVATE PARTNERSHIP: ITS FORMS AND FORMATION**

In this article Public-Private Partnership (PPP) is considered to be a form of structured cooperation between public and private parties in the planning, construction and/or exploitation of infrastructural facilities in which they share or reallocate risks, costs, benefits, resources and responsibilities.

Structured cooperation refers to the risk-sharing participation of public and private parties that is expressed in a binding agreement (for instance through a contract or the creation of a joint legal entity). In this respect, the cooperation differs from the voluntary involvement of private parties in, for example, an advisory or consultative capacity. Incidentally, in the case of a subsidy relationship, where government does not share the risk in a private project, the relationship is not regarded as a PPP (cf. Whettenhall 2003).

PPP differs from traditional and innovative forms (Design and Construct arrangements) of public-private contracting in that private parties are expected to contribute financially to the PPP project (Moore 1994; Walker and Smith 1995; Hall 1998). In The Netherlands, two types of PPP can be distinguished (Akintoye and Beck 2003). In the concession model, PPP takes the form of a turnkey project in which a private party designs, finances and constructs a public sector project. Private maintenance and exploitation may be part of these arrangements (for example, Design, Build, Finance and

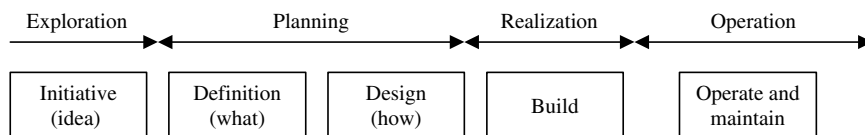


FIGURE 1 *The phases of project development*

Source: adapted from J.M. Fukken, R.A.B. van der Plas and A.L.H. Visser. 2000. *Op de goede weg?: Naar een optimale samenwerking tussen publiek en privaat bij infrastructuur projecten*. Amersfoort: Twynstra Gudde (trans. J.F.M. Koppenjan).

Maintain/Operate arrangements (DBFM/DBFO); National Audit Office 1998; Highway Agency and Private Finance Panel n.d.). The second type is the alliance model in which public and private parties establish a joint corporation to develop, maintain and/or operate the infrastructural facility (Klijn and Teisman 2000).

A second relevant distinction in types of PPPs can be made between PPP in the realization phase and PPP in the planning phase. PPP in the realization phase frequently includes part of the design process (especially the detail design) and may extend into the exploitation phase. PPP in the planning phase deals with structured cooperation aimed at the development of a project in the exploratory and planning phase. This cooperation may be continued in the design, construction and/or maintenance and exploitation phases (cf. Fukken *et al.* 2000). Figure 1 gives an overview of the above-mentioned phases in project development.

The PPP formation process is an *interactive negotiation and assessment process* in which actors – prior to engaging in formal cooperation agreements – define the content of the project, investigate possibilities and risks, arrive at agreements on the distribution of costs, benefits, risks and responsibilities, and decide upon the arrangements that will govern their cooperation (see Van Ham and Koppenjan 2001). Although the initiative for PPP may emerge during various phases in the project, the formation of PPP generally takes place during the exploratory and planning phases of projects. Figure 2 positions the PPP formation process *vis-à-vis* the project phases.

## RESEARCH QUESTIONS: DESCRIBING, ASSESSING AND EXPLAINING THE FORMATION OF PPP

The central question of the study of the PPP formation processes was: how do processes of the formation of Public-Private Partnerships in transport infra-

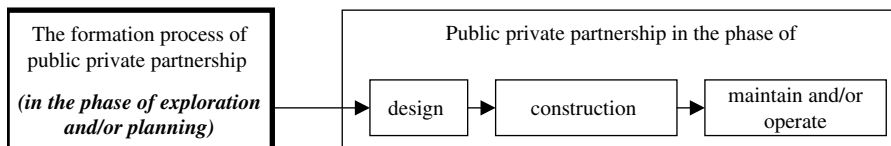


FIGURE 2 *The formation process of public private partnership*

structure projects evolve and which factors contribute to or obstruct their success? This general question was elaborated into the following research questions, which guided the analysis and comparison of the case-studies:

1. How did the formation processes of PPP develop and what outcomes did they produce?
2. How can this course and these outcomes of the formation processes be evaluated in terms of success and failure?
3. Which factors influenced the course and outcomes of these processes?

These questions are elaborated below.

### **The course and outcomes of formation processes**

The course and outcomes of the formation processes are mapped in the case studies by describing the strategies of public and private parties involved, the interactions which result from these strategies and the resulting decisions which form marker points in process of the formation of the public-private partnership. For the purpose of the comparative analysis we characterize the formation process on the basis of:

- The formal *partnership arrangement* which is arrived at or which is aimed at.
- The *project content* which is developed: the substantive and financial surplus value which the cooperation delivers or looks as if it will deliver.
- The *course of the process* and in particular the impasses and advances which occur along the way.

### **The assessment of the formation processes**

Whether the formation of PPP does or does not occur cannot simply be equated with success or failure. After all, it is conceivable that a formation process may stagnate because the risks are too great and the possibilities for covering them are too few. Conversely, a smooth formation process may be due to the fact that the parties involved have given insufficient consideration to the risks involved and have not covered them adequately. The resulting problems will inevitably become manifest in the realization and exploitation phases (cf. Jensen and Meckling 1992; Estache *et al.* 2001).

This study, however, is restricted to the formation of PPP. It does not include the functioning of the cooperation itself since most PPP projects have not yet reached that stage. Where the study talks of success or failure, therefore, this relates primarily to whether the formation of PPP does or does not take place. The formation comprises the project content (was the project defined in such a way as to attract potential partners?), the arrangement (has PPP been achieved in the realization and/or planning phase?) and the course of the process (what progress has been made?). Since we are aware of the above mentioned pitfalls in determining success and failure, we have attempted to indicate flaws in the formation process which obstruct

the successful functioning of a PPP at a later stage and to explain as clearly as possible whether, in our view, in situations where cooperation did not occur, an opportunity was missed or a potential débâcle was prevented.

### **Factors affecting the formation process**

For the comparative analysis of the case studies and based on theoretical notions of, notably, strategic alliance formation, relational contracting, public-private cultural differences and PPP, in this study 16 factors have been identified which obstruct or promote the formation of PPP. For brevity's sake we shall restrict ourselves in this article to the 6 factors which emerged from the analysis as being the most important. These are introduced below.

#### ***Project characteristics***

A number of project characteristics may affect the formation of PPP. First of all, there is the question of whether the project is suitable for PPP. Financial reasons are often the motivation behind attempts to achieve PPP in the construction of transport infrastructure. Efficiency gains, the creation of cash-flow between construction and exploitation, the financial trade-offs between profitable and non-profitable project parts, value capturing (creaming off value increases, notably in real estate located near infrastructure, to contribute to the financing of its construction) and benefit sharing (public authorities share in the profits of the private partners), are capable of making expensive projects affordable and/or saving the government budget (Moore, 1994; National Audit Office 1998; Hall 1998; Association of European Transport 1999; Akintoye and Beck 2003). The question, however, is whether these expectations can be achieved in every project. Much infrastructure provides services which are an indivisible good so that price-setting cannot take place and commercial development and exploitation is not possible (Button 1996).

A second project characteristic concerns the degree of complexity. According to neo-institutional theory, relatively straightforward projects offer more chance of success because uncertainties and risks are limited and known (Williamson 1981; Kremen Bolton *et al.* 1994).

A third characteristic is the distinction between line and point infrastructure. Line infrastructure (for example, a road or railway link) seems to lend itself less easily to the alliance model than point infrastructure (traffic intersections; terminals). Costs and benefits of line infrastructure are spatially spread out and it is therefore more difficult to realize trade-offs through an arrangement than in the case of point infrastructure (Walker and Smith 1995; Van Ham and Koppenjan 2001). These insights into project characteristics lead on to the following question for the comparative analysis: how do project characteristics influence the formation of PPP?

#### ***Political-administrative commitment***

In complex projects a number of local, regional and national authorities are usually involved, which all have different tasks, policies and preferences.

Private companies often consider the public partner to be a multi-headed monster with contradicting strategies. Furthermore, owing to their views on the primacy of politics, governments are unwilling to commit themselves during planning processes so their hands are not tied in the final decision making on a project. And as a consequence of the electoral cycle, policy preferences on the part of the public authorities may change (Borys and Jamison 1989; Walker and Smith 1995). This creates the risk for private parties of 'the unreliable and multi-headed government': they may invest time, money and knowledge in the development of projects, which may not be realized, or which will be realized but without their participation, or with late changes in the design or new policy in other areas which drive up construction and exploitation costs (Van Ham and Koppenjan 2001; Estache *et al.* 2001). Thus the question for the analysis is: how does the problem of the unreliable and multi-headed government affect the formation of PPP?

### *Project content*

Risk management never results in the elimination of risks. Despite efforts to make risks manageable, entering into PPP involves purposeful risk acceptance. But why should parties be willing to do this? A positive motive is needed, a 'motivator' that, in the process of weighing up the advantages and disadvantages of cooperation, tips the scales in favour of the advantages (Fisher and Ury 1981; Borys and Jamison 1989; Niederkofler 1991; Alter and Hage 1993). This might take the form of an idea or concept that is so persuasive and attractive that parties are willing to participate actively, to invest their resources and to accept 'trade-offs' and risks. The question here is thus: how does the proposed project content affect the formation of PPP?

### *Interaction, joint image building and the creation of trust*

In addition to financial risks, complex projects also involve strategic risks: by committing themselves to a project or investment, parties lay themselves open to the capriciousness or the opportunistic behaviour of others, or to the effects of unforeseen circumstances (Crozier and Friedberg 1980; Axelrod 1984; Williamson 1996; Borys and Jamison 1989; Ostrom 1990). Such uncertainties cannot be banished by means of contracts since these are by definition incomplete. This is why trust and joint image building are important. Intensive interaction and flexibility are required, however. Parties mutually adjust their expectations via a number of small steps and gradually get to know and trust each other (Alter and Hage 1993, Graeber 1993; Hakansson and Johansson 1993; Dalphé 1994; Hindmoor 1998; Lane and Bachman 1998; Sako 1998). This insight leads to the question: how intensively do parties interact during the formation and what space is there for joint image building and the development of mutual trust?

***Process management***

An additional obstacle to joint image building and the development of trust in PPP is formed by the institutional and cultural differences between the public and private domains. Whereas Jacobs (1992), for example, considers these differences unbridgeable, others are of the opinion that process management can help to bridge the gap (e.g. Klijn and Teisman, 2000). This may be done by bringing parties into contact with each other, by making agreements about how parties should interact and by mediating in conflicts (Ostrom, 1990; Kickert *et al.* 1997; De Bruijn *et al.* 2002). The question is therefore: to what extent are the formation processes supported by forms of process management?

***Formal arrangements***

Institutional divisions and cultural differences may be bridged by making agreements and laying them down in arrangements (Borys and Jamison 1989; Niederkofler 1991; Williamson 1996). The limitations of contracts were mentioned earlier. If binding agreements are worked towards too quickly, this will obstruct their formation: by going via the gradual route, parties move on from relatively voluntary to more binding agreements (Kremer Bolton *et al.* 1994; Deakin and Michie 1997; Hindmoor 1998).

In PPP, attention is often focused on the arrangements which parties choose in order to give shape to their partnership in the implementation phase (Fukken *et al.* 2000; Expertise Centre PPP 1999, 2001; Akintoye and Beck 2003). Here, we are especially interested in arrangements that support the formation process. In this study therefore the following question is relevant: what arrangements do parties choose to support the formation process?

**THE DESIGN OF THE COMPARATIVE ANALYSIS**

This study is of an exploratory character. The purpose was to increase our knowledge of the formation of PPP by conducting and comparing the case studies (cf. Lijphart 1975). This may form the basis for a more well-founded evaluation of the course and outcomes of these processes and offer indications for the improvement of the quality and effectiveness of formation processes.

The research population consists of recent initiatives for the development and construction of transport infrastructure through PPP. In The Netherlands this population is limited in scope. The projects studied here form a substantial part of this population, which justifies generalizations about the state of the art in PPP in this sector as a whole (Huberts and De Vries 1995). The individual characteristics of projects do vary, however. Earlier, we pointed out the distinction between line and point infrastructure. Furthermore, transport infrastructure is primarily aimed at passenger or goods traffic, sectors which differ significantly both in content and institutional regime. Since our intention was to make generalizations about this whole



population, in selecting the cases and authors we have aimed at a distribution across projects of these types (cf. George 1979; Yin 1994).

Distribution in relation to other independent variables was not yet possible at the inception of the study: an insight into which these were was not gained until later. However, distribution was sought in relation to the dependent variable: whether the formation of PPP was successfully completed or not. At the inception of the study PPP had been achieved in two cases, i.e., the *Sijtwende* project and the *Amsterdam All Weather Terminal*. The other cases had not yet been completed so their outcome was uncertain. We did suspect, however, that in a number of these cases the formation was not proceeding smoothly so that comparisons between cases of relative success or failure would be possible. The as yet unfinished nature of the cases, incidentally, was characteristic of the whole research population. In order to increase our knowledge of the formation of PPP in the field of transport infrastructure, therefore, no alternative was available. This meant that in most cases we had to be satisfied with interim outcomes and provisional findings on the evolution of the process. Nevertheless, the analysis enables us to gain an idea of how the processes have evolved and of the problems and patterns which crop up within them, make a preliminary assessment possible. Moreover, the case studies show that, in the course of the processes, some outcomes had already been excluded, while others became increasingly probable.

Ultimately, the following projects were selected for analysis:

- The *Sijtwende Plan*: a private plan for the construction of a major road in the municipality of Voorburg which would form part of the Northern Ring Road around the city of The Hague;
- The *A4 Midden Delfland*: the construction of a 6 kilometre stretch of motorway between the cities of Delft South and Schiedam/Vlaardingse;
- The *Schiphol Underground Logistical System* allowing for unhindered transport by automated vehicles between the flower auction halls in Aalsmeer, Schiphol Airport and the high-speed train terminal in Hoofddorp;
- The '*Zeepoort IJmond*' Project, involving the construction of a new sea lock at IJmuiden to improve nautical access to the North Sea Canal and the Amsterdam docks;
- The *Incodelta project*: development of new ideas and plans for transport infrastructure and spatial development for the corridor between the Randstad conurbation and the southeastern part of The Netherlands;
- The *Rotterdam High-Speed Railway (HSR) Station Area Development*: a project in which the reconstruction of a railway system is linked to the redevelopment of the railway station and the surrounding urban area;
- The *All Weather Terminal* in Amsterdam: the realization of a covered transshipment facility for bulk goods in the Amsterdam docks;
- The *construction of the Second Maasvlakte*: expansion of the Rotterdam dockland area by land reclamation in the North Sea;

- The *Valburg Multimodal Transport Centre*: the realization of an industrial area and a logistical transfer facility for domestic shipping, rail transport and road transport in the Arnhem/Nijmegen region.

In the 9 case studies, the formation processes of public-private partnerships are described and analysed by authors possessing the relevant expertise about the project concerned using a guideline. The case studies were concluded in October 2002. It has now been decided that a number of projects (Valburg Multimodal Transport Centre, Schiphol Underground Logistical System and Rotterdam High-Speed Railway Station Area Development) will not be implemented in the form proposed. In our view this does not lead to a fundamentally different analysis of the course of the processes during the study period and the mechanisms which affected them.

The case comparison involved an autonomous analysis, based on the criteria discussed above and on the research questions. In the comparative analysis the cases are characterized on the basis of the course of their process and provisional outcomes. The search for an explanation for the patterns found here, was guided by the theory-based questions formulated and discussed above.

### **FINDINGS: THREE PATTERNS IN THE EVOLUTION OF THE FORMATION PROCESSES**

What are the findings on the course and the outcomes of the nine formation processes and to what extent can their content, arrangement and process be considered a success or not? Table 1 gives a bird's-eye view of the course and the outcomes of the processes.

#### **Success and failure in the formation of PPP**

Two of the nine projects that were analysed, namely the *Sijtwende* and the *All Weather Terminal* projects, were successes – both in terms of the evolution of the process and the outcomes as well as in terms of added value. In the first case, success came at a high price: the question is whether ultimately public investment in the project was proportionate to the quality of the realized transport solution.

What about the other cases? In the Zeepoort IJmond project, the Incodelta project, the Rotterdam high-speed railway station area development, and the Schiphol Underground Logistical System, private parties were involved either in the exploratory or planning phases. The interactive working method in the exploratory phase of the Zeepoort IJmond project was reasonably successful: a more realistic view has emerged from it about the possibilities of PPP in the later stages of the project, and it has put the project on the agenda of all the parties involved. Compared to the others, this case differs in that it still has not got beyond the exploratory phase. This makes comparison difficult; the case is only included in the further comparison when statements are made regarding the exploratory phase.

TABLE 1 *Process evolution, outcome and assessment of the PPP projects*

Project	Process evolution	Content	Arrangement
<b>Sijtwende</b>	After years of impasse a private proposal results in constructive cooperation and a rapid conclusion of planning	Innovative solution that reconciled various diverging objectives (road, real estate, noise reduction)	Overarching cooperation agreement elaborated in bilateral contracts
<b>A4 Midden-Delfland</b>	Consultations without follow up; parties hesitant	Scope enlargement; private contributions to natural development, noise nuisance and costs uncertain	Public preparation possibly resulting in DBFM or DBFMO construction
<b>Underground Logistic System Schiphol</b>	Cooperation in innovation cluster; public sector is reluctant, feasibility of crucial programme elements uncertain	Innovative logistic concept that contributes to various objectives (innovation, economic development, accessibility and environment)	Focus on co-financing by government; public participation uncertain
<b>Seaport IJmond</b>	Interactive implementation of societal cost benefit analysis	No scope enlargement in design thus far	Interactive societal cost benefit analysis realized; further involvement still unclear
<b>Incodelta</b>	Private parties involved in strategic planning, no selection of concrete projects	Economic, environmental and landscape objectives are intertwined; realization of innovative projects uncertain	Private involvement will not be continued; follow up by public parties

TABLE 1 (Continued)

Project	Process evolution	Content	Arrangement
<b>Rotterdam High Speed Train Station Area</b>	Early private involvement; PPP combined with active role of municipal council and participation of local stakeholders through interactive policy-making	Large-scale multifunctional development; not all conflicts regarding content are resolved; financing appears problematic	Cooperation agreement and a mutual project bureau; national government does not participate and considers plan too expensive
<b>All Weather Terminal Amsterdam</b>	Quick and easy going process resulting in successful construction and exploitation of facility	Realization of innovative project that integrates a diversity of objectives (harbour development, expansion of the market, environment, labour circumstances)	Rental-buy construction where the municipal harbour authority takes the role of project developer and financier
<b>Second Maasvlakte</b>	Private consultation followed by public project preparation	Private contribution to content limited to the idea of a phased realization; no trade off between infrastructure and exploitation realized	Public preparation possibly resulting in DBFM and BOT construction in later project phases
<b>Multi-modal Transport-centre Valburg</b>	Public preparation followed by difficult contract negotiations	Use of private expertise will be restricted to design details and not enrich the main outline of the project	Public parties establish a development corporation in which private parties participate

In the Incodelta project, the active involvement of private parties in a public strategic planning process was successfully secured; something which was seen as a major achievement. At the same time this is a point of difference with other cases which are aimed at the realization of concrete projects. By looking at whether there was any 'follow-up' to the cooperation and the formulated public-private projects, a basis for comparison was found. From a PPP formation perspective, the conclusion is that we are still waiting for this follow-up to happen and so the project can hardly be considered a success.

In the case of the Rotterdam station area development, PPP was realized in the planning phase but we will have to wait and see how the cooperation continues to develop in the future. What is clear is that the financial trade-off between infrastructure and city development remains limited, and that the ambitious master plan has not convinced all relevant parties. Central government in particular, which has to provide a large part of the funding, considers the plan far too expensive.

In the Schiphol Underground Logistical System project, both public and private parties made substantial investments in the planning phase, but the project remains mainly a technologically motivated, private enterprise. The part that best underlines the public character of this project is the linking of the system to a high-speed train for goods transport – but this is also the most vulnerable and uncertain part of the project. At the moment, the international systems of high-speed railways are restricted to passenger transport. Thus far, private parties have been unable to get central government committed to the project on a more structural basis. Hence, from the perspective of the realisation of PPP, it cannot be termed a success.

In the other cases, the A4 Midden Delfland, the Second Maasvlakte and the Valburg MTC, PPP in the planning phases of the projects was not realized. Conscious attempts towards that goal were made in the first two cases; in the third case the planning was to include private parties only at a later stage. As a result of this unilateral development of the project, enrichment through private expertise and private means did not occur. Furthermore, because private parties in the first two projects were involved in a market consultation that was not followed up by tendering, the government generated expectations among private parties that never materialized. Although chances were missed in these projects, it is too early to view these formation processes as failures. It is still possible for types of PPP to be realized in a later phase of the project.

### **Three dominant patterns**

If we compare the content, arrangements and course of the formation processes we have examined and the assessment linked to them, then – in brief – three patterns emerge:

1. *A quick take-off of PPP* on the basis of intensive interaction in the planning phase resulting in a substantively enriched project, supported by

- relevant public and private stakeholders (Sijtwende and the All Weather Terminal);
2. *Early private involvement supported by interactive decision-making techniques* resulting in an innovative and ambitious project content for which support in the subsequent project phases was difficult to acquire (Incodelta, Rotterdam Station Area Development, Schiphol Underground Logistical System);
  3. *Hesitant and risk-avoiding behaviour* with regard to cooperation in the planning phase, resulting in disappointing outcomes of voluntary market consultations, which, in turn, led to unilateral public project preparation, followed by difficult contract negotiations (A4 Midden Delfland; Valburg MTC; the Second Maasvlakte). The phenomenon of stagnating contract negotiation processes, by the way, is familiar: the same pattern occurred during attempts to create PPPs for the construction of the Betuwe route and several national motorways.

These patterns enable us to compare the case studies with each other. The central question here is: how can these patterns be explained and to what extent can the factors distinguished earlier contribute to this explanation?

### **EXPLAINING THE THREE PATTERNS: IN SEARCH OF GENERIC FACTORS**

In our search for explanations, a first important observation we made was that each case had a unique set of actors and factors that promote or hinder the formation of PPP: each process has its own causal pattern that determines its specific, unique course and content. This is more than an introductory remark since it runs counter to the policy of the Dutch central government to develop standard operations for the realization of PPPs.

This observation does not mean that comparing cases is futile. Firstly, because comparing cases makes us aware of the differences between the cases in the first place. But the comparison of the cases also sheds light on similarities (Skocpol and Somers 1980), factors that were influential in the various formation processes. These factors help us to identify general conditions for and barriers to the building of PPPs. In this contribution we focus on the identification and analysis of these generic factors. Below we discuss the most important observations regarding the three patterns.

#### **How project characteristics matter: givens and constructs**

How do project characteristics influence the formation of PPP? The relatively straightforward nature of the project goes a long way towards explaining the successful cooperation in the realization of the All Weather Terminal. Few actors were involved, the terminal operator and municipal port authority knew each other and what is more, they knew the market. This meant that the risks were clear and acceptable. However, a greater degree of complexity is not an obstacle to entering into bilateral commitments: in the

case of Sijtwende and the Rotterdam HSR station area development, after all, parties decided to participate in risk-bearing investments. There must therefore be other factors which explain the willingness of private parties to participate.

A compelling explanation for the formation of PPP is the extent to which the project can be profitably exploited and financial trade-offs between profitable and non-profitable parts is possible. The cases confirm that some projects (for example, Sijtwende or Rotterdam HSR station area development) offer more opportunities for trade-offs and PPP than others (for example the A4 Midden Delfland). But it is also evident that perceptions and processes play a major part in this. The development of the All Weather Terminal was seen by banks as a risky undertaking, whereas the project ultimately got off the ground without even getting a subsidy.

The insight that projects are social constructs also relativizes the distinction between point and line infrastructure. Both Sijtwende and the A4 Midden Delfland were initially set up as line infrastructure. By including the development of the area in the project, new possibilities for trade-offs and enrichment were created. As a result of this successful scope management, the projects took on the character of point infrastructure.

The conclusion could be that some projects just 'have it in them' to be developed through PPP and others less so. But that is not the end of the matter. Project characteristics are not simply givens but also the products of perceptions and processes. The question, therefore is not only whether a project 'has it in it' to be developed as a PPP, but also whether actors are able to formulate a project that has 'got it in it'.

### **The issue of the unreliable and multi-headed government**

To what extent does the issue of the 'unreliable and multi-headed government' affect the formation of PPP? The two successful cases (pattern 1, shown on pages 147–8) show that a clear political-administrative commitment to the project is an important factor for success. The All Weather Terminal was able to count on the support of the municipal port authority from the inception of the project and there was no opposition. And in the Sijtwende project, despite wrangling among public authorities, there was a clear political commitment to the project: all the public parties involved wanted the road, except for the municipality of Voorburg which elected to be obstructive. The question was not whether Voorburg would back down but only when it would do so. This made it worthwhile for the private consortium to invest in the project. In the other projects the political-administrative commitment was far less definite.

The impasse of many years standing concerning the A4 provides a clear example of a public-public conflict that did not suddenly disappear once the initiative for PPP had been taken. And similarly in the case of Valburg MTC, the difficult coordination between ministries and local authorities resulted in delay.

The case of Rotterdam HSR station area development demonstrates that the familiar call for a political framework or public-public agreements as a solution is too simple. In these cases such an agreement was entered into at an early stage but it was necessarily non-specific. Matters are not arranged once and for all: there is a need for continuous coordination during the later stages of the project. The case studies show that public authorities themselves have a hard time of it achieving coordination due to their conflicting interests and preferences. A private input may well contribute to the settlement of public-public conflicts, as the Sijtwende project shows. The idea of an *ex ante* political framework threatens to exclude such a contribution from PPP to the formation of a project.

### **The importance of a convincing and motivating plan**

How does the definition of the project content affect the formation of PPP? The innovative idea of a covered terminal in Amsterdam offered obvious advantages for both the operating company and port authority management. In the Sijtwende case, changing the scope of the project – tunnelling in combination with the development of real estate – fulfilled this function.

A remarkable feature of projects which displayed the third pattern was the lack of a motivating and clear guiding plan. Ideas for combining construction or tunnel building with urban development or toll levying in the construction of the A4 Midden Delfland never gained an authoritative status. In the case of Valburg MTC it was uncertain whether the ideas developed by the public parties held any appeal for the private parties. In the case of the Second Maasvlakte, consultation between public and private parties concentrated mainly on the format of the cooperation, not on the content. A fixation on the risks to be managed is apparently insufficient to get PPP off the ground; what is needed is an idea which fires people's enthusiasm and which convinces the parties of the advantages and feasibility of cooperation.

The second pattern that emerged in the formation processes shows that early involvement of private parties in project planning in order to achieve an innovative and challenging project content is no guarantee for success. In the Schiphol Underground Logistical System, Rotterdam station area development and IncodeDelta projects, intensive interaction between public and private parties at bureaucratic level resulted in ambitious and expensive plans. These became detached from the objectives and constraints pursued by the relevant decision makers. There was no synthesis or interweaving of goals, but instead an uncritical piling up of ideas and ambitions which brought the whole process to a standstill.

### **Joint image building and the development of trust**

How intensively do actors interact and what space is there for joint image building and the development of mutual trust? The successful cases (pattern 1) were characterized by a lot of interaction and a responsive working



method. In the Sijtwende case, the private parties realized early on that their plan would have to be modified in order to make it acceptable to the public authorities involved. Any problems which cropped up during the implementation were thought over jointly; additional costs were spread among various parties. In the case of the All Weather Terminal, solutions for the location and funding for the project were sought jointly. In both cases a process dynamic was created in which interim, joint 'victories' strengthened internal relationships and reinforced mutual trust.

Intensive cooperation was, again, characteristic of the pattern 2 cases. In the Incodelta project and the Rotterdam HSR station area development, this was supported by the deliberate choice of interactive working methods. The Incodelta project started to show signs of 'projectitis': the project became detached from the broader policy context. The Ministry of Public Housing, Spatial Planning and the Environment, for example, renounced the corridor concept, that formed a central element of the project, shortly after the project began. The influence of the project on further national policy development was limited. The same working method in the design of the master plan for the Rotterdam HSR station area development resulted in a plan with towering ambitions. In the Schiphol Underground Logistical System, previous cooperation appeared to be no guarantee of support. If interaction is not firmly embedded in existing decision-making structures, the result may be an uncritical piling up of wild ideas and ambitions. This does not bring parties together, but rather divides them. So the question is not only whether there is interaction, but also: are the right parties or the right representatives interacting.

In the A4 Midden Delfland case, the Second Maasvlakte and Valburg MTC (pattern 3) joint planning has not so far been adopted. The risks attached are thus avoided. However, this also limits the opportunities for trade-offs and enrichment, and the dynamic of the interaction process cannot do its job: there is no room for joint image building and the creation of mutual trust.

### **The absence of systematic forms of process management**

To what extent were the formation processes supported by forms of process management? The pattern 1 cases contained forms of process management. In the Sijtwende project, the private consortium took on the risk of integral project development and fulfilled a crucial mediating role between the divided public parties. In the All Weather Terminal case, the municipal port authority assumed control.

In the Incodelta project, Zeepoort IJmond and the Rotterdam HSR station area development (pattern 2) process management served interactive policy-making methods. This involved the support at middle management level of limited sections in the process of project development. Supervision and arrangements focused on the formation of PPP at top level, where the crucial decisions are taken, however, were missing. In the Schiphol

Underground Logistical System, the chemistry between a number of 'champions of the project' confined itself to public and private members of what may be termed the 'innovation group'. The bridge across to the policy makers at the ministry was not built by them.

In the projects which displayed pattern 3, forms of process management are to be found but these were limited or not directed towards building bridges between public and private decision makers. In the A4 Midden Delfland case, for example, Provincial Executive Deputy Norder played the role of mediator, though primarily between public parties.

Up to now, the PPP formation processes in practice have had to cope without systematic forms of process management aimed at realizing PPP: whether or not there is a project leader or facilitator who manages to bridge the gap between public-private differences depends on accidental circumstances.

### **The lack of process arrangements**

To what extent are the PPP formation processes that were studied supported by arrangements? The intensive interactions in the successful cases of Sijtwende and the All Weather Terminal were initially not arranged and ultimately relied on bilateral agreements. Apparently PPP can come about without specific arrangements. This however does not mean that arrangements are invariably superfluous. The conditions for interaction and cooperation are not always as favourable as in these cases: in less propitious circumstances process arrangements may be a necessary ingredient to create the mix of conditions under which PPP can come about.

Most of the projects which displayed the second pattern (Schiphol Underground Logistical System, Incodelta and also Zeepoort IJmond) comprised project organizations, cooperation agreements and suchlike to arrange the interactive design process. These arrangements were not explicitly aimed at the formation of PPP, however. In the case of the Rotterdam HSR station area development, the only project in which the planning was supported by a joint legal construction, whereas the arrangement united the alliance partners, it did not, however, link them in their relationship with the government.

The dominant arrangement between public-private parties in formation processes displaying pattern 3 was that of market consultation. This arrangement, at least in the form used in these cases, keeps parties at a distance from each other. Furthermore, the status of the consultations was unclear. This had an inhibiting effect on the efforts of private parties. Although government generated expectations among the private parties about their involvement in the planning of the projects, in some cases it was decided after the consultation round to develop the project publicly after all. Instead of parties being brought together by consultations, the use of market consultations magnified their differences. With the exception of the Rotterdam HSR station area development, which operated from the start on the

basis of a cooperation agreement, public-private relations in the formation processes studied were poorly arranged or only arranged to a limited extent.

### **CONCLUSIONS: FORMATION PROCESSES AS A KEY ELEMENT FOR EXPLANATION AND IMPROVEMENT**

Our search for generic factors, explaining the three patterns in the analysed formation processes, leads to the following conclusions:

1. Each project has its own unique composition of success and failure factors so that solutions which are succesful in one project will not necessarily work in other projects.
2. The perceptions of the profitability and financial feasibility of projects are very important for achieving PPP. To a large extent these characteristics are fixed; sometimes they may be affected, among other things, by scope-management: redefining line infrastructure as point infrastructure.
3. The multi-faceted and capricious nature of the public sector is an important explanatory factor. The call for an *ex ante* political framework is at odds with the need for constant communication and mutual adjustment during the process of project development.
4. PPP is not solely brought about by focusing on risk management. Having a convincing and motivating project content is indispensable. In the processes we studied, the substantive enrichment needed to achieve this was only realized to a limited extent.
5. Failure factors are a lack of interaction or insufficient embedding in the broader decision-making context. A lack of interaction means that a common understanding and mutual trust fail to develop; insufficient embedding means that goal interweaving, the creation of support, and selection fail to occur.
6. The function of process management to bring public and private parties to each other is not systematically fulfilled in practice.
7. During the formation processes, public-private relationships are only arranged to a limited extent.

The comparative analysis shows that both public and private parties have great difficulty in finding the right shape for the processes by which they try to build their partnerships. Due to its voluntary nature and insufficient embedding in existing decision-making arenas, early interaction often ends up not building partnerships, but castles in the air (pattern 2). On the other hand, parties easily become captivated by a 'logic of risk avoidance and division'. They avoid interaction and unilaterally stipulate conditions and content. This restricts the options for cooperation and the creation of added value (pattern 3).

It is rather disturbing that this third pattern corresponds to the line which the Dutch government seems to be developing under the influence of, among other things, the theories of the PPP Expertise Centre (part of the

Ministry of Finance), which in turn has been strongly inspired by the British Public Finance Initiative (National Audit Office 1998; Highway Agency and Private Finance Panel n.d.; Akintoye and Beck 2003). Concession-style forms of cooperation in the realization and/or exploitation phase are a favourite gambit. PPP in the planning phase, public sector participations and integral planning approaches are given less attention or are even advised against as being too risky (PPP Expertise Centre 1999, 2001, 2002).

Our theoretical and empirical research findings demonstrate that this approach to PPP may be counterproductive. Opportunities for bringing about favourable conditions for cooperation and the creation of added value may subsequently be missed. This is illustrated by stagnating contract negotiations, such as in the case of Valburg MTC, and in a number of PPP national road construction projects in the Netherlands. The limited scope for project adaptations during that phase results in zero-sum-games, leading to deadlocks, attempts to pass on risks, and ultimately to suboptimal outcomes.

The findings from this study argue in favour of a 'logic of connection': encouraging substantive enrichment and goal interweaving; promoting interaction in the planning phase; preventing early fixations and instead creating platforms for developing common understandings, trust and negotiations; connecting interactions with broader decision-making procedures, and increasing commitment through process management and arranging the formation process. Table 2 contrasts both the logic of division and the logic of connection.

TABLE 2 *Two approaches to public private partnership*

	Logic of division	Logic of connection
<b>Project content</b>	Scope reduction; subdivision of project into parts; <i>ex ante</i> goal setting	Scope management; integral planning; interweaving of objectives and interests
<b>Project owner</b>	Government is principal (contract giver); private parties are agents (contract takers)	Public and private parties are partners
<b>Risk management</b>	Risks are reallocated and transferred	Risks are jointly assessed, reallocated and shared
<b>Project definition</b>	Unilateral, public project development	Joint project development
<b>Political involvement</b>	<i>Ex ante</i> political framework (public-public agreements)	Management of public and political interfaces
<b>Private involvement</b>	After formal public decision	In the phases of exploration and planning
<b>Project culture</b>	<i>Ex ante</i> clarity about project content and distribution of costs, benefits and responsibilities	Joint image building and gradual development of trust and content
<b>Connecting elements</b>	Contractual agreements	Dependencies, opportunity for gain, trust, and process agreements
<b>Steering principles</b>	<i>Ex ante</i> frameworks, contract management	Process management and arrangements for cooperation

It should be noted that a lot of theoretical and practical work still needs to be done on elaborating and applying the management methods appropriate to shape formation processes of PPP according to these ideas. The second pattern of derailed early interaction makes this quite clear.

We want to end with some reflections on the limitations of our study. First of all, care should be taken that our recommendations do not lead to the realization of PPP at any price. We need more knowledge about the requirements which good risk management has to meet and about what – given the characteristics of the projects involved – constitutes good PPP arrangements. This is an essential point of departure for follow-up research, particularly as more cases become available which have reached the implementation phase, when the disadvantages and shortcomings of earlier choices become apparent.

Secondly, it must be kept in mind that the findings are based on a practice which is still in its infancy and where the processes studied are still 'ongoing'. In combination with the exploratory nature of the study, this means that it is future research that will reveal the extent to which our findings, affected in part by new developments, are tenable.

Thirdly, there is the question of what relevance these lessons from The Netherlands have for the practice of Public-Private Partnership in other countries. Our observations about the importance of interaction and the logic of connection may be specific to the Dutch Polder practices that are characterized by consultation and harmonious relations (cf. Hörchner 1999; Hendriks and Toonen 2001). We wish to warn against the uncritical transplanting of institutional practices from one country to another, since our research findings indicate that even within a single country the solutions that work in one project do not work in another (cf. De Jong *et al.* 2002). At the same time, the generic character of the theoretical framework that we have used to analyse the Dutch cases is such that, we feel, the patterns and explanations found in the specific cases are by no means unique to The Netherlands (cf. George 1979; Yin 1994). This does not alter the fact that the circumstances in which Public-Private Partnership is pursued in different countries, sectors and projects will always differ. This has consequences for how receptive people are to the idea of using a logic of connection and the concrete shape which this will be able to take on in the organization and management of formation processes of Public-Private Partnership.

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