

## **CONSTRUCTION PROCUREMENT BY DUTCH MUNICIPALITIES**

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### **Summary**

*Over the last decade the European Union (EU) has had a strong impact on the way public organisations introduce market philosophies in their policies. The EU directives on procurement, the battles against cartels, the globalisation and harmonisation of markets, all lead to extra attention to the procurement practice of public agencies. This paper focusses on the procurement practice of one of these public organisations, the municipalities in the Netherlands. Statistical data suggest that Dutch municipalities prefer limited tendering procedures, and seem to avoid public tender procedures. This paper reports on the research into the reasons for such preference. Analysis of municipalities' procurement and tendering practice uncovered an intricate mechanism for maintaining project control. Municipalities implicitly use the prospect of future assignments to restrain contractors' misbehavior. By doing so municipalities reduce uncertainties and risks. Contractors' demeanour becomes more flexible, cooperative and quality orientated because of this mechanism. Through the use of this mechanism the relationship municipality-contractor has developed to a kind of co-makership relation. This phenomenon is categorically overlooked in the standard market paradigms. Bending the procurement and tendering practice towards more public tendering is expected to make project control more troublesome.*

### **1. Introduction**

In the Netherlands, over the last decade, the relationships and interactions between municipalities and civil engineering contractors have become a delicate matter. New visions on the task and functioning of public agencies have emerged, more attention is drawn to fairness of public conduct and to the integrity of civil servants, and last but not least the appreciation of the coordinating role of the marketplace has increased. This has resulted in contemporary policies for privatisation, which state intentions of less government and more market, in initiatives for reducing and slimming public agencies, and in attempts for making these agencies operate in a more business-like way (market conformity). These developments, supplemented by the introduction of the EU procurement directives, have compelled politicians and policy makers to take more interest in the procurement of civil engineering

works, and made them more critical towards procurement and tendering practice.

In the debate on what would be the best tendering and procurement practices, a controversy prevails. In a decade of growing faith in the functioning of markets, the municipalities appeared to greatly prefer commissioning the works to a limited number of contractors. In the period between 1991 and 1994 over 64 percent of the projects, which equals 41 percent of turn-over, was commissioned after negotiation with a single contractor. Public tender procedures were seldom used. Of all public agencies the municipalities score the lowest on percentage of work procured through public tendering procedure (see also table 1 for tendering practice in the sector roadconstruction).

	TURN-OVER (mln)	pb (%)	sel (%)	lim (%)	PROJECTS (no)	pb (%)	sel (%)	lim (%)
min. traffic & transportation	2583	75	11	13	2592	25	30	45
other centr government.	840	58	28	14	2964	21	24	55
provinces	1176	50	27	24	2956	17	25	58
<b>municipalities</b>	<b>8415</b>	<b>20</b>	<b>38</b>	<b>42</b>	<b>34345</b>	<b>7</b>	<b>29</b>	<b>64</b>
water authorities	463	55	19	27	1444	14	22	64
main contractors	1922	0	62	38	17407	0	42	58
private sector clients	3833	0	49	51	35452	0	33	67
<b>TOTAL ('90-'94)</b>	<b>19231</b>	<b>26</b>	<b>38</b>	<b>37</b>	<b>97160</b>	<b>5</b>	<b>32</b>	<b>63</b>

pb. = public tender; sel.= selective tender; lim. = limited tender

table 1: tender practice of various clients (period 1990-1994 in NLG)

For the politicians and policy makers who plead for more use of the market, these figures on municipalities procurement practice were hard to understand and to explain. So, the municipality officials had some explaining to do on matters of procurement, and on their relationships and interactions with civil engineering contractors: *Given the benefits of the market, why is the public tendering procedure so deliberately avoided by the municipalities? Why did they frequently prefer to work with a select number of construction contractors?* This paper addresses those issues.

The next section shows a snapshot of the tendering and procurement practice of the Dutch municipalities. The figures and graphics are based on data gathered by the WAC Central Bureau (a Dutch association of road construction contractors). Section three reaches to the core of the empirical research. This section deals with the cooperation between municipalities and civil engineering works contractors. Section four gives a summary of the conclusions. The fifth and last section reflects on the consequences of the research findings for the controversy over best tendering practice.

## 2. Municipalities' Tendering Practice

In the Netherlands there are about 650 municipalities (this number decreases due to merging). On average the municipalities spend some four billion NLG a year on construction works, which stands just under 50 percent of public spending, and over 30 percent of total spending in this sector of the construction industry. To get a more detailed picture of the municipalities procurement practice a database is used. This database was kindly provided by the WAC Centraal Bureau BV. The WAC collects information on projects

(mainly road construction). Contractors in this field inform the WAC each time they put in a bid for a job, and get a job awarded. In the period 1991-1995 the WAC was informed over 99,000 times for a total of 33094 contracts (project with municipalities as client). The average turn-over per year in this marketsector was 1.6 billion NLG. This database was used to separate the three main tendering procedures (see table 2).

	projects (number)		turn-over (in millions dfl)		municip.
public tendering	8%	2723	23%	1936	332
selective tendering	26%	8536	36%	2961	612
limited tendering	66%	21835	41%	3361	649
totals		<b>33094</b>		<b>8258</b>	<b>653</b>

table 2: breakdown of municipalities' tendering practice (1991-1995)

More detailed analysis showed:

- the average municipality spent between 1991-1995 12.7 million NLG on 51 projects. Of these 51 projects, 4 were public tendered, 13 were selective tendered and 34 were limited tendered. Over this five year period the municipalities on average worked with 11 contractors (4.6 contracts per contractor);
- 49 percent of the municipalities did not once in this five year period procure via public tendering procedure;
- the average project size was 251,000 NLG (Public Tender: 0.72 mio NLG; Selected Tender: 0.33 mio NLG; Limited Tender: 0.16 mio NLG). Fifty-two percent of the projects was smaller than 100,000 NLG;
- only 10 out of 33094 projects were larger than 10 million NLG. Only 7 were above the EU-procurement directives' threshold of 5 million ECU.
- 2694 contractors were active in this section of the market; 1565 got one or more jobs rewarded; the average public tender procedure counted on average 15.4 contenders, the average selective tender counted 4.0 contenders.

These results verify that municipalities prefer limited tendering procedures and grant contracts to a limited number of pre-selected contractors.

### **3. A surprisingly cooperative project culture**

To get insight into the reasoning behind tendering procedure selection, some 50 interviews were carried out. These interviews revealed an atmosphere of cooperation between municipalities and contractors which was opposite to the expectations based on literature survey. Publications on procurement and on client-contractor relationships presented a rather harsh picture of the construction market and of the way the players on this market had to cooperate (Emmerson 1962, Banwell 1964, Bowley 1966, Haselhoff et al 1988; Moshini et al 1989; several publications in Fenn et al 1992; see also Dorée 1994). In fact the attitudes of municipalities and contractors towards each other were far less antagonistic, opposing, hostile and conflicting than were predicted by literature (see also table 3).

	EXPECTED (literature)	OBSERVED (interviews)
<ul style="list-style-type: none"> <li>• mechanism of allocation</li> <li>• competition</li> <li>• tendering</li> <li>• project coalitions</li> <li>• horizon</li> <li>• objective</li> <li>• practice</li> <li>• basic attitude</li> <li>• atmosphere</li> <li>• contacts</li> <li>• entry barriers</li> </ul>	<p style="text-align: center;">market price open ad hoc project delivery profit per project competitive/legalistic mistrust adverse ad hoc low</p>	<p>prior experience quality and conduct selected and limited deliberate choice beyond project delivery satisfied client cooperative/flexible mutual trust open/harmonic continuous high</p>

table 3: municipality-contractor relationship

The difference between the expected relationship and the observed relationship was striking. Next to verify this observation 35 intensive structured interviews were undertaken. Furthermore for 117 projects the cooperation within the project was evaluated. The results of this investigations supported the findings of the explorative in-depth interviews: a cooperative rather than a competitive project culture.

What makes the relationship municipality-contractor so special, compared to other client-contractor relationships? It was expected that gaining more insights into the reason for this cooperative project culture would lead to understanding the tendering behavior of the municipalities. To get theoretical footing the relationship municipality-contractor was analyzed from the perspective of three mainstream theories (see also Thompson et al 1991):

- the Rational Contingency paradigm which addresses coordination of activities through organizational hierarchy;
- the Neo Institutional Economics paradigm, esp. transaction cost economics, which addresses the problematic nature of make or buy decisions, especially the dilemma's and uncertainties of contracting out (coordination via the market)
- the Network paradigm which focuses on coordination through inter-organizational networks.

But before we get into that, let us first of all look at some other results of the empirical research.

Construction contractors' continuity uncertainties: Compared to other businesses, construction contractors face problems due to the characteristics of the product. Three characteristics are of main importance in this context: The scale of the product, the uniqueness of the product and the location of the product. The three given characteristics make it impossible for contractors to produce on stock. Therefore, to buffer fluctuations in assignments contractors have to maintain a pending workload. To reduce uncertainties about the future workload, and so reduce the uncertainties about continuity, contractors try to preserve relationships with clients who are expected to generate projects in the future. Since it is impossible to lay products on stock, contractors try to establish a stock of clients. Obtaining a kind of preferred supplier status at a number of clients constitutes a relatively certain future workload and turn-over. Loyal clients should be nurtured. The 35 structured interviews of constructions contractors executives confirmed this argumentation The interviews showed that contractors strive for more continuous relationships with municipalities, and treat the *regular* clients differently from the *once in a while* client (especially more cooperative less legalistic and less opportunistic).

Clients' contracting uncertainties: Since procurement and tendering concern contracting problems, the transaction cost economics paradigm (TCE for short) proved to be the best suited for the description and analysis of this procurement problem. The characteristics of the construction market fit well into the TCE framework (as given by Williamson 1985). TCE acknowledges that in *make* or *buy* decisions production costs are not the only costs to be considered. Contracting-out introduces all kinds of transaction costs. These costs are necessary in order to find a contract party, to reach an agreement, to draft a contract, and to enforce the contract. Furthermore, although contracts are drafted to reduce risks, they also introduce risks. What if the contract turns out to be imperfect, or if the specifications have to be changed? In such cases elements of the original agreement have to be renegotiated. This renegotiating differs from negotiation in the pre-contract period because the post-contract renegotiation takes place in a *small numbers* bidding situation. An ill fated (devious) contractor may exploit this situation (in TCE terms this is called *opportunistic* behavior). Knowing he is the only person with whom negotiations are conducted, he can assess the cost and problems the client will have to bear in case the original agreement is terminated during construction. This puts the contractor in a strong bargaining position. For the client, correcting contract imperfections or effecting change orders may come dear.

Another risk for the client is formed by the so-called *hit and run* tactics, which happens when a contractor chooses to discard the contract terms, cuts corners, expecting this malpractice to stay concealed until he has collected his fee, and is out of reach (also a show of *opportunistic* behavior). Remember, the contract is not the final product. A contract is a formal promise about a postponed delivery. If all seems well at the time the agreement is reached, the contract is drafted and signed. But that doesn't mean that all will certainly go well during execution of the contract. Since views, insights and attitudes change in time, contracts implicate risks.

Interviews municipality officials: Conducted interviews showed that practitioners, civil servants employed by municipalities, are very much aware of the uncertainties and risks of contracts. Running projects, their main concern is project control and therefore control over the contractors' *opportunistic* behavior. At this point a phenomenon surfaced. To control contractors' opportunistic behavior the municipalities direct the contractors' view beyond project delivery, towards the future. If a contractor delivered good quality work, showed a professional attitude and flexible cooperation, he would be considered as a potential candidate for future projects, otherwise he would be excluded, scratched from the list of preferred suppliers. Contractors are aware of this mechanism and act accordingly. This phenomenon was predicted by the TCE framework as a *safeguard*: "*introduce trading regularities that support and signal continuity intentions*" [Williamson 1985:34]. These signals are expected to reduce the tendency to opportunistic behavior, because such behavior may induce an end to a presupposed continuous trading/business relationship. From a contractors' perspective: be careful, you might lose a loyal client.

Using the common metaphor, it seemed clients steered contractors through the projects by using future projects as carrots, instead of using the threat of legal repercussions as sticks. By using this mechanism the municipalities were able to reduce the uncertainties and risks inherent in contracting out situations. The contractors, aware of the clients' memory, are driven to do more than just fulfill the contracts' specifications. Since the client recollects former experiences with contractors before procuring and commissioning new projects, it pays the contractor to put in some extra effort. The primary

contractors' objective shifts from fulfilling the contract to satisfying the client. So, through this mechanism the municipalities are more in control than without it.

Furthermore, the utilization of the safeguarding mechanism induces a situation in which limited tendering procedures are favored and work is repeatedly commissioned to familiar contractors; a pattern of recurrent transactions emerges. The interactions and relationships of clients and contractors becomes more continuous, more stable and more exclusive. Since business relations are extended above contract relations this takes the client-contractor relationship into the realm of the network paradigm. Accordingly the research was re-directed to look more closely into client-contractor interactions to seek and evaluate network characteristics.

Project evaluations were conducted to verify the utilization of this safeguarding. The contractors sensitivity for this mechanism was already substantiated by the 35 structured in-depth interviews of contractors' executives. The effectiveness of the described mechanism compared to legal action is tested in yet another concise survey.

Case evaluations: To get a more in-depth insight into the interaction and cooperation client-contractor on projects, 117 projects of 117 municipalities were evaluated. Data was gathered from the municipalities as well as from the contractors. The project managers of the municipalities were asked several questions about the characteristics of the project, and the performance of the contractor. To measure interaction and cooperation the project managers were confronted with 50 statements concerning different aspects of cooperation. The respondents were asked to state a percentage of agreement: absolute agreement corresponding with 100 percent, a score of 0 percent corresponding with no agreement at all. The scores on the 50 statements were clustered to 12 variables, 6 variables referring to aspects of lack of cooperation, and 6 referring to positive aspects of cooperation. The 117 cases were ranked on a value of cooperation, and clustered into 7 compartments, numbered I-VII. Compartment I contains the 16 projects that scored lowest on client-contractor cooperation. Compartment VII the 16 projects that scored highest (see figure 1).

positive aspects of cooperation:

- contractors' flexibility
- respecting written and oral agreements
- motivation/drive for quality
- mutual trust
- service
- correction of faults

negative aspects of cooperation:

- acquired supervision
- opportunism calculation of claims (price)
- opportunism flaws in specifications
- hiding or withholding information
- opportunism in case of instructions
- attitude of confrontation

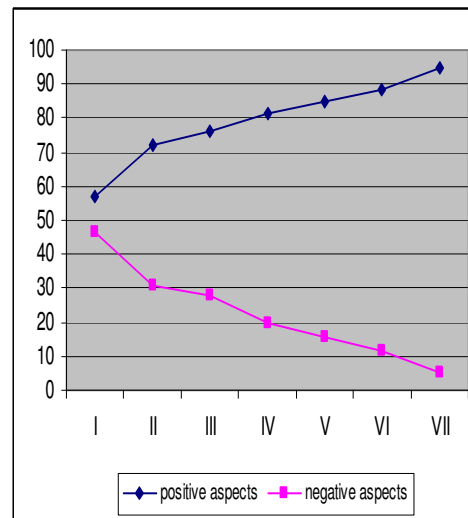


fig 1: cooperation and project control variables across compartments of clustered cases [I-VII] (values express clients' %-tage of agreement [0-100])

The case evaluations showed several aspects of the relationship municipality - construction contractor:

- the client-contractor relationship is more cooperative than expected (verification of the observed nature of cooperation);
- the relationship municipalities-contractors reveals characteristics of co-makership.
- the results paint a consistent picture (absolute correlation of the variables score in the interval [0.36; 0.80]; and 99.99 percent significant); higher scores of positive aspects of client-contractor interaction coincided with lower score on the negative aspects of interaction.
- client-contractor relationships are continuous: only 5 to 8 percent of projects is performed in a new client-contractor combination; more than half of the projects is performed in a combination that has a duration of over 10 years.
- first time client-contractor combinations score on average the lowest on cooperation.
- significant correlation of the expectancy of future work scores and the cooperation variables (esp. *mutual trust*)
- contractors see performance on quality and cooperation important to ensure the likelihood of future assignments.

The results of the project evaluations confirmed the use of this mechanism, where the client uses the carrot of future work to control contractors opportunistic behavior, in stead of the stick of legal actions.

Corrective effectiveness of the mechanism: To test the effectiveness of the mechanism, another 50 municipality officials were contacted to respond on a concise questionnaire. This questionnaire was built around the corrective use of the mechanism. It proposed the use of signals in a corrective fashion, as an implicit warning of exclusion of assignments in the future: signals to make clear to the contractor that he was placing his preferred supplier position at stake. The results of this investigation were:

- post-contractual re-negotiation was a familiar phenomenon to 96 percent of the interviewed;
- contractors' opportunistic behavior was a familiar phenomenon to 92 percent;
- 70 percent saw the described signals as *very* effective;
- 76 percent perceived the signals as far more effective than legal actions.

The results of this survey confirm the effectiveness of the mechanism. Although a number of respondents noted that clients should be very careful in using these corrective signals explicitly. As such signals are given more often, they lose their strength. Also these signals, may be perceived as playing hard-ball, may destroy mutual trust and the cooperative atmosphere, and may subsequently toughen the situation.

#### **4. conclusions**

The empirical data support the theoretical propositions formulated on the notions of the transaction cost paradigm. The first field investigations, and the matching of the findings with the transaction cost economics paradigm, resulted in a perspective on client-contractor relationships which can be summarized in three statements:

- the construction process is performed by a temporary coalition organization. Given the characteristics of products and the structure of the con-

struction industry this is inescapable. This statement is not developed in this paper (for elaboration of this statement see Dorée 1995);

- contracting-out of tasks introduces uncertainties and risks (esp. risks of opportunism);
- risks are reduced by commissioning projects to familiar contractors (into the network realm).

The results of this investigation refer to the problematic nature of the construction market, and the strategies adopted by the municipalities and contractors to overcome this problem. The data gathered by the empirical research supported the assumption on the use of the safeguarding mechanism proposed by transaction cost economics. In their effort to gain more control over separate projects, municipalities choose to reward the performance and contract flexibility of the contractors with new assignments. Therefore municipalities prefer the selective and limited tendering procedures, and avoid the open public tendering procedures. Subsequently recurrent transactions alter the relationships between the municipalities and contractors from just ad-hoc contracting parties towards a more *co-makership*-like state of affairs. This clarifies and justifies why municipalities prefer assigning work to for them familiar contractors; they have sound economic reasons for this behavior. Their tendering practice is aimed at enforcing cooperation in the projects. The implicit relation between contractors' performance and the awarding of future assignments supplies a strong control mechanism on contractors opportunism. A smart contractor looks beyond the delivery of a specific project. Limited tendering enforces this control mechanism, since it favors good performance of contractors.

Taking the described mechanism into consideration has strong implications for the selection of tendering procedures. Public tendering procedures depend on the market for selecting a contractor. Normally, price competition decides which contender gets the job. Public tendering ignores clients' former experiences. It is unaware of contractors' performance on past projects. For rewarding a good job with new assignments, the specific selection of contractors must be in the hands of the client himself. The safeguarding mechanism requires the client to be in control of the selection of the contractor, otherwise the carrot will not be convincing. This is best established by the selective and limited tendering procedure. Broad utilization of the *carrot*-mechanism must lead to a construction market dominated by limited tendering procedures.

The outcome of this study raises questions about the adequacy of the European procurement directives, especially about the emphasis on open public tendering combined with price competition. It appears that the underlying views on the functioning of markets are more idealistic than realistic. The directives ignore the problematical nature of transactions in the field of construction and building, and disregard the value of the procurement (tendering) selection as an effective tool in project control.

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