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Universiteit Twente.

Ruben Hooghwerff

[PROCESS CRITERIA COMPLIANCE IN C2000 PROCUREMENT]

Verifying the satisfaction of process criteria in evaluations on the procurement of the C2000 communications network

1st Supervisor: Dr. P.J. Klok
2nd Supervisor: Dr. A.J.J. Meershoek

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Introduction

Whenever there is need for a specific service or product within the Dutch government, procurement comes into mind. Due to a European legal framework, it has been made necessary to publicly put out a tender whenever the possible budget exceeds a certain threshold. Although it is to be expected that the eventual results of this process abide by sufficient standards, there are several examples of situations where the outcome did not entirely correspond with the initial expectations.

An example is provided by the Dutch emergency forces needing a new communication network. The tender had been put out, but from the starting point onwards numerous hiccups emerged. Reports have been written, and follow-ups to these reports have been published as well. Yet the product is not entirely up to par. The continuous irritation as well as increasing costs causes numerous politicians and journalists to ask for an explanation. The reports do show some insight in the process, but real evaluations and conclusions or recommendations have not been provided.

This research provides a process evaluation that can be conducted by examining reports written on the subject of tendering the overall emergency services communication system in the Netherlands. The emergency services were in need of a controlled tender to update the former divided communication channels, into a comprehensive composed system.

The intention is to explain the process of procurement, to discuss the options that are possible to evaluate, and what criteria can be used to look into the process. Evaluations are conducted to gain insight in, e.g. the process that has been endured. It should be investigated whether the right actions have been taken during the process.

To investigate a process there is a need for a view upon the criteria that matter within the process. The intention is to show in what way the criteria have been used when evaluating procurement and in what way they can be deduced. Procedures are to be explained and criteria should be conceptualized. When using criteria, the possible values should be made insightful. Scales might offer insight in the gradation of meeting the proposed criteria.

Based on literature an assessment framework is to be deduced. This will then be used to investigate the cases offered. The main case concerns “C2000”, a large government controlled emergency communications network able to withstand severe amount of communicative traffic at the same time, when confronted with disasters. The assessment framework is to be used to analyze the data from the reports that have been produced. This way scoring of the process is possible and conclusions can be drawn.

The social relevance of this research lies in the investigation whether the procurement process of C2000 has been conducted according to plan, and whether there are certain elements that could improve learning on public procurement in the future.

Scientific relevance can be found in the use of the constructed assessment framework. The construction of a more standardized list of criteria to evaluate public procurement might offer improvements to the process evaluation on comparable subjects.

C2000 overview – Timeline

In the beginning of the nineties, six regional police forces together with the ‘politieverbindingsdienst’ (communications service within police force), initiated the search for a sustainable mobile communications system that could stand the test of time. They felt the necessity to elaborate on the possible solutions to mobile communication in the future. At the same time regionalization of the police forces was initiated to improve collaboration and information exchange and there turned out to be a desire to improve international communication. With the implementation of the Schengen-declaration, cross-border proceedings were offered new possibilities with this framework it provided. This was cause for a harmonization of radio-systems. (Projectteam C2000, 2006, p.21)

While conducting smaller pilots within the Netherlands, the regionalization of the police forces caused the intention to provide an individual network to each of the regional forces. This caused plans to be set up at the end of 1992 and the beginning of 1993. However during the process of procurement it turned out the process would be too expensive to be paid for by regional police forces individually. The TNO (A Dutch organization researching applied physics) concluded the system had to be built with centralized steering. At this point it has been decided an overall network to be used by police, firefighters and ambulances had to be erected. With this decision a study was started to investigate the urgency and feasibility of a new network. Also it had to investigate the technical, organizational and financial aspects. This had been finished by 1995. (Projectteam C2000, 2006, p.22)

At the end of the year 1996 the secretary of interior informed parliament about the project, named C2000. At the same time the ministry consulted with numerous actors to operationalize the demands and wishes on the new system, resulting in a list of requirements. In 1997 the parliament decided to award the status of large project to the C2000-process. This decision placed certain conditions on the provision of information coming from the project. A single actor was selected by the ministry of interior to realize and manage the order, but in 1999 another actor was added due to inability to deliver. With the intention to deliver first results in 2001 the process was started. However during the year 2000 the first signals of inability to deliver in time were shown. Due to this drawback the official start by the under-secretary was postponed and other tests were initialized. Finally, later in the year 2001 than originally intended the official “Go” has been given. (Projectteam C2000, 2006, p.22-23)

With the main process started, in 2002 side-projects dealing with peripherals and education were started. Also a consultative body was set up to smooth out implementation within the regions. However actors within this body raised their concerns on planning and financials on the product. In 2003 the first regions started the use of the communications network. Also the audit office produced their report on the process. This caused several concerns on the size of the project, lack of financial insight and lack of support. Also information provisioning was sub-par. This was cause for a reconsideration, however continuation was decided. The primary decision at this point was to increase communication and set up a more central management. With the new communication directive the project was finally delivered on November 1st 2004 (Projectteam C2000, 2006, p.25).

Policy approaches

Policy offers numerous examples and handles to compose a sufficient solution while taking into account laws and regulations. In order to be able to erect a sufficient framework to analyze an evaluation, the basic pillars of policy are to be explained.

The public procurement of the C2000 network is an example of policy. It can be seen as an opportunity to thoughtfully produce a product/service to suffice a need within the public domain. The policy on procurement that is available offers a vast and complex web of laws and regulations that should enable large projects to be successfully compiled.

Whenever policy is applied, there is always the question to what extent it has reached its initial goals and whether it has been efficiently achieved. Policy-makers want insights in their results to be able to justify their performance. To achieve these insights, among others, these options can be offered:

- Evaluations
- Audits
- Output reports

"The execution of policy mainly decides on the success of a policy-program. To systematically conduct an analysis in order to consider this success, evaluation is a necessity" (Bekkers, 2007, p.297). Therefore evaluation can be of use to analyze the procurement process on C2000.

The final judgment on success or failure is decided by using determined criteria and the way in which evaluation is conducted. However, policy is characterized by several different approaches that each have their own ways to draw up criteria. This causes the decision making on the success and failure of policy to be more difficult than usually expected beforehand. Judgment is therefore not to be underestimated (Bekkers, 2007, p.297).

The necessity for judgment is usually caused by one of two motives:

1. Political or social accountability
2. Intention to learn

To reach the opportunity to attain one or both the motives usually evaluation is conducted while keeping in mind the perspective the actor wishes to satisfy. It could however be the case that both motives are of importance; a real choice cannot be made at this time. With this indecision in mind, no pre-selection can be made and therefore the policy perspectives need further explaining.

Policy can be studied with 4 perspectives that all have their own focus.

I. Rational approach

This approach is focusing on effect, efficiency and cohesion. Goals should direct the use of means. This can be financials or a legal framework for example. It also stresses the realization of intended output and outcomes. This is usually measured by conceptualizing, and measuring results in figures. It considers the thorough deliberation of means, to eventually be able to conclude on results. Finally it considers the cohesion of the different components of the policy on internal and external consistency (Bekkers, 2007, p.300-302).

II. Political approach

The political approach is emphasizing the importance of securing the position of the stakeholder. Every actor is able to approach a policy differently, with different concerns. Successful policy is stressed by acceptance of others (Bekkers, 2007, p.303).

III. Cultural approach

The cultural approach is focusing on the overall acceptance of the necessity to provide policy. Policy should offer the stakeholders an opportunity to provide an assessment framework that all other actors are willing to abide by. This can only be obtained by thorough use of communication to eventually facilitate collective learning. Policy should be able to create overall acceptance among actors, and is successful if all actors approve and keep on approving (Bekkers, 2007, p.303-304).

IV. Institutional approach

Finally the institutional approach wishes to show that within public management numerous assessment frameworks and different logics of actors may play part at the same time. More opinions may come up and these don't always align. Therefore policymakers, managers, politicians and civilians should be careful in giving a final judgment. Feasibility is important and not only should it entail technical and organizational reality, but also political reality is important. Without sufficient support among stakeholders, policy may fail. Atop of that the institutional approach takes into account the necessity of a legal framework that has its effect on the policy itself, but also its shaping, execution and results. Finally it also takes notice of the ability to learn from the process it investigates. The quality of learning is a relevant factor when considering the institutional rationality of policy (Bekkers, 2007, p.304-305).

Criteria like the aforementioned ones are relevant when analyzing the execution of policy. Therefore in order to be able to evaluate on policy these considerations should be taken into account. Evaluations can be based on a specific approach, but more likely due to the public character of the subject will have input from more than one of the mentioned approaches.

In the situation of the procurement of C2000 the rational and institutional approaches seem most feasible. There is a focus on results, the use of means and intended output and outcome. Also this all is subsidiary to a thorough and complex legal framework as provided by the European Union (2014/23,2014/24,2014/25).

The final analysis should therefor at least show signs of these considerations. It should focus on rational and institutional criteria and the thoroughness of the implementation. There should be determined what the policy has been and how it should be executed.

The policy concerning procurement that has been conducted needs to be analyzed in a comprehensive and structured order. Evaluation provides an opportunity to do so, as stated in at the start of this chapter. According to Bressers (2003, p.173-174): “Evaluation can be described as the judgment of presentation or observation of a certain phenomenon by certain criteria“. Policy-evaluation offers an opportunity to contribute to learning. A top of that it may also provide an opportunity to substantiate accountability to all actors interested in the process. Evaluation may offer insight into the process to anyone. Rossi et al. provides insight in the way evaluation of these policies should be constructed. This is described in the next chapter, focusing on process evaluation.

Evaluation

In order to understand and be able to elaborate on procurement it is possible to use evaluation. Evaluations are intended to gain insight in programs, processes and outcomes or results. This is done by investigating the different actions that are intended in a program, observed during processes or obtained after implementing policy.

Evaluation of program can be done in several different setups. Depending on the information that is to be obtained within the evaluation a certain design can be chosen. Procurement can be considered a 'program' to obtain a certain product or service. The direction of an evaluation and the accompanying method are dependent on the result the evaluator is interested in. Evaluation types generally fall into recognizable types according to the program issues they address. Five such types are commonly distinguished:

- *Needs assessment*: Questions about the social conditions a program is intended to ameliorate and the need for the program.
- *Assessment of program theory:* Questions about the program conceptualization and design
- *Assessment of program process (or process evaluation):* Questions about program operations, implementation, and service delivery.
- *Impact assessment (impact evaluation or outcome evaluation):* Questions about program outcomes and impact.
- *Efficiency assessment:* Questions about the program cost and cost-effectiveness.

(Rossi et al, 2004, p.54)

The procurement of public goods, in this research emergency communication, can be seen as a process to obtain the correct good after carefully deliberating upon the required standards. Evaluations cover a wider range of possible designs, yet, the main goal here is to obtain insight in program operations, implementation and service delivery. Therefore a more specifically tailored branch of evaluation can be used: The process evaluation.

Control function of evaluation

This specific branch of evaluation tends to offer insight into the process that has led to the eventual product or service. "It tends to determine whether the program is delivered as intended to the target recipients" (Rossi et al, 2004, p.64).

Process evaluation can be divided in two more specific branches. Firstly as a freestanding evaluation, yielding quality assurance information, assessing the extent to which a program is implemented as intended and operating up to the standards established for it. To new programs it may offer valuable feedback to administrators and other stakeholders about the progress that has been made implementing the program plan. It can also been seen as an implementation assessment. Process evaluations and the data collection and reporting of key indicators may be institutionalized in the form of a management information system (MIS) (Rossi et al, 2004, p.57-58).

Secondly process evaluation is an indispensible feature to support impact assessment. It offers clarification on the evaluated outcomes, by examining program activities and services that produced the outcomes. It provides an opportunity to gain insights in the relation between implemented program and expected effects. This is done by elaborating on the incompleteness and ambiguousness of the outcomes. Possibly this enables the identification of the aspects of the service instrumental to producing the effects (Rossi et al, 2004, p.58).

It is necessary to distinguish whether there is a possibility to gain longitudinal insights in the tender. The tender on C2000 is concerned with the implementation of a new service, and the evaluation is therefore unable to consider numerous measuring points. Therefor the first one will be chosen in this research.

Process evaluation

Process evaluation is focusing on the enacted program itself; its operations, activities, functions, performance, component parts, resources, and so forth. It tends to verify whether or not it has been delivered as intended to the targeted recipient (Rossi et al, 2004, p.170-171). Most of the times, it focuses on either of two questions; (1) whether a program is reaching the appropriate target population and (2) whether its service delivery and support functions are consistent with the program design specifications or appropriate standards.

Here it is the second option. The evaluation tries to elaborate whether the service delivery is consistent with the initial design. In order to answer sufficiently whether the initial criteria have been met, it is necessary to elaborate sufficiently on setting the criteria for judgment. (Rossi et al, 2004, p.172-173)

Also, "whenever people limit themselves to evaluating the process, this might be due to the inability to gather insights in the effects, for example due to the policy only being implemented for a short period of time. This way people tend to keep in check in what way the performance is consistent with the original intentions of the policy and what bottlenecks arise" (Bressers, 2004, p.179).

The first step in approaching the process evaluation should be to determine the process theory. It must be made clear what the original organizational plan has been, before starting the process, and its service utilization plan should be considered. The starting point of the entire process needs to be determined beforehand. This should then lead to an overall description of the assumptions and expectations about how the program is supposed to operate (Rossi et al, 2004, p.168).

The starting point of the analysis of the process should therefore focus on the initial points in the process. The overall idea of a procurement process should be explained. Building up the process with all the steps that should be taken, should be considered. Regulation and proper conduct should be explored, causing insight in the overall process.

When an overall idea has been made insightful, it should be checked, with criteria, whether the conduct has been fulfilled. Criteria can be deduced from the basic theory on procurement/tenders. "Process theory identifies the aspects of program performance that are most important to describe and also provides some indication of what level of performance is intended, thereby providing the basis for assessing whether actual performance measures up" (Rossi et al, 2004, p.173).

Checking whether the process has been conducted sufficiently can then be done by scoring the actual activities on each of the criteria. The scale used while scoring should be made insightful beforehand. This should be operationalized. “However, when considering performance levels, it is necessary to have clear administrative standards. It must be decided beforehand what levels are deemed acceptable, or sufficient. Coding options should be offered to ensure the usefulness of criteria. Yet these might not be thoroughly operationalized values, it could also turn out to be a judgment call to the evaluator” (Rossi et al, 2004, p.172).

First a basic criteria scoring should be conducted before even considering expanding the design in more longitudinal forms. Even then, the subject might not even be fit to expanded further. It is important to firstly gain an evaluation view of the process before even considering a continued design. Also, “it is generally not advisable to conduct an impact evaluation without including at least a minimal process evaluation” (Rossi et al, 2004, p.177). However, future expansion lies outside the scope of this research.

Research question

Although clear lists of requirements are used whenever finding a solution to a tender, it turns out that even with a large amount of information and literature available results offered are not always sufficient. In order to investigate the problems and to acquire a satisfactory result, first all steps of the process should be examined. It should be made clear what standards of procurement are commonplace.

Tenders are bound by legal regulations and in that way offer clear boundaries to every actor that joins in the process. The boundaries have been set by European law ensuring transparency, proportionality and ensuring no discrimination takes place between actors or countries.

The tendering procedure should be clarified and evaluation of the processes should be explained. Evaluations are possible in numerous different ways, all with their own characteristics. Designs of evaluations differ on subjects, due to the final goal it entails. There is a clear difference between evaluation of processes, program-efficiency and program-outcomes. This should be taken into account when deciding what criteria are to be used.

An assessment framework that is to offer overview of the criteria that are useful when evaluating should be constructed. These subjects should be handled before it is possible to answer the research question. This question is a follows:

> **"What criteria can offer insight in evaluating tenders, and does the tendering of the Dutch C2000 communications network comply?"**

Sub-questions to support this, in order to soundly answer the main research question are as follows:

> *1. What steps does the procurement process entail, and which requirements are necessary for the steps in this process?*
>
> *2. To what extent did the tendering of C2000 comply with the determined criteria?*

The procurement process

In order to coherently determine criteria for analysis there needs to be an insight in the policy that is executed. When dealing with the procurement process, this process needs to be explained. To interpret this, the government has provided a handout that has been offered to procurement officers within its ranks. It converts the complex European legal framework (Directive 2014/24EU), and the Dutch national interpretation to an understandable booklet.

Whenever public procurement is necessary, there is already a legal basis for the steps that have been taken. Within this legal framework organizations can work to find the ideal process to ensure results within the procurement process. The legal basis provided to the Dutch police force is an implementation of European guidelines, operationalized to use in the Dutch public sector.

In theory public procurement consists of several steps: specification, selection and contracting. These three are preceded by a preparation phase in which the program requirements are obtained, by consulting with the different stakeholders. The entire process is held in check by a legal framework. (Ministry I&E, 2011, p.6-7)

Before the actual procurement process is started several decisions have to be taken. There is a need to firstly find out what the actual goal of the procurement is. This seeks to find out which goals should be attained and how these can be achieved. To ensure goal attainment purchasing requirements need to be specified. Criteria need to be selected to which the actual process and product will have to comply with, to ensure optimal use of goods within the main target to maximize goal attainment. (Ministry I&E, 2011, p.6)

The basis to what a product or service should entail should start with an idea of what is needed to offer a solution to the problem. The functional context should be clear, and there should be an idea of the efficiency the result could offer. To ensure optimal outcomes of this process, it is usually divided in several steps to ensure results and enable monitoring by a central authority, most likely the client. (Ministry I&E, 2011, p.6)

When this base has been investigated, the actual tender and the criteria that decide on granting the project will need to be operationalized. Also the European guidelines can be checked on the possibilities to market the proposition. Thresholds have been included in the guidelines to enable different types of procurement, based on the sum of money the entire project will entail. (Ministry I&E, 2011, p.11-14)

Specification

With the knowledge gained, there will be a point in the process when the actual tender needs to be further specified. Details need to be explained to ensure that market parties will understand the specific needs that are part of the tender.

There seems to be a relation between available budgets involved and the degree of detail that is required. Larger tenders tend to have numerous steps causing a rise in financial needs. Yet more steps offer more opportunities to negatively influence the financial state of the procurement. Extensiveness within the procurement process yet shows positive correlation with costs. Financial needs therefor need clear control, though not without lacking sufficient detail as that is yet demanded by law. (Ministry I&E, 2011, p.15-16)

Demands need to be clearly structured. Therefore the purpose of use needs to be extensively investigated. Although important, the functional demands are not the only requirements that need to be up to par. The dependency on factors connected to optimal performance, confident use by personnel, and the possible long-term use can be off considerable importance as well. (Ministry I&E, 2011, p.15-16)

Tenders need to be processed and purchased with an overall thought of sustainable decision-making. Sometimes not buying, but prolonging products' life cycles offers more added value than replacing products with state-of-the-art models. Prolonging can be an option to improve procurement, but also to ensure the legal framework (Ministry I&E, 2011, p.18-19), which will be described slightly later within this chapter.

All of the pieces mentioned above offer the technical details to produce a tender that can be offered to the market. Yet financial criteria tend to have some importance as well. Good and fully functional police cars are the best solution if the price of a single car is reasonable. Therefore technical and functional demand needs to be in tune with financial budgets. This emphasizes the relevance of exploring the budgetary possibilities. (Ministry I&E, 2011, p.20)

As a result of the specification phase a list of requirements will be produced which the final product or service should abide by. There should be a financial proposition as well, or at least some expectation. Also there will be a framework concerning delivery details, timeline and legal safeguards. These safeguards offer possibilities to arbitrate whenever unexpected (legal) issues occur. (Ministry I&E, 2011, p.15-22)

The total list of requirements can be tailored not only to the demands of the tendering organization, but also to offer challenging propositions to the market. Atop of that, also financial possibilities might be explored which might offer a competitive position when contracting happens later on. (Ministry I&E, 2011, p.20-22)

Selection

After the list of requirements is complete and the tender has been offered to the market, there comes a time that market parties offer contracts. They will have weighed the proposition and offered their company to approach the tender and produce a result. In the Netherlands, this is done using TenderNed, a marketplace for all tenders offered by the public sector, available to all. Every tender here is available to whoever feels they are able to offer the service needed. This marketplace is available to ensure transparency of the process, one of the three safeguards issued by law; these will be discussed after the procurement process. (Ministry I&E, 2011, p.20-21)

The selection phase is not entirely detached from the specification phase. The drafting of the list of requirements and the creation of the tender might have resulted in some consultation with market parties. Again this is to ensure the best possible result.

The selection phase tends to follow up on the market research that has been conducted earlier on. Tender parties have responsibilities as well; they need to ensure that possible applicants can indeed offer what they claim. Potential applicants should be scouted and in the end, after approval are to become part of a 'bidders list'. This list contains all the parties that are interested, and able, in offering the required product or service. (Ministry I&E, 2011, p.21)

Finally the tendering party should weigh all the incoming tenders. This can be done by comparing the tender offers to the initial list of requirements, again ensuring transparency. Whenever the technical and functional requirements do not offer a clear winner, financial details, durability or sustainability could offer a decision making criterion. (Ministry I&E, 2011, p.23-24)

Contracting

The final phase is used to secure the contract. Whenever the first phases lead to few bidders being left, final details can be panned out. The contract phase is used to direct the final stage, fixing the tender on detailed levels. The contractor that remains will work out all the details, ensuring the product meets all demands, and ensuring the prerequisites. Finally the deal is sealed. (Ministry I&E, 2011, p.24)

The legal paragraph is added to ensure conflicts can be settled easily. In the end the result will be a final contract of which the intention is to last until the end of the process. All of the details ensure clarity, to decrease the chance of disputes. Also this is again a necessity by law; the contract will offer insights to whoever might be appointed to resolve a conflict. (Ministry I&E, 2011, p.24)

Legal perspective

The procurement process has some clear guidelines mainly set up to ensure a competitive market. They are a result of the European Union harmonizing the market, offering clear guidelines to all parties. This even accounts for parties only conducting business within their own borders.

The law offers a clear set of rules that parties need to abide to. It entails clear step-by-step guidelines to arrange procurement and ensure neutrality. Also financial guidelines are available, ensuring that small tenders can be handled locally, while large financially heavy procurement processes are offered internationally when above a certain amount of capita (Ministry I&E, 2011, p.8 & 28-30).

The main objective is to ensure good market conduct. This is obtained by ensuring that certain rules are followed. These rules focus on proportionality: criteria should focus on the process at hand, and not on projects much larger in size. Criteria that have been selected should reflect the size and expectations of the process (Ministry I&E, 2011, p.8 & 28-30).

Secondly transparency should be offered at all times. The expectations should be clear and available to everyone interested in the tender. Also the final decision on criteria should be obvious and understandable to everyone. Whenever there would be a ranking in criteria, these need to be shown beforehand. Criteria should be clear and understandable at all times, and should ensure the process to be insightful and understandable. Criteria should be used to clarify the process (Ministry I&E, 2011, p.8 & 28-30).

Finally it should be ensured that there is no discrimination in the process. Nationality should not be relevant and everyone should be considered equal during the process. Everything should be verifiable (Ministry I&E, 2011, p.8 & 28-30). Again the criteria chosen should reflect this.

Methodology

Literature offers plenty of opportunities to extract criteria when dealing with process evaluation. The main literature source however won't be fully worked out policy, due to the subject being relatively new. Here the basic structure of procurement and the legal framework as intended in regulations can be of help.

The intention of this research is to analyze reports concerning the procurement of the emergency services communications network in the Netherlands, also known as C2000. Whereas, if necessary, other public sector procurement evaluation reports may be used as well.

As has been explained in the theoretical section, there will be a process evaluation. This evaluation will be a standalone evaluation without intentions to monitor the process. Only the three offered reports on the C2000 subject will be used. These are not combined as a longitudinal design. They have been written by different researchers without the clear intention to follow-up upon earlier reports on the same subject.

In order to obtain a clear and structured assessment framework, it is necessary to select the most viable criteria for this specific subject. These should all be selected with the intention of offering sufficient possibility in obtaining results. They should have a connection to the subject that is to be investigated. Tailoring the criteria to fulfill the needs of this research is therefore a necessary action.

The main objective would be to consider whether the criteria based on theory have been accounted for within the reports offered. Expanding the assessment framework with criteria more used in evaluation in general could adversely influence the research. If sufficient criteria can be extracted, enlarging the list of criteria would not be favorable.

When the assessment framework has been constructed the reports will be checked on whether the criteria have been met. If it turns out the criterion is met, a positive result will be reported. When not met, a negative scoring will be reported. If it is unclear, or it is necessary make a judgment call, this will be reported in the table as well. An extra note on the decision will then be provided.

The overall result will be provided in a comprehensive table, and explanation will be offered in order to supply a clear, simple representation of the findings, if necessary.

Scores obtained by the reports will be compared. Allowing a conclusion to be drawn, and if possible recommendations will be provided to improve the evaluative opportunities on comparable subjects in the future.

Selecting criteria

Due to earlier explanation of the overall idea on procurement, basic standards have been made insightful. The construction of a procurement process shows several constant factors and considerations that tend to return in different sources.

The theory offers several usable criteria, as well as important values that need to be ensured in order to increase the chances of good conduct and successful results. However there are several criteria that may not seem to offer a perfect match with the subject at hand, therefore a judgment call needs to be made to create a sufficient selection. Carefully considering these criteria is a necessity, but there is little danger in adding an extra criterion if there tends to be any uncertainty. Whenever a criterion turns out to be less useful, it can later on be pointed out as rudimentary.

It would be useful if the overall size of the assessment framework were to be contained. A very large amount of criteria could very well add to the overall scoring of the evaluation, but it would also increase chances of unclear considerations and potential bias. Also when dealing with scoring on the different criteria, overview must be maintained in order to clearly indicate the stronger and weaker points of the evaluation reports.

Based on the outlining that has been given on procurement, the following criteria are deemed important to obtain in the construction of the assessment framework. They have been clustered according to their position in the procurement process description. The order of the criteria of assessment may change if this offers better clarity within the analysis.

Assessment criteria and their denomination:

Initial considerations

1. *Have the different stages of the procurement process been passed? (Ministry I&E, 2011, p.11-25)*
   Is there a clear distinction possible between the several phases of procurement that are to be expected within the tender?
2. *Has the overall goal of the tender been set/communicated beforehand? (Ministry I&E, 2011, p.6)*
   Is it possible to extract the overall idea of what the procurement process should offer?
3. *Has there been constructed a list of purchasing requirements? (Ministry I&E, 2011, p.15-22)*
   Is there a clear list to be found on the initial requirements of the product/service that is to be obtained by moving through this process?
4. *Is there a clear idea on what the solution to the problem should entail? (Ministry I&E, 2011, p.15-16)*
   Have there been provided examples of problems that the final product/service should offer a solution to?
5. *Has there been given a clear idea on the context the final product should thrive in? (Ministry I&E, 2011, p.15-16)*
   Is there enough proof of a contextual sketch the product/service should function in?
6. *Has it been decided, before starting the procurement process whether there will be a specific stakeholder monitoring the process during execution? (Bekkers, 2007, p.303-304)*

Has there been appointed a person or organization that is to be turned to when certain situations cause problems or disruptions in the execution of the tender?

Specification

7. *Has the overall goal of the final product within its functional environment been elaborated? (Ministry I&E, 2011, p.15-16)*
   When the final goal is not clear to all parties, this might offer problems when smaller hiccups occur in the execution.
8. *Have functional requirements to the product/service been drafted? (Ministry I&E, 2011, p.18-19)*
   Has the overall environment in which the product is to function been investigated? Has there been taken into account the ease of use on daily basis for all prospected users?
9. *Have technical requirements to the product/service been drafted? (Ministry I&E, 2011, p.20)*
   Has there been given a clear overview of all technical expectations the product/service should abide by, and is everyone able to understand these requirements?
10. *Have financial requirements to the product/service been drafted? (Ministry I&E, 2011, p.15-22)*
    Has there been given a clear idea on the financial margins in which the tender has to be executed?
11. *Have all the parties concerned with the tender been able to understand all these requirements? (Ministry I&E, 2011, p.20-21)*
    Are all these requirements understandable and sufficiently published to all parties concerned with the tender?
12. *Has there been given a clear timespan in which the proposed tender is to be finished and the product should fully function? (Ministry I&E, 2011, p.15-22)*
    A timeframe should be put up beforehand to contain the time in which the tender is to be finished.
13. *Has there been made a distinction between the importance of different criteria concerning the tender? (Ministry I&E, 2011, p.23-24)/(Rossi et al, 2004, p.172)*
    Is there any sign of weighing criteria to ensure their influence on the eventual results of the evaluation?

Selection

14. *Did the tendering organization execute a market consultation to investigate the possible parties and the opportunity that these are able to meet the requirements that have been set up? (Ministry I&E, 2011, p.21)*
    The tendering organization has a responsibility to ensure that the possible parties that turn to them are respectable parties able to meet the requirements.
15. *Did the market consultation to ensure respectable parties result in a bidders-list? (Ministry I&E, 2011, p.21)*
    Has there been given a clear overview of market-parties between which the tendering party needed to decide whom to grant the tender to?

16. *Have all the offers made by the market parties been thoroughly investigated to determine a winner, whom is to supply the tender? (Ministry I&E, 2011, p.23-24)*
    All propositions need to be checked and measured to decide on the eventual winner

Legal perspective

17. *Has neutrality been ensured? (Ministry I&E, 2011, p.8 & p.28-30)*
    Has the playing field offered to the market been equal and neutral to all possible bidders?
18. *Has proportionality been ensured? (Ministry I&E, 2011, p.8 & p.28-30)*
    Were the eventual decision-criteria to grant the tender proportional to the size of the product or service and the environment it is to function in?
19. *Has the entire process been transparent to all parties that have taken part? (Ministry I&E, 2011, p.8 & p.28-30)*
    It needs to be ensured that no party is unnecessarily been favored or disadvantaged while conducting the tender. Did everyone in the process have access to the same information?

Data selection

There have been three hefty evaluative reports on the C2000 communication network up to this point. These reports have been written by different ministries of the government, or have been conducted by an expert group commissioned by a ministry. They show clear signs of thorough research with adequate financial resources to eventually come to a sufficient conclusion on the matter.

Due to the research focusing on the C2000 in particular, the initial case selection only covers these three, all based on completion of the entire tendering procedure, and yet conducted on different points in time. The point in time however does not change the focus of the evaluation. They all describe the functioning of the C2000 communications system within the society and their imperfections:

"Rapport Eindevaluatie C2000", May 2006
as conducted by the Ministry of Interior.

"Eindrapportage expertgroep C2000", December 2009
as conducted by an expert group set by the Ministry of Interior

"Verbetertrajecten C2000 – stand van zaken 2013", March 2014
as conducted by the inspection of safety and justice commissioned by the Ministry of Safety and Justice

These reports will be used to investigate whether the suggested criteria have been met during the procurement process. They offer a viable choice to investigate due to their comparable build up and expected neutrality of the investigators. On top of that they show comparable thoroughness and offer sufficient material to compare and analyze.

Other reports concerning the same subject tend to be considerably shorter, somewhat biased due to the nature of the researching party, or their focus on very specific (technical) details. Also several reports have been found only focusing on one of the numerous parties that were to be using the system when finished. There is an obvious preference to use reports conducting an evaluation concerning the overall system, including all stakeholders.

The analysis and associated table will show whether the reports on C2000 have observed the criteria on procurement specified in the assessment framework. Simply the criteria observed will provide a scoring for each of the selected criteria. All reports may provide input into the table based on the assessment framework. The three selected reports all concern one case, C2000, and all may supply vindication on all criteria within the assessment framework. There is not to be made any distinction in or valuation on the criteria that are to be found in the reports. This research will only focus on whether the selected criteria have been mentioned and whether this has been in a negative or positive way concerning the procurement process. The reports simply provide the data to execute the analysis.

Analysis

In order to provide a clear analysis on the procurement process, the reports are used as sources to obtain data. These are used to check the satisfaction of the criteria in the process on delivering a new emergency communications service. When these criteria are encountered, it is relevant to check whether these criteria are satisfied in a positive (+) or negative (-) way. Whenever the criterion is mentioned as negative, extra wording will be used to indicate why this has been decided. This will then be indicated within the table below.

The findings on the criteria are reviewed per report in order of appearance in the table. This will enable the possibility to draw conclusions per criterion.

The focus of the analysis is on the criteria. Therefore the criteria will be researched one after another. Reports will be investigated on mentioning the criteria, including their negative or positive valuation on the criteria.

When conducting the analysis the different criteria will be filled out according to the table shown below:

		rapport eindevaluatie	expertgroep	verbeter-trajecten
1	different stages passed			
2	overall goals communicated			
3	list of purchasing requirements			
4	idea of the solution			
5	idea on context of final product			
6	stakeholder responsible for monitoring			
7	goal of product within environment			
8	functional requirements			
9	technical requirements			
10	financial requirements			
11	understandable requirements			
12	clear timespan			
13	importance of criteria			
14	market consultation			
15	bidders-list			
16	thorough investigation on bidders			
17	neutrality			
18	proportionality			
19	transparency			

When starting on the first report, simply reading it page by page offers quite an insight already. The reporting on criteria will be based on observed criteria reading through the report. Afterwards the report will be summarized by scoring the table. All these tables are combined to ensure scoring per criteria. The overall results are only based on criteria; the report itself again only provides input in data.

“Rapport Eindevaluatie C2000”, May 2006

While reading through the report, criteria are easy to identify. The report is extensive and there is a good amount of detail. Numerous sources are provided to enable to further investigation if necessary.

The different stages of the process are extensively covered. There has been a clear idea on the procurement process at the start of the project (+). However due to a lack in communication between the different actors there have emerged problems concerning the expectations. Although goals have been communicated, these were not clear enough to all actors causing problems during the process (-). “The project goals have been altered over the course of time, this has led to room for interpretation” (p.46)

The lack of communication did not only influence the setting of goals. The extensive list of purchasing requirements, in combination with a lack of communication, was cause for extra problems. The requirements had not been constructed SMART creating different expectations between the numerous actors (-). “In this project tasks have been developed and carried out along the way, alterations have been made as it was not possible to rely on previous experiences” (p.47)

With this list of requirements, although not perfectly communicated, there was a clear idea on the solution to the problem. The basic idea of a solution did definitely exist (+) A clear idea of the final product was available from the client point of view (+).

Due to the numerous requirements and thoughts on the final solution there however turned out to be a serious problem with communication. This also caused lack in control. First, intermediate, and late steps were badly communicated and monitoring turned out to be very difficult (-). This caused a later decision to install a “project-director” (p.47)

With all the requirements extensively thought out, although badly communicated, a clear goal of the product within the environment was available. The final product should cover the emergency communication whenever control was mostly needed (+). The extensive list of functional requirements was available (+) and technical requirements were definitely provided. However, technical requirements turn out to be difficult to understand to some actors. The implementation eventually was negatively influenced by this (±). “Until the installation of the project-director, the different actors used different project-management methods, causing difficulties in project management”. (p.48)

The financial requirements caused a problem to the process. Due to the extensiveness of the project, it is difficult to elaborate on budgets. This turned out to be a problem to this procurement project as well. Exceedence of the budget has occurred. (-). The investigation into the financial possibilities beforehand “have not been based on complete data” (p.58).

The requirements of the project however, when in the selection phase had been panned out, causing relatively clear expectations to the market parties (+). Yet, due to the difficulties in the specification phase and the unclear technical requirements to some actors, delay occurred for 2 years (-). Nothing is mentioned on several criteria being more important than others.

Although the procurement process increased its initial timespan, part of this was caused by a more thorough market consultation (+). Tender selection has been an important aspect and there has been put above average time in the creation of a bidders list (+). Yet, with the serious time spent on the investigation of the possible market parties, there turned out to be problems with investigating the bidders. There has not been enough investigation on the certainty that the market parties interested in the tender could eventually deliver (-). "The building- and development pathways are entangled causing TetraNed being unable to deliver according to agreement. Some parts have therefore been delivered with delay" (p.66)

Due to problems when considering the roles of the initial client and eventual contractor, neutrality could not be ensured. This caused communicative problems. Neutrality could therefore not be ensured throughout the process (-). "An important boundary condition is the clear separation of tasks and responsibilities being formalized" (p.71)

Proportionality has not been discussed. However, although several problems in communication can be reported, this has not been cause for problems in transparency. Due to the importance of this project, in combination with public money and political monitoring, there has been transparency throughout the process (+).

"Eindrapportage expertgroep C2000", December 2009

The expertgroup report focuses in more detail on actors and the communication between them. It emphasizes the importance of requirements and the usability of these by all actors concerned with the procurement process. They intend to find the actors responsible for the hiccups that have occurred.

The numerous different stages of the procurement process have been taken (+). Yet there seems to be a misbalance between the different actors within the process. "There is little or no communication", and there appears to be a lack of trust between the different stakeholders (-) (p.54-56)

There is clear mentioning of the extensive list of requirements set up beforehand (+). Also a clear idea on the solution is reported (+), and there is a clear thought on the eventual solution (+). However, there is a serious issue with the monitoring of the process. Little communication between actors and no stakeholder made responsible to monitor causes responsibility issues (-). "To soon has the decision been made to cancel the project-director, and has regular control been awarded to MIV whom only had an advising role" (p.21)

Although there is a comprehensive thought on the final goal of the product to its environment (+), sufficient elaboration on functional (+) and technical (+) requirements, financials show serious problems (-). "The available exploitation-budget is sufficient to conserve the network after being stabilized, regular management of the system has started with a backlog" (p.58)

Due to the inability to allocate responsibilities to different actors, the finished product is not up to par, and extra money needs to be spent in order to get the product to work the way it should. With understandable requirements (+), but unclear responsibilities, this causes the initial timespan to be exceeded (-). “Erect a powerful temporary, for the duration of three years, project-management to resolve the spotted problems” (p.9). This is mainly caused by the necessity to ‘repair’ the finished product in order to function up to standards.

There is a clear focus of the report on responsibility of actors. It has been selected as the important criteria of this report (+). There have been offered plenty of conclusions to offer insights in this specific procurement process and its flaws.

No attention is given to the selection and contracting phase of procurement. However extensive data is provided when considering the legal perspective. There is a lack in communication and control, causing a disruption of the process and the availability of information to all actors. Neutrality has therefore not been ensured (-). The finished product is immediately in need of ‘repairs’ causing serious proportionality questions to the actors (-). Also due to the lack of confidence between the actors within the process, communication is flawed and transparency is problematic (-). “This ‘false start’ in transferring management of C2000 is to be repaired. In this setting a temporary new powerful project-management is needed to solve the spotted problems” (p.56)

“Verbetertrajecten C2000 – stand van zaken 2013”, March 2014

The final report is more of a follow-up on the procurement process that has taken place. It focuses on the importance of ensuring that the initial level of quality is met and that this quality is maintained afterwards.

The report does not cover the numerous steps the procurement process should entail. It focuses on the continuation of quality. It does however communicate the goals of the product, or the improvement it is to undergo in order to be up to par (+). It stresses the expectations of the original product and its requirements and yet offers numerous examples of projects that are to be finished to get C2000 on a sufficient level. Expectations are therefore insufficient (-). The fact that the entire C2000 needs this amount of amends ‘8’ is cause for concern (p.37-53).

The original idea of the solution C2000 should offer is communicated (+). There is an idea on the context of the final product (+) and a clear denomination of the responsible actors to every improvement process has been given (+) (p.37-53).

The goal of the product within the environment is clearly stressed (+), due to several improvements being discussed. Functional (+) and technical (+) requirements of all smaller projects are offered to ensure the optimal use of the communications network in the future. However there is no mentioning of financial requirements, the focus is clearly on ‘repairing’ the product. Also the understandability of the requirements is not part of the report (p.37-53).

The timespan however is a special situation. The projects discussed within the report are given a timespan, yet already there has been given the option of delay. “Due to lack in capacity and stagnation in decision-making there is a delay in the fourth quarter. In the second quarter of 2013 the decision is made to take the procurement of peripherals out of the 'Portogewoon' project, and assign it to facility management. Up until this point in time the procurement has not yet taken place" (p.42). This is however already part of an improvement project.

The intention of all the given examples is focusing on improvements and all imply an imperfectly functioning product. Finances (-) and timespan are insignificant (-). All in all there definitely is a clear emphasis on some criteria. The goal is a functioning product, and it should be obtained. The emphasis is therefore placed on the requirements and the idea of the solution (+) (p.37-53).

Finally only proportionality is really mentioned. The product is not functioning up to par, so there is a lack in proportionality beforehand. All the mentioned projects are to improve the product in order to get it up to the originally expected functionality (-). The necessity to ameliorate several functions of the product shows a clear sign of inability to deliver, possibly due to the size of the project compared to the possibilities of the actors (p.37-53).

Overview

The overall results, found in the analysis of the different reports can be made insightful by using an excel sheet. The criteria have been given and the scoring indicates whether the criterion has been mentioned within the report. If negative, there has been given extra explanation in order to derive conclusions.

		Report 'eindevaluatie'	Report 'expertgroep'	Report 'verbeter-trajecten'
1	different stages passed	+	+	
2	overall goals communicated	- unclear, not SMART	- insufficient communication due to lack of trust	+
3	list of purchasing requirements	-	+	
4	idea of the solution	+	+	+
5	idea on context of final product	+	+	- 8 projects to amend is a lot
6	stakeholder responsible for monitoring	- unable to monitor vast amount of actors	- no clear monitor selected, responsibility issues	+
7	goal of product within environment	+	+	+
8	functional requirements	+	+	+
9	technical requirements	± lacking communication influenced implementation	+	+
10	financial requirements	- extensiveness causes exceedence	-unclear responsibilities leading to problems with 'finished' product, extra costs	
11	understandable requirements	+	+	
12	clear timespan	- delay 2 years	- lack of monitoring leads to problems in need of fixing	- product should work when finished, whenever that may be
13	importance of criteria		+	+
14	market consultation	+		
15	bidders-list	+		

16	thorough investigation on bidders	- delivery not ensured beforehand		
17	Neutrality	- unclear roles of actors	-lack of communication and control	
18	Proportionality		- 'finished' product needs immediate repairs	- improvements need to be made, the product has not been working up to par
19	Transparency	+	-no confidence between actors	

Conclusion

In regard to the research question of this thesis:

> **"What criteria can offer insight in evaluating tenders, and does the tendering of the Dutch C2000 communications network comply?"**

Keeping in mind the results in the table and analysis conducted the following answer can be given:

Criteria to be used

It is possible to deduce sufficient criteria to gain insight in a process evaluation concerning the tender of C2000. The theory used enables it to compile a set of criteria that you could expect to be discussed whenever evaluating a tender process like C2000. The nineteen criteria found in this research should be able to offer sufficient insight, when used to evaluate the process.

1. different stages passed
2. overall goals communicated
3. list of purchasing requirements
4. idea of the solution
5. idea on context of final product
6. stakeholder responsible for monitoring

7. goal of product within environment
8. functional requirements
9. technical requirements
10. financial requirements
11. understandable requirements
12. clear timespan
13. importance of criteria

14. market consultation
15. bidders-list
16. thorough investigation on bidders

17. neutrality
18. proportionality
19. transparency

Does the tender comply?

On whether these suggested criteria have been met while tendering the C2000 communications network, several remarks can be made. The initial specification phase has been conducted thoroughly. There is sufficient evidence to be found to state that the basis of the process has been conducted up to par. The process of compiling a list of requirements has been run while gaining input from a large amount of different stakeholders and information sources.

This input has however caused an enormous amount of expectations to the product. Numerous details can cause extensive elaboration, but may also prove to provide ambiguity and lack of overview. Therefore remarks can be made on the lack of monitoring in the process; a stakeholder should have been selected to ensure this throughout the process, also ensuring better communication.

This communication could have positively influenced to overall understanding of goals and some requirements. The monitoring of the process could most likely be of serious influence on the financial state of the process, and the control over the timespan. There is some gain to be made here in comparable projects.

The procurement of C2000 has shown an extensive market consultation, and this has resulted in a bidders-list containing the market parties deemed eligible to comply. However, the responsibility of the client to check the market-parties has been somewhat neglected. Their ability to comply with the expectations on the eventual product has not been investigated sufficiently. The enormous requirements could very well provide problems to the potential contractors. There should have been conducted an investigation on whether the contractors could actually produce the required product, according to all requirements, whatever the complexity.

Due to the unknown area of expertise, being a new and highly advanced service there should have been better communication along the procurement phase. There should have been provided a controller or monitoring agent to communicate among the stakeholders. However, the legal portion of criteria shows some hiccups on this end.

The European law prohibits specific communication between actors before and during the procurement process in order to ensure neutrality. The decision on the contractor cannot be influenced. Yet the lacking communication can be solved whenever there is an agent that ensures the communication to be neutral and available to all possible stakeholders. (art. 58, 2014/24EU)

The procurement process on C2000 has been an intensive and long project. Yet, due to lacking communication, difficulties in the size of the process and lack of confidence the overall process has been negatively influenced. Neutrality of the playing field has not been ensured, proportionality failed due to technical incapability of the ‘finished’ product and transparency was lacking due to distrust.

Although the C2000 project has provided a service currently in use, the procurement process producing it shows some parts that could have been performed better.

Recommendations

The procurement process of C2000 has produced a product currently in use, and able to withstand larger amounts of communications traffic if necessary, as requested in the original requirements. However future procurement processes of comparable character are advised to increase their efforts especially on the communications front.

Project communication turns out to be a major hiccup in the C2000 procurement process. It is advised to appoint a specific actor to monitor the different actors and stakeholders throughout the process. This monitoring should focus on information exchange, and explanatory communication concerning the project. They can perform the important task to relay all new information to the actors that can benefit from it. The entire process can be positively influenced with this appointment. With this communication however, there is a chance of confrontation with the European law. It is advisable to install a project-manager whom is able to increase communication while continuously abiding the law. This will most likely turn out to be a professional, whom should be willing to assist over a longer period of time.

Second it is important to ensure the reliability of all partners within the project. A lack of trust may cause problems in communication, but lacking the ability to deliver can harm the process as well. Market parties interested in the tender should be thoroughly vetted to ensure the continuation of the company throughout the process.

Thirdly, it is advisable to consider the size of the project, especially when dealing with technical processes. When a larger timespan is covered risk increases and technical progress might occur of which in the beginning of the process no one could have known. Although this cannot be implemented in the project beforehand, it might be advisable to try and offer reflection and awareness opportunities throughout the process.

On a final note, whenever insight in the evaluation of tenders is to be requested, it is advisable to focus on the requirements of the initial tender first. These should have been thoroughly composed by several investigations into the functional, technical and financial requirements. These should be totally panned out before considering further actions. To comprise these requirements first off goals should have been made insightful and ideas on possible solutions should have been formed.

Then tenders should be given a clear timespan, an idea of the importance of different factors of the product and someone should have been appointed to coordinate the process. Without coordination, final product/service, timespan and finances are at risk. The coordinator should also be made responsible to ensure neutrality, proportionality and transparency of the process. These legal requirements are of serious importance and need to be ensured throughout the process.

Finally, when all requirements have been panned out, market conditions have been ensured and money has been raised, the tender should be made available to the market. With a responsibility to the tendering party itself, a consultation should be part of the process. Then, when offers come in, there should be a thorough check of the entire bidders-list before awarding the tender to an organization and sealing the deal.

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