

Bachelor Thesis

Innovation Partnership, The new procurement procedure; when and how?

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Abstract

In this paper the use of the new innovation partnership procedure will be discussed. This new public procurement procedure has recently become available in the Netherlands. The formal description of the new innovation partnership procedure leaves room for interpretation. This paper finds out when the innovation partnership could be used and how it could be used. The ‘when’ question analysis is done by comparing (dis)advantages and properties of the procedure with other relevant procedures and the ‘how’ question by analyzing factors and variables that may vary in the use of this procedure as for example the procurement capabilities of the procuring organization.

This paper finds that, even though only a small difference exists between the innovation partnership procedure instead of similar procedures like the competitive dialogue and the competitive procedure with negotiation as well as the pre-commercial procurement, there are situations in which innovation partnership is a better option than the other procedures. It also finds that in using the procedure there are various factors that might aid or hinder the successfulness of the procedure. The paper can be used by both the procuring side and the supplying side in the sense that it gives a guide on the use of the procedure.

1. Introduction

Innovation partnership

This research is about the innovation partnership procedure that is included in the new procurement directive from the European Union (Article 31 Directive 2014/24/EU). This directive has become active in all the member states since April 18, 2016. Due to the novelty of the procedure there is no experience and very little expertise on the use of the procedure. Innovation partnership is a procedure meant for the procurement of innovation. This means that the product, service or works is not available on the market yet. With this procedure a partnership between the public procurer and the supplier is made. The two partners will be working together in realizing the targeted innovation. The most special and important aspect of this new procedure is the opportunity to immediately buy the developed innovation from the supplier without the obligation to do another tender. Furthermore, the innovation partnership procedure leaves a lot of aspects of the procurement to the specific contract with agreement of both the parties as for example intellectual property. The innovation partnership procedure is the same for the Netherlands as for other European member states because the EU directive allows no change in the procedure.

There are several existing procedures that come close to this new procedure and might be used instead. The competitive dialogue, the competitive procedure with negotiation and the design contest are all procedures that can involve the procurement of innovation. To be more specific, these procedures are all meant for the procurement of products, services and works that are not available off the shelf. This is a larger concept than innovation and thus broadens the scope to more than innovation for these procedures. This is also the case for pre-commercial procurement and forward commitment procurement that are not part of the official procurement procedures but are used to procure innovation. This makes the question when the innovation partnership is the most valuable in comparison with other procedures a difficult question.

After deciding for the use of innovation partnership, there are several factors that might cause problems or help in the use of the procedure. Knowing these factors and knowing the remedies to possible problems can help the effectiveness of the innovation partnership procedure. This is essential to know where the innovation partnership procedure can vary.

The limited amount of information on this subject gives also a reason for the relevance of this research. The result of this thesis can give the Dutch public procurement bodies, but also the public procurement bodies of other member states, a guideline on the use of innovation partnership.

The social and scientific relevance of this research is closely related to the above. The relevance can be found in the use of this research as a roadmap towards making the decision for innovation partnership and the approach towards the use of this procedure once it is chosen. The novelty of broaching the subject of innovation partnership might give some addition to the scientific developments in the area of innovation-oriented procurement. The use of the theoretical framework on this specific procedure might be used as well for other procedures that exist now or will be established in the future.

Research question

This research has two main research questions. The first is “Under which conditions is using an innovation partnership more innovative and more efficient in the use of available resources than using other procedures?” seen as the ‘when’ question since it mainly explains when to use the innovation partnership procedure. The second question is “In what way can the innovation partnership be used in order to avoid problems that might occur and use the resources in the most effective way?” seen as the how question since it explains how the procedure should be used when already chosen. In answering these two questions a few sub-questions can be asked. For the when question there are two main sub-questions.

- What are the possible conditions for the innovation partnership procedure to be an option to use in the procurement?
- How does innovation partnership compare itself to other similar procedures?

For the how question there are sub-questions as well.

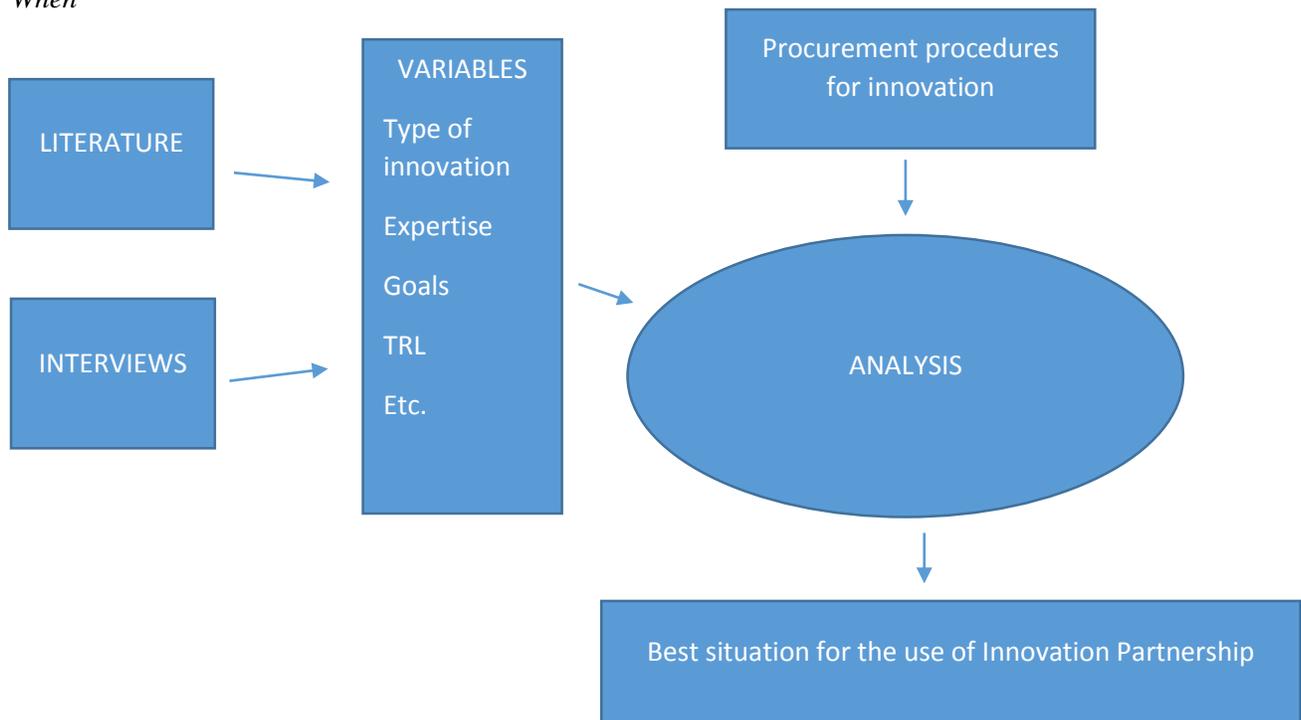
- In what phases can innovation partnership be influenced?
- What problems and aids are possible in each of these phases?
- How can these problems be tackled and the aids be used?

2. Methodology

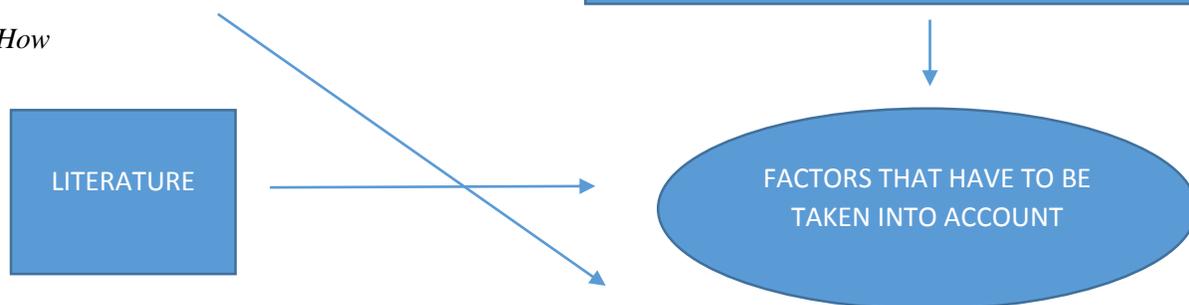
Method of analysis

In the graph below the main structure of the research is explained. The research question already suggests that there are two parts of analysis in this paper, when and how. This structure will be further explained in this chapter.

When



How



The research design of this thesis will be descriptive. The two main questions of the research question will be answered chronologically. The when will be the first part of the research and answered using the following framework. Using the directive and its enactment into the Dutch law, the legal possibilities of using innovation partnership will be described. Thereafter, through the information retrieved from interviews that have been conducted under experts in the practice and policy of the innovation partnership

procedure and public procurement of innovation, a list will be created with the relevant variables for the choice for innovation partnership or a different procedure with similarities. The interviews have been conducted personally during an internship at the Dutch ministry of the Interior and Kingdom Relations. The questions were mostly the same for every interview, however due to the diversity of the interviewees some extra specific questions were asked. In total, 12 interviews have been conducted but not all of these interviews were on the same basis, especially the interviews with foreign interviewees. This is because the topic of the interview was on the innovation procurement there and not on the situation in the Netherlands. These variables will one by one be held against the four procedures we will analyze: Innovation partnership, PCP, competitive dialogue and the competitive procedure with negotiation. We will also be able to see under which circumstances the other procedures should be chosen. However, since this paper is on the choice for innovation partnership, the perspective will lie on when and when not to use this specific procedure and not that much on when to use the other procedures specifically.

After selecting the correct situation to use innovation partnership, the how question must be answered. Using the directive, just as with the when question, the legal possibilities on using the innovation partnership procedure will be described. The way the innovation partnership procedure should be used is described fairly clear in the directive. However there is still space for own choices in using the procedure. That is why by using the interviews and theories a list with aspects and dangers that have to be taken into account will be formed. The result of this should be a listing of the possible variants that can occur in the use of innovation partnership. The innovation partnership procedure cannot be generalized and thus the roadmap should leave space for the specifics of the individual case. This research approach is chosen for a reason. The quantitative nature of the research causes it to be prone to being abstract. In order to clarify the analysis towards answering the research questions the framework in which the variables can be rated will be created. Due to this framework, the variables and its values for every situation become clear. A possible pitfall of this research is the limited information available which could cause that the sources are one-sided and do not represent the complete situation. The interviews provide good information but would solely not be able to sustain as source. The theories appear to be from only a limited amount of researchers. However, the use of the directive, the conducted interviews and existing scientific research together form the variables and aspects that have to be taken into account and should therefore be able to validate the information.

Source \ Type	When		How	
	Legal	Practical	Legal	Practical
Literature/ EU text	Yes	No	Yes	Yes
Interviews	Yes	Yes	No	Yes

In the table above is explained when the before mentioned sources will be used. The logical thought would be that the literature and the EU text would be used for the legal parts and the interviews for the practical part. In the table it is visible that this is indeed the case. However, the interviews do also aid in the legal analysis of the ‘when’ question and the literature does help in the practical analysis of the ‘how’ question. From the interviews it appears that the EU directive does not give specific enough information and leave space for own interpretation. This counts for the practical but also the legal analysis of the different procedures. Thereafter, the literature explains several factors that influence public procurement of innovation and thus innovation partnership as well. This shows that the literature is taken into account in the analysis of how the innovation partnership procedure should be used.

For the interviews that have been conducted during my internship at the Dutch ministry of the Interior sampling has been done. The interviewees have been selected on several aspects. The expertise on the new innovation partnership procedure was required. This left only a limited amount of possible interviewees. The interviewees have been selected to represent every aspect around the innovation partnership procedure. This includes policy makers, procurers, suppliers and legal advisors. If the sampling would have come to only one or two of these aspects, a potential threat could emerge of having a rigged view on the procedure. The amount of the interviews is limited. This might be a problem but according to Baker, Edwards and Doidge (2012) the amount necessary depends on the study. There would not have been many more eligible interviewees which suggests that the amount will be sufficient. In terms of theory, there is a limited availability of scientific sources. This does not mean that every source that is related to this subject will be used. This is due to the fact that not every theory helps in solving the problem that is discussed in this research. Even though these theories are related to this subject, some do not aid the research. This has to do with the research method that is chosen and the exact solution that is aimed to be found. The theories that are used, have been selected on the basis of giving clear grips for this research to build on further.

The data used in this research will be mainly qualitative. This is because of the lack of statistical data on the new innovation partnership and the difficulty in measuring the difference between policy and practice in innovation-oriented procurement. There will be the use of some basic data to describe the current situation concerning innovation policies. The book of Lember, Kettel and Kalvet (2014) gives a large amount of data concerning the different countries and their innovation policies. Furthermore, some OECD and Eurostat data will be used in order to describe the current situation of the Netherlands and European countries on innovation procurement and its procedures. However, the main information comes from the interviews that have been conducted, the theories that are used and the directive and the process of its formation. This is all qualitative. This research will use this information to make a framework in selecting the right situation to use innovation partnership and show the factors that have to be taken into account in using the procedure. The internship at the Dutch Ministry of the Interior and Kingdom Relations gave the possibility to get in touch with these experts and conduct these interviews. Some interviews have been with foreign persons via Skype or e-mail, but most of the interviews have been personally conducted by myself. In order to conduct these interviews I have been in several cities in the Netherlands to get in touch with these experts and conduct the interviews. The data conducted from these interviews and the statistic data from the book, OECD and Eurostat can all be seen as appropriate. These interviews are probably not the best way and most appropriate way to gain data in a research. However, in the case of this research concerning innovation partnership there does not seem to be a more appropriate way of data collection. The best and more reliable way of data collection on this topic would be to use experiences with the procedure. The qualitative data from the interviews will be collected originally and personally. The literature that will be used will be adjusted for the innovation partnership case but retrieved from existing articles. The statistical data will be from an existing dataset.

The conclusions in this research have been formed in a certain way. The interviews have been transcribed and categorized after that in order to systematic retrieve information from this source. Together with the theories used this creates the variables used for the framework. This data has also been used in the rating system that has been created. For every situation the variables have different values based on the data that is collected. The other possible procedures: PCP, competitive dialogue, competitive procedure with negotiation, design contest and forward commitment procurement, are included in the framework as well. The situations in which innovation partnership has the highest rating of the procedures in the framework can be considered the situations in which the procedure should be used. The interviews and literature have been used as well in the making of a roadmap for the use of the innovation partnership in the correct

situation. The data collected gives a good view on what factors should be taken into account and the consequences of these factors on the success of the use of the innovation partnership procedure.

Framework

The when question will be divided in a legal and practical answer. The legal answer is self-evidently not something that can be analyzed since it is already written in the law. However it is important since it shows us when there is no possibility to use the procedure because it is simply not allowed. The analysis will follow in the second, practical part of the when question. The fact that it is legally allowed to use the innovation partnership procedure should not imply that it is the best choice. Since the procurement of innovation is often for large procurements with a long duration, the choice of the right procedure, although more procedures are legally allowed, is important and carries large consequences. In analyzing the variables that are important for the choice and usage of innovation partnership. The innovation partnership procedure will be assessed against the existing procedures that are used for innovation procurement and pre-commercial procurement. There are many other procedures, but two other procedures and pre-commercial procurement appear to be the most similar and popular procedures to use in the situations in which innovation partnership can be used. These are the competitive dialogue and the competitive procedure with negotiation and as already said pre-commercial procurement.

The framework that will be used for the practical question on when to use the innovation partnership is the most important. The difficulty is to be able to clearly show how the innovation partnership procedure relates to the other possible procedures at a certain value of a variable. In order to explain this, for every variable a table will be made. On the Y-axis the values of the concerned variable will be shown. On the X-axis the four procedures that will be analyzed will be shown. The number of values of a variable depends on the variable itself but will in general have 5 values. The values of the variables will all be from super positive (++) to super negative (--) with (+), (+/-) and (-) in between. An example of how a table would look is given below. The colors are used to show the differences more easily.

Procedure Variable X	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Very low	--	-	--	+/-
Low	-	-	--	-
Medium	+/-	--	-	-
High	+	--	+/-	-
Very high	++	--	+	--

The outliers and unexpected results in these tables will be explained in the analysis. After analyzing every variable that should be analyzed it should become clear which values the variables should have in order for innovation partnership to be the best practical choice. The variables that will be used will be discussed further in the theory section.

The how question will be divided in a legal and practical answer as well. The use of innovation partnership is bound by the rules of the directive. But within these rules there still is a large amount of space for different approaches to the use of the procedure. In the practical analysis, the important factors that should be taken into account will be assessed. If existing, the possible solutions on problems that might occur will be given as well.

The framework that will be used for the practical question on how to use the innovation partnership is relevant as well. From the interviews and theory there appear to be several factors that should be considered in the use of innovation partnership. These factors are all very different from each other and can't be translated as easy into the scores as with the when question. Therefore these factors will be stated and explained. Furthermore, these factors might be problematic or helpful. If the factor is problematic than a possible solution might be given. If the factor is helpful, a way to make sure this factor is present might be given. The factors will also be appearing in certain stages of the innovation partnership procedure. This will be shown in the analysis as well.

3. Analysis 'when'

The analysis on when to use the procedure will be done in a legal and practical way. First, the practical analysis in which the directive on innovation partnership as well as the other procedures that will be analyzed will be explained.

Legal

European directive on innovation partnership

For the definition of the innovation partnership procedure and the way it's meant to be used according to the European Union the only information comes from the directive (Directive 2014/24/EU), its formation, considerations and the explanatory memorandum of it. The other procedures that innovation partnership will be compared with are also defined in the same directive except for PCP. In article 31 of the Directive 2014/24/EU, the legal possibilities on when and how to use the innovation partnership procedure are explained. In the case of when to use the procedure, the legal approach is limited mostly to when it is not allowed to use the procedure. The most important limitation to this procedure is the innovation clause. The innovation partnership can't be used if the product, service or work is already available on the market. This is by far the most important legal reason why the innovation partnership could not be used. Another important legal obligation is the obligation to pay every partner for their research and development even though it might not be used for the subsequent purchase of the resulting supplies. This means that the contracting organization should have enough financial resources in order to start this procedure. Even if no result follows there is still a large amount of financial resources that should be available.

Other procedures and PCP

After having explained what the European Directive says about the innovation partnership, it is important to explain what the directive says about the other procedures that will be analyzed and what the PCP is. This helps placing the different procedures in their correct boxes and seeing the differences and similarities.

PCP

Pre-commercial procurement is seen as the predecessor of innovation partnership. The procedure also allows a partnership in the innovation of new products just as with innovation partnership. The PCP procedure can be seen as the first step of innovation partnership. However, there are a few aspects of the procedure that make a big difference. PCP does not fall under the procurement directive but within the research and development exception. This means that the general rules of procuring do not apply to this procedure. Another big difference is that after the research and development has been completed in this procedure, there is no opportunity of buying the developed product. If this is intended, a new procedure should be started for buying this product but that should allow other companies to have a fair process and participate in the procurement selection process.

PCP differs from the procurement procedure in the sense that it is no procedure. In the 2007 Commission Communication PCP is described as "Pre-commercial procurement consists of a procurement of R&D services that involves risk-benefit sharing at market conditions and in which a number of companies develop in competition new solutions for mid- to long term public sector needs." As the name already indicates, the PCP is meant to procure research and development without procuring the product itself. This is a large and essential difference with innovation partnership but even more with the competitive

dialogue and the competitive procedure with negotiation. The Commission Communication in 2007 on Pre-commercial procurement explains this by saying that there is left “a clear separation between the pre-commercial R&D phase and the roll-out of commercial end-products resulting from the R&D enables public purchasers to filter out technological R&D risks before committing to procuring a full-blown innovative solution for large-scale commercial roll-outs.” These procedures are aimed at commercial procurement. The pre-commercial procurement works almost similar as the research and development part of innovation partnership. Another big difference is however the exemption from the procurement rules that the other procedures fall under. This includes selection methods, criteria formation and several more rules that are obligated for the procedures that fall under the procurement directive.

Competitive Dialogue

The competitive dialogue allows many of the same options as innovation partnership. The competitive dialogue is a procurement procedure in which after the selection procedure a dialogue between the two parties can be entered. Through this dialogue financial and juridical aspects of the procurement can be adjusted. In steps the selected parties can fall off on the basis of award criteria and the left over organizations can apply for the procurement.

The competitive dialogue is not solely meant for the procurement of innovative goods. This makes it different from the innovation partnership. In article 30 of Directive 2014/24/EU there is no obligation, as there is with innovation partnership to use the procedure only in the case of an innovative product, service or work. There is an obligation to procure a product that is not available in the market. This does not have to mean innovation but comprises a broader area. The dialogue that is a big part of the procedure however allows it to ease the procurement of innovation due to a large amount of interaction between the parties. The dialogue stage is what makes this procurement procedure different. The dialogue aspect is explained to have as aim “to identify and define the means best suited to satisfying their needs. They may discuss all aspects of the procurement with the chose participants during this dialogue.” The dialogue is meant to get more clarification on what the aimed solution should be and how this should be reached. This can be useful for innovative products but also for complicated procedures that are not innovative. A similarity with innovation partnership is the legal possibility for the competitive dialogue to go from development to the purchasing of the developed product. This is a possibility which does not mean that it is easy since several rules have to be made in the procurement contract.

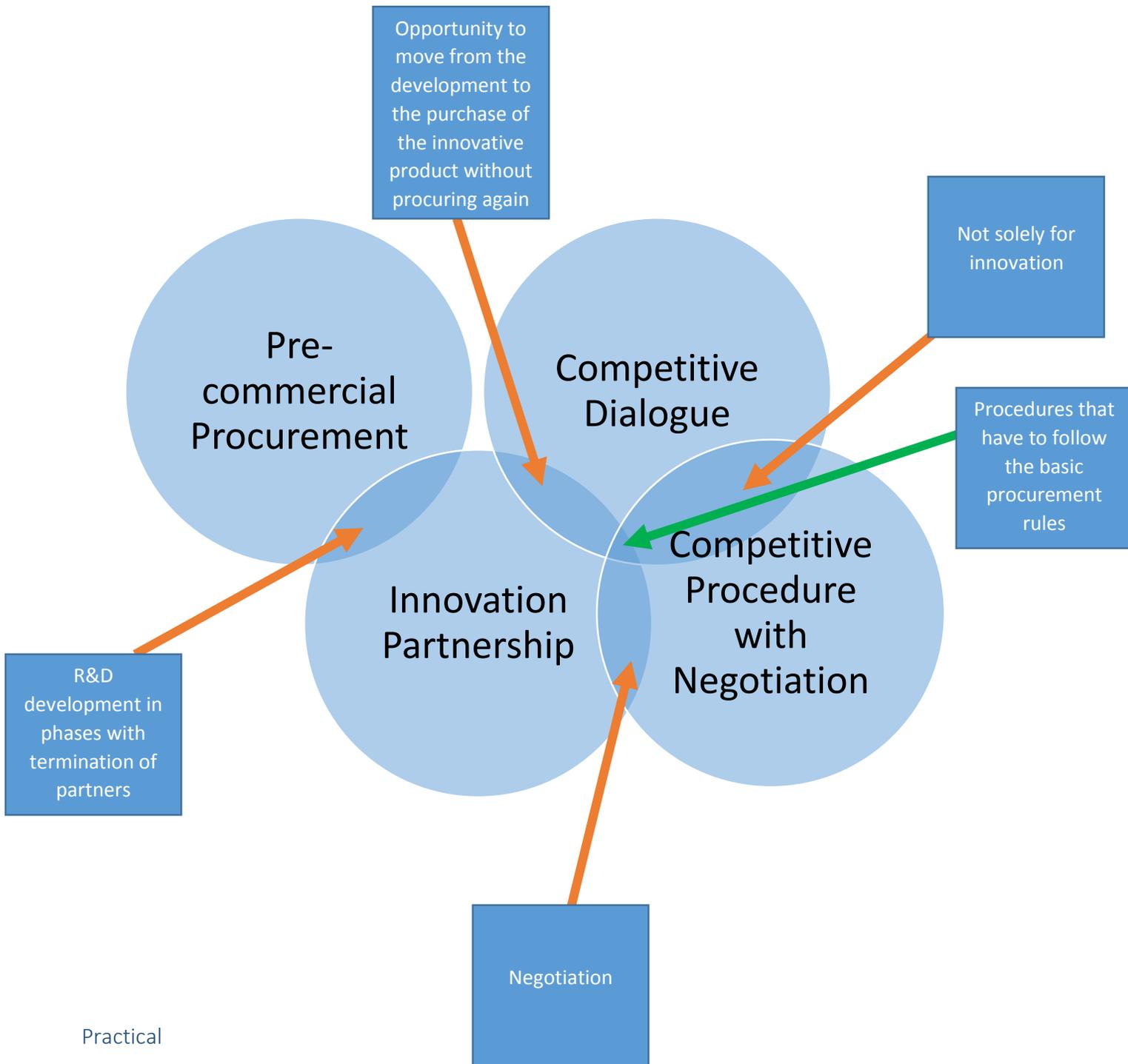
Competitive procedure with negotiation

The competitive procedure with negotiation allows, just as the competitive dialogue, many of the same options as innovation partnership. What should be noted is that both these procedures might also be used for products that do already exist on the market. This is something that innovation partnership is not created to do. The procedure should still be used for innovation, but this innovation may already exist. After the selection process, the parties can come together for the negotiation of the tender. This is to improve the content of the tender and make sure what is being procured.

The competitive procedure with negotiation is just as the competitive dialogue not solely meant for innovation. In Article 29 of Directive 2014/24/EU it is just as with the competitive dialogue not stated, as it is in the innovation partnership article, that the procedure can be used only in the case of an innovative product, service or work. However, it should be used for a product, service or work that is not available on the market. It can still be used for innovation or complex projects that need clarification but it is not a necessity. The procedure works with negotiation. This means that every aspect of the tender can be negotiated except for the minimum requirements and the award criteria. This helps in getting towards the

solution that might be complex or not known yet. The main similarity with the innovation partnership procedure is the negotiation aspect. This is also a possibility within the innovation partnership.

Legal overlay procedures and PCP



Practical

Theories 'when' question

The literature for the when question is found by searching for scientific articles on public procurement of innovation and similar terms. Most of the articles are found through science direct and google scholar.

Georghiou, Edler, Uyarra and Yeow (2014) write in their article about the framework of public procurement. They explain that the existing idea on public procurement as an innovation tool is to be accommodating the procurement. Public procurement is according to them used merely functional in the form of purchasing what that organization needs. Based on this concept, the use of innovation partnership could be easily analyzed since only the function of the procurement should be assessed. However, they explain that next to this functional approach towards public procurement, additional goals can be pursued. For example the boost of SME's or the boost in R&D as innovation partnership is intended by the European Union. This theory shows the possible added value of innovation partnership in the form of additional goals can be pursued. However this sounds interesting, it does not aid in the analysis that will be made but only shows that procedures can be used for additional goals than only functional ones. Using the observational study of Lember, Kettel and Kalvet (2014), experiences with innovation policies from different countries can help in creating and assessing the variables for the situations. The book gives insight in existing and previous procurement of innovation approaches and its consequences. The procurement of innovation forum, an organization set up by the EU, gives a very clear overview of the different procedures (Semple, 2014). They show a simplified framework on when to use what procedure. This might help with the description of the possible situations. The choice for innovation partnership would according to Semple (2014) be only two factors in choosing for the four possible procedures: innovation partnership, pre-commercial procurement, competitive dialogue and competitive procedure with negotiation. The first is if there is R&D necessary. If yes, you should choose for innovation partnership or PCP, in no then the other two procedures come into picture. The following question is if you wish to acquire the procedure on a commercial scale, as part of the procedure. If the answer is yes then you will end with innovation partnership and no will lead to PCP. This easy map chart might make it easy for organizations to choose for innovation partnership. But as heard in the interviews and other articles it will not be this simple. There are numerous other factors that have to be taken into account in choosing the right procedure. These factors will be discussed in the next part

Interviews 'when' analysis

In order to make a list with characteristics, there are certain criteria that have to be taken into account. This list with criteria can be derived from several sources. During an internship at the Dutch ministry of the Interior and Kingdom Relations, several interviews have been conducted. In these interviews the practical implementations have been widely discussed. Results of these interviews give different opinions on the use of the partnership but do point towards the variables that have to be taken into account.

After categorizing the interviews there are several variables that are found important by the interviewees. What is interesting is the large amount of these variables and the fact that the interviews give different variables. However, there are still a lot of variables that are named frequently and can therefore be considered as important. What we should not forget is that some interviewees forget to mention certain variables since they might have seen it as obvious or have not thought about it. Another interesting observation is that several interviewees name the same variables but expect different values for this variable. For example, in the case of the variable type of innovation which is named often. There are two values possible: radical and incremental. The interviewees have a different opinion on if innovation partnership should be with radical or incremental innovation. This makes the analysis more difficult but

also shows the complication of this new procedure that leaves a lot of questions unanswered and a lot of own interpretation.

In order to successfully analyze the innovation partnership procedure there should not be too many variables involved. This is also due to the fact that some variables might not be that important after all. Therefore, only the variables that have been named more than one time will be taken into the analysis. The other variables will still be taken into account in a separate section. The variables that will be used will be named here and explained a little more in the specific analysis of the variables.

- *Contractual burden*
- *Branding*
- *Objectivity and transparency*
- *TRL*
- *Type of innovation*
- *Goal of the procurement procedure*

Other variables

Other variables that have been named in the interviews that will not be used for the analysis but are worth mentioning will be mentioned below. The reasons for not including these variables in the analysis can be explained. The first reason is the difficulty of including these variables in the analysis. This has to do with the amount of variables that should not be too high. Having too many variables might cause too much overlap and an overcomplexification of the solution. Some of these variables also cause trouble in correctly measuring its values for the procedures. Thereby, these variables have only been mentioned by one of the interviewees and are thus not commonly seen as the important variables in the choice for innovation partnership.

- *Suitable suppliers*: this variable should be low for innovation partnership. The less people are able to make the product you want, the better it is to do an innovation partnership with these suppliers.
- *Time available*: Innovation partnership is aimed to take a long time thus the time available should be high
- *Competition*: it is important to keep competition high which will prevent the price to be too high, fraud and vendor lock-in
- *Financial interest*: the financial interest should not be too high with innovation partnership.
- *Complexity of the procurement*: innovation partnership can be used for less complex issues. For difficult issues it might be better to use the competitive dialogue
- *Trust between parties*: in order for the innovation partnership procedure to be effective. A trustful connection must be established between procurer and supplier. If this is not the case it is best not to choose for the innovation partnership procedure.

There are two other variables that have not been taken into the analysis. These are the variables expertise and financial resources. These variables are however seen as very important in choosing innovation partnership. The reason they are not included in the analysis is because of the similar outcomes between all the procedures. Expertise is a variable that should have a high value for all four procedures that are analyzed. Expertise is always a wanted variable but especially with innovation expertise should be always as high as possible. The same counts for financial resources. High financial resources are necessary for all four procedures. This is because innovation is more expensive than the normal procurement product.

In analyzing the right situations to use the innovation partnership procedure, the comparison with other procedures is important. The reasons for choosing the innovation partnership procedure are most of the times not because the innovation partnership procedure is better than not doing a procurement at all. The innovation partnership should be used instead of other procedures because it would fit better in that specific procurement. However, most of the times a similar outcome can be achieved with a different procedure. This shows why it is important to explain these other procedures and analyze when the innovation partnership would be the best option of the bunch.

Analysis variables

In this part the different values of the variable will be analyzed against the procedures. The remarkable outcomes will be explained. The analysis is mainly based on the theories and outcomes of the interviews. The basis on which the tables are filled in might not be as specific as the tables itself but gives enough information to make a substantiated argument for the rating. Besides the theory and interviews there is also information that can be achieved from the definitions of the procedure and how they are described to be.

Contractual burden

The contractual burden is one the most coined terms in the interviews on innovation partnership. It addresses several cases. First, the difficulty of creating a solid contract for the procurement. Especially with innovation there are a lot of factors that have to be taken into account in making a contract. Second, the contract can be rigid or open. An open contract leaves a lot of space for the parties to do it as they want while with a rigid contract there is a lot of rules and structure to be followed. The contractual burden is by almost every interviewee seen as a bad thing and something that should be low for innovation partnership. This might be difficult for this specific procedure but has to be taken into account before choosing for the procedure. However, as we can see in the table, the contractual burden should not be too low. This might give innovation a lot of space which it needs to really give creativity a chance but it would collide with the subjectivity and being reviewable. PCP does allow this low contractual burden because the interests are lower and the procurement rules do not apply to PCP. The main idea of the European procurement laws is that a fair procurement is being done which would come into danger with a too low contractual burden. What also appears is that the competitive dialogue and the competitive procedure with negotiation are better when the contractual burden is higher. This is due to the complexity of the procurement that is dealt with in these procedures that allow and even ask for a higher contractual burden. The analysis of the contractual burden is seen below. With very low and low is meant that a lower contractual burden is desirable. With very high and high is meant that having a higher contractual burden does not inflict with the procedure and might be useful.

Procedure	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Contractual burden				
Very low	+	++	-	-
Low	++	++	+/-	+/-
Medium	+/-	+/-	+	+

High	-	-	++	+
Very high	--	--	+	+/-

Branding

Branding is another variable that has been named a lot around innovation partnership. This variable is easily explained. The use of a specific procedure might give a better image for the procurer or supplier. In the case of innovation partnership it might show the world that innovation is high on the agenda and that by using that procedure they are practicing an ideology. The same innovation could have been achieved by other procedures but those procedures do not have the same innovation brand to the outside world. The result of this variable is a logical one. The higher the branding value the better innovation partnership fits into the situation. Even though the other procedures are used with the same intention, if the need for a good innovation image the innovation partnership procedure gives the best image. Which is easily explained in the name and the sole purpose of the procedure.

Procedure	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Branding				
Very low	--	-	-	-
Low	-	-	-	-
Medium	+/-	+/-	-	-
High	+	+/-	+/-	+/-
Very high	++	+	+/-	+/-

Objectivity and transparency

Objectivity and transparency are very important variables in innovation partnership as well as public procurement in general. The European directives and rules concerning public procurement have as one of their main aims to preserve objectivity and let the procurement process run transparently. This should also be the case for innovation partnership and its value should thus be low. This is however a difficult goal when innovation is at stake. The requirements are harder to test with innovation since it is not really clear what the new product will be. This is why none of the values really fit the innovation partnership procedure. It is best to find the middle in this dilemma which would be a medium amount of objectivity and transparency. What we can see is that PCP benefits less from a high objectivity and transparency while the competitive dialogue and competitive procedure with negotiation are less affected by a high objectivity and transparency. This is due to the complexity and already large amount of written rules around the procurement they have.

Procedure	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Objectivity and transparency				
Very low	--	-	--	--
Low	-	+/-	-	-
Medium	+/-	+	+/-	+/-
High	-	+/-	+	+

Very high	-	-	+/-	+/-
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TRL

The TRL or technology readiness level of the innovation that is aimed to procure is a difficult variable. The TRL exists of 9 levels of readiness. Level 1 is only a general idea and level 9 is a fully tested prototype. (Mankins, 1995) The variable is difficult in the sense that the opinions differ on the preferable outcome of this variable. The innovation can be in its early stages of development or already at the prototype phase. There are different pros for procuring innovation in a low or high TRL. In the table it becomes visible that the best way for innovation partnership but also for pre-commercial procurement is to be around the middle of the technology readiness levels. This is because when there is only a general idea, the criteria for selecting and approving the research and development are impossible to make. When a well-tested prototype is already ready, there is no research and development necessary anymore. Lember, Kettel and Kalvet (2014) explain that looking at the public procurement of innovation in Sweden resulted in the following conclusion: the earlier the stage of the innovation in which is procured, the better the innovation becomes. The partnership and selection would then be superfluous and not contribute to anything. What we see is that in that case a better option would be the competitive dialogue or competitive procedure with negotiation. This is because research and development through partnership is not such a big part of these procedures. When the TRL is at 1 to 3 it might be a better option to consider subsidizing instead of doing a procurement procedure. This is because there is no real certainty and a great risk of the innovation not being completed or ending in a product, service or work that was not wanted.

Procedure TRL	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
1	--	-	--	--
2	-	-	--	--
3	+/-	+/-	--	--
4	+	++	-	-
5	++	++	+/-	-
6	+	+	+/-	+/-
7	+/-	-	+	+
8	-	-	++	+
9	--	--	++	++

Type of innovation

The type of innovation is a variable that is closely related to the TRL variable but not the same. There are two options for the convenience. Radical and incremental innovation. Radical innovation is an innovation coming from barely nothing. Incremental innovation is an innovation that comes as an expansion on existing products or services. This variable has a difficult preferable outcome. The interviewees were not unanimous on one direction on the type of innovation. However what is clear is that when the innovation is too radical or too incremental, innovation partnership is not a good option. When the innovation is too

radical there is no starting point and the innovation can't be put into goals or criteria. When the innovation is too incremental there is almost no innovation anymore which is not the idea of the procedure and would also cost too much resources for a simple improvement. Incremental innovation fits the competitive dialogue and competitive procedure with negotiation better since these procedures have as purpose to discuss or negotiate the result of the procedure and the way towards it and not the research and development that innovation partnership and PCP have. Radical innovation leaves more space for developers to come towards innovation in different ways. Incremental innovation gives a lot of structure and makes the procurement process easier.

Procedure Type of innovation	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Very Radical	-	+/-	-	--
Radical	+	+	-	-
Medium	+/-	+/-	+/-	+/-
Incremental	+/-	-	+/-	+/-
Very Incremental	-	--	+	+

Goal of the procurement procedure

The goal of the public procurement procedure is a very relevant, if not the most relevant variable in the case of innovation partnership in comparison with similar procedures. The values of this variable will be from launching customer too solely for its own purpose. From the interviews it appears that innovation partnership should only be used for the purpose of the organization itself. There are other options as for example being a launching customer and helping the companies innovate. This is where we see the big difference between innovation partnership and pre-commercial procurement. With the other variables the results have been almost similar between the procedures but at this variable a completely opposite outcome appears. This is due to the difference in the subsequent purchase of the development that is possible with innovation partnership and not with PCP. This is among other things due to the intellectual property possibilities in the innovation partnership procedure. The directive gives the intellectual property rights for negotiation between the parties while the intellectual property with PCP is still with the supplying party. The innovation partnership procedure is still better as a launching customer or in between than the competitive dialogue or competitive procedure with negotiation because of the same reason. The intellectual property being discussable gives a lot of space in which way the partnership is aimed. However there might be a waste of resources to use it only as a launching customer.

Procedure Goal	Innovation partnership	Pre-commercial procurement	Competitive dialogue	Competitive procedure with negotiation
Launching customer	-	+	--	--
In between	+/-	+/-	-	-
Solely own purpose	+	-	++	++

Results of the analysis

After analyzing all these variables, there are a few things that stand out. What stands out the most is the similarity of innovation partnership with pre-commercial procurement on almost every variable. This does however not mean that the decision between the procedures is most of the times between these two procedures. The answer for this is found in the table with the goals variable. It appears that the purpose of the two procedures are very different from each other. This variable is thus essential in choosing the right procedure. The other similarities in other variables can be explained by the similarities of the procedures itself. The first part of the innovation partnership is almost the same as the PCP procedure which explains similarities on for example type of innovation, TRL and branding. Another thing that stands out is the similarity between the competitive dialogue and the competitive procedure with negotiation. This can be explained by the similarity in the process of the two procedures. Both procedures are more aimed on defining the solution and how to get there than really doing research and development together as is the case with innovation partnership and PCP.

Conclusion

What can be concluded of this analysis are two main things. Next to the main conclusion of when to choose the innovation partnership procedure over the other procedures, it also becomes visible at what values of the analyzed variables it is preferred to use innovation partnership. There is a difference between these two conclusions since in some points innovation partnership might be better or worse than the other procedures but still not feasible and the other way around. As already explained before are the conclusions of this analysis especially on innovation partnership and its relation with the other procedures. This is why no conclusions will be made on when to use one of the other three procedures since the interviews and theory do not substantiate these conclusions.

Innovation partnership should thus be used in the following situations. When the contractual burden is low. Having a low contractual burden is always desirable but in some cases as for example with innovation partnership of more concern than with other procedures. When the need for branding and creating a good image is very high or high. If the objectivity and transparency is needed to be very high or very low, the innovation partnership might not be a good choice. This variable is a difficult one for innovation partnership anyways since more objectivity and transparency leads to less space for innovation and less objectivity and transparency leads to fraud and unequal treatment. At a technology readiness level of around 4 to 6 innovation partnership or PCP would be the best option. This means that the technology readiness should lie between already having a component tested at a laboratory level and having a prototype in its early stages. The type of innovation should best be incremental in order for research and development to have enough space for creative solutions. In the case that the intended innovation is meant for the purpose of the organization it is best to use innovation partnership, the competitive dialogue or the competitive procedure with negotiation. PCP has a goal completely towards the launching customer side. Innovation partnership is however more flexible in this variable than the competitive dialogue and the competitive procedure with negotiation.

4. Analysis How

The analysis on how to use the innovation partnership procedure will be done in the same way as the when analysis. First the legal boundaries will be explained. Then in the practical analysis the best options and in this case the best use of certain factors will be analyzed.

Legal

The legal rules on how to use the innovation partnership procedure are found in article 31 of the Directive 2014/24/EU. This article explains that any “economic operator” may participate in this procedure. The minimum requirements should be defined by the procuring agency. The information should be specific enough for the economic operators to decide on their participation. This is a vague legal statement since it can't be defined when an economic operator knows enough to make this decision. The selection procedure should go on the basis of price-quality ratio and the invitation of suitable candidates is done the same as with other procedures. What is important is that the contracting authority may decide to engage in the partnership with one or more partners. In successive phases that are decided beforehand, the contracting authority may decide to terminate partnerships based on targets that are decided beforehand as well. An important aspect is that the different tenderers should be treated equally. This might seem difficult due to the subjectivity that is present when deciding which innovation or innovative qualities of a company are better. Finally, the contracting authority must ensure that the time, money and other resources of the authority itself are spent in relation to the degrees of innovation that are being met and the resources spent by the partner, are being reflected. This gives another difficult rule since these variables are defined vaguely and leave a lot of moving space.

Practical

The practical analysis of how to use the innovation partnership procedure will be done by looking at the stages of the innovation partnership. Innovation partnership can be divided into five successive stages. These are the selection stage, negotiation stage, award stage, development stage and the commercial acquisition stage. In these stages there are factors that might influence the procedure. The factors are retrieved through the theory and the conducted interviews.

Theories ‘how’ question

The conducted interviews might as well give a good substantiation on the how question of this research. Several possible suggestions towards the use of innovation partnership have been raised. In the article of Edquist and Zabala-Iturriagoitia (2012) explain the use of public procurement of innovation. They divide the procedures in two groups: direct PPI and catalytic PPI. In theory innovation partnership could fall in both of these groups which would suggest different approaches towards the use of the specific procurement. Their article also comes up with the theory that the more interactive the two organizations working together would be, the more innovation would emerge. This should thus become one of the points of attention in the use of innovation partnership. However, Edler and Yeow (2016) think that this research is limited. They come up with the theory that a sort of intermediation between the public and

private parties is necessary in order to create a successful atmosphere for innovation. This is something that came back in the conducted interviews as well and thus something that must be taken into account in making a roadmap for the use of innovation partnership. In the article “Barriers to innovation through public procurement: a supplier perspective” (Uyarra, Edler, Garcia-Estevez, Georghiou, & Yeow, 2014) the negative effects are explained. This shows that public procurement might have a negative effect on innovation through “inadequate early warning, lack of engagement between procurers and suppliers, overly prescriptive and burdensome procurement processes, risk aversion, and procurement capability shortfalls” (Uyarra, Edler, Garcia-Estevez, Georghiou, & Yeow, 2014)

Interviews ‘how’ analysis

From the interviews and theory certain factors appear to have an influence on how to use innovation partnership. The same as with the ‘when’ variables will the most frequent and best factors be selected for the analysis. The factors will be named below.

Interaction

This factor can be explained as the interaction between the parties. The contact between the contracting authority and partner is a factor that can be influenced by the parties themselves.

Contract making

In the making of the contract there is a large space for defining the goals and solutions. The danger is that it is overly prescriptive and burdensome or the other way around and too loose.

Risk

Risk is a factor that is always part of innovation. Since the product does not exist yet it is never certain to be developed.

Procurement capability

This factor explains the capabilities of the contracting authority to be able to do a successful procurement which means having enough resources and experts to select, compose the contract and help in giving feedback to the partners.

Criteria making

The making of the criteria is difficult in the innovation partnership procedure since it has to be done beforehand and the end-product is not yet visible.

Other factors

Other factors that have been named in the interviews and are closely related to the other factors are:

- Dependence: Parties should not depend on each other too much
- Intellectual property: the possibility of discussing the intellectual property rights might be extremely difficult since supplying partners would rather not give away their intellectual property
- Expertise: The amount of expertise that is necessary is believed to be high.

After having analyzed when to use the innovation partnership it is important to look at how it should be implemented. The innovation partnership is not rigid which leaves space for several own choices on the use of innovation partnership. This indicates that there are certain factors that might help or hinder a successful procedure. First, the legal aspects will be given in how to use the innovation partnership. Just as with the when question, this part is merely a translation of the law and needs no analysis since it has already been established. After that the practical factors will be analyzed. These factors will be retrieved from the interviews and the theory.

Factors per stage of innovation partnership

Stage	Factor	Problem	Remedy
Selection stage	Criteria formation	What criteria can the companies be selected on in order to be selected for the innovation partnership	<ul style="list-style-type: none"> • Leave space for creativity • Hire expertise in terms of objective selection of R&D capabilities of companies
	Risk	Risk-aversion with the procuring organization	<ul style="list-style-type: none"> • Analyzing consequences of decisions • Initiative of bigger organizations
	Procurement capability	Selection of the wrong candidates due to a lack of expertise on selection	<ul style="list-style-type: none"> • Hire expertise on selection
Negotiation stage	Interaction	Uncertainty on what problem must be answered and how	<ul style="list-style-type: none"> • Initiative • Intermediation
	Contract formation	Contract leaves no space for creative solutions Contract gives no structure for the partnership	<ul style="list-style-type: none"> • Leaving space for creativity • Structure the process
Award stage	Criteria formation	Criteria on awarding are difficult to be objective when dealing with innovation	<ul style="list-style-type: none"> • Leave space for creativity • Hire expertise for objective awarding of partnerships to the most promising companies

	Contract formation	Contract leaves no space for creative solutions Contract gives no structure for the partnership	<ul style="list-style-type: none"> • Leaving space for creativity • Structure the process
	Procurement capability	Awarding to the wrong candidates due to a lack of expertise on awarding	<ul style="list-style-type: none"> • Hire expertise for objective awarding of partnerships to the most promising companies
Development stage	Interaction	Process is not controlled	<ul style="list-style-type: none"> • Initiative • Intermediation
	Risk	Risk-aversion in terms of pre-defining the process of innovation	<ul style="list-style-type: none"> • Analyzing consequences of decisions • Initiative of bigger organizations
	Procurement capability	Not being able to help the supplying partner in advice and feedback for the research and development. And terminating the wrong partners in the process	<ul style="list-style-type: none"> • Cooperation • Hire people with expertise of the innovation that is aimed to be created to support the partners and give effective feedback
Commercial acquisition stage	Procurement capability	Not using the developed product in the right way and not being able to successfully acquire the developed products	<ul style="list-style-type: none"> • Cooperation • Hire people with expertise in using the developed product in an efficient way

Interaction

This factor can be explained as the interaction between the parties. It is important in the negotiation and development stage. The contact between the contracting authority and partner is a factor that can be influenced by the parties themselves. Interaction is a factor that plays a larger role in the procurement procedures for innovation than for others. Due to the difficulty of defining and developing this innovation a higher amount of interaction between the parties is needed for it to be successful. Edquist and Zabala-Iturriagoitia (2012) believe that a high amount of interaction is needed for innovation to really be effective. This is also an opinion that is heard from the interviewees. Especially the interviewees that had a position that was more in the practical atmosphere of procuring.

Knowing that more interaction would probably lead to more or better innovation it will imply that it will also lead to a better innovation partnership procedure. This procedure exists in order to retrieve good

innovation from the market. Therefore it is important to discuss how getting more interaction is reached. Innovation partnership leaves the amount of interaction open to the agreements of the specific public procurement itself. This should thus be set by the two parties in the making of the contract or outside of the contract. A way to reach better or more interaction is intermediation. (Edler & Yeow, 2016) Intermediation between the different parties can give an easier way to interact and to understand the points of both parties. This will improve the innovation since feedback, help and clarity can be given through this medium. Intermediation, as pointed out in the interviews, can also help solving fraudulent matters and building up trust. However, having a third party might not always be wanted at the table.

Interaction might have a negative result on the innovation partnership procedure as well. The result might be smaller than the positive influence but should still be taken into account. Having a lot of interaction between the parties might lead to subjectivity. Knowing the other party might lead to not objectively selecting and controlling anymore. If one party is like more than the other while the other delivers better work. The wrong decisions might be made that will not only be unfair towards the terminated party, but have bad economic consequences as well.

Contract formation

Contract making is a delicate matter. It is important in the selection and award stage. The formation of a good contract could help doing the innovation procedure in a way more efficient way. The formation of a bad contract could limit the innovation massively and make the procedure too difficult to understand. In the contract there are agreements on targets, criteria, costs, solutions and more ancillary matters. The procedure could stand or fall by only forming a contract.

Having a rigid contract leads towards a limited ability to innovate. “Cases show that excessively detailed specifications set by the procuring agency limit the ability and creativity of potential suppliers to provide innovative solutions to the challenge” (Edquist and Zabala-Iturriagoitia, 2012) Having less rules and well-described targets will lead to a more built-in innovation that might not give the best solution there was. This statement is supported by (Uyarra, Edler, Garcia-Estevez, Georghiou, & Yeow, 2014) who claim that especially for SME’s this contractual burden would scare them away from participating. This while the European Union created the innovation partnership procedure with as one of the goals to give SME’s a better chance in the competition for public procurement. (Barnier, 2014)

On the other hand, having a ‘bare-boned’ contract might lead to a situation in which both the parties don’t know where they stand. This might end in a different perception between the parties of what should be done and leave one or both parties disappointed.

Risk

The risk factor is a factor with two sides as well. It is important in the selection and development stage. According to Uyarra, Edler, Garcia-Estevez, Georghiou, and Yeow (2014) and many of the supply-sided interviewees, the amount of risk aversion of the contracting authorities is too high. And this brings with it that new procedures as innovation partnership aren’t used as much due to the potential risks of innovation and the use of an unexperienced procedure. This risk aversion has a vicious cycle. Due to the risk aversion, the innovation partnership will be used less. This means that there is less experience in the procedure which gives higher risks. This cycle should be breached by the contracting authorities, which should take more risks to make innovation partnership successful.

On the other hand are the consequences of the innovation partnership something that should be considered. This argument is more heard from the procurer side. The innovation partnership is aimed to

be long and to need a large amount of resources. If the outcome of this procedure is not as expected or other things go wrong, the negative consequences are in general bigger than with regular procedures. The risk taking is closely related to the formation of the contract since risk aversion will most of the time lead to making a burdensome contract with too many rules to let innovation go its way. Just to ensure the outcome.

Thus both taking low risks and high risks can have negative consequences. The best way would be to find a way in between. This might lay with the bigger public agencies that are able to take bigger risks without terrible consequences. After these bigger agencies participate in the procedures, enough experiences will appear to lower the risks of doing the procedure.

Procurement capability

The procurement capability is an umbrella term for the procurer's capability to engage in the procedure. It is important in the selection, negotiation, development and commercial acquisition stage. This would imply having enough resources in the form of time, financial resources, people and most important expertise at your disposal. Having not enough procurement capability is, especially with a difficult and resource-consuming procedure as innovation partnership. These are all variables that we have seen at the 'when' analysis as well. These resources must be high enough to even make the choice for innovation partnership. However, when having chosen for the procedure there is still moving space in having and actually spending the resources. Uyarra, Edler, Garcia-Estevez, Georghiou, and Yeow (2014) state in their article that coming up short on these factors has a bad influence on the quality of the innovation that is being procured. Most of these factors speak for themselves. Innovation takes a long time. Especially when it is radical and no similar innovation exists yet. The people are necessary to have interaction, help the innovation process, form the contract, select the viable partners and administrate the whole procedure. To pay the innovation and the people, enough financial resources are necessary. And finally, expertise in the area of innovation but also in the area of procurement is necessary.

Good solutions to being sure there is enough procurement capability are coined by the some of the interviewees. The most often heard but not very constructive solution is to waive the innovation partnership as a viable option. Another option is to only let the larger public organizations use the innovation partnership until the amount of resources becomes lower due to the already gained experience. But even then there is still a large amount of procurement capacity necessary. Interviewees from the United States and Denmark have coined a different solution. Working together with other public organizations can help. Through this way the resources can be divided over the different organizations. The experiences can be shared and the public organization can contribute with its stronger resources. Denmark is currently doing one of the first official innovation partnership using a collaboration of three small municipalities. There are however some complications for collaboration to work. The first is that the problem that is aimed to be solved should apply to all the organizations that are participating. Having the same problem is something that does not happen that often but does occur in the public domain. Another problem that might occur is a different style of work that results in friction on how to use the procedure. Still, if strong agreements are made between these separate public organizations, the possibilities of using the innovation partnership procedure successfully will increase.

What should also be considered is the fact that there can be too much resources spent. In doing the innovation partnership procedure it should be checked if the amount of resources spent results in the same amount of innovation. If this is not the case some things in the process should be changed.

Criteria formation

The formation of the criteria is a difficult factor in the use of the innovation procedure. It is important in the selection and award stage. This factor is closely related with the formation of the contract but slightly different. The catch in the making of the criteria for both selecting and terminating partners, is that it has to be done beforehand. Since there is innovation at stake these criteria are hard to make solid. The European Directive 2014/24/EU obligates the selection criteria to be on how the economic operator's capacity in the field of research and development is. This is a vague criteria and hard to measure. A likely flaw will therefore be the subjectivity in the decision for the partners. Making the criteria solid does not always result in a better innovation partnership procedure. It might limit the creative innovation of the supplying partners since they aim for the well-described target instead of solving the problem in their own way.

A possible solution to this issue would be having a high amount of expertise in the organization. This expertise might help in deciding objectively which criteria are needed and which economic operator will be terminated from the process. Having enough expertise can create such a possibility without having to make the criteria limit the innovation process.

Conclusion

All these factors appear to have different sides. This makes it hard to immediately be able to say which path should be chosen in the use of innovation partnership. This should rather be factors that a public procurement organization should look at in deciding how to use the innovation partnership. This would be different for each specific innovation partnership.

5. Conclusion and discussion

In this paper the new innovation partnership procedure is analyzed. Due to its novelty several answers were unanswered on when and how to use this procedure. This paper is made in order to answer these questions as good as possible. The completely correct answers can't yet be given since it would have to be proven in practice to know for sure. The legal explanation for this procedure is already known and analyzed by jurists. The practical explanation is yet still to be found.

Using the innovation partnership procedure consists of two main questions. When should the procedure be used and how should the procedure be used? These questions have both been answered in this paper. The question on when to use innovation partnership has been answered by analyzing the most relevant variables coming from the relevant theory and conducted interviews with experts. Innovation partnership is compared with three other procedures: pre-commercial procurement, the competitive dialogue and the competitive procedure with negotiation. Analyzing this against the values of the variables it is able to see in which situation innovation partnership is the best choice. The results of this analysis show that innovation partnership only differs significantly on a few variables. These are the goals of the procedures, the technology readiness levels, the type of innovation and the contractual burden that is desirable. There is still always another procedure available for every value of these variables. However, all these variable combined give innovation partnership the upper hand in some situations. It is important to realize that all these variables are of interest and should thus all be taken into consideration. Some variables might play a bigger role and those results should then be weighed higher than the other variables. This is dependent on the situation.

The question on how to use the innovation partnership procedure has been answered by analyzing the factors that might play a role in using the procedure. The negative and positive influence of these factors have been discussed and in most cases possible solutions have been suggested. Important negative influences are possible subjectivity and the lack of expertise. Important positive influences can be interaction and the high level of cooperation between parties. The main conclusion on how to use the innovation partnership procedure would be that every factor has its positive and negative points. It might be hard to retrieve only the positive influences but with the right approach a great step in that direction could be taken.

The question that rests is what to do with this research. The research leaves a lot of questions still unanswered and should be followed up by more research. The answers given in this research are, although substantiated, not tested in real life. The procedure should be used first in the Netherlands in order to know how innovation partnership should really be used. The European Union has created this procedure to increase the expenditure in research and development. The goal of the procedure seems to be good but the innovation partnership has in our opinion too much uncertainties at this moment to be able to reach this goal. This method or a similar method is used in other countries but that is mostly because of a lack of other options or only specific cases apply to the procedure in which it is barely used. In order for innovation partnership to actually play a role in the public procurement for innovation would be to gain experience. As we have seen in this research, there are a lot of reasons for not choosing innovation partnership or performing an innovation partnership unsuccessful. Having pioneering public procurement organizations, which are known in the field of public procurement of innovation, using this procedure and sharing its experiences with the rest of procuring Europe could lead to a good national or even European guideline on when and how to use this procedure. This would allow smaller and unexperienced public procurement organizations to use it and show the value of the procedure to the supplying side. Most of the

times this will not be a procedure that smaller public organizations would have to use but having specific goals in its policy, the procedure might be of improvement.

Bibliography

- Baker, S. E., Edwards, R., & Doidge, M. (2012). How many qualitative interviews is enough?: Expert voices and early career reflections on sampling and cases in qualitative research.
- Barnier, M. (2014, January 14) Debate on award of concession contracts. Strasbourg.
- Borrás, S., & Edquist, C. (2013). The choice of innovation policy instruments. *Technological forecasting and social change*, 80(8), 1513-1522.
- Bovis, C. (2012). *EU public procurement law*. Edward Elgar Publishing.
- Commission of the European Communities. (2007). *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS*. Brussels: European Commission.
- Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC
- Edler, J., & Yeow, J. (2016). Connecting demand and supply: The role of intermediation in public procurement of innovation. *Research Policy*, 45(2), 414-426.
- Edquist, C., & Zabala-Iturriagoitia, J. M. (2012). Public Procurement for Innovation as mission-oriented innovation policy. *Research policy*, 41(10), 1757-1769.
- Georghiou, L., Edler, J., Uyarra, E., & Yeow, J. (2014). Policy instruments for public procurement of innovation: Choice, design and assessment. *Technological Forecasting and Social Change*, 86, 1-12.
- Lember, V., Kattel, R., & Kalvet, T. (2014). *Public Procurement, Innovation and Policy: International Perspectives*. Heidelberg. Springer.
- Mankins, J. C. (1995). Technology readiness levels. *White Paper, April, 6*.
- Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on public procurement /* COM/2011/0896 final - 2011/0438 (COD) */
- Roos, C. L. L. (2012). Competitive dialogue in practice.
- Selviaridis, K. (2016). Public procurement and innovation: a review of evidence on the alignment between policy and practice.
- Semple, A. (2014). Guidance for public authorities on Public Procurement of Innovation. Emmendingen: Procurement of Innovation Platform
- Uyarra, E., Edler, J., Garcia-Estevéz, J., Georghiou, L., & Yeow, J. (2014). Barriers to innovation through public procurement: A supplier perspective. *Technovation*, 34(10), 631-645.

Interviews

Boer, F. d. (2016, March 30). Innovatiepartnerschap. (R. Goudt, Interviewer)

Corvers, S. (2016, April 5). Innovatiepartnerschap. (R. Goudt, Interviewer)

Hamilton, C. (2016, April 20). BCIP. (R. Goudt, Interviewer)

Noordhoek, W. (2016, March 31). Innovatiepartnerschap. (R. Goudt, Interviewer)

Poort, A. (2016, April 28). Innovatiepartnerschap. (R. Goudt, Interviewer)

Rodenhuis, E. (2016, April 6). Innovatiepartnerschap. (R. Goudt, Interviewer)

Seeters, C., & Feenstra, I. (2016, April 14). Innovatiepartnerschap. (R. Goudt, Interviewer)

Telgen, J. (2016, March 29). Innovatiepartnerschap. (R. Goudt, Interviewer)

Tinianow, J. (2016, April 27). Denver Partnership. (R. Goudt, Interviewer)

Vriens, M. (2016, April 15). Innovatiepartnerschap. (R. Goudt, Interviewer)

Weerd, F. v. (2016, April 7). Innovatiepartnerschap. (R. Goudt, Interviewer)

Zuiderent, B. (2016, April 14). Innovatiepartnerschap. (R. Goudt, Interviewer)