Dispute resolution in PPP infrastructure contracts, the Dutch conundrum

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**ABSTRACT**

In Dutch PPP infrastructure contracts a provision\(^3\) has been included on dispute resolution aimed at involving a so called Committee of Experts to advise the contracting parties on a dispute once the parties themselves are unable to come to an amicable settlement. According to these provisions the opinion of the Committee of Experts binds parties unless one of the parties submits the case to a court within 20 working days after the date the opinion has been issued\(^4\). In view of developments regarding the settlement of disputes in some DBFM(O)-contracts\(^5\) a comparison has been made between existing methods of dispute resolution, such as litigation, arbitration, Expert Appraisal and the Committee of Experts, and the method of settling disputes via a so called Dispute Resolution Board in the Netherlands. In this article an insight is provided in the comparison of these methods of dispute resolution, while exploring the views of the UNCITRAL as expressed in its Legislative Guide on Privately Financed Infrastructure Projects.

**INTRODUCTION**

Dutch PPP-contracts have been introduced in the Netherlands with the aim to achieve value for money\(^6\). Literature research shows that value for money may decrease when parties are unable to work in a cooperative way and/or are in dispute\(^7\). One of the methods introduced to prevent disputes arising is the so called Dispute Resolution Board (hereinafter: DRB). In the Netherlands there is however little experience with Dispute Resolution Boards which are established to prevent disputes. Instead in PPP infrastructure contracts, the majority of which are in the form of a DBFM(O)-contract, in particular use has been made of so called Committee of Experts (hereinafter: CoE), which is involved when a dispute has arisen between contracting parties. These CoE’s have been deployed with varying levels of success. On the subject of DRB’s on the other hand there has been literature and experience in other countries on DRB which seems to point towards a penchant

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\(^4\) Article 21.2 (i) of the national model DBFM(O)-contract [2016].

\(^5\) DBFM(O) is currently one of the most frequently PPP-contracts used by the central government in the Netherlands.


for the use of a DRB for PPP-projects\(^8\). Involving a DRB in a PPP-project should lead to little or no disputes between contracting parties, thus preventing subsequent negative effects of these disputes between contracting parties. It is therefore interesting to see whether the use of a DRB would be feasible for Dutch DBFM(O)-contracts. The defining question of this paper therefore is “how does the DRB compare to the use of CoE’s and what can be learned from this comparison for PPP or other complex long term contracts”?

**RESEARCH METHOD**

The findings in this article have been based on literature research and several interviews held over the period of 2012 to 2015. The interviews were conducted in 4 case studies on the PPP-projects: the 2nd Coentunnel, A12 Lunetten-Veenendaal, Kromhout barracks and a DBFM-housing project in the Netherlands. Furthermore information was gleaned from several interviews in 2013 and 2015 with parties with experience in projects burdened with dysfunctional partnerships. This information has been subsequently reviewed and qualitatively analysed.

**METHODS OF ALTERNATIVE DISPUTE RESOLUTION IN THE NETHERLANDS**

In the Netherlands there are several methods of alternative dispute resolution – i.e. dispute resolution outside of the courts – which are regularly deployed in government infrastructure contracts. These methods are dispute resolution through the use of:

1. the Board of Arbitration for the construction industry (hereinafter: BoA),
2. a Committee of Experts (hereinafter: CoE), and

The deployment of one of these alternative methods of dispute resolution needs to be agreed upon by contracting parties or by parties in dispute\(^9\). The impact of the above mentioned dispute resolutions however differs.

**Board of Arbitration**

With dispute resolution through the BoA parties have to agree in writing – either through a provision in their contract or a separate agreement – to submit their dispute to an independent party (not being a court) which will give a binding adjudication on the resolution of the dispute\(^10\). Dispute resolution performed by the BoA is usually deposited at the court\(^11\) and can be enforced based on article 1062 etc. of the Civil Procedures Rules (hereinafter: CPR)\(^12\). An agreement on dispute resolution by arbitration displaces the courts from ruling on said dispute, bar specific exceptions as mentioned in article 1065 and 1068 of the CPR\(^13\). There is on the other hand the


\(^{9}\) Article 1021 of the Civil Procedure Rules (CPR) and article 7:900 of the Civil Code (CC).

\(^{10}\) A. Breninkmeijer, M. van Ewijk en C. van der Werf, *De aard en omvang van arbitrage en bindend advies in Nederland*, performed by the Research en Beleid and the E.M. Meijers Institute, commissioned by the Wetenschappelijk Onderzoek en Documentatie Centrum (WOCD) of the Ministry of Justice, Leiden, the 10th of December 2002, page 7 and article 1021 of the CPR.

\(^{11}\) Ibid.

\(^{12}\) *De aard en omvang van arbitrage en bindend advies in Nederland*, page 21.

\(^{13}\) Article 1022 of the CPR and *De aard en omvang van arbitrage en bindend advies in Nederland*, page 25 and 35.
possibility of appeal within the BoA itself, that is unless parties have agreed upon obtaining a binding opinion\(^{14}\).

Arbitrators are usually appointed either 3 or 1 in number, or in case of an appeal 3 to 5 in number\(^{15}\). All the CPR says about the number of arbitrators to be appointed is that it needs to be an odd number and that the BoA can consist of one arbitrator\(^{16}\). The arbitrators will be appointed according to the method agreed upon or – when the method of appointment hasn’t been agreed upon – will be appointed jointly by the parties in dispute\(^{17}\). There are however several Arbitration Institutes available for different types of contract, which already have extensive methods appointing arbitrators and have extensive charters available on the manner of dispute resolution\(^{18}\).

According to research of the Scientific Research and Documentation Centre (Dutch abbreviation: WOCD) the provisions on dispute resolution in the construction industry mostly (83%) contain a clause assigning disputes to the BoA\(^{19}\). The number of disputes resolved by the BoA fluctuate around a thousand cases a year\(^{20}\). The majority of the contracts with a provision for the deployment of the BoA include the general terms and conditions called the UAV 2012 or the UAV-GC 2005\(^{21}\).

### Committee of Experts

When dispute resolution takes place through the so called CoE parties submit their disputes to an independent party, as with dispute resolution by a BoA. The basis for the dispute settlement however is different as it is based on reaching a reciprocal agreement called the settlement agreement\(^{22}\). Furthermore decisions by the CoE cannot be deposited at the court for enforcement\(^{23}\). Dispute resolution by the CoE needs to be agreed upon by the parties in dispute, either through a provision in the contract or a separate agreement on the method of dispute resolution itself\(^{24}\). There is no specific requirement however to have this agreement in writing. In addition parties can choose to make the opinion of the CoE binding or not. When parties agree on a binding dispute resolution the opinion of the CoE is earmarked as a valid agreement between the parties in dispute\(^{25}\). When the opinion of the CoE hasn’t been made binding parties will have to conclude the settlement agreement themselves if in agreement on the opinion of the CoE\(^{26}\). If the CoE’s opinion hasn’t been made binding or accepted by parties, parties are at liberty to submit the dispute to the court\(^{27}\). A binding or accepted opinion through concluding a settlement agreement

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\(^{14}\) Article 22 of the Arbitration Rules for the Board of Arbitration for the construction industry, dated the 15\(^{th}\) of February 2016 ([http://www.raadvanarbitrage.nl/statuten/43/49/statuten-en-arbitragereglement.html](http://www.raadvanarbitrage.nl/statuten/43/49/statuten-en-arbitragereglement.html)).

\(^{15}\) Article 23 of the Arbitration Rules for the Board of Arbitration for the construction industry.

\(^{16}\) Article 1026 of the CPR.

\(^{17}\) Article 1027 of the CPR.

\(^{18}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 34 and e.g. the Charter and Arbitration Rules for the Board of Arbitration for the construction industry, dated the 15\(^{th}\) of July 2014 and 15\(^{th}\) of February 2015 respectively ([http://www.raadvanarbitrage.nl/statuten/43/49/statuten-en-arbitragereglement.html](http://www.raadvanarbitrage.nl/statuten/43/49/statuten-en-arbitragereglement.html)).

\(^{19}\) J.G. van Erp and C.M. Klein Haarhuis, De filterwerking van buitengerechtelijke procedures, een verkennend onderzoek, Wetenschappelijk Onderzoek en Documentatie Centrum (WOCD), cahier 2006-6, page 54.

\(^{20}\) De filterwerking van buitengerechtelijke procedures, een verkennend onderzoek, page 55.

\(^{21}\) [www.rijkswaterstaat.nl/zakelijk](http://www.rijkswaterstaat.nl/zakelijk).

\(^{22}\) Article 7:900 etc. of the CC.

\(^{23}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 8, 28 and 29.

\(^{24}\) Ibid, page 33.

\(^{25}\) Ibid, page 7.

\(^{26}\) Article 7:900 CC.

\(^{27}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 29.
can be brought before a court when either party fails to comply, which can be judged on the applicable rules of contract law, or to have the court marginally assess the opinion itself\textsuperscript{28}. A marginal assessment of the binding opinion contains an assessment if the CoE’s opinion meets minimum standards in its content and of its procedure\textsuperscript{29}. The CoE’s opinion wouldn’t meet said minimum standards if it is e.g. proven to be seriously biased\textsuperscript{30}. Parties also need to agree upon i.a. the make-up of the CoE, the method of appointing its members and its mandate\textsuperscript{31}. As with the BoA the number of experts appointed is usually 1 or 3, although a CoE of 2 experts can also be seen\textsuperscript{32}. In the Netherlands, CoE’s are mostly established in large infrastructure projects, such as the Betuwelijn, HSL and the Westerschelde tunnel\textsuperscript{33}. Other infrastructure projects in which a provision on a CoE has been incorporated are the DBFM-contracts of Rijkswaterstaat\textsuperscript{34}, e.g. the A15 Maasvlakte-Vaanplein, the A12 Lunetten-Veenendaal, Schiphol-Amsterdam-Almere, etc. Overall the CoE is hardly ever applied in contracts\textsuperscript{35}. In even fewer projects the CoE actually had to be employed to give its opinion, e.g. the Westerschelde tunnel\textsuperscript{36}, the Coentunnel and the A15 Maasvlakte-Vaanplein\textsuperscript{37}. Although these CoE’s in some cases may also have been established to prevent disputes from arising, e.g. by establishing the CoE in the early stages of the project and keeping the CoE conversed with the developments of the project, the actual practise is that CoE’s are employed to give their opinion once parties have identified an actual dispute\textsuperscript{38}. As such the CoE as used in the Netherlands has in our view more in common with a so called “ad hoc dispute resolution board”\textsuperscript{39}.

**Expert Appraisal**

The third regularly used method of dispute resolution is an EA. Like the CoE an EA is based on reaching a reciprocal agreement called the settlement agreement according to article 7:900 etc. of the Civil Code (hereinafter: CC). The EA works much the same as the CoE bar the fact that an EA is not necessarily used for the resolution of disputes risen, but can also be used for resolving technical or cost issues between parties in order to reach a settlement or to prevent (further escalation of) disputes on specific – usually complex – issues\textsuperscript{40}. Examples of EA deployment are: assessment of the acceptability of (unit) price(s) offered by the contractor, whether the situation requires the conclusion of an amendment of the original agreement and whether the contracting authority has sufficient reason to refuse to accept the works as completed. Although the number of experts appointed may also vary between 1 and 3, an expert appraisal by one person is no exception.

\textsuperscript{28} Article 6:74 etc. CC and De aard en omvang van arbitrage en bindend advies in Nederland, page 16 and 31.
\textsuperscript{29} De aard en omvang van arbitrage en bindend advies in Nederland, page 35.
\textsuperscript{30} Ibid, page 36.
\textsuperscript{31} Ibid, page 16 and 33.
\textsuperscript{32} Ibid, page 27.
\textsuperscript{33} De filterwerking van buitengerechtelijke procedures, een verkennend onderzoek, page 55.
\textsuperscript{34} Article 21 of the national model DBFM(O)-contract [2016].
\textsuperscript{36} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 3.
\textsuperscript{37} Interviews case studies 2012 to 2015.
\textsuperscript{38} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 3 and article 21 of the national model DBFM(O)-contract [2016].
\textsuperscript{39} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 2.
\textsuperscript{40} Ibid, page 16.
Other forms of dispute resolution

Parties can also elect to follow an escalation procedure before turning to dispute resolution, be it before a court or otherwise. Said escalation procedure can be provided for in the contract itself or be agreed upon as part of the negotiations parties enter into when parties perceive a possible dispute presenting itself. If the escalation procedure ends unsuccessfully parties may still submit the dispute to either a court or alternative dispute resolution. In the Dutch model DBFM(O)-contract a provision has been incorporated compelling the contracting parties to try to reach an amicable agreement on a dispute before submitting it to a CoE\(^1\). In PPP-projects researched in the case studies project teams take effort in preventing disputes arising, by e.g. informal meetings, project start-ups, rapidly picking up important issues, build trust, facilitated negotiations where necessary, etc\(^2\).

Apart from or in addition to alternative dispute resolution as mentioned in this article there is the possibility to submit disputes to the courts when parties haven’t opted for alternative dispute resolution instead. Involvement of a court can be based on one of the provisions in article 6 to 9 of the CPR. However disputes arising from PPP-projects are only one of many issues brought before the courts\(^3\). The court judges involved in dispute resolution are therefore experts on legal issues, while personal expertise on e.g. technical issues is not usually available unlike arbitrators in a BoA, who can be appointed based on their technical knowledge\(^4\). Dispute resolution by a court is based on adversarial proceedings\(^5\), where legal representation is required\(^6\). The verdict is binding for parties and can be enforced according to article 430 of the CPR. Appeal is possible on two levels (court of appeal\(^7\) and appeal in cassation\(^8\)).

In conclusion

All afore mentioned methods of (alternative) dispute resolution are based on the premise that a dispute has arisen between parties, except for some cases of EA deployment. The deployment of these methods of (alternative) dispute resolution is for the duration of the dispute resolution itself or the time needed for a specific expert opinion. The members of the board or committee itself are usually appointed when necessary for the (first) dispute resolution. While the make-up of the BoA may change for every dispute submitted, the CoE may remain unchanged unless changes in its make-up are necessary, e.g. due to the need of a specific expertise, or when parties choose to establish a new committee for each dispute. As the latter is time consuming and therefore more expensive\(^9\) than establishing one CoE for disputes within one project, parties will most likely opt for the same make-up of the committee unless one or both are not satisfied.

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\(^{1}\) Article 21.1 of the national model DBFM(O)-contract [2016].

\(^{2}\) Interviews case studies 2012 to 2015.

\(^{3}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 25.

\(^{4}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 25.

\(^{5}\) De aard en omvang van arbitrage en bindend advies in Nederland, page 10 and 39.

\(^{6}\) Article 79 of the CPR.

\(^{7}\) Article 332-362 of the CPR.

\(^{8}\) Article 398-429 of the CPR.

\(^{9}\) With each new CoE the effort of appointing experts and making them familiar with the project will take time and therefore money, which effort does not have to be repeated with a more consistent make-up of the committee members.
Dispute resolution by the BoA can be seen as a form of private administration of justice, while other forms of dispute resolution are a form of contracting. Research commissioned by the WOCD shows that another difference between the BoA and the CoE and EA is that arbitration is comparatively expensive and – at least in complex contracts – requires expert (legal) assistance.

Due to the more disruptive consequences of submitting a dispute to the BoA, e.g. because parties are at loggerheads and entrenched in their own views, this method is hardly ever deployed in PPP-projects. The same goes for submitting disputes to the courts, which proceedings – in addition to its disruptive consequences – in possibly three instances is not only costly but also of long duration.

NEW METHOD OF ALTERNATIVE DISPUTE RESOLUTION

A different method of dispute resolution for Dutch government infrastructure contracts is a so-called (standing) DRB. Deployment of a DRB can be realised on the basis of article 7:900 of the CC. The actual dispute resolution by the DRB can also be made binding or not, dependent on the agreement on the actual dispute resolution. For the actual methods of appointing members of the board, its mandate, its make-up etc. the exact same rules apply as those for the CoE and the EA. The actual difference with the currently more regularly used methods of dispute resolution is the fact that the DRB is deployed much earlier in the project realisation. More specifically a DRB is appointed at the beginning of a project and is actively involved throughout the duration of the project. The involvement of the DRB can take place through actively informing the board members of the progress of the project e.g. by sending progress reports, site visits, presentations, early hearings of (possible) disputes, etc. Because of its early involvement the DRB is said to be able to influence the attitudes and behaviour of parties involved. It also enables the members of the board to become highly conversant with the project and its (possible) problems on site, which - if an actual dispute does arise – reduces the need for parties in dispute to compile evidence, constructing ex post facto determinations and reconstruction of historical events. Furthermore according to Chapman the DRB, when required to make a decision in a dispute, should be able to respond quickly, well-informed, even-handed and consistent.

Through the active involvement of the DRB claims and potential claims are subject to regular review and are not permitted to lie and fester turning into a major dispute at a later date. A DRB through e.g. its site visits can also operate at an informal level. During these site visits e.g. matters of concern, potential disputes and grievances can be brought to the attention of the DRB.

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50 De aard en omvang van arbitrage en bindend advies in Nederland, page 7, 39 and 40.
51 Ibid, page 36.
52 Dispute Boards, page 198-204.
53 Ibid.
54 Ibid.
55 Ibid.
56 Ibid.
57 Ibid.
58 Ibid.
59 Ibid.
60 Ibid.
61 Ibid.
and a dialogue may be established between parties. As such the role of the (standing) DRB shows similarities with mediation and conciliation. While using these informal possibilities to prevent disputes the DRB needs to be circumspect in its operation so as not to impede formal procedures when required to officially pronounce on an actual dispute.

With an actively involved (standing) DRB referred to in this paragraph there is currently little experience in the Netherlands. Although in some cases the teams for dispute resolution have been established in the beginning of the project and kept conversed with the project’s progress the actual deployment of most of the dispute resolution has been when disputes have already arisen, which is why the authors view these methods of dispute settlement as a CoE in the context of this article. The exception being the dispute resolution with the project called the “Spoedanpak wegen”, where the DRB has been established with the explicit target to prevent disputes through the (pro)active involvement of said DRB from the start of the project’s realisation. An example of the DRB’s proactive involvement is the possibility for the DRB to advise the contracting parties based on its findings during a site visit. Interviews in 2013 showed that the application of this method of dispute resolution was deemed successful. The number of actual disputes submitted to the DRB viewed over all (sub)projects which were part of the “Spoedanpak wegen” were limited in number. Part of the provisions on dispute resolution was the joint formulation of the problem to be solved before submitting the dispute to the DRB. As such joint formulation of the problem to be submitted has worked, although there is some doubt whether this approach would work if one of the parties involved couldn’t agree on its contents. Another marginal comment made was that the method of appointing the members of the DRB was rather cumbersome, although the importance of carefully selecting and appointing said members was emphasized.

Experience in other countries have also shown the DRB to be successful in preventing disputes. E.g. in 23 years of experience with DRB’s in Australia all disputes on projects could be resolved within the DRB process without formal submission of disputes. According to data collected by the Dispute Resolution Board Foundation 98% of disputes were settled without arbitration or litigation. Other examples where a DRB was used are the Channel tunnel, the Øresund-project.

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62 Dispute Boards, page 198-204.
63 Ibid.
64 Ibid.
65 E.g. the Westerschelde tunnel and the A15 Maasvlakte-Vaanplein.
66 Translated this would mean “Emergency approach roads”.
67 De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 4 and article 34 of the Framework agreement “Spoedanpak wegen, Pakket B, N50 Ramspol-Ens, zaaknummer 31024235” in combination with annex G IV of the same agreement (Reglement Raad van Deskundigen).
68 Article 2 annex G IV of the Framework agreement “Spoedanpak wegen” (Reglement Raad van Deskundigen).
69 Interview dated the 25th of April 2013.
70 Interview dated the 25th of April 2013.
71 Article 3B annex G IV of the Framework agreement “Spoedanpak wegen” (Reglement Raad van Deskundigen).
72 Interview dated the 25th of April 2013.
73 Interview dated the 25th of April 2013.
75 The Use of Dispute Resolution Boards and their expansion beyond Construction Matters, page 3.
(bridge between Denmark and Sweden), the Olympic village in London and Rio de Janeiro and the Panama canal.76

**DRB VERSUS COE**

**Pro’s and contras**

As mentioned above the CoE is the more regularly used dispute resolution in Dutch PPP-contracts. The authors will therefore restrict themselves in this paragraph to comparing the relative pro’s and contras of the DRB method versus dispute resolution through the CoE in order to glean whether the DRB has added value as a method of dispute resolution.

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76 *De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief*, page 2.
77 *De aard en omvang van arbitrage en bindend advies in Nederland*, page 9, 11, 35, 40 and 41.
79 *Article 7:900 CC and De aard en omvang van arbitrage en bindend advies in Nederland*, page 32.
80 *De Raad voor Deskundigen/Experts*, page 208-211.
81 *De aard en omvang van arbitrage en bindend advies in Nederland*, page 35.
82 *De aard en omvang van arbitrage en bindend advies in Nederland*, page 40.
83 *Dispute Boards*, page 198-204.
84 *Ibid*.
85 *Ibid*.
86 *Ibid*.
87 *Ibid*.
88 *Ibid*. 
familiarity with the project. (Potential) claims are subject to regular (albeit general) review and are not permitted to lie and fester, the costs connected to the solution of the problem tend to be lower as well.

The bid prices can be lower because of the deployment of a DRB.

Dispute resolution through a binding opinion of the DRB is automatically part of the agreement.

After a (binding) opinion or dispute resolution further litigation or arbitration is usually not necessary.

The fact-finding procedure is less arduous.

Contrast

A (binding) opinion is not (immediately) enforceable.

Both parties need to agree to use this type of dispute resolution.

It is unclear how much the hidden costs of a dispute are, e.g. through damage in the commercial relations between contractor and contracting authority, the project realisation grinds to a halt, etc.

If the opinion of the CoE doesn’t lead to an understanding of the CoE’s rationale, an (expensive and time consuming) litigation may still follow.

The DRB’s (binding) opinion or dispute resolution is not (immediately) enforceable.

Both parties need to agree to use this type of dispute resolution.

Membership of the DRB is assumed until completion of the project, however with long term PPP-projects (20 years and longer) this might be difficult to achieve.

The DRB has to be careful not to give informal pronouncements or to pre-judge issues that may be subject to a formal reference at a later stage.

(Hidden) costs

When disputes are resolved through a CoE, the Committee is usually established once parties have decided to resolve their dispute once it has arisen. As a result the CoE has to familiarise itself with

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89 Dispute Boards, page 198-204.
90 Ibid.
91 Interview on dispute resolution on a Dutch PPP-project, dated the 10th of June 2015 and the 8th of April 2015.
92 Dispute Boards, page 198-204.
93 De aard en omvang van arbitrage en bindend advies in Nederland, page 7 and 16 and De Raad voor Deskundigen/ Experts, page 208-211.
94 De Raad voor Deskundigen/ Experts, page 208-211.
95 Dispute Boards, page 198-204.
96 De aard en omvang van arbitrage en bindend advies in Nederland, page 32 and 40.
97 Ibid, page 40.
98 Dispute Boards, page 198-204.
99 Interview on dispute resolution on a Dutch PPP-project, dated the 22nd of April 2013.
100 De aard en omvang van arbitrage en bindend advies in Nederland, page 32 and 40.
102 Dispute Boards, page 198-204.
103 Ibid.
the project and the events leading to the dispute, whereas the DRB – through early appointment and i.a. regular site visits – has become highly conversant with the project and has actually observed the problems on site as they developed\textsuperscript{104}. With dispute resolution through the use of a CoE parties have to realise ex post facto determinations including expensive reconstructions of historical events\textsuperscript{105}. The costs connected to the dispute resolution of one PPP-project through the use of a CoE amounted up to approximately € 6,000,000.\textsuperscript{106}. According to Chapman the costs of a DRB can amount up to costs between 0.05\% and 0.3\% of the total project costs\textsuperscript{107}. For infrastructure projects with project costs between approximately € 600,000,000.\textemdash and € 1,000,000,000.\textemdash the costs for dispute resolution through a DRB would be anywhere between € 300,000.\textemdash and € 3,000,000.\textemdash. If these estimations are correct it would mean that deploying a DRB is easily cheaper than deployment of a CoE. When also taking into account that deployment of a DRB should also prevent hidden costs such as, damage to reputations and commercial relationships, cost of time spent by executive personnel and the costs of lost opportunities\textsuperscript{108}, dispute resolution by a DRB looks vastly more promising than dispute resolution by a CoE.

There is however another side to this equation. Not all (PPP-)contracts end up in need of dispute resolution, which means they do not need to fork out any money for a CoE or DRB, or arbitration for that matter. Up until now there have been 2 of a total of 15 PPP infrastructure projects in realisation which were in need of an actual dispute resolution. While the dispute resolution in these 2 projects may have been costly, the other projects managed to settle their differences through mutual negotiations. One of these projects\textsuperscript{109} succeeded in negotiating a complex problem – which included one of their most important stakeholders – to a successful conclusion, without negative impact on their mutual relations. One of the measures taken was having a regular informal meeting between the parties involved – including the above mentioned stakeholder – on management level in order to nip (potential) problems/disputes in the bud. Another was to evaluate a complex problem in order to learn from the mistakes made and to take preventative measures for future works of a similar nature, without immediately blaming one or other party.

In one project which needed to involve the CoE there are clear signs of reputation damage as the problems concerning this project have been extensively covered in the media, while during the (run up to the) dispute resolution itself there was also clear damage to the relations between contracting authority and contractor. The upheaval however has since smoothed out and relations have recovered. As to the other project which has had to involve the CoE the case study shows that the dispute as such had no substantial effect on the mutual cooperation on site-level, although parties do admit that their cooperation as a whole could have been better during the realisation stage. Afterwards – during the exploitation stage – relations have improved\textsuperscript{110}. This would seem to justify the conclusion that damage to relations need not be permanent. This may be more so with long term projects such as PPP, where the teams change over time – especially when e.g. the

\textsuperscript{104} Dispute Boards, page 198-204.
\textsuperscript{105} Ibid.
\textsuperscript{106} Interview on dispute resolution on a Dutch PPP-project, dated the 22nd of April 2013.
\textsuperscript{107} Dispute Boards, page 198-204.
\textsuperscript{108} Ibid.
\textsuperscript{109} The A1-A6 near Amsterdam.
\textsuperscript{110} Interviews case studies 2012 to 2015.
realisation stage merges into the exploitation stage – which in any case leads to different relations between the project teams.

Furthermore cost of time spent by executive personnel is difficult to relate to actual disputes as there will always be need for regular meetings and negotiations to prevent (potential) problems from escalating into full-blown disputes. It is neither wise nor effective to leave everything to a (impartial) third party to resolve. Said third party will e.g. need clear instructions111 with every problem submitted, or it may reach conclusions which will not always find favour with one or either party112. When in dispute parties will indeed lose out on opportunities missed to swiftly reach an amicable solution (if they had there wouldn’t be a dispute to start with). They will also lose out on the possibility to prevent unnecessary costs related to failures once they are stuck in their positions. There is however no certainty if and if so in how far parties will (not) miss opportunities in a project without disputes. These costs due to missed opportunities may also occur where a contractor or a building industry has become too complacent in its project realisation.

In addition there are other points raising some concerns with long term PPP-projects. One concern is the fact that through the long duration of the contract – contract terms of 20 to 25 years are no exception – continuity of the DRB-team cannot be guaranteed. Another concern is that the changes in the make-up of the DRB-team connected to an integral (PPP-)project may need to change due to the fact that over time the different stages of the project may need the deployment of different expertise in order to be able to effectively deal with the problems and disputes with which the DRB-team is confronted. This may mean that availing oneself of a larger pool of experts is necessary and that at each change of a DRB member additional effort is needed to bring the new member up to speed.

**LEVEL OF ACCEPTANCE**

Irrespective of the method of dispute resolution there are minimum requirements which need to be met in order for parties to be able to accept the opinion of the CoE or DRB. One requirement, which has also been codified for dispute resolution by the BoA113, is the need for impartiality of the (members of) the CoE/DRB114. Furthermore the opinions of the CoE/DRB need to be properly substantiated so that the parties are able to recognise the opinion as fair and just115. A proper substantiation also allows parties to estimate its chances in a litigation. Where an opinion is unfavourable the affected party may decide not to continue the dispute into litigation if it is clear from the substantiation that their chances of a successful outcome are negligible116. In addition parties need to feel satisfied that they have been given adequate opportunity to present their respective cases117.

111 Which in itself also costs time.
112 Interview on dispute resolution on a Dutch PPP-project, dated the 22nd of April 2013.
113 Article 1033-1035 of the CPR.
114 De aard en omvang van arbitrage en bindend advies in Nederland, page 37 and Dispute Boards, page 198-204.
115 Interview on dispute resolution on a Dutch PPP-project, dated the 22nd of April 2013 and the 16th of July 2015 and Dispute Boards, page 198-204.
116 Dispute Boards, page 198-204.
117 Ibid.
According to Chapman to achieve maximum benefit from a DRB, the procedures adopted for the hearing of any dispute should be simple, easily understood, fair and efficient\textsuperscript{118}. In large projects such as PPP, especially where project financing is part of the project, the dispute resolution needs to be prompt and cost-effective so as not to endanger the planned date of completion of the project\textsuperscript{119}. Finally both the CoE and DRB need clear instructions as to the authority conferred, so that the proceedings and subsequent opinion(s) can be recognised as efficient, to the point and cost-effective\textsuperscript{120}. To this end it is important to draft a clear commission for the DRB, thus making it clear on which issues their opinion is required and which minimum requirements apply for the method(s) and procedure(s) used.

Recently the BoA for the Dutch construction industry in the Netherlands has issued model dispute regulations, dated the 1\textsuperscript{st} of September 2013 (version 2, December 2015) with an accompanying “Code Advisory Body” (http://www.raadvanarbitrage.nl)\textsuperscript{122}. With these regulations the BoA has incorporated the possibility to employ a so called Advisory Board, which has been designed in the manner of a (standing) DRB\textsuperscript{123}.

In earlier dispute resolutions it has been found that an obscurely formulated commission can lead to misunderstandings between the parties in dispute and the CoE, which is detrimental to the level of acceptance of the opinion given\textsuperscript{124}. Although an initial draft of the provisions for the method of deploying the DRB can be incorporated into the contract, it is important to involve the actual members of the DRB in the formulation of the actual commission of a specific dispute resolution. This could be done e.g. by establishing a joint formulation of the DRB’s commission. When doing so the expertise of the DRB should lead to an active involvement of its members in preventing possible obscure formulations.

**UNCITRAL GUIDELINES**

In its Legislative Guide on Privately Financed Infrastructure Projects the United Nations Commission on International Trade Law (hereinafter: UNCITRAL) stresses the need to have mechanisms in place that avoid as much as possible the escalation of disagreements between parties, that preserve their business relationship, prevent the disruption of the construction works or provision of the services and that are tailored to the particular characteristics of the disputes that may arise\textsuperscript{125}.

The UNCITRAL explains several commonly used methods for the prevention and settlement of disputes which may be used in combination through the use of a provision for composite dispute-

\textsuperscript{118} Dispute Boards, page 198-204.
\textsuperscript{119} Ibid and Interviews case studies 2012 to 2015.
\textsuperscript{120} Interview on dispute resolution on a Dutch PPP-project, dated the 22\textsuperscript{nd} of April 2013 and United Nations Commission on International Trade Law, UNCITRAL Legislative Guide on Privately Financed Infrastructure Projects, UN New York (2001), page 182.
\textsuperscript{121} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 1.
\textsuperscript{122} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, in nationaal en internationaal perspectief, page 1.
\textsuperscript{123} De Raad van Deskundigen van de Raad van Arbitrage voor de Bouw, page 4.
\textsuperscript{124} Interview on dispute resolution on a Dutch PPP-project, dated the 22\textsuperscript{nd} of April 2013.
\textsuperscript{125} UNCITRAL Legislative Guide on Privately Financed Infrastructure Projects, page 173.
settlement clauses\textsuperscript{126}. Composite dispute-settlement clauses provide for a sequential series of steps from methods to prevent a dispute arising (e.g. early warning of possible disputes) to a method of efficient dispute settlement, should a dispute be unavoidable\textsuperscript{127}. The UNCITRAL warns however not to use excessively complex procedures or to impose too many layers of different procedures\textsuperscript{128}.

Commonly used methods for preventing an and settling disputes according to the UNCITRAL are\textsuperscript{129}:

1. Tools to avoid disputes:
   a. Early warning: events or claims with the potential to cause disputes should be brought to the attention of the other party as soon as possible.
   b. Partnering: to create, through mutually developed strategies from the outset, an environment of trust, teamwork and cooperation among all key parties involved in the project.
   c. Facilitated negotiation: procedure to aid parties in the negotiation process.

2. Tools to settle disputes:
   a. Conciliation and mediation: proceedings in which a person or panel assists in an independent an impartial manner in an attempt to reach an amicable settlement of a dispute.
   b. Non-binding expert appraisal: procedure where a neutral third party is charged with providing an appraisal on the merits of the dispute and suggested outcome (reality check).
   c. Mini-trial: mock trial in which site-level personnel of each party make submissions to a "tribunal" composed of a senior executive of each party and a third neutral person. After the submissions the executives enter into a facilitated negotiation procedure with the assistance of said neutral person to try to reach an agreement.
   d. Senior executive appraisal: procedure similar to the mini trial, but less adversarial through the use of a more consensus-oriented approach.
   e. Review of technical disputes by independent experts: referral of certain types of dispute to an independent expert appointed by both parties.
   f. Dispute review boards: permanent boards composed of experts appointed by both parties for the purpose of assisting in the settlement of disputes that may arise during the construction and the operational stages (avoidance and settlement of disputes).
   g. Non-binding arbitration: submitting a dispute to an independent third party, not acting in a capacity of a court, for a non-binding decision on the resolution of the dispute\textsuperscript{130}.
   h. Arbitration: submitting a dispute to an independent third party, not acting in a capacity of a court, for a binding decision on the resolution of the dispute\textsuperscript{131}.
   i. Judicial proceedings: submitting a dispute to the jurisdiction of the court(s).

In Dutch PPP-contracts (mostly DBFM(O)-contracts) the provision on dispute resolution provides for (1) mutual negotiations should a dispute arise, followed by (2) submission of the dispute resolution

\textsuperscript{126} UNCITRAL Legislative Guide on Privately Financed Infrastructure Projects, page 175-176.
\textsuperscript{127} Ibid, page 175.
\textsuperscript{128} Ibid, page 176.
\textsuperscript{129} Ibid, page 175-187.
\textsuperscript{130} De aard en omvang van arbitrage en bindend advies in Nederland, page 15.
\textsuperscript{131} Ibid, page 15.
to a CoE if parties are unable to reach a settlement\textsuperscript{132}. In urgent cases parties can submit the dispute to summary proceedings of the court\textsuperscript{133}. Although the provision on possible methods of dispute resolution is limited, projects in the Netherlands take several measures in order to prevent disputes as much as possible\textsuperscript{134}. Examples of which are: informal meetings, project start-up meetings, transparency, transfer of knowledge, giving the contractor a leg up at the start of the project, rapidly identifying important issues, building trust, honesty, establishing escalation procedures, approaching problems best for project not blame orientated, facilitated negotiations where necessary, speedy and decisive decision making, etc.\textsuperscript{135}. A large part of these measures are aimed at establishing a partnership, such as the tool on partnering mentioned (above) in the Legislative guide on PFI projects. One could conclude that a specific need to incorporate an extensive provision for the settlement of disputes does not seem to be necessary, although some stipulations in order to provide for and regulate the deployment of a CoE or DRB is advisable. Should one wish to submit a dispute to an alternative dispute resolution such as the CoE, DRB or even the BoA and provisions to this extent haven’t been incorporated into the contract, separate agreement on its deployment once a dispute has arisen may not be easy.

On the DRB the UN\textit{CITRAL} recommends to delimit as precisely as possible in the project agreement the authority conferred upon the DRB, such as the authorisation to make findings of fact, to order interim measures, the type of issues the DRB may deal with, the duration the DRB will continue to function beyond the expiry/termination of the project agreement, etc.\textsuperscript{136}. Apart from these valuable recommendations of the UN\textit{CITRAL} it is also advisable to provide in the project agreement for the minimum requirements and method of appointing members of the DRB. As mentioned above both the contracting parties and the members of the DRB should agree upon a basic set of rules on the method(s) and procedure(s) to be followed once actual dispute resolution is necessary. These procedural rules should – whilst avoiding unnecessary loss of time and inefficiencies – promote a fair hearing of and equal opportunity to make submissions by both parties.

A basic set of rules compiled into e.g. a model charter for the deployment of a DRB could assist parties to establish a solid basis for the deployment of the DRB. Said model charter could contain stipulations on e.g. the number of experts to be appointed, the method of appointing the experts, the minimum information transferred to the DRB, the frequency and method(s) of transfer of information, the method for determining the location of the proceedings, time limits for filing a formal complaint, for filing a statement of defence, the minimum information needed to enter a formal complaint, the possibilities on a joinder of complaints, the (legal) foundations on which the opinion of the DRB has to be based, the language, the hearing, the substantiation of the opinion, etc.

In order to make a draft for such a charter containing a clear commission, rules and regulations applicable to the DRB one could get inspiration from some already existing rules and regulations, such as e.g. the regulations incorporated into the “Spoedanaapak wegen”\textsuperscript{137}, the regulations

\textsuperscript{132} Article 21 of the Dutch national model DBFM(O)-contract [2016].
\textsuperscript{133} Article 21 of the Dutch national model DBFM(O)-contract [2016].
\textsuperscript{134} Interviews case studies 2012 to 2015.
\textsuperscript{135} Ibid.
\textsuperscript{136} UN\textit{CITRAL} Legislative Guide on Privately Financed Infrastructure Projects, page 182-183.
\textsuperscript{137} Annex G IV of the Framework agreement “Spoedanaapak wegen” (Reglement Raad van Deskundigen).
published by the BoA for the Dutch construction industry\textsuperscript{138} and last but not least the Best Practise
Guidelines of the DRBF\textsuperscript{139}.

**CONCLUSIONS**

There is much to be said for deploying the possibilities of a DRB. It isn't however the only possible
method of dispute resolution surpassing all others in effectiveness and efficiency. If the
preventative measures taken for each different project are successful the additional costs of a DRB
need not be made. In the Netherlands these measures do not even need to be provided for in the
contract, as each project team has the possibility to (informally) come to an agreement with its
contracting partner on steps to be taken should events or (potential) claims occur, which may lead
to disputes. However agreeing upon these (preventative) measures beforehand – e.g. by including
a provision on dispute resolution in the contract – may help contracting parties to actually deploy
such measures when necessary.

Once one or more disputes have arisen however the cost of (alternative) dispute resolution may
easily spiral out of control. In these cases the establishment of a (standing) DRB, which has been
deployed from the start of the project with all its tools to prevent possible disputes from either
arising or to resolve disputes speedily and cost-effectively, would have been the preferred method.
Contracting authorities therefore need to assess whether establishment of a DRB would be more
cost-effective in comparison to other methods of dispute resolution. Cost-effectiveness in this
situation being partly dependent on the frequency of disputes occurring in relation to all projects in
progress, which is not an easy assessment to make.

Finally developing a model charter for alternative dispute resolution could assist contracting parties
in establishing a solid basis for alternative dispute resolution – be it a DRB, a CoE or an EA – thus
increasing the level of acceptance of its opinions. Such a model charter could be attached to the UN
Commission’s Legislative Guide on Privately Financed Infrastructure Projects.

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\textsuperscript{138} The Dispute Rules, dated the 1\textsuperscript{st} of September 2013 (version 2, December 2015) ().

\textsuperscript{139} \url{http://www.drb.org}. 