CONSTRUCTION LAW

FROM THE IBA INTERNATIONAL CONSTRUCTION PROJECTS COMMITTEE OF THE ENERGY ENVIRONMENT, NATURAL RESOURCES AND INFRASTRUCTURE LAW SECTION (SEERIL)

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Focus on key aspects for successful project establishment, contract termination and use of expert evidence



Use and misuse of expert evidence Key steps for a successful project Construction contract termination

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Cover: Ping An International Finance Centre, a 115-storey skyscraper in Shenzhen; the second tallest building in China and fourth tallest in the world. Constructed from 2010 to 2017. Credit: HelloRF Zcool / Shutterstock.

CONSTRUCTION LAW

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FROM THE EDITORS

near members of the International Construction Projects (ICP) Committee,

I am glad to introduce the fourth and final issue of *Construction Law International (CLInt)* 2018, which includes the contributions from the speakers of two successful panels of the recent IBA Annual Conference held in Rome on 7–12 October 2018.

The first panel was co-chaired by Murray Armes and Andreas Roquette. The speakers, Kenneth J Figueroa, Christian Johansen, Kim Rosenberg and Russell Thirgood, addressed the use of experts in common law jurisdictions; court-appointed experts with a civil law approach; practical and innovative use of experts in construction disputes; and some peculiar issues relating to expert evidence.

Under the coordination of Jane Davies Evans and Bruce Reynolds, acting as Co-Chairs, a second panel at the IBA Annual Conference focused on termination issues, analysed from the point of view of different civil law and common law jurisdictions. The panellists were Dimitris Kourkoumelis, Ian de Vaz, Thomas Stickler, Edward Corbett, Virginie Colaiuta and Shona Frame.

The above contributions are preceded by an article analysing the key aspects of successful project establishment, which was collaboratively drafted, under the supervision of Polina Chtchelok, by the Co-Chairs and Vice-Chairs of the Project Establishment Subcommittee.

This edition also includes the answers to the *CLInt* FIDIC Questionnaire for Switzerland, prepared by Laura Azaria and China Irwin, and two FIDIC commentaries. The first commentary is from Edward Corbett, who recommends the combined use of FIDIC 1999 and FIDIC 2017 forms, identifying the best parts of both. The second commentary, from Tobias Boecken, Elisa Freiburg and Claudia Krapfl, examines how the enactment of the new German construction law may affect the implementation of the 2017 FIDIC Silver Book.

Finally, we share Part 2 of Evelien Bruggeman's article, titled 'Legal aspects of Building Information Modelling (BIM) in the Netherlands: the procurement of a work with a BIM component'. Bruggeman analyses the possible use of selection criteria for the BIM component; the award criteria for BIM, and, in particular, the use of a BIM Execution Plan, which describes how the demands of employers are met. Part 1 of Evelien's article was published in Issue 2 of 2018; *CLInt* Volume 13.

We hope you will enjoy reading this edition and we invite you all to contribute to *CLInt* by submitting your drafts to **CLInt.submissions@int-bar.org**.

Virginie Colaiuta ICP Committee Editor LMS Legal LLP, London virginie.colaiuta@lmslex.com

FROM THE CO-CHAIRS

near International Construction Project (ICP) Committee members,

We would like to take the opportunity to review our activities from 2018 and consider how we envision the year 2019.

Two main events were the focal point for our members during 2018:

- 1. the ICP Committee Working Weekend, held near Amsterdam in May 2018; and
- 2. the IBA Annual Conference, which took place in Rome in October 2018.

Several construction lawyers addressed topics including: the new 2017 FIDIC forms of construction contracts; anti-bribery and money laundering in the construction sector; joint ventures; forensic schedule analysis; completion and handover of projects; contract termination; and dispute resolution.

All speakers invited to participate in conference panels organised by the ICP Committee are required to submit scholarly papers in advance. This requirement was conceived to ensure speakers are prepared and the topics presented are original and interesting.

Many of the papers prepared by the speakers attending the IBA Annual Conference 2018 have generated significant interest and favourable comments. As a result, they have been included in this edition of *Construction Law International* so that the ICP Committee members who could not attend the IBA Annual Conference in Rome may have access to their contents.

The panels organised by the ICP Committee were particularly successful as a result of the hard work of the speakers, the chairs of the sessions and the ICP Committee officers.

It is our goal to continue to improve the participation of all members of the ICP Committee, which is composed today of more than 1,000 members.

We invite all of our members to get involved in the activities and initiatives of our Committee. To that purpose, we intend to organise periodic telephone conference calls with the ICP officers and to send invitations to all ICP Committee members via the ICP-net, in order to publicise the initiatives being developed by our Committee and to encourage all our members to become more active. We would like to include young lawyers in the ICP Committee projects in order to support them in becoming future leaders.

We are convinced that the projects and events organised by the ICP Committee will benefit from the open and active participation of all ICP Committee members. Sharing knowledge and experience of construction law will lead to opportunities and definition of best practices.

Please help us to ensure the success and inclusion of new members in the upcoming ICP Committee events. We look forward to meeting many of our members at the Working Weekend, which will be held in Athens in May 2019, and at the IBA Annual Conference in Seoul in September 2019.

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FIDIC AROUND THE WORLD



SWITZERLAND

Laura Azaria and China Irwin LALIVE, Geneva

For convenience, in this questionnaire, clause references are references to clauses in the 1999 FIDIC Red Book.

1. What is your jurisdiction?

Switzerland.

2. Are the FIDIC forms of contract used for projects constructed in your jurisdiction? If yes, which of the FIDIC forms are used and for what types of projects?

FIDIC forms are frequently used, primarily for international construction projects, with Swiss law chosen as the governing law for the contract and with Switzerland selected as the seat of arbitration, regardless of whether any Swiss party is involved in the project or whether the project otherwise has a link with Switzerland.

In purely domestic contracts for construction projects in Switzerland, the standard conditions prepared by the Swiss Society of Engineers and Architects (Schweizerischer Ingenieur- und Architektenverein or SIA) are more widely used. These cover a range of contractual relationships, including contracts between employers and contractors, architects and engineers.

3. Do FIDIC produce their forms of contract in the language of your jurisdiction? If no, what language do you use?

Yes, the FIDIC forms are available in French, one of the official languages of Switzerland. Certain forms are available in German and Italian, which are also official languages. Given the international nature of some construction projects in Switzerland, the English-language version is also frequently used.

4. Are any amendments required in order for the FIDIC Conditions of Contract to be operative in your jurisdiction? If yes, what amendments are required?

No, there are no amendments required in order for the FIDIC Conditions to be operative.

Most Swiss statutory provisions governing construction contracts are not mandatory. Exceptions include, for example, Article 370 of the Swiss Code of Obligations, pursuant to which the contractor may not exclude liability for defects intentionally concealed from the employer, or Article 163(3) of the Swiss Code of Obligations, which provides that a court or arbitral tribunal must reduce contractual penalties if deemed to be excessive. However, such mandatory provisions of Swiss law are not in conflict with the FIDIC Conditions.

5. Are any amendments common in your jurisdiction, albeit not required in order for the FIDIC Conditions of Contract to be operative in your jurisdiction? If yes, what (non-essential) amendments are common in your jurisdiction?

No, there are no common amendments to the FIDIC Conditions.

6. Does your jurisdiction treat Sub-Clause 2.5 of the 1999 suite of FIDIC contracts as a precondition to Employer claims (save for those expressly mentioned in the Sub-Clause)?

There is no available case law with respect to the interpretation of Sub-Clause 2.5 under Swiss law. That being said, Swiss law recognises contractual provisions concerning notices of defects as conditions precedent, as long as they are in line with the true and common intention of the parties (see the response to question 7).

7. Does your jurisdiction treat Sub-Clause 20.1 of the 1999 suite of FIDIC contracts as a condition precedent to Contractor claims for additional time and/or money (not including Variations)?

The enforceability of multi-tiered dispute resolution mechanisms under Swiss law depends on the intention of the parties and must therefore be assessed on a case-bycase basis. Any arbitral tribunal or court applying Swiss law is dutybound to seek the parties' real and common intention. If it is established that the parties intended a pre-arbitration or pre-litigation procedure to be compulsory, noncompliance is generally considered to deprive an arbitral tribunal or court of jurisdiction ratione temporis. A party might not be obliged, however, to follow a pre-arbitration or pre-litigation procedure, such as conciliation or mediation, if it is manifest that the opposing party will refuse to participate (see the response to question 11). Similarly, a Contractor may not be obliged to follow the procedure for referring claims to the Engineer for determination if a dispute arises at a time when the Engineer is no longer in place.

FIDIC AROUND THE WORLD

8. Does your jurisdiction treat Sub-Clause 20.1 of the 1999 suite of FIDIC contracts as a condition precedent to Contractor claims for additional time and/or money arising from Variations?

See the response to question 7.

9. Are dispute boards used as an interim dispute resolution mechanism in your jurisdiction? If yes, how are dispute board decisions enforced in your jurisdiction?

Dispute boards are not (yet) widely used for domestic construction projects in Switzerland, and Swiss law does not include specific provisions governing adjudication mechanisms, such as dispute boards. However, parties may agree that, before initiating court or arbitral proceedings, disputes must be submitted to an alternative dispute resolution mechanism, such as an institutional or informal mediation procedure, including such a procedure led by mediators specialised in construction or real estate matters.

А form of dispute review board issuing non-binding recommendations was successfully used to resolve several disputes concerning the construction of the Gotthard Base Tunnel, one of the largest infrastructure projects in Switzerland.

Dispute boards are commonly used in contracts for international construction projects, which are often governed by Swiss law and provide for Switzerland as the seat of arbitration (see the response to question 1).

Unlike an arbitral award, a decision by a dispute board does not have *res judicata* effect and would not be directly enforceable in Switzerland, even if binding on the parties as a matter of contract. A party may, however, bring a claim arising from the failure of the opposing party to comply with a decision that is contractually binding between the parties.

10. Is arbitration used as the final stage for dispute resolution for construction projects in your jurisdiction? If yes, what types of arbitration (ICC, LCIA, AAA, UNCITRAL, bespoke, etc) are used for construction projects? And what seats?

Arbitration is the preferred means of dispute resolution for international construction projects in Switzerland. Both institutional arbitration (under the arbitration rules of institutions, such as the International Chamber of Commerce (ICC), the Swiss Chambers' Arbitration Institution (SCAI) or the SIA, whose revised rules entered into force on 1 January 2018) and ad hoc arbitration are used. The seat would typically be in one of the major cities in Switzerland, in particular, Bern, Geneva, Lugano or Zurich. In the real estate sector, a specialised local arbitration tribunal has been created by the Swiss Association of Real Estate Trustees (Schweizer Verband der Immobilientreuhänder (SVIT)).

In addition, numerous international construction contracts governed by Swiss law and with Switzerland selected as the seat of arbitration are based on the FIDIC Conditions, which provide for arbitration under the ICC Rules.

Purely domestic disputes in Switzerland are more often resolved by courts than through arbitration. Article 37 of the widely used SIA Norm 118 provides for disputes to be submitted to courts, unless agreed otherwise by the parties.

11. Are there any notable local court decisions interpreting FIDIC contracts? If so, please provide a short summary.

In an important judgment dated 7 July 2014 (case no 4A_124/2014), the Swiss Federal Supreme Court (the 'Court') analysed whether dispute adjudication board (DAB) proceedings are a precondition

for resorting to arbitration under Clause 20 of the FIDIC Conditions. The Court determined the issue in the context of a challenge of a partial award in which the arbitral tribunal had found that it had jurisdiction to hear a case under Clause 20, despite the fact that DAB proceedings had not taken place. Disagreeing with the arbitral tribunal, the Court found that DAB proceedings were a prerequisite for the initiation of arbitration under Clause 20. According to the Court, the use of the term 'shall' in Sub-Clause 20.2 indicated that such proceedings were a requirement rather than an option; further, the term 'may' in Sub-Clause 20.4 did not qualify the mandatory nature of the precondition, and only meant that it is open to either party to initiate DAB proceedings. The Court recognised, however, that there were exceptions to the precondition, arising notably under Sub-Clause 20.8 and the general principle of good faith. In determining whether these exceptions were applicable, the Court recalled that the raison *d'être* for the introduction of the DAB in the FIDIC Conditions was to allow for an efficient resolution of disputes arising during the construction works, in a manner that would not put the works into jeopardy. In the case before the Court, the procedure to constitute the ad hoc DAB had begun after the completion of the works, at a time when the parties' positions were undoubtedly already irreconcilable. Moreover, the Court ruled that where an ad hoc DAB had not been constituted 18 months after it was requested, the respondent can no longer rely on the mandatory nature of the DAB procedure to prevent the resolution of the dispute by arbitration. Given the particular circumstances of the case, the Court concluded that the fact that no DAB proceedings were initiated did not affect the arbitral tribunal's jurisdiction.

A recent decision of the Swiss Federal Supreme Court dated 16

March 2016 (case no 4A_628/2015) is also particularly important for international construction contracts, although the case did not concern a FIDIC contract. In this decision, the Court confirmed the finding that pre-arbitration steps can be mandatory if so agreed by the parties and addressed for the first time the consequences of non-compliance with a prerequisite of arbitration. The Court ruled that an arbitral tribunal should suspend arbitration to allow the parties to comply with the prearbitral condition, rather than merely awarding damages for breach of contract, declaring the claim inadmissible or dismissing it on the merits.

12. Is there anything else specific to your jurisdiction and relevant to the use of FIDIC on projects being constructed in your jurisdiction that you would like to share?

Under Swiss law, general terms and conditions (GTCs) agreed between businesses are subject to two stages of review: the review of the validity of the GTCs and their interpretation (Geltungskontrolle and Auslegungskontrolle). These stages of review, as developed in Swiss jurisprudence, provide some protection for businesses that agree to GTCs proposed by their counterparty. Parties agreeing to GTCs in construction contracts subject to Swiss law (including FIDIC forms) should be aware of the special rules of interpretation applicable to GTCs in addition to the general rules of interpretation applicable to all contracts.

Laura Azaria is an associate and China Irwin is Counsel at LALIVE, Geneva. They both specialise in international arbitration in the construction and infrastructure sector. They can be contacted at lazaria@ lalive.law and cirwin@lalive.law.

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FIDIC COMMENTARIES

ADDING THE BEST BITS OF FIDIC 2017 TO THE 1999 FORMS

Edward Corbett

Corbett & Co International Construction Lawyers, London

Much has been said about the second editions of the Red, Yellow and Silver Books launched by FIDIC in December 2017. The most obvious comment has been about their size, almost 50,000 words, which is some 60 per cent longer than the 1999 forms.

Although the 1999 forms were not perfect, most regular users to agree that 20,000 seem additional words were not needed to fix the issues. This consensus led this author to attempt to cherrypick the useful provisions of the 2017 forms and propose amendments to add these good ideas to the 1999 forms. The amendments apply to all three forms unless otherwise indicated.

Reasonable profit

Any reduction in the number of occurrences of the word 'reasonable' is to be applauded, given the scope for argument that the word introduces. The World Bank introduced a definition of reasonable profit into its documents and the Pink Book Multilateral Development Bank form.

1.2 Add: '(e) references to reasonable profit shall mean the percentage of Cost stated in the Appendix to Tender.' Add to Appendix to Tender: 'Reasonable profit... 1.2(e)... _____ per cent or, if none is stated, 5 per cent.'

Approval for engineer's actions

The 1999 forms did not make clear whether the employer could insist on pre-approving determinations under Sub-Clause 3.5. Many assumed they could not, but FIDIC's guide to the 1999 form said otherwise. The 2017 forms put the matter beyond doubt, introducing a new requirement for the engineer to act 'neutrally' when making determinations.

- 3.1 Add in the third paragraph after 'undertakes': 'not to require approval for a determination under Sub-Clause 3.5 [Determinations] and'.
- 3.5 Red and Yellow only: replace 'the Engineer shall consult' with 'the Engineer shall act neutrally and shall consult'.

Prompt notice of variations

The 1999 drafters slipped up by not explicitly requiring prompt notice of instructions that the contractor considers to be variations. This has led to problems with unhappy employers blaming their engineers for inadvertently incurring additional costs. The notice requirement gives employers and engineers an opportunity to reconsider an instruction.

- 3.3 Red and Yellow add after the second sentence: 'If the Contractor considers that an instruction constitutes а Variation, the Contractor shall immediately, and before commencing any work related to the instruction, give a notice to the Engineer with reasons. If the Engineer does not within respond 7 days confirming, revoking or varying the instruction, the Engineer shall be deemed to have revoked the instruction.'
- 3.4 Silver add after second sentence: 'If the Contractor considers that an instruction constitutes a Variation, the Contractor shall immediately, and before commencing any work related to the instruction, give a notice to the Employer with reasons. If the Employer does not respond within 7 days confirming, revoking or varying the instruction, the Employer shall be deemed to have revoked the instruction.'

Definition of fitness for purpose

The 1999 form required the works to be fit for the purposes as defined in the contract. This caused problems when secondary elements of the work did not function properly. The primary purpose of the project may have been defined, but no one will define the purpose of each and every element, rendering the fitness for purpose obligation less than useful. So some general wording is needed. 4.1 Red – add to (c) after

¹ Ked – add to (c) after 'Contract': '(and each element of the part shall be fit for its ordinary purpose)'.

Yellow and Silver – add at end of first paragraph after 'Contract': '(and each element of the Works shall be fit for its ordinary purpose)'.

Cap on delay damages

It seemed anomalous that the limitation of liability in Sub-Clause 17.6 should not apply in cases of fraud, and so on, but that the cap on delay damages should apply regardless. Some contractors exploited this when the delay damages had reached their maximum, and the employer had no realistic option of termination: resources were transferred to other, more profitable projects and there was little that the employer could do. 8.7 Add at the end of the first

paragraph: 'other than in the case of fraud, deliberate default or reckless misconduct by the Contractor'.

Enforcement of dispute adjudication board (DAB) decisions

It was a major shortcoming of the 1999 forms that there was no clear sanction where a party, usually the employer, failed to pay amounts awarded by the DAB. Despite the obligation to comply set out in Sub-Clause 20.4, there was little that the party winning the DAB could do; and thus little incentive for the unsuccessful party to pay. Rights of suspension and termination were needed.

- 15.2 Add: '(g) fails to give effect promptly to a decision of the DAB in accordance with Sub-Clause 20.4 [Obtaining the Dispute Adjudication Board's Decision]'.
- 16.1 Add after 'Sub-Clause 14.7 [Payment]': 'or fails to give effect promptly to a decision of the DAB in accordance with Sub-Clause 20.4 [Obtaining the Dispute Adjudication Board's Decision]'.

Add in the first and third paragraphs after 'evidence or payment': 'or the Employer has given effect to the decision of the DAB'.

16.2 Red and Yellow – add: '(h) the Employer fails to give effect promptly to a decision of the DAB in accordance with Sub-Clause 20.4 [Obtaining the Dispute Adjudication Board's Decision]'. For Silver, it is (g).

Some employers argued that giving a notice of dissatisfaction relieved them of the obligation to give effect to the DAB decision. It makes sense to put the matter beyond doubt.

20.4 Add in the fourth paragraph after 'who shall promptly give effect to it': 'whether or not notice of dissatisfaction has been given under this Sub-Clause'.

The right of a party to go to arbitration and ask for an immediate award enforcing the DAB decision has been much debated due to the language of Sub-Clause 20.7. FIDIC issued a memorandum recommending an amendment to the clause; in 2017, the clause was further refined.

20.7 Replace the clause with: 'In the event that a Party fails to comply with any decision of the DAB, whether binding or final and binding, then the other Party may, without prejudice to any other rights it may have, refer the failure itself directly to arbitration under Sub-Clause 20.6 [Arbitration] in which case Sub-Clause 20.4 [Obtaining DAB's Decision] and Sub-Clause 20.5 [Amicable Settlement] shall not apply to this reference. The arbitral tribunal shall have the power, by way of summary or other expedited procedure, to order, whether by an interim or provisional measure or an award (as may be appropriate under applicable law or otherwise), the enforcement of that decision.'

Mechanism for termination and cure period

The 1999 forms were ambiguous about whether termination required one notice or two: whether termination occurred automatically on the 14th day after the notice of termination or whether a second action was required from the party terminating in order to complete the termination. The 2017 editions make it clear that two actions are required. A second uncertainty was whether action by the defaulting party within the 14 days to remedy the breach could stop the termination - in other words, whether the 14 days was a cure period. The 2017 forms resolve this by making it clear that the right to termination is lost if the fault is corrected during the notice period. Although there are arguments both ways as to how these two ambiguities should have been resolved, the most important thing is to resolve them. 15.2 After 'may' in the first line of

the second paragraph, replace the remaining text of that sentence with: 'give 14 days' notice of his intention to terminate the Contract. Thereafter, the Employer may forthwith terminate the Contract and expel the Contractor from the Site by giving a second notice to that effect, provided that in the case of sub-paragraphs (a) to (d) and (g) the default has continued until the date of issue of the second notice.'

16.2 Add to the first sentence of the second paragraph: 'by

giving a second notice, provided in the case of subparagraphs (a) to (e) and (h) that the default has continued for the notice period'. For Silver, replace (h) with (g).

After 'may' in the first line of the second paragraph, replace the remaining text of that sentence with: 'give 14 days' notice of his intention to terminate the Contract. Thereafter, the Contractor may forthwith terminate the Contract by giving a second notice to that effect, provided that in the case of sub-paragraphs (a) to (e) and (h) the default has continued until the date of issue of the second notice.' For Silver, replace (h) with (g).

Time-bars

The 28-day notice of claim under Sub-Clause 20.1 caused a good deal of unnecessary misery and dispute due to its black-and-white nature and the unintended difficulty and discrepancy of its drafting (eg, the conflict between the subjective and objective tests and the uncertainty as to what a notice should look like). The drafters of the 2017 forms have unfortunately increased the number of time-bars from two to five, but they have also blunted the harsh edges of two of them by allowing the engineer and DAB to waive them in certain circumstances.

20.1 Add to the second paragraph after '28 days': 'and (a) there are no circumstances which justify such failure and (b) the Employer can demonstrate material prejudice as a result of such failure'.

Appointment of DABs

A lot of difficulty arose when one party refused to cooperate in the appointment of a DAB member. If FIDIC steps in and nominates the member but the party then refuses to sign the member's Dispute Adjudication Agreement, then what? Could the DAB proceed and produce a valid decision or not? This uncertainty added to the problems of the DAB system.

- 20.3 Add at end: 'Both Parties and each appointed member shall promptly sign or shall be deemed to have signed the Dispute Adjudication Agreement provided by the member, under which:
 - (i) the monthly services fee and daily fee shall be as stated in the terms of the appointment; and
 - (ii) the law governing the Dispute Adjudication Agreement shall be the governing law of the Contract defined in Sub-Clause 1.4 [Law and Language].'

Absence of a DAB

In 1999, the drafters of Sub-Clause 20.8 considered that if a DAB had existed and had resigned or their agreements had expired, then it should be possible for the parties to go to arbitration directly. They probably thought that the clause would normally apply after the work was complete, when quick, interim dispute resolution was less important. In fact, the clause - which referred to when a DAB was not 'in place' due to expiry 'or otherwise' - was invoked in the common circumstance when no DAB had ever been appointed. Parties to Yellow and Silver Book contracts were not obliged to appoint a DAB until a dispute arose; Red Book parties often did not comply with the obligation to appoint at commencement.

It might therefore be a good idea to consider limiting the DAB provisions so that they become optional after taking-over has been certified. However, no change was introduced by the 2017 forms. For simplicity, the following amendment is recommended:

20.8 Delete this Sub-Clause.

Conclusion

The 2017 forms contain some useful ideas and corrections to wellknown issues in the 1999 forms. It is a pity that these good points are buried in 50,000 words, of which 20,000 are probably unnecessary. Those wishing to continue to work with the familiar 1999 forms may nevertheless benefit from parts of FIDIC's latest thinking.

Of course, every project is different and every contract must be carefully adapted to the project, the applicable law and the circumstances. Careful advice from specialists and local lawyers should be obtained before adopting any of the suggestions in this article.

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HOW DOES THE NEW GERMAN CONSTRUCTION LAW AFFECT THE IMPLEMENTATION OF THE 2017 FIDIC SILVER BOOK?

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The new German construction law, which entered into force on 1 January 2018, provides some long-awaited additions to the German Civil Code (*Bürgerliches Gesetzbuch* or BGB). For the first time, construction law has been codified as a separate area of law in the BGB. Thereby, the existing law on contracts to produce a work (*Werkvertragsrecht*) has been adapted to meet the special needs of private construction law.

This reform has the potential to affect the practical implementation of standard business terms in construction projects, such as the 2017 edition of the Fédération Internationale des Ingénieurs Conseils (FIDIC) Silver Book on 'Conditions of Contract for EPC/ Turnkey Projects' (Silver Book 2017). Prior to the recent construction law reform, it was already a matter of debate as to whether the Silver Book 1999 was compatible with the German law on standard business terms (Allgemeine Geschaeftsbedingungen or AGB law) as codified in section 305 et seg of the BGB and considered mandatory law by state courts. Where terms in the Silver Book are found to be incompatible with AGB law, they will be considered invalid. The question remains whether the Silver Book 2017 is compatible with AGB law on the basis of the revised German construction law. It is therefore important for the international construction law practitioner to have an understanding of the potential conflicts that may arise if German

law is applicable, and to be aware of potential opportunities to escape the 'sword of Damocles' of AGB law.

The FIDIC rules are standard business terms under German law

For more than 60 years, FIDIC has published model contracts, which have become the main standard for international construction projects. In 1999, FIDIC launched its Silver Book and in 2017, it published a new, second edition. It addresses 'Engineering, Procurement and Construction' and turnkey projects for a fixed price, to be completed by a fixed date. It is particularly popular in the area of plant engineering, where all parties involved have a strong interest in fixed prices and fixed dates being observed. In the 1999 edition, the contractor bore the main risks of construction and planning, while the 2017 edition strives for a more balanced solution between the contractor and employer. Despite these changes in risk allocation, quite a number of provisions in the Silver Book 2017 (still) differ significantly from the respective rules of the BGB.

Typically, it is the employer who requires the application of FIDIC clauses. If the parties agree on a contract based on the Book 2017. and at the same time provide for the application of German law, the AGB law will apply. The clauses from the FIDIC Silver Book 2017 are considered to be standard business terms in the meaning of section 305(1) of the BGB because they are pre-formulated for more than two contracts and presented by one party (the user) to the other party upon entering into the contract. By contrast, the AGB law does not apply to specific clauses if those clauses were negotiated between the parties with respect to the individual circumstances of the contract, or were at least seriously put up for negotiation by the user (Individualvereinbarung), even if the rest of the contract consists of unilaterally formulated provisions.

According to section 307 of the BGB, provisions in standard business terms are ineffective if, contrary to the requirement of good faith, they unreasonably disadvantage the other party to the contract. In case of doubt, an unreasonable disadvantage is to be assumed if a provision is not compatible with the essential principles of the statutory provision from which it deviates or limits indispensable rights or duties intrinsic to the contract to such an extent that attainment of the purpose of the contract is jeopardised.

One might consider that section 307 of the BGB does not apply to the Silver Book 2017 by analogy to section 310 of the BGB. According to this provision, section 307 of the BGB does not apply to contracts in which the entire General Conditions of Contract relating to the Execution of Construction Work (Vergabeund Vertragsordnung für Bauleistungen – Teil B (VOB/B), the German rival to the FIDIC Books) are included without material deviation as to their content. However, this is unlikely to be accepted by German courts for the simple reason that the provision relating to the VOB/B was included specifically because the VOB/B, overall, is deemed to provide a fair allocation of risks for both parties to the contract. Because the Silver Book 2017 undertakes an allocation of risks that differs substantially from the allocation of risks under the VOB/B, it appears unlikely that a German court would privilege it by applying section 310 of the BGB by analogy.

Therefore, the clauses of the Silver Book 2017 – if the contract is governed by German law – always have to be measured against the standards of the AGB law and accordingly against the substantive provisions of the BGB's construction law. If the clauses are found to be ineffective on the basis of section 307 of the BGB, the invalid clause will be substituted by the respective comparable provision of the BGB (see section 306(2)).

In the paragraphs that follow, we will provide a few examples related to the new German construction law describing the possible practical implications of this mechanism under German law.

Clause 13 of the Silver Book 2017 (variations and remuneration for additional works) may be considered ineffective by German courts

Under clause 13 of the FIDIC Silver Book 2017, variations may be initiated by the employer at any time before the taking-over certificate for the works is issued. The contractor is bound by each variation and is obligated to execute it with due expedition. Within 28 days, the contractor shall submit to the employer a proposal for adjustment of the contract price due to the variation, with supporting particulars. The rate for the varied remuneration – if the contract does not contain a respective schedule - shall be derived from the cost plus profit of executing the work. The term 'costs' covers the expenditures reasonably incurred by the contractor in performing the variation (compare to Sub-Clause 1.1.16 of the Silver Book 2017).

In contrast to these Silver Book provisions, the new section 650b of the BGB provides for a consentbased model for variations. In the first step, the parties are obligated to attempt to reach an agreement on the requested changes and remuneration issues. Only if the parties cannot reach such an agreement within 30 days will the employer be entitled to issue a unilateral variation request. The law does not provide for exceptions to the 30-day negotiation period, and exceptions are likely to be accepted by courts only in very limited and severe circumstances. changes If the requested unilaterally are necessary for the successful performance of the works, the contractor is obliged to perform them. In all other cases, it

depends on whether it is deemed to be reasonable to require the perform contractor to the requested works. With regard to remuneration for the such additional works, section 650c of BGB contains detailed the provisions to ensure adequate remuneration based on actual costs plus a reasonable markup for indirect costs, including profit, as well as to ensure the immediate liquidity of the contractor.

Accordingly, it can be reasoned from a German law perspective that the Silver Book 2017 provision on variations (the remuneration notwithstanding) disadvantages the contractor, who cannot rely on a 30-day negotiation period before being obliged to execute the variation request. It can be argued that the negotiation period as contained in section 650b of the BGB is part of the guiding principles of the new construction law and therefore cannot be waived by standard business terms. The BGB did not contain a provision on the right to request variations prior to the revision of the German construction law. Section 650b of the BGB specifically includes the 30-day negotiation period to protect the contractor from unwarranted unilateral variation requests. Therefore, it is likely that German courts would consider Clause 13 of the Silver Book 2017, which allows for an immediate unilateral right to request variations, to be incompatible with AGB law.

Another problem in the Silver Book 2017 is the employer's extensive right to insist on changes to the sequence or timing of the works' execution. Section 650b of the BGB intentionally excluded far-reaching instruction these rights, so as not to restrict the contractor's freedom to arrange the details of works. In the Silver Book 2017, Sub-Clause 8.3 provides for a detailed programme that the contractor shall submit to the employer; Sub-Clause 8.7 enables the employer to instruct the contractor to submit a revised programme with revised methods in order to expedite progress and complete the work within the relevant time for completion. Given the related risks for delay liability, such an extensive right to instruction would probably be considered ineffective under AGB law, with the consequence that sections 650b and 650c would be applicable instead (section 306(2) of the BGB).

Clause 20 of the Silver Book 2017 (time limit for raising claims) may be considered ineffective by German courts

Clause 20 of the Silver Book 2017 provides for a very short period to give notice of a claim: just 28 days after the claiming party became aware, or should have become aware, of the event or circumstance. Otherwise, the party shall not be entitled to any claims in regard to this event or circumstance and the other party shall be discharged from any liability in connection with the respective event or circumstance. This duty applies to the employer and the contractor, while under the Silver Book 1999 this duty had been limited to the contractor.

The new German construction law upholds the established statute of limitations (see section 195 et seq, as well as 634a of the BGB – the usual time period for being entitled to raise claims ranges between three and five years), but does not contain any further limitations for raising claims that would be comparable to the period of 28 days as provided for in the Silver Book 2017.

The clause in the Silver Book 1999 was held to be seriously prejudicial to the contractor because of the strict one-sided limitation for raising claims and therefore ineffective under AGB law. While under the Silver Book 2017 there is no longer an imbalance between the contractor and the employer, the question remains whether such a strict (and very short) period of notification will be considered valid under AGB law because it will mainly be to the detriment of the contractor and not the employer as the user of the standard business terms that has to raise claims at such short notice. During the execution of the works, the contractor needs to focus on performing its obligation under the contract and will not have the time personnel to work or on documenting and justifying possible claims in detail within less than a month. This appears to be a particular burden for the contractor, which German courts might well consider unwarranted.

Is it possible to escape the 'sword of Damocles' of German AGB law?

How (and to what extent) do parties to a contract have a chance to escape the 'sword of Damocles' of AGB law, without having to change the FIDIC provisions themselves? When looking for solutions, it must be borne in mind that section 305 et seq of the BGB generally constitute *jus cogens* in German law, even when the standard business terms are used in a business-to-business context. Accordingly, the German Federal Court of Justice has held that these provisions cannot be excluded by a contract clause providing that section 305 et seq of the BGB will not apply.

One option for escaping AGB law might of course be the choice of non-German law to govern the contract, in accordance with Article 3(1) of the Rome I Regulation. While this is an option in an international context, it is not possible in a purely German context. As provided for in Article 3(3) of the Rome I Regulation, where all elements relevant to the situation at the time of the choice of law are located in a country other than the country whose law has been chosen, the choice of the parties shall not prejudice the application of provisions of the

law of that other country that cannot be derogated from by agreement. Accordingly, in an entirely German situation the parties cannot escape German *jus cogens*, such as AGB law, merely by choosing another law to govern their contract.

Might arbitration clauses provide a solution?

Another way to avoid the applicability of AGB law - without having to forfeit the benefits of German law - might be through an arbitration clause. The argument can be made that by choosing arbitration, the parties to a contract are entitled to exclude sections of the BGB that would otherwise (by state courts) be considered jus cogens, at least in a business-to-business context. This follows from section 1051(1) of the German Code of Civil Procedure (Zivilprozessordnung or ZPO), which provides that '[t]he arbitral tribunal is to decide on the matter in dispute in accordance with the statutory provisions that the parties have designated as being applicable to the content of the legal dispute'. This can be read to mean that the parties are not bound to choose one legal order in its entirety, but are free to agree on specific provisions only. Section 24.1 of the 2018 German Arbitration Institute (Deutsche Institution für Schiedsgerichtsbarkeit or DIS) Arbitration Rules contains a similar provision.

While this interpretation of section 1051 of the ZPO is not compatible with Article 3(3) of the Rome I Regulation, the Rome I Regulation does not apply to arbitral tribunals but only to national courts. Furthermore, the parties' right to empower arbitral tribunals to decide *ex aequo et bono* (see section 1051 (3) of the ZPO) should also include the possibility of agreement on a nuanced choice of law.

Of course, it remains to be seen whether arbitral tribunals will embrace this view. The risk remains that arbitral tribunals might find this type of agreement between the parties to be ineffective due to the AGB law's *jus cogens* character.

However, even with this risk in mind, choosing an arbitration clause based on German law without AGB law can have significant advantages for the parties. If the construction project has a connection to Germany – be it because one or more of the parties are German entities or because the construction project is located in Germany - the parties will be able to base their contract on the internationally accepted FIDIC Silver Book, but embedded in the familiar German legal order. At the same time, there will be at least a fair chance that an arbitral tribunal will respect the arbitration clause excluding AGB law for the purposes of a dispute between the parties.

Conclusion

We have demonstrated that despite the revision of the German construction law and the reform of the Silver Book, there are Silver Book 2017 clauses that are still incompatible with the provisions of the new German construction law and therefore, due to AGB law, might be ineffective.

order to ensure In the effectiveness of the Silver Book 2017 in a German law context, we suggest that parties should agree on an arbitration clause, providing that the arbitral tribunal is to apply German law, but excluding the AGB law. Whether this will be accepted by German courts remains to be seen. For now, it appears to be the only viable option if Silver Book 2017 provisions are contained in a construction contract based on German law.

Notes

- 1 FIDIC, Conditions of Contract for EPC Turnkey Projects, 2nd edn 2017.
- 2 Cf Kapellmann/Messerschmidt/von Rintelen, VOB/B, 6th edn 2017, s 1, para 101c.
- 3 *Müller-Helle*, RdE 2014, 53 (54); *Hök*, ZfBR 2014, 627 (628 et seq).
- 4 Bamberger/Roth/Hau/Poseck/Voit, BeckOK BGB, 46th edn 2018, s 650b, paras 41, 44.
- 5 Kniffka/von Rintelen, Ibr-online-Kommentar Bauvertragsrecht, 20th edn 2018, s 650b, para 246 et seq; Abel/ Schönfeld, BauR 2018, 1 (12).
- 6 Kus/Markus/Steding, 16 ICLR 1999, 533 (547 et seq).
- 7 BGH NJW 2014, 1725 (1728).
- 8 Pfeiffer, NJW 2012, 1169 (1170); Vorwerk/ Wolf/Wilske/Markert, BeckOK ZPO, 29th edn 2018, s 1051, para 6; Kondring, ZIP 2017, 706 (709).
- 9 MüKo/Münch, ZPO, 5th edn 2017, s 1051, paras 16, 20; Valdini, ZIP 2017, 7 (10).

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USE AND MISUSE OF EXPERT EVIDENCE

USE OF EXPERTS IN COMMON LAW JURISDICTIONS

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The role of the partyappointed expert under the common law approach

In common law jurisdictions, the fundamental purpose of experts and expert witnesses is to assist the client or the trier of fact (be it a judge, jury or arbitrator) to understand the technical issues at hand. To qualify as an expert, one must possess sufficient knowledge and expertise, gained either by formal study or by experience in a specialised field.

There are, in effect, two principal roles for experts. First, there is the advisory expert who is retained by the client or client's counsel to assist in understanding technical aspects of the client's case and, in this sense, plays an important role building or better substantiating a client's affirmative case or defence. There are no formal rules with respect to advisory experts and the client and client's counsel must rely on their own due diligence in vetting appropriate experts for each case. Second, there is the testifying expert who presents their expert opinion to the trier of fact. Testifying experts are subject to express requirements concerning their qualifications. In the United Kingdom, this requirement is set out in the Civil Procedure Rules (CPR), Practice Direction (PD) 35;1 and in the United States, under the Federal Rules of Evidence (FRE), 702.²

In addition, both jurisdictions have guiding principles for admissibility of evidence. In the US, under FRE 703, experts may rely on data published by others. Three key cases, known as the Daubert trilogy,³ define criteria that may be applied to determine whether investigations undertaken

by the expert can be relied upon: (1) whether the theory or method can be empirically tested; (2) whether the technique has been subjected to peer review or publication; (3) whether potential error rates can be controlled; and (4) whether the proposed methods are generally accepted within the specific community. Under the UK jurisdiction, there is no formal test for determining the admissibility of expert evidence, but various consultation papers have set guidelines to ensure the reliability of expert testimony, at least in criminal proceedings.4

The laws regarding the role of expert witnesses under the UK and US jurisdictions are considerably different in three notable ways: degree of impartiality of expert witnesses, use of depositions and expert witnesses' ability to opine on the 'ultimate issues'. Under the UK jurisdiction, more measures are in place to remind experts that their primary mandate is 'to serve the Courts and not their fee payers'. In general, US courts appear to be more relaxed in relation to the conduct of experts.

Independence and impartiality of the expert witness

Rules governing the conduct of experts seem to be better developed in the UK than the US and have increased over the years. In the UK, for example, in cases such as 'The Ikarian Reefer's and Davies v *Magistrates of Edinburgh*,⁶ the duties of the expert are set out clearly. Not only does the appointed expert have an overriding duty to the court, but they must remain independent and impartial and identify in their testimony any opinions held that do not support the case put forward by the party who appointed them. In addition, under the CPR PD 35.10(2), at the end of an expert's report, they must include a statement that they are aware of their duties and have fulfilled them, and will continue to do so.

By comparison, the law in the US is often perceived to be less prescriptive. The FRE neither formally defines the duties of an expert witness nor contains any specific written obligation for the expert to be independent. As one expert consultancy has pointed out: 'This distinction between the UK and US jurisdiction has prompted views of greater expert partisanship in the US.'⁷

Given the different perspectives concerning experts in the UK and US, one observes a greater incidence of experts 'double hatting' in US jurisdictions – that is, the advisory experts directly involved in the independent analysis of the project often also serve as the testifying expert. This is usually frowned upon in the UK, where one sees a clearer distinction between the two expert roles.

Depositions

Under the US Federal Rules of Civil Procedure (FRCP), Rule 29, any party may take the testimony of *any* person by the form of oral⁸ or written⁹ deposition unless the court orders otherwise. If the deponent fails to attend, they could be compelled to do so by subpoena.¹⁰ This rule applies to both fact and expert witnesses. The use of a deposition is considered an important component of discovery in the US legal system, as it enables lawyers to determine the strength of the other side's evidence, which may lead to early settlement or determine trial tactics.

In comparison, the use of depositions in civil proceedings is uncommon in the courts of the UK (although possible under certain circumstances). Unlike the US system, any cross-examination of an expert must be conducted under oath (or affirmation) in front of a judge. The expert must attend at the agreed trial date, preferably voluntarily but under subpoena, if necessary. Any ambiguity or obfuscation within the expert's report will be highlighted by the legal counsel (barrister) during cross-examination and may prompt the judge to place less weight on that evidence.¹¹

Ultimate issues

The US and UK jurisdictions have adopted different approaches on whether the expert can opine on issues that the judge (or jury or arbitrator) is ultimately required to decide. In the US, FRE 704(a) permits the expert to opine on the 'ultimate issue', as it explicitly states that 'an expert's testimony is not objectionable just because it embraces an ultimate issue'.

In contrast, experts under the jurisdiction are UK strictly forbidden from opining on the ultimate issue. Experts must follow the code of conduct and not stray from the instructions given by their lawyers. In the event of digression, the expert could face possible costs sanctions.¹² In the words of Lord Cooper, a former head of the judiciary in Scotland: 'Expert witnesses, however skilled or eminent, can give no more than evidence. They cannot usurp the functions of the jury or the Judge sitting as a jury.'13

The table below summarises key similarities and differences in the

use of experts under UK and US law. The comparison pertains to court proceedings, 'but similar arrangements apply to expert evidence in Arbitration proceedings (although there is sometimes a greater flexibility of procedure in arbitration than in court)'.¹⁴

The adversarial nature of the common law approach

The principal difference between the common law approach and the civil law approach to experts is the adversarial nature of common law dispute resolution. The expectation and practice (indeed, the due process rights of the parties) in common law jurisdictions is that each party is entitled to choose its own experts. Court-appointed or tribunal-appointed experts are not the norm and are considered appropriate only in extreme cases.

There are certain advantages to party-appointed experts. The common law approach, of course, envisages party-appointed experts as consistent with the due process right of each party of presenting their case – a notion inconsistent with an inquisitorial tribunal or court. However, beyond that, partyappointed experts have certain practical advantages as well. First, parties know their case and defences much better than the court and, at the outset, will be better immersed in the facts of the case. Parties know where the problems lie, especially with respect to the particular technology or other specialised field that makes the appointment of an expert desirable. As such, they will be better placed to select the experts with the appropriate expertise. Second, competing experts, who will be open to cross-examination, help to provide the court or tribunal with different sets of view that may better enable it to make its own determination. Relying on a single expert risks that the expert may not be the most appropriate for the case or may have flawed premises in their analysis, which may not be adequately tested during a proceeding.

Party-appointed experts also have certain disadvantages. As FTI Consulting has pointed out, the common law approach gives the 'parties the opportunity to appoint not the more experienced expert in their field of practice but an expert who may be willing to best support the party's view. Since experts are appointed and paid on the basis of a relationship, contractual some unfortunately may adopt the position of a "Hired Gun," advocating on behalf of the party which appointed

The similarities and differences between approaches of expert use in the UK and US¹⁵

Similarity/ Difference	Issues	UK	US
Similarity	Purpose behind the use of expert witnesses	Expert evidence is to furnish the judge or jury with necessary scientific criteria for testing the accuracy of their conclusions.	Expert evidence is admissible on the basis that the knowledge will help the trier of fact to understand the evidence or to determine a fact at issue.
Similarity	Qualification of expert witnesses	Expert witness is qualified to give evidence, where the court itself cannot form an opinion and special study, skill or experience is required for the purpose. ¹⁶	An expert witness is qualified by knowledge, skill, experience or education. ¹⁷
Similarity	Admissibility of evidence	Expert evidence must be provided in as much detail as possible in order to convince the judge that the expert's opinions are well founded. ¹⁸	Expert testimony to be based on sufficient facts, data or products of a credible source of test and tried principles and methods. ¹⁹
Difference	Conduct of expert witness	Expert's 'duties to the Court override any obligation to the person from whom they have received instructions or have been paid by'. ²⁰	Expert's duty is not formally defined under the FRCP/Evidence.
Difference	Depositions	Expert evidence is examined before the judge (or arbitrator).	Expert evidence can be compelled to deposition.
Difference	Ultimate issues	Expert opinion on the ultimate issue is not admissible.	Expert opinion on the ultimate issue is admissible.

them in an attempt to advance that party's contentions'.²¹ As we have seen, the UK in particular attempts to mitigate against this risk by imposing explicit standards of objectivity and impartiality on experts. The US, while less stringent, has more informal pressures borne out during depositions and crossexamination where evidence of an expert's partiality or 'hired gun' status is often quickly brought to light. Related to this disadvantage is that because nearly all areas of technical or legal expertise are subject to interpretation, it is not unusual to have experts present wellfounded analyses that result in completely disparate world views and conclusions. The resulting conundrum requires the court or tribunal to make its own determinations or find other ways to reach a middle ground. These include the use of a court-appointed expert and hot-tubbing.

Court-appointed experts in common law jurisdictions²²

In the UK, Civil Procedure Rule 35.7 provides the court authority to direct that evidence be given by a single joint expert. Similarly, in the US, FRE 706 ('Rule 706') permits a court, on a party's motion or on its own, to appoint an expert witness to make findings and testify at trial on certain issues.

The use of a court-appointed expert brings its own host of issues, beginning with the selection of an expert. The UK's CPR Rule 35.7 in the first instance requires that the parties agree on the joint expert, something that may be difficult to do. If the parties cannot agree, the court may select an expert from a list of candidates identified by the parties or in any other manner the court directs. In US federal court, while Rule 706 allows a court to appoint an expert 'of its own choosing', in practice, a court will often solicit nominations for a Rule 706 expert from the parties.²³ In the Tessera case, for example, each side nominated several candidates, which included university professors who taught or performed research in the technology at issue and people with experience in the relevant industry. Each candidate was then interviewed collectively by the parties. Each side then nominated a proposed candidate for selection by the court.

After the court selects an expert, the court and the parties must address a host of issues related to working with the expert, including what duties to assign to the expert: what materials to provide to the to review: how expert to communicate with the expert; how to adjust the case schedule to permit time for the expert's report and deposition; how to ensure that the expert understands the intricacies of law and procedure; how to prepare the expert to testify at deposition and at trial; what to tell the jury about the expert's neutrality; and even how to fairly split the expert's bill.24

A key question in designing these procedures is how to replace all of the instructions and help that a party expert typically gets from the respective party counsel. Who will help the independent courtappointed expert understand the legal standards for anticipation or prepare claim charts? Who prepares and defends the courtappointed expert at deposition or at trial?²⁵

One possibility is for the parties to engage a third-party attorney as the expert's counsel. But this adds another layer of expense and complication to the case. Another possibility is using a combination of court orders, scheduling and advice by counsel for the parties. The Tessera case provides a good example of this approach. Following the expert's appointment in Tessera, the court issued a detailed written order pursuant to Rule 706(b) informing the expert of his duties. Those duties included preparing a report written on claim construction, preparing a written report on patent infringement and validity issues and testifying at trial.²⁶ Timing is also important. In Tessera, the Rule 706 expert's report was due after the party experts' reports. This timing allowed the neutral expert to consider and respond to the parties' experts and may have assisted the Rule 706 expert by providing examples of the detail and structure of expert reports.27 Another issue that has to be dealt with is whether the courtappointed expert will testify and, if so, how that testimony and crossexamination will be structured. There are several possibilities, each of which raises important questions regarding the expert's preparation and the effect the testimony will have:

- The expert could provide narrative testimony without assistance from counsel. This approach gives the expert freedom to present their views independently, but may lack sufficient clarity and structure if the expert is not an experienced presenter.
- Alternatively, the expert could be examined by counsel for the party that their opinion supports. This approach can add clarity and structure, but the fact-finder might unfortunately perceive the expert as aligned with the examining party.
- The expert could testify before the parties' experts. This approach can ensure that the fact-finder's first impressions come from an unbiased source, but may leave the expert without an opportunity to respond fully to the parties' experts.
- Alternatively, the expert can testify after the parties' experts. This approach ensures that the expert can fully respond, but might raise a concern that the fact-finder will perceive that as the 'final word' on an issue.

It has been commented that '[a] court-appointed expert carries a neutral status, unaligned with the litigants'.²⁸ Such expert testimony can be highly persuasive to the jury

or trier of fact and the opinions expressed in the expert's report tend to be extremely influential and outcome determinative. Indeed, this influence led to legal challenges to Rule 706 court-appointed experts in the US, in which parties have argued that the practice impinges on the constitutional right to a jury trial.²⁹ While the US Supreme Court has never ruled on the issues, in 2009, the US Court of Appeals for the Federal Circuit rejected this argument and recognised the constitutionality of Rule 706.30 The court found that compliance with Rule 706 and cautionary jury instructions prevented any encumbrance of the plaintiff's due process rights.³¹

Nevertheless, given the concerns and complications that arise with court-appointed experts, in the US at least, courts have noted that their use should be reserved for exceptional cases in which 'the ordinary adversary process does not suffice'.32 Court-appointed experts are very rarely used and are most commonly used in 'unusually complex' cases with 'starkly conflicting expert testimony'.33 In appointing an independent expert in the Tessera case,34 the court commented that 'the complexity of the technology at issue in this case will be particularly difficult and confusing for the jury to understand'.35 The court also pointed to 'stark conflicts' in the parties' positions.

The Federal Judicial Center conducted a small-scale empirical study on this topic and summarised its findings as follows:

'In brief, we found that much of the uneasiness with courtappointed experts arises from the difficulty in accommodating such experts in a court system that values, and generally anticipates, adversarial presentation of evidence'.

The Federal Judicial Center also made the following specific findings:

• 'Judges view the appointment of an expert as an extraordinary activity that is appropriate only in rare

instances in which the traditional adversarial process has failed to permit an informed assessment of the facts. We found no evidence of general disenchantment with the adversarial process by judges who had made such appointments.

- Parties rarely suggest appointing an expert and typically do not participate in the nomination of appointed experts.
- The opportunity to appoint an expert is often hindered by failure to recognise the need for such assistance until the eve of trial.
- Compensation of an expert often obstructs an appointment, especially when one of the parties is indigent.
- Judges report little difficulty in identifying persons to serve as court-appointed experts, largely because of the judges' willingness to use personal and professional relationships to aid the recruitment process.
- Ex parte communication between judges and appointed experts occurs frequently, usually with the consent of the parties.
- The testimony or report presented by an appointed expert exerts a strong influence on the outcome of litigation.³⁶

In conclusion, while courts and tribunals have the option of appointing experts, their use raises certain issues that make it an imperfect solution to the problem of disparate party-appointed experts.

Beyond court-appointed experts, certain common law jurisdictions, such as Australia and the UK, expressly permit courts to order concurrent expert testimony, otherwise known as 'hot-tubbing'. In the US, courts also occasionally use concurrent testimony. This method is commonly used in international arbitration as well. While some judges and arbitrators have claimed that this procedure can be useful, counsel are often reticent in permitting hot-tubbing, given the lack of control that it implies. Its effectiveness can also be undermined where experts are

unwilling to modify their positions or where the relationship between experts is such that it unfairly favours one expert over another. An example is a case where one expert is the former professor of the second expert.

Hot-tubbing and other innovative solutions are discussed in further detail in a separate article. However, it bears keeping in mind that the innovative use of experts is largely a result of courts and tribunals attempting to reach a middle ground where two party-appointed experts have provided extreme or diametrically opposed conclusions. None of these innovative solutions, however, is perfect and they raise issues that may undermine their effectiveness and, in extreme cases, perhaps even undermine the parties' rights.

Conclusion

The common law approach places a high value on the adversarial nature of dispute resolution. In this context, the use of party-appointed experts is a cornerstone of the parties' rights and strategy. However, misapprehension concerning the integrity and independence of experts under this approach has been frequently raised. For instance, in Finkelstein v Liberty Digital Inc,37 the judge highlighted that '[t]hese starkly contrasting presentations have, given the duties required of this court, imposed upon trial judges the responsibility to forge a responsible valuation from what is often ridiculously biased "expert" input."

Scholars have observed that the 'chief unsustainable myth is the complete independence of the expert'.³⁸ The role of expert witnesses in common-law jurisdictions has been described as 'ambiguous'³⁹ and involving 'unresolved contradictions'.⁴⁰

These concerns are unavoidable. Notwithstanding formal and informal requirements of impartiality and objectivity of experts, the fact of the

matter is that because they are partyselected, they will have been chosen for espousing a certain world view or approach to their area of expertise that most closely aligns with the parties' case. As such, no matter how objective an expert is, the expert's opinion will always be partial. In the author's view, this should be accepted and embraced. Accordingly, parties' counsel should be prepared to test the expert's analysis for flaws and conscious or unconscious bias. The judge, jury or arbitrator must be ready to take the expert's opinion with a large grain of salt and also be ready to test the expert, perhaps through methods such as hot-tubbing or other approaches. In the author's view, this testing of experts has greater advantages then relying on a single court or tribunal appointed expert.

Notes

- See https://www.justice.gov.uk/courts/ procedure-rules/civil/rules/part35/ pd_part35 accessed 26 February 2019.
- 2 See www.law.cornell.edu/rules/fre accessed 5 November 2018.
- 3 Daubert Trilogy: Daubert v Merrell Dow Pharmaceuticals, Inc, US 579 (1993), General Electric Co v Joiner, 522 US 136 (1997) and Kumho Tire v Carmichael, 526 US 137 (1999).
- 4 Eg, in 2009, the Law Commission published a consultation paper titled 'The Admissibility of Expert Evidence in Criminal Proceedings', and in January 2013, the UK Ministry of Justice published 'Report on the Implementation of Law Commission Proposals'. See FTI Consulting Report, p 2.
- 5 Ikarian Reefer 1993 2 LILR 68, 81–82. Cited in the FTI Consulting Report, p 2.
- 6 Davies v Magistrates of Edinburgh 1953 SC 34, SLJ 54. Cited in the FTI Consulting Report, p2.
- 7 FTI Consulting Report, p 2.
- 8 FRCP, r 30.
- 9 FRCP, r 31.
- 10 FRCP, r 45(B).
- 11 FTI Consulting Report, p 3.
- 12 Philips and Others v Symes and Others 2 [2004] EWC 2330 (Ch), [2005] 4 ER 519. Cited in FTI Consulting Report, p 3.
- 13 Ibid, 14, p 40. Cited in FTI Consulting Report, p 3.
- 14 FTI Consulting, 'The Evolution of Expert Witness Law Under UK and US Jurisdiction' www.fticonsulting-asia.

com/~/media/Files/apac-files/insights/ white-papers/the-evolution-of-expertwitness-law-under-uk-and-us-jurisdiction. pdf accessed 5 November 2018.

- 15 *Ibid*.
- 16 Lord Mansfield, Folkes v Chadd (1782) 3 Doug 157.
- 17 FRE 702.
- 18 UK Register of Expert Witnesses, Factsheet 02: Expert Evidence www.jspubs.com/ experts/fs/02.pdf accessed 5 November 2018.
- 19 FRE 702 (b-d).
- 20 Civil Procedural Rules 35.3(2).
- 21 FTI Consulting Report, p 2 www. fticonsulting-asia.com/~/media/Files/ apac-files/insights/white-papers/theevolution-of-expert-witness-law-underuk-and-us-jurisdiction.pdf accessed 5 November 2018.
- 22 The following article was very helpful on this topic. Philip Woo, 'Court-Appointed Experts – A Powerful but Rarely Used Tool', ('Sidley Report on Court-Appointed Experts') (2015) www. law360.com/articles/652686/courtappointed-experts-a-powerful-but-rarelyused-tool accessed 5 November 2018.
- 23 While Rule 706 allows for a court-appointed expert, it provides little guidance on when to use such an expert, how to select one or to how to work with the expert during litigation and at trial. Sidley Report on Court-Appointed Experts.
- 24 Sidley Report on Court-Appointed Experts.
- 25 Ibid.
- 26 Ibid.
- 27 Ibid. 28 Ibid.
- 8 101a.
- 29 See Monolithic Power Systems, Inc v O2 Micro Intern Ltd, 558 F.3d 1341, 1348 (Fed Cir 2009) ('Such experts tend to become in the eyes of the jury anointed, not appointed' quoting 1973 letter in the Congressional record). In addition, the plaintiff in the Tessera case echoed this concern: 'If the Court has something more than [the expert providing a neutral technology tutorial to the jury] in mind, such as the possibility of an expert providing testimony on substantive legal issues in the case, Tessera's concerns about potential bias would increase considerably.' Tessera, Inc v Adv Micro Devices, Inc et al, No 4:05-cv-4063 Plaintiff Tessera, Inc's Brief Re Case Management Schedule and Appointment of Court Expert Order (ND Cal 2 April 2 2007), ECF No 426.
- 30 See Monolithic Power Systems, 558 F3d 1341, 1348.
- 31 See n 24 above.
- 32 In re Joint E & S Dists Asbestos Litig., 830 F Supp 686, 693 (EDNY 1993).
- 33 Oracle America, Inc v Google Inc, 2011 US Dist Lexis 129766 (ND Cal 9 November 2011).
- 34 Tessera, Inc v Adv Micro Devices, Inc et al, No 4:05-cv-4063 Order (ND Cal 26 March 2012), ECF No 984.

35 Ibid.

- 36 Federal Judicial Center, 'Court-Appointed Experts: Defining the Role of Experts Appointed Under Federal Rule of Evidence 706' (1993) www.fjc.gov/sites/ default/files/2012/Experts.pdf accessed 5 November 2018 pp 4–5.
- 37 Harold Finkelstein and Marilyn Finkelstein v Liberty Digital Inc [2005] CA No 19598 (quoted in the FTI Consulting Report www.fticonsulting-asia.com/~/ media/Files/apac-files/insights/whitepapers/the-evolution-of-expert-witnesslaw-under-uk-and-us-jurisdiction.pdf accessed 5 November 2018).
- 38 Bartlett (1994) the Expert 'independence and parties' ownership'. Cited in the Nicholas Gould, Fenwick Elliott Report: World Launch: ICC Expert Rules– A User Perspective: When and How to Involve Experts in International Arbitration Proceedings and other ADR Processes, p 1 (January 2015) available at https://www. fenwickelliott.com/sites/default/files/ ng_-_icc_launch_of_expert_rules.pdf.
- 39 A Shilston (1992) 'Some reflections on the role of the expert witness' 58, JCIArb 4-251-258. Cited in the Fenwick Elliott Report, p 1.
- 40 A Speaight (1996) 'Expert evidence seven pillars of wisdom, but are they sound?' 62, JCIArb 4-269-271. Cited in the Fenwick Elliott Report, p 1.

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THE CIVIL LAW APPROACH - COURT-APPOINTED EXPERTS

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The general rule: civil law

The general rule on expert witnesses is that experts are court-appointed, and this role of appointment and the function of experts are governed by legislation. By legislation, parties in court (or arbitral) proceedings can request the court or tribunal to appoint one or more experts to give expert statements on specific aspects of the dispute.

In general, the role of a courtappointed expert is to answer specific questions raised by the parties on matters relevant for the court's decision on technical, financial or technological issues relevant for one or both parties.

As the expert is appointed by the court, the questions to be answered are approved by the court and the expert is appointed by the court to support the court in providing the basis for its legal decision in deciding the dispute.

Background and principles for the general rule

The regime of court-appointed experts is based on the civil law approach such that the national state by legislation provides the framework for the parties to have fair presentation of evidence in civil proceedings, which is partially fulfilled by offering an objective and independent expert.

This means that civil law consists of comprehensive legal codes also governing the use of court-appointed experts and other experts, including party-appointed experts.

The purpose of court-appointed experts is to secure the neutrality and impartiality of the expert. Furthermore, the court's exclusive power to appoint an expert ensures that the ongoing process to appoint the expert is not delayed by the parties' inability or unwillingness to agree on an expert.

Court-appointed experts, party-appointed experts and expert witnesses

Court-appointed experts

The use of experts is closely related to the concept of burden of proof. The party with the burden of proof is in need of an expert to explain technical issues and give an opinion to assist the court and will, in the civil law system, generally ask for expertise on specific matters with a request to the court to have a qualified and neutral expert appointed.

Parties usually have the opportunity to propose a specific expert, but the court is not bound by such a proposal. If the parties agree on a specific expert, the court will, however, often appoint that expert.

In some civil law jurisdictions, it is a requirement that the courtappointed expert is chosen from a register containing people with specific professional and technical skills. In Italy, for example, the court-appointed expert (*a consulente tecnico d'ufficio* or CTU) has to be chosen from the Italian register (*Albo dei Periti*).

As the expert is appointed by the court, the expert report has high evidentiary value. The courts often base the judgment on the expert's opinion and most often disregard any conflicting statements from witnesses, parties or party-appointed experts.

Party-appointed experts

The use of party-appointed experts is usual in civil jurisdictions, despite the usual appointment of courtappointed experts.

Party-appointed experts are often used as consultants to support and

develop legal positions regarding technical, economical or similar statements in relation to a dispute.

This leads to a conflict in procedural law about whether evidence from party-appointed experts is permissible evidence, including the question of whether statements and conclusions from party-appointed experts can be submitted to a court-appointed expert as basis for their report.

In some jurisdictions, the rule is that statements from a partyappointed expert are only admissible as evidence if the report is obtained *before* proceedings are initiated. However, this will often lead to an unfair situation because an expert report is not known to the other party until after proceedings are initiated, thus preventing the other party from presenting its own expert.

As a result, new rules were adopted in Denmark in 2016, making it possible for the other party to present reports as a response without regard to the time at which they were obtained.

This means that each party can present its own expert report obtained before legal proceedings and at the same time the opponent has the opportunity to obtain its own report from a party-appointed expert as a response, also after court proceedings have started.

In Italy, the procedure is different. Only after the court appoints an expert are the parties given the opportunity to hire their own expert (*a consulente tecnico di parte* or CTP). CTPs can make comments on the court-appointed expert's report, which either supports or criticises the conclusions of the court-appointed expert.

Expert witnesses

In some civil law jurisdictions, it is also possible for parties to present statements from partyappointed experts as a supplement or alternative to court-appointed experts. However, it is required that the parties agree on this. It should be noted that this approach is more commonly used than courtappointed experts in some civil law jurisdictions, such as Sweden.

By this approach, the expert witness is an instrument to avoid court-appointed experts. Because the parties themselves appoint the expert, such a report will, however, have less evidentiary value than that obtained from a courtappointed expert.

Different approaches in civil law in drafting terms of reference for experts

When drafting terms of reference, different approaches are used in civil law jurisdictions.

In Denmark, the general rule is that the parties jointly determine the scope by drafting specific questions to be answered by the expert. Furthermore, the parties can submit whatever questions they find relevant and the parties cannot, as a rule, make objections to the counterparty's questions. In some civil law jurisdictions, the court has a more active role in drafting questions. In other jurisdictions, the court will assess the questions and answers as part of the normal assessment of evidence.

In Germany, the scope of the from the statement courtappointed expert is determined exclusively by the judge, who also sets out rules for the expert's communication with the parties. A similar approach applies in Norway. However, the parties have the opportunity to comment on the references and the court has the opportunity to instruct the parties in how to define the questions the expert has to answer.

In Italy, the approach is different. A CTU acts as an assistant to the judge, thus making the judge responsible for determining the scope of the expert's report.

Party-appointed experts under civil law, inside and outside the court regime

Regardless of the approach when drafting terms of reference, partyappointed experts can affect the court-appointed expert's report.

If the parties determine the scope of the expert's report themselves, party-appointed а expert will often be the person who assists in the scoping of questions to the court-appointed expert. The party-appointed expert acts as consultant and will often continue to do so during the entire dispute. Further, the party-appointed expert will influence the courtappointed expert's report by asking specific questions that work in one party's favour.

In other civil law jurisdictions, where the court alone determines the scope of the expert, a partyappointed expert can influence the result. This can be done for instance by letting the partyappointed expert (in Norway) make comments on the expert's report or (as in Italy) giving a partyappointed expert the opportunity to either support or criticise the court-appointed expert's report.

This is different from common law jurisdictions, where a partyappointed expert acts on behalf of the party from the beginning until the end of the dispute. In civil law, a party-appointed expert is used either to draft references, comment on the court-appointed expert's report or act as an expert witness, thus making the expert relevant at different times during the dispute.

How to challenge the conclusions of a courtappointed expert

The parties have different approaches when challenging the expert's conclusion; they can ask supplementary questions or, in a more extreme circumstance, ask for a new court-appointed expert.

When the expert hands in their report to the court, both parties have the opportunity to ask supplementary questions, if permitted by the court. By this approach, the parties can challenge the expert's report by asking questions. Because а partyappointed expert can frame the supplementary questions, the parties have an opportunity to use the party-appointed expert to challenge the conclusions of courtappointed experts.

If there is a general dissatisfaction with the court-appointed expert's report or their competence, there is an opportunity to get a new expert appointed. However, it is extremely difficult to get this approved by the court.

As a starting point, misunderstandings or misjudgements should be mellowed through supplementary questions so that the cost related to a new appointment is limited. In general, the appointment of a new expert is only possible if the court considers it appropriate.

Advantages and disadvantages of courtappointed experts

Advantages

The use of court-appointed experts tends to facilitate an incentive for the parties to agree on settlements. As mentioned, the conclusions from a report from a court-appointed expert will often be the basis of the court's judgment. The conclusions from the court-appointed expert in favour of one of the parties will give the parties directions on the likely outcome of the dispute. The other party is often willing to settle instead of continuing the dispute in litigation or arbitral proceedings.

In addition, the procedure for appointment of the expert ensures that an objective and independent expert acts as an expert, which raises the evidentiary value. Further, this procedure gives both parties an equal opportunity to ask the expert questions.

Disadvantages

A concern is that inside each discipline different theoretical or methodical approaches can be preferred. This can have a considerable impact on the expert's final decision, which leads to numerous disputes not having only one 'right' answer from the courtappointed expert. Consequently, a statement from the court-appointed expert will substantially depend on the choice of the expert and their qualifications.

Furthermore, judges normally do not have in-depth technical knowledge, which characterises disputes in construction law. This can lead to a concern that courts end up appointing generally qualified professionals, but not professionals with specific technical knowledge, as needed. Very often, parties themselves may have better knowledge of the required qualifications.

Finally, court-appointed experts can be a less expensive solution because only one expert is to be appointed. However, the reality is different as both parties will normally have their own expert when drafting questions to the expert and making comments on the final report, thus making the total expenses higher.

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PRACTICAL AND INNOVATIVE USE OF EXPERTS

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Introduction

Expert evidence is a staple feature of construction disputes – opinions given by individuals with relevant and specialist experience, qualifications or skills in the fields to which those opinions relate. Those fields can cover, for example, technical disciplines on the question of whether works are defective or complete, the amount and the cause of delays or disruption to the works, the quantum of claims, relevant industry practice or the application of local laws.

All stakeholders involved in a construction dispute should consider the role of expert evidence and how that evidence can be practically meaningful for the tribunal.1 After all, if the tribunal does not find that evidence useful in determining the issues in dispute, the expert reports will be relegated to the role of an expensive doorstop. The stakeholders for these purposes are the parties and their counsel, the tribunal and the experts themselves. So, how can expert evidence be practically meaningful for the tribunal? Does there need to be innovation in the way in which expert evidence is proffered?

This article considers two topics in addressing those questions: (1) concurrent evidence of partyappointed experts of like discipline; and (2) using quantum expert evidence to quantify the tribunal's myriad decisions on the issues in dispute.

These are not the only topics when it comes to considering practical and innovative means of using expert evidence in construction arbitration. For example, another key topic is the use of technology, such as Building Information Modelling (BIM), in the effective presentation of complex expert evidence. However, in the interests of this article being useful to readers (as it would not otherwise suffice as a doorstop), the author has limited the content to two topics.

Concurrent evidence of party-appointed experts of like discipline

This topic is concerned with adducing evidence from experts of like discipline at the same time. That is predominantly through the form of joint statements signed by the experts and oral testimony through 'hot-tubbing' (vernacular with which we are all familiar but which may conjure up unappealing imagery). Concurrent expert evidence is now a common feature of construction disputes, particularly in international arbitration. This is because of the tangible benefit to tribunals in distilling the areas of agreement and disagreement in the expert evidence.

In the author's experience, in any construction dispute there is great capacity for agreement between experts of like discipline experts where those are experienced, properly briefed, prepared and committed to being seen to be objective and These independent.² are important caveats because unfortunately it is not always the case that experts meet these criteria, even when they hold themselves out as doing so. One need look no further than the following excerpts from decisions of the English courts on construction cases (which, unlike most arbitral awards, are public) to see that experts do not always meet the standards reasonably expected of them:³

• 'So unbiased and irrational do I find this "expert" evidence that I conclude he failed in his duty to the court... At the end of his report, Mr [X] said he understood that duty. I do not think he did. He came to argue a case. Any point which might support that case, however flimsy, he took. Nowhere did he stand back and take an objective view as an architect...'⁴

- 'I was disappointed with Mr [X] who, although an experienced expert, I felt was trying too hard to reduce the delay and other quantum heads to an insignificant level. Whether he felt, subconsciously, pressurised by [a representative of his appointing party] or not I cannot say. But his arguments were reduced to scraping the barrel in some respects... He indorsed a totally artificial calculation...'5
- 'Mr [X] allowed himself to be used, whether wittingly or otherwise, by [his appointing party and their claims consultants] (those with the most to gain in this litigation) to act as their mouthpiece. It was almost as if they were trying to see how much of their claim they could get past Mr [X], and then Mr [Y], and ultimately the Court. It made a mockery of the oath which Mr [X] had taken at the outset of his evidence.'⁶
- 'Mr [X] who was charged with the duty of independently researching and analysing these events singularly failed to take account of this documentation and the photographic evidence in his written report for the court and presented a view of the course of the critical path which was clearly wrong.'⁷
- 'I reject Mr [X]'s evidence that the late design information either caused or contributed to the critical delay in the Project. His analysis was self-confessedly incomplete. He did not have the time to approach the research of this aspect of the case in the complete and systematic way, furthermore, the impacted as planned delay analysis takes no account of the actual events which

occurred on the Project and gives rise to an hypothetical answer when the timing of design release is compared against the original construction programme.'⁸

An expert fails to meet the standard expected of them at their peril, even in private international arbitral proceedings that are shrouded in confidentiality. This is because partyappointed expert opportunities arise through word of mouth referrals. Those opportunities dry up as word spreads through the small and leaky construction arbitration community that an expert has failed to meet the standard reasonably expected of them.⁹

For present purposes, this article assumes the situation where experts of like discipline are experienced, properly briefed, prepared and committed to being seen to be objective and independent. In that situation, in most (if not all) construction cases, there is merit in exploring concurrent expert evidence. Some of the key issues that need to be considered are the timing for concurrent expert evidence, setting the agenda for that evidence and the particular challenges of 'hot-tubbing'.

In relation to the first of these, the timing for commencement of the concurrent expert process, early is better. Ideally, expert engagement should commence as soon as there has been а crystallisation of the issues in dispute between the parties so the experts can then appreciate the topics that they need to address. Specifically, it is more productive for experts to start meeting to discuss their views on the relevant issues (without prejudice) before the production of their respective individual expert reports. This is because there is often an unconscious (and possibly conscious) resistance to changing position once their opinions have been committed to writing. We can appreciate the sage insight that 'a wise man changes his mind sometimes, but a fool never'.¹⁰

However, this is more difficult to implement in practice when an expert has already issued their individual expert report and this has been disseminated to relevant stakeholders in an international That expert will, arbitration. rightly, have a sense of professional pride and will want to protect the integrity of the analyses that led to their written opinions. They will also know that any change in their opinions will be closely scrutinised by all stakeholders, including their client who is paying their invoices and, depending on the precise circumstances, that change could be used as an avenue to seek to undermine their credibility on cross-examination. That resistance can be minimised by early engagement between experts.

There is merit in going one step further and mandating in Procedural Order No 1 that experts of like discipline not only meet at an early stage, but also issue a joint statement on, at least, relevant methodology issues before any individual expert reports are filed. This reduces the risk that the experts adopt different methods of analysis that then make it difficult for the tribunal to compare their evidence and by the time those analyses are presented it is too late and disproportionate from a costs perspective to revert to alternative methods. The Society of Construction Law Delay and Disruption Protocol recognises the inherent value in early engagement on methodology between partyappointed experts:11

'In order to avoid or at least minimise disputes over methodology, it is recommended that the parties try to agree an appropriate method of delay analysis before each embarks upon significant work on an after the event delay analysis. Failure to consult the other party on delay analysis methodology is a matter that the Protocol considers might be taken into account by the adjudicator, judge or arbitrator in awarding and allocating recoverable costs of the dispute.'

Having said that, it is important to recognise the reality of the situation that in a large and complex construction dispute, the parties may have had experts on board for months before arbitration is commenced, working up their analyses and assessing the claims. Accordingly, the risk remains that experts of like discipline are already a long way into their respective analyses using their chosen methods before the commencement of any engagement between the experts in the arbitral proceedings.

There is also merit in having a final joint statement by experts of like discipline after the individual expert reports have been filed so that the experts can effectively distil their collective evidence into a series of issues that are agreed and disagreed. That can act as a neat road map for the tribunal in navigating through the expert evidence.¹²

Of course, where pleadings are served in memorial style, this creates difficulty in creating a procedure where experts of like discipline start meeting before they commit their opinions (particularly on methodology) to writing. This is because the individual expert reports relied on by the claimant will be filed with the Statement of Claim - and those experts will have committed their opinions to writing at that filing date. Those opinions will be based on only part of the factual documentary and evidence. namely the evidence relied on by the claimant but not that of the defendant. Moreover, the experts on both sides will commit their opinions to writing in their individual expert reports before any document production. This situation means that there is high probability that after each expert has produced at least one of their individual reports, relevant evidence will be made available to them for the first time, which has a

material impact on their analyses and opinions. The introduction of new evidence provides a sensible basis for an expert changing their opinions but, in the author's opinion, that does not completely erode the inherent resistance to change where the expert's opinions are already in writing.

So, when faced with memorial style pleadings, is it an option to start the concurrent expert evidence process in advance of the Statement of Claim? There are practical challenges in doing so. This is because, at that point in time, the only documents available to identify the issues in dispute are high-level summaries contained in the Request for Arbitration and Answer. These documents tend to be too brief to identify the issues in dispute to be addressed by expert evidence.

This conundrum is often one of the reasons for arguing against memorial style pleadings in a complex construction dispute, even though it may be the more approach common in international commercial arbitration. As an alternative, sometimes a hybrid pleading system is considered where the fact witness statements accompany the pleadings but the expert reports are filed later. This approach can be a sound compromise depending on the precise circumstances.

The next issue for consideration is the agenda for the concurrent expert evidence process. What are the experts to discuss? What issues will they opine on in their joint statements? In appropriate cases, there is merit in legal counsel agreeing the joint instructions to experts of like discipline. After all, they will have a good handle on the issues in dispute in the arbitration and are often best placed to surgically formulate key questions for the experts, with the objective of ending up with a distillation of the expert evidence relevant to those issues in dispute.

The alternative is to leave it to the experts to agree on their agenda. As the individuals most familiar with the expert issues, they should know how to frame the questions to be answered in the joint statements to distil the expert evidence. Unfortunately, that is not always the case. If the experts cannot agree on their agenda, this responsibility will necessarily fall back onto legal counsel or, in challenging situations where legal counsel also does not agree, the tribunal.

The final consideration for this article in relation to concurrent expert evidence is 'hot-tubbing'. This is a process by which experts of like discipline are both sworn in and give oral evidence together. There are numerous variants on the actual procedure (such as whether the tribunal leads the questioning or this is left to legal counsel). Hot-tubbing is increasingly requested by tribunals dealing with complex construction disputes. It allows them to understand the views of experts of like discipline in real time, rather than hearing one expert on all issues and then waiting for hours or potentially days during the merits hearing to understand the views of the counterpart expert on a particular issue, by which time they have been distracted by lots of other issues. Hot-tubbing also can be a powerful tool for tribunals in educating themselves on pertinent matters that are not clear from the evidence on the record or the submissions. In addition, this allows for the distillation of the expert evidence, but this time - possibly for the first and only time - it is in response to the key questions as the tribunal sees them for the purposes of deciding the dispute.

There is a view that hot-tubbing can assist both the performance of the experts in giving evidence (which allows the tribunal to have greater comfort in relying on that evidence) and the quality of the evidence itself. This is because hottubbing can discourage posturing – it is more awkward for an expert to make snide remarks when their counterpart expert is sitting right beside them – and encourages each expert to frequently re-evaluate the evidence and their analyses in light of their counterpart's opinions.¹³ In one case, hot-tubbing was said to have 'helped foster true and objective consensus'.¹⁴

These benefits, though, are only derived where hot-tubbing is deployed by a tribunal that is sufficiently advanced in their understanding of the issues and the evidence to be able to formulate precise questions on concrete matters for the experts to address in oral testimony. For example, 'if we find that the critical path runs through ABC activity, what is your position, Mr X, on the number of days critical delay? What is your position Mr Y?' There is also the risk that, unless the tribunal is controlling the process through tight questioning and is fastidious in giving each expert the opportunity to respond on each point, preferably in alternating order, this process can be skewed in favour of the expert who is most proficient in advocacy, which runs counter to the ideal of an independent expert.

Legal counsel of course is going to present their client's case in the best light, expert evidence included. In considering whether to propose or accede to a request for hot-tubbing, they will assess these risks, focusing on the personality and experience of the experts and the preparedness of the tribunal.

Using quantum expert evidence to quantify the tribunal's myriad decisions on issues in dispute

The second topic for this article focuses on quantum expert evidence. Taking a step back, in complex construction disputes, there are numerous decision points for the tribunal in reaching a conclusion on sums owing. These can include, for example: (1) the proper interpretation of provisions of the contract relevant to each of entitlement and valuation; (2) the location of the critical path and the cause and amount of critical delay; (3) the resources affected by relevant delay and disruption events, and the nature and extent of those impacts: and (4) the appropriate methods for valuing loss or additional costs. The tribunal will want quantum expert evidence in a form that allows it to quantify the outcome following a determination on each of those decision points. How is this achieved?

There are a number of innovative procedural options that might be appropriate in a particular case. They require early consideration by the stakeholders to be effective.

Experts to develop dynamic financial model

It is increasingly common for quantum experts to seek to collaborate in preparing a tool that allows the tribunal itself to quantify aspects of the claims. This could be a tool to calculate liquidated damages, depending on the tribunal's finding on the days of excusable critical delay, or interest, depending on the tribunal's conclusions regarding sums owing. Of course, these tools may still contain different permutations depending on whether there are issues in dispute regarding the relevant claims. For example, in relation to liquidated damages, there may be disagreement between the parties as to whether the cap on liquidated damages is calculated by reference to the original contract price or the amended contract price at completion. In relation to interest, the parties may disagree on the trigger date for the calculation of interest and the rate to be applied. Those limited permutations can be readily accommodated in a simple tool, for example, in an Excel spreadsheet.

It becomes more complicated where there are numerous claims with a greater number of issues in dispute, and hence decision points, for the tribunal. This turns the tool into a complex 'choose your own adventure' dynamic model. This approach can be feasible only where the parties and the quantum experts turn their minds to such a model early in the proceedings. This is for two reasons. First, such a model inevitably incorporates а significant amount of opinion evidence in summary form. Each quantum expert needs to be satisfied that it properly reflects their opinion evidence. Moreover, the aggregation of that evidence into the model itself is quantum evidence and the parties may reasonably request the opportunity to test it with the quantum experts as appropriate (including through cross-examination). Second, this model must reflect the decision points of the tribunal. If it is too blunt and skips various decision points, it will become misleading and hence otiose. Therefore, it is important for legal counsel and the tribunal to be satisfied that all of the issues in dispute are reflected as decision points in the model. In this regard, as any tribunal will know, despite the best will in the world, it is not common for parties to agree on a succinct list of issues in dispute. The model itself therefore needs to be capable of dealing with differences of view in relation to the decision points for the tribunal.

However, if there is open and constructive dialogue at an early stage between legal counsel and the tribunal and between the quantum experts, this approach may be possible. It is certainly attractive to the tribunal as it allows them to leave the merits hearing, having closed the evidence phase of the arbitration, with the tools at their disposal to effectively quantify the claims and counterclaims based on the evidence and include a figure in their award regarding sums owing.

A downside to this approach is the cost. While some of the effort associated with preparing such a model will be required irrespective (ie, distilling the quantum expert evidence and identifying the issues in dispute), there will still be significant work involved in reaching a point where the model, with all of its permutations, is agreed. That means significant costs.

Bifurcation of quantification

Bifurcation of quantum evidence is often considered by one or more parties in international arbitration but is rarely implemented at the outset of the proceedings for construction arbitration. This is because questions of quantum are often intricately connected with the other elements of the claims and there is little cost saving overall in having separate hearings.

However, late bifurcation on quantification is a way of permitting the tribunal to put itself in a position where it can put a figure on its determinations based on the quantum evidence on the record. This would be achieved by the tribunal issuing a partial award on all issues in dispute other than of the quantification its determinations.15 It would then seek input from the quantum experts based on the evidence already on the record or submissions from legal counsel on quantification. A sensible approach might be to instruct the quantum experts to seek to agree on the quantification of the partial award in the form of a joint statement.

The benefit of quantification bifurcation is that there are likely material cost savings by having the quantum experts focus, in addition to their primary positions as set out in their individual expert reports, on only one outcome, namely the tribunal's determinations, and not on all reasonably possible permutations. Of course, the longer the timeframe between the end of the merits hearing and the issue of the partial award, the more time and effort it will take the quantum experts to turn their minds to the quantum evidence for the purposes of seeking to agree on the quantification. Therefore, from a practical perspective, the tribunal needs to be in a position to issue a timely partial award.¹⁶

The downside is that there may be greater risk of the proceedings being derailed by a party who is dissatisfied with the partial award and takes immediate steps to set aside that award. After all, under the United Nations Commission on International Trade Law (UNCITRAL) Model Law, an application for setting aside must be made within three months of receipt of the award.17 Certain jurisdictions have reduced this time period even further.18 Alternatively, a dissatisfied party may deploy a strategy that seeks to effectively open up or undermine the determinations within the partial award through the quantification phase of the proceedings. That can lead to an elongation of the arbitration timetable. Tribunals therefore can, understandably, be reticent about this procedural approach.

Valuation of tribunal's hypothetically framed scenarios

This approach is similar to the bifurcation of quantification. However, instead of a partial award, the tribunal would issue a series of hypothetical scenarios and seek input on quantification for those scenarios from the quantum experts or through legal submissions based on the evidence already on the record. This approach has the same benefits as the bifurcation of quantification, although the number of permutations to be considered given those scenarios likely will be greater than the one outcome based on the tribunal's determinations in a partial award.

The downside with this approach, and the reason why it tends to be disfavoured by tribunals, is the risk that the losing party cries foul from a due process perspective, arguing that the tribunal has demonstrated bias before it has properly assessed the evidence. Whether such a complaint is reasonable depends on the circumstances. However, we are all familiar with the industry focus in recent years on the worrying trend of due process abuse.¹⁹ Nonetheless, given the tribunal's general duty from a due process perspective,²⁰ the risk of such complaints should be factored in by the tribunal and the parties in considering whether this approach is appropriate.

Another potential downside is that this approach can lead to one party anticipating, from the hypothetical scenarios, the tribunal's likely determinations and then, similar to the quantification bifurcation approach, deploying a strategy to avoid that outcome, which can of itself derail the proceedings.

Meetings between quantum experts and tribunal

A variation on the aforementioned two approaches is where the tribunal meets in confidence with the quantum experts, without the presence of legal counsel or the parties, to get their input on quantification before the tribunal has made final determinations. The benefit of this approach is that the tribunal members may perceive they have greater freedom in seeking to properly understand the likely quantification of their preliminary determinations and make sure that they have not misunderstood the quantum evidence, while the risk of a dissatisfied party complaining of bias or derailment before the final award are reduced.

However, there are considerable due process considerations with this approach, particularly to ensure that each party has a fair right to be heard despite having been shut out of discussions between the tribunal and party-appointed experts about the evidence. Therefore, tribunals would be wise not to pursue this option in the absence of the express agreement of the parties (which ought to be sought on the basis that this process will not lead to the introduction of new evidence) and express commitment by the experts to maintain confidentiality over the discussions with the tribunal and not share details with their client or instructing legal counsel.

From legal counsel's perspective, this approach causes discomfort and with good reason. Ouite apart from the inherent unease faced by legal counsel in relinquishing complete control over the quantum expert evidence to the tribunal, legal counsel will be conscious of the risks involved that can be prejudicial to their client's case. First, where the evidence phase of the proceedings has closed, there is the risk that new evidence will be presented to the tribunal in these meetings, as distinct from the distillation of existing evidence. If legal counsel is not present in these meetings, they cannot monitor the situation and make submissions where they consider the line has been crossed. Second, similarly to the position with hot-tubbing, the process can favour the expert that is the better advocate. Legal counsel will be blind as to whether their client's expert was given an equal opportunity to present their views. Third, legal counsel does not have a re-examination opportunity, for example, to prompt their client's expert to present a full picture of the evidence where it appears their opinion evidence has been taken out of context. Fourth, the commercial reality is that legal counsel tends to be responsible for managing the costs of an arbitration and reporting accordingly to their client. If they have no visibility over what the quantum expert is doing, it is difficult for them to explain to the client why the expert's fees are reasonable.

Tribunal-appointed quantum expert

This approach involves the tribunal appointing their own quantum expert to assess the evidence given by the party-appointed quantum experts. (The author notes the possibility that there is only one quantum expert who is appointed by the tribunal, but in complex construction disputes to be resolved by international arbitration, it is far more likely that any tribunal-appointed expert would be in addition to partyappointed experts).

The tribunal needs to be particularly mindful of ensuring due process where an expert is to be appointed by the tribunal, which requires careful management and takes time.²¹ As a result, for this option in particular, it is feasible only if it is considered at an early stage. However, at that time, the tribunal may not appreciate whether it will need assistance in wading through the quantum evidence. Given the cost associated with a tribunal-appointed expert, the tribunal will be loath to proceed down this path if it perceives that it is unlikely to be a proportionate way forward. That will be particularly so if the tribunal members have been selected based on their expertise in construction disputes and ability to dissect complex expert evidence. Therefore, at the early stage of a construction arbitration, tribunals tend to lean in favour of not appointing their own expert. As a result, it is rare for experts to be appointed by a tribunal. Nonetheless, in an appropriate case, this might be a sensible way forward.

Conclusion

Stakeholders to construction arbitration should ensure that expert evidence is practically meaningful for the tribunal in deciding the issues in dispute. There is no point carrying out time-consuming and expensive analyses and producing reports that fail to shift the dial in resolving the dispute. Concurrent evidence for party-appointed experts of like discipline can go a long way towards distilling the evidence for the tribunal's benefit and potentially fosters a culture of consensus between experts of like discipline. When it comes to quantum expert evidence, innovation might be needed to ensure the tribunal is equipped with the tools to quantify their determinations. Otherwise, the tribunal may be required to decipher and extrapolate from reams of pages of expert reports, none of which are directly applicable to their precise determinations. That could be a risky proposition. Thankfully, in the author's experience, there is a growing trend in international construction arbitration for stakeholders to be thoughtful and innovative about the presentation and manner of adducing expert evidence to promote proportionate dispute resolution. May that continue.

Notes

- 1 This paper focuses on expert evidence in international arbitration, rather than in domestic litigation or arbitration or some other form of alternative dispute resolution.
- 2 IBA Rules on the Taking of Evidence in International Arbitration, Article 5(2) (c) requires experts to include a statement in their reports of 'his or her independence from the parties, their legal advisors and the Arbitral Tribunal', among other things.
- 3 The names of the experts involved have been removed to avoid personalising these judicial comments.
- 4 Pearce v Ove Arup Partnership & Ors 2001 WL 1251820, at paras 59–60.
- 5 Walter Lilly & Co Ltd v Mackay (No. 2) (2012) 143 ConLR 79, at 101.
- 6 Van Oord UK Limited & Anor v Allseas UK Limited [2015] EWHC 3074 (TCC), at 93.
- 7 Great Eastern Hotel Company v John Laing Construction Ltd [2005] EWHC 181 (TCC), at para 117.
- 8 Ibid, para 184.
- 9 K Rosenberg, The Use of Expert Evidence in Resolving Disputes in Common Law Jurisdictions, Society of Construction Law (D186), December 2015, para 52.
- 10 Attributed to Desmond Ford.
- 11 Society of Construction Law, Delay and Disruption Protocol (2nd edn), February 2017, Guidance Part B, para 11.8, p 37.
- 12 In between the first and the final joint

statement, there may be a number of joint statements addressing specific issues. This helps with ensuring regular progress is made by the experts in addressing the issues in dispute.

- 13 Re N [2015] EWCOP 76, at 18, referred to in Civil Justice Council, Concurrent Expert Evidence and 'Hot-Tubbing' in English Litigation Since the Jackson Reforms': A Legal and Empirical Study 24 (2016), available at: www.judiciary.gov.uk/wp-content/ uploads/2011/03/cjc-civil-litigationreview-hot-tubbing-report-20160801.pdf; G Edmond, A Plenderleith Ferguson and T Ward, Assessing Concurrent Expert Evidence, p 9. Last accessed 24 January 2019.
- 14 Ibid.
- 15 This assumes that partial awards are permitted under the lex arbitri - and it is worth checking. For example, in the UAE, until the new arbitration law was implemented in 2018 (Federal Law No 6 of 2018), there was ambiguity as to whether the tribunal had jurisdiction to render multiple awards under the same arbitration agreement. This ambiguity arose out of Court of Cassation decisions to the effect that an arbitration agreement is exhausted once the arbitral tribunal issues an award on the merits of the dispute - so one award per arbitration agreement (Dubai Court of Cassation, Petition No 502/2002 (Rights), 22 March 2003, Abu Dhabi Court of Cassation, Petition No 174 of 2014 (Commercial), 22 April 2014). The new arbitration law makes it clear that the tribunal can issue awards on parts of the claims before then issuing the final award (Article 39(1) of the Federal Law No 6 of 2018).
- 16 The arbitration rules of major institutions require the tribunal to implement a procedure that expeditiously resolves the dispute (eg, Article 14.4(ii) of the LCIA Arbitration Rules (2014)) or to issue the final award within a set period of time (eg, Article 31 of the ICC Rules of Arbitration (2017) and Article 36.2 of the DIAC Arbitration Rules (2007)). Therefore, there is an expectation of timely partial and final awards amongst arbitration stakeholders.
- 17 Article 34(3) of the UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments adopted in 2006.
- 18 For example, in England and Wales, an application challenging an award must be made within 28 days (assuming no arbitral review or appeal process) pursuant to Section 70(3) of the Arbitration Act 1996 (England and Wales), in the UAE, the time period is 30 days pursuant to Article 54(2) of the Federal Law No. 6 of 2018, and in Switzerland, the time period is also 30 days pursuant to Article 190 of the Federal Statute on Private International Law in conjunction with Articles 77 and 100(1) of the Federal Statute on the Swiss Federal Supreme Court.

- 19 L Reed, Ab(use) of due process: sword vs shield, Arbitration International, Vol 33, Issue 3, 1 September 2017, pp 361-377; R Gerbay, Due Process Paranoia, Kluwer Arbitration Blog, 6 June 2016, available at http://arbitrationblog. kluwerarbitration.com/2016/06/06/ due-process-paranoia/, last accessed 24 January 2019.
- 20 For example, Section 33 of the Arbitration Act 1996 (England and Wales) and Article 22 of the ICC Rules of Arbitration (2017).
- 21 The Chartered Institute of Arbitrators has produced an international arbitration practice guideline that is helpful in this regard. See *Party-appointed and Tribunal appointed Experts*, International Arbitration Practice Guideline, Charted Institute of Arbitrators, available at: www.ciarb.org/docs/default-source/ ciarbdocuments/guidance-and ethics/practice-guidelines-protocolsand-rules/international-arbitrationguidelines-2015/party-appointed-andtribunal-appointed-expert-witnesses-ininternational-arbitration.pdf?sfvrsn=2, last accessed 24 January 2019.

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RULES ON EXPERTS – A CRITICAL ASSESSMENT

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Introduction

International construction projects can result in disputation that necessitates the engagement of expert witnesses to crystallise and give opinion on technical issues for the benefit of the tribunal and have them resolved in an independent and impartial way. That process can often take place in the international commercial arbitration area. Fortunately, the construction industry is well served by soft law instruments that provide common ground rules dealing with expert evidence.

International commercial arbitration proceedings bring together individuals of different backgrounds from a range of intellectual disciplines and experiences. These proceedings should accommodate different cultures, norms and expectations. This article will address the appointment of experts, the briefing of experts and the ethical obligations imposed on experts and party representatives from the perspective of the available rules on experts. A critical assessment of those rules will demonstrate that a global and common playing field has emerged for the benefit of the broader industry.

Appointment of experts

In the arbitration of construction disputes, arbitrators should discuss with the parties the precise manner in which expert evidence should be adduced.¹ Expert evidence may be adduced by the parties or the arbitrator may appoint expert witnesses. Specifically, parties may wish to appoint their own experts, parties may jointly agree to appoint an expert, arbitrators may wish to appoint a single expert and arbitrators may wish to appoint a tribunal-appointed expert in addition to a partyappointed expert. The practice of parties appointing their own experts in international arbitration proceedings is more common than the appointment of a single joint expert by the parties.² Most parties frequently appoint their own experts, as a party's right to appoint an expert is a key part of its right to submit evidence and to be heard.

Party-appointed experts

Many arbitration rules and instruments, including Article 5 of the Chartered Institute of Arbitrators (CIArb) Practice Guidelines on Partyappointed and Tribunal-appointed Experts 2016, provide parties with the right to adduce independent expert evidence in writing without the need to consult with the other party or the arbitrator. In the absence of express rules, it is widely accepted that a party's right to be given a fair opportunity to present its case includes a right to call independent experts when such evidence is necessary for the resolution of an issue in dispute.³ It is the responsibility of the appointing party to agree with the expert the manner in which the expert will address the question in dispute, the remuneration of the expert and the arrangements for the presentation of expert evidence.⁴ Further, it is the responsibility of the appointing party to instruct its expert on any directions given by the arbitrators. This may include directions for the experts to meet in order to seek to narrow any differences of opinion and to prepare a joint report identifying the issues on which they have agreed and the issues on which they disagree. If a single expert is jointly appointed by the parties, the parties are both responsible for their selection, appointment and remuneration.

Where each party appoints its own expert who works in isolation to produce a report, there is the risk that the parties' experts adopt incompatible approaches to answering the question arising in the arbitration proceedings or disagree on the question itself. For example, one party-appointed expert may use accounting pricing while the other uses economic pricing to determine quantum. Of course, it can help if the parties can agree the scope of instructions of the experts or if the arbitral tribunal gives directions to alleviate this problem.

A jointly appointed expert may be appointed by the parties together to limit the expert evidence on a question arising international arbitration in proceedings to that of one witness.⁵ The appointment of a single joint expert by the parties together is less common in international arbitration proceedings, as the parties have a more limited basis to challenge the expert's opinion if it is unfavourable to them.⁶ However, it is normal for the parties to be given an opportunity to ask the single joint expert questions at the hearing or some other stage of the arbitral proceedings. An advantage of appointing a single joint expert is that it may be a more costeffective method of adducing avoiding expert evidence by conflicting expert evidence and limiting the volume of expert evidence that would otherwise be presented. This makes it an attractive option where the cost and time of resolving competing opinions would expert be significant compared to the quantum in dispute.⁷ Furthermore, the use of a jointly appointed expert ensures an objective opinion is delivered. The jointly appointed expert is under no pressure to support one party over another. The parties will only agree on the expert if both parties regard the expert as qualified, impartial and professional.8

Tribunal-appointed experts

Another manner of adducing expert evidence is for the tribunal itself to appoint an expert. This may be done instead of or in addition to the parties appointing experts. Many arbitration rules grant arbitrators express powers to appoint their own expert on their own motion or upon a party's request.⁹ Article 12 of the London Court of International Arbitration (LCIA) Arbitration Rules and Article 6 of the 2010 IBA Rules on the Taking of Evidence in International Arbitration expressly provide for the appointment of experts by the arbitral tribunal. The arbitral tribunal, after consulting with the parties, may appoint one or more tribunal-appointed experts to report to the tribunal on issues designated by the tribunal.¹⁰ In the absence of express provision and provided that there is no prohibition under the arbitration agreement and rules, arbitrators may have an implied power to appoint their own expert. This implied power is sourced in their broad discretion to adopt procedures for the conduct of the arbitration proceedings suitable to the circumstances of the matter.¹¹ By appointing an expert, the tribunal can ensure that it is receiving an impartial view of the evidence. However, the tribunal is required to have analysed the matter and the issues at a sufficient level of detail to determine the profile of the required expert.

A tribunal-appointed expert may be instructed in addition to party-appointed experts. This is appropriate where the arbitrator requires assistance to decide differences of opinion between the party-appointed experts. However, instructing a tribunalappointed expert and a partyappointed expert will increase the cost of the arbitration and possibly extend the proceedings.¹²

Where experts are appointed by the tribunal, the arbitrator may invite the parties to participate in the expert selection process. The arbitrator may prepare a shortlist of potential candidates whom they consider to have the requisite qualifications and expertise to

determine the issue and invite the parties to comment on the suitability of the candidates.¹³ The arbitrator may also request the parties to produce a list of criteria, including qualifications relevant and experience they consider the tribunal-appointed expert should possess. An alternative approach is for arbitrators to request the parties to submit an agreed shortlist of potential candidates.14 Instead of the parties submitting an agreed shortlist, the arbitral tribunal may also invite the parties to provide the tribunal with separate short lists of candidates from which the tribunal selects an 'expert team' comprising one expert from each list. This approach is referred to as the Sachs Protocol. Following the appointment, the tribunal meets with the experts and the parties to establish a protocol for the expert team. The expert team prepares a joint report for review by the tribunal and the parties before preparing a joint report.15 Regardless of the manner in which a tribunal appoints an expert, importantly, the arbitrator(s) should obtain the parties' agreement on the expert selected by the tribunal to reduce the risk of later challenges to the expert, the expert's report and any award relying on it.16 Once an expert is appointed, the tribunal may ask the parties to comment, within a specified time period, on the assignment, including expert's submitting questions that the parties consider necessary to be addressed by the expert.17

Prior to the appointment of an the tribunal should expert, expert candidates to require statements of their provide independence, availability and a copy of their resume. This information should be disclosed to the parties and they should be given the opportunity to comment within a specified time.¹⁸ The fees and expenses of a tribunalappointed expert form part of the procedural costs of the arbitration

and should be included in the arbitrator's expenses.¹⁹

Briefing experts

The following issues may also be considered when briefing experts.

Experts as 'hired guns'

Sometimes, expert witnesses can act as 'hired guns' whose expertise is sold to the highest bidder. They are considered biased as their knowledge and opinions are tailored to satisfy the needs of their instructing party in the arbitration proceeding.²⁰ These 'hired guns' are rarely effective. Experienced counsel and arbitral tribunals will be able to find ways to discount or disregard expert evidence from a 'hired gun'. Accordingly, parties and arbitrators should strive to brief experts in an objective manner.

Briefing experts who do not have relevant expertise

Parties and arbitrators should only appoint experts who have actual expertise and knowledge relevant to the issue in dispute. Experts will get into great difficulties if they attempt to give evidence outside their scope of expertise. An expert ought not give evidence on a matter calling for special skill or knowledge unless they are an expert in such matters.²¹ In Clark v Ryan (1960) 103 CLR 486, the plaintiff, the driver of a panel van that collided with a semi-trailer, called a consulting 'engineer' as a witness. The witness had experience in investigating road accidents and assessing losses; however, they held no professional engineering qualifications. The witness purported to give evidence as to how the semitrailer and the vehicle collided. It was held that most of the witness's evidence was inadmissible because the witness was not qualified to speak on the matters about which he had given evidence. Accordingly, as Heydon JA emphasised in Makita (Australia) Pty Ltd v Sprowles (2001) 62 NSWLR 705, it is important for an 'expert witness to make it clear when a particular question falls outside his or her expertise'.²²

Transparent communication protocol for tribunal-appointed experts

It is considered best practice to conduct all communication in a transparent manner by ensuring all conversations by the arbitral tribunal with tribunal-appointed experts are in the presence of all parties. All written communication with the experts should be copied to all parties to ensure that all parties know what is going on and what materials have been provided to the expert.23 Arbitrators must not have private communication and conversations with the experts, as this may give rise to grounds for a challenge by reason of a lack of due process, independence and impartiality.24 All directions should go through the parties' counsel and be copied to both parties with no direct contact with the experts. Importantly, arbitrators should establish a protocol setting out a procedure regarding communications with the experts, the manner in which the experts should contact the parties or the arbitrator and the manner in which the parties should submit documents and material to the experts.25

Cultural differences and ethical obligations

Cultural differences in conflict resolution processes are the products of values of every society, based on history, language, social norms and perceptions of justice.²⁶ Understanding these values has important consequences for international arbitration. International arbitration proceedings bring together individuals of different backgrounds from a range of intellectual disciplines to achieve fair and just results.²⁷ The following are some 'cultural issues' that should be explored to improve international arbitration proceedings.

Verbal and non-verbal miscommunication

Verbal and non-verbal miscommunication leads to a lack of understanding and is one of the causes of conflicts. All cultures have different verbal and non-verbal communication systems that reflect their customs.²⁸ For example, a verbal and explicit style of communication is found in Western societies such as the United States and Australia, while non-verbal and implicit communication style is more typical of independent, collectivist societies such as Japan and China.²⁹ Further, Western societies, typically, get straight to the point, while societies like China place a higher value on ambiguity and tact and make greater use of implied meaning and nonverbal communications.³

The same can be said of nonverbal communication, such as gestures, facial expressions and bodylanguage, which communicate different signals. Innocuous nonverbal communications in one culture can be considered highly insulting to another.³¹

Cultural biases and stereotypes

People from different cultures hold different views of each other based on ethnicity, nationality or race. Indeed, such cultural differences may give rise to cultural bias. To facilitate a respectful and objective process, arbitrators should be aware of cultural biases and differences, and understand how the proceedings might be perceived by some parties to be biased against them.³²

Common law and civil law legal systems

The difference between common law and civil law legal systems may

give rise to conflicts in international arbitration. For example, a party from a civil law background may expect an inquisitorial and conciliatory approach to be taken by the tribunal. Further, the arbitrator, due to their cultural background, may expect the proceedings to be conducted in a manner that the parties might not be prepared for, which may consequently favour one party over another.

To address situations in which differing norms and expectations may threaten the integrity and fairness of international arbitration proceedings, parties and tribunals may benefit from guidance such as the IBA Guidelines on Party Representation in International Arbitration (the 'Guidelines'). Specifically, Guidelines 18-25 are concerned with interactions between parties' representatives and expert witnesses. As part of the preparation of expert evidence, a party representative may, consistent with the principle that the evidence given should reflect the expert's own analysis or opinion, meet or interact with the expert in order to discuss and prepare their prospective testimony. A party representative may also assist an expert in preparing their expert However, report. а party representative should ensure that an expert report reflects the expert's own opinion. It is important that party representatives instruct their experts that their overriding duty is owed to the tribunal and not to the instructing party.33 An expert should act as an independent agent who presents impartial expert evidence to the tribunal. Experts should not be seen as representatives of the instructing party.

Further, Guidelines 26 - 27identify remedies to address misconduct by a party representative. The purpose of these Guidelines is to preserve the fairness and integrity of the arbitration proceeding. If the finds that tribunal а party representative has committed misconduct, the tribunal may

party; admonish draw the appropriate inferences in assessing the evidence relied upon or the legal arguments advanced by the representative; consider the parties' misconduct in determining the costs of the arbitration; and take any other measures in order to preserve the fairness and integrity of the proceedings. Further, professionals are governed by their own rules of evidence and, ultimately, complaints may be made to their relevant professional body.

Conclusion

Soft law instruments, such as the CIArb Practice Guidelines on Party-appointed and Tribunalappointed Experts and the IBA Rules on the Taking of Evidence in International Arbitration, provide the parties and arbitral tribunals with tremendous assistance in dealing with expert evidence. The parties and their representatives come to international commercial arbitration from many diverse cultures that may have different practices for dealing with expert evidence. This soft law provides a great 'levelling of the playing field' to ensure that no party is disadvantaged. It forms part of the great 'melting pot' that is international commercial arbitration. Given the prevalence of disputation in international construction projects and the fact that parties come from many diverse backgrounds, this 'soft law' is critical in providing a rules-based platform for the broader construction industry to conduct its affairs with greater levels of certainty.

Notes

- 1 CIArb Practice Guideline on Partyappointed and Tribunal-appointed Experts 2016.
- 2 LCIA Experts in International Arbitration.

- 4 Ibid.
- 5 Aniano Luzung, *Minimising Expert Witness Bias* (2005) New South Wales Law Reform Commission Report, 66.
- 6 See n 1 above.
- 7 Ibid.

³ See n 1 above.

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- 8 See n 5 above.
- 9 See n 1 above.
- 10 IBA Rules on the Taking of Evidence in International Arbitration 2010.11 See n 1 above.
- 11 See n 1 a 12 *Ibid*.
- 12 100
- 13 Ibid.
- 14 Ibid.
- 15 'Protocol on Expert Teaming: A New Approach to Expert Evidence' (Paper presented at 20th Congress of the International Council for Commercial Arbitration (ICCA), Rio de Janeiro, 2010), 11.
- 16 See n 1 above.
- 17 Ibid.
- 18 Ibid.
- 19 Ibid.
- 20 Roy Beran, 'The role of the expert witness in the adversarial legal system' (2009) 17 *Journal of Law and Medicine*, 133.
- 21 Geoffrey Standen 'The Expert Witness' (1993) Building and Construction Law, 80–81.
- 22 John Cooke, 'Expert Evidence Objectivity, Subjectivity and Advocacy' (2005) Australian Construction Law Newsletter, 26–27.
- 23 See n 1 above.
- 24 Ibid.

- 25 Ibid.
- 26 William K Slate II, 'Paying Attention to Culture in International Commercial Arbitration' (August/October 2004) Dispute Resolution Journal 2.
- 27 Ibid.
- 28 Ibid 99.
- 29 Ibid. 30 Ibid.
- 30 *Ima*. 31 *Ibid*.
- 32 Ibid.
- 33 See n 1 above.

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The eyeWitness mobile app; seeking justice for the worst international crimes

eyeWitness to Atrocities begins with a simple vision: a world where the perpetrators of the worst international crimes are held accountable for their actions. As an initiative of the International Bar Association (IBA), with the support from LexisNexis Legal & Professional, the eyeWitness to Atrocities app provides a means of documenting human rights atrocities in a secure and verifiable way so that the material can be used as evidence in a court of law.

Every day, around the world, human rights defenders, investigators, journalists and ordinary citizens capture photos and video of atrocities committed by violent and oppressive states and groups, eyeWitness provides these individuals with a tool to increase the impact of the footage they collect by ensuring the images can be authenticated and, therefore, used in investigations or trials.

With the eyeWitness mobile app, users capture photos or videos with embedded metadata that shows where and when the image was taken and confirms that it has not been altered. The images and accompanying verification data are encrypted and stored in a secure gallery within the app. Users then submit this information directly to a storage database maintained by the eyeWitness organisation, creating a trusted chain of custody. Users retain the ability to share and upload copies of their now verifiable footage to social media or other outlets.

The eyeWitness to Atrocities app is available to download for free on Android smartphones. For more information, visit **www.eyewitnessproject.org**, follow **@eyewitnessorg** on Twitter or **Facebook**, or watch the eyeWitness **YouTube channel**.



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The key steps to successful project establishment

Introduction

This article was prepared by the Project Establishment Subcommittee¹ to summarise the key operational, legal and financial issues to consider and steps to take when launching a major infrastructure or construction project. The intention is that this article serves as a 'thought starter' or the basis for a project specific check-list, adaptable to all markets. It should not be considered in any way as a comprehensive guide.

The steps discussed in this article are:

- identifying, allocating and managing imperatives and risks;
- understanding the context;
- defining the project structure;
- parties to a project;

- understanding the bidding process;
- identifying the resources required; and
- identifying the financial structure.

Identifying, allocating and managing imperatives and risks

Every project will carry with it certain key imperatives and risks. Identifying these will assist in designing project documents (both the agreement and the technical documentation), management and review processes, and risk management strategies that support the project and enhance the prospects of project success.

There are three major project imperatives that must be met for a successful project:

- Quality: This concerns the quality of both the design and construction. A well-designed project that caters to the needs of the client and is built to the specified standards will determine a project's long-term success.
- Cost: This concerns controlling costs while achieving the requisite level of quality. This is fundamental to the success of the project in terms of financial performance and return on investment.
- Time: This covers the timely delivery and completion of a project. Prolonged durations directly affect costs (prolonged project team and equipment deployment) and financing (ability to generate revenue in time to repay loans). Very tight durations can adversely affect quality, leading to potentially lower returns (sale or rent prices and operations or maintenance costs).

Every endeavour has associated risks. Much effort is invested in identifying, allocating and managing risk. However, this effort is not always reflected in an improved risk profile for a project. In order to derive greater value from the identification, allocation and management of risk the following approach can be implemented.

Identify key risks

A frugal but intelligent approach should be taken. It is often the case that many dozens of risks are identified and complex risk matrices prepared. This approach can result in losing sight of the key risks and a sense that the 'risk management task' has been completed. This, in turn, can result in an abdication of the real risk management task – the task of being alert to and ready to anticipate or respond to risks during the life of the project. The risks that might affect a project will inevitably vary from project to project; however, there are recurring themes:

- Resource availability: The availability of adequate personnel (both in terms of quantity and expertise), as well as physical resources, is important and not always analysed sufficiently.
- Senior decision-maker availability: As a subset of resource availability, the availability of senior decision-makers, at critical times, is often overlooked.
- Political will or corporate policy: All organisations, whether public or private, will have certain 'red lines' that they will not cross (or to do so involves significant time and effort), for example, a defined period for the payment of bills by the client.

Difficulties may arise if these red-line issues are not identified and accommodated in the project structure and project documents (agreement and technical documentation).

Remember the forgotten risk

The risk that a risk management strategy will fail is often overlooked. For example, the party who bears a risk in the first instance may become insolvent. This 'forgotten risk' should be taken into account with the other key risks.

Undertake a traditional risk analysis

The traditional risk analysis involves reflection on the probability and consequences of an anticipated risk occurring. This often involves a three or five-scale ranking for each of these characteristics. Another characteristic should also be considered: the 'amenability of the risk to control'. Consideration of this characteristic can remind the team that some events could have a negative impact on the project and little can be done to prevent that occurring. Mitigation of consequence, rather than avoidance of occurrence, might be the most appropriate response in these circumstances.

Identify the natural owner of each risk

The natural owner of the risk might be regarded as the participant who will bear the burden of the risk if no steps are taken in relation to the reallocation of the risk. There may be multiple owners of a risk. For example, in relation to the risk of defective work, the contractor may be regarded as the natural owner of the risk. However, if the contractor does not repair the defective work, the consequences are left to be dealt with by the client. The client might then be regarded as the owner of that risk (ie, the risk of noncompliance by the contractor). Identifying the natural owner of the risk is important in terms of considering the allocation, management and mitigation of the risk.

Identify how each risk is to be dealt with

The traditional techniques available for dealing with risks include:

- neutralising the risk;
- bearing the risk;
- transferring the risk; or
- mitigating the risk.

The implementation of the various mitigation and management strategies is more important than the development of the risk management plan.

> This list omits one common technique: ignoring the risk. Ignoring the risk is effectively bearing the risk, but usually doing so in ignorance of that fact. It often arises as a result of the ebb and flow of negotiation. A risk that may have been treated in an explicit way (using one of the four techniques) becomes the subject of negotiation with the possible outcome that the initial technique is abandoned, but it is not replaced with any other technique. This dynamic can be one of the significant causes of project risk being inadequately managed.

Document the strategy

If the risk management plan is not documented, it is less likely that the plan will be implemented as conceived.

Implement the strategy

In many instances, this process is followed and, on paper, there is a rational and appropriate risk management strategy. However, many of the intended mitigation or management steps are not actually taken. The focus on risk and the investment of relevant resources sometimes ceases when the project documents are executed or soon thereafter as project delivery picks up momentum. The implementation of the various mitigation and management strategies is more important than the development of the risk management plan.

The mitigation and management strategies should, at least, focus on ensuring that:

- good communication channels are established between various project's teams;
- each team understands its role and role of other teams;
- all the teams receive adequate training in contract management and have a sound understanding of implications of decisions taken due to the speed of the project and schedule pressure;
- the decision-making process takes into consideration all the actors concerned; and
- response actions and responsibilities during an emergency or a force majeure event are defined and known to all teams.

Understanding the context

In order to efficiently identify, allocate and manage risks it is necessary to develop a clear understanding of the context in which the project will be executed, which in turn will allow for the development of a schedule and budget reflecting the activities to take place and factors that might affect these activities. The analysis of the project's context should take into consideration, as a minimum, the following aspects:

Physical location

Considering the geographical location of the site, a list of possible physical obstacles to be verified and how the site will be accessed for the entire duration of the project must be defined.

OFFSHORE VERSUS ONSHORE

If the project is located offshore, the water depth for works and installations and windows of adverse weather will be the primary factors affecting the feasibility of the project and the schedule. If the project is located onshore, a wide range of more complex factors may potentially affect the project schedule, whether it is a brownfield or greenfield site: mountains (eg, limited availability of flat surfaces, seismic zones and landslides); deserts (eg, heat, sandstorms and the availability of water); rivers (eg, flooding and logistics for crossings); tropical forest (eg, protected zones and accessibility); arctic zone (extreme cold); and proximity of population (urban zoning and infill) to the project area. Depending on the site location, thought must also be given to the likelihood of possible archaeological findings at or near the project site. In both cases, it is necessary to examine and, as applicable, undertake project impact studies (which may be required in any case by local legislation) with respect to the project impact on the surrounding flora, fauna and marine life.

ACCESS TO THE PROJECT SITE

The accessibility of the project site must be examined and defined to prepare a realistic project execution plan (PEP) and schedule.

ACCESS BY WATER

For offshore projects, it is necessary to verify if there are any restrictions for access by vessels bearing a flag of particular countries. As mentioned above, adverse weather patterns that could affect offshore works must be taken into account when vessel(s) are reserved. Consideration should also be given to the location and capacity of the nearest ports, including the size of ships that can enter and whether dredging is required so that the vessel(s) necessary for the execution of the project can enter the port. For onshore projects, consideration must be given to the proximity of navigable waterways and existing piers or the possibility of constructing a pier specifically for the project in order to deliver construction material, equipment and prefabricated modules. It is also necessary to verify whether local regulations might prevent the use of waterways for the transport of material or equipment due to environmental or other reasons. In both offshore and onshore projects, care must be taken in the selection of flotel, barges, rigs, support vessels, and so on. The age of the vessel and its availability in line with the project schedule should be determined at the beginning of the project; crew rotations should be defined, taking into account the applicable labour laws; and depending on the route the vessels will be taking, necessary security measures should be considered.

ACCESS BY LAND

Roads

If the project is to be accessed by road, it is important to verify whether the existing roads are fit for the transport of heavy machinery, equipment and construction material. In particular, it must be verified whether there are applicable regulations that would affect the days and hours during which the transport of heavy equipment or large loads of material may be carried out and whether it is necessary to engage police escorts or obtain special permits from local authorities. It is also important to consider whether existing roads require modification or if new roads should be constructed. As to existing roads, even if at the onset of a project it is not yet known whether existing roads are sufficient to support the size and weight of the equipment or material to be transported (normally this is determined at the end of the basic engineering stage), it is prudent to examine the applicable regulations with respect to road modifications. Alternative routes for project site access should also be identified in the case of unforeseeable circumstances (eg, the size of an equipment package changes and it will not pass under certain bridges). Construction of new roads should be discussed in collaboration with local authorities where necessary. Applicable laws must be examined, as well as the areas where

it may be necessary to negotiate the right of way. The negotiations of right of way could be lengthy and, in some countries, the approval process for new road construction could also take a substantial amount of time and most likely be subject to extensive auditing by local authorities or other governmental entities. Once again, weather should not be forgotten, as during certain periods in tropical countries road access might not be possible due to flooding and torrential rain, or, in colder climates, access might be restricted due to heavy snowfall.

Railways

The use of railways as part of an overall access and transport plan for the project could be considered, depending on the available existing infrastructure. However, caution must be exercised as this can pose some schedule restrictions and disruptions may occur (eg, if a scheduled delivery to the train terminal is late and the delivery to the project site must be rescheduled, which is restricted by overall traffic). Also, railways in the majority of countries are heavily unionised and overall operation can be affected by strikes. Depending on the location of the project site, consideration can be given to the construction of a railway to access the site. However, the financial feasibility and collaboration with local government would have to be taken into account.

AVAILABLE PUBLIC INFRASTRUCTURE

Available infrastructure plays a significant part in the definition of the project schedule and overall execution strategy. Developed countries might have the necessary infrastructure, but will be heavily regulated with respect to environmental and population effects as a result of transport and construction activities. The lack of infrastructure in developing countries can add significant costs to the project budget, but at the same time can be used as leverage in order to obtain project approval or specific waivers from local government in exchange for investment in infrastructure as part of the project. However, if a project includes public infrastructure works as part of its scope, this can be subject to stringent regulations and the approval process, as well as auditing by public authorities, may impact significantly the overall project schedule.

Political atmosphere

In addition to the physical setting of a project, another key consideration at the outset of a project is the political atmosphere of the country, region or city where the project will be carried out. The local laws might require that the foreign company executing the project can only do so in partnership with the government in the form of public-private partnerships, which can be heavily regulated and may be required to pass through numerous approval gates. The project might be considered as a strategic project by the government and local laws might stipulate that delays in the projects that are of strategic nature could be considered as damaging to the economy and carry prosecution under criminal law provisions. Due to elections taking place, a project approved under one government might be suspended or cancelled under a newly elected government. If a project is located in a socialist country, the risk of nationalisation or appropriation may need to be analysed in the light of the overall political situation in the country and the long-term plans of the government. A full analysis of the political atmosphere should, as a minimum, comprise the following:

LEVEL OF CONTROL EXERCISED BY THE GOVERNMENT OR GOVERNMENTAL ENTITIES

All project activities to be performed need to be analysed with respect to whether and in what form they are subject to control by a particular governmental entity and advice on applicable local laws should be obtained at the onset of the project, including applicable laws with respect to taxation; employment; health, safety and environment (HSE); and any permits required to proceed with the project. Some countries are very stringent with respect to reporting and auditing by various governmental entities, and the invitation to tender by a public authority might stipulate that the bidder must accept the contract as is without any qualifications.

CORRUPTION

Prior to the commencement of the project, the country should be examined in light of corruption reports issued by the United Nations, World Bank, the Organisation for Economic Cooperation and Development and so on, as well as whether the host country is a signatory to the Anti-Bribery Convention. The applicable anticorruption and anti-bribery laws of the home country of the parties executing the project should also be considered. Mechanisms for preventing corruption should be implemented for the entire life of the project, taking into account local particularities (eg, gift giving before starting meetings is the norm in Asian cultures, but could be considered corruption in other cultures) and the internal regulations of the companies involved in the project.

CURRENCY STABILITY

Depending on local requirements, payments may be required in a specific currency. In such cases, it might be possible to incorporate a mechanism into the contract to offset the effects of exchange rate fluctuation such as hedging or, if permitted by local legislation, implement an invoicing system with amounts stated in required currency and project currency.

SANCTIONS IN PLACE

If the project is located in a country that is subject to some form of sanctions, these sanctions could impede the sourcing of construction material and equipment, entry of personnel of specific nationalities, acquiring required insurance and so on.

STABILITY OF THE LEGAL FRAMEWORK

The stability of the legal system should be considered, especially with respect to laws relating to employment and taxation, as well as local corporate obligations in the case in which international parties involved in the project are required to be commercially registered locally. From the perspective of the project owner, it is also necessary to examine the possibility of being held responsible for any default on payments to subcontractors by the main contractor.

Specific requirements for local content

Local content requirements (eg, requirements with respect to the number of local personnel to be employed, the tonnage of locally produced bulk material to be used and the tonnage of bulk material to be fabricated locally) can be either imposed by law or imposed by the government or project owner for a specific project. Depending on the size of the project and the applicable local content requirements, waivers may be required.

EMPLOYMENT OF FOREIGNERS

If the project requires personnel with a specific set of skills, consider restrictions regarding employment of foreign nationals that may limit the pool of specialists available for the project. The labour laws of certain countries permit only a certain percentage of the total workforce to be foreigners or establish a visa quota for the total number of foreigners that can work in a country. In order to mitigate this risk and the adverse effect on the execution of the project, the following options should be considered: the possibility of obtaining a waiver for the project, employing personnel through in-country employment agencies, development and training of local personnel, and so on. This risk would need to be examined and addressed in light of the project duration and the overall project needs, as well as economic considerations, including the cost of employing foreign personnel versus training local personnel.

LOCAL POPULATION

The influence of the persons and businesses directly or indirectly affected by the project should not be forgotten. The way in which the project is presented to the 'neighbours', including public announcements and consultations with local businesses and landowners, should be carefully considered, as adjacent landowners, businessowners and registered voters might oppose the project. The access to the site by heavy machinery and the effect of an increase in traffic should be analysed and mitigating measures proposed and implemented. It might be necessary to negotiate right of way and the project budget needs to include a provision for corresponding compensation, which may be calculated with reference to applicable taking or condemnation laws. In some countries, the execution of a project requires specific consultation with or approval by the local indigenous population. It may be necessary to pay compensation to indigenous communities or to employ (and in some cases provide training to) a certain number of local workers. In some cases, a company that previously carried out a project in the same area may have created a particular expectation in this respect and the local community might block the project until this expectation is met by the new project owner or contractor. It is also important to be aware and monitor the risk of interference (eg, protests) by the local population and what circumstances will provoke such interference (eg, the project creating a disturbance to the day-today activities, an expectation of monetary compensation, environmental pollution, etc). In order to mitigate these risks, it is necessary to have in place monitoring practices and ensure the contractor follows up to confirm adherence to project requirements.

As mentioned, the political atmosphere is relevant in a number of ways and it may be advisable to employ a government liaison or lobbyist to mitigate inherent risk. [T]he political atmosphere is relevant in a number of ways and it may be advisable to employ a government liaison or lobbyist to mitigate inherent risk.

Specific legal considerations

In addition to physical location and political aspects affecting the successful execution of the project, the third facet that must be considered in full is the specific legal considerations that have an impact on the overall day-to-day operations of the project.

COMPANY REGISTRATION

Local legislation or project bid documentation needs to be fully evaluated in order to ensure that the project execution strategy incorporates the creation of any legal entity necessary to execute the project and that the governing corporate policies allow for the creation of such an entity. It should also be verified that the documents that will be required from the parent company are in order. Depending on the country, it is necessary to analyse, in line with the overall corporate strategy, if there is an intention to only participate in one project or establish a long-term presence in the country; as such, consideration should be given to the establishment of a standalone company as opposed to the creation of a subsidiary or affiliate, or entering into a joint venture agreement with a local company. There might be a pre-existing legal requirement that the execution of the project must be done in a joint venture format with a local entity. The requirements for local company registration might not be explicitly mentioned, but may be implicit in other requirements, such as a requirement to issue bills in accordance with local tax norms, which requires registration with tax authorities, which in turn requires the registration of a local commercial entity. With respect to company registration, the existence of tax-free zones and the possibility of registering the entity that will be executing the project in such a zone should be considered. When registering a local entity, it should be verified whether there is a requirement that only a local resident can act as the legal representative of the company. When creating a subsidiary or affiliate, it should be examined whether the revenues earned by such an entity will be subject to an additional tax imposed upon remittance to the parent company's country. The time needed

for local company registration is a risk factor, as in some cases the public project bidding requirements have very tight deadlines for the presentation of the paperwork certifying the existence of the locally registered company.

TAX OBLIGATIONS

This is a complex set of issues and must take into consideration the requirements with respect to municipal, departmental and national government-imposed taxes, as applicable. Depending on the project activity, particular royalties and activity-specific taxes may need to be paid. From a tax perspective, a joint venture could be an attractive mechanism as each party is responsible for its own taxes. Tax declarations are often based on a calendar applicable to the type of industry to which the party executing the project belongs or the type of activity the party lists in its commercial registration as being its principal activity. Withholding tax, value added tax, importation tax and so on also need to be taken into consideration with respect to the definition of the project budget. The project contract should contain a provision regarding who bears the costs in the case of significant changes in the taxes applicable to the project during the project duration.

LAW OF THE CONTRACT

The law of the contract and the applicable laws must be clearly defined in the contract. The contract should contain a provision regarding who bears the increment in the contract price due to changes in the laws governing project execution.

LABOUR LAW

Labour law obligation is another risk factor that can have an impact on the project budget, schedule and, more importantly, claims against the project owner. The aspects that have a direct impact on the budget are mandatory annual salary increases and bonuses, and mandatory health insurance and pension contributions. Depending on the type of employment contract in place, the project owner or contractor might need to act as an agent for the collection of employee withholding taxes and declare and pay these taxes to the tax office. The schedule of the project could be affected by legal requirements concerning leave and working hours. However, the aspect that carries higher risk for the project is the actual form of the employment contract, which needs to be drafted in such way that it avoids the risk of a person claiming that the person is a permanent employee of the company

executing the project (most often, the project owner) even though the person was hired only for the duration of the project.

PERMITS, LICENCES AND CERTIFICATION

All the activities that will be performed during the life of the project need to be defined from the outset and the requirements for corresponding permits, licences and specific registrations need to be analysed. Depending on the country, there might exist the possibility of overlapping requirements for permits due to autonomy given to departments and municipalities and, consequently, different authorities will be issuing a permit for the same activity. As projects tend to be intensive in terms of pressure to complete on time, projects are quite often penalised by the relevant authorities with respect to the omission to renew required permits, licences, and so on.

HEALTH, SAFETY AND ENVIRONMENTAL COMPLIANCE

In addition to overall legal compliance, the nonfulfilment of obligations carries heavy penalties and fines imposed by the applicable laws or regulations and, in some cases, could include criminal responsibility. To mitigate these risks, it is necessary to consider conducting a gap analysis of the project technical specifications and procedures in terms of compatibility with applicable HSE laws, regulations and norms for the duration of the project. This analysis should be ongoing so that the applicability of new legislation to the activities of the project is identified.

The main aspects, discussed in this section, of understanding and defining the context in which the project will be executed, together with the definition of the associated risks and mitigation actions, should be incorporated into the PEP and other relevant project technical and legal documentation in order for the risk management strategy to succeed.

Defining the project structure

The PEP is the backbone of every project and should: clearly describe the project; identify the key parties with corresponding roles and responsibilities; state the manner and strategies that will be employed to complete the project in an orderly, economical, timely and safe way; and include the risk management strategy as defined by the risk analysis and analysis of the context in which the project will be executed. The project's contract, general and technical specifications should be checked for inconsistencies in order to mitigate the risk of claims during the execution stage, for example, document review and approval process, work hours, site access and audits.

Complex or large projects may evolve over time, requiring updates to the PEP to ensure its continued relevance to the project. The project schedule included in the PEP needs to reflect activities identified as possible contributors to delay and take into consideration the context of the project, for example, long lead items, obtaining permits from authorities, obtaining visas for personnel, mobilisation, customs clearances and negotiation of rights of way with local landowners. The project budget needs to include the actual project costs and should incorporate a provision for risks, such as cost increase due to possible changes in law and annual salary increases.

The packaging and procurement strategy included in the PEP needs to be in line with the delivery time of long lead items, local content requirements, if applicable, and based on the material and equipment available locally, in the region or to be imported.

All projects come to an end and a number of issues always arise at that moment no matter how well the project execution is planned and performed. It is therefore imperative that the PEP and contract clearly reflect the process of project close-out and handover, issuance of applicable certification, transfer of ownership (including takeover by the project owner), warranties, provision of the required operation and maintenance manuals, spare parts, transfer of excess bulk material, technical support and so on.

The location of a project team can vary considerably based on a project's geographical location, type, scale, complexity and various other factors. In today's globalised world, with ever-increasing ease of communication, it is not uncommon for a project to have its team spread across several countries. For example, a project in Dubai may have its client based both in Dubai and Toronto, the architects in London and structural engineers in Chicago, while the contractor would, by necessity, need to be situated at or near the project site. It is also quite common for specialist contractors, fabricators and suppliers to be spread across the world, often with their own complex international supply chains. In this respect, the PEP needs to address how relationships between various teams are managed to ensure that timely and accurate communication occurs.

Parties to a project

In a construction project, there are typically several parties involved and each has a role to play. These parties can be from either the public sector or private sector and are not necessarily limited to the parties signing the main construction contract, but could also include lenders, governmental entities, contractors, subcontractors and suppliers.

To ensure a common understanding between the parties involved in a project, the following issues should be considered:

Core business

One important determination to be made is whether the core business of the client is relevant to the project or has no direct link to the project. This is relevant for putting in place mitigating measures in order to prevent project disruption. In the case of a client with little experience in the subject matter of the project, the schedule should reflect the float for the additional time required to provide the necessary explanations and training to the client, for example, construction of a nuclear power plant for a government client. The overall execution plan of the contractor should accommodate the level and extent of supervision and control from the project owner.

Primary goals

Differences in goals between parties can lead to disruptions in project execution and subsequent claims. It is important to bear in mind that the client's primary goal is the timely completion of the project in accordance with the applicable criteria, whereas the contractor's primary goal is timely and full payment. The importance of understanding each other's goals can be illustrated by an example of an oil and gas company under strict contractual obligations with respect to the production start day due to its contract or licence with a particular government. Thus, its goal is the completion of the project on time. However, for the contractor performing the project, the primary goal is to be paid on time so as to ensure that it can meet its obligations to suppliers and subcontractors. Therefore, in the case that the client delays payment to the contractor due to a contractual provision, this can negatively affect the project, as the contractor might not have sufficient liquidity to ensure the progress of the works.



Risk appetite

The amount and type of risk that each party involved in a project is prepared to undertake must be considered. Risk appetite is a major consideration when determining whether a party is likely to pull out of a contract should there be a change in circumstances.

Culture

Company culture includes a variety of elements, such as work environment, company mission, value, ethics, expectations, goals and work-life balance. Understanding each party's company culture is important to prevent possible miscommunication.

The principal traits of the main parties to a construction project are outlined in the following. These profiles are to be considered depending on the type of contract used for the project, which party is the owner and which is the contractor.

OWNER PROFILE

Whether the client is a private or public entity can make a significant difference in terms of the financing of the project, the client's goals and the role the client takes in any given project. However, all clients are concerned

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with the timely completion of the project and it is important to understand what impact a delay can have on the client. For example, was a bridge construction an election promise? Is the first gas production and thus the timeline for gas processing plant construction governed by the gas production licence? The client's prerogative is to incorporate in the project contract the mechanisms that will protect its interests and provide remedies in case of a delay. The goal of a client is to maximise profits for the shareholders or create benefit for the country and such a client would not be inclined to spend more than is necessary on the project. Depending on the project structure (eg, whether the contract is design-build and whether the project owner employs a project manager), the client may define the basis of the project, choose the contractor, provide observations on the compliance of the project with pre-defined criteria and monitor the progress of the project. A responsible client will monitor and review the performance of the main contractor and the progress of the project without usurping responsibility or transferring risk from the contractor. Depending on the location of the project, care should be exercised with respect to the selection of the contractor, as in some cases local government might impose a contractor and such an

imposition would be difficult to accommodate in a client's internal bid evaluation procedures.

MAIN CONTRACTOR PROFILE

The selection of the main contractor plays a significant part in the overall success of the project. Whether the main contractor is a local or international company may make a difference in terms of resources. A local contractor might not have the necessary resources available for the completion of a large-scale project or experience. On the other hand, an international contractor might have the requisite resources in terms of labour and technical expertise but not have the necessary knowledge of local specifics relevant to the project. In such cases, it is not uncommon that an international contractor will work in a joint venture with a domestic contractor. From the client's perspective, such an arrangement needs to be carefully examined. How is the joint venture structured with respect to each party's responsibilities? What is each party's contribution to the joint venture? Which party is designated as the joint venture's leader? In selecting a main contractor, the contractor's experience with similar projects is of the utmost importance and is a key indicator of whether a project bid is realistic and whether the contractor has the necessary skills and resources to execute the project or any of its specific parts. Another important aspect is what measures the contractor has in place in order to guarantee the completion of the project. As a mitigating measure, the client should request at a minimum:

- a parent company guarantee: the financial health of the parent company needs to be proven to the client, as well as that the parent company would be able to complete the work in the case of the default of the contractor; and
- a performance bank guarantee (or a surety bond, as the case might be): this should be executable on demand with the value defined in proportion to the value of the project.

The necessity of incorporating into the contract the requirement for the contractor to furnish other bonds, such as bid bonds, payment bonds or maintenance bonds, should be considered on a case-by-case basis with respect to the risks of the project, the subject matter of the project and the policies of the client. For example, typically, an oil and gas operator would request the following: bank performance guarantee; advance payment recovery bank guarantee; parent company guarantee; signature of a deed of mutual indemnity; waiver of recourse; deed of liability; and insurance from subcontractors.

THIRD PARTIES' PROFILE

There may be several third parties, such as governmental entities, suppliers, experts and subcontractors, that are not directly party to the project contract, but are in some way connected to the project. With respect to the project execution, it is necessary to consider which project activity could be affected by a particular third party (eg. obtaining the necessary permits on time to avoid fines from the responsible governmental entity or subcontractors' failure to adequately address enquiries), and what would be necessary from the project execution perspective to ensure that the said third party would not affect the project, for example, including provisions in the contract that the contractor must protect and indemnify the client from claims of the suppliers. It is also necessary to consider whether it is possible for a third party to make a claim against the client under local laws.

LENDER PROFILE

The lender could either be a bank, syndicate of banks, equity investor or multilateral agency. The primary concern of the lender is to make a profit from its investment. In providing financing for the project, the lender is concerned with:

- whether the borrower has the financial resources required for project execution and is able to meet all corresponding obligations;
- the borrower's commitment to the project and whether it has the relevant expertise for the project;
- the borrower's independence from the influence of local government where the project is executed;
- the clarity of the bidding process and selection of an independent contractor;
- a clearly defined completion date for the project;
- how liquidated damages or penalties are defined in the contract, especially with respect to delay;
- the definition of force majeure and how the responsibilities of the parties to the contract are split should a force majeure event occur;
- the political stability of the country where the project is executed and the associated political risks that might affect project completion (eg, expropriation and nationalisation, currency stability, government friendliness or hostility that

The main risk for project execution is the political stability of the country and the associated political risks that might affect project completion.

> affects the issuance of required permits and licences and the frequency of strikes);

- whether project guarantees and bonds are of a sufficient amount to cover the completion of the project in the case of default by the contractor; and
- whether the borrower might be undertaking other activities aside from the project for which finance has been provided and thus the funds might not be used entirely for the purpose for which they have been provided.

To mitigate these concerns, apart from the verification of the financial health of the borrower, the lender will want to play a major part in adjusting rights and obligations of the parties through a review of the project terms and conditions, imposing its own conditions and reviewing the enforceability of the project contract as a whole. The lender will also be concerned with how well the project is insured against losses.

GOVERNMENT PROFILE

The role of local government depends on the type and significance of project and varies from being a mere observer or regulator to being the client or concessionaire. Typically, the government's primary role is to issue the required permits and licences for the duration of the project. Whether the project is supported or interfered with depends on the interest of the government in attracting foreign investment and whether legislation or other tools are in place to support such investment and to provide an environment favourable to foreign investment.

The main risk for project execution is the political stability of the country and the associated political risks that might affect project completion (eg, expropriation and nationalisation, currency stability, government friendliness or hostility that affects the issuance of required permits and licences, frequency of strikes in the country and the likelihood of a change of government).

INSURER PROFILE

Principally, an insurer's interest is to make a profit by collecting premiums and avoiding indemnifications. The project contract should clearly define which party is responsible for which type of insurance (eg, contractor's all risk), the coverage amounts and, vis-à-vis the contractor, the rating of the entity providing insurance. These provisions will be checked by the lender and need to be aligned with possible requirements of local legislation.

With respect to insurance provided by the contractor, it is important to also incorporate in the contract mitigating measures that will address the following:

- the duration of the insurance policy is aligned with the project duration and support after the project completion;
- the policy covers the risks associated with the location and context in which the project will be executed; and
- voidability of the policy by act or omission on the part of the contractor.

Understanding the bidding process

Call for bids and tenders is a specific procedure for generating competing offers for a project. The bidding process starts with the client preparing the project description documentation regarding site conditions, technical requirements, time constraints, contractual terms and conditions and so on. The call for bids and tenders package must allow the bidder to understand the scope of the project and submit the bid. In the case of governmental procurement, bidding could be governed by detailed procurement codes and policies that would require strict adherence and raise the risk of non-responsiveness. Contractors must then provide project-specific bids in accordance with the client's specifications and with the lowest responsible economical offer.

Generally, before initiating a tender, a client will survey pre-selected companies and, depending on the outcome of the prequalification survey, define a list of the companies to be invited to participate in a tender. In some cases, the company rules or applicable laws require that a certain number of companies are contacted for a particular type of project. In such cases, some companies could be invited to participate merely in order to satisfy these requirements. For the identification of pre-qualified bidders for a given tender, consideration should be given as to: whether the bidders are qualified from a technical perspective; the proximity of the bidders to the project location and the location from which materials will be sourced; and overall capability in terms of resources and financial liquidity.

Care should also be exercised in ensuring that the contract included in the invitation to bid or tender reflects the position of the lender (in the case of a project being financed) and the client's project insurer. Disputes between parties during project execution will always happen. Therefore, the contract should also define a clear dispute resolution mechanism, which could be a combination of the following: an initial step-by-step procedure of dispute presentation and a resolution process between the parties, including the dispute review board setup (if the project owner's policies permit the use of such a board), mediation, arbitration or litigation (now almost uncommon due to time and cost considerations). Moreover, the dispute resolution mechanisms should cover the language to be used in the dispute proceedings, the location and the governing institution for the dispute resolution. If the project owner is a governmental entity, it is likely that the dispute resolution process would be governed by specific legislation.

From the project owner's perspective, the risk with the bidding process is ensuring that only compliant bids are accepted, treating all the bids consistently and fairly, and that the bid analysis matrix is well defined and consequently results in the selection of the contractor that will perform the project on time, within budget and compliant with all the legal, technical, quality and performance requirements.

From the contractor's perspective, the following points should be considered (in addition to the principal requirement that the bid submitted is compliant with the bid requirements):

Authority required of the person submitting the bid

Depending on the legislation governing government projects, the person signing the bid submission documentation may be required to hold a specific power of attorney, even if the jurisdiction where the company is domiciled does not have such a requirement (such a requirement is more common in projects where the owner is a governmental entity).

Timeframe for clarification

The bid clarification period is normally quite short and it is not uncommon that the answer to a question submitted by one bidder will be shared with others to ensure that no one is put in an advantageous position.

Time required for sending the bid in physical form

Care should be exercised if the bid is required to be presented in physical form by a certain date and time, taking into consideration the difference in public holidays among various countries.

Qualifications and clarifications

The overall bid strategy should take into consideration the ultimate goal of the bidder and achieve a balance of commercial considerations and the risks that a bidder is willing to take. When submitting qualifications and clarifications and consequently proceeding with the contract negotiations, the bidder needs to have a clear definition with respect to what points are necessary to be negotiated with the client in terms of the bidder's strategy for project execution or are actually coming from the specific corporate policies and which aspects are nice to have but not essential for the project execution and could be used as bargaining chips for the points that are necessary. If during the contract negotiation round an agreement cannot be reached by the parties, then an option could be to price the disputed qualifications and submit the revised commercial offer upon the project owner's request.

Previously concluded contracts between the parties should be referred to for return of experience and the reasons why specific points were negotiated and agreed in a particular way. If the parties have a frame agreement signed, it would be difficult to deviate from pre-agreed terms and conditions, even though the circumstances of the project might be driving this to happen, usually in the case of the contractor.

Identifying the resources required

With respect to project structure and the definition of project execution, it is necessary to examine in great detail the resources available: from the client's perspective, the supervision of the contractor, actual contractors and the financing for the project; and from the contractor's perspective, the actual physical resources, suppliers and subcontractors in relation to the client's specifications and requirements for the project.

Depending on the client requirements (which might be dictated by the requirements imposed upon the client by local government), the client could provide a list of approved subcontractors or provide guidelines for the contractor to submit its own list of subcontractors for approval. In such a case, the contractor runs the risk that the subcontractors will know that they are 'imposed' by the client and can use this position to their advantage in terms of pricing or responsiveness to enquiries from the contractor. Moreover, a contractor could be placed at a disadvantage if some of the client's approved subcontractors have alliances with another contractor submitting a bid for the project.

It is also important to ensure that the procurement policies between the parties involved in the project are aligned. For specific packages or equipment, the client may require that it reviews and approves the bids submitted by the suppliers or subcontractor to the main contractor, and this approval time can affect the time required for placing orders. Accordingly, a specific time period for the client's written approval needs to be specified, giving rise to deemed approval if comments are not received in a timely manner. In procurement addition, governmental procedures and policies might be quite cumbersome, thus it can affect the schedule for the project. The procurement process, no matter how well defined and planned, is not risk free and needs to have measures put in place to address the following risks:

- favouritism with respect to treatment of some subcontractors;
- security of information especially when dealing with sensitive information, such as commercial offers;
- no response from subcontractors' suppliers due to project location or their workload; and
- offers that are not in accordance with the client's specifications.

The overall industrial development level of the country where the project is to be executed should be considered. What equipment is readily available? Are bulk materials proximate? Other examples include the client's safety specification call for a specific type of scaffolding to be used or personal protective equipment. From the global perspective, depending on various activities worldwide, project planning needs to also take into consideration the

availability and sourcing of bulk material and specific equipment, for example, the availability of a specific diameter of piping and a long wait on generator orders.

importation The and exportation procedures of the project location should be considered. carefully The temporary importation of the equipment required for project construction versus permanent importation and the consequent disposal after the completion of the project should be considered in terms of the importation and exit taxes to be paid, complexity of the process and time required for customs clearance. The same consideration applies in the context of turbines or other similar equipment provided to a plant or facilities on the basis of a lease contract. The actual execution of the terms of such a contract might be impeded by local importation laws not being advanced enough to include such a case.

In developing countries, the cost of transport can be quite high as local companies might be required to invest in new trucks or ships, passing this cost on to the project. Local companies might even consider charging exorbitant prices due to the notion that international companies have money and will pay.

To start a project, the client must have finances available to pay the contractor and the contractor must have finances available to mobilise personnel, equipment and place initial orders and, accordingly, the parties need to discuss the project milestones and associated mobilisation and other advanced payments at the outset.

With respect to the identification of resources, one final point to consider is the feasibility and cost of maintenance of equipment integrated into the project design, as well as the training of local personnel to operate it. The project might be the design and construction of a state-ofthe-art gondola system in the city of Mexico, but if the motors powering this system are German-made and if it takes three months to receive spare parts, the stoppage of this system for such an amount of time would be considered as a failure of the project.

Identifying the financial structure

The financial structure for a project needs to be well defined in order to avoid delays during project execution due to late payments, poor cashflow management or insufficient financial resources, and to mitigate the effects of financial market instability. The financial structure for a project should take into consideration the following factors:

- the funds for the project provided by a lender and the specific terms of the loan with respect to when the funds are available and when and how the loan must be repaid;
- the cost of mobilisation and the funds required by the contractor with respect thereof;
- progress measurement mechanisms and the definition and agreement on the milestones in line with the cashflow requirements;
- in the case that the project owner is a governmental entity, the effect of the approval of expenditure that in turn extends the payment period for the payment of bills presented by the contractor; and
- the time required to transfer funds and fund clearance if payments are required to be made in the country where the project is executed.

Final words

The success of setting up a project depends on the identification and analysis of the project activities, the associated risks and the mitigating measures that can be put in place. These mitigating measures and the risk analysis cannot be static. They need to evolve as the project progresses and be adjusted in line with obstacles or events encountered during project execution.

Note

1 The Project Establishment Subcommittee is a subcommittee of the International Construction Projects Committee of the International Bar Association. Its officers at the time of preparation of this article were Tuomas Lehtinen, Co-Chair; Phillip Greenham, Co-Chair; Aarta Alkarimi, Co-Vice Chair; and Polina Chtchelok, Co-Vice Chair.

This article was collaboratively written by: **Polina Chtchelok**, a co-founding partner of ESPCs Corporate Advisors, Santa Cruz De La Sierra, who can be contacted at **polina.chtchelok@espcsconsulting.com**; **Aarta Alkarimi**, a partner at Chrysalis, Dubai, who can be contacted at **alkarimi@chrysalis-llp.com**; **Phillip Greenham**, a partner at JBM Advisory, Melbourne, who can be contacted at **phillip.greenham@jbmadvisory.com**; and **Tuomas Lehtinen**, a partner at Castrén & Snellman, Helsinki, who can be contacted at **tuomas.lehtinen@castren.fi**, under the overall coordination and efforts of Polina Chtchelok.



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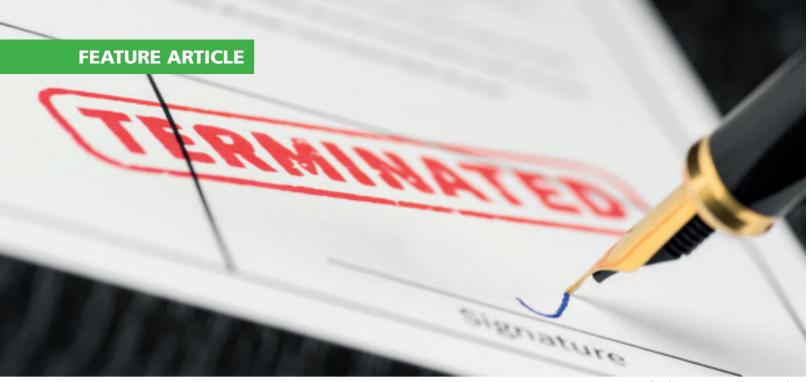


IBAHRI 2017 HIGHLIGHTS IN NUMBERS:









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Issues arising on termination of a construction contract

London Bruce Reynolds

Davies Evans 3 Verulam Buildings,

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Toronto

Singleton Urquhart Reynolds Vogel,

We were privileged to be tasked with chairing the first International Construction Projects (ICP) Committee session at the IBA Annual Conference in Rome on Tuesday 9 October 2018, with our designated topic being 'Issues arising on termination of a construction contract'.

Both our practices have seen a sharp upturn in the number of termination-related disputes in recent years. These disputes have included situations where:

- contracts were terminated on spurious grounds because the Owner found someone cheaper or simply decided that they did not like their original contractor anymore;
- contracts were terminated by the Owner using termination for convenience provisions and then using someone else to complete the works; and
- contractors have terminated (or threatened to terminate) for prolonged non-payment, or the Owner's alleged failure to provide sufficient appropriate information about their financial arrangements.

It is also increasingly common in our experience for Owners to terminate for convenience even where there were robust grounds for terminating for default, simply to ensure that the Contractor leaves quickly without the involvement of local courts. Again, it is not uncommon in our experience, for Owners to 'buy out' a non-performing Contractor so they leave quickly and on good terms, allowing the project to be continued by others.

Termination cases are interesting because, unlike many construction cases, they often have an 'all or nothing' outcome; the termination is either valid or it is not and the assessment of quantum is completely different depending on the finding on liability. Additionally, the law on termination can vary dramatically from jurisdiction to jurisdiction, and different common and civil law jurisdictions can take very different approaches to assessing the validity of a termination from other, closely related, common and civil law jurisdictions.

We therefore asked our panellists to address three issues:

- first, comparing termination for default to termination for convenience;
- second, considering what requirements exist as to the substance and form of a termination notice; and
- third, looking at the legal consequences of a wrongful termination and in particular, whether, when, where and how a Contractor can try to block a wrongful termination and the claims

available to a Contractor who is the victim of a wrongful termination.

Each issue was addressed by a civil and common law practitioner, and with our panellists located in jurisdictions from Singapore to Scotland (and several in between) we provided a broad overview of the issues from around the world.

Terminating for default versus terminating for convenience

Dimitris Kourkoumelis

Kourkoumelis & Partners, Athens

Civil law perspective

construction agreement under civil law A is a bilateral agreement ('agreement for work') and is considered as instantaneous, where a party delivers the work and the counterparty the contract price. Thus, the relationship that is created from it, between the employer and contractor, expires with the due fulfilment of the parties' obligations and is terminated pursuant to the general reasons for the termination of all bilateral contracts, such as the mutual discharge of the contracting parties due to the accidental inability of any of them to fulfil their obligations. However, in practice, construction agreements create a de facto long-lasting relationship, which is the reason why the law provides for earlier termination for default or convenience.

Under the Greek Civil Code (GCC), for example, the employer is entitled, at any time before the physical completion of the works, to terminate the contract for convenience (without reason) (Article 700). As regards the general law of obligations, this is an important deviation from the standard of permitting unilateral termination only for default or good reason.

The termination provided by Article 700 applies directly after the employer's respective declaration and without notice. Upon its exercise, the contract is terminated *ex nunc* and the parties are discharged from the non-fulfilled obligations, without any claims that have arisen up to the point of

termination being affected. However, the contract is not overturned in its entirety because it remains applicable as to the agreed fee, which remains payable to the contractor irrespective of the termination.

Upon termination, under Article 700, the Employer shall pay the contract price, but anything the contractor saved due to termination is deductible from the amount due, such as expenses not incurred by the contractor, any other works executed during the term of the terminated contract and anything else that was wilfully omitted for its benefit. The basic consequence of the termination, in accordance with Article 700, is also the creation of the obligation for the contractor to deliver and for the employer to accept the executed part of the works.

Besides termination for convenience, the Employer has the right to terminate the agreement for good reason. A specific form of such right is the right of withdrawal in case of substantially delayed construction. More specifically, in the event that the contractor delays the commencement of the execution the works or, albeit its prompt of commencement, delays the pace of the works in a way that makes the prompt completion of the project impossible, the employer has the right to withdraw from the contract without waiting for the delivery of the project, provided the employer is not the one liable for the delay (Article 686). Further, the right of early withdrawal is available to

the employer irrespective of the existence of the conditions of default of the contractor, any liability on its part or the condition of force majeure. For the withdrawal to be valid, the respective notice must mention the exact reasons for it, otherwise it is presumed as a termination of Article 700 since an invalid withdrawal may be applicable as a termination for convenience upon conversion.

The exercise of this right rescinds the contract *ex tunc* as if the contract was never concluded. Consequently, the mutual obligations cease to exist while the parties are obliged to return anything delivered in accordance with the provisions of unjust enrichment. In the event of such withdrawal, the GCC provides for reasonable damages.

The right to withdraw when the works are substantially delayed is a specific application of the right to terminate for good cause, which is recognised in all long-term contracts. Both aforementioned rights are justified by the need of each of the parties to terminate the contractual commitment when, due to specific incidents and the continuous nature of the relationship, it will be against good faith to continue it. In the case of withdrawal under Article 686, a good reason is the certainty that the project will not be completed within the deadlines at the time agreed and that this will result in increasing the damages that the employer will suffer.

The exercise of the right under Article 686 results in the immediate termination of the contract with retrospective effect, meaning that the right of the parties to make subsequent claims ceases to exist. At the same time, the parties are obliged to return anything delivered up to that moment in accordance with the provisions of unjust enrichment. More specifically, the Contractor, on the one hand, is obliged to return part or all of the fee that they may have received, as well as anything provided to him by the employer for the execution of the project, while the employer must return the value of part of the project that may have been executed, provided that it is not possible to return it as such, especially if it has been incorporated in the project or consumed.

Further, withdrawal is always possible when the contractor is in default, that is, liable for the delay in the fulfilment of the obligations under Article 686, as well as in its main obligation to promptly deliver the works. The employer retains its full rights arising from the default. More specifically, the employer may either withdraw before the

main obligation becomes due and payable or wait until it becomes due and payable and request the execution of the project and compensation for damages for the delay pursuant to paragraph 1 of Article 343, or to set a reasonable deadline under Article 383 and, following its expiration, to withdraw request reasonable compensation and pursuant to Article 387, the amount of which will be decided by the court based on criteria such as the financial condition of the parties and the ability to cover the damages from another source, or to request compensation for damages for non-implementation, which covers the positive interest, namely what the employer would have if the contractor's obligation was fulfilled.

Comparing termination rights for default and for convenience leads to the conclusion that there is a similarity as to the requirements for their application, but they differ in results and consequences. In the event of concurrency, the right of withdrawal is preferable, since it discharges the employer from the obligation to pay the contract price, provided, however, that the facts can be proved.

Contractor's default is a circumstance allowing the Employer to terminate the agreement under public works contracts as well where the Employer may forfeit the contractor, call on their bonds and seek further damages. Under public works contracts, the contractor's rights to terminate are limited to delayed payment or nonpayment, as well as in the case of a long-term suspension of works.

lan de Vaz

WongPartnership, Singapore

Common law perspective

Termination for default

Not every breach of contract gives the innocent party the right to terminate the contract. For most breaches, the remedy for the innocent party lies in damages.

At common law, the innocent party will only be able to terminate a contract if:

- the term breached is a 'condition' of the contract a condition (or 'essential term') is a term of a contract where the intention of the parties to the contract was to designate that term as one that is so important that any breach, regardless of the actual consequences of such a breach, would entitle the innocent party to terminate the contract. The focus here is not so much on the consequences of the breach, but on the nature of the term breached;
- there is a sufficiently serious breach of an intermediate or innominate term of the contract the focus is on the consequences of the breach, such as where the breach deprives the non-breaching party of substantially the whole benefit of the contract; or
- there is a renunciation of the contract by a party where the party in breach of contract, by its words or conduct, unequivocally conveys to the innocent party that it does not mean to perform the contract any further.

In addition to the common law rights of termination, parties usually provide in their contracts for circumstances in which each party may terminate the contract, for example, Clause 15.2 of the FIDIC Silver Book (1999). These rights operate in addition to common law rights to terminate, unless the latter are expressly (or impliedly) excluded.

Termination for convenience

There is no common law right to terminate for convenience. However, most common law jurisdictions allow parties to contract for the right to terminate for convenience.

It is an established principle of common law that the employer cannot, without clear words allowing it, exercise a power to omit work in order to employ another contractor to do that work. By extension, it is arguable that the employer cannot terminate the contract for convenience so as to give work to another contractor or to carry out the work itself. Clause 15.5 of the FIDIC Silver Book (1999) reflects this philosophy by expressly stating that: **'The Employer shall not** terminate the Contract under this Sub-Clause, order to execute the Works himself or to arrange for the Works to be executed by another contractor' [emphasis added]

Electing between common law termination or contractual termination

Where a party has the right to terminate under both common law and contract but elects to terminate pursuant to the contract rather than alleging a repudiatory breach, it will be precluded from claiming 'loss of bargain' damages unless the contract expressly preserves the right to do so. For example, in *Phones 4U Ltd (in administration)* v EE Ltd [2018] EWHC 49, a claim for damages by EE (a mobile network operator) for loss of bargain was rejected because the termination notice relied solely on the contractual right to terminate for convenience.

Compliance with contractual provisions

'(a) Termination of the parties' relationship under the terms of [commercial] contracts is a serious step. **There needs to be substantive compliance with the contractual provisions to achieve an effective contractual termination**.

(b) Generally, where notice has to be given to effect termination, it needs to be in sufficiently clear terms to communicate to the recipient clearly the decision to exercise the contractual right to terminate.

(c) It is a matter of contractual interpretation, first, as to what the requirements for the notice are and, secondly, whether each and every specific requirement is an indispensable condition compliance without which the termination cannot be effective. That interpretation needs to be tempered by reference to commercial common sense' [emphasis added].

Obrascon Huarte Lain SA v Her Majesty's Attorney General for Gibraltar [2014] EWHC 1028

Given that an ineffective or wrongful termination can amount to a renunciation of the contract (which entitles the other party to, in turn, terminate the contract and claim damages), the importance of complying with contractual procedures cannot be overstated.

Some practical issues with Clause 15.2 of the FIDIC Silver Book (1999) are: '...the Employer may, **upon giving 14 days' notice to the**

Contractor, terminate the Contract and expel the Contractor from the Site' [emphasis added].

- Exactly how many notices are required under Clause 15.2? Is the Contract automatically terminated after 14 days or is a further notice confirming the termination required after 14 days have elapsed?
- Does the 14 days' notice effectively operate as a cure period? What happens if the Contractor

remedies or takes steps to remedy the breach within the 14 days? Does the Employer then lose the right to terminate?

These issues have been addressed in the new 2017 Silver Book: here, the Employer will need to first serve a 'Notice of Intention to Terminate', before serving a 'Notice of Termination' if the breach is not remedied.

Termination notices – substance and form

What requirements are there for the form and substance of a valid termination notice?

Civil law perspective

How to end a contract under German Law

German law provides several possibilities to end a contract. In most cases, these possibilities are dealt with in statutes, especially in the German Civil Code (*Bürgerliches Gesetzbuch* or BGB). They vary depending on the type of contract concerned (sales contract, lease contract and so on) and the reason for the intention to end the contract.

The devices of most importance in the legal practice are rescission (*Rücktritt*, section 323 of the BGB) and termination (*Kündigung*, eg, section 314 of the BGB). If a party rescinds a contract, the contract is deemed void from the beginning. The contract is void *ex tunc*. Any services rendered or deliveries made under the contract by the parties up to when rescission becomes effective have been made without legal basis as the initial basis, the contract, is deemed to never have existed. Thus, the parties have to return anything they have received by the other party. If this is not possible they have to refund the appropriate value.

A termination, to the contrary, terminates the contract for the future (*ex nunc*). The contract remains valid up to the date when termination becomes effective. Any services performed or deliveries made under the contract until termination were made due to the contract and do not have to be refunded or returned, respectively.

How to end a construction contract under German Law

Until 2002, the 'normal' way to end a construction contract was a rescission in accordance with section 323 of the BGB. This legal concept was criticised as in most cases in which a *Rücktritt* was executed, the contractor had begun to perform the works. As, generally, the owner of land becomes the owner of any building that is built on its land (sections 93 and 94 of the BGB), the employer was enriched by the works performed and had to refund their value to the contractor. It was argued that it would be much easier if the contract remained the legal basis for all services performed until the date on which the contract ended.

The legal situation changed in 2002 when a right to terminate a 'contract continuing for a longer period' was implemented in section 314 of the BGB and again on 1 January 2018 by a new regulation in section 648a of the BGB, according to which a construction contract may be terminated by both parties without notice for good reason.

In most German construction contracts that are entered into by the public administration or commercial entities, the parties agree on the Vergabe und Vertragsordnung für Bauleistungen – Teil B (VOB/B), a standard form of contract. The VOB/B provides that a construction contract may only be ended by means of a termination,

Thomas Stickler

Redeker Sellner Dahs, Leipzig not by rescission. The following description concentrates on the VOB/B.

Form of Termination under VOB/B

In all cases where the VOB/B provides for the possibility to terminate a contract, notice of termination has to be given in writing.¹

In most cases, before terminating the contract, the terminating party has to set a reasonable deadline and to declare its intention to terminate the contract on expiry of the deadline.² This should warn the other party and give it the opportunity to fulfil its obligations.

Generally, under German law when a party terminates a contract it does not have to state the reasons. Thus, it is admissible to submit (for the first time or additionally) reasons to justify the termination, subsequently, as long as the reasons existed prior to termination.³ It is not necessary that the terminating party was aware of these reasons when terminating the contract.⁴ If, however, following termination a new reason to terminate the contract occurs, it is not possible to submit this reason subsequently. A new termination notice has to be issued instead.

Common law perspective

ngton Getting termination wrong can be a very will be regarded in most common law jurisdictions as a repudiation, leading to liability to the terminated party in damages. If the Employer gets it wrong, it will be liable for the Contractor's loss of profit and other damages; if the Contractor gets it wrong, it will be liable at least for the

> Employer's extra completion cost. What does getting it wrong mean? Of course, if the termination purports to be in accordance with the terms of a construction contract termination provision, such as FIDIC's Clauses 15 and 16, the most serious error is to rely on grounds that are held by the dispute adjudication board (DAB) or arbitrator not to exist. For example, the arbitrator may find that there were reasonable excuses for the delay, under Clause 15.2(c). Those errors are outside the scope of this article.

> Errors in the substance or form of the termination notice are common. The question is whether such errors are fatal to the termination, leading to repudiation or whether a valid termination can still be achieved.

However, a termination under the VOB/B requires that before termination takes place, a reasonable period is set to warn the other party. The party intending to terminate has to state why it intends to terminate the contract (eg, delay, outstanding payments and defects) to give the other party the chance to fulfil its obligations. Under these conditions it is not admissible to submit further reasons, subsequently. Rather, before a termination can be justified by any further reasons, the terminating party has to set a new period and repeat its intention to terminate the contract in order to fulfil its contractual obligations under the VOB/B and, subsequently, issue a new termination notice.5

Notes

- 1 Section 8 (6) and § 9 (2) sentence 1 VOB/B.
- Section 8 (3) no l and section 9 (2) sentence 2 VOB/B.
 Federal Court of Justice ("Bundesgerichtshof" BGH)
- June 23, 2005 VII ZR 197/03, BauR 2005, 1477.
 Court of Appeal ("Oberlandesgericht" OLG) Schleswig February 9, 2010 - 16 U 16/06.
- 5 OLG Stuttgart July 14, 2011 10 U 59/10, BauR 2012, 1130; OLG Stuttgart March 3, 2015 10 U 62/14, BauR 2015, 1500.

Form

Addressing form first, most contracts specify how a notice is to be given. FIDIC contracts normally require notices to be written and to identify an address, a means of communication and to whom copies should be sent. Sometimes, the notice needs to call itself a notice or identify the clause under which notice is being given.¹

It has been said that as termination is a radical step, particularly where the contractual grounds are ones that would not amount to repudiation in the general law, then careful compliance with the contract must be observed.²

Repudiation is a severe or 'fundamental' breach of contract, likened to tearing up the contract or showing an intention no longer to be bound by it.³ Under English law, for example, a single non-payment by the Employer is not regarded as a repudiation. Under Clause 16.2, however, such a single non-payment is a ground for termination. Some tribunals have held that if a party wants to avail themselves of such a right of termination that would not exist in the general law, then strict compliance with form is required.

Corbett & Co International

Edward Corbett

Construction Lawyers, Teddington However, in the Gibraltar airport case,⁴ Justice Akenhead held that the delivery of the notice of termination to the site office rather than the specified head office of the contractor was not an indispensable requirement of either FIDIC Yellow Book Clause 15.2 or Clause 1.3:

- the project manager was based at the site office;
- the site office had been used for receipt and sending of communications in practice; and
- the notice was received by Obrascón Huarte Lain (OHL) on the day it was sent and its contents were immediately passed on to the senior directorate.

It therefore appears that there is some leeway in that courts and arbitrators may take a common-sense approach to non-compliance where the breach is *de minimis* or where it has had no prejudicial effect on the other party.

Substance

If the purpose of the notice is to give the defaulting party a final opportunity to rectify the default on pain of termination, then logic suggests that the default has to be stated. Similarly, if the notice is a 'show-cause' notice inviting the defaulting party to explain why the contract should not be terminated, the ground for termination would have to be set out.

The FIDIC 1999 contracts contain no requirements as to the content of the notice and are ambiguous as to whether the 14-day notice period is intended as a cure period. The 2017 editions resolve this ambiguity and, for most defaults, the notice period is a final chance to remedy the breach. Clauses 15.2.2 and 16.2.2 refer to the 'matter described': a description of the default is therefore required.

What if there is no description or the ground later relied on is not mentioned in the notice? Where a contract provides a cure period and refers to a 'matter described', the failure to specify the default would very likely be fatal to the termination. It could be argued that the failure would be insignificant in cases where the default was obvious or beyond repair, such as where a contractor has abandoned the project and demobilised from the country or gone into liquidation.

Interesting questions arise where a party learns of a ground for termination only after having terminated on a different basis. This may be due to the discovery of facts or the taking of legal advice. The question is most acute where the ground notified is wrongful but the discovered ground would have justified termination. At common law, a terminating party is not liable for ending the contract when the other party was in repudiatory breach, whether or not the terminating party knew it at the time – *Boston Deep Sea Fishing and Ice Co v Ansell* (1888) 39 ChD 339 (employer successfully defended a claim for wrongful dismissal on the grounds of breaches by the employee not known to the employer at the time of termination).

Facts known but not cited at the time may also be relied on later – see *Reinwood Ltd v L Brown & Sons Ltd* [2008] EWCA Civ 1090.

However, each case must be considered on its facts. A party cannot raise new reasons to justify a termination if:

- the breach could have been put right, if it had been brought to the other party's attention in time – Glencore Grain Rotterdam BV v Lebanese Organisation for International Commerce ('Lorico')
 [1997] EWCA Civ 1958; and
- the party wishing to terminate has waived its right to rely on the breach or is estopped from doing so (usually when a party knows of a breach but does not act on it).

Termination is a risky business. The advice to clients is always: to take great care with both form and substance.

Notes

- 1 FIDIC 2017 contracts define a Notice as: "Notice" means a written communication identified as a Notice and issued in accordance with Sub-Clause 1.3 [Notices and Other Communications]'.
- 2 Akenhead J in *Obrascon Huarte Lain SA v Attorney General for Gibraltar* [2014] EWHC 1028 (TCC): 'Termination of the parties' relationship under the terms of such contracts is serious step. There needs to be substantive compliance with the contractual provisions to achieve an effective contractual termination... Generally, where notice has to be given to effect termination, it needs to be in sufficiently clear terms to communicate to the recipient clearly the decision to exercise the contractual right to terminate.'
- 3 Language reflected in FIDIC 1999 Clause 15.2 in the ground 'abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract'.
 - Obrascon Huarte Lain v A-G for Gibraltar (2015) BLR 521.

The legal consequences of a wrongful termination

Whether, when, where and how a contractor can try to block a wrongful termination, and the claims available to a contractor who is the victim of a wrongful termination

Civil law perspective

Virginie Colaiuta

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Termination

The reform of the French Civil Code, which entered into force on 1 October 2016, introduced a new Article 1224, which provides that:

"Termination results either from the application of a termination clause, or, where the non-performance is sufficiently serious, from notice by the creditor to the debtor or from a judicial decision'.

As a result, a contract can be terminated:

- on the basis of a termination clause with a unilateral notice referring to the clause unless the parties have agreed otherwise; or
- without a termination clause, but in the event of a very serious breach, through court decision or with unilateral notice from the creditor.

As per Article 1226:

'A creditor may, at his own risk, terminate the contract by notice. Unless there is urgency, he must previously have put the debtor in default on notice to perform his undertaking within a reasonable time.

The notice to perform must state expressly that if the debtor fails to fulfil his obligation, the creditor will have a right to terminate the contract.

Where the non-performance persists, the creditor notifies the debtor of the termination of the contract and the reasons on which it is based.

The debtor may at any time bring proceedings to challenge such a termination. The creditor must then establish the seriousness of the non-performance.'

The defaulting party can challenge the termination notice and commence legal proceedings against the terminating party in order to obtain an order from the court to compel performance.

In fact, as per Article 1228:

'A court may, according to the circumstances, recognise or declare the termination of the contract

or order its performance with the possibility of allowing the debtor further time to do so, or award only damages.'

If termination is without good cause or done abruptly, the terminated party may argue that termination violated the principle of good faith.

If termination does not occur within any of the aforementioned options and there are no exceptions that apply, the termination would itself amount to a breach of the contract. The wrongfully terminated party would thus have the remedies available to a non-defaulting party.

Remedies

The remedies available to a non-defaulting party are defined in Article 1217 of the French Civil Code whereby:

'A party towards whom an undertaking has not been performed or has been performed imperfectly, may:

- refuse to perform or suspend performance of his own obligations;
- seek enforced performance in kind of the undertaking;
- request a reduction in price;
- provoke the termination of the contract;
- claim reparation of the consequences of non-performance.

Sanctions which are not incompatible may be combined; damages may always be added to any of the others.'

As per Article 1223 of the French Civil Code: Having given notice to perform, a creditor may accept an imperfect contractual performance and reduce the price proportionally. If he has not yet paid, the creditor must give notice of his decision to reduce the price as quickly as possible.'

Specific performance

As per Article 1221:

'A creditor of an obligation may, having given notice to perform, seek performance in kind unless performance is impossible or if there is a manifest disproportion between its cost to the debtor and its interest for the creditor.'

Even though no guidance in the new article is given as to the meaning of 'manifest disproportion', French courts are likely to narrowly construe this condition and order specific performance except in extreme cases.

Furthermore, as per Article 1222:

'Having given notice to perform, a creditor may also himself, within a reasonable time and at a reasonable cost, have an obligation performed or, with the prior authorisation of the court, may have something which has been done in breach of an obligation destroyed. He may claim reimbursement of sums of money employed for this purpose from the debtor.

He may also bring proceedings in order to require the debtor to advance a sum necessary for this performance or destruction.'

Damages

The non-defaulting party can also seek damages. As per Article 1229:

'Termination puts an end to the contract.

Termination takes effect, according to the situation, on the conditions provided by any termination clause, at the date of receipt by the debtor of a notice given by the creditor, or on the date set by the court or, in its absence, the day on which proceedings were brought.

Where the acts of performance exchanged were useful only on the full performance of the contract which has been terminated, the parties must restore the whole of what they have obtained from each other. Where the acts of performance which were exchanged were useful to both parties from time to time during the reciprocal performance of the contract, there is no place for restitution in respect of the period before the last act of performance which was not reflected in something received in return; in this case, termination is termed resiling from the contract.

Restitution takes place under the conditions provided by articles 1352 to 1352-9.'

Common law perspective

Can a contractor block a wrongful termination?

There are two ways for a Contractor to attempt to block a wrongful termination: injunction (interdict in Scotland) or specific performance. These are effectively counterparts of each other: an injunction is to prevent an anticipated wrong, in this context, wrongful termination, while an application for specific performance is to require performance of contractual obligations. These remedies are at the discretion of the court that takes account of the whole facts and circumstances.

There are significant hurdles for a party seeking to obtain these remedies. The court will consider whether there is an adequate remedy available in damages and, if so, will be reluctant to grant the order. In the context of wrongful termination, it is difficult to mount an argument that damages will not suffice.

The reason for the court's reluctance stems partly from the fact that criminal sanctions flow from breach of injunctions or orders for specific performance and that it is often difficult to identify whether there has been compliance or not. An order preventing a termination is effectively an order requiring the employer to continue with performance of the contract. Construction contracts consist of a wide variety of rights and obligations on each party and the courts will not police compliance with such wide-ranging provisions. Unless it is possible to frame the request for an order in sufficiently clear and precise terms, these are not likely to be successful.

One commentator describes them in these terms: 'Orders other than damages... are drastic, unpredictable and wide-ranging in their effects... difficult to supervise and enforceable by *imprisonment*',¹ which summarises well the challenges posed.

Claims available to a contractor subject to a wrongful termination

The principle applied to claims for wrongful termination is that the Contractor is to be put in the same position as if the contract had been performed. That is subject to the usual factors applied to quantifying losses, including showing the causal link between the wrongful termination and the loss, the obligation to mitigate and damages being irrecoverable if too remote.

Shona Frame

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The question arising is: what would have been the monetary value if the contract had been performed?

Typical losses that fall into this category would include the value of work done to termination, loss of profit for remaining work and lost contribution to head office overheads.

There can be difficulties in proving losses. For example, the contractor will be required to show that the contract would have been profitable and how much profit would have been earned on the balance of work. If the pricing is weighted to front-load profitable activities, there may be little profit on later activities. Similarly, if the contractor has been working uneconomically (eg, piecemeal, disrupted material supply), often a reason in itself for the termination being on the agenda, profit will be impacted. Other factors would include any overpayment to the contractor pre-termination, such as through an agreement for advance payments or simply erroneously over-valuing work.

Other factors can also be relevant. In The Mihalis Angelos² charterers of a ship terminated the contract on grounds of force majeure. That was considered invalid and the shipowners accepted it as a repudiation of the contract by the charterer. However, the owners were unable to comply with a 'ready to load' provision, which allowed the charterer to terminate if the vessel was not ready to be loaded with its cargo by a certain date. The court held that the owners were only entitled to be put in the position of having their ship on a charter which, as soon as it arrived, could legally and would actually (on the evidence presented) have been cancelled. They were therefore only entitled to nominal damages for what was, in effect, a worthless charterparty.

That rationale was followed in *Engineering Construction Pte Ltd v Att Gen of Singapore* (No 3)³ where the contractor was only entitled to nominal damages where there was a wrongful termination by the employer due to a contractual notice being served too early but where termination could have been effected validly.

In contrast, a surprisingly wide categorisation of losses arising was allowed in *Imperial Chemical Industries Limited v Merit Merrell Technology Limited*. Imperial Chemical Industries (ICI)⁴ had pursued a strategy of withholding payments from Merit Merrell Technology (MMT) and seeking to terminate. In addition to loss of profit on the remaining work under the contract, the court awarded £1.3m in respect of a reduced final account settlement accepted by MMT on another project due to its weak financial position, which had arisen as a result of ICI's actions. It also awarded costs of wasted management time, professional advice in respect of insolvency matters, additional banking costs and a value added tax loan necessary for cashflow reasons. These heads of loss go further than would traditionally be thought to apply in a wrongful termination scenario.

These cases highlight the need to look at the whole facts and circumstances of the contract in assessing damages and that these can lead to unexpected outcomes in terms of assessment of losses recoverable.

Notes

- 1 Hudson's Building and Engineering Contracts para 7-064.
- 2 [1971] 1 QB 164.
- 3 (1998) 14 ConstLJ 120.
- 4 [2018] EWHC 1577 (TCC).

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Legal aspects of Building Information Modelling (BIM) in the Netherlands: the procurement of a work with a BIM component – Part 2

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Part 1 of this article was published in the June 2018 edition of *Construction Law International.* It addressed what Building Information Modelling (BIM) is and how it works, the changes BIM instigates in the collaboration of all parties involved in the building process and the legal implications of these organisational changes.

It also briefly considered the legal framework for public procurement in the Netherlands, identifying the requirements of using BIM, and their formulation in a so-called Employer's Information Requirement (EIR). In Part 2, the author will address the possible use of selection criteria for the BIM component, the award criteria for BIM and in particular the use of a BIM Execution Plan (BEP), which describes how the demands of the EIR will be met.

Selection criteria

The criteria for qualitative selection encompass the candidate's personal situation, whereas the award criteria comprise the bid itself. The selection criteria determine whether the candidate is economically, financially and technically able to fulfil the requirements of the assignment and to show the absence of grounds for exclusion.¹ Therefore a selection is made by considering both the grounds for exclusion and the suitability requirements.

If the bidder does not fulfil these requirements, it must be excluded from the tender procedure. Suitability requirements outline the standards or quality the contracting party demands from the bidder (including its technical capabilities and its economic and financial standing).

This section provides an overview of several possible criteria for selecting a supplier of the BIM component. A potentially relevant aspect worth considering in the procurement of work containing a BIM component is past performance,² which will be analysed below.

Other selection criteria can be found in the suitability requirements. The suitability of a bidder can be demonstrated through reference works, by indicating whether the bidder meets the personnel or technical requirements and by (past) performance indicators. These aspects are discussed under 'Suitability requirements'.

Past performance

In accordance with applicable European legislation, the Public Procurement Act states several mandatory and optional grounds for exclusion.³ In 2016, as part of the implementation of Directive 2014/24/EU,⁴ past performance was introduced as a ground of exclusion in Article 2.87 sub 1(g) Aw.⁵

Past performance is an optional ground for exclusion if the so-called economic operator, the potential bidder, has shown significant or persistent deficiencies in the execution of any substantive requirements under a prior contract of similar nature with the same contracting authority. The ground for exclusion can be implemented when all requirements of the article are met.⁶ These requirements are met if a court determines the breach of a contract or non-performance. An earlier extrajudicial dissolution also provides grounds for exclusion.⁷ Furthermore, the notion of proportionality is relevant, that is, a prior minor deficiency will not justify an exclusion⁸ and the shortcoming must have been in the bidder's control. According to Article 2.87 sub 2(d) Aw, only deficiencies dating a maximum of three years prior to the relevant date may be considered.

It is likely that this ground for exclusion will not be invoked frequently; similarly, the Proportionality Guide states that it should be used sparingly.⁹ Therefore, as this ground for exclusion is optional it can only be invoked if it is applicable to the bidder in order to comply with the principle of equality.¹⁰

Although it is not yet the case in the Netherlands, past performance regarding a BIM component of the work can also be used as a ground for exclusion during procurement. During the contracting period, contractors may demonstrate significant or persistent deficiencies in the performance of their BIM obligations; several shortcomings or forms of non-performance are possible, in particular, late or incomplete, intermediate or final deliveries of BIM data or BIM models. To comply with the demands of Article 2.87 sub 1(g) Aw, these shortcomings must include significant or persistent deficiencies in the execution of any substantive requirement that led to the early termination of the prior contract, damages or other comparable sanctions. In the case of a minor deficiency in past performance, the bidder's exclusion could be considered disproportionate.11 То determine whether or not exclusion is appropriate, the nature, substance and severity of the deficiency in the prior performance, especially related to the BIM component of the current procurement and the prior nonperformance,12 must be considered. In the event that the use of BIM increases and the necessity for correct and complete delivery of BIM models and BIM data becomes more important, contracting authorities will demand (contractually and in practice) fulfilment of the BIM component, so past performance regarding BIM will be used as grounds for exclusion and as a successful tool in selecting a suitable BIM partner.

Suitability requirements

According to Article 2.90 Aw,¹³ a contracting authority can demand suitability requirements from its bidders. In European procurement cases, these suitability requirements can involve the economic and financial standing of the bidder, its level of technical competence or professional aptitude.¹⁴ Article 2.90 sub 2 Aw contains a limitative enumeration of suitability requirements, so that contracting authorities can only demand suitability requirements on the three subjects listed therein. As with the entire procurement process, the suitability requirements¹⁵ are controlled by the principles of the Procurement Act.¹⁶ The requirements must be proportionate, objective and unambiguous.¹⁷ Of the three suitability requirements mentioned in Article 2.90 sub 2(b) Aw, the one addressing the level of technical competence is of particular importance to the procurement of a project with a BIM component. These requirements encompass the personnel or technical resources and the experience the bidder has access to, as specified in Article 2.92a Aw. This level of competence can be measured in several ways, for example, the required experience can be measured or demonstrated by means of reference works, as mentioned in Article 2.92a sub 2 Aw, by giving insight into the level of education or experience of the bidder's personnel, or the availability of certification or other standards and by using performance indicators.¹⁸

REFERENCE WORKS

Submission of reference works proves that the bidder has sufficient experience to complete the assignment. The required reference(s) must concern essential aspects or the core competence needed for the work.¹⁹ In order to comply with the principle of proportionality, the demanded competence must be essential for the project or the contracting authority. If BIM is essential for the asset management of the contracting authority, demanding reference work regarding the BIM component could be proportionate. This depends on circumstances such as the level of experience and type of BIM experience demanded by the work. Regulation 3.5G of the Proportionality Guide deems one reference work per core competence (eg, a certain type of BIM experience) to be proportionate. The estimated value of the reference must be between zero per cent and 60 per cent of the assignment, according to the Proportionality Guide.²⁰ It is obvious that these percentages should apply to the value of the BIM component and not to the value of the entire project (again complying with the principle of proportionality).

PERSONNEL AND TECHNICAL RESOURCES: CERTIFICATION AND EDUCATION

Besides reference work, there are other means for the bidders to demonstrate their level of competence. Awarding authorities can also demand educational or professional qualifications from the bidder or its Awarding authorities can also demand educational or professional qualifications from the bidder or its management personnel, samples or product certification, descriptions of technical equipment and systems of quality assurance or quality control.

management personnel,²¹ samples or product certification,²² descriptions of technical equipment and systems of quality assurance or quality control.²³ In general, it must be noted that these demands must relate to the subject of the procurement²⁴ and must not create an artificial restriction of competition.²⁵

BIM certification or educational qualifications can also play a role in the suitability requirements. They can cover technical skills or qualifications, but more likely pertain to the role and gualifications of a BIM manager or BIM coordinator.26 In this case, the emphasis will be on management experience and other similar qualifications to ensure the bidder has the capacity to coordinate the complicated BIM process and the work of those involved. Requiring experience with certain software programs or technical open standards is only permissible providing it does not favour certain brands, manufacturers or producers.27 Because the Dutch Government demands the use of open standards or the use of their own free-ofcharge systems, these types of infringements of procurement law are unlikely to occur.

Performance indicators as a systematic method to monitor performance

The use of (past) performance indicators (also called 'performance measurement' or 'past performance information') is a method that aims objectively to obtain insight into the quality of the work, the work process and the collaboration between contractor and constructor.28 The Dutch National Road and Waterways Authority (Rijkswaterstaat) is one of the awarding authorities measuring performance by using performance indicators during contracting periods and using its results in the procurement phase.²⁹ It uses questionnaires to gain insight into how both contractor and constructor live up to their contractual obligations. A transparent, clear and standardised measuring process is applied to guarantee that a correct and similar working method

is applied.³⁰ After the assessment, the contractor is graded (eg, between one and ten) for the various competencies or subjects with specific emphasis on attitude and behaviour expressed during the evaluation period.³¹ The questionnaire addresses the following competencies:

- working methodology;
- expertise or skill and quality;
- cooperation, communication and organisation;
- health and safety; and
- quality management.³²

In addition, Rijkswaterstaat assesses the documentation of the work performed, for instance, the recording of alterations in the area³³ and the delivery of a case file. This part of the performance indicators is especially important for Rijkswaterstaat because it is vital for it to have access to the most asset information. It is on this aspect of the performance indicators that BIM qualities and the bidder's experience can be monitored, because BIM data and BIM models are digital counterparts of the traditional (paper) asset documentation.

The use of performance indicators in European procurement cases is, in principle, non-compatible with the principles of procurement law because new entrants to the market are unable to deliver previously obtained performance indicator results. Even the assignment of a fictional or neutral performance grade would not be objective. However, in cases of limited tendering performance, indicators can still be used in the procurement phase, although naturally they would have to be established objectively.34

At this stage, Rijkswaterstaat or other contracting authorities do not use performance indicators regarding the BIM component and BIM qualities of a supplier or contractor. However, it is very likely that with the increasing use and importance of BIM and the increasing need for correct and complete BIM data, this will change in the near future.

The most economically advantageous tender is assessed based on the best price-quality ratio or either price or cost-effectiveness.

Award criteria: the BEP

After assessing the demands and requirements set out in the tender documents,³⁵ the contracting authority must award the tender based on the most economically advantageous tender.36 The award criteria are clearly stated at the announcement of the tender³⁷ and further specified in one of the (sub) award criteria presented in Article 2.114 sub 2 Aw. The most economically advantageous tender is assessed based on the best price-quality ratio or either price or cost-effectiveness. If a best price-quality ratio is used as sub-award criterion, Article 2.115 sub 2 Aw further specifies this criterion. The sub-award criterion expressed in this article is a more detailed implementation of Article 67 of Directive 2014/24/EU.

The rating or evaluation system is formed by the specifications and the award criteria.³⁸ The contracting authority has a broad range of discretionary power to formulate the criteria and is only limited by the principles of procurement law.³⁹

In this section the use of an Execution Plan as part of the procurement process, specifically the award criteria, is discussed. An Execution Plan is an excellent tool to measure in advance how a bidder will assess the BIM process. To put it simply, an Execution Plan as part of the award process is essential when selecting a compatible partner for complex BIM works and where BIM data is essential for the systems of asset management used by the procurer. At present, BIM is not (yet) an essential part of the systems or asset management's tools used by governmental bodies. Therefore, Execution Plans are not used as part of the award phase yet. However, it is expected that with the increasing use of BIM and the growing importance of BIM as a tool for asset management, BIM will become an essential part of a project and therefore the use of BEP as part of the award phase will grow simultaneously.

This paper first analyses the situation in the United Kingdom regarding the use of a BEP and subsequently examines the Dutch model Execution Plan and its possible use in the award phase. The assessment of an Execution Plan as a part of the award criteria is discussed in the third section, before some conclusions are drawn regarding BIM and its role in the award phase.

The UK BEP

In the UK, building with BIM level 2 is mandatory for all public works.40 As a result, the EIR is an essential part of the procurement process of a project involving a BIM component. The UK model EIR contains the BIM requirements and has a section on the purpose of the BIM model. However, it not only functions as a format for the digital demands of the tender specifications, it is also the basis for a BEP as part of the award phase in procurement.⁴¹ Ideally, an Execution Plan describes the procedures, timetables and steps necessary to meet the demands in the EIR. Although we are presented with evidence that not all parties use the models set out in the EIR model, the Execution Plan and the timetables they establish,⁴² the connection between EIR and the Execution Plan is more detailed than in the Netherlands.43

In the UK system, the Construction Industry Council (CIC) distinguishes

between a pre-contractual and a postcontractual BEP. The pre-contractual BEP contains the major milestones for information delivery, whereas the postcontractual BEP is more detailed and consists of a Master Information and Delivery Plan (MIDP), which has several smaller Task Information Delivery Plans, which fill in the milestones and data drops.⁴⁴ The MIDP is developed by and adjusted in collaboration with all the stakeholders.

Both the pre and post-contractual BEP are governed by a so-called Publicly Available Standard (PAS), which manages a large part of the BIM process and is developed in accordance with the CIC BIM protocol, called PAS 1192-2:2013.⁴⁵ This standard contains specifications for information management for BIM processes⁴⁶ and maps out the BIM roles and responsibilities necessary for working on BIM level 2.⁴⁷ It contains definitions, scheduling information, coordination, clash detections,



cooperation processes and the tasks of the BIM information manager.

The Dutch national BEP

In the Netherlands, a national BEP is developed by the BIM Loket.⁴⁸ Its content and layout are based on the UK BEP described in the previous paragraph. However, the Dutch Execution Plan is primarily designed to be used as a tool or template to record the working agreements between the BIM partners, preferably in an early stage of the process.⁴⁹ Nevertheless, it is also possible to use it as a working plan as part of the award criteria, so it is designed with this in mind. Although this application is still quite rare, it can provide insight into the methods used and the roles and responsibilities of different BIM actors, which can be convenient in the award phase.⁵⁰

The Dutch model Execution Plan is divided into chapters of which Chapters 3, 4, 5 and 6 regarding the BIM process are especially useful for the award criteria. Chapter 3 refers to the purpose of a BIM (3.1), its applications (3.2) and then analyses it (3.3). In particular, clarification of the purpose and application of the BIM model can provide a better understanding of the functionalities, content and quality of the BIM model or data. Chapter 3 can be used to clarify which demands of the contracting authority have been met (ideally all of them) and which 'wishes' will be fulfilled. 'Wishes' are extra requirements set out by the contracting authority that enable the bidder to earn extra points in the bidding process. Paragraph 3.2 sets out several functions or applications that allow the contracting authority to obtain information about the (future) BIM model. In paragraph 3.3 the bidder can set out which data analysis it will carry out to achieve certain goals or to obtain information from the model about the functionalities of the actual building. For example, it is possible to analyse the design of the building to ascertain whether it complies with the programme of requirements or demands regarding the energy efficiency of the project. Chapters 4 and 5 are designed to provide information about the schedule, workflow and process schedules of the design and construction process. In line with the

Wishes' are extra requirements set out by the contracting authority that enable the bidder to earn extra points in the bidding process. schedules in Chapter 4, Chapter 5 contains schedules and workflow overviews regarding the transfer of data of the BIM model.

The Dutch model Execution Plan is very basic compared to the English version; however, bidders can give a more elaborate description of their work process to refine it further.

Chapter 7 of the model Execution Plan with very technical deals modelling arrangements, such as naming of the files, building levels, the so-called zero point and so on. If a contracting authority has set any technical requirements comparable to those in Chapter 7, it will usually be handled in its EIR. Ideally, those requirements are simply copied into Chapter 7, according to the demands in the EIR. Considering these requirements in the award phase (by means of the Execution Plan) is not useful because they are necessary to complying with the demands. A bid that doesn't meet the requirements will be put aside as invalid.

Another area that could be addressed in an Execution Plan is the use of certified processes regarding process management or quality assessment. These give an indication of the capability of the organisation or its personnel to work in a complicated BIM process and their ability to manage this process. The quality of the process can also be determined through the use of certified personnel or by demonstrating the education level and experience of the personnel.

The assessment of the Execution Plan as part of the award criteria

In projects where the BIM aspect is relevant to the contracting authority, the award criterion for the most 'economically advantageous' tender must be used. Furthermore, in terms of sub-award criteria, the best price-quality ratio⁵¹ or cost-effectiveness concerning lifecycle costs⁵² are the most obvious to use. When the price-quality ratio is a sub-award criterion, further assessment of the bid is needed by using more detailed (sub) sub-criteria, stated in Article 2.115 subs 1 and 2 Aw. The most evident criteria for BIM mentioned in this article are: the quality of the bid and its technical merit;⁵³ the functional characteristics;54 the suitability of the BIM model, its users and its organisation;55 and the quality assurance embedded in the BIM process, for example, by explaining the processes or by clarifying the personnel's capability or experience.56

The methods of assessing the bid and more specifically the methods of assessing the Execution Plan and its contents, must be in accordance with procurement law. Moreover, the assessment methodology must obey the principles of equality and transparency. Whether there is an infringement of these principles depends on the application of the assessment methodology.⁵⁷

The sub-award criteria can be represented with weighting factors by using a matrix. The assessment methodology and weighting system must be designed as objectively as possible.⁵⁸ However, generally it can be said that the use of a system that entails a methodology that is not entirely objectively measurable cannot be regarded as noncompliant with the principles of equality and transparency.⁵⁹ In other words, whether or not a methodology is sufficient to work both as a tool for awarding and selecting the best bid and complying with procurement law depends on the circumstances.

Conclusions regarding the Execution Plan as a part of the award phase

While selection criteria are intended for the selection of a contractor capable of doing the job at hand, the award criteria are intended to distinguish the submitted bids with regard to essential features of the project. In the construction industry, because BIM is in its developing stages, it is not (yet) an essential part of a project. At this stage, bidders and their bids are not often selected or awarded on the basis of distinguishing themselves in BIM, simply because it is not yet an essential part of the assignment.⁶⁰ With the increasing use and importance of BIM this will probably change in the future. If BIM becomes essential for the asset management of, in particular, governmental bodies, the significance of BIM in the procurement phase, and especially as part of the award phase, will grow.⁶¹

Conclusions

In the majority of cases in the Netherlands, BIM is still primarily used as a design tool or as a tool to support the construction process. The use of BIM as a tool for maintenance and asset management is widely acknowledged, but the procurement of BIM for maintenance or asset management is still not widely developed. Public procurement of projects with a BIM component by governmental bodies in a more structured way is at an early stage. Rijkswaterstaat has a tested strategy and has developed an entire system to use BIM for its asset management. To date it has used its EIR in 27 projects so BIM was therefore part of the procurement process. Only two of these projects were delivered in 2017; the others will follow over the next few years. The Gelderland province has used BIM in its procurement strategy in one project (Traverse Dieren) and is now expanding the number of projects that include a BIM component. The Rijksvastgoedbedrijf has five to ten larger DBFM projects, which have been delivered using its EIR or BIM standard, but it does not use its own central database or a library and is on the brink of reviewing its BIM policies to make them more consistent with its asset management systems.

Overall, it can be concluded that the requirements presented in several of the EIRs used in the Netherlands are mostly technical. They focus on output and technical specifications and not on process management. This is understandable because the procurement of projects with a BIM component is done by large governmental bodies focusing on BIM as a tool for asset management and maintenance. They do not need BIM for collaboration, but need BIM data for their asset management.

Rijkswaterstaat and the Gelderland province, are the only governmental bodies that have to date developed an EIR with requirements suited for and aimed at their own systems.

The EIR is currently only used in the procurement process to establish demands for the BIM component of the project. Criteria for selection, suitability requirements or award criteria are not used in relation to BIM. Although not yet in use in the Netherlands, selection criteria are an excellent tool for choosing a bidder who is not only able to construct the building, but also able to deliver the required BIM data or model. Suitability requirements could be particularly useful for the submission of reference work regarding BIM (as long as BIM is one of the core competencies of the project). Furthermore, the use of technical criteria or certification of personnel, especially focused on the level of education or experience with the management of complex BIM processes, could be useful in the future. But most importantly, BIM as part of the performance indicators system and consequently as part of the selection criteria seems very promising. It encourages contractors to perform in accordance with the procurers' wishes during the contracting phase and is a means for bidders to distinguish themselves during the procurement phase of a new contract. Moreover, it is a reliable tool for selection and an indicator for future performance for contracting authorities.

Although the Dutch Execution Plan model is suitable for use in the award phase and as part of the award criteria, it is also not yet used in procurements. The Netherlands does not distinguish between pre- and post-BEPs and is therefore not as detailed as the UK version. However, that does not appear to be the reason it is not yet used as part of the award criteria. At present the BEP does not seem very useful because selection and awarding take place during essential parts of a construction project. With the increasing use and growing importance of BIM this will probably change in the future. If BIM becomes essential for asset management, especially of governmental bodies, the significance of BIM in the procurement phase will grow to become a tool to distinguish the best BIM bid from the others. In this stage of its development, it might be best to use BIM requirements in the EIR. To meet the requirements of the tender (and later the project) and to remain a valid bid in the procurement process the BIM requirements must be met. As a result, awarding authorities will receive bids that comply with their demands.

It is expected that soon the use of BIM demands in public procurement will change significantly. The first challenging steps have been taken by important governmental bodies and agencies (which are large contractors in infrastructure projects) so others will undoubtedly follow.

Notes

- * Evelien Bruggeman is conducting a three-year research project on the influence of new construction methods on (construction) contract law. One of the aspects of this project is research into the legal aspects of the use of BIM in the Netherlands. Her research focuses on the contractual aspects, as well as the implications for public procurement. This article is an adapted text of a lecture given at the Annual Conference of the European Society for Construction Law in November 2017 in Fribourg, Switzerland.
- 1 Maurice JJM Essers and Claire AM Lombert, Aanbestedingsrecht voor overheden, 2017, 229.
- 2 As described in Art 2.87 sub 1(g) Aw. This article implements Art 57 sub 4(g) of Directive 2014/24/ EU: 'where the economic operator has shown significant or persistent deficiencies in the performance of a substantive requirement under

a prior public contract, a prior contract with a contracting entity or a prior concession contract which led to early termination of that prior contract, damages or other comparable sanctions.' Art 2.86 Aw up to and including art 2.88 Aw,

- implementation of Art 57 of Directive 2014/24/EU.
 Article 57(3) (g) of Directive 2014/24/EU.
- In the Dutch Procurement Act the ground for exclusion of Art 57(4) (g) of Directive 2014/24/
 EU is (using the exact same words) implemented in Art 2.87 sub 1 (g) Aw. Translated, Art 2.87 sub 1 (g) Aw: '1. The contracting authority may exclude a bidder or candidate from participation in a procurement procedure if one of the following conditions is fulfilled....g. the bidder or candidate has shown significant or persistent deficiencies in the performance of any substantive requirement under a prior contract of a similar nature with the same contracting authority which has led to early termination, compensation or similar penalties.'
 An earlier version of the Directive used a different
- formulation. The proposal dated 20 December 2011, COM(2011) 896 final continued under sub d of Art 55 Aw (which used the same wording as the final Art 57(4)(g) of Directive 2014/24/EU) as follows: 'In order to apply the ground for exclusion referred to in point (d) of the first subparagraph, contracting authorities shall provide a method for the assessment of contractual performance that is based on objective and measurable criteria and applied in a systematic, consistent and transparent way. Any performance assessment shall be communicated to the contractor in question, which shall be given the opportunity to object to the findings and to obtain judicial protection.' The formulation of this part of the proposal describes a system comparable to the Dutch use of performance indicators. Those performance indicators in the Netherlands are (often) not used as a ground for exclusion, but as part of the suitability requirements. This subject will be discussed in 'Suitability requirements'.
- 7 This can be deduced from the words used in Art 2.87 sub 1(g) Aw, which, translated, but similar to the wording in the Directive (Art 57(4)(g) of Directive 2014/24/EU) states that the past performance must have led to early termination of that prior contract, damages or other comparable sanctions. See n 1 above, p 236 states that this ground for exclusion applies 'in any case' to judicial termination. On this subject see Sue Arrowsmith, *The Law of Public and Utilities Procurement* (Sweet & Maxwell 2014), no 12-105, p 1269.
- 8 Past performance is a facultative ground for exclusion. A facultative ground for exclusion has to be proportionate in relation to the subject of the procurement. See Art 2.88 sub (b) Aw and reg 3.5A of the Proportionality Guide.
- 9 Proportionality Guide, p 38.
- 10 See n 1 above, p 59.
- 11 Art 2.88 sub b Aw and reg 3.5A of the Proportionality Guide.
- 12 In order to comply with the principle of proportionality the bidder and its past performance must be judged individually and specifically: CJEU, 13 December 2012, Case C-465/11 (*Forposta*). EU law does not oppose a proportionality test regarding the existence of a ground for exclusion, but in order to comply with EU law the use of this proportionality test as part of the grounds for exclusion must be stated beforehand in the tender documentation, CJEU, 14 December 2016, Case C-171/15 (*Valys*).

- 13 The implementation of Art 58(1) of Directive 2014/24/EU.
- 14 Art 2.90 sub 2 Aw. On technical ability see Sue Arrowsmith, *The Law of Public and Utilities Procurement* (Sweet & Maxwell 2014), p 1,205.
- 15 Art 2.90 sub 4 Aw.
- 16 In the same way: Art 2.90 sub 5 Aw and Art 58(3) of Directive 2014/24/EU.
- 17 See n 1 above, pp 243–245.
- 18 Very elaborate on the ways in which technical or professional ability can be measured; Sue Arrowsmith, *The Law of Public and Utilities Procurement* (Sweet & Maxwell 2014), pp 1,183–1,234.
- 19 Regulation 3.5F of the Proportionality Guide 2016.
- 20 Regulation 3.5G of the Proportionality Guide 2016.
- 21 Art 2.93 sub 1(g) Aw.
- 22 Art 2.93 sub 1(1) Aw.
- 23 Art 2.93 sub 1(f) Aw.
- 24 ECJ EG 29 April 2004, Case C-496/99 ECLi:EU:C:2004:236 (*Succhi di frutta*) and Art 1.10 Aw.
- 25 See n1 above, p 58 on Art 2.76 sub 3 Aw.
- 26 Art 2.93 Aw contains multiple methods with which a bidder can demonstrate its level of technical competence.
- 27 See n 1 above, p 225.
- 28 MAB Chao-Duivis, 'Het beoordelen van aannemers op basis van past performance: een eerste verkenning', BR 2006/216, par 1 and 2. At the moment hard data on the subject is not available: Jeroen van de Rijt, Michael Hompes and Sicco Santema, 'The Dutch Construction industry: An Overview and Its Use of Performance Information' (2010) 2(1) Journal for the Advancement of Performance Information Value 33.
- 29 See www.rijkswaterstaat.nl/zakelijk/zakendoenmet-rijkswaterstaat/werkwijzen/werkwijze-in-gww/ aanbesteden-en-contracteren/prestatiemeten/ index.aspx accessed 22 October 2018.
- 30 Rijkswaterstaat, 'Handreiking Prestatiemeten Rijkswaterstaat', version 1.2, 1 January 2013.
- 31 See n 29 above.
- 32 See www.pianoo.nl and www.rijkswaterstaat.nl accessed 22 October 2018.
- 33 So-called 'areaalveranderingen' in Dutch.
- 34 Rijkswaterstaat only uses this method for the restricted tenders procedures but not in combination with a competitive dialogue. See n29 above.
- 35 Art 2.113 Aw.
- 36 Art 2.114 lid 1 en lid 2 Aw, which is an implementation of Art 67(1) and (2) of the Directive.
- 37 Art 67(1) and (2) of the Directive on Contract Award Criteria.
- 38 See n1 above.
- 39 As an example: Court of Zeeland-West-Brabant, location Breda 27 May 2014, ECLI:NL:RBZWB:2014:3579.
- 40 For more on the UK Government's BIM Programme see 'Handbook for the introduction of Building Information Modelling by the European Public Sector', EU BIM Task Group, 2017, pp 37–38, 47–48.
- 41 David Mosey, Chris Howard and Darya Bahram, *Enabling BIM through Procurement and Contracts*, a research report by the Centre of Construction Law & Dispute Resolution, King's College London, 2016, pp 24–25.
- 42 Ibid, p 20.
- 43 An example is given in 'Handbook for the introduction of Building information Modelling by the European Public Sector', EU BIM Task Group, 2017, p 65.
- 44 David Mosey, Chris Howard and Darya Bahram, Enabling Building Information Modelling through

Procurement and Contracts, paper presented to the Society of Construction Law at a meeting in London on 1 December 2015, pp 8–9 and see n41 above, p 19.

- 45 Pre-contract BIM Execution Plan, note 49, s5.
- 46 The PAS document is developed in accordance with BS 1192:2007, an existing guideline for 'collaborative production of architectural, engineering and construction information' and it has great similarities with PAS 1192-3 about use and maintenance of the Asset Information Model.
- 47 PAS 1192-2:2013, p 1.
- 48 There also is a National BIM Protocol and a National BIM Execution Plan (BIM *Uitvoeringsplan*).
- 49 Both the British and the Dutch distinguish between the status of a BIM Protocol and a BIM Execution Plan. The Protocol is identified as a contractual document, whereas the Execution Plan is not and only serves as a document containing working arrangements. Such a distinction is, however, hard to follow, whereas both documents are part of the legal relationship of the BIM partners. Similar: David Mosey, Chris Howard and Darya Bahram, *Enabling Building Information Modelling through Procurement and Contracts*, paper presented to the Society of Construction Law meeting in London on 1 December 2015, p 12.
- 50 An example of a case in which an Execution Plan, the use of a BIM Protocol and the implementation of BIM in the design and building process was part of the procurement and the award criteria can be found in Court of Gelderland 20 January 2014, ECLI:NL:RBGEL:2014:2898.
- 51 Art 2.114 sub 1 (a) Aw.
- 52 Art 2.114 sub 1(b) Aw.
- 53 Art 2.115 sub 2(a) Aw.
- 54 Art 2.115 sub 2(b) Aw.
- 55 Art 2.115 sub 2(d) Aw.
- 56 Art 2.115 sub 2(g) Aw. Also Sue Arrowsmith, The Law of Public and Utilities Procurement (Sweet & Maxwell 2014), 749–755.
- 57 Dutch Supreme Court, 9 May 2014, ECLI:NL:HR:2014:1078.
- 58 T Chen, 'Beoordeling van kwaliteit: wat is een zo objectief mogelijk systeem?', *Tijdschrift voor Aanbestedingsrecht*, 2015 (6)/93.
- 59 'Over de beoordeling van de kwaliteit van een aanbieding en de complexiteit daarvan': see n58 above, also: T Chen and F van Nouhuys, 'Gunningsmethodieken, ideeën voor nieuwe aanbestedingswetgeving', *Tijdschrift voor Aanbestedingsrecht* 2008, pp 319–327.
- 60 An exception can be found in Court of Gelderland 20 January 2014, ECLI:NL:RBGEL:2014:2898.
- 61 An example of a case in which the delivery of an As-built BIM model suitable for maintenance and asset-management was considered as an alternative bid can be found in Court of Zeeland-West-Brabant 14 April 2016, ECLI:NL:RBZWB:2016:2285.

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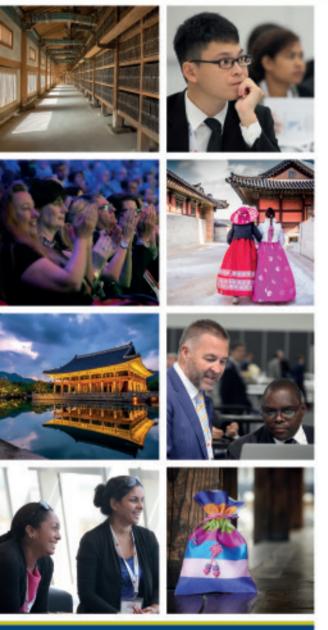
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