PROCEDURAL INNOVATIONS ON THE HORIZON[1]

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I. Introduction

"Make it new"

Ezra Pound

This paper is intended to discuss three areas of innovation in the management of construction disputes. The challenges with which these areas of innovation deal are by no means the only challenges faced in construction dispute resolution, but they are important ones. They are: (i) the taking and use of expert evidence, (ii) disclosure of documents, and (iii) identification and management of issues. In some jurisdictions, parties have a real option whether to litigate or arbitrate, although the option to litigate is of course seriously constrained once the parties have agreed in their contract to arbitrate. In any event, the success of the Technology and Construction Court in England, and the Constructions Lists in New South Wales and Victoria in Australia, are examples of litigation options that have proved attractive to construction industry disputants. Therefore, discussions of arbitration options should not ignore the way in which courts might approach construction disputes, and innovations on their horizons. Thus, this paper will also consider, as a proxy for innovative court processes in construction disputes, the Technology, Infrastructure and Construction List (the **TIC List**) in the Singapore International Commercial Court (**SICC**).

It is also important to note that one of the inherent advantages of arbitration is its potential flexibility and thus, considerations of innovations in arbitration will necessarily involve deploying the advantage of flexibility (the possibility of which in court proceedings can be more limited). This issue will be discussed across each of the areas of innovation.

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[1] This paper adapts elements of a paper, entitled 'Flexibility in International Commercial Dispute Resolution', previously presented by one of the authors, Professor Doug Jones AO, at the CIArb Singapore Annual Thought Leadership Lecture on 9 November 2023, available at https://dougjones.info/content/uploads/2023/11/Doug-Jones-Flexibility-in-International-Commercial-Dispute-Resolution-Paper.pdf.

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II. Expert Evidence

Arbitration

The use of expert evidence is an important feature of arbitration, and can often play a critical role in the ventilation of the parties' case. This is especially so in the context of construction arbitrations – construction arbitrations are usually quite technical, which often necessitates engagement of experts, not just in a piecemeal or *ad hoc* manner, but from the *start*. This is why it is fitting to begin the substance of this paper with a discussion of the challenges of expert evidence.

Broadly speaking, there are three types of expert witnesses: (i) technical experts, (ii) 'analysis' experts, and (iii) legal experts.[4] Technical experts assist tribunals with issues requiring technical specialist knowledge and can involve for example knowledge regarding different markets or industries. Oftentimes, technical or industry-specific experts have less experience giving expert evidence when compared to the other types of expert witnesses – something that tribunals should keep in mind when managing such experts. 'Analysis' experts comprise for example quantum or damages experts, who often come equipped with complex analytical models to assist the tribunal. The evidence of 'analysis' experts can prove to be particularly useful as many arbitrators find identifying quantum or damages trickier than determining legal liability. Finally, legal experts have knowledge of a particular legal system that neither counsel nor the tribunal are familiar with. Although, it is important to note that the value of legal expert evidence in arbitration is equivocal as counsel and arbitrators are themselves experts in the law – counsel present legal arguments, tribunals assess them.

Whilst these categories of expert witnesses essentially seek to assist tribunals, sometimes the use of expert evidence can cut both ways. The sheer complexity and volume of expert evidence can give rise to exorbitant costs, and also be a source of delay.

At first instance, if the parties choose the International Bar Association Rules (**IBA Rules**)[5], or the Prague Rules on Efficient Conduct of Proceedings,[6] to govern the arbitral procedure,

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[4] See further Doug Jones, 'Redefining the Role and Value of Expert Evidence', in Bernardo M Cremades & Patricia Peterson (eds), *Rethinking the Paradigms of International Arbitration* (ICC Institute of World Business Law, Dossier XX, 2023) 142, 143, also published in Doug Jones, 'Redefining the Role and Value of Expert Evidence' (2023) 17(2) *Journal of the American College of Construction Lawyers* 1, 2−3.

[5] International Bar Association (IBA), *IBA Rules on the Taking of Evidence in International Arbitration* (adopted 17 December 2020) (*IBA Rules*).

[6] *Rules on the Efficient Conduct of Proceedings in International Arbitration (Prague Rules)* (adopted 14 December 2018).

there is already some form of a solution to the issue. The former provides for party and tribunal appointment of experts and creates a hybrid civil-common law approach, and the latter favours tribunal-appointed experts and takes a more civil law approach. As an aside, whilst some institutional rules contemplate both party and tribunal appointed experts,[7] the former is much more common.

However, guidance provided by the above is often broad brush or addresses only certain components of the process. For example, the IBA Rules (as alluded to) focus on *appointment,* and do not seek to create a standardised procedure for the actual adducing and taking of expert evidence. Specificity and clarity across the entire timeline of an arbitration is required in order to deliver an effective process. There are various innovative tools at the tribunal's disposal to do so which make use of arbitration's inherent flexibility, namely, (i) engagement of experts at an early stage of the arbitration and in a proactive manner, (ii) use of a hot-tubbing approach when adducing evidence, and (iii) a Post-Hearing Expert Access Protocol to assist tribunals in calculating particular figures. Each will be considered in turn, and – to circle back to an issue contemplated by the rules commonly adopted by parties – this subsection will conclude with consideration of the benefits and drawbacks of tribunal-appointed experts.

Early-stage procedure

Each of the authors have adopted proactive approaches in many arbitrations for effective management of party-appointed experts at the early arbitration stages, an approach which has a particular emphasis on expert-related procedural requirements in early procedural orders:

1. *First*, tribunals and parties need to determine the matters on which experts of like discipline will opine, which forces the parties to consider the necessity of expert evidence at all. At this stage, experts proposed in their respective disciplines are identified and given directions. The tribunal can hear any conflict or competency challenges before they have the opportunity to seriously disrupt the flow of proceedings.

2. *Secondly*, the experts, with the tribunal's assistance, should formulate within each discipline a draft common list of questions which the experts will seek to answer.

3. *Thirdly*, the production of expert reports should be deferred until common factual evidence (documentary and witness) is available and the experts may opine on a common data

[7] See, eg, London Court of International Arbitration, LCIA Arbitration Rules (2020) art 21.

set. This ensures experts from opposing sides work collaboratively and productively. Material exchanged by them in this work is protected from later production to the tribunal.

4. *Fourthly*, the experts within each discipline should first produce a joint expert report identifying areas of agreement and disagreement, prepared by way of discussion with the opposing experts and the exchange of 'without prejudice' drafts.

5. *Fifthly*, the experts within each discipline produce individual expert reports on areas of disagreement *only*. Therefore, there is a clear, singular source for areas of agreement and the substance of that agreement – the joint expert report – reducing the volume of material generated.

6. *Finally*, the experts produce 'reply' expert reports containing views in the alternative showing what their conclusions would be if the other expert's assumptions and methodologies were accepted by the tribunal. Tribunals should ensure that 'reply' reports do not simply ventilate what was already addressed in their individual reports.

It is then usual for the tribunal to actively engage with the experts after review of their material in Case Management Conferences (**CMCs**) attended by counsel, which leads to refinement of the experts' work.

A draft set of procedural orders implementing this approach is attached as Appendix A.

Hot-tubbing

A 'hot-tubbing' approach to expert evidence is becoming increasingly prevalent in international arbitration, and is a method to running expert evidence that tribunals ought to consider. 'Hot-tubbing' describes the process where evidence from different experts is essentially taken together/concurrently, rather than one by one in a linear fashion. The approach has considerable value in arbitrations with numerous experts and complex factual and legal questions at play, which as aforementioned is the shape that construction arbitrations often take by virtue of their technical subject matter. In such cases, the taking of expert evidence in the traditional linear fashion can be repetitive, protracted given separate conferencing can occur months apart, and even create confusion in the parties' and tribunal's understanding of the real issues in dispute given that each set of evidence is not necessarily responsive to the last.

Therefore, hot-tubbing presents an opportunity for the parties and experts, with the assistance of the tribunal, to distil key issues and areas of difference. It also provides the rather unique

opportunity of having the experts engage with each other, and hold each other accountable for potentially partisan or unnecessarily complex or convoluted views. Interestingly, some guidance on the benefits of hot-tubbing can be drawn from Australian court procedure. Australian courts are widely recognised as having the most experience with this type of conferencing.[8] Annexure B of the Federal Court of Australia Expert Evidence Practice Note – the 'Concurrent Expert Evidence Guidelines'[9] – states that when used properly, concurrent expert evidence can minimise the risk 'that experts become "opposing experts" rather than independent experts assisting the Court'.[10] Conferencing also 'reduce[s] the chance of the experts, lawyers and the judge misunderstanding the opinions being expressed by the experts'.[11]

However, the results of hot-tubbing can vary with the extent (if any) of engagement the tribunal has in the early stages of arbitration. If hot-tubbing is left to just before the main evidentiary hearing, its value drops significantly. Hot-tubbing in close proximity to the hearing limits the utility of any findings as there is only a brief period of time for the parties to consider the findings, and shift their strategy and questioning if need. Put simply, it comes as 'too little too late'. As already mentioned, it is both the authors' practice as arbitrators to hold CMCs with the experts during the expert report process to settle the issues they will opine upon, and also to discuss and review their joint and individual reports. Additionally, these conferences are an opportunity for the tribunal to explain to the experts what their role in the arbitration is, which likely has two specific results. *First*, this means the evidence proffered will be more targeted, confined to areas of disagreement, and material to the dispute more broadly. Secondly, this is also an opportunity for tribunals to emphasise that the experts – whilst usually (but, as will become clear in the forthcoming analysis, not always) appointed by parties – are independent, there to assist the *tribunal*, and are not simply hired guns for their parties.

There is one final note worth making on the hot-tubbing approach. Whilst the 2021 BCLP Survey Data demonstrates that only 49% of respondents found witness conferencing to be more effective than hearing the evidence of each expert sequentially, 75% of respondents agreed

[8] See Jones, 'Redefining the Role and Value of Expert Evidence' (n 4) 161.
[9] Federal Court of Australia, *Expert Evidence Practice Note*, 25 October 2016, Annexure B (accessible at https://www.fedcourt.gov.au/law-and-practice/practice-documents/practice-notes/gpn-expt).
[10] Ibid para 3.
[11] Ibid para 4.

conferencing is more effective when led by the tribunal.[12] This demonstrates the critical role played by the tribunal, and therefore, tribunals should endeavour to take a particularly proactive approach with the experts.

Post-Hearing Expert Access Protocol

A unique strategy posited by the authors is a Post-Hearing Expert Access Protocol, a tripartite agreement between the tribunal, parties, and relevant experts to facilitate assistance by experts to the tribunal in calculating amounts to be awarded in the final award *after* the hearing. The tribunal has confidential access to the experts, pursuant to an agreement between the parties, strictly for calculation purposes (as opposed to the provision of any further substantive opinions), which is particularly useful in construction cases with complex factual disagreements and alternative analyses. The tribunal does not meet with the experts during this process, but provides them with clear written instructions to complete the calculations. Both the instructions given by the tribunal and the resulting calculations are then provided to the parties contemporaneously with the final award. This gives parties the opportunity to apply for corrections under the applicable slip provisions if there are any calculation errors, and also promotes transparency and accountability between the tribunal and the parties.

This has the benefit of ensuring that parties and their counsel are simultaneously provided with a final statement of both their rights and liabilities, which is particularly relevant in cases where disclosure is required by publicly listed companies, or where asset preservation is a concern. Overall, the assistance of experts with the award can ensure that tribunal decisions on quantum are made efficiently and accurately, and also ensures that the award is alive to the realities of commercial issues.

A draft agreement providing confidential post-hearing access for tribunals to experts is attached as Appendix B.

Methods of Appointment: Tribunal-appointed Experts

As previously mentioned, there are different methods through which expert witnesses are appointed and contemplated by procedural rules governing the taking of expert evidence. Broadly speaking, there are two different methods: appointment by parties, or appointment by tribunals. Party-appointed experts are associated with the common law tradition and its

[12] Bryan Cave Leighton Paisner, 'Annual Arbitration Survey 2021: Expert Evidence in International Arbitration' 20 (available at https://bclplaw.marketing/flipbooks/68217-Arbitration%20Survey%202021%20-%20Report%20v6%20-%20Single%20Pages/).

adversarial approach where parties are responsible for providing the factual matrix of the case, and evidence is tested and given weight accordingly. Tribunal-appointed experts are associated with the civil law tradition and its inquisitorial approach where courts play more of a fact finding and interventionist role than they do in the common law.

Whilst it is more common in arbitration for experts to be appointed by parties, there can be value in having experts be appointed by the tribunal.[13] *First*, tribunal-appointed experts naturally obviate issues relating to bias and the 'hired gun' approach. This is because *sources* of bias are removed, such as the source of remuneration – an expert's remuneration is no longer linked to a particular party, reducing the urge to simply further the interests of that party. *Secondly*, tribunal-appointed experts can be easier to manage than party-appointed experts. Usually there is only one expert appointed per area or discipline, which reduces the volume of expert evidence as well as the extent of any overlapping evidence or points of disagreement that would ultimately need to be detangled. Additionally, just as party-appointed experts can be inclined to produce reports that accord with the interests and preferences of the corresponding parties, tribunal-appointed experts can be inclined to produce reports that accord with the interests and preferences of the tribunal – that being concise and succinct reports.

However, tribunal-appointed experts are not a popular option amongst parties because this method of appointment sits uncomfortably with the principle of party autonomy. As the vast majority of arbitrations involve party-appointed experts, tribunal-appointed experts are perceived as being outside the norm.

Critics of tribunal-appointed experts also remain wary of a loss of competing expert perspectives, which creates the risk that the tribunal merely accepts the expert's opinion at face value and loses the opportunity to properly test the evidence. This is especially the case for comparatively complex construction disputes where tribunals are often reliant on the guidance given by experts. Parties may also view the ability to present expert evidence in the manner they wish as a critical part of the right to present their case in the manner they wish – and even be a key feature of the flexibility arbitration is known for. This view would only be heighted in cases where expert evidence is particularly critical, for example where a party could 'win' or 'lose' based on both the substance of expert evidence and how it is presented. Construction

[13] See further Doug Jones AO, 'Complex Construction Arbitration' (Conference Paper, Society of Construction Law Vietnam, 17 April 2023) 22−4 (available at https://dougjones.info/content/uploads/2023/04/Complex-Construction-Arbitration-SCL-Vietnam-final.pdf), published in Doug Jones AO, 'Complex Construction Disputes: Progression and Regression in Arbitral Procedure' [2023] (3) *International Construction Law Review* 271−3.

arbitrations could often fall into this category. The legal issues are usually intertwined with questions of fact, questions that can only be answered with the assistance of expert evidence as opposed to lay witness evidence. This is particularly evident in cases for defective performance in construction or design work.

In any event, there is no formula or bright line test that can be used to determine which method of expert witness appointment ought to be used. It is important for tribunals to be aware of the benefits and drawbacks of each method and consider the needs and qualities of each case (including its turning points).

SICC Rules[14]

The SICC takes quite a unique approach to expert evidence. Notably, as a default rule, no expert evidence can be adduced unless the SICC provides permission to do so.[15] When deciding whether to grant permission, the SICC *must* consider (i) whether the evidence will contribute *materially* to the resolution of an issue, and (ii) whether the issue may be resolved by other means, such as an agreed statement of facts or submissions on mutually agreed materials.[16] Together, through reducing the content that can be the subject of expert evidence, these considerations reduce the volume of expert evidence in a proceeding altogether (which is particularly useful in construction disputes where the volume of expert evidence is already likely to be high).

The parties must attempt to agree on two specific materials.[17] *First,* a list of issues that will be the subject of expert evidence, which must as best as possible be framed as questions to which a yes/no answer can be provided.[18] *Secondly*, a common set of agreed or assumed facts that the different experts can rely upon when preparing their evidence.[19] Importantly, both of these materials are ultimately subject to the SICC's approval,[20] and thus the SICC has clear oversight over these documents before the experts are briefed. In the event that the parties cannot agree on what is to be covered in these documents, the Court must accordingly make the decision.[21]

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[14] *Singapore International Commercial Court Rules 2021* (Singapore) (available at https://www.sicc.gov.sg/legislation-rules-pd/sicc-rules-2021) (*SICC Rules 2021*).
[15] Ibid O 14 r 2(1), O 25 r 5(1).
[16] Ibid O 14 rr 2(2)−(3).
[17] Ibid O 14 r 3, O 25 r 5(3).
[18] Ibid O 14 r 3(1)(a).
[19] Ibid O 14 r 3(1)(b).
[20] Ibid O 14 r 3(2).
[21] Ibid O 14 r 3(3).

Whilst the SICC may take witness evidence via hot-tubbing – with the form of hot-tubbing being at the discretion of the SICC[22] – the SICC also uses another method when taking expert evidence. The SICC can order that some or all experts testify as a *panel*,[23] which still permits the experts to provide their views on the issues,[24] against the backdrop of the agreed facts, and also comment and discuss each other's evidence. Using a panel is another way of having experts engage in a dialogue with each other as well as the Court.

Another unique feature of the *SICC Rules* is its contemplation of legal experts being appointed essentially as *amicus curiae*.[25] This goes to the third category of experts mentioned in the introduction of this subsection, but provides for a more formal mechanism of doing so. Legal experts in the SICC can either be (i) counsel, (ii) an academic involved in teaching law either presently or previously, or (iii) a person with special knowledge or skill in a particular area of law.[26] Additionally, the Court *must* give directions on the following: (i) the specific issues of law to be addressed by the independent counsel, (ii) the filing and service of written submissions by the independent counsel and the parties, and (iii) the independent counsel's attendance in Court to make oral submissions.[27]

III. Disclosure of Documents

Arbitration

Document disclosure is arguably one of the most costly stages of arbitration – in fact, the cost of disclosure usually makes up a significant proportion of the total cost of arbitration itself.[28] The disclosure process is also a common source of delay within proceedings given the time taken to source, review and provide the documents in question. The time taken to produce documents increases with the quantum in dispute.[29] Document production is also not a rare occurrence, and the frequency at which Tribunals make an order for production also rises with the quantum in dispute.[30]

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[22] See *Singapore International Commercial Court Practice Directions* (1 July 2023) para 90 (available at https://www.judiciary.gov.sg/news-and-resources/sicc-practice-directions) (*SICC Practice Directions*).
[23] *SICC Rules 2021* (n 14) O 14 r 6(1).
[24] Ibid O 14 r 6(4).
[25] Ibid O 14 r 8.
[26] Ibid O 14 r 8(2).
[27] Ibid O 14 r 8(3).
[28] Australian Centre for International Commercial Arbitration (ACICA), *2023 Evidence in International Arbitration Report* (6 September 2023) 30 (available at https://acica.org.au/wp-content/uploads/2023/09/Arbitration-Report-2023-FINAL-WEB-compressed.pdf).
[29] Ibid.
[30] Ibid.

Whilst certain frameworks such as the IBA Rules (which provide a set of criteria in relation to what documents are to be disclosed)[31] and Redfern Schedules (which list the documents sought to be produced) have been developed as a response to the cost and delay associated with production, there is a question as to how effective these frameworks are. They are still subject to abuse by parties to essentially conduct fishing expeditions. Fishing expeditions increase the volume of documents sought, increasing cost and time. This increase in cost and time is largely unregulated by the relevant frameworks given that neither the IBA Rules nor Redfern Schedules specify *time-frames* for the process. Moreover, tribunals have limited oversight of what goes on behind the scenes – there is limited opportunity for tribunals to engage with parties on disclosure issues *before* receiving Redfern Schedules summarising the material at hand. Therefore, the very mischief that the frameworks sought to address still remains on foot, and to a certain extent, is even exacerbated by the frameworks themselves.

There are various courses of action available to tribunals to address this (which again are largely only possible because of the flexibility provided by arbitration, and the absence of any requirement to ascribe to a rigid, granular set of rules). *First*, parties should be encouraged to meet earlier on in the piece to confer, and reduce the number of contested issues. Following this conferral, (likely virtual) CMCs become a valuable tool to whittle down the issues even further and engage in a meaningful discussion on points of disagreement. Conferences allow lead counsel to explain the rationale behind specific documents requested, as well as ventilate the reasons underpinning contested requests. Parties are also able to clarify issues (both with each other and the tribunal), ascertain whether certain documentation is irrelevant (and withdraw those requests accordingly), and confirm next steps. *Secondly*, tribunals are encouraged to seek agreement with the parties on strict time limits for the disclosure process. Those time limits can then be incorporated into a procedural order.

However, it is important to note that it should not *just* be the parties and the tribunal involved in this process – the expert witnesses should also be involved. This is because requests for disclosure often come from the experts themselves. The experts should not only be present at the CMCs, and thus actively participate in the relevant discussions, but even at the initial stage of disclosure, the experts should be certifying that requests emanating from them are necessary and proportionate to the case at hand. Involvement of experts in the document disclosure process is an innovative suggestion and one proving of assistance in limiting the extent of

[31] See *IBA Rules* (n 5) art 3.

disclosure and the level of dispute about disclosure requests. Oftentimes the distinction between documents that go to the merits of the dispute and documents requested for use by experts means that the latter is dealt with separately in a time efficient way.

There is a final point worth mentioning here regarding timing. It may perhaps be appropriate in some cases for document disclosure to *not* be dealt with in one go. There is scope for document disclosure to be an area that is revisited by tribunals and parties as issues emerge, which can be incorporated into procedural orders across the lifetime of the proceeding.

SICC Rules

The SICC has a more simplified process[32] when it comes to disclosure. Per O 12 r 1 of the *SICC Rules*, parties are only permitted to disclose documents they intend to rely on, which is quite unique even compared to courts in other jurisdictions. Additionally, a request to produce can be served on any person, not just parties to the dispute.[33] The request must outline *inter alia* how the requested documents are relevant and material to the requesting party's case.[34] The recipient of the request can make an objection via service of a notice of objection, which contains reasons for the objection.[35]

The parties also summarise the requested documents and their submissions on each within a table, with the template annexed to the SICC Procedural Guide.[36] This is similar to the Redfern Schedule used in arbitrations.

Notably though, these procedures are not set in stone, which is also another unique aspect of SICC processes. The SICC can order there be alternative modes of disclosure,[37] and even dispense with disclosure altogether.[38] These orders take precedence over any previous orders to the contrary.[39]

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[32] See the comments of Thorley IJ in *B2C2 Ltd v Quoine Pte Ltd* [2018] SGHC(I) 04; [2018] 4 SLR 67: '[t]he discovery process under O 110 [applicable to the SICC] is intended to institute a simplified process compared to O 24 [applicable to the SGHC]. Disclosure is only required of documents that are relevant and material and there is no general discovery': at [32].
[33] *SICC Rules 2021* (n 14) O 12 r 2(1).
[34] Ibid.
[35] Ibid O 12 r 3.
[36] *SICC Procedural Guide*, Annex F (available at https://www.judiciary.gov.sg/singapore-international-commercial-court/legislation-rules-pd/sicc-procedural-guide).
[37] *SICC Rules 2021* (n 14) O 12 r 5.
[38] Ibid O 12 r 5(1)(b).
[39] Ibid O 12 r 5(2).

IV. Midstream CMCs

Arbitration

CMCs can add considerable value to both complex and relatively simpler construction arbitrations, at least in the following respects:

i. tribunals are informed of the different issues and material within a dispute, both at a breadth and depth;
ii. the parties have the opportunity to confirm and clarify with the tribunal whether the tribunal has properly understood the issues at play;
iii. tribunals are better equipped to understand the materiality and proportionality of documents being disclosed for the purpose of determining issues joined in a Redfern schedule; and
iv. engagement between the parties, tribunals, and even witnesses (particularly expert witnesses) can shed light on whether any additional evidence is needed.

A particularly innovative way of using CMCs is by having an Issue CMC convened where the real issues in dispute are identified and distilled. This information can be presented in a tabular format, where the issues are listed, and corresponding factual and witness evidence (both expert and lay) relied upon for each contention are outlined. Importantly, the onus of preparing this table is shared between the parties and the tribunal.

It is suggested that the tribunal begins the process by summarising the parties' contentions from the first round of pleadings of the parties, with reference to the relevant sections of the pleadings (with pinpoint references where possible). A draft is then circulated to the parties, with the request that the parties mark up the draft with any suggested amendments (for example, there may be suggested changes to the way an issue has been characterised by the tribunal).

The summary table is then re-circulated and it is the *parties* who identify the sections of witness and expert evidence in support of each issue. Essentially, all of the relevant information is summarised in one place. A draft of a CMC Issue Schedule is attached as Appendix C. Importantly, even when the table is 'finalised' for the CMC, it remains a live document to be updated with references and necessary changes to the summaries of contention, from written and oral opening and closing submissions, and the lay and expert evidence at the hearing.

It is also important to acknowledge however that whilst holding CMCs prior to the main evidentiary hearing does indeed add value for parties and tribunals, it does require time and

cost to be invested *by* parties and tribunals (for example, in reviewing and preparing the relevant material for the CMCs and attendance of the CMC itself). Therefore, CMCs should not be organised just for the sake of it, and should be tailored to both suit the nature of the dispute, and the procedural issues extant at the time. This should reflect and take advantage of the inherent flexibility of arbitration. It should be the responsibility of tribunals to proactively manage arbitrations and to convene CMCs other than midstream CMCs as necessary.

SICC Rules

CMCs are a significant part of case management in the SICC. The *SICC Rules* provide for CMCs, or alternatively, they can be organised when the SICC thinks it is appropriate to do so.[40] For example, it may be necessary or at the least, appropriate, for the SICC to fix a CMC after already having had a preliminary CMC just to monitor the progress of the parties and the proceedings generally.[41] As an aside, this practice of convening with the parties to monitor progress is a practice that could perhaps be lifted and more readily adopted in arbitrations (although the caveat outlined in the above section regarding cost and time continues to apply). Additionally, the supplementary rules regarding the TIC List contemplate the arrangement of CMCs between the Court, expert witnesses, as well as the parties and/or counsel (as suggested in the above subsection regarding arbitration).[42]

The *SICC Rules* also clarify what the parties should agree upon before attending a CMC, which could again have some applicability in the arbitration space to become a more common practice. Prior to a CMC, parties must:[43]

i. attempt to agree on the matters to be discussed at that particular CMC, including but not limited to the adjudication track for the determination of the dispute, any proposed modifications to the track, and the conduct leading up to the hearing of the merits as well as the hearing itself;
ii. attempt to identify the real issues in dispute, and any preliminary issues;
iii. consider the possibility of alternative dispute resolution (**ADR**), and be prepared to inform the SICC of the suitability of the case for ADR, a requirement that is reinforced in the supplementary TIC List rules more broadly[44]; and

[40] *SICC Rules 2021* (n 14) O 9 r 1.
[41] See, for example, *SICC Practice Directions* (n 22) para 83(1).
[42] *SICC Rules 2021* (n 14) O 28 r 7.
[43] Ibid O 9 r 3.
[44] Ibid O 28 r 11.

iv. submit a Case Management Bundle or updated Case Management Bundle (as the case may be) at least 7 working days prior to the CMC (unless the SICC directs otherwise).

A Case Management Bundle must contain the most recent versions of (i) the Claimant's Statement and the Defendant's statement, (ii) pleadings, memorials, and witness statements filed, (iii) a Case Management Plan complying with the relevant Form, which must be prepared or updated depending on the latest information available, (iv) a Pre-Hearing/Pre-Trial Timetable, also complying with the relevant Form, and based on the latest information available, and (v) a List of Issues that is structured and does not supersede the pleadings, memorials or witness statements.[45]

Finally, the Case Management Plan is essentially a checklist for the parties to confirm whether a List of Issues, pleadings, memorials, and witness statements have been provided.[46] The Plan also captures document disclosure, and outlines whether disclosure of documents will be sought, and if so, whether the relevant formalities have been complied with.[47] Overall, in the SICC, there are various checkpoints and mechanisms available to ensure that matters are progressing in a timely manner in accordance with the issues in dispute. This suits the complexity of construction disputes given that such processes mean that the dispute can be broken down into smaller, more manageable parts that are properly addressed as and when they arise.

[45] *SICC Rules 2021* (n 14) O 9 r 4.
[46] See SICC Form 16, 'Form of proposed case management plan' (available at https://www.judiciary.gov.sg/singapore-international-commercial-court/forms-and-services/list-of-commonly-used-forms).
[47] Ibid para 15−19.

V. Conclusion

There are various procedural processes and practices on the rise that seek to address the challenges littered across the lifetime of a dispute process, particularly construction disputes. Many of the practices are not particularly burdensome (except for tribunals who sit back after Procedural Order No. 1 and await the evidentiary hearing). These practices should be strategies in an arbitrator or judge's toolkit. Importantly, there should be no fixed formula as to how and when these practices are deployed – they should be deployed depending on the needs and nature of the case.

In the context of arbitration, there are many options available to parties and tribunals that arise from its inherent flexibility. It is the duty of the arbitrator to assist the parties to recognise and deploy the options.

See below for **Appendix A**, **Appendix B**, and **Appendix C**.

Appendix A

Example Draft Procedural Orders Regarding Expert Evidence

1. Experts

1.1 Dealings with any Party-appointed experts shall be carried out with the IBA Rules and CIArb Protocol for the Use of Party-Appointed Expert Witnesses in International Arbitration ("**CIArb Protocol**") serving as guidelines, subject to any applicable law.

1.2 **On or before [insert date]**, each Party shall provide the Tribunal and the other Party with details of the expert disciplines and the identity of the experts within those disciplines whom it proposes to call, together with an identification of the topics upon which the experts in each discipline will be asked to opine.

1.3 In response to the advice in Paragraph 1.2 above each Party shall provide the Tribunal and the other Party with details of any further expert disciplines and the identity of the experts within those disciplines whom it proposes to call, together with an identification of the topics upon which the experts in each such additional discipline will be asked to opine on or before **[insert date]**.

1.4 The Parties shall confer and try to come to an agreement as to the principal topics and issues that the experts are to address by reference to the Parties' respective cases on or before **[insert date]**, advising the Tribunal any agreement reached, by that date. In the case of any disagreement, the Parties shall revert to the Tribunal for the resolution of any disagreement by that date, setting out the areas of disagreement with brief reasons for disagreement.

1.5 Any expert report shall:

(a) be prepared in accordance with the CIArb Protocol and the IBA Rules;

(b) set out the name and business address of the expert, his or her relationship with any of the Parties, if any, and a description of his or her qualifications, including his or her competence to give evidence;

(c) commence with a summary of matters intended to be established by the expert;

(d) be signed and dated by the expert;

(e) take the form of a declaration under oath or affirmation; and

(f) contain numbered paragraphs and page numbers.

1.6 The Parties shall arrange for meetings and communications between their respective Experts to be scheduled in **[insert month]**.

1.7 **On or before [insert date]**, the Parties' experts, on each respective discipline, shall produce a Joint Expert Report of matters agreed and disagreed.

1.8 **On or before [insert date]**, the Parties are to file and simultaneously exchange individual expert report dealing with areas of disagreement identified in the Joint Expert Reports.

1.9 Following such exchange, each expert shall be entitled to produce a report in reply, which shall be limited to responding to the matters raised in the report of the other expert. Such replies shall be exchanged simultaneously on **[insert date]**.

1.10 The Tribunal may, upon notice to the Parties and with the Parties' consent, hold meetings with any expert at any reasonable time. For instance, after receipt of one or more Joint Expert Report(s), the Tribunal may provide the experts and the Parties with any additional guidance or comments on the Joint Expert Report(s) which it considers appropriate, and/or may identify issues which the Tribunal would like to discuss with the experts and the Parties at an Expert Case Management Conference.

1.11 Meetings between the Parties' experts, and any draft reports prepared by those experts shall be without prejudice to the Parties' respective positions in this Arbitration and shall be privileged from production to the Tribunal.

1.12 Although the Parties shall arrange for the meetings referred to in this section to be scheduled, it is expected that experts of like disciplines are to be otherwise unaccompanied at such meetings.

1.13 Any Expert Reports are to contain the following declaration:

"I declare that:

o I understand that my duty in giving evidence in this arbitration is to assist the arbitral tribunal to decide the issues in respect of which expert evidence is adduced. I have complied with, and will continue to comply with, that duty.

o I confirm that this is my own, impartial, objective, unbiased opinion which has not been influenced by the pressures of the dispute resolution process or by any party to the arbitration.

o I confirm that all matters upon which I have expressed an opinion are within my area of expertise.

o I confirm that I have referred to all matters which I regard as relevant to the opinions I have expressed and have drawn to the attention of the arbitral tribunal all matters, of which I am aware, which might adversely affect my opinion.

o I confirm that, at the time of providing this written opinion, I consider it to be complete and accurate and constitute my true, professional opinion.

o I confirm that if, subsequently, I consider this opinion requires any correction, modification or qualification I will notify the parties to this arbitration and the arbitral tribunal forthwith."

1.14 Any expert who has filed an expert report shall make him or herself available to be cross-examined at the Main Evidentiary Hearing. Notice should be given requiring his or her cross-examination by the other Party [**insert date within 2 weeks of the exchange of the last expert reports**]. The Party relying on such evidence shall secure that witness' presence and availability

at the Main Evidentiary Hearing in advance. Any Expert who gives evidence at the Main Evidentiary Hearing will do so after having given an oath.

1.15 In the event that a Party does not make an expert available, the requesting Party may apply for any additional ruling from the Tribunal, including the setting aside of the prior testimony of that expert, or the drawing of an adverse inference.

1.16 The admissibility, relevance, weight and materiality of the evidence offered by an expert shall be determined by the Tribunal in accordance with the IBA Rules.

Appendix B

Example Tripartite Agreement Regarding Post-Hearing Expert Access Protocol

IN THE MATTER OF AN ARBITRATION

UNDER [RULES]

[CASE REFERENCE]

BETWEEN

[CLAIMANT NAME]

Claimant

– and –

[RESPONDENT NAME]

Respondent

ACCESS AGREEMENT BETWEEN THE PARTIES, THE TRIBUNAL, AND THE QUANTUM EXPERTS

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2. Assistance with the Performance of the Calculations

2.1 The Parties agree that the Tribunal will be given access to two of the Parties' experts, namely, [quantum experts' names] (the **Quantum Experts**), on a confidential basis, for the purpose of performing calculations on the basis of existing materials contained in their expert reports and assumptions to be provided by the Tribunal (the **Calculations**).

2.2 For the avoidance of doubt, the Tribunal will not engage in any confidential communications with the Quantum Experts on matters requiring expert opinion, other than in relation to the performance of the Calculations.

3. Confidential Information

3.1 In this Agreement, **Confidential Information** means:

(a) all information supplied or made available to the Quantum Experts by the Tribunal;

(b) all information supplied or made available to the Tribunal by the Quantum Experts;

(c) all correspondence, discussions or queries raised between the Tribunal and the Quantum Experts; and

(d) all correspondence and discussions between the Quantum Experts; and

(e) all material, working papers and spreadsheets prepared by, amended by or examined by the Quantum Experts in that context, dated from this Agreement onwards, for the purpose of the Quantum Experts assisting the Tribunal with the performance of the Calculations.

4. Undertakings Regarding Confidential Information

4.1 Disclosure and Use

The Quantum Experts shall keep all Confidential Information confidential and will not, except as permitted by this Agreement, disclose or distribute Confidential Information, or permit it to be disclosed or distributed, or disclose its substance, to any person including the Parties to this Arbitration and their legal representatives.

4.2 Security of Information

The Quantum Experts shall at all times effect and maintain adequate security measures to preserve the confidential nature of the Confidential Information, at least equivalent to the measures they would ordinarily effect and maintain for their own confidential information.

4.3 Exceptions

The following disclosures only are permitted by this Agreement:

(a) Confidential Information may be disclosed to the extent that the Tribunal has expressly directed in writing that the Quantum Experts need not keep it confidential or may disclose it.

(b) Confidential Information may be disclosed to the extent required by law.

(c) Confidential Information may be disclosed to members of the staff working for each of the Quantum Experts only to the extent necessary to assist the Quantum Experts

in their interactions with the Tribunal and each other, and on the basis that such members of staff provide an equivalent undertaking to the relevant Quantum Expert.

(d) The final calculations performed by the Quantum Experts which are relied upon by the Tribunal for determining the quantum awarded shall either be attached to, or provided at the same time as, the Tribunal's Award. Thereafter, any calculation errors that may be identified by any of the Parties shall be dealt with in accordance with [Article 36 of the ICC Rules / or similar provision of applicable Rules].

5. Costs

5.1 Each Party shall remain responsible for the costs of their respective Quantum Expert (i.e., the Claimant shall remain responsible for the costs of [Claimant's expert], and the Respondent shall remain responsible for the costs of [Respondent's expert]) including staff costs and other direct costs. The Tribunal shall have no responsibility for any costs of the Quantum Experts.

5.2 The Quantum Experts shall submit all applicable invoices to the Tribunal for approval and the Tribunal shall confirm within 15 days that the sums invoiced have been properly incurred.

5.3 The Tribunal may allocate as costs of the Arbitration the costs of the Quantum Experts arising from their assistance to the Tribunal.

6. Disputes

6.1 All disputes arising out of or in connection with the present Agreement shall be finally settled under the [Rules] by one or more arbitrators appointed in accordance with said Rules. The seat of the arbitration shall be X and the language of the arbitration shall be X.

Signed:

[To insert] (Presiding Arbitrator) **DATE**

[To insert] (Co-Arbitrator) **DATE**

[To insert] (Co-Arbitrator) **DATE**

Claimant by its authorised representative **DATE**

Respondent by its authorised representative **DATE**

[Claimant's expert] (Quantum Expert engaged by the Claimant) **DATE**

[Respondent's expert] (Quantum Expert engaged by the Respondent) **DATE**

Appendix C

Template of CMC Issue Schedule

Issues	Claimant's Statement of Claim	Respondent's Defence	Claimant's Lay Witness Evidence	Respondent's Lay Witness Evidence	Claimant's Expert Evidence	Respondent's Expert Evidence
ISSUE #1						
Sub-issue						
Sub-issue						
ISSUE #2						
Sub-issue						
Sub-issue						