Nevertheless, many judges who had used hot-tubbing were very positive about its effect on trial time. In ***Re Baby X*** [2011] EWHC 590 (Fam) [22]–[23], Ryder J thought that the expert evidence was reduced from 2 days to 4 hours; in ***Streetmap.EU Ltd v Google Inc*** [2016] EWHC 253 (Ch) [47], Roth J considered that, whilst the hot-tub took one day, it probably would have taken two days to adduce the economists' evidence in the traditional manner; and in the ongoing matter of ***Fluor Ltd v ZPMC***, and by correspondence to HHJ David Grant dated 8 June 2016, Mr Justice Edwards-Stuart confirmed that, '*this was a case which would usually have called for the traditional approach of straight cross-examination. The process that we adopted certainly saved time ... In fact, we completed the evidence of each pair of witnesses in 4–5 hours. Therefore, the whole process took 3 days, as against 5 days that it would probably have taken under the customary procedure*'. Further, in ***Stratton v Patel*** [2014] EWHC 2677 (TCC) [398], Mr Roger ter Haar QC, sitting as a Deputy High Court judge, noted that, '*[i]n the end, in an attempt to try to curb the dramatically increasing cost bill on both sides, I ordered that the bulk of the expert evidence should be dealt with by "hot-tubbing" in one day'*. In addition, all judicial respondents to the ***surveys*** who had used concurrent expert evidence said that it had saved hearing time during the trial; there were no dissents from that view.

From the experts' perspective, the responses to the ***surveys*** also endorsed the notion that the process of hot-tubbing saved time at trial, with 73% agreeing with that notion, and only 24% disagreeing.

Interestingly, the practitioners' responses to the ***surveys*** were not quite so overwhelmingly positive about any time savings achieved by the use of hot-tubbing. Whilst 56% of the respondents considered that hearing time was saved, 41% thought that it was not (and one respondent could not assess). These views may also have been driven by the degree of cross-examination by counsel which was permitted to follow (or even precede) the hot-tubbing. Five of the respondents who answered 'no' or 'could not assess' to this question also said that the experts underwent a full cross-examination, in addition to the hot-tubbing process. On the other hand, the authors of the Kennedys' newsletter, '***Expert evidence: hot-tubbing***' (28 Oct 2013) noted that 'the experts' evidence took up less court time than hearing the evidence of the experts separately would have done. There was no need for detailed individual cross examination'.

Improving the quality of the evidence?

This was perhaps the most interesting, and positive, outcome of this project — that 83% of the judicial respondents considered that the quality of the expert evidence was improved, where it was given via hot-tubbing. Some of the ***judicial comments from the survey*** were very supportive: e.g., '*It is an excellent aid for both experts and the judge. It works well in constructions cases, where I find that almost all building experts are prepared to engage in constructive discussion*'; and '*the great benefit of the process is that, where the parties are aware of it beforehand, there is more likely to be agreement of expert evidence, or a much greater narrowing of issues than might be expected in a conventional process.*' These reflected the

comments which were made by both Mr Justice Roth and HHJ Waksman in their respective ***interviews***.

Legal practitioner respondents to the survey were equally as positive — with 84% agreeing that hot-tubbing improved the quality of the expert evidence. A couple of lawyers' responses noted that the experts' evidence '*came out better than during normal examination/cross-examination*'; '*on each occasion, the experts' evidence was clearer and less guarded than during cross-examination*'; and '*experts tend to be much more forthcoming in tribunal-led questioning, because they feel like they are being asked to assist, rather than being attacked. You get less guarded answers*'. Not all legal practitioner respondents were so enamoured of the process, however. Some noted that experts tended to be '*obviously "schooled-up" as to the issues in play', and that 'it seems that judges find it more difficult to discern schooled-up experts in a hot-tub environments than in conventional cross-examination*'; that experts '*tended to talk off-topic*' more easily when in a hot-tub; and that, with the reduced formality of hot-tubbing, '*there was a greater risk of an expert appearing to become an advocate for the party*'. However, these sorts of comments were in the minority — albeit that they convey important messages for how the hot-tub process should be led by the judge.

The ***experts*** themselves were rather mixed on this question, with 60% stating that they thought hot-tubbing did improve the quality of the expert evidence, and 30% stating that they didn't believe that such improvements were gained. The expert witnesses were asked extra questions on this topic, in the survey, to test their experience of hot-tubbing. In response to the question, 'Do you think that the experts give their evidence in a more "neutral" manner when expert evidence is given via hot-tubbing?', slightly more (44%) said yes than no (42%). However, a clear majority (62%) considered that the expert evidence was more intelligible to the court, when given via hot-tubbing, and 58% considered that hot-tubbing enabled the expert to better express his or her views on the relevant disputed issues, compared with more traditional forms of adducing expert evidence. However, these figures are derived from a context in which several of these expert witness respondents had actually undergone a full cross-examination, in addition to the hot-tubbing process.

Assisting the court?

Even more overwhelmingly supportive were the ***judiciary responses*** as to whether hot-tubbing assisted the court to determine disputed issues of expert evidence. 100% of respondents said that it did. One judicial respondent summed up his or her views in this way: '*[i]ts utility lies in being able to (a) clarify expert reports, and (b) deal with expert issues on an issue-by-issue basis*'. In ***Streetmap.EU Ltd v Google Inc*** [2016] EWHC 253 (Ch), Roth J noted that the hot-tubbing in that alleged abuse-of-dominant-position case '*led to a constructive exchange*' between the experts, and that '*[t]he fundamental economic issues in the present case are not particularly complex, and on those, the hot-tub process led to a significant measure of agreement that was helpful, although the two experts remained very divided on their interpretation of some*

of the data they presented.'

Similarly, the vast majority of ***legal practitioner responses*** to the survey (94%) thought that hot-tubbing assisted the court to resolve the issues of disagreement between the expert witnesses. The legal practitioners were asked, in their survey, whether the inquisitorial-type nature of the hot-tubbing process presented any difficulties for the court or for the parties, in their view. Most respondents answered 'no'. One response on this was particularly interesting: '*[t]his may depend on the judge, however. From the perspective of the parties used to traditional cross-examination, there may be a feeling of loss of control however – there is no easy way to avoid unfavourable lines of questioning and responses, but from the court's perspective, the true position is probably distilled more readily, free from the controlling influence of counsel over the course of questioning.*'

The ***expert witnesses*** who responded to the survey assessed by large majority (71%) that hot-tubbing also assisted the court to decide disputed issues, with only 14% disagreeing with that notion. However, for those who had been 'hot-tubbed', the experience led to some reservations, with one response, in particular, of interest: '*[i]n my view, the process needs to be tightened up to allow each expert to properly respond to what has been said by the other, and to ensure that questions are asked relevant to the clinical issues, particularly where the latter are complex. If the scientific field is not yet quite understood by the judge, he may not ask the questions relevant to its clarification.*' Some experts thought that what assistance hot-tubbing offered to the court depended, in part, on the personalities of the experts themselves, with one stating that, '*the problem comes if the experts are not evenly matched, i.e., one is a shrinking violet and the other is outspoken.*' A final point worth mentioning here is that some experts did not believe that hot-tubbing assisted the court, if the court itself was not well-prepared: '*[i]t moves Court proceedings to be more judge-led, Napoleonic, form. If it is to be the usual form, Judges will need to be of very high calibre and properly trained. My experience was that justice was not well served in one case that I was involved with.*' Conversely, it worked well, and assisted the court, where the judge was completely on top of the material: '*[t]he judge had a far higher level of expertise than counsel, [and] drew out more neutral and relevant evidence than counsel.*'

Saving costs?

Regarding the final goal of hot-tubbing mentioned in Sir Rupert Jackson's list – saving costs – this was the one area where the majority of the legal respondents to the survey seemed to be of one mind – that costs were **not** necessarily saved.

In the ***judiciary survey***, only 33% of respondents thought that hot-tubbing meant a costs-saving to the parties; the percentage was even lower for the ***legal practitioner respondents*** (28%). Slightly more

experts believed that hot-tubbing saved costs (45%) than those who thought the opposite (35%), but clearly it was still fewer than half of those surveyed who believed that hot-tubbing offered any advantage in this respect. There were no free-text comments on this particular aspect provided in the survey responses, but the clear finding of this survey was that, whilst trial time is undoubtedly saved by the use of hot-tubbing (and, hence, the parties' costs that turn on court attendance were reduced), the overall costs of the parties in pursuing or defending the proceedings were not perceived to be saved.

Undoubtedly, given this counter-intuitive result from the survey responses, some further exploration of this issue may be warranted in the future, in order to gain a better understanding as to why this particular aim of concurrent expert evidence has not been widely seen to have been achieved to date, and what may be done to redress the concerns expressed by these respondents.

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5. FUTURE WORK RE HOT-TUBBING

Judicial training modes

1. Existing, and future, training

The Working Group understands that, following the implementation of the Jackson reforms, there were training sessions for all civil judges, but that, understandably, these focussed upon costs management and budgeting. No specific training was dedicated to the use of hot-tubbing at that stage.

However, obviously there were some judges who had experienced the use of hot-tubbing during the 2-year pilot held in the Manchester Mercantile Court and TCC, and who gained a great deal of useful insights into the procedure during that time. Indeed, as part of the Manchester pilot scheme, HHJ Waksman (an interviewee for this project) conducted a roadshow of the process in Manchester, London and Birmingham. The demonstration involved two forensic accountants being cross-examined in the traditional manner, and then the same exercise being conducted by using the hot-tubbing technique. Additionally, as mentioned at the outset of this report, the use of hot-tubbing in English courts did not commence with the Jackson reforms – e.g., it had been used in the Family Court, and TCC, prior to 2013, by *ad hoc* directions by consent in appropriate cases. Hence, those experiences have been possible to share and to draw upon, for the benefit of other members of the judiciary.

Otherwise, there does not appear to have been any formal training about the process of concurrent evidence in general, or of hot-tubbing in particular. For example, Mr Justice Roth, of the High Court's Chancery Division, confirmed this in ***interview*** (dated 26 May 2016), whilst HHJ Mckenna, the designated Civil Judge at the Birmingham Civil Justice Centre, noted this too (by ***email*** dated 20 May 2016, in response to the survey circulated by Sir Rupert Jackson, to which the Working Group has been provided access for the purposes of this report).

However, the Working Group understands that hot-tubbing is currently, or shortly to be, dealt with in judicial training, in the following respects:

1. Both the case management module in the Civil Seminar, and the induction course for new judges, now draw attention to the potential use of 'hot-tubbing' and of PD 35.11's content and implications (this is confirmed by ***email*** from HHJ Platts, of the Manchester Civil Justice Centre, dated 23 May 2016, in response

to the survey circulated by Sir Rupert Jackson); and

2. A forthcoming training seminar for judges sitting in the specialist civil jurisdictions, scheduled for 6 December 2016, at the Judicial College, will address hot-tubbing, by means of a demonstration of hot-tubbing (which will adopt the type of demonstration of forensic accountants which was used in the Manchester pilot, referenced above), followed by a panel and plenary discussion. That will provide judges with the opportunity to discuss issues, exchange views, and share experiences of hot-tubbing, with judicial colleagues. This forthcoming training programme was confirmed by HHJ Waksman, who is the Director of the Specialist Judges training course, in ***interview*** dated 31 May 2016.

2. A training video

The Working Group is aware of (but has not viewed) a training video which was prepared for the Australian judiciary, to which Justice Peter McLellan provided a commentary. In ***Review of Civil Litigation Costs: Preliminary Report*** (May 2009), Sir Rupert Jackson described it as '*an excellent DVD, which illustrates the operation of the procedure by re-enacting recent litigation in which four expert witnesses gave evidence concurrently, [and where] the script for the DVD is taken from the court transcript*' (ch 58, [4.18] and fn 210).

The Working Group considers that, if feasible, the preparation of a similar tool, by the Judicial College or other entity, would benefit the English judiciary on a widespread basis — particularly given the breadth of litigation in which hot-tubbing has been, and has the potential to be, used (i.e., by no means confined to the specialist civil judges). The representatives of the Academy of Experts and of the Expert Witness Institute on the Working Group have also indicated their willingness to assist with the production of a training video or other materials, if desired.

Amendment to the directions / listing questionnaires

The Working Group considers that there are considerable benefits to be achieved by flagging up the possibility of hot-tubbing in the Directions Questionnaire, or (for the Commercial Court and the TCC) the Case Management Information Sheet, to ensure that the issue is at least considered by the court and the parties, at this early CMC stage.

Additionally, as a final opportunity for consideration of how the expert evidence is to be adduced, the possibility could be flagged up in the Pre-trial Review Questionnaire.

Having perused the relevant documents, *viz*:

- ❑ the ***Listing Questionnaire*** (Doc N170, Pre-trial checklist), Section C, 'Experts', at p 2;
- ❑ the ***Directions Questionnaire*** (Fast-track and Multi-track) (Doc 181), Section E, 'Experts', at p 3; and
- ❑ the ***Case Management Information Sheet***, Section, 'Experts', at p 20,

the Working Group considers that an additional question would be worthy of inclusion in each document in the aforementioned sections, *viz*:

> **Do you consider that any part of the oral expert evidence should be given concurrently (see PD 35, para 11)?**

Amendment to PD 35, and a new Guidance Note

The Working Group has recommended, previously in this report, that the Civil Procedure Rules Committee be invited to consider amending PD 35.11, to better reflect the realities of current process relating to concurrent evidence in English courts, and that a Guidance Note also be produced for the benefit of the judiciary and practitioners. Each of these is contained in **Appendices A and B** to this report, respectively.

The Working Group believes that taking such measures will also enhance the general understanding of, and familiarity with, the hot-tubbing process.

An Information Note for expert witnesses

Earlier in this report, it was suggested that the body of expert witnesses would benefit from knowing more about the process of concurrent expert evidence. In that regard, an Information Note for Expert Witnesses is appended to this report, as **Appendix C**. It is envisaged that this Information Note may be disseminated by being uploaded to the websites of both the Academy of Experts and the Expert Witness Institute, and of the Civil Justice Council.

Achieving uniformity in the Court Guides

The Working Group noted that the relevant Court Guides vary somewhat, in describing the process of concurrent expert evidence.

It is not mentioned at all in the ***Commercial Court Guide***. Of those guides which do reference it, the ***Queen's Bench Guide*** is the briefest (at [7.8.14]), and does little more than to draw the parties' attention

to PD 35.11, and to briefly summarise its content.

The ***Mercantile Court Guide***, on the other hand, is more detailed. It notes (at [6.20(d)]) that '*[t]he court is likely to give particular consideration to whether expert evidence is necessary and if so whether it may be adduced by a single joint expert or if not, by the parties' experts giving their evidence concurrently.*' Later in the Guide, it is mentioned that the parties '*can expect the Court at the CMC to give detailed consideration to such matters [as concurrent evidence]'*. The Working Group understands from HHJ Waksman QC, who is Chair of the London Mercantile Court (per ***memo*** dated 5 July 2016) that this Guide is due for revision later in 2016. The Guide's present wording, i.e., that after the experts give their evidence concurrently, *'[t]here remains the opportunity for the trial advocates to ask questions of the experts in the usual way*', is customarily taken to mean that, whilst cross-examination and re-examination will be permitted following the concurrent evidence, it remains within the court's discretion to limit the extent of that cross-examination and re-examination. Such an approach is in accordance with PD 35.11 (set out at page 12 of this report). It will be recalled that, in sub-paragraph (4) of PD 35.11, the options for counsel to ask questions are quite curtailed — '*it should not cover ground which has been fully explored already. In general a full cross-examination or re-examination is neither necessary nor appropriate'*.

The ***Technology and Construction Court Guide*** is different again, by setting out (at [13.8.2]) some forms of concurrent evidence. However, in respect of 'hot-tubbing', the Guide differs markedly from PD 35.11, in that it appears to contemplate that parties' counsel could appropriately lead the questioning. For example, under the paragraph, 'hot-tubbing', it states that, '*[p]rocedures vary but, for instance, a party may ask its expert to explain his or her view on an issue, then ask the other party's expert for his or her view on that issue and then return to that party's expert for a comment on that view. Alternatively, or in addition, questions may be asked by the judge or the experts themselves may each ask the other questions.*' This process is not aligned with the process of hot-tubbing as currently described in PD 35.11, where it envisages that it is the court which will lead the questioning. In a further possible departure from PD 35.11, this Guide notes that '*there is generally a need for experts to be cross-examined on general matters and key issues before they are invited to give evidence concurrently on particular issues*' (at [13.8.2]).

The Working Group considers that the degree of variation in the relevant Court Guides may benefit from being replaced throughout by some consistent form of description of the concurrent expert evidence process. The Guidance Note appended in **Appendix B** may form some basis for that description. In addition, the inconsistencies between PD 35.11 and these Court Guides serve to highlight the need to redraft PD 35.11 (a draft of which has been proposed previously in this report, and is contained in **Appendix A**).

The Working Group further considers that these court guides should be as short as possible, so as **not** to repeat matters which are referenced elsewhere. Uniformity in their content is best achieved by cross-

referencing to CPR 35, to PD 35, to any relevant Guidance Note for Judges and Practitioners – unless, for some reason, one particular court takes the view that a particular variant of the process is more suitable, and should be encouraged, for that court, in which case that variation from the standard should be made clear, rather than to describe the process in different terms. This type of drafting approach would, in the view of the Working Group, greatly benefit court users who use these Court Guides (whether they be legal representatives, litigants, experts, or others).

Recommendation #9: Future work re hot-tubbing

The familiarity with, and education about, concurrent evidence in general, and hot-tubbing in particular, may be enhanced by any or all of the following measures being adopted:

- ❏ providing a training DVD, with a demonstration of the process of hot-tubbing, which could then be disseminated as part of the Judicial College's training activities;
- ❏ inserting a further question in the Listing Questionnaire, the Directions Questionnaire, and the Case Management Information Sheet — Do you consider that any part of the oral expert evidence should be given concurrently (see PD 35, para 11)? — to flag up the possibility of the expert evidence being adduced orally by the concurrent expert evidence;
- ❏ publishing an Information Note for Expert Witnesses, via the Expert Witness Institute and the Academy of Experts, and via other relevant bodies, and for attaching to the relevant order directing the use of concurrent expert evidence, as per recommendation #8;
- ❏ providing assistance to the Academy of Experts, and the Institute of Expert Witnesses, should any collaboration of work in producing a training video for their members be considered desirable;
- ❏ amending PD 35.11, as per recommendation #1;
- ❏ producing a relevant Guidance Note for the judiciary, as per recommendations ##2–7; and
- ❏ describing the process uniformly in the relevant Court Guides.

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Appendices follow.

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APPENDICES

APPENDIX A

A suggested re-draft of PD 35.11

The Working Group invites the CPRC to consider amending PD 35.11, along the following lines:

Concurrent expert evidence

11.1 At any stage in the proceedings, and at its absolute discretion, the court may direct that some or all of the evidence of experts from like disciplines shall be given concurrently, whether by judge-led joint expert examination (JJEE), or by sequential (back-to-back) examination, or by a hybrid procedure (collectively termed 'concurrent expert evidence').

11.2 The court may set an agenda, or direct that the parties agree an agenda subject to the approval of the Court, for the taking of concurrent evidence, based upon the areas of disagreement identified in the experts' joint statements made pursuant to rule 35.12.

11.3 At the appropriate time, the relevant experts will each take the oath or affirm. If the evidence is to be given by judge-led joint expert examination, the procedure set out in paragraph 11.4 will apply. If the evidence is to be given by sequential (back-to-back) examination, the procedure set out in paragraph 11.5 will apply. If the evidence is to be given by a hybrid procedure, the procedure set out in paragraph 11.6 will apply.

11.4 *Evidence given by judge-led joint expert examination*: In relation to each issue on the agenda, and subject to the judge's discretion to modify the procedure –

(1) the judge may initiate the examination by asking the experts, in turn, for their views. Once an expert has expressed a view, the judge may ask questions about it. At one or more appropriate stages when questioning a particular expert, the judge may invite the other expert to comment or to ask that expert's own questions of the first expert;

(2) after the process set out in (1) has been completed for any issue (or all issues), the judge may invite the parties' representatives to ask questions of the experts. Such questioning should be directed towards: (a) testing the correctness of the expert's view; (b) seeking clarification of the expert's view; or (c) eliciting evidence on any issue (or on any aspect of an issue) which has been omitted from consideration during the process set out in (1). However, the questioning should not cover ground which has been fully explored already, and in general, a full cross-examination or a re-examination is neither necessary nor appropriate;

(3) after the process set out in (2) has been completed in relation to any issue (or all issues), the judge may summarise the experts' different positions on the issue and ask them to confirm or to correct that summary.

11.5 *Evidence given by sequential, back-to-back, examination*: In relation to each issue on the agenda, and subject to the judge's discretion to modify the procedure –

(1) the claimant's expert will give evidence on an issue (comprising any oral evidence-in-chief, then cross-examination, and re-examination) under examination by the relevant counsel. The defendant's expert then gives evidence in similar fashion on the same relevant issue. Any third, or subsequent, or additional party's expert then gives evidence in similar fashion on the same relevant issue. That process is then repeated for each subsequent issue on the agenda, as appropriate;

(2) at any time during, or following the completion of, the process set out in (1), the judge may ask questions of any expert as appropriate.

(3) after the process set out in (1) and (2) has been completed in relation to any issue (or all issues), the judge may summarise the experts' different positions on the issue and ask them to confirm or to correct that summary.

11.6 *Evidence given by a hybrid procedure.* The court may direct that a hybrid procedure be adopted, incorporating elements of the processes outlined in paragraphs 11.4 and 11.5 above. For example, in relation to each issue on the agenda, the judge may direct that –

(1) expert evidence be given concurrently by judge-led joint expert examination;

(2) thereafter, the process of counsel-led cross-examination and re-examination is to be permitted (albeit that the judge may limit the extent of cross-examination, either in respect of the time allowed, or by limiting the selection of specific topics for cross-examination);

(3) after the process set out in (1) and (2) has been completed in relation to any issue (or all issues),the judge may summarise the experts' different positions on the issue and ask them to confirm or to correct that summary.

A 'teach-in' conference

11.7 In an appropriate case, the court may direct that the judge will receive teaching in the expert issues in advance of the hearing. In such a case (and subject to the parties' consent), the court may direct that –

(1) *An additional expert:* the court may appoint an independent expert (who is not already instructed in the proceedings) who will conduct a 'teach-in' with the judge in private session; or

(2) *The existing experts:* the experts already instructed in the case on behalf of the parties may provide a 'teach-in' with the judge (which will usually be held in the presence of counsel).

Irrespective of whether the process in (1) or (2), or some other process, applies, the judge may provide the parties with an agenda for the 'teach-in' in advance and invite the parties' comments thereon, prior to the 'teach-in' taking place, and may order that any materials provided to the judge therein be provided to the parties thereafter.

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APPENDIX B

A suggested new Guidance Note for Judges and Practitioners

The Working Group suggests adoption of a new Guidance Note, which could read, in part, as follows:

Introduction

1. The purpose of this Guidance is to identify matters of practice and procedure which have evolved and/or are evolving in the process of adducing expert opinion evidence in civil proceedings, in particular, in those cases where concurrent expert evidence may be appropriate.

Different ways of adducing expert opinion evidence

2. The process by which expert opinion evidence may be adduced will depend upon the particular circumstances of each case. They include the following (subject to the court's discretion to modify the procedure in any case):

(1) *Written evidence only:* In cases where the court has either directed expert opinion evidence to be given by a single joint expert, or where party experts have been appointed, but in either instance, the court has not given permission for the expert/s to give oral evidence at trial, then the expert/s' reports are simply read by the judge. Whether it may be appropriate to order expert opinion evidence from a single joint expert depends upon three matters: (a) as a matter of proportionality, whether or not the case is of relatively low value; (b) the importance or seriousness of the expert issues to the case as a whole; and (c) whether there is a range of opinion on a particular issue, for which the appointment of party experts would be useful.

(2) *Oral evidence in the traditional manner:* In cases where the experts have filed reports and an expert joint statement, and the court has given permission for the experts to give oral evidence at trial, then in the traditional manner, the experts are sworn in separately, and give their evidence separately. It is common for the parties' experts to give evidence one after the other, after the conclusion of the factual witness evidence, but the court may direct that the evidence is given in some other order. In cases where the expert issues are straightforward, the expert's report will stand as the evidence-in-chief; but where the expert issues are more complex, the judge may direct that certain issues are also to be the subject of oral evidence-in-chief. Thereafter, cross-examination and re-examination by the parties' counsel is conducted orally.

(3) *Judge-led joint expert examination:* In cases where the court has directed that some or all of the experts are to give all or part of their evidence concurrently by judge-led joint expert examination (also known as 'hot-tubbing'), then the procedure set out in paragraphs 11.1–11.4 of PD 35 may apply.

In such cases, the experts are sworn in together, and give their evidence at the same time, in relation to each issue on a pre-set agenda (which agenda may be agreed between the parties or set by the court). In relation to each issue on the agenda, the judge chairs a discussion between the experts, and may invite the experts to ask their own questions of the other experts, and may also invite the parties' representatives to ask questions of the experts, although typically a full cross-examination or a re-examination will not be appropriate.

(4) *Sequential, back-to-back, expert evidence*: In cases where the court has directed that some or all of the experts are to give all or part of their evidence concurrently by means of sequential, back-to-back, evidence, then the procedure set out in paragraphs 11.1–11.3 and 11.5 of Practice Direction 35 ('PD 35') may apply. In such cases, the experts are sworn in together, and give their evidence at the same time, in relation to each issue on a pre-set agenda (that agenda may be agreed between the parties, or set by the court). In such cases, each of the expert's oral evidence-in-chief (if any), cross-examination and re-examination will be led by the relevant counsel, and will take place in the traditional manner.

(5) *A hybrid approach*: The court may adopt some combination of the above approaches. For example, the court may direct that expert evidence on some issues will be given concurrently by judge-led joint expert examination, and on other issues, will be given by the usual process of counsel-led cross-examination and re-examination (together with any oral evidence-in-chief as the court may direct). In such cases, the court may direct that the judge-led joint expert examination takes place first (e.g., if it would assist the court in understanding the expert evidence as a whole) before receiving expert evidence on other issues by the usual process of cross-examination and re-examination. Alternatively, the court may direct that the experts are first to be cross-examined on general matters and key issues, before they are invited to give evidence by judge-led joint expert examination on particular issues. Alternatively, following a judge-led joint expert examination, and limited cross-examination, the court may resume the judge-led joint examination, with a view to identifying the key issues in dispute, and the key reasons as to why one expert disagrees with another.

A 'teach-in' conference

3. In a case where the expert issues are complex, and the case is of significant value (whether measured in monetary or other terms), or is of public or other particular interest, then (and subject to the parties' consent) the court may direct that the judge will receive teaching in the expert issues in advance of the hearing. In particular –

(1) *An additional expert:* the court may appoint an independent expert (other than an expert already instructed by one of the parties in the proceedings), who will conduct a 'teach-in' with the judge in private session; or

(2) *The existing experts:* the various experts who have already been instructed by the parties in the case may be invited to a preliminary session, led by the judge (and usually in the presence of counsel), so that the court may receive instruction on specialist or technical issues, prior to the experts giving

evidence on the issues in dispute in the case.

In either scenario, the judge may provide the parties with an agenda for the teach-in, in advance of its taking place; may invite the parties' comments on that agenda; and may instruct that any papers provided to the judge by the independent expert be provided to the parties following the teach-in conference. This procedure may be of particular use in the Patents Court, the Competition Appeal Tribunal, or other specialist courts which are required to decide highly-technical and complex issues.

Criteria which may indicate whether judge-led joint expert examination is, or is not, appropriate:

4. There is no restriction on the type of case, or the nature of expert evidence, for which the court may make a direction for judge-led joint expert examination (i.e., hot-tubbing).

5. The matters to which a judge or tribunal should have regard, when considering whether to make a direction for judge-led joint expert examination — and which relate to *the nature of the expert evidence in the case* — include (but are not necessarily limited to) the following:

(1) whether or not the court considers that the judge's understanding of the expert issues will be assisted by receiving oral expert witness testimony at the same time, and/or by chairing a discussion between the experts, so as to give the judge a better appreciation of the key issues of disagreement between them;

(2) whether or not the areas of experts' disagreement will likely be narrowed, or the list of disputed issues is likely to be reduced, by the process of hot-tubbing;

(3) whether or not the expert evidence is insufficiently focused and/or whether the experts are not engaging with each other's views, in order to enable the judge to isolate the real issues of dispute; and hence, whether, in the absence of hot-tubbing, there is an appreciable risk that a disproportionate amount of time will be taken in identifying the relevant issues of disagreement and of receiving opinion evidence on them;

(4) whether or not the complexity of the expert evidence warrants that the court should lead examination of the expert witnesses either to assist the judge to reach a determination on detailed issues of disagreement, or alternatively, to achieve a 'high level' understanding of the disputed issues prior to expert evidence being adduced in the traditional manner; and

(5) whether or not the judge considers that he/she has, or can acquire via a teach-in, self-preparation or otherwise, a sufficient mastery of the subject-matter to lead the discussion.

6. The matters to which a judge or tribunal should have regard, when considering whether to make a direction for judge-led joint expert examination — and which relate to *the logistics of such a process* — include (but are not necessarily limited to) the following:

(1) whether or not the experts are from like, or sufficiently like, disciplines;

(2) whether or not the levels of seniority, expertise, and/or qualifications of each of the experts are relatively-equivalent (and where no credibility issues arise – as to which, see paragraph 7);

(3) whether or not any animosity exists among the experts, which may (should it exist) hamper the adducing of evidence;

(4) whether or not any imbalance between the number of experts called on behalf of the respective parties, could give rise to the perception or reality of an 'inequality of arms', and whether or not the sheer number of experts could give rise to problems of manageability;

(5) whether or not a transcript is likely to be required for the judge's assistance, and if so, whether the parties' costs arrangements can facilitate the provision of a transcript;

(6) whether or not the judge is to be afforded sufficient pre-trial time in which to prepare to lead the joint expert examination; and

(7) whether one (or more) of the parties to the litigation is a litigant-in-person.

Criteria which may indicate whether judge-led joint expert examination is not appropriate:

7. Where one or more of the parties indicates that there will be a serious challenge to the competence, independence, and/or credibility of one or more of the experts, it will generally not be appropriate for the court to give a direction for concurrent expert evidence, including judge-led joint expert examination

8. However, in such circumstances, a court *may* consider it appropriate to give a 'hybrid direction' of the type described in paragraph 2(5) of this Guidance Note (e.g., by permitting the challenge to an expert's credibility to be dealt with via the traditional manner, and, if appropriate, for other issues to be dealt with concurrently).

Areas of litigation for which judge-led joint expert examination may be appropriate

9. Whilst not intending to be prescriptive as to the type of case for which judge-led joint expert examination should be appropriate, the following outlines various examples of where the process has been successfully employed, or might be expected to be so in the future:

(1) disputes about valuation of property or shares, and any other valuations including those of actual or projected future losses – the dispute is generally about a range of figures, which is well-suited to being narrowed during the course of hot-tubbing;

(2) disputes about the 'reasonable standard of care', in disputes concerning professional negligence (regarding, e.g., bankers, valuers, solicitors, surveyors, and depending upon the complexity of the issues in dispute, doctors);

(3) disputes concerning a schedule of defects in building works, dilapidation claims, and similar – provided that there is some chance of narrowing or reducing the issues (otherwise sequential, back-to-back, evidence is more appropriate);

(4) boundary disputes;

(5) engineering expert evidence in building, structural, or destruction claims.

Where one or more of the parties object

10. As a direction for judge-led joint expert examination may involve a restriction on the nature and extent of cross-examination (see paragraph 11.4.2 of PD 35), the court will usually only give such a direction after hearing submissions from the parties. Such a restriction may not arise, if the court adopts a 'hybrid approach' (see paragraph 2(5) of the Guidance Note), or otherwise modifies the procedure for receiving expert evidence.

Time for giving a direction for judge-led joint expert examination

11. Such a direction may be given at any stage of the proceedings, from the first CMC up to the conclusion of the trial. In some cases, it may be apparent at the first CMC, or at another early stage of the proceedings, that a direction for hot-tubbing is appropriate (although, at such an early stage of the proceedings, a judge will not usually have seen any of the expert evidence). In many cases, it will not be until the experts have filed their joint statement that the court would have sufficient information in order to make such a direction. In those circumstances, it will be appropriate to make that direction at the pre-trial review, or even at the trial itself, rather than at an earlier stage of the proceedings.

12. Irrespective of the time when such a direction is given, the court will usually wish to consider the content of the experts' joint statement before either preparing the agenda of issues for the judge-led joint expert examination, or directing the parties to agree a draft agenda for such evidence.

Informing the expert

13. When a direction for judge-led joint expert examination is given, then a copy of the relevant order for directions should be served upon the relevant experts forthwith, for their information.

Procedural fairness

14. When considering the logistics of judge-led joint expert examination, the judge should have regard to the procedural fairness of the hearing, and in particular, to issues such as:

(1) whether equivalent questions are being addressed to each expert, and/or whether an equivalent opportunity to address the issues on the pre-set agenda has been afforded to each expert;

(2) whether counsel should be invited to address any cross-examination to the opposing expert witness at the conclusion of the judge-led questioning on each topic, or at the overall conclusion of the judge-led expert examination, or not at all;

(3) alternating the order in which questions on the agenda are addressed to the experts, such that each expert has the opportunity to answer the question first, or second, as the case may be;

(4) the physical layout of the courtroom, to ensure that the experts have equivalent stature in the courtroom, and an equivalent opportunity to address the judge;

(5) the desirability (if any) of opening statements on the part of each expert witness.

***

APPENDIX C

A suggested new Information Note for Expert Witnesses

The Working Group recommends that the following short Information Note for Expert Witnesses (or an equivalent thereof, drafted by the relevant entities, the Academy of Experts, and/or the Expert Witness Institute, and/or other interested entity) should be served on experts, together with a copy of the order for directions, where an order for concurrent expert evidence is made:

1. When a direction for **concurrent expert evidence** is given, that process may take different forms, depending upon what the court considers the most appropriate way of adducing the oral expert opinion testimony in the case. However, in any such case, the experts will be sworn in together (and not separately). An agenda of issues requiring expert opinion will also be prepared, either by the judge or by agreement between the parties, which will form the basis of the concurrent expert evidence.

2. Where the court directs that concurrent expert evidence be given via **sequential, back-to-back, examination**, then that means that each expert witness will give his/her evidence, in turn, on a particular topic or series of topics, one expert witness immediately after the other. The evidence is tested in the traditional manner, i.e., whilst the expert's report generally serves as the evidence-in-chief, counsel for the respective parties may cross-examine, and then re-examine, the expert witness, either at the end of each issue, or at the conclusion of all of the issues.

3. Where the court directs that concurrent expert evidence be given via a **judge-led joint expert examination (also known as 'hot-tubbing')**, then that means that the judge will lead a discussion of the expert evidence, by asking the experts, in turn, for their views on each issue. Sometimes the court will permit the expert on one side to ask questions directly of the other expert, in order to assist the judge's understanding of the common ground between the experts, and of their areas of disagreement. After the judge has led that examination, the parties' respective counsel may ask their own questions of the experts, to clarify points or to fill in gaps in the evidence (if any), but this process is not intended to cover ground which has already been dealt with during the hot-tubbing, and nor is a full cross-examination or re-examination likely to be permitted by the judge.

4. The court may direct that a **combination** of the above processes be used, given that, in any given case, the judge retains the discretion to modify the procedure by which expert evidence is adduced.

5. If there is a serious challenge as to the **competence, independence, or credibility** of any of the expert witnesses, then concurrent expert evidence is very unlikely to be permitted — at least, not in relation to the issues pertaining to that expert's competence, independence, or credibility.

6. The **layout of the courtroom** may be altered in order to facilitate concurrent evidence. The layout should ensure an equivalent status among the experts, and an equivalent opportunity for giving that evidence to the court. If an expert witness believes that these aspects will be hindered by the courtroom layout, then he or she should draw those concerns to the attention of the court, prior to concurrent evidence being taken.

***

APPENDIX D

The Hot-tubbing Survey Report

SURVEY FOR THE JUDICIARY

A total of 14 responses were received from the judiciary.[1]

Of these, there was an even split between those who had directed the use of hot-tubbing and those who had not (ie seven had directed its use and seven had not).

Of the seven respondents who **had not** directed the use of hot-tubbing, **three** had experience of cases in which the possibility of using the process was raised (in two cases by the court and in one case by both the court and the parties) but it was considered to be unsuitable for the proceedings. In response to the question of what reasons may have deterred the use of hot-tubbing in these cases:

- All three respondents said more traditional methods were perceived to achieve the desired outcome.
- One respondent said, in addition, the credibility of one or more of the experts was in issue and so the relevant party wanted to be able to cross-examine the opponent's expert.
- Another respondent said that one or more of the parties objected to the use of hot-tubbing and, although they did not say their concern was losing control of the process, the judge was in little doubt that was the true reason for the objection. The same respondent commented that another factor that deterred the use of hot-tubbing was an absence of past experience with the process.
- None of the respondents identified a perception that hot-tubbing is more 'inquisitorial' and judge-led in nature as having deterred the use of hot-tubbing in these cases.

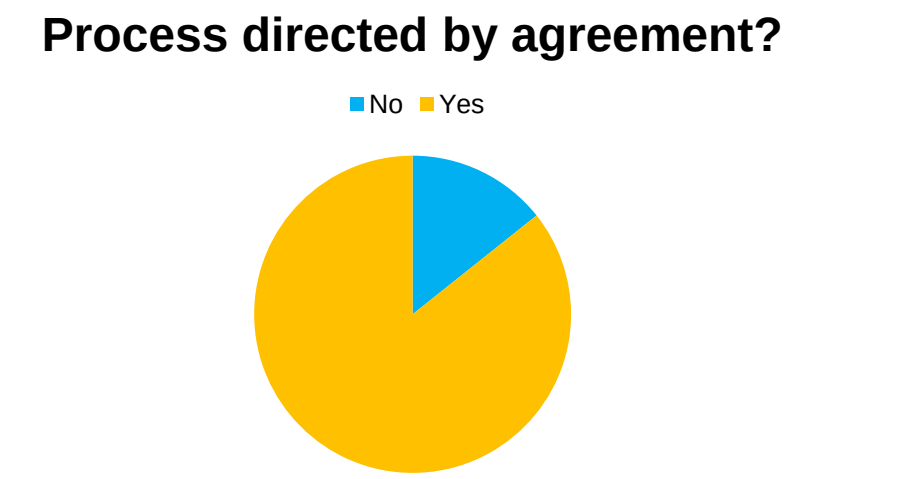
Of the seven respondents who **had** directed the use of hot-tubbing, their experience of the technique ranged across a number of areas of litigation. Those identified were: property/trust disputes; construction; commercial/sale of goods; and accident reconstruction evidence in an RTA claim.

There was also a broad range of responses to the question of when the parties were notified that hot-tubbing was to be used, including: at the first case management conference (CMC); at a subsequent CMC; at the pre-trial review and at trial. It is not possible to give exact figures, as a number of judges said they had directed hot-tubbing at various stages in different cases, but the most common response appears to be at the start of the trial.

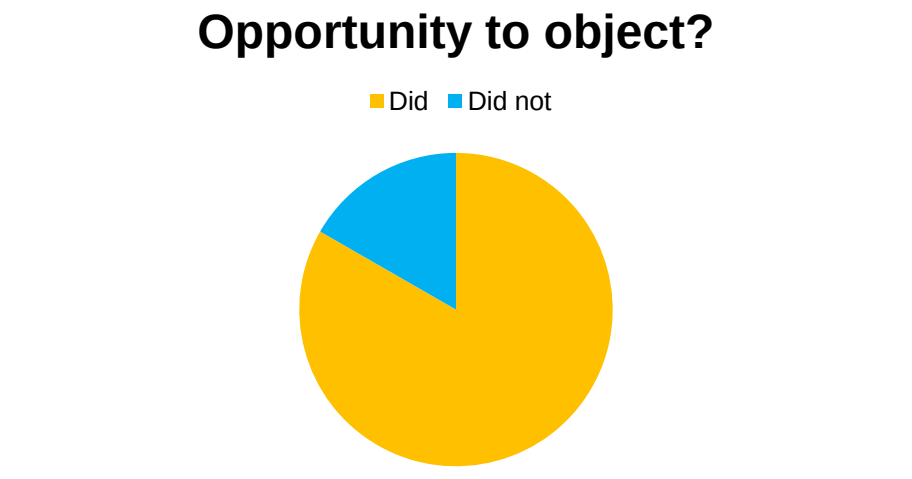
The remaining responses of those who had directed the use of hot-tubbing are summarised below.

[1] This figure excludes one respondent who answered "yes" to the question "Have you ever directed that hot-tubbing be used in proceedings which involved disputed expert evidence?" but answered no further questions.

	Yes	No	Total
Was the process of hot-tubbing directed by agreement with the parties?[2]	6 **85.71%**	1 **14.29%**	7

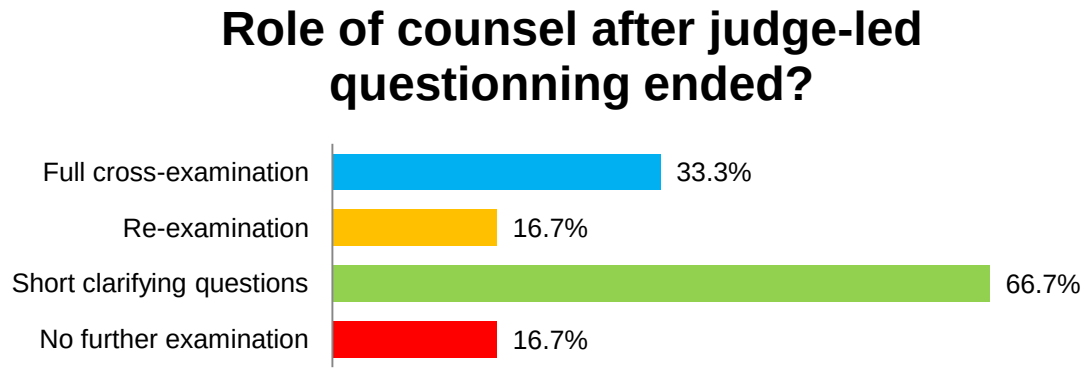


	DID	DID NOT	Total
During the judge-led questioning, counsel DID / DID NOT have an opportunity to object to a question put to either expert witness by the judge.	5 **83.3%**	1 **16.7%**	6



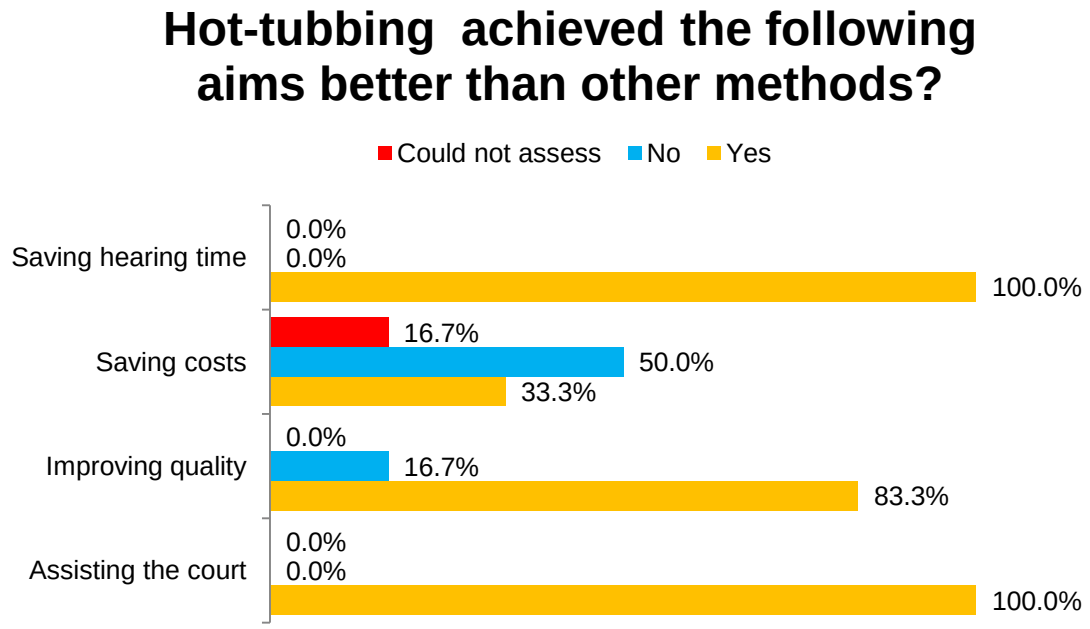
[2] One respondent who answered "yes" commented that he had directed hot-tubbing on multiple occasions both with and without party consent.

What role counsel did counsel play, after the process of judge-led questioning ended? Please tick which (if any) of the following most accurately describes the role of counsel:	
Each counsel conducted a full cross-examination of the other side's expert witness	2 **33.3%**
Each counsel conducted a re-examination of their own witness	1 **16.7%**
Each counsel asked some short clarifying questions of one or the other of the witnesses	4 **66.7%**
Each counsel decided no further examination was necessary	1 **16.7%**
Total responses[3]	6



Bearing in mind the rationales of concurrent evidence, do you believe the process of hot-tubbing achieved the following aims better than other methods of adducing expert evidence:	Yes	No	Could not assess	Total
Saving hearing time during the trial	6 **100.0%**	0 **0.0%**	0 **0.0%**	6
Saving costs to the parties	2 **33.3%**	3 **50.0%**	1 **16.7%**	6
Improving the quality of the expert evidence	5 **83.3%**	1 **16.7%**	0 **0.0%**	6
Assisting the court to determine disputed issues of expert evidence	6 **100.0%**	0 **0.0%**	0 **0.0%**	6

[3] One respondent chose three options, ie full cross-examination, re-examination and short clarifying questions, commenting that hot-tubbing procedure is best tailored to the immediate case and thus different approaches were followed in different cases.



A number of respondents made additional comments both about the benefits of hot-tubbing and about the additional preparation time it requires of the judge hearing the case:

> "It is an excellent aid for both experts and the judge. It works well in construction cases where I find almost all building experts are prepared to engage in constructive discussion."
>
> "It was particularly helpful with the building surveying and quantum expert evidence."
>
> "The great benefit of the process is that where the parties are aware of it before hand there is more likely to be agreement of expert evidence or much greater narrowing of issues that might be expected in a conventional process."
>
> "To be effective it requires a great deal of judicial preparation but is worth the effort. Its utility lies in being able to (a) clarify expert reports and (b) deal with expert issues on an issue by issue basis."
>
> "I think that if it is to be used it needs additional pre-reading time specifically to enable the judge to be properly prepared to lead the process."

One respondent commented on the types of case in which the technique is appropriate:

> "It is not appropriate in every expert evidence case. It depends very much of the expertise involved. It would be very dangerous for example in a case concerning cutting edge scientific engineering or medical issues. It ought to be the default choice in cases concerning valuation."

One respondent commented that legal representatives are very reluctant to agree to the use of hot-tubbing.

SURVEY FOR THE LEGAL REPRESENTATIVES

A total of 33 responses were received from legal representatives.[4] Of those, 32 had experience of "hot-tubbing" as part of legal proceedings.

The majority of respondents said their experience of the technique derived from arbitration (21)[5], followed by court proceedings outside England and Wales (9), and lastly court proceedings in England and Wales (4). Of those who had experience of the technique from court proceedings outside England and Wales, the relevant jurisdictions were Australia (4), New Zealand (1), Scotland (3) and the DIFC (1).[6]

Their experience of the use of hot-tubbing ranged across a number of areas of litigation. Those identified included: property; construction; energy; IP; commercial and competition.

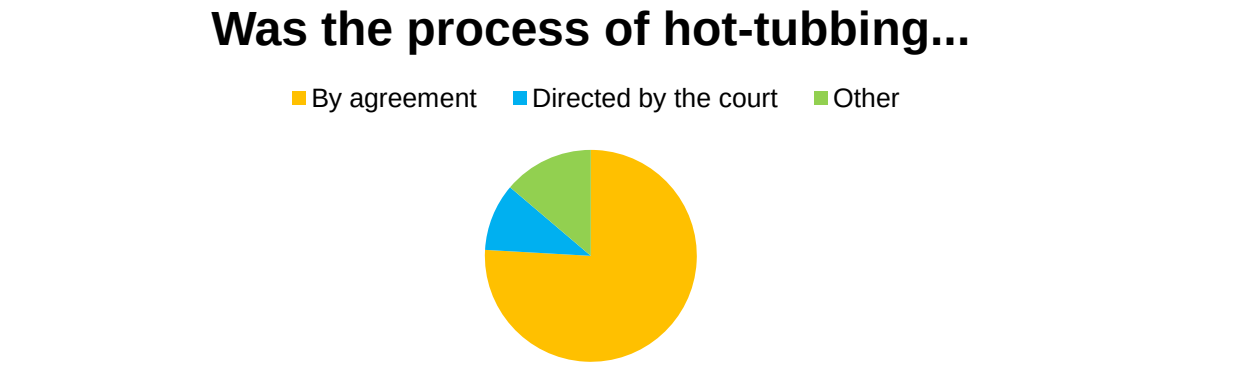
There was a broad range of responses to the question of when the direction was given that hot-tubbing would be used in the proceedings. Responses were fairly evenly split between: at the first case management conference (CMC); at a subsequent CMC; at the pre-trial review and at trial (or the equivalent stages in arbitration).

Responses were also quite evenly split as to whether the physical layout of the courtroom was altered to facilitate the hot-tubbing process. Where the physical layout was altered, this appears to have been a fairly minimal alteration to allow the experts to sit together, eg by putting an extra chair in the witness box or at the witness table or (where more than two experts were in the hot-tub together) having the experts sit in the jury box or adding an extra table for the use of the experts.

Responses to other questions are summarised below.

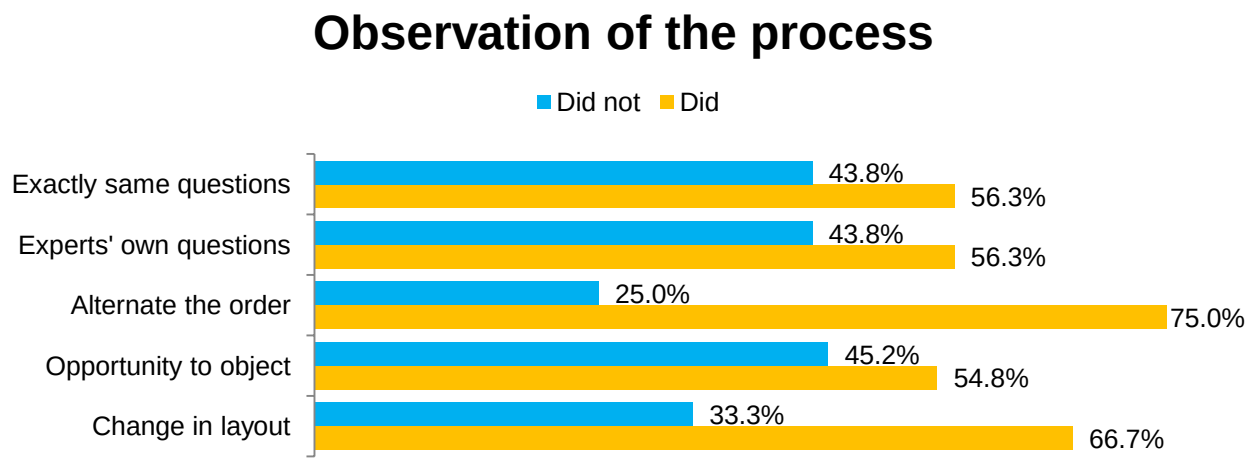
Was the process of hot-tubbing:	**Total**
By agreement between the parties and the court?[7]	22 **75.9%**
Directed by the court, notwithstanding the objections of one or more of the parties?	3 **10.3%**
Other (please specify) [8]	4 **13.8%**
Total	29

[4] This figure excludes one respondent who responded to the legal representatives' survey but indicated that he was in fact a chartered engineer. His responses have been incorporated in the figures for the expert witness survey.
[5] Two of the respondents who had experience of the technique in arbitration also had experience of it in court proceedings, in one case in England and Wales and in the other case the DIFC.
[6] Based on the responses received, it was not possible to discern any clear difference in the views of respondents depending on the forum in which their experience of the technique was obtained.
[7] This category includes two respondents who selected "Other" but specified that it had been agreed between the parties and the arbitrator.
[8] The figure for "Other" excludes three respondents who selected this option but then did not answer the question, eg saying it was not applicable because their experience was from arbitration.



Of the four responses included in the "Other" category, one answered "Both" and three answered that it had been directed by the arbitrator. Of the three who said it had been directed by the arbitrator, one specified that it had not been objected to by the parties; the others did not specify.

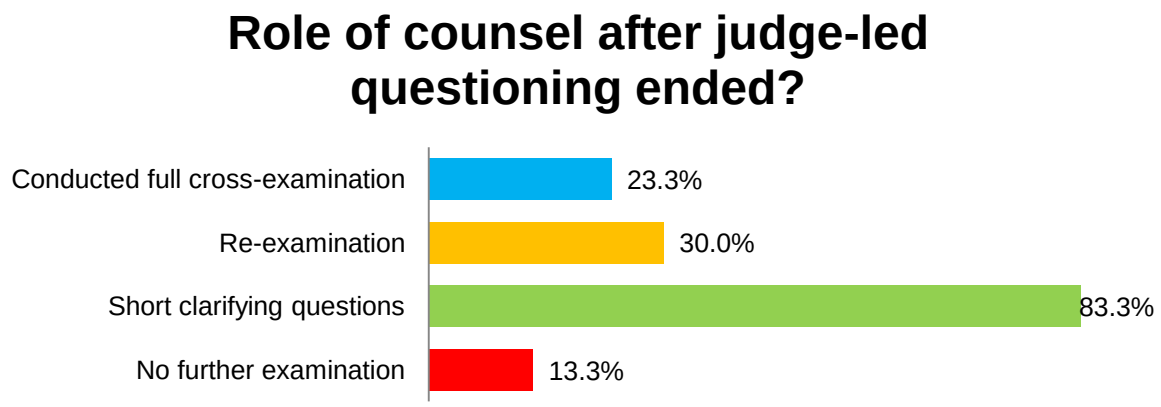
When your expert was 'in the hot-tub', which (if any) of the following reflects your observation of the process:	**Did**	**Did Not**	**Total**
the expert DID / DID NOT get asked exactly the same question as the other expert witness in the hot-tub	18 **56.3%**	14 **43.8%**	32
the expert DID / DID NOT have the chance to ask his or her own questions of the other expert witness, leading to a discussion of the issue, in the presence of the court and counsel	18 **56.3%**	14 **43.8%**	32
the court DID / DID NOT alternate in the order in which it asked its question of each expert witness	24 **75.0%**	8 **25.0%**	32
during the judge-led questioning, counsel DID / DID NOT have an opportunity to object to a question put to either expert witness by the judge	17 **54.8%**	14 **45.2%**	31
the change in the layout of the courtroom (if any) DID / DID NOT improve the expert's experience of giving expert opinion evidence	14 **66.7%**	7 **33.3%**	21



Respondents were invited to comment on any other aspects of their observations of the experience of the experts whilst "in the hot-tub". The comments received serve to illustrate the flexibility of the process. A number of the comments are set out below.

> "In the context of this substantial dispute this was a very effective way of adducing expert evidence. The actual process was less rigid than the above questions might suggest."
>
> "As neither the judge nor either counsel had prior experience of "hot-tubbing", it could be said that it was a mixture of more traditional concurrent evidence giving and hot-tubbing. It provided a more informal framework for the experts to give evidence, which they seemed to respond well to."
>
> "As is usual, questions were directed to the expert with the appropriate expertise for the topic in issue and so not every expert was asked every question. The format was such that experts were easily able to agree or disagree with previous opinions given, and provide appropriate clarification or points of distinction/disagreement where they thought necessary. Experts were offered the opportunity to directly respond, albeit at the invitation of the judge."
>
> "In my experience, the best use of hot-tubbing (depending on the topic) is: (a) where a list of areas on which the experts disagree is identified in advance, (b) where the judge/tribunal is well prepared, and (c) where the counsel team for claimant and respondent each have an opportunity to cross examine the other side's expert in addition, as well as having a chance to follow up with questions after the tribunal-led questioning."
>
> "We had 7 experts in the "tub" at one time and there was a time limit for the session (2 days) so each expert had very limited opportunity to speak and the chance for discussion among the experts was as result perhaps more limited than it might normally be."
>
> "During one session we had 7 experts in the hot tub. This made the process less effective than when there were only two experts."
>
> "The arbitrator was also expert in the field under review so was well placed to lead the questioning."
>
> "While there were judge led questions, the majority of questions were pre-agreed and asked by counsel and arose out of the joint expert report and the matters upon which agreement could not be reached."
>
> "Each judge has their own approach to questioning. Usually the questioning procedure was agreed between counsel in advance, subject to comments from the judge."
>
> "Most effective when the tribunal controlled the process."

What role did counsel play, after the process of judge-led questioning ended? Please tick which (if any) of the following most accurately describes the role of counsel:	
Each counsel conducted a full cross-examination of the other side's expert witness	7 **23.3%**
Each counsel conducted a re-examination of their own witness	9 **30.0%**
Each counsel asked some short clarifying questions of one or the other of the witnesses	25 **83.3%**
Each counsel decided no further examination was necessary	4 **13.3%**
Total respondents[9]	30



Respondents were invited to provide any other comments as to counsel's role. Again, the responses serve to illustrate the variety in the processes used, including that in a number of instances hot-tubbing was used in addition to traditional cross-examination, and in a number of cases it seems the questioning in the hot-tub was not mainly judge-led.

> "Arbitrator took charge of the questions. It would have been inappropriate for counsel to re-examine - would have showed concern over nature of expert's answers."
>
> "Reduced cross examination followed the hot-tubbing."
>
> "I am not clear what is meant by 'full cross-examination'. Each witness was cross-examined on particular points; where appropriate, the conversational-style nature of the hot tub transitioned to one-on-one cross examination of the other side's expert who most closely dealt with the particular issue in question. In general the process was: counsel was free to question whichever witness they chose (within the agreed running order, eg as to topics), usually in the style of a more conventional cross-examination, with counsel or the judge interjecting at opportune moments to ask for input from the rest of the hot tub."

[9] Some respondents chose multiple options.

"The process was less rigidly orchestrated than the above suggest."

"In the arbitration each side's counsel asked some questions of the other's expert; then the experts both sat before the Arbitrator for the hot tubbing exercise which was led by the arbitrator."

"Expert evidence was taken in the normal way, followed by a hot-tubbing judge led discussion session amongst experts of similar disciplines."

"Hot tubbing followed the full cross-examinations."

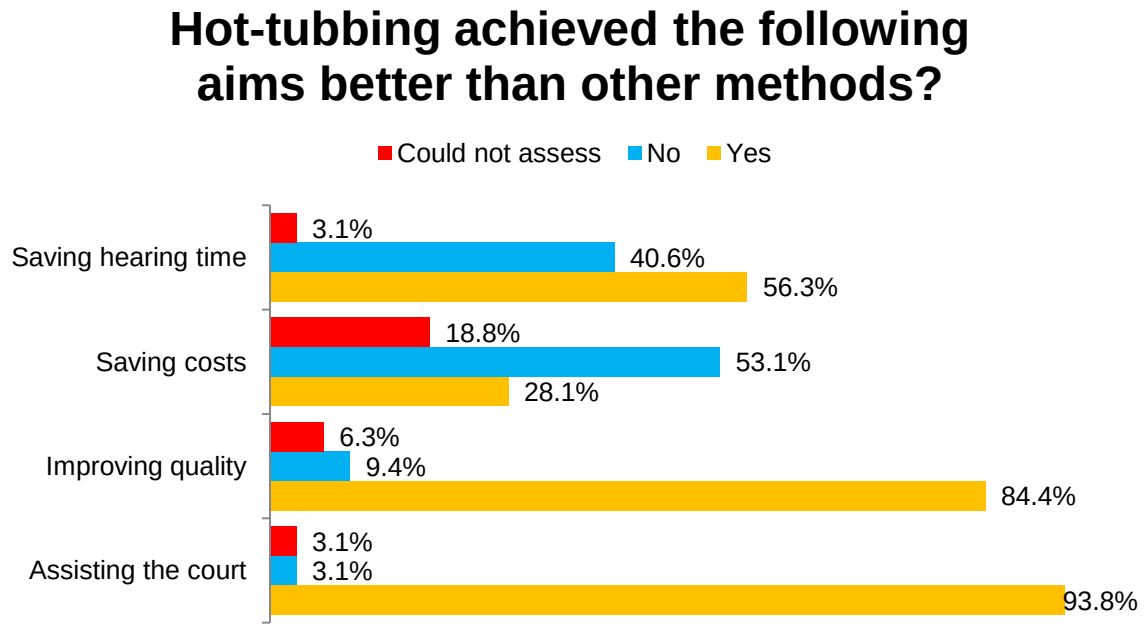
"The process was not as purely judge led as PD35.11 seems to envisage; nor as purely counsel led as sequential concurrent evidence. Counsel would steer the structure of the questioning at a high level, by reference to broad topics for discussion, but then both judge and counsel asked roughly equal amounts of questions on the detail within each topic."

"Note as above, the experts had all under gone full cross-examination by counsel BEFORE the hot tub took place. The hot tub was chaired by the judge and the topics the judge was covering were broadly agreed by the parties and the judge before it took place. Counsel were given the opportunity to ask questions but didn't interrupt until the judge indicated it was their "turn"."

"Hot tubbing in our case followed normal chief, cross and re-examination of each expert."

Bearing in mind the rationales of concurrent evidence, do you believe that the process of hot-tubbing achieved the following aims better than other methods of adducing expert evidence:	**Yes**	**No**	**Could not assess**	**Total**
Saving hearing time during the trial[10]	18 **56.3%**	13 **40.6%**	1 **3.1%**	32
Saving costs to the parties	9 **28.1%**	17 **53.1%**	6 **18.8%**	32
Improving the quality of the expert evidence	27 **84.4%**	3 **9.4%**	2 **6.3%**	32
Assisting the court to determine disputed issues of expert evidence	30 **93.8%**	1 **3.1%**	1 **3.1%**	32

[10] Five of the respondents who answered "no" or "could not assess" to this question also said that the experts underwent a full cross-examination in addition to the hot-tubbing process.



Respondents were invited to make any other comments about the process under a number of headings. Some of the comments under each heading are set out below.

How the expert witnesses handled the different procedure:

"Experienced experts with respect for each other dealt with it well."

"They responded well. Their evidence came out better than during normal examination / cross examination."

"The experts thought the process was a better way of dealing with the technical issues."

"Not all experts handle it well, but it can be very effective."

"I felt that the experts generally felt comfortable with the process."

"Both experts were courteous to each other which benefitted the process; both conceded points raised by the other expert."

"On each occasion the experts' evidence was clearer and less guarded than during cross examination."

"Experts tend to be much more forthcoming in tribunal led questioning, because they feel like they are being asked to assist, rather than being attacked. You get less guarded answers."

"Perfectly well. It is not a difficult process for experts - it may be slightly harder for the "professional" expert than for experts who have not got expectations about cross examination or the like."

"Because the hot tub was less formal than cross examination, there was a greater risk of an expert appearing to become an advocate for a party."

"Some clearly felt under more pressure, but they often opened up more to the tribunal than they would under cross-examination."

"Experts tended to talk off topic."

"Witnesses who were obviously 'schooled up' as to the issues in play, or who are more willing to advocate, perform better in a hot tub. It seems that judges find it more difficult to discern schooled-up experts in a hot tub environment than in a conventional cross-examination."

"I think that the status of the expert can affect the way in which the hot tub proceeds. In one case one expert was differential to a more senior colleague."

"Weaker experts may have more difficulty with hot-tubbing."

"As mentioned, hot-tubbing is not really "different procedure" in the FCA any more. The experts seemed to take well to the format though, which is more similar to the academic forums for exchange of ideas and opinions they would be used to, unlike traditional evidence giving."

Whether the inquisitorial-type nature of the process presented any difficulties for the court or for the parties:

A number of respondents simply answered "no" or "none". More detailed responses included:

"None, although it is most effective if the arbitrators are well-prepared."

"The Tribunal must be much better prepared than it normally is but in that case no difficulties arise."

"The tribunal was well prepared, and the inquisitorial-style questions were appropriate and relevant."

"The process, if run well, can work. In particular, where there is a joint report, the parties should set the questions, and the parties should determine the appropriate process for the hot tub. However some judges deliberately set out to minimise the control parties can have on the process, which makes it difficult, inefficient, and more error-prone all around."

"It took counsel a little bit of time to get used to the fact that they did not have control of the questioning but otherwise it worked well."

"The parties had less control of the process which is not necessarily a bad thing."

"This restricted the full background explanations."

"The inquisitorial nature allowed a deep probing of the evidence by the arbitrator and concentrated on the issues he wanted resolving/explaining."

"No. This may depend on the judge however. From the perspective of parties used to traditional cross-examination there may be a feeling of the loss of control however - there is no easy way to avoid unfavourable lines of questioning and responses, but from the court's perspective the true position is probably distilled more readily, free from the controlling influence of counsel over the course of questioning."

"I think that it lets very poor experts off the hook from a searching cross-examination."

Whether the fact that the court or tribunal was going to use hot-tubbing triggered an earlier settlement:

Most who responded to this question simply said "no" or "not applicable" as the matter did not settle. One respondent commented that it seemed very unlikely. No one responded that it had triggered an earlier settlement.

Whether you felt inhibited from challenging the experts, either during or after the judge-led questioning

Two respondents simply answered "yes", eleven answered "no", and two commented that it was not an issue because hot-tubbing following traditional cross-examination. Other responses included:

> "During the judge led questioning, in the absence of exceptional circumstances, it would have been unlikely for counsel to intervene."
>
> "Hot tubbing tends to lead to a middle ground rather than one or other expert prevailing."
>
> "No, experts were still able to be cross-examined robustly, except where the judge felt the territory had been more than adequately covered already."
>
> "At times. Eg one judge who refused to allow cross-examination on issues in which there appeared (to him) to be agreement in the joint experts' report."
>
> "A little bit so as not to try the patience of the tribunal and not to come over adversarial."
>
> "It is essential that counsel still have an opportunity to ask questions of one or both experts."

Whether you considered that the court had any 'information deficit' compared with the information which would have been adduced via a more traditional process:

Nine respondents simply answered "no" and one "yes". Three commented that it was not applicable because the experts were cross-examined in addition. Other comments included:

> "The court got more information from hot tubbing."
>
> "No, but this does require the judge/arbitrator to be prepared and to understand the issues in advance."
>
> "Yes - as noted above, the key to effective tribunal led hot-tubbing is preparation on the part of the tribunal. Without this, the process is a waste of time (unless it is counsel led, which I have also seen work very effectively)."
>
> "By and large (but not always) there is less rigour in tribunal-led questioning. That means it may not be suitable where there are serious conflicts of evidence."
>
> "Counsel still conferred with respective experts. The hot tub, if anything, allows for more information to be adduced, since it is possible to effectively adduce new evidence during the hot tub. One counsel in particular has become notorious for effectively leading his own witnesses. Even without leading, clued-up witnesses can see a line of questioning is going and chime in like a peanut gallery such that a witness being cross-examined on a particular topic can face a barrage of questions from multiple directions. The issue is more being able to control the inflow of new evidence, eg where experts stray into areas outside their expertise, which is harder to control in a hot tub (and, still less, expert-led conclave and joint report) setting."

"No, although it is usual where hot-tubbing is to take place that the court will have the benefit of the separate expert reports as well as a joint report of the experts which sets out those matters on which they agree and those on which they disagree and why - this will assist the court in contextualising the discussion to come and set the scene for the hot tub."

Other comments

"Very useful. Allows the arbitrator directly to compare evidence of both experts, and encourage agreement where possible. Arbitrator indicated some (but not all) of the key questions the night before to allow some time for preparation."

"I consider it to be a highly effective process."

"Hot tubbing is not something to be afraid of. Indeed, used properly, it could work to the client's tactical advantage. As with all things in litigation/arbitration, the key is preparation."

"My sense of the general position in Australia is that it is preferable to avoid hot tubbing unless required by the judge as hot tubbing gives rise to some uncertainty and parties have less control of the process."

"It appears to be used in arbitration mainly where both sides agree rather than being imposed."

"I have not been involved in any cases were the process has been used (or, indeed, that there has been a suggestion that it should be used). However, in principle, I can see that this method could be effective in certain circumstances and may well be of assistance to the Court in weighing up the respective views (and reduce costs). However, I suspect that in other cases it will not be appropriate as the process could become quite messy with the experts giving reactive answers and/or becoming involved in debates around relatively minor points."

SURVEY FOR THE EXPERT WITNESSES

A total of 51 responses were received from expert witnesses.[11]

In terms of where that experience derived from, 24[12] respondents said their experience of the technique derived from arbitration, 22 from court proceedings in England and Wales and 10 from court proceedings outside England and Wales. Of those who had experience of the technique from court proceedings outside England and Wales, the relevant jurisdictions were Australia (3)[13], Singapore (3), Northern Ireland (4)[14] and Switzerland (1).[15]

Their experience of the use of hot-tubbing ranged across a number of areas of litigation, with construction being by far the most commonly cited. Other areas identified included: professional negligence; commercial, personal injury / medical negligence and family.

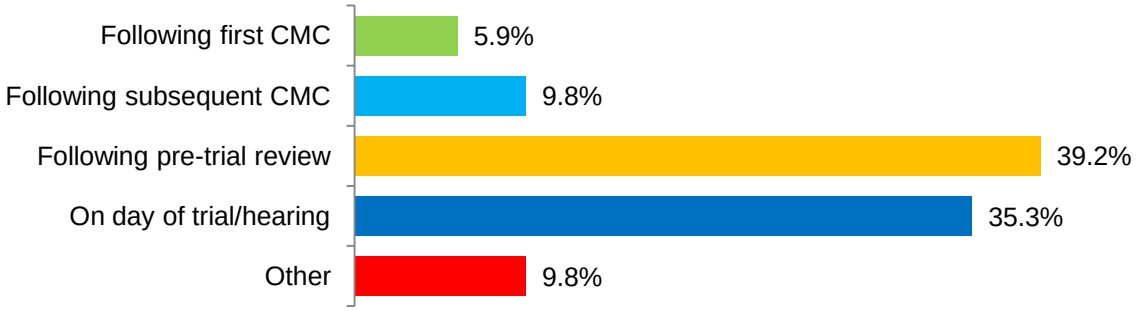
Regarding the stage at which experts were notified that hot-tubbing was to be used, there was a variety of responses, but the great majority were either following the pre-trial review (or a few weeks before the hearing) or during the trial itself. In any event, most experts confirmed that the fact hot-tubbing would be used did not affect how they prepared their oral expert evidence.

At what stage of the proceedings were you notified that the process of hot-tubbing would be used:	**Total**
Following the first case management conference	3 **5.9%**
Following a subsequent CMC	5 **9.8%**
Following the pre-trial review[16]	20 **39.2%**
On the day of the trial or hearing[17]	18 **35.3%**
Other (please specify)[18]	5 **9.8%**

[11] This figure includes one respondent who responded to the legal representatives' survey but indicated that he was in fact a chartered engineer. It excludes three respondents who stated they had no experience of hot-tubbing and did not answer any further questions.
[12] Four of the respondents who had experience of the technique in arbitration also had experience of it in court proceedings, in three cases in England and Wales (and one of these in Switzerland also) and in the other case in Singapore.
[13] One expert had experience from both Australia and Singapore.
[14] One of these was a public inquiry rather than court proceedings.
[15] Based on the responses received, it was not possible to discern any clear difference in the views of respondents depending on the forum in which their experience of the technique was obtained.
[16] This category includes five respondents who selected "Other" but specified that they had been notified following pre-hearing directions or between one and three weeks before trial.
[17] This category includes one respondent who selected "Other" but specified that he/she had been notified after trial had started.
[18] Most of these said they had various experiences as to when they were notified.

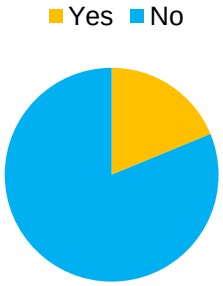
Total	51

Stage notified of hot-tubbing



	No	Yes	Total
Once you were advised that hot-tubbing would be used, did that affect the way in which you prepared your oral expert evidence?	39 **81.3%**	9 **18.8%**	48

Affect the way prepared oral evidence?

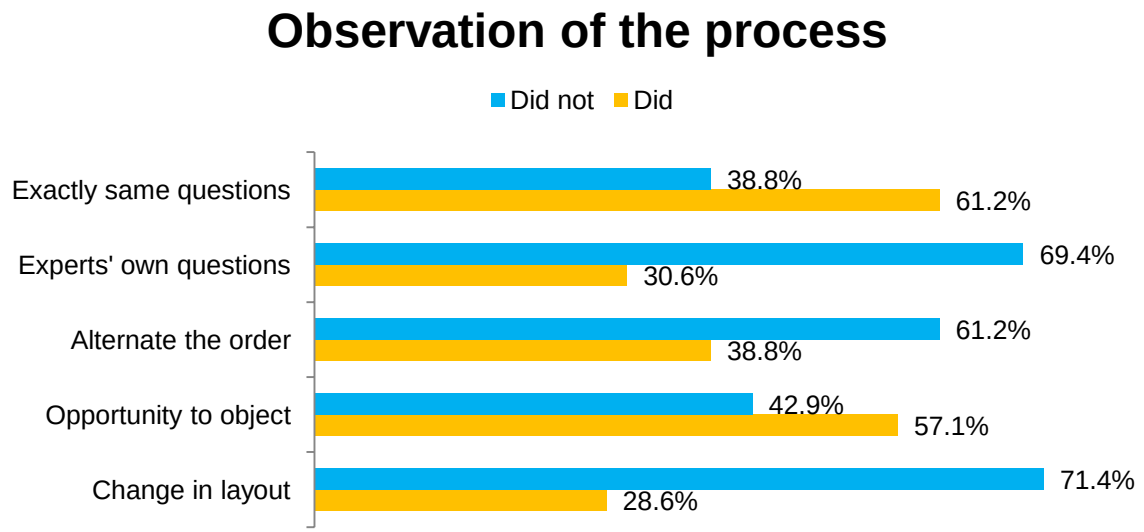


Of those who said it did affect how they prepared, answers included that they were asked to give a short presentation, they prepared questions they wanted to ask the opposing expert, and they needed more planning to deal with examination-in-chief type questions (rather than cross-examination only).

Similar to the legal representatives' survey, responses were quite evenly split as to whether the physical layout of the courtroom was altered to facilitate the hot-tubbing process. Again, where the physical layout was altered, it was generally fairly minimal, eg putting an extra chair in the witness box or having the experts sit together in the jury box or press area or adding an extra table for the use of the experts. One respondent said the experts sat at counsel's bench and counsel sat behind. Another that the layout was "horse show" with the experts in the middle on office chairs which they kept spinning round to respond to the various questions.

Responses to other questions are summarised below.

When you were 'in the hot-tub', which (if any) of the following reflects your experience:	Did	Did Not	Total
I DID / DID NOT get asked exactly the same question/s by the court as were asked of the other expert witness in the hot-tub	30 **61.2%**	19 **38.8%**	49
I DID / DID NOT get invited by the judge to ask questions directly of the other expert witness	15 **30.6%**	34 **69.4%**	49
the court DID / DID NOT alternate in the order in which it asked its question of the other expert witness and myself	19 **38.8%**	30 **61.2%**	49
during the judge-led questioning, counsel DID / DID NOT have an opportunity to object to a question put to either expert witness by the judge	28 **57.1%**	21 **42.9%**	49
the change in the layout of the courtroom (if any) DID / DID NOT improve my experience of giving expert opinion evidence	12 **28.6%**	30 **71.4%**	42



Experts were invited to comment on any other aspects of their experience whilst 'in the hot-tub'. Comments received included:

> "Hot-tubbing tends to be much faster in the giving of evidence. It was almost a case "he who dominates wins" and the direction changed at will."
>
> "The ability to interject with a question or comment was particularly useful in highlighting the key evidence."
>
> "In my experience the judge very much took over from the barristers, who although given the opportunity to speak, seemed very much to take a back seat. It was a very different experience for me as an expert; neither better nor worse than normal, simply different. My opposing expert's evidence and inclination not to bend at all seemed to irritate the judge somewhat: this might not have been apparent had X examination been left to counsel. I would happily 'hot tub' again."

"In the English High Court the format was similar to having the experts in sequentially. At arbitration (Brussels) it was much freer, akin to being a panellist on a TV debate, with both sides' counsel and the arbitration panel all asking questions."

"I was the first in a row of the three witnesses. As a single expert for the claimant I was addressing the same clinical area as two experts instructed by the defendants. Because of these logistics, having given my evidence I was not able to respond to what was said by the other two experts, although they were able to address my evidence which had been given first. After a while I intervened out of turn, and asked the judge if I could respond to what was being said by the other two experts, and he allowed this. There seemed to be considerable confusion about the process. The judge was left to ask the right clinical questions, which sometimes were not relevant to the clinical point, or omitted the salient issues."

"It was sprung on me - why I'm not sure. I found it a difficult experience. I knew the other expert. I tended to react by becoming more vocal he less vocal."

"It was an informal process - the tribunal asking each expert for clarification on certain aspects. It was a constructive approach."

"The expert for the other side tried to act as counsel and was rebuked by the judge but the experts behaviour meant that the hot tubbing process was less effective."

"Three days of expert evidence reduced to three hours of hot tubbing. Good preparation by the judge was the key. A tough environment for experts who can be challenged far more immediately than under traditional cross-examination by opposing experts."

"It has generally been a more fluid experience, where the Tribunal 'takes charge' and asks the experts (together) the questions it deems important. Hearing evidence in the same points concurrently is in my view helpful."

"I have had a variety of experiences - each time the hot-tub has been used differently. The biggest difference has been whether hot-tubbing followed conventional evidence or replaced it."

"I found the experience positive although somewhat more stressful at times, the Judge was very active and involved throughout."

"In Singapore, the judge permitted individual experts to raise their hands to signal that they wanted to comment on each others' responses out of sequence. He then asked each expert whether they agreed or not with that witness' comment(s). This process worked well but certainly advantaged the more fluent and best prepared experts. Side by side sequential questioning by the judge allowed him to identify … experts who, in his own words, tended to act as advocates and apologists for their respective clients. …"

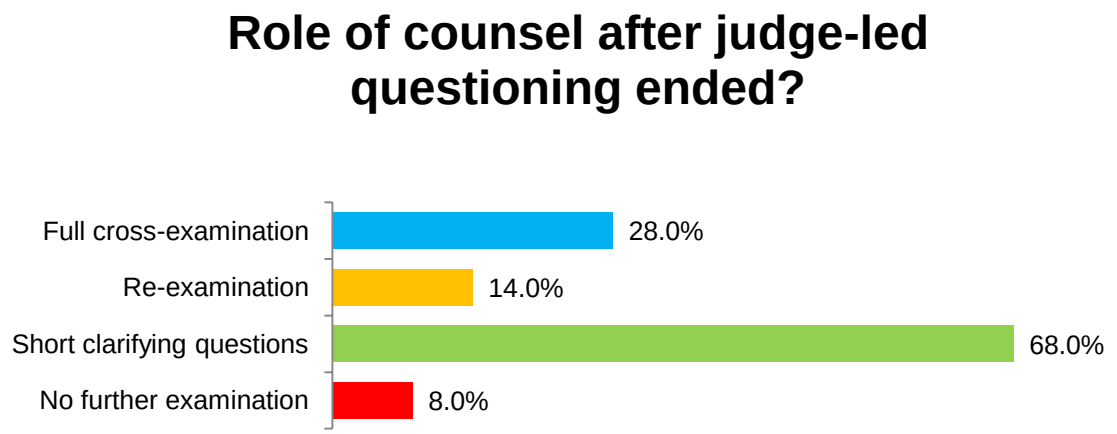
"We were only given 5 mins warning by the judge that this was going to happen.It was a bit anxiety provoking initially but overall … was a positive experience."

"I felt hot tubbing speeded up the process of cross-examining the experts and was slightly more informal. It felt like an interactive and supervised joint discussion."

"This seems to me a sensible way to reduce costs and to reach a fairer representation of the combined expert views."

"An excellent way for two experts to give evidence."

What role counsel did counsel play, after the process of judge-led questioning ended? Please tick which (if any) of the following most accurately describes the role of counsel:	
Each counsel conducted a full cross-examination of the other side's expert witness	14 **28.0%**
Each counsel conducted a re-examination of their own witness	7 **14.0%**
Each counsel asked some short clarifying questions of one or the other of the witnesses	34 **68.0%**
Each counsel decided no further examination was necessary	4 **8.0%**
Total respondents	50



Respondents were invited to provide any other comments as to counsel's role. Responses received include:

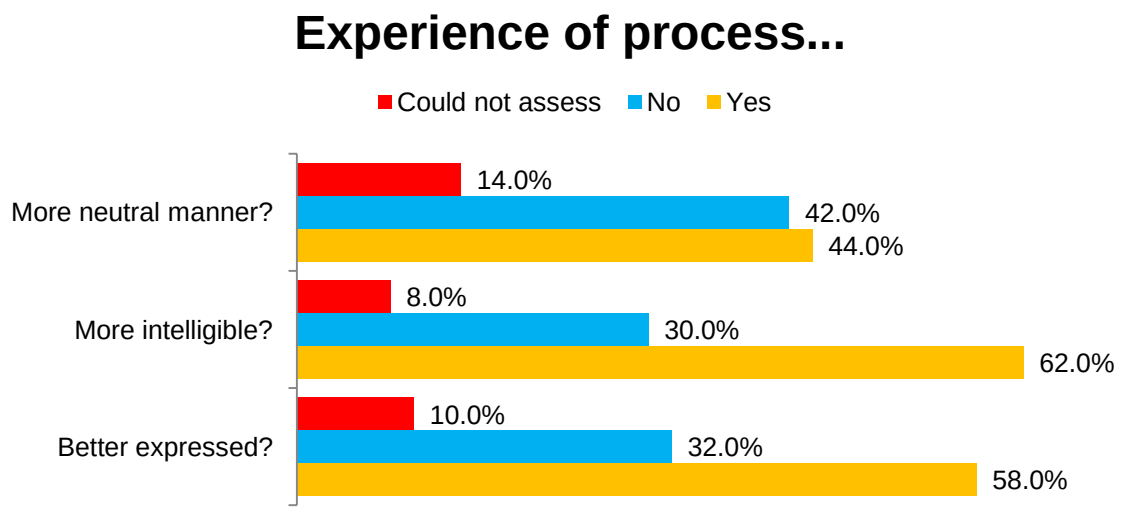
> "After the hot-tubbing counsel went into cross-ex that appeared to be written beforehand and was not amended by the hot-tubbing. To me the hot-tubbing was for the help of the judge."
>
> "Both experts were cross examined in their own right - but on certain issues where it was beneficial to get both opinions next to one another, we were hot tubbed."
>
> "As the answers from [the judge's questioning] had tended to assist the plaintiff, there was vigorous cross examination of defendant experts by their own counsel."
>
> "Further questions were invited but not encouraged on the basis that it was implicit that if a question was deemed relevant, the judge would have asked it."
>
> "It seemed that counsel was struggling to fill the gap in the questioning with the short amount of time available. I felt that I was left to tell the clinical story without the relevant

questions being put to me, although pre-trial meetings with counsel meant that if the usual court process had taken place this could have happened."

"Need up front agreement on: areas of priority, order of speaking/cross examination, whether experts can challenge each other, whether there are up front presentations."

"No counsel asked questions of their own experts. There were three periods of fairly extensive cross examination of one or two of the witnesses. After one such session counsel made the mistake of asking the experts who had not been the subject of the cross examination whether they had any views on the matters dealt with in his examination. He was deluged in the attempts by each accountant … to make a speech and lost his train of examination. This error was not repeated and responses were thereafter better controlled by her honour. The initial questions put to the experts were not the judge's alone but prepared with and agreed to by counsel and put to the experts before entering the court room."

In your experience:	**Yes**	**No**	**Could not assess**	**Total**
Do you think that experts give their evidence in a more "neutral" manner when expert evidence is given via hot-tubbing?	22 **44.0%**	21 **42.0%**	7 **14.0%**	50
Do you think that expert evidence is more intelligible to the court when given via hot-tubbing?	31 **62.0%**	15 **30.0%**	4 **8.0%**	50
Does hot-tubbing enable the expert to better express his or her views on the relevant disputed issue, compared with the more traditional forms of adducing expert evidence?	29 **58.0%**	16 **32.0%**	5 **10.0%**	50



Respondents were invited to provide any other comments on these points. Comments received included:

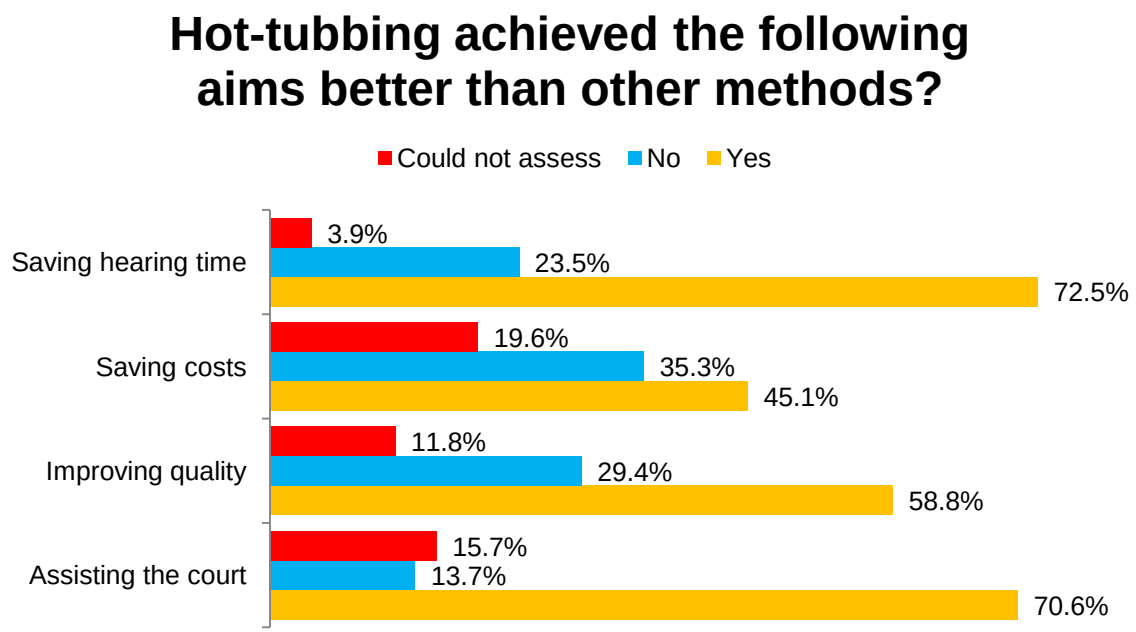
> "Addressing issues as they arose, in my opinion was probably more meaningful to the Court. It also demonstrated the need for the Expert to have different skill sets (than for giving conventional evidence)."
>
> "This works if each expert is of an equal status which in my specialism is very often not the case."
>
> "Hot tubbing suits a confident expert."
>
> "The whole process felt a bit of a shambles and no-one seemed to know what to do. From the experts point of view it was a struggle to provide the relevant evidence and to address the evidence given by the other experts."
>
> "What hot tubbing should do is enable the Experts to have a discussion in Court with judge able to ask questions for clarification - a sort of Experts Meeting in Court - that might enable a better understanding."
>
> "I don't think additional neutrality came into it. I think it is easier for the judge / tribunal to address certain issues when both experts are together - otherwise you get two very one-sided cross examinations and the judge / arbitrator has to find the middle ground with there being no direct discussion of what that middle ground might be."
>
> "With experts acting properly this process should be able to focus on the key areas of disagreement between the experts and save court time."
>
> "Works best when Tribunal asks questions and one can explain properly. Does not work when tribunal is biased to one side and clearly shutting down one expert!"
>
> "I have found that experts tend to be more reasonable when faced with one another directly. The hot tub gives the tribunal the opportunity to question both experts on one topic, and hence uncover the root of differences in opinion, and allows the tribunal to focus on the important issues, not just those on which counsel want to cross-examine."
>
> "It was a strange unusual process but the dialogue between the experts and the Judge was, I thought, a better process than the traditional process."
>
> "I miss the opportunity to educate the judge on the technical aspects of the case. Success depends on the judge educating himself/herself before the experts are sworn."
>
> "The judge in my experience had a far higher level of expertise than counsel, drew out more neutral and relevant evidence than counsel."
>
> "The judge's attitude is crucial to the success of the process."
>
> "In my experience, the efficacy of hot-tubbing is very much dependent on (1) the accuracy and detail of experts' statements of agreement and differences of opinion in expert conclaves, and (2) the tribunal's familiarity with conclave statements and individual expert's affidavits."
>
> "The arbitrator followed up on themes so it was easy to follow on. There was no conventional testing by cross-examination so the arbitrator had to determine from her questions which opinion to adopt."

"I got on well with the other expert psychiatrist which I think helped a lot. When the judge asked for clarification of some of the points re PTSD, it was good to have an experienced colleague next to you who felt able to share in answering such questions."

"I found this to be a hopeless way to assess expert evidence. It allowed the Judge to dominate proceedings and reduced the role of Counsel (complicated here because the claimant was a [litigant in person])."

"Hot-tubbing risks experts being allowed less time to express their opinion."

Bearing in mind the rationales of concurrent evidence, do you believe that the process of hot-tubbing achieved the following aims better than other methods of adducing expert evidence:	**Yes**	**No**	**Could not assess**	**Total**
Saving hearing time during the trial[19]	37 **72.5%**	12 **23.5%**	2 **3.9%**	51
Saving costs to the parties	23 **45.1%**	18 **35.3%**	10 **19.6%**	51
Improving the quality of the expert evidence	30 **58.8%**	15 **29.4%**	6 **11.8%**	51
Assisting the court to determine disputed issues of expert evidence	36 **70.6%**	7 **13.7%**	8 **15.7%**	51



[19] Six of the respondents who answered "no" or "could not assess" to this question also said that the experts underwent a full cross-examination in addition to the hot-tubbing process.

Respondents were invited to make any other comments about the process of hot-tubbing. Some of the comments received are set out below.

> "Some advice - tips of what to do and what not to do might have been useful but I think we were all learning. It was three (?) years ago."

> "In my view the process needs to be tightened up to allow each expert to properly respond to what has been said by the other, and to ensure that questions are asked relevant to the clinical issues, particularly where the latter are complex. If the scientific field is not yet quite understood by the judge he may not ask the questions relevant to its clarification."

> "It does not need to be an all or nothing - I think it works best as part of the witness examination. It is more constructive and less adversarial."

> "In TCC cases, it appears to require as a prerequisite that the two experts have made significant progress in narrowing down the areas of disagreement."

> "The process would be most effective where the experts have met, narrowed the issues and produced a clear experts statement."

> "The process relies on the judge having read the experts' reports and grasped the issues. Counsel is largely disenfranchised and has to be willing to "let go". The process favours the more competent expert witnesses."

> "The problem comes if the experts are not evenly matched, i.e. one is a shrinking violet and the other is outspoken."

> "I would encourage flexibility, to be exercised at the discretion of the judge. … there are two key points that come out: (a) if the tribunal is to use hot-tubbing in place of back-to-back evidence, the tribunal needs to have done a lot of preparation, perhaps more than is practical (b) if hot-tubbing follows back-to-back, it provides an excellent opportunity for the tribunal to have identified the real expert issues and then follow up on them immediately."

> "I am of the view that the cross examination process needs to be open to the judge and other experts to be involved in order to prevent counsel manipulation."

> "I have replied above that hot-tubbing improves the quality of expert opinion evidence. That is necessarily a generalisation. Immediate side-by-side comparison has the opposite effect on some expert witnesses."

> "The arbitrator asked questions to fill in gaps in her understanding. She could have missed something but in this case she did not."

> "I think that this process probably led to more collaboration in the giving of views I think it is important that the judge should be able to decide what would be most suitable in any given case. I think it is important that it not be used just to save costs."

> "Alongside hot-tubbing, it is also becoming common in international arbitration for the experts to give a powerpoint presentation summarising their reports. This is a good idea, as it brings the key issues to the attention of the arbitrators/judge, and is a more positive empowering experience for the expert, and helps to clarify the issues."

> "It moves Court proceedings to a more Judge-led, Napoleonic, form. If it is to be the usual form Judges will need to be of very high calibre and properly trained. My experience was that justice was not well served in the one case that I was involved with."