CONCURRENT EXPERT EVIDENCE AND ‘HOT-TUBBING’ IN ENGLISH LITIGATION SINCE THE ‘JACKSON REFORMS’

A LEGAL AND EMPIRICAL STUDY

25 July 2016
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## THE LEGAL AND EMPIRICAL STUDY

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a hot-tub: a large tub filled with hot aerated water used for recreation or physical therapy

*The Oxford Dictionary of English* (2nd edn, revised, 2005), p 841

a hot-tub: a discussion chaired by the judge in which the various experts, the parties, the advocates and the judge engage in a co-operative endeavour to identify the issues and arrive where possible at a common resolution of them. Where resolution of issues is not possible, a structured discussion, with the judge as chairperson, allows the experts to give their opinions without the constraints of the adversarial process and in a forum which enables them to respond directly to each other. The judge is not confined to the opinion of one advisor but has the benefit of multiple advisers who are rigorously examined in public.

EXECUTIVE SUMMARY

This project on hot-tubbing, undertaken by the Civil Justice Council’s Civil Litigation Review Working Group, has sought to achieve three outcomes.

First, by means of surveys distributed to the judiciary, legal practitioners, and expert witnesses, it has been possible to gain a better understanding of how the process of concurrent evidence is operating in English courtrooms, why (and in what areas of litigation) judges and legal practitioners are (or are not) using that process, and whether the overall aims of concurrent expert evidence are being achieved. The results of those surveys are disseminated as part of this report (Appendix D).

Secondly, as a result of both internal consideration and the immensely valuable assistance provided by external parties, the Working Group has recommended three documents:

(1) a re-drafted version of PD 35.11 (Concurrent expert evidence);
(2) a new Guidance Note for Judges and Practitioners; and
(3) a new Information Note for Expert Witnesses.

All are contained as Appendices to this report.

Thirdly, the report suggests that some further amendment of Court Guides, and some judicial training, may provide further consistency and familiarity with the procedure of hot-tubbing — albeit with the overriding caveat that the technique will not be for every case. These suggestions are set out in Section 5 of the Report.
The Working Group for the Civil Litigation Review Working Group (Hot-tubbing) consisted of the following members:

1. Professor Rachael Mulheron (Chair) (Queen Mary University of London, and CJC member)
2. Maura McIntosh (Deputy Chair) (commercial litigation specialist, Herbert Smith Freehills)
3. Helen Blundell (Legal Services Manager, Assn of Personal Injury Lawyers (APIL))
4. Roger Clements (Member, Expert Witness Institute)
5. Nicola Cohen (Chief Executive, the Academy of Experts)
6. His Honour Judge David Grant (Technology and Construction Court judge in Birmingham)
7. Simon Hughes QC (of Keating Chambers, representing the Bar)
8. Michelle MacPhee (Managing Counsel, Dispute Resolution Team, BP, London)
9. Guy Pendell (Partner and Solicitor Advocate, CMS Cameron McKenna LLP)
10. Duncan Rutter (Forum of Insurance Lawyers (FOIL) representative)
11. Alec Samuels (author and academic lawyer, University of Southampton)
12. Michael Stephens (arbitrator, and member of the CIArb)

The Secretariat was provided by Peter Farr, Andrea Dowsett, and Graham Hutchens of the Civil Justice Council.
THE BROADER TERMS OF REFERENCE

The broader terms of reference for the Civil Litigation Review Working Group, of which Concurrent Expert Evidence and Hot-tubbing forms the first topic for consideration, are as follows:

**‘CIVIL LITIGATION REVIEW’**

1. To consider and review a series of discrete topics relating to civil litigation and, in particular, those issues relating to the funding of claims and of furthering the CPR’s overriding objective of enabling the court to deal with cases justly and at proportionate cost.

2. To appoint a small, core membership for the group, to be supplemented by additional expert members for the purposes of particular subject areas which are undertaken by the group during its work programme.

3. To maintain a rolling work programme, with an emphasis on flexibility, to allow the group to respond to new topics as they emerge, but with a proposed initial focus on the following:
   a. Hot-tubbing of experts
   b. The role which BTE insurance might play in improving access to justice
   c. QOCS and private nuisance claims.

4. To consider 4–5 topics consecutively, during a period of approximately 18 months, starting in April 2016, and reporting on each as work is concluded on that topic.

5. To provide relevant information obtained by, and reports produced by, the group, for the assistance of the Post-Implementation Review of the LASPO Act Part 2 reforms, which Review is due in early 2018.

The *formalised* introduction of concurrent evidence, by amendment to the Civil Procedure Rules, was one of the real innovations of the Jackson reforms of April 2013.

Even before this formal implementation, the use of concurrent evidence was being adopted, particularly in specialist courts, where expert evidence on highly-technical medical, scientific, engineering, or architectural matters, was commonly required. An impetus for this *informal* adoption of the process was provided by the reports which gave rise to the so-called ‘Jackson reforms’. In *Review of Civil Litigation Costs: Preliminary Report* (May 2009), Sir Rupert Jackson flagged up (in [14.2]) that —

> [o]ne other matter which merits consideration is whether the Australian procedure, whereby opposing experts give evidence concurrently, might be included in the CPR as an option. ... I am told by the Federal judges in New South Wales that this procedure works well in practice and leads to a saving of costs. If practitioners and court users see any merit in this procedure, it might be suitable for a pilot exercise.

Subsequently, in *Review of Civil Litigation Costs: Final Review* (Dec 2009), Sir Rupert Jackson reinforced his views in support of concurrent evidence, recommending (in ch 38, Recommendation 4.3; and see too, [3.12], [3.23]–[3.24]) that:

> [t]he procedure developed in Australia, known as “concurrent evidence” should be piloted in cases where all parties consent. If the results of the pilot are positive, consideration should be given to amending CPR Part 35 to provide for use of that procedure in appropriate cases.

Prior to 2013, the process of concurrent expert evidence was case-managed *ad hoc*, by agreement between the judge, the counsel, and the parties. For example, in 2011 in *Harrison v Shepherd Homes Ltd* [2011] EWHC 1811 (TCC) [26], Ramsey J remarked that —

> After cross-examination of the engineering experts, with the agreement of the parties, there was a process of concurrent evidence, colloquially known as ‘hot tubbing’, so as to deal effectively with the ten individual properties. This highlighted the extent of agreement between the experts and also showed the limited differences in approach on which I have had to make a decision.

— whilst, in the Family Court, regarding a dispute about the care of a disabled child, in *Re Baby X* [2011] EWHC 590 (Fam) [22]–[23], Ryder J noted that —

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The three experts commissioned to analyse the key issues were heard in oral evidence by the court. Not for the first time, this court was very greatly assisted by hearing their evidence concurrently. A device unfortunately and colloquially known as ‘hot tubbing’ was used with the agreement of all parties. This process has been tested in America and Australia, but not in this jurisdiction. Out of the experts’ reports and discussions, the court derived an agenda of topics which were relevant to the key issues and to which counsel were asked to contribute. The witnesses were sworn together, and the court asked each witness the same questions under each topic, taking a topic at a time. The experts were encouraged to add or explain their own or another’s evidence so that a healthy discussion ensued, chaired by the court. Each advocate is permitted to examine or cross examine and where appropriate re-examine each witness after the court has elicited evidence on a topic. The resulting coherence of evidence and attention to the key issues rather than adversarial point scoring is marked. The evidence of experts who might have been expected to fill 2 days of court time was completed within 4 hours.

As a result of Sir Rupert Jackson’s recommendations in his Final Review (referenced above), a 2-year pilot study was duly conducted in the Mercantile Court and the Technology and Construction Court in Manchester, and in the Manchester Chancery Court, commencing in June 2010. Various cases (both within the pilot study and outside of it) invoked the use (or potential use) of hot-tubbing. Practice Direction 35.11 was duly amended in April 2013, to embody the rules of that pilot — and a formalised procedure for ‘hot-tubbing’ was born.

It is the primary purpose of this project to consider how that process has fared, since its formal implementation.

Following a general Introduction, this report is divided into five sections. Chapter 2 explains the different forms of concurrent evidence (of which hot-tubbing is one example) which have manifested in English litigation since the Jackson reforms were implemented. Interestingly, some of these make no appearance in any of the Civil Procedure Rules, Practice Directions, or Court Guidelines. Chapter 3 considers some particular issues associated with the use of hot-tubbing (such as when the hot-tubbing order is generally made, how that order is communicated to the expert witnesses, and issues to do with obtaining a transcript of trial), whilst Chapter 4 explores whether, in the light of empirical evidence gathered during this project, the stated goals of hot-tubbing are perceived to have been achieved to date. Finally, Chapter 5 concludes, with some suggestions as to further work that may be undertaken to place hot-tubbing on a more prominent footing, as a useful tool which may assist a judge to resolve disputed points of expert witness testimony.
The following abbreviations are used throughout this report:

C  Claimant/s
CJC  Civil Justice Council of England and Wales
CMC  case management conference
COP  the Court of Protection
CPR  Civil Procedure Rules 1998
CPRC  Civil Procedure Rules Committee
D  Defendant/s
HHJ  His (or Her) Honour Judge
MOJ  Ministry of Justice
PD  Practice Direction
PTR  pre-trial review
reg  Regulation
TCC  the Technology and Construction Court
[13.2]  this designates para 13.2 of the relevant report/article
ACKNOWLEDGEMENTS

The success of this ‘hot-tubbing’ project was enhanced by the generous assistance which was provided by a number of people, outside of the Working Group itself. The Working Group wishes to acknowledge and thank those for their time and efforts, as follows (in alphabetical order):

- Beverley Barton, Editor of Practical Law Dispute Resolution, who kindly publicised the surveys conducted by the Working Group via the resources available to Practical Law, and who forwarded to the Working Group various information and links to hot-tubbing references to which Practical Law had access;

- Jim Delany QC, of the Victorian Bar, who provided the Working Group with extensive materials relevant to the use of hot-tubbing in Australia in the Kilmore Bushfires Case (also referred to in Mr Delany’s speech, ‘“Hot-tubs” and other Expert Evidence Case Management Techniques: Approach with Caution’ (delivered to the London Conference of the Commercial Bar Association of Victoria, on 29 June 2016));

- Chris Easton, chartered building surveyor, who assisted the Working Group by attending the second Working Group meeting, dated 3 June 2016, as an observer, and who also provided various written insights which assisted the Working Group;

- Alex Gunning QC, of 4 Pump Court, Temple, London, who provided the Working Group with written insights into the use of hot-tubbing in the context of numerous arbitrations in which he had been involved (and which were translatable to the litigious sphere too);

- The Hon Mr Justice Hayden, of the High Court (and of the Court of Protection), who kindly provided detailed written feedback to an email enquiry from Rachael Mulheron, in relation to the hot-tubbing experience in Re N [2015] EWCOP 76 (19 Nov 2015);

- Sir Rupert Jackson, and his Judicial Assistant, Stephen Clark, who kindly forwarded on, for the Working Group’s information, the responses received from various judges to an informal survey on hot-tubbing which was disseminated by Sir Rupert in May 2016 (and the results of which were summarised in a speech by Sir Rupert entitled, ‘Concurrent Expert Evidence: A Gift from Australia’ (delivered to the London Conference of the Commercial Bar Association of Victoria on 29 June 2016));
Graeme Johnson, disputes partner, Herbert Smith Freehills, Sydney, who kindly provided details of Australian practice relating to expert evidence, via phone interview with Maura McIntosh on 13 June 2016;

Lisa O’Dwyer, the Director of Medico-Legal Services of AvMA (Action against Medical Accidents), who kindly disseminated the Working Group’s survey of expert witnesses to those experts who were accessible via the AvMA database, and who supplied the results of that survey to the Working Group, to be added to the other results achieved; and who also provided other useful materials re hot-tubbing in the clinical negligence context;

The Hon Mr Justice Roth, President of the Competition Appeal Tribunal and member of the High Court (Chancery Division), and Charles Dhanowa, the Registrar of the Competition Appeal Tribunal, who were interviewed by members of the Working Group (viz, Andrea Dowsett, Maura McIntosh and Rachael Mulheron) on 26 May 2016, in relation to the hot-tubbing experience in the case of Streetmap.EU Ltd v Google Inc [2016] EWHC 253 (Ch);

Michael Stewart, the Communications Officer at the Judicial Office, who, with cheerful efficiency and promptitude, transformed the Working Group’s questionnaires into survey monkey tools which could be easily disseminated, and the results then digested;

His Honour Judge Waksman QC, Head of the London Mercantile Court, London, who was interviewed by members of the Working Group (viz, Andrea Dowsett, Maura McIntosh and Rachael Mulheron) on 31 May 2016, in relation to the hot-tubbing experience in the Manchester Pilot Project (which was conducted under the leadership of Judge Waksman), and who also provided the Working Group with numerous helpful papers and written insights into the hot-tubbing methodology and background.

The Working Group also wishes to thank all of those who responded to the surveys which were disseminated as part of this project. Across all three categories – viz, the judiciary, lawyers, and expert witnesses – many generously gave of their time and experience. As a result, those insights which have been woven throughout this report have enriched the understanding of the Working Group about this topic, and have assisted the Working Group to make its recommendations.
CONCURRENT EXPERT EVIDENCE AND ‘HOT-TUBBING’ IN ENGLISH LITIGATION SINCE THE ‘JACKSON REFORMS’

A LEGAL AND EMPIRICAL STUDY
1. INTRODUCTION

The background to this project

This project on concurrent evidence and hot-tubbing has been undertaken by the Civil Justice Council for three reasons:

1. No study about the formal introduction of hot-tubbing, and the effect of the amendments to PD 35, had been conducted since 2013, as far as the Working Group was aware. Additionally, it was only possible to conduct a limited pilot study of hot-tubbing ahead of the reforms taking effect, courtesy of the 2-year pilot scheme which commenced in 2010 in the Manchester Mercantile Court and TCC to test the usefulness and efficiency of concurrent evidence (the results of this study were reported in the Manchester Concurrent Evidence Pilot: Interim Report, by Prof Dame Hazel Genn, UCL Judicial Institute, and were discussed further by that author in, ‘Getting to the truth: experts and judges in the “hot-tub”’ (2013) 32 Civil Justice Quarterly 275). These two factors reinforced the need for some further scrutiny of the innovation in this jurisdiction.

Upon consultation by the CJC with the MOJ, the latter further considered that the topic would be useful for both the Government (re any costs-saving potential which the procedure may hold) and for the judiciary who were actively involved in, or who were considering the use of, the procedure.

2. Following the Jackson reforms, and the formal introduction of hot-tubbing, some judges wrote about their experience of expert evidence being adduced by ‘hot-tubbing’ in very complimentary terms. For example, in Stratton v Patel [2014] EWHC 2677 (TCC) [398], Mr Roger ter Haar QC, sitting as a Deputy High Court judge in the TCC, remarked that he found the hot-tubbing of mechanical and electrical experts to be ‘extremely useful’, whilst in Armstrong v Richardson [2014] EWHC 3306, [2], Coulson J stated that, ‘I should compliment counsel on the highly efficient way in which the trial was conducted, and what I regarded as a very successful “hot-tubbing” of the experts when they came to give oral evidence.’

However, despite these positive sentiments, the Working Group was aware of a perception in the legal community that concurrent expert evidence was being rarely used in litigation, and that the reasons for this were somewhat obscure. This view was buttressed by various published statements to that effect (per: Rachel Rothwell, ‘Judges must be braver about hot-tubbing’ (Law Society Gazette, 29 Oct 2014):

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Why does hot-tubbing hardly ever actually happen in our courts? Last week, it became apparent that I am not the only one pondering this mystery. Sir Rupert Jackson, delivering a talk to the Law Society’s commercial litigation conference, noted that, outside Manchester where it was piloted, concurrent evidence does not seem to be being used as widely as intended. ... 

The topic also came up at the Expert Witness Institute’s annual conference in September, which I attended. Delegates pondered whether the low take-up of hot-tubbing was because barristers didn’t much like the technique, because they might ‘lose control’ of the evidence. But it was pointed out that whether or not concurrent evidence takes place is not actually up to the lawyers on the case; it is down to the judge. And judges just don’t seem to be ordering hot-tubbing in anywhere near as many cases as they could be.

This reluctance to use hot-tubbing also prompted the undertaking of this project. The Working Group considered it important to understand how (and in what areas of litigation) the processes of concurrent expert evidence were (or were not) being used.

3. A third reason for the project was that the Civil Justice Council has a statutory role to keep the civil justice system under review, and in that light, will hold itself in readiness to provide relevant information obtained by, and reports produced by, this Working Group, for the assistance of the Post-Implementation Review of the LASPO Act Part 2 reforms. That Review is due in early 2018, and it is expected that hot-tubbing will form one aspect of that review.

The empirical work undertaken for the purposes of the project

The empirical aspect of this project took three separate forms: via interviews, surveys, and personal insights provided by members of the Working Group and other interested parties.

1. Interviews were conducted with a range of persons who had been involved in hot-tubbing. To note, those interviewees, to whom acknowledgements have previously been given, can be found at page xi of this report, viz:

- Graeme Johnson, disputes partner of Herbert Smith Freehills, Sydney, who provided details of Australian practice relating to expert evidence and ‘hot-tubbing’ (including the Victorian Kilmore bushfires class action, in which he was involved), via phone interview with Maura McIntosh on 13 June 2016;

- The Hon Mr Justice Roth, President of the Competition Appeal Tribunal and member of the High
Court (Chancery Division), and Charles Dhanowa, the Registrar of the Competition Appeal Tribunal, who were interviewed by members of the Working Group (viz, Andrea Dowsett, Maura McIntosh and Rachael Mulheron) on 26 May 2016, in relation to the hot-tubbing experience in \textit{Streetmap.EU Ltd v Google Inc} [2016] EWHC 253 (Ch); and

His Honour Judge Waksman, Head of the London Mercantile Court, London, who was interviewed by members of the Working Group (viz, Andrea Dowsett, Maura McIntosh and Rachael Mulheron) on 31 May 2016, in relation to the hot-tubbing experience in the Manchester Pilot Project for which he was appointed as lead Judge, and who had since directed the use of hot-tubbing in various cases in the Mercantile Court and TCC.

2. The Working Group prepared three surveys, which are reproduced on the Civil Justice Council website. These surveys were disseminated to the following:

- approximately 50 members of the judiciary, from specialist courts and from the High Court’s various divisions;

- practising lawyers, via blogs, via an article published by Practical Law to its subscribers, via notice given in a conference presentation by Rachael Mulheron at the Westminster Legal Policy Forum on 23 May 2016, and via the efforts of organisations such as the Association of Litigation Professional Support Lawyers, the London Solicitors Litigation Association, and the City of London Law Society; and

- expert witnesses, with distribution achieved via the Expert Witness Institute, via the Academy of Experts, via the organisation, Action against Medical Accidents, and via concerted efforts of several Working Group members.

The aim of the surveys was to target those who had some experience of hot-tubbing in practice, particularly in High Court or specialist court litigation in England and Wales. However, respondents were encouraged to respond to the surveys, if they had engaged with hot-tubbing in the context of arbitration, or in litigation in other jurisdictions, or if they had a particular interest in, or view upon, hot-tubbing.

The surveys received 14 responses from the judiciary; 33 responses from legal practitioners; and 51 responses from expert witnesses. Various insights and statistical information from these surveys are woven into this report, where appropriate; and full distillation of the results of the surveys is contained in Appendix D of the report.
3. The members of the Working Group were selected for the experience which they could bring to bear on the topic of hot-tubbing.

For example, His Honour Judge David Grant, as a judge of the Technology and Construction Court, has had first-hand experience of various forms of concurrent evidence, including hot-tubbing, in construction and building disputes of various types; the user’s representative, Michelle MacPhee, Managing Counsel, BP’s Dispute Resolution Team, had witnessed hot-tubbing in several arbitrations; Guy Pendell, as a litigation and arbitration partner at CMS, also had exposure to the use of hot-tubbing in litigation; Alec Samuels had observed the practice of hot-tubbing during the course of his career at the Bar; the expert witness representatives, Roger Clements and Chris Easton, had both been ‘hot-tubbed’ in litigation; and Nicola Cohen, of the Academy of Experts, had regularly witnessed the practice, and had also advised experts who had been ‘hot-tubbed’. The insights and experience of all of these members have been extensively drawn-upon, in the drafting of this report.

The Working Group met three times during the course of this project, between April and July 2016 – on 26 April, 3 June, and 25 July.

The limitations upon this project

The primary purpose of this project, as stated in the Preface (at page viii) is to study the practice of concurrent evidence since the implementation of the Jackson reforms in April 2013. However, there are two further limitations on this project: re both context, and jurisdiction.

1. Re context, the Working Group was aware that hot-tubbing has been used more extensively in the context of arbitration than in litigation. It was suggested that this is no coincidence, given that: (1) in some cases, arbitrators may be chosen for their technical qualifications, and will therefore have a very good innate understanding of the technical issues upon which expert opinion evidence is required; and (2) arbitrators may have a commercial incentive to be particularly well-prepared for the case, given that they are engaged, in part, on the reputation for competency which they build up in the arbitral sphere, and because of this advance preparation, are better able to lead the expert questioning.

Hence, whilst the Working Group sought the feedback, via its surveys, of those legal practitioners and expert witnesses who had been engaged in arbitrations, the focus of this project was primarily upon the use of hot-tubbing in the courtroom. For that reason, there was no specialist survey prepared for, and distributed to, the Chartered Institute of Arbitrators or similar entity.
A related limitation of the project was that the Working Group had a small budget by which to conduct its survey, although the interest was such that, via approximately 100 responses, it did gather more data than might have been expected.

2. Re jurisdiction, the Working Group was fully aware of the origins of hot-tubbing in Australia – a point which was made by Sir Rupert Jackson himself, in his report, *Review of Civil Litigation Costs: Preliminary Report* (May 2009), ch 57, [4.17]:

   The practice has been developed in Australia of hearing evidence concurrently from the experts in any particular discipline. This practice is known colloquially as “hot tub”. The practice began in the Competition Tribunal and was subsequently adopted in the Supreme Court of New South Wales.

The Working Group familiarised itself with the broad operations of hot-tubbing in the Australian (and Canadian) contexts, by reference to relevant papers (e.g., Wilson, ‘*Concurrent and court-appointed experts? From Wigmore’s “Golgotha” to Woolf’s “proportionate consensus”*’ (2013) 32 Civil Justice Quarterly 493; Justice Peter Garling, ‘*Concurrent expert evidence: The New South Wales experience*’ (paper presented at the Oxford Faculty of Law, 1 Dec 2015); McKenzie, ‘*Concurrent Evidence in the Kilmore East Bushfire Proceeding*’ (paper published 13 April 2016); and Green, ‘*IP experts take the plunge into the hot tub*’ [2012] European Intellectual Property Review 875); by hearing of the experiences of one of its members, Dr Roger Clements, who had personal experience of being ‘hot-tubbed’ in the ‘home of the hot-tub’, viz, the New South Wales Supreme Court; by an interview between Deputy Chair Maura McIntosh and Graeme Johnson, disputes partner of Herbert Smith Freehills, Sydney (dated 13 June 2016), who has had extensive experience of procedures relating to expert evidence in Australian litigation; by observing the speech by Jim Delany QC, entitled, ‘*“Hot-tubs” and other Expert Evidence Case Management Techniques: Approach with Caution*’ (delivered to the London Conference of the Commercial Bar Assn of Victoria, on 29 June 2016); and by inviting survey responses from those legal practitioners and experts who had experienced hot-tubbing in jurisdictions outside England and Wales.

However, whilst this information was quite instructive for the Working Group, the focus of this study is on the English landscape. There are some key differences between the litigation conducted in each country, of which some account should properly be taken, in the Working Group’s view. In particular:

- the passage of time between the taking of expert evidence on the claimant’s side, and then the defendant’s side, following the full presentation of each side of the case sequentially (a delay which could amount to several months, with trials part-heard) helped to prompt the introduction of the hot-tubbing process in New South Wales. This is acknowledged in the abovementioned literature.
However, the general emphasis in English litigation upon closely-supervised case management; the long-established practice of having experts in like disciplines give evidence one after the other (rather than as part of the presentation of the main body of the claimant’s and defendant’s respective cases); and the general absence of part-heard trials, all have tended to mean that large time gaps between expert evidence being given do not occur at trial in England;

- furthermore, one of the reasons noted by The Hon Mr Justice McClellan for the introduction of hot-tubbing in the New South Wales Supreme Court was the problem of poor quality, often partisan, expert evidence being presented to that court, and often in circumstances where the cross-examination of experts seemed to be conducted in a fairly aggressive fashion. Graeme Johnson noted, in his interview, that ‘judges [in Australia] tend to be somewhat suspicious of the process of expert evidence, and the potential for experts to take on a role as advocates for the party instructing them (without necessarily having any conscious bias). This has been a key motivation for the development of the use of hot-tubbing, which is seen as a less adversarial process’ (interview dated 13 June 2016). Joint meetings of experts and joint statements are typically directed where the technique of hot-tubbing is used, but are not otherwise standard procedure in Australian litigation (although they may be directed, even in the absence of a hot-tub).

On the other hand, the tools by which to prepare expert evidence for trial have developed in England, over the course of several years, in a reasonably structured manner. For example, prior to trial, the general process is that: the respective experts each prepare their separate reports; those reports are exchanged; the experts are then required to meet (the so-called ‘meeting of experts’), pursuant to CPR 35.12(3), which then gives rise to the preparation of a joint statement. That statement is required to show the areas where the experts agree and disagree, providing reasons for the disagreements. That joint statement is then provided to the judge (‘often one of the most valuable documents in the case’, according to HHJ David Grant, the judicial member of the Working Group). The joint statement then serves as a basis for producing ‘an agreed agenda’ of those issues upon which the experts disagree, where the process of concurrent evidence is to be adopted – which agenda may be set by either the court, or by an agreed agenda set by the parties which is provided to the court for its consideration prior to the trial. The implementation of such a detailed process, well prior to the Jackson reforms of 2013, means that the motivation for introducing hot-tubbing in England was somewhat different from that in Australia;

- finally, the requirement for the parties to identify expert issues has become far more focused in English litigation since April 2013 – given the emphasis on costs control which the Jackson reforms initiated. CPR 35.4(4) was amended, on 1 April 2013, to provide that, when granting permission for
expert evidence to be adduced at trial, ‘the order granting permission may specify the issues which the expert evidence should address’. That is, it is couched in discretionary terms. However, CPR 35.4(2) was also amended on 1 April 2013 — and it is mandatory: ‘When parties apply for permission, they must provide an estimate of the costs ... and identify ... the issues which the expert evidence will address’.

In the opinion of HHJ David Grant (per memo dated 3 May 2016), those amendments, in combination, ‘have led to a significant change in practice, whereby the court is far more attuned to the need to identify the issues upon which expert opinion evidence is to be permitted. The issues are often expressly stated in the order giving permission’, and this will inevitably prompt some early consideration as to whether a single joint expert may be appointed to save the parties time and cost, or whether party experts will be required (and, if the latter, whether some form of concurrent evidence may be warranted). Whilst the Working Group understands that the early identification of expert issues is becoming increasingly commonplace in Australian litigation, the longstanding emphasis in English litigation on the court’s early awareness of the expert issues in the case, and the undoubted emphasis in England upon costs up-front (and all the practical implications which that entails), contributed to the Working Group’s election to focus its attention upon the litigious landscape in England, post-2013.

However, where insights about the Australian experience were considered pertinent for this study, whether arising from the surveys or from interviews, then those are noted herein.

The Working Group also took note of the Scottish case, *SSE General Ltd v Hochtief Solutions AG* (in which there is presently a reserved judgment, following an 87-day trial before Lord Woolman). The case concerned the collapse of a pressurised water tunnel in a new hydro-electric scheme at the Glendoe site near Fort Augustus in 2009, shortly after the scheme had started operations. The claimant energy company claimed for £130M against the contractors Hochtief which amount it alleged was lost, when the collapse caused electricity generation to cease for two years; whilst Hochtief counterclaimed for almost £10M, these losses said to arise because of having to investigate the collapse, and not being awarded the repair contract. According to press reports (see: ‘*Light at the end of the tunnel in “hot-tubbing” case?*’ [2016] *Scottish Legal News*), the case ‘made Scottish legal history by being the first to include “hot-tubbing”’; and it was also one of the longest trials ever held in that jurisdiction, concluding after an 87-day trial. The trial included three hot-tubbing sessions — one of these taking two days (and involving seven experts). However, given that judgment is, at the time of writing, reserved, it has not been possible for the Working Group to gather any further information about the use of hot-tubbing in that case, as at the date of publication of this report.
Where concurrent evidence has been used in English litigation to date

The Working Group reviewed the areas of law in which some form of concurrent evidence (including hot-tubbing) had been used since April 2013, via searches of case law databases. This was supplemented by the judicial responses to the survey, in which some further instances of hot-tubbing were referenced. The table below illustrates the wide contexts in which concurrent evidence has been used:

<table>
<thead>
<tr>
<th>Area of law</th>
<th>Example of case</th>
</tr>
</thead>
<tbody>
<tr>
<td>social workers and medical experts who give</td>
<td>• <em>PB v RB</em> [2016] EWCOP 12 – social workers were required to give evidence, via hot-tubbing, regarding what residential care arrangements would be in the best interests of an elderly lady with dementia, who was unable to make decisions in her own capacity.</td>
</tr>
<tr>
<td>evidence on matters to do with the best interests</td>
<td></td>
</tr>
<tr>
<td>of a person who no longer has the capacity to</td>
<td>• <em>Re N</em> [2015] EWCOP 76 – consultants were hot-tubbed on issues to do with persistent vegetative state, in relation to whether it was in the best interests of Mrs N, who was suffering from advanced multiple sclerosis, to continue to receive life-sustaining treatment by certain specified means.</td>
</tr>
<tr>
<td>make decisions on his or her own behalf</td>
<td></td>
</tr>
<tr>
<td>property and succession disputes</td>
<td>• <em>Patel v Vigh</em> [2013] EWHC 3403 (Ch) (6 Nov 2013) – handwriting experts were hot-tubbed, when giving evidence as to whether or not a signature was forged.</td>
</tr>
<tr>
<td>motor vehicle accidents</td>
<td>• <em>Armstrong v Richardson</em> [2014] EWHC 3306 – accident reconstruction experts were hot-tubbed about what speeds a driver would likely have been doing at the point of collision.</td>
</tr>
<tr>
<td>building and construction disputes</td>
<td>• <em>Stratton v Patel</em> [2014] EWHC 2677 (TCC) – mechanical engineering and electrical engineering experts were hot-tubbed, regarding a schedule of defects relating to restaurant premises in Islington.</td>
</tr>
<tr>
<td></td>
<td>• <em>Hunt v Optima (Cambridge)</em> [2013] EWHC 681 (TCC) – the architect and engineers experts were hot-tubbed on a schedule of defects relating to serious defects arising in a block of flats in Peterborough.</td>
</tr>
<tr>
<td>competition law</td>
<td>• <em>Streetmap.EU Ltd v Google Inc</em> [2016] EWHC 253 (Ch) – in a dispute concerning the alleged abuse of a dominant position by Google re online streetmapping, the economist experts were hot-tubbed, concerning measuring searches for online maps or online mapping websites. This was the first time in which hot-tubbing had been used in a competition law case in England.</td>
</tr>
</tbody>
</table>
### TABLE 1  Areas of law which have involved hot-tubbing, since the Jackson reforms

<table>
<thead>
<tr>
<th>Area of law</th>
<th>Example of case</th>
</tr>
</thead>
</table>
| medical negligence        | • an unreported case in the Liverpool District Registry, referenced in: D Locke, *Time to empty the tub?* [2016] *New Law Journal* (26 Feb 2016) – the general and vascular surgeon experts were hot-tubbed on ‘a relatively few headline questions’  
• an unreported case referenced in a Kennedys update, *Expert evidence: hot-tubbing* (dated 28 Oct 2013) – where the alleged negligence was a failure to diagnose cancer, and the relevant experts hot-tubbed were colorectal surgeons and a clinical oncologist  
• this area was also referenced by expert witness respondents to the survey, without further details as to the precise cases |
| commercial/sale of goods  | • this area was referenced by a judiciary respondent to the survey, without further details as to the precise case                                                                                             |
| family disputes           | • this area was referenced by certain expert witness respondents to the survey, without further details as to the precise cases. It will also be recalled that hot-tubbing was used prior to the Jackson reforms, regarding a dispute about the care of a disabled child, in *Re Baby X* [2011] EWHC 590 (Fam) [22]–[23] (Ryder J) |

Hence, in spite of any anecdotal impression that concurrent evidence was only appropriate in the province of specialist courts (particularly in construction disputes), the experience of the hot-tubbing process has clearly traversed a number of areas of litigation in England since 2013.
The overarching purpose of expert evidence, per the duty of experts stated in CPR 35.3, is for those experts ‘to help the Court on matters within their expertise’.

The completely traditional way of conducting litigation is that C will present his or her whole case first — including the presentation of the entirety of C’s expert opinion, which may be examined, cross-examined, and re-examined, as appropriate — and then D will present his or her case next — again, with that party’s expert witnesses being examined, cross-examined, and re-examined, as necessary. Traditionally, litigation employs the approach of each party’s presenting its case wholly, and sequentially. Unless the court directs otherwise, the case will be conducted primarily at the instigation of counsel for the parties. Counsel will choose the order in which the expert witnesses will give their evidence on behalf of his or her own party, and counsel will also lead the questioning of their own party’s witnesses, and will cross-examine the other party’s expert witnesses. This procedure is described in the *White Book 2015*, at [35.1.4.2].

However, under what the Working Group has termed a ‘semi-traditional’ approach, the customary form of modern litigation is that C’s factual witnesses will be followed by D’s factual witnesses — and then, the experts will give their evidence in pairs, per discipline. The expert witnesses will be sworn in separately, and then will give their evidence one after each other. Hence, to give an illustrative scenario: C’s engineering expert gives evidence-in-chief, and is cross-examined (and re-examined, if necessary), on all issues, and then D’s engineering expert is called, and follows the same procedure. Next, C may call a forensic accounting expert who gives evidence-in-chief, and who is cross-examined (and re-examined, if necessary), on all issues, and then D’s forensic accounting expert will do likewise. All the expert disciplines, upon which opinion evidence is required, will be dealt with in similar fashion. It is not concurrent evidence, however, because the witnesses are sworn separately and give their evidence entirely separately. This particular approach to litigation — which is a departure from the completely traditionalist approach noted in the previous paragraph — is incorporated, for example, in the *Technology and Construction Court Guide*. This Guide states that, ‘where there are a number of experts of different disciplines, the court will consider the best way for the expert evidence to be given [including] ... for one party to call its expert in a particular discipline, followed by the other parties calling their experts in that discipline. This process would then be repeated for the experts of all disciplines’ (at [13.8.2]). This procedure developed more than 40 years ago in the English civil courts, and indeed, it is employed frequently in the TCC, for engineering, construction and manufacturing disputes.
Concurrent expert evidence departs from these more traditionalist norms. It means that the expert witnesses of claimant and defendant are sworn in together, and give their oral evidence on issues in a concurrent manner. One form of that process is provided for in PD 35.11. That paragraph permits the court to direct that expert witnesses may ‘give their evidence concurrently’, and sets out one procedure to enable that. The paragraph, reproduced below, was an amendment to PD 35, and was inserted in the CPR on 1 April 2013, pursuant to the 60th Update.

### Practice Direction 35 (Experts and Assessors), para 11:

**Concurrent expert evidence**

11.1 At any stage in the proceedings the court may direct that some or all of the experts from like disciplines shall give their evidence concurrently. The following procedure shall then apply.

11.2 The court may direct that the parties agree an agenda 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. Unless the court orders otherwise, the experts will then address the items on the agenda in the manner set out in paragraph 11.4.

11.4 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 discussion 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 all the experts, the parties' representatives may ask questions of them. While such questioning may be designed to test the correctness of an expert's view, or seek clarification of it, 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; and

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

However, one of the very first tasks which confronted the Working Group was to appreciate that there have been many forms of concurrent expert evidence practised in English litigation — both prior, and subsequent, to the implementation of PD 35.11.
As mentioned above, where expert evidence is required, the court will generally direct that the experts participate in a formal ‘meeting of experts’, and then prepare a joint statement (pursuant to CPR 35.12(3)), which is provided to the court for information. Where some sort of ‘concurrent’ process for expert evidence is to be used, then in practice, that joint statement will typically form the basis for the production of an ‘agreed agenda’ of issues on which the experts disagree, and which forms the basis of the expert oral testimony.

Thereafter, the process by which the expert evidence may be adduced in some sort of ‘concurrent’ fashion can differ considerably. Teasing out the different forms:

**Sequential, ‘back to back’, evidence**

This particular form of concurrent evidence is widely used in professional negligence claims involving surveyors, and in dilapidation claims arising out of the termination of business tenancies — and increasingly, in another context, it is being used in personal injury/medical negligence cases when working through schedules of items of care. The procedure operates as follows:

- there is an ‘agreed agenda’ of issues on which the experts disagree (say, a Scott schedule of defects, or a list of medical issues associated with a surgical-procedure-gone-wrong);
- all of the experts called for each party take the oath or affirm at the same time;
- on issue #1:
  - C’s expert gives evidence, and that party is examined, cross-examined, and re-examined, by counsel in the case, in the usual manner;
  - D then calls its expert to give evidence on that same issue, and that expert is cross-examined, and re-examined, by counsel in the case;
  - the court may ask questions of the witnesses at any appropriate time, for a trial judge always has, and retains, the opportunity and jurisdiction to ask questions of expert witnesses at any appropriate or convenient time during the trial – judicial experience of ‘best practice’ is that a good opportunity to do so is at the end of the entire evidence on issue #1;
- the court then receives evidence on issue #2, according to the process outlined above;
- and so on, for the remaining issues, so that the court and the parties receive all the expert opinion evidence of the same type, during the same period of the trial — but, emphatically, the process is primarily counsel-led.

This process was developed prior to the advent of the Civil Procedure Rules, and to date, is not reflected in either the rules themselves or in any Practice Direction. The power to make directions for sequential, back-to-back, evidence arises from the court’s case managements powers, to set an efficient and
effective agenda for the trial process. In the view of HHJ Grant, sequential, back-to-back evidence ‘is highly efficient in terms of use of court time, and thus cost to the parties’ (via note to the Working Group, dated 14 April 2016).

**Hot-tubbing (or ‘judge-led joint examination of experts (JJEE)’)**

In this model of concurrent evidence, the court essentially leads the oral examination of the expert witnesses. The judge’s role is variously described as that of ‘chair of the proceedings’ or ‘chief examiner’. It is primarily (although not exclusively) a judge-led process, that is its key feature.

Unlike for sequential, back-to-back, evidence (on which PD 35.11 is silent), the hot-tubbing process is lengthily described in PD 35.11 (reproduced previously at p 14). It entails that:

- just as for sequential, back-to-back, expert evidence, the ‘agreed agenda’ of issues on which the experts disagree forms the basis of the oral expert witness testimony, and the expert witnesses are sworn in at the same time;
- the judge will ‘initiate the discussion by asking the experts, in turn, for their views’, per PD 35.11.4(1). Although the rule states that the judge ‘may’ do so, the experience to date is that, where this method is adopted, the court will lead the discussion (although the Working Group has received feedback to the effect that, exceptionally, the judge may invite counsel to take a more leading role in asking the relevant questions of the expert witnesses);
- hence, generally speaking, on issue #1:
  - the judge may ask C’s expert various questions about the issue, and then ask D’s expert various questions about that same issue, per PD 35.11.4(2);
  - the judge may also invite D’s expert to comment on C’s expert’s evidence on issue #1, or may even invite D’s expert to ask his/her own questions of C’s expert (and vice versa) on issue #1, per PD 35.11.4 (1);
  - once the judge has concluded his/her questioning of the experts, parties’ counsel may ask questions of the experts – although this is not to be ‘a full cross-examination or re-examination’, as that should be ‘neither necessary nor appropriate’. Rather, it should ‘test the correctness of an expert’s view, or seek clarification of it’, per PD 35.11.4(2);
  - at the end of issue #1, the judge may then wrap up, by summarising the experts’ different positions on the issue/s, and asking them to confirm or to correct that summary, per PD 35.11.4(3).
- the court then receives evidence on issue #2, according to the process outlined above;
- and so for the remaining issues, so that the court receives all the expert opinion evidence of the same type, during the same period of the trial.
Hybrid versions of hot-tubbing

It became apparent to the Working Group that a great many variations of ‘hot-tubbing’ have been undertaken in courtrooms in England since 2013. According to PD 35.11.4, the judge has discretion to modify the procedure which is set out in the preceding paragraph — a discretion which has been oft-exercised. These hybrid forms of hot-tubbing arise, primarily, because of:

(1) variations in the role that counsel has been permitted to play during the hot-tubbing;
(2) different judicial attitudes towards the interaction which has been permissible among expert witnesses whilst they are in the hot-tub; and
(3) differences in judicial practice, in that the judge will not always lead the discussion (contrary to the description of hot-tubbing in the previous section).

Looking at the ‘players’ in the courtroom diagrammatically (and it can be a very ‘busy’ scene, and much of which is not evident in PD 35.11’s description):

By reference to the figures above, the discussion overpage outlines the several ways in which the hot-tubbing process has tended to depart from the procedure laid down in PD 35.11:
**Item 1: The interaction between the experts in the hot-tub**

The terms of PD 35.11.4(1) contemplate that there can be a ‘conversation’ between the parties’ experts, and that the court can also ask the defendant’s expert to comment on what the claimant’s expert has just said about an issue. The Working Group’s interviews and correspondence with judges indicate that there are differing judicial views as to which of these may be suitable, or even preferred.

For example, in *Streetmap.EU Ltd v Google Inc* [2016] EWHC 253 (Ch), Mr Justice Roth gave permission for the economist experts in the hot-tub to ask questions of each other directly, and to respond to each other’s questions directly, on areas where they were in dispute. Mr Justice Roth described this process, in his judgment, as being ‘helpful’ and ‘constructive’.

On the other hand, HHJ David Grant (the judicial member of this Working Group) noted that his preference, regarding lists of defects in building and construction disputes upon which there was disputed expert evidence, was to invite one expert to comment on the evidence of another expert witness, rather than to invite one expert witness to ask questions directly of another expert witness (per memo to the Working Group, 10 June 2016).

In the case of *Re N* [2015] EWCOP 76, there was a different approach employed again. In that case, Mr Justice Hayden heard an application for what life-sustaining treatment would be in the best interests of Mrs N, a person who lacked any decision-making capacity — and facilitated a process whereby, whilst an expert medical witness was in the witness box being questioned, those experts who were not in the witness box were permitted to articulate their disagreement to anything said by the other expert, from where they were sitting in the well of the court. This was not a pure hot-tub, in the sense of judge-led questioning of both experts at the same time, because the questioning was counsel-led. However, this direct interaction between the experts did reflect some of the characteristics of a hot-tub. Whenever an expert spoke from the well of the court, they were regarded as giving sworn evidence (per email correspondence from Hayden J to Rachael Mulheron, dated 9 June 2016). Mr Justice Hayden described the process as being ‘*extremely helpful, time-saving, and I was also satisfied that it helped foster true and objective consensus and discouraged posturing.*’

**Item 2: The role of counsel in the hot-tub**

Various expressions have been used, throughout this project, to describe the role of counsel where hot-tubbing is used — e.g. ‘*a passive observer*’, ‘*a mere passenger*’, or ‘*an interested onlooker*’ to the exchanges between judge and experts.
Indeed, this ‘loss of control’ was referred to repeatedly in responses to the surveys distributed by the Working Group, as a reason as to why hot-tubbing was not more popular within the legal profession itself. One judicial respondent to the survey noted that ‘legal representatives are very reluctant to agree to the use of hot-tubbing’, while another judicial respondent remarked that, where one or more of the parties had objected to the use of hot-tubbing, ‘they did not say that their concern was losing control of the process, but I have little doubt that that was the true reason for the objection’. The responses from legal practitioners similarly highlighted the change of process: ‘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’; but that ‘I think that it lets very poor experts off the hook from a searching cross-examination’. Expert witness respondents noticed the stark difference too: ‘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.’

However, the Working Group was cognisant of the reality that counsel will need to prepare for cross-examination — given that it will truly not be known, until the trial, whether an expert’s oral evidence which is given in response to a judge’s question may need to be tested or challenged, or to what extent some follow-up questioning will be permitted by the judge. Furthermore, Nicola Cohen, the Academy of Experts’ representative on the Working Group, made the following pertinent point: ‘it is unlikely that the preparation time [for counsel] pre-hearing will be reduced. In fact, it may be that counsel will need to do additional preparation, not least of all because, while the experts are in the hot-tub, counsel will not be able to call upon their own expert’s assistance, should the need arise. This could be particularly significant if there is an adjournment, as the experts will be in purdah’ (per email correspondence to Rachael Mulheron, dated 1 July 2016). Hence, although the role of counsel may be ‘side-lined’ somewhat in the trial proper, the costs and time of preparation for counsel will barely be reduced, if at all.

Furthermore, whilst PD 35.11 envisages a much-reduced role for cross-examination and re-examination in the hot-tub, following the end of the judge-led questioning, the survey responses across the judiciary, lawyers, and expert witnesses, showed a very different picture which has emerged in real-life cases of hot-tubbing — whether predominantly in England or from elsewhere, and whether sourced from the litigious or arbitral contexts (illustrated overpage):
### Survey results: What role did counsel play, after the process of judge-led questioning ended?

<table>
<thead>
<tr>
<th></th>
<th>Judicial responses</th>
<th>Lawyers’ responses</th>
<th>Experts’ responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each counsel conducted a full cross-examination of the other side’s expert witness</td>
<td>33.3%</td>
<td>23.3%</td>
<td>28%</td>
</tr>
<tr>
<td>Each counsel conducted a re-examination of their own witnesses</td>
<td>16.7%</td>
<td>30%</td>
<td>14%</td>
</tr>
<tr>
<td>Each counsel asked some short clarifying questions of one or the other of the witnesses</td>
<td>66.7%</td>
<td>83.3%</td>
<td>68%</td>
</tr>
<tr>
<td>Each counsel decided no further examination was necessary</td>
<td>16.7%</td>
<td>13.3%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Plus: a sample of free text responses to this question:**

- ‘In general, the process was: counsel was free to question whichever witness they chose (within the agreed running order, e.g., 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.’

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

- ‘The experts had all undergone 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 that it was their “turn”.’

- ‘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.’

- ‘Further questions were invited [by the judge], 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.’

- ‘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 cross-examined 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.’
Hence, many of these respondents pointed out that, in their experience, a full cross-examination of the expert witnesses, in the traditional counsel-led manner, either preceded or followed a hot-tubbing session by the judge, in any event.

Judicial feedback to the Working Group, via interviews and correspondence, also revealed a quite mixed role for counsel. For example, Mr Justice Hayden confirmed that, in *Re N [2015] EWCOP 76*, there was no cross-examination or re-examination of the expert medical witnesses after the hot-tubbing had concluded; whilst in *Streetmap.EU Ltd v Google Inc [2016] EWHC 253 (Ch)*, counsel for Streetmap chose not to cross-examine, whilst counsel for Google sought to cross-examine on some points, but that questioning was curtailed by Mr Justice Roth, on the basis that it was covering previous ground upon which the experts had provided their testimony in the hot-tub (per *Transcript of proceedings day 5*, at p 892).

The Working Group’s significant concerns, regarding the role of counsel ‘in the hot-tub’, primarily revolved around the need to ensure that the parties have a sufficient opportunity to test the experts’ views, where a hot-tub is used. Indeed, this may be the most important aspect, from the parties’ points of view, in a trial. There is a potential danger to the administration of justice for either party, if counsel is not given sufficient opportunity to test the opposing expert’s view – especially if the court considers that a point has been agreed between the experts in the joint report, whereas it truly has not been; or if an expert’s view has been expressed without regard (or sufficient regard) to particular factors that might be brought out through questioning. In answer to the question as to whether legal representatives felt inhibited from challenging the experts where hot-tubbing occurred, various responses from the *legal representative’s survey* demonstrated this concern:

‘A little bit, so as not to try the patience of the tribunal, and not to come over adversarial.’

‘At times, e.g., by one judge who refused to allow cross-examination on issues in which there appeared (to him) to be agreement in the joint experts’ report.’

‘It is essential that counsel still have an opportunity to ask questions of one or both experts.’

‘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.’

Indeed, this is perhaps one of the most important aspects of procedural fairness, in the Working Group’s view. Hence, it is returned to later in this report (at p 50), when considering the suggested Guidance Note for Judges and Practitioners.
**Item 3: The judge’s interaction with the experts**

Hot-tubbing means, almost by definition, that the process of adducing oral expert witness testimony will be judge-led. However, that is not always so.

Attention should again be drawn to Re N [2015] EWCOP 76, where the questioning of the medical experts, on very narrow but extremely important differences in their views on life-sustaining treatment, was led by counsel, and not by Mr Justice Hayden. However, as noted above, the experts could engage directly with each other. Notably, questions were asked by counsel for each party in the usual way, but counsel did not ask questions of any expert who may have expressed disagreement from the well of the court, but who was not in the witness box. Of this hybrid process, Hayden J notes that, ‘in this case, which involved taking a decision beyond those taken previously, I felt that the usual forensic process would hamper, rather than encourage, candid professional exchanges. Happily, on this occasion, my instincts were correct’ (per email correspondence to Rachael Mulheron, dated 9 June 2016).

Interestingly, the survey responses also highlighted that the judge’s role was not always that of ‘chair’ throughout. One respondent noted that, ‘the process was not as purely judge-led as PD 35.11 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.’

**Conclusion**

All of this reinforces to the Working Group’s mind that the various processes involved in a ‘hot-tub’ differ enormously, and need not follow that which is currently envisaged in PD 35.11. This is only natural, given the quickly-evolving and ‘organic’ process which concurrent expert evidence has entailed, across many different types of litigation, since its formal implementation in 2013.

**A note on terminology**

It will be apparent, from the foregoing discussion, that the term, ‘concurrent expert evidence’, has been adopted in this report as a generic, overarching term, to encompass any scenario in which the expert witnesses are sworn in concurrently, rather than separately. Thereafter, as described above, the types of concurrent evidence differ enormously in process.

The Working Group fully appreciates that, in some forms of ‘concurrent evidence’ described in this report, the experts do not give their evidence concurrently at all (e.g., the sequential, back-to-back, evidence

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is one such example, where the experts provide their evidence issue-by-issue, separately). However, the generic term of concurrent evidence has been chosen to illustrate those various scenarios where there is a departure from the traditional norm, because the experts are being sworn in concurrently.

The following diagram summarises the terminology used in this report:

<table>
<thead>
<tr>
<th>The terminology adopted in this report:</th>
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<tbody>
<tr>
<td>‘concurrent expert evidence’ can comprise:</td>
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<tr>
<td>sequential, back-to-back, evidence</td>
</tr>
<tr>
<td>judge-led joint expert examination (‘hot-tubbing’)</td>
</tr>
<tr>
<td>hybrid forms of hot-tubbing</td>
</tr>
<tr>
<td>one version of the ‘teach-in’ (where the parties’ own experts participate, as discussed in the next section)</td>
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</tbody>
</table>

However, the Working Group does not intend its terminology in this report to be definitive. It accepts that there is a need for clarity and consistency in the use of terminology, where this area of civil procedure is concerned – and that those participants in the litigious process also need (and deserve) to be aware of what particular terms may mean. However, in circumstances where –

(i) there are already differences in terminology between litigation and arbitration, where the same process is concerned (e.g., hot-tubbing, as described in this report, is frequently referred to as ‘witness conferencing’ in arbitration);

(ii) different jurisdictions may not necessarily embrace all of the different forms of concurrent evidence which have been described in this report, and where they do, the terminology may again not be entirely consistent with that which has been described herein; and

(iii) clearly, this is a rapidly-evolving area of civil procedure, as courts develop processes to cope with expert evidence as cost-effectively and as time-efficiently as possible, whilst maintaining the quality of the expert evidence adduced to the court,

– the Working Group accepts that the terminology used in this area will ultimately be determined by those
(such as the Civil Procedure Rules Committee) who are responsible for the drafting of the outputs which are recommended in this report.

As the Academy of Experts’ representative on the Working Group, Nicola Cohen, remarks, ‘the various methods [of handling expert evidence referred to in the report] shows that giving evidence can be a flexible process to suit the case. ... [but] confusion (and misunderstandings) [can] lead to unnecessary problems, and often comes from the use of different terminology describing a process, or the same process being called by different terminology’ (per email correspondence to Rachael Mulheron, dated 7 July 2016).

Therefore, it is to be hoped that the careful demarcation which the Working Group has adopted to describe the different types of process, and the labelling of those different processes in this report, will prove to be of some assistance – or at least demonstrate some options that may be useful. Certainly, the Working Group would urge those who are responsible for the ultimate drafting of any new text to pay careful attention to the consistent and clear use of terminology in this area. It further notes that the input of both the Academy of Experts, and the Expert Witness Institute, would be invaluable in this respect (and that, indeed, the terminology suggested by these entities may ultimately differ from that which is contained in this report).

The ‘teach-in’ approach

Although not strictly within its remit of studying concurrent expert evidence, the Working Group paid some attention to the ‘teach-in’ type approach that has been employed, e.g., in Electromagnetic Geoservices ASA v Petroleum Geo-Services [2016] EWHC 881 (Pat) (19 Apr 2016). This explanatory judgment given by Mr Justice Birss was of great interest, both because it concerned the breadth of options which are available to a court to deal with expert issues, and because this option is not set out anywhere in the CPR or in PD 35. (This procedure is separate from the court’s power to appoint an assessor to ‘assist the court in dealing with a matter in which the assessor has skill and experience’, as provided for in CPR 35.15(2).)

Although the abovementioned patents dispute case settled, Birss J explained how the court had appointed a ‘neutral scientific advisor’ to provide a tutorial, or ‘teach-in’, on the technical issues arising in the case. The advisor’s instructions were settled by the court; she was not informed about the specific issues in the case, but gave ‘high-level’ assistance; she was asked to prepare materials (primarily Powerpoint slides) to educate the court on five topics; and she met with the judge for one day, for a ‘candid discussion’. The parties and their representatives were not present during the ‘teach-in’, but were provided with a copy of the relevant papers afterwards, in the interests of transparency. The advisor did not sit in court for the trial itself either. Birss J described the process (at [6]) as —
a useful one in this case. No doubt, in the end, the court might have reached the same level of understanding of the issues eventually, but speaking personally, I would have needed much more time to read into the case in advance without this assistance, and the trial itself would have had to be conducted more slowly. The teach-in allowed the speeches and cross-examination to proceed more briskly than would have been possible without it. So time, and therefore costs, has been saved and the court’s comprehension of the issues was significantly improved.

The Working Group understands that the technique does not necessarily save costs (and the parties must agree to pay for the costs of the additional expert who is engaged for the teach-in), but it may improve the trial process very considerably.

In interview dated 26 May 2016, Mr Justice Roth confirmed that he had not personally employed the ‘teach-in’ technique in the Competition Appeal Tribunal, but that he could envisage a scenario in which it could be valuable where the science, economics, or other specialism was so complicated that the judge would benefit from a tutorial on the general area. Of course, in some specialist tribunals such as the CAT, in a case where there may be difficult economic issues, it would be customary to include an economist on the panel, who could explain the technical issues, insofar as was necessary, to the other panel members — hence (as Roth J noted), the very make-up of the court may obviate the need for a ‘teach-in’ in that scenario.

As a further alternative to the ‘teach-in’ approach outlined above, which necessarily involves the engagement of some other expert at additional cost, His Honour Judge Waksman suggested (via memo to the Working Group, dated 5 July 2016), that the ‘teach-in’ for the court’s benefit could viably be conducted by the very experts who have been engaged in the litigation, provided that it was properly controlled. In that regard, it could be ‘a preliminary session with the experts actually instructed, led by the Judge, since it is he or she who wants the education. Counsel could be there to assist, or to ask questions arising, but the idea is that it would be a basic seminar of the technicalities, not of the expert evidence on the dispute itself.’ In such a scenario, the parties’ experts would be sworn in concurrently prior to the commencement of the ‘teach-in’, and any ‘instruction’ provided to the court during the course of the teach-in would be treated as sworn evidence. This approach may, in some cases, be less costly for the parties than instructing an additional expert to assist the court on the specialist or technical issues.

Again, these views highlight the great diversity of procedures, by which expert issues may be handled, which the Working Group encountered during its project.

Given the utility of the teach-in process across multiple areas of litigation (and in different courts), the Working Group considered that there would be merit in providing for the technique in PD 35 (as a new paragraph 35.11.7), to illustrate the increasing diversity with which courts may approach their understanding, and adducing, of expert evidence in highly technical or scientific cases.
In the view of the Working Group, the current PD 35.11 has served an important purpose, in both drawing to the attention of courtroom participants the process of hot-tubbing, and by providing a framework for that process, especially when it was such a novel procedure.

However, in light of the above consideration, it seems apposite that the PD should be revised to reflect/record that hot-tubbing is but one form of concurrent expert evidence; that sequential, back-to-back, evidence is another important format of concurrent evidence; that the ‘teach-in approach’ has great benefits for the right type of case; and that, above all, the court may give directions for any of these processes to be used at trial. The Working Group also considered that, in light of the variations in practice surrounding the role of counsel after the judge-led examination concludes, it would be helpful to set out the circumstances in which further questioning should be permitted by the court. Express mention of these various matters would reflect more accurately the present practice in the legal marketplace, and would also serve as an educative tool in such an evolving area.

Hence, for these reasons, the Working Group invites the Civil Procedure Rules Committee to consider amending PD 35.11, and if it were minded to do so, then a suggested re-draft appears overpage:
Recommendation #1: A suggested redraft of PD 35.11

The Working Group proposes a re-draft of 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(3).

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 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
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.

For the sake of comparison, readers are referred back to p 14 of this report, where the current version of PD 35.11 was reproduced for convenience.

**Suggested new ‘Guidance Note’**

The Working Group also considered that there would be much merit in drafting a Guidance Note for Judges and Practitioners, in order to supplement the revised PD 35.11, and that the Guidance Note should deal primarily with two topics:

1. To set out briefly the different ways in which expert opinion evidence can be adduced, i.e., to set out a ‘menu’ of the various options available to the court; and

2. To identify factors which might indicate whether a direction for judge-led joint expert examination (i.e., hot-tubbing) might be appropriate in the particular case.

In order to address the first of these objectives, the Working Group has suggested the following wording in the Guidance Note (the second objective is addressed separately a bit later in this report):
Recommendation #2: A 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 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 (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 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 to understand 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.

A sample order for directions

In the case of Fluor Ltd v ZPMC, currently being heard before Mr Justice Edwards-Stuart in the Technology and Construction Court, an order for concurrent expert evidence was made, relating to experts in the disciplines of non-destructive testing, welding and metallurgy, who were giving evidence about the fabrication of the steel piles for an off-shore wind farm. A copy of that order has kindly been provided to the Working Group, and it is partially reproduced overpage (with some explanatory notes by the Working Group noted in italics). Of course, each case calls for directions which are tailored to the specific issues in the case, but judges and practitioners may find the approach below of assistance and interest:
Directions for concurrent evidence: Fluor v ZPMC (extract only)

5. Expert evidence

(a) Expert evidence will be given adopting a hybrid procedure involving both joint examination and cross-examination.

(b) The Claimant must select three of its experts to be lead experts, one of whom will deal with issues relating to ultrasonic testing. ...

(c) Each party is to select not more than six topics for discussion between the experts in each of the three disciplines. ...

(d) The expert evidence in each discipline is to be completed in 1 ½ days, but the parties may agree to lengthen or shorten this period in the case of any particular discipline, provided that an overall time of 4 ½ days for expert evidence is not exceeded.

(e) Whilst the precise procedure will be determined following the openings in the light of the topics (and it may not be the same for each discipline), in the absence of any further direction, the default procedure will be as follows:

(i) One expert from each discipline will take part in giving evidence by way of joint examination [hence, both experts of the same discipline were sworn in together];

(ii) The process will begin by the Court inviting each expert to give a brief summary of his opinion on the relevant topic and thereafter, each expert will be invited to indicate the extent of his agreement with his opposite number and to identify the areas of dispute and the reasons for them. This will probably take, on average, about [10] minutes per topic. [hence, this stage of the joint expert witness examination was judge-led]

(iii) Counsel for each party will then have an opportunity for brief cross-examination of the opposing party’s expert. Each party may have [2] hours cross-examination per discipline. Thus, if there are 12 topics and 1 ½ days is allowed for each discipline, this will allow counsel approximately [10] minutes of cross-examination per topic (although it will be open to counsel to use the time as he thinks fit between the various topics) [hence, this stage was the cross-examination that PD 35.11 permits to follow the judge-led examination. In this case, that cross-examination was not limited in nature or extent, but it was limited in time]

(iv) At the conclusion of cross-examination, the Court will resume the joint examination by inviting each expert to identify what he considers to be the real point in dispute and why he disagrees with the other side’s expert. On the same assumptions, this will probably take [5–7] minutes. [hence, there was no provision for re-examination; instead, the judge again led the joint examination, with a view to identifying the ‘real point in dispute’, and the key reasons as to why the experts disagreed]

(f) Thus, the overall allocation time by activity per discipline will be 2 hours joint examination, 4 hours cross-examination, and 1 ½ hours by way of joint examination in conclusion.

Note: since this is a novel procedure, each party may, if it wishes, make further brief submissions in writing on the form of this draft direction within 7 days, with even briefer submissions in reply within 3 days thereafter.

15 January 2016 Mr Justice Edwards-Stuart

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Setting the agenda

It will be recalled that, as PD 35.11.2 is presently drafted, ‘[t]he court may direct that the parties agree an agenda for the taking of concurrent evidence, based upon the areas of disagreement identified in the experts' joint statements made pursuant to rule 35.12.’

However, the Working Group gleaned, during its interviews, surveys, and other consideration of this issue, that several judges prefer to set the agenda themselves, for various reasons:

1. The preparation work required by the judge to obtain a mastery of the subject matter and of the written expert witness testimony, prior to leading the examination, tended to ensure that the judge had a very clear idea of precisely which issues required oral expert testimony, to resolve the differences between the experts;

2. If the agenda is left for the parties to agree, they tended to include far too many issues out of over-caution, or for fear of being accused of missing an issue that is ultimately decided against them;

3. The parties may have other reasons for expanding the agenda of issues, such as the wish to have their expert given more time in the witness box on non-issues, to help to impress the court with the authoritativeness of that witness; and/or

4. On occasion, the expert evidence is such a morass of confusion, or of experts behaving like ‘ships sailing past each other’, or because issues requiring expert opinion are introduced late in the proceedings, that the court needs to ‘take control’ of the agenda.

Even where the agenda is prepared by the court, it is often desirable (if time permits) to provide the parties with the opportunity to comment on it in any event (i.e., the parties need not be ‘shut out of the process’, merely because the court has set the agenda).

In that light, the Working Group considered that the revised PD 35.11 (reproduced previously on page 22) should certainly flag up the possibility that the agenda may be set by the court – or that, if the parties do agree an agenda, then the court should be provided with an opportunity to suggest revisions to that agenda, if appropriate. Hence, the revised PD 35.11 provides that the agenda of issues for expert witness determination may be either set by the court, or may be agreed between the parties (subject to the approval of the court).

In this regard, the Working Group has found the input of HHJ Waksman invaluable on this point,
and in particular, the types of orders for directions by which the agenda was formulated, and the order for concurrent evidence made, in the matter of *Paterson v Svenska Handelsbanken AB (publ)*, a case which recently settled in the London Mercantile Court of the Queen’s Bench Division. The following directions given by Judge Waksman in that case conveniently summarise the operation of CPR 35, and of PD 35.11:

### Case management conference – order for directions – 5 June 2015:

...  
**Experts**  
...  
9. Experts of like disciplines shall:  
   (1) Hold discussions pursuant to CPR 35.12(3) for the purposes of identifying the issues, if any, between them and, where possible, reaching agreement on those issues (or at least narrowing them); and  
   (2) Prepare a joint written statement pursuant to CPR 35.12(3), by stating:  
      (a) that they have met and discussed the expert issues;  
      (b) the issue(s) on which they agree;  
      (c) the issues on which they disagree; and  
      (d) a brief summary of the reasons for their disagreement.  
10. The parties may serve short supplemental experts’ reports, to be exchanged simultaneously by not later than 25 March 2016.  
11. If the experts’ reports cannot be agreed, the parties shall be at liberty to call expert witnesses at the trial, limited to those experts whose reports have been exchanged under this order.  
12. If the Claimant wishes to apply to call an expert forensic accountant in relation to quantum, any such application must be made by 28 August 2015.  

### Pre-trial review – order for directions – 8 April 2016:

...  
4. By Friday, 29 April 2016, the experts shall meet and shall file the joint statement provided for at paragraph 9 of the order made on 5 June 2015.  
5. By Friday, 13 May 2016, the parties shall agree an agenda for the taking of Concurrent Expert Evidence at trial, pursuant to CPR 35 PD 11.2. In the event of any disagreement about the agenda, the same must be brought to the attention of His Honour Judge Waksman in writing.
3. SOME SALIENT FEATURES OF HOT-TUBBING

When hot-tubbing is appropriate

Via interviews, surveys, and personal experiences of its members, the Working Group sought to identify both (1) the criteria, and (2) the sorts of cases, for which judge-led joint expert examination (i.e., hot-tubbing) would be most appropriate.

It was accepted that hot-tubbing will not be for every case, as a means of adducing oral expert witness testimony. One respondent to the judiciary survey noted, e.g., that ‘[i]t would be very dangerous, for example, in a case concerning cutting edge scientific engineering or medical issues [but] it should be the default choice in cases concerning valuation’. On the other hand, HHJ Grant, the judicial member of the Working Group, considered that hot-tubbing would be potentially suitable for cases ‘where there is some serious technical complexity, such that the court needs to establish certain matters first, before exploring the contentious issues in the expert evidence’ (per memo to the Working Group, dated 10 June 2016). There were also the interesting views of HHJ Waksman that, ‘I cannot think of any area where per se it is not suitable. ... I do not approach any expert evidence issue now, on the footing that hot-tubbing won’t work. But nor do I consider it the default position. There is not enough judicial experience yet to take a view’ (per memo to the Working Group, dated 3 June 2016).

The Working Group considered that, by means of a further addition to the Guidance Note, and in light of the experience gained since 2013, some indication could usefully be given in that Note of the criteria that may help to decide whether or not the case is suitable for hot-tubbing, and of suggested areas where hot-tubbing may be especially helpful. To clarify, the following guidance focuses upon the evolving area of judge-led joint expert examination, rather than upon concurrent evidence as a whole:
Recommendation #3: Continuing the Guidance Note ...

The Working Group recommends a continuation of the Guidance Note, as follows:

Criteria which may indicate whether judge-led joint expert examination is 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 familiarity with 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;
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;

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;

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

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 list 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 cases of alleged 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 are reasonable prospects of narrowing or reducing the issues (otherwise sequential, back-to-back, evidence may be more appropriate);

(4) boundary disputes; and

(5) building, structural, or destruction claims, involving disputes about construction practices, engineering, geology, surveying, and the like.

A number of matters arise out of this section of the proposed Guidance Note, on which some further discussion would be useful. This is particularly so, given the useful responses which were received from the Working Group’s surveys disseminated to judiciary, lawyers, and expert witnesses.
Features of importance

1. Judicial preparation time

Hot-tubbing requires the court to take the lead role in questioning the expert witnesses — and this naturally requires that the court must be fully on top of the expert witnesses’ written testimony, and of the differences of opinion among the experts, before the hearing commences. Indeed, to a large degree, the success or otherwise of hot-tubbing largely depends upon this preparedness. This point was reiterated on numerous occasions, during the Working Group’s consideration of hot-tubbing:

- In Streetmap.EU Ltd v Google Inc [2016] EWHC 253 (Ch) [47], Roth J noted that, ‘this process involves considerable preparation by the court’;

- HHJ Grant noted (per memo to the Working Group, dated 10 April 2016) that ‘many judges do not have the time or opportunity to prepare – sufficiently and/or at all — a competent initial examination of expert witnesses’;

- Mr Justice Edwards-Stuart remarked (in email to HHJ Grant, dated 8 June 2016) that, ‘it does put a huge burden on the judge who, in effect, has to prepare something rather equivalent to notes for a cross-examination in respect of the experts of each discipline’;

- various judicial respondents to the survey commented that, ‘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’; ‘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’; and ‘unless I have had sufficient reading time, I would not feel particularly happy about taking the lead in the process, and usually I find that the reading time I have available does not give me enough time to do more than skim read the reports’.

- a Working Group member expressed it this way: ‘those judges who were naturally more interventionist, or better prepared in advance, tended to be better at it’.

- the survey responses from experts also signified that a lack of preparedness of the judge was a matter of real, or potential, concern, e.g.:

  ‘I have no experience of hot-tubbing. On the surface, it sounds not unreasonable; in practice, I would be concerned, especially in a complex case. The practice would necessitate the Judge knowing the case
inside out before it started, and if he/she got off on the wrong track, I’m unsure what safeguards there would be.’

‘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.’

‘In my experience, the efficacy of hot-tubbing is very much dependent on … (2) the tribunal’s familiarity with conclave statements and individual experts’ affidavits.’

‘The judge’s attitude and preparedness is crucial to the success of the process.’

In light of these concerns expressed via a number of sources, the Working Group considered it appropriate to insert this factor as paragraphs 5(5) and 6(6) of the Guidance Note.

2. **The personalities in the hot-tub**

Where the experts are mired in mutual animosity, hostility, or a lack of respect, the hot-tub can very quickly turn ‘cold’. The Working Group came across a number of comments, during the course of this project, which emphasised that the success of the hot-tub very much depends upon the mutual interaction of the experts.

For example, in *Re N* [2015] EWCOP 76, [36], Hayden J made a particular note, in his judgment, that, ‘[a]though there are differences between [the three medical experts], much of which focuses on nomenclature, I was impressed by their respect for each others’ views and their willingness continually to re-evaluate the available evidence.’

**Survey responses** confirm that the participants in the hot-tub, and their legal representatives, may find the dynamics, and seniority, of personalities very important – and that an equivalent level of seniority and eminence among the expert witnesses also assists with the success of hot-tubbing:

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

‘Experienced experts with respect for each other dealt with it well.’

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

‘Hot-tubbing works if each expert is of equal status which, in my specialism, is very often not the case.’
‘Hot-tubbing suits a confident expert.’

‘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.’

A contrary view, however, was expressed by Alex Gunning QC, a barrister experienced in the use of hot-tubbing in arbitrations, who commented that, ‘I do not think that the “dominant personality” issue is too much of a problem ... parties naturally try to select experts who are likely to perform relatively well under cross-examination. There is no reason to suppose that such experts will be dominated by another expert if they give their evidence concurrently. If they are likely to be out-gunned during witness conferencing, they are also likely to be embarrassed in cross-examination. ... [also] I do not think that there is any particular “skill set” required for an expert giving concurrent evidence – or that witness conferencing is particularly prone to battles of experience. One just needs to be a good expert’ (per email correspondence to Rachael Mulheron, dated 8 July 2016). Chris Easton, an observer for the Working Group meetings, and a building surveyor who has participated in hot-tubbing as an expert witness on four occasions in TCC cases, also made the point that, even though experts may not necessarily be of the same seniority, the reality is that, ‘if one expert is weak or poor in the hot-tub, this exercise just shows up the inadequate extent of his evidence, but the other expert must be careful not to appear overbearing’ (per email correspondence to Rachael Mulheron, dated 8 July 2016).

Given its practical importance in the view of many respondents to the survey which the Working Group conducted for the purposes of this project, the Working Group considered it useful to highlight the issue in express terms, in paragraph 6(2) of the Guidance Note.

3. **A numerical imbalance of experts**

Most of the examples of hot-tubbing which the Working Group encountered during the course of this project merely involved two experts, one on each side – *Streetmap.EU Ltd v Google Inc* [2016] EWHC 253 (Ch) was one such example, as were some of the engineering disputes referred to on page 10 of this report.

However, *Re N* [2015] EWCOP 76, involved three medical experts, and in the largest example of hot-tubbing of which the Working Group was aware, that of *SSE v Hochtief*, in the Scottish Court of Session before Lord Woolman, there were three separate sessions of hot-tubbing, involving up to seven engineering geologists and geologists.

In most of these examples, there was a relative ‘equality of arms’ present, with no one side being overwhelmed by the number of experts against them. However, that may become a factor in a different type
of case. For example, in interview with Mr Justice Roth, dated 26 May 2016, mention was made of the National Grid case (which ultimately settled). Had that case proceeded to trial, it would have involved one expert on the claimant’s behalf, and four on the defendants’ behalf. Apart from this situation where multiple defendants may instruct separate experts, the Working Group acknowledges that it would be unusual for a court to permit evidence from multiple experts on a single issue, so any issue of a numerical imbalance of experts is likely to arise where multiple issues are being dealt with by a different number of experts. In any event, managing the competing concerns of the experts in a hot-tub, in any case of numerical imbalance, would no doubt present challenging, but resolvable, issues for the judge leading the examination.

Similarly, where there is a large number of experts in the hot-tub, it may give rise to challenges, in terms of managing the process. On this point, a respondent to the legal practitioner survey suggested that the involvement of multiple experts in the hot-tub, in one case, caused the opportunity for the discussion permitted to each expert to be more curtailed, or limited, than where there were only two experts. On the other hand, Mr Roger Clements, a member of the Working Group, noted (at meeting held on 25 July 2016) that, in his own experience of hot-tubbing in a clinical negligence case in New South Wales – in a case which involved eight experts in the hot-tub – each expert was provided ample opportunity to convey his/her views to the court. Clearly then, this issue again depends upon effective management by the presiding judge.

4. **A transcript**

Two views emerged on this point. On the one hand, in Streetmap.EU Ltd v Google Inc [2016] EWHC 253 (Ch) [47], in what was a very complex alleged abuse-of-dominant-market-power case, Roth J remarked that, ‘the process ... effectively requires (as in the present case) a transcript, since the judge is unable to keep a proper note while leading the questioning’. On the other hand, in Re N [2015] EWCOP 76, Hayden J remarked that, whilst he could have requested a transcript of the hot-tubbing evidence given by each of the medical experts, ‘I did not find it necessary to do so, relying on my notes and recall’, and that the whole process worked very well (via email correspondence to Rachael Mulheron, dated 9 June 2016).

The issue has significance from a costs perspective too. In some civil litigation, especially that which is conducted in the county courts, the parties may well be subject to very tight budgetary restrictions imposed by their funding body (whether it be an insurer, a union, third party funding of some type, or some self-funding). A daily or live-view transcript may be simply out of the question for such parties. The Working Group’s own enquiries of the costs of transcription revealed that, for a daily transcript, these were in the region of £800–£850 per day for a transcriber to attend court (generally to be split between the parties by agreement), with the costs of hard copy transcripts on top of that (approximately £35 per copy per day). For live connections per device per day, the costs were in the region of £100–£120 per day.
Hence, the Working Group considered the issue significant enough, logistically, to refer to it in paragraph 6(5) of the Guidance Note.

5. **Where credibility is in issue**

Any issues arising between the parties as to credibility in the narrow sense (i.e., allegations of bias, or lack of independence), or credibility in the wider sense (i.e., that the expert lacks the relevant qualifications, expertise, and/or experience, to validly comment upon the issues in dispute), mean that a hot-tub is not suitable for those aspects. If such a challenge to the expert’s credibility is ultimately resolved in the expert’s favour (pursuant to a cross-examination and re-examination in the usual manner), then the judge may place more weight on his views, as expressed in the hot-tub (and vice versa).

The Working Group recognised that challenges to the other side’s expert, on issues to do with credibility, may not arise until the first day of trial – and hence, any order for directions for judge-led joint expert examination may well founder, if counsel for the claimant, say, wishes to cross-examine the defendant’s expert’s qualifications to provide an opinion on one or more of the issues in dispute.

In any event, the Working Group considered that any challenge on credibility should be drawn to the attention of the court as early as possible in the proceedings, so that a ‘hybrid approach’ of the type identified in paragraph 2(5) of the Guidance Note may possibly be devised by the court.

6. **Litigants-in-person**

The Working Group is aware, from work independently undertaken by the Civil Justice Council (and referred to in the Report on Access to Justice For Litigants in Person (Nov 2011), and other documentation noted at: https://www.judiciary.gov.uk/related-offices-and-bodies/advisory-bodies/cjc/litigants-in-person/), that the trend of litigants-in-person (viz, those individuals ‘who either choose not to have, or cannot afford, legal representation’), is an increasingly prevalent one in English courts.

Very few references were made to the scenario of where one of the parties involved in a hot-tubbing case is a litigant-in-person. None of the judiciary respondents mentioned it, nor did the issue arise in any of the interviews conducted by the Working Group.

However, one of the expert witness respondents to the survey noted this: ‘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 an LIP)’.
On the other hand, Mr Justice Roth made the point (in email correspondence to Rachael Mulheron dated 30 June 2016) that, where a litigant-in-person is conducting his or her own case, and is calling upon the evidence of an expert witness, then dealing with that expert evidence presents particular problems when cross-examination arises, and that it is ‘absolutely appropriate, and probably essential, for the judge to lead the questioning of the expert. So as to avoid unfairness, the judge should, if possible, adopt that approach for both sides’ experts.’ Nicola Cohen, of the Academy of Experts, also noted that hot-tubbing ‘may be seen to redress the “inequality of arms”’ that can apply, where a litigant-in-person is concerned (per memo to the Working Group, dated 1 July 2016).

These mixed views prompted the Working Group to consider that, if a litigant-in-person is involved in the conduct of the litigation, then that should at least be considered in the overall matrix of factors, when determining whether the case was suitable for the use of hot-tubbing, and hence, that the insertion of paragraph 6(7) of the Guidance Note was warranted.

**Consent versus non-consent orders**

Notably, under the 2-year pilot scheme in the Manchester Mercantile and Technology and Construction Courts, it was a requirement that both parties had to consent to the order for hot-tubbing.

That requirement was not carried over, when PD 35.11 was implemented. It will be recalled that PD 35.11.2 provides that, ‘[a]t any stage in the proceedings the court may direct that some or all of the experts from like disciplines shall give their evidence concurrently.’

It was plain, from the survey responses that, whilst a consent order for the use of hot-tubbing had been more common, the process of hot-tubbing had been directed over the objections of at least one party on occasion. One judicial respondent noted that he/she had directed hot-tubbing on multiple occasions, both with and without party consent; and of the 33 responses received from legal representatives, 10% noted that hot-tubbing had been directed, notwithstanding the objections of one or more of the parties.

The Working Group considered that the Guidance Note should provide for what should happen, if one or more of the parties objects to the prospect of judge-led joint expert examination, in the following terms (overpage):
Recommendation #4: Continuing the Guidance Note ...

The Working Group recommends a continuation of the Guidance Note, as follows:

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.

When directed by the court – timing

The Working Group found the interview with HHJ Waksman (on 31 May 2016), and subsequent papers prepared by that Judge for the Working Group’s consideration, of enormous assistance, when considering this issue. His Honour Judge Waksman makes the following pertinent points on timing:

1. The point at which hot-tubbing is ordered can be any time, from the first CMC, to a later CMC, to the PTR, to the actual trial itself — although ‘ideally it should arise at an early stage’.

2. If the question arises at the first CMC, then the judge will not have seen the expert evidence at that point, and therefore can form no real view as to whether it is the sort of case which will suit hot-tubbing, or whether or not the issues of disagreement between the experts can be narrowed. All the judge will know, at that point, is the defined particular (or pleaded) issues upon which expert evidence will be permitted. Sometimes, the parties’ representatives (no doubt guided by their experts) may suggest or agree, at this early stage, that hot-tubbing will work – but it may be too early. In that case, it can be helpful to give the parties a date by which they should state whether they think that hot-tubbing would be appropriate.

3. By the time of the PTR, the judge will have a very clear picture of the state of the expert evidence, given that he/she will have seen the experts’ joint statement by then. The judge can make an informed decision, at that stage, as to whether or not hot-tubbing would be appropriate. The agenda of expert issues will also be taking very firm shape, by the time of the PTR, which further assists the assessment.
It may only be possible to make the order for hot-tubbing at the trial itself. That may be necessary, in order to ‘impose order on chaotic expert evidence, or where new expert issues arise and need to be crunched through on the hoof. Judicial management techniques are likely to be far more effective at doing this than lengthy cross-examination [led by counsel]’.

It was unsurprising, then, that the survey responses received from legal practitioners showed a wide variety as to when the direction was given that hot-tubbing would be used in the proceedings. Responses were fairly evenly split between: at the first CMC; at a subsequent CMC; at the PTR; or at trial.

The Working Group formed the view that an express reference in the Guidance Note, explaining how the timing of the order for directions may properly vary, from one case to another, would be helpful.

### Recommendation #5: Continuing the Guidance Note ...

The Working Group recommends a continuation of the Guidance Note, as follows:

**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.

### When communicated to the experts – timing

The court guides are, somewhat surprisingly, quite scant about when any order about hot-tubbing (or other form of concurrent evidence) should be communicated to the experts – and even when a guide does mention it, there is not much emphasis upon the need to communicate that order at the earliest opportunity. For example, the Guidance for Instruction of Experts in Civil Claims 2014 (appended to PD 35) merely notes that, ‘[e]xperts need to be told in advance of the trial, if the court has made an order for concurrent
The survey responses received from expert witnesses, as part of this project, showed some considerable disquiet about this aspect. In fact, the stage at which the order that concurrent evidence would be employed at the trial was communicated to the expert witnesses was remarkably varied – including being informed on the day of the trial! Only 6% of the expert witness respondents to the survey were notified that hot-tubbing would be used, following the first CMC. Ten per cent were told following a subsequent CMC, but the great majority were told either after the PTR (39%) or on the day of the trial or hearing itself (35%).

With short warning, some experts took it quite differently. One expert managed to see the ‘bright side’: ‘[w]e were only given 5 minutes warning by the judge that [hot-tubbing] was going to happen. It was a bit anxiety-provoking initially, but overall ... was a positive experience’, while another commented that, ‘[i]t 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 and he less vocal’ (expert witness respondents to the survey).

As explained in the previous section, there may be good reasons as to why that order is only made at the date of trial, and not earlier. However, to remove all doubt, the Working Group considers that, at the point at which the direction for hot-tubbing is given, then the expert should be promptly informed, by mandating that a copy of that order be served on the relevant experts.

**Recommendation #6: Continuing the Guidance Note ...**

The Working Group recommends a continuation of the Guidance Note, as follows:

**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**

Given that the hot-tubbing process is so judge-led, the parties and the experts are more vulnerable to any, albeit unintentional, inequality of arms. The types of features which arose during the Working Group’s consideration of hot-tubbing included the following:
1. The type of questions which the judge asked of the respective experts

Many experts commented that the hot-tub entailed a discussion of the issues, rather than a structured process of the same questions being posed to each party. A couple of the legal practitioner respondents noted that, ‘the actual process [of questioning] was less rigid than [the questions in the survey] might suggest’, and that ‘each judge has their own approach to questioning’.

Some experts noted, in their survey responses, that the structure of the evidence-giving exercise was substantially reduced during hot-tubbing: ‘it speeded up the process of cross-examining the experts and was slightly more informal. It felt like an interactive and supervised joint discussion’; ‘it has generally been a more fluid experience’; and that ‘hot-tubbing tends to be much faster in the giving of evidence. It was almost a case of “who dominates wins”, and the direction changed at will’.

Notably, in the survey, a significant proportion of the expert witnesses (almost 40%) noted that they were not asked the same questions as their opposing expert; and 44% of the legal representatives also observed that trait, during the hot-tubbing process.

2. The order in which the judge asked questions of the respective experts

A majority of respondents to the expert surveys (62%) noted that the court did not alternate the order in which it asked the questions of each expert witness; whereas a large majority of the respondents to the legal representatives’ survey (75%) indicated that, in their experience, the order was alternated. This was one area of the survey where there was quite a dichotomy of views between the two groups of respondents. Where alternation did not occur, this may have followed from the inevitably unstructured ‘conversation’ which occurs in the hot-tub — and of course, questions will only be directed to the expert with the appropriate expertise for that topic in issue, meaning that not every expert will be asked every question.

However, the following comments by expert witness respondents merit reproduction:

‘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 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.’
‘Works best when the court asks questions and one can explain properly. Does not work when the court is biased to one side and [is] clearly shutting down one expert!’. 

Given the views expressed on this point, both in the survey responses and by members of the Working Group, the Working Group considered that some explicit mention of the issue in the Guidance Note was warranted (in paragraph 14(3)).

3. **Testing the expert’s opinion evidence**

The potential problem which may arise ‘in the hot-tub’ – as this report has already referred to, at p 21 – is the need to ensure that each party has a sufficient opportunity to test the experts’ views, where the hot-tubbing process is adopted.

For example, an expert may express a view without regard (or sufficient regard) to particular factors, which the judge does not put to the expert. A cross-examination on these issues might reveal that the expert’s view is less certain, or less reliable, than might otherwise be thought to be the case.

Given the importance of this procedural issue in deciding the outcome of the substantive merits of the litigation, the Working Group considered that it may be useful for a court to at least consider whether it would be desirable to invite counsel to ask questions at the conclusion of the judge-led questioning on each topic, rather than at the overall conclusion of the hot-tubbing session. That may reduce the risk of the parties’ feeling that the opportunity to test points had not been properly provided. Hence, this point is included in paragraph 14(2) of the Guidance Note for Judges and Practitioners.

The Working Group accepts that, in the view of some respondents to the surveys, if the question had been worth asking, then a properly-prepared judge-led expert examination would have ensured that it was asked. However, as noted above, there may pockets of apparent ‘agreement’ in a joint report but which, in reality, are not agreed at all; or there may be an apparent ‘agreement’ between the experts in the hot-tub, whereas a cross-examination of the expert witness by opposing counsel would draw out a different point of view than that which was expressed in the hot-tub. If those scenarios did arise, then it would risk a very serious detriment for a party, in the outcome of the overall case, if an opportunity to test the point was not provided. In the Working Group’s view, the matter should, for that reason, be included amongst the issues of procedural fairness.
4. **The layout of the courtroom**

Following their swearing in together, the importance of achieving a physical ‘equality of arms’, and of according an equivalent stature to the concurrent experts — via an appropriate layout of the courtroom — was highlighted by several respondents to the Working Group’s surveys.

The physical layouts varied enormously. In some cases, the experts were situated in the jury box of the court (so that it was only the expert with the microphone who had permission to speak at any given time, and so the microphone was passed around to each expert to answer the relevant questions put to them, as occurred in the *SSE v Hochtief* hearing – noted in the article, ‘Light at the end of the tunnel in “hot-tubbing” case?’ [2016] Scottish Legal News). In other cases:

- the experts were arranged at a table brought into the courtroom for that specific purpose;
- where only two experts were being concurrently examined, then both occupied the witness box (with an extra chair brought in for that purpose);
- the experts were arranged in the press area of the courtroom;
- the experts sat at the counsel’s bench, with counsel sitting behind;
- one expert was in the witness box being examined, and other experts were permitted to note their disagreement with anything said from the well of the courtroom; or
- the experts sat between counsel at the counsel’s bench.

In some cases, the judges have acknowledged that courtrooms are not necessarily built for ‘hot-tubbing’ (note, e.g., the comment by Mr Justice Roth, in *Streetmap.EU Ltd v Google Inc* [2016] EWHC 253 (Ch), whilst arranging the two economists together for the process, that ‘[a] hot tub is not supposed to be literally hot. The table is quite small’, per *Transcript of proceedings day 5*, at p 735). In one case, the layout was described by the respondent expert witness as ‘a horse show’, with the experts in the middle of the courtroom on office chairs, which they kept ‘spinning around’ to respond to the various questions posed by the judge and then by counsel.

To summarise the results of the surveys, on each of the above three issues, and by reference to both legal representatives and expert witnesses:
Experiences in the hot-tub

<table>
<thead>
<tr>
<th></th>
<th>Legal representatives</th>
<th>Expert witnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>the expert DID / DID NOT get asked exactly the same question as the other expert witness in the hot-tub</td>
<td>DID 56.3% DID NOT 43.8%</td>
<td>DID 61.2% DID NOT 38.8%</td>
</tr>
<tr>
<td>the court DID / DID NOT alternate in the order in which it asked its question of each expert witness</td>
<td>DID 75% DID NOT 25%</td>
<td>DID 38.8% DID NOT 61.2%</td>
</tr>
<tr>
<td>the change in the layout of the courtroom (if any) DID / DID NOT improve the expert’s experience of giving expert opinion evidence</td>
<td>DID - 66.7% DID NOT 33.3%</td>
<td>DID 28.6% DID NOT 71.4%</td>
</tr>
</tbody>
</table>

5. Opening statements

Practice differed amongst the judges whose insights particularly influenced the Working Group, as to whether or not opening statements by the experts were warranted, at the beginning of the hot-tubbing process.

In Streetmap.EU Ltd v Google Inc [2016] EWHC 253 (Ch), each of the two experts was given 10–15 minutes for an opening statement, but in retrospect, Mr Justice Roth commented (in interview dated 26 May 2016) that it may not have been particularly helpful (especially given that hot-tubbing requires that the judge be very well-prepared to lead the questioning in any event).

No opportunity for opening statements was provided by Mr Justice Edwards-Stuart, in the case of Fluor Ltd v ZPMC (according to a letter of feedback of experts’ views, from Hogan Lovells International to the judge, dated 18 April 2016, a copy of which the Working Group has perused). This prompted differing reactions from experts in the case, with one commenting that, ‘I think the experts should be allowed to make a 5-minute opening and closing’, whereas another noted that, ‘if each expert had to give an introduction to each topic, it would have looked rehearsed. I was pleased that the Judge took the approach he did, in asking opening questions on each topic’.

His Honour Judge Waksman remarked (in interview dated 31 May 2016) that he rarely permits opening statements (and none was to be permitted if hot-tubbing occurred in the case of Paterson v Svenska Handelsbanken AB (publ), had it proceeded to trial) — preferring to ‘get straight to the items on the agenda’. Both Mr Justice Roth and Judge Waksman agreed that there may be a danger of experts coming across as ‘advocates’ for the party which they are representing, if they are given an opportunity for an opening statement.

None of the respondents to the surveys commented on the issue of opening (or closing) statements.
The Working Group considered that, in light of the above discussion, the Guidance Note could benefit from an express mention of these matters of ensuring procedural fairness whilst ‘in the hot-tub’:

**Recommendation #7: Continuing the Guidance Note ...**

The Working Group recommends a continuation of the Guidance Note, as follows:

**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.

**Communication to the experts – content**

There are brief references to ‘hot-tubbing’ in various publicly-available guidance notes to which expert witnesses may already have access. For example, the Civil Justice Council’s *Guidance for the Instruction of Experts in Civil Claims 2014* replaced the previous *Protocol for the Instruction of Experts to Give Evidence in Civil Claims 2009*, and refers to the power of the court, since April 2013, to order that experts of similar disciplines may give their evidence concurrently at trial, via hot-tubbing. Additionally, specialist guidance notes, such as the Royal Institution of Chartered Surveyors’ *Surveyors Acting as Expert Witnesses — RICS Practice Statement and Guidance Note 2014*, refer to hot-tubbing too.

However, the Working Group believes that an Information Note for Expert Witnesses would be beneficial, for publication and/or dissemination by the Expert Witness Institute and the Academy of Experts. The purpose of such a note would be to explain, in plain English, the hot-tubbing process, and how it differs from the traditional manner of giving oral expert evidence.

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The Working Group further considers that, when an order for hot-tubbing is made, then the Information Note should be drawn to the attention of the relevant experts in the proceedings, simultaneously with the order itself being served on the expert, as proposed previously (please see Recommendation #6, and accompanying text).

A draft text of the Information Note is provided overpage:
Recommendation #8: An Information Note for Expert Witnesses

The Working Group recommends that a short Information Note for Experts should be served on experts, together with a copy of the order for directions, where an order for hot-tubbing is made. The Information Note could include the following matters:

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.
4. AN EVALUATION OF THE OBJECTIVES OF HOT-TUBBING: SOME REFLECTIONS

According to Sir Rupert Jackson, the use of concurrent expert evidence, as an ‘additional tool’ in the court’s armory, has four objectives (per ‘Focusing Expert Evidence and Controlling Costs’, Fourth Lecture in the Implementation Programme, 11 Nov 2011, at [4.1]):

i. The procedure was quicker, and more focussed, than the traditional sequential format;
ii. Experts find this procedure easier; they give evidence better and sometimes more impartially than under the traditional sequential format;
iii. Judges find it easier to understand complex technical evidence when it is given in this way; and
iv. The procedure achieves a significant saving of both trial time and costs.

Via its informative surveys, interviews, written correspondence, and the perusal of relevant literature which discussed first-hand experiences, the Working Group tested whether these rationales were being achieved by the process of judge-led joint expert examination (or ‘hot-tubbing’), since its formal implementation in April 2013.

Dealing with the various rationales in turn:

**Saving time?**

The overwhelming feedback derived during this project is that, where used, judges believe that trial time itself is saved by the technique of hot-tubbing — although, clearly, there may not have been any saving of time during the trial preparation. Indeed, the time required to be devoted to the case by the judge, pre-trial, to master the details of the case sufficiently to lead the questioning, may have outweighed, in some cases, the time saved at trial. (The issue of judicial preparation time was previously addressed in this report at pages 33–35.)

At some level, this simply means a re-allocation of costs — a shorter trial may reduce the parties’ costs incurred by the attendance of their legal representatives in the courtroom, but conversely increase the cost to the ‘public purse’, or have hidden detriments to other court users, because judges’ preparation times are increased to cope with the demands of concurrent expert evidence via hot-tubbing.
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
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: ‘[i]t 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: ‘[i]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.
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 \textit{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 \textit{interview} (dated 26 May 2016), whilst HHJ Mckenna, the designated Civil Judge at the Birmingham Civil Justice Centre, noted this too (by \textit{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 \textit{email} from HHJ Platts, of the Manchester Civil Justice Centre, dated 23 May 2016, in response...
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.

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.
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 (JEE), 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:
whether or not the experts are from like, or sufficiently like, disciplines;

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);

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

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;

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;

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

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);
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);

boundary disputes;

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.

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.

***
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.

***
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.
Was the process of hot-tubbing directed by agreement with the parties?²

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>85.71%</td>
<td>14.29%</td>
<td></td>
</tr>
</tbody>
</table>

Process directed by agreement?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>DID</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>DID NOT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

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.

Opportunity to object?

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:

<table>
<thead>
<tr>
<th>Role of counsel</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each counsel conducted a full cross-examination of the other side's expert witness</td>
<td>33.3%</td>
</tr>
<tr>
<td>Each counsel conducted a re-examination of their own witness</td>
<td>16.7%</td>
</tr>
<tr>
<td>Each counsel asked some short clarifying questions of one or the other of the witnesses</td>
<td>66.7%</td>
</tr>
<tr>
<td>Each counsel decided no further examination was necessary</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

Total responses: 6

Role of counsel after judge-led questioning ended?

- Full cross-examination: 33.3%
- Re-examination: 16.7%
- Short clarifying questions: 66.7%
- No further examination: 16.7%

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?

<table>
<thead>
<tr>
<th>Aims</th>
<th>Yes</th>
<th>No</th>
<th>Could not assess</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time during the trial</td>
<td>6/6 (100.0%)</td>
<td>0/0 (0.0%)</td>
<td>0/0 (0.0%)</td>
<td>6</td>
</tr>
<tr>
<td>Saving costs to the parties</td>
<td>2/6 (33.3%)</td>
<td>3/6 (50.0%)</td>
<td>1/6 (16.7%)</td>
<td>6</td>
</tr>
<tr>
<td>Improving the quality of the expert evidence</td>
<td>5/6 (83.3%)</td>
<td>1/6 (16.7%)</td>
<td>0/6 (0.0%)</td>
<td>6</td>
</tr>
<tr>
<td>Assisting the court to determine disputed issues of expert evidence</td>
<td>6/6 (100.0%)</td>
<td>0/6 (0.0%)</td>
<td>0/6 (0.0%)</td>
<td>6</td>
</tr>
</tbody>
</table>

One respondent chose three options, i.e., 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.
Hot-tubbing achieved the following aims better than other methods?

<table>
<thead>
<tr>
<th>Aim</th>
<th>Could not assess</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Saving costs</td>
<td>0.0%</td>
<td>16.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Improving quality</td>
<td>0.0%</td>
<td>16.7%</td>
<td>83.3%</td>
</tr>
<tr>
<td>Assisting the court</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

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.
A total of 33 responses were received from legal representatives. 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), 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).

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.

<table>
<thead>
<tr>
<th>Was the process of hot-tubbing:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>By agreement between the parties and the court?</td>
<td>22</td>
</tr>
<tr>
<td>Directed by the court, notwithstanding the objections of one or more of the parties?</td>
<td>3</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29</strong></td>
</tr>
</tbody>
</table>

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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.
Was the process of hot-tubbing...

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.

<table>
<thead>
<tr>
<th>When your expert was 'in the hot-tub', which (if any) of the following reflects your observation of the process:</th>
<th>Did</th>
<th>Did Not</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>the expert DID / DID NOT get asked exactly the same question as the other expert witness in the hot-tub</td>
<td>18</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>56.3%</td>
<td>43.8%</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>18</td>
<td>14</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>56.3%</td>
<td>43.8%</td>
<td></td>
</tr>
<tr>
<td>the court DID / DID NOT alternate in the order in which it asked its question of each expert witness</td>
<td>24</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>75.0%</td>
<td>25.0%</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td>17</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>54.8%</td>
<td>45.2%</td>
<td></td>
</tr>
<tr>
<td>the change in the layout of the courtroom (if any) DID / DID NOT improve the expert's experience of giving expert opinion evidence</td>
<td>14</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>66.7%</td>
<td>33.3%</td>
<td></td>
</tr>
</tbody>
</table>

**Observation of the process**

<table>
<thead>
<tr>
<th>Observation of the process</th>
<th>Did not</th>
<th>Did</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exactly same questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experts' own questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate the order</td>
<td>25.0%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Opportunity to object</td>
<td>45.2%</td>
<td>54.8%</td>
</tr>
<tr>
<td>Change in layout</td>
<td>33.3%</td>
<td>66.7%</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Role Description</th>
<th>Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each counsel conducted a full cross-examination of the other side's expert witness</td>
<td>7</td>
<td>23.3%</td>
</tr>
<tr>
<td>Each counsel conducted a re-examination of their own witness</td>
<td>9</td>
<td>30.0%</td>
</tr>
<tr>
<td>Each counsel asked some short clarifying questions of one or the other of the witnesses</td>
<td>25</td>
<td>83.3%</td>
</tr>
<tr>
<td>Each counsel decided no further examination was necessary</td>
<td>4</td>
<td>13.3%</td>
</tr>
</tbody>
</table>

Total respondents: 30

**Role of counsel after judge-led questioning ended?**

- **Conducted full cross-examination**: 23.3%
- **Re-examination**: 30.0%
- **Short clarifying questions**: 83.3%
- **No further examination**: 13.3%

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."

---

*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."

<table>
<thead>
<tr>
<th>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:</th>
<th>Yes</th>
<th>No</th>
<th>Could not assess</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time during the trial</td>
<td>18</td>
<td>13</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>Saving costs to the parties</td>
<td>9</td>
<td>17</td>
<td>6</td>
<td>32</td>
</tr>
<tr>
<td>Improving the quality of the expert evidence</td>
<td>27</td>
<td>3</td>
<td>2</td>
<td>32</td>
</tr>
<tr>
<td>Assisting the court to determine disputed issues of expert evidence</td>
<td>30</td>
<td>1</td>
<td>1</td>
<td>32</td>
</tr>
</tbody>
</table>

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.
Hot-tubbing achieved the following aims better than other methods?

Could not assess  No  Yes

<table>
<thead>
<tr>
<th>Aims</th>
<th>Could not assess</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time</td>
<td>3.1%</td>
<td>40.6%</td>
<td>56.3%</td>
</tr>
<tr>
<td>Saving costs</td>
<td>18.8%</td>
<td>28.1%</td>
<td>53.1%</td>
</tr>
<tr>
<td>Improving quality</td>
<td>6.3%</td>
<td>9.4%</td>
<td>84.4%</td>
</tr>
<tr>
<td>Assisting the court</td>
<td>3.1%</td>
<td>3.1%</td>
<td>93.8%</td>
</tr>
</tbody>
</table>

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."
A total of 51 responses were received from expert witnesses.\textsuperscript{11} In terms of where that experience derived from, 24\textsuperscript{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), Singapore (3), Northern Ireland (4)\textsuperscript{14} and Switzerland (1).\textsuperscript{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.

<table>
<thead>
<tr>
<th>At what stage of the proceedings were you notified that the process of hot-tubbing would be used:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following the first case management conference</td>
<td>3 5.9%</td>
</tr>
<tr>
<td>Following a subsequent CMC</td>
<td>5 9.8%</td>
</tr>
<tr>
<td>Following the pre-trial review\textsuperscript{16}</td>
<td>20 39.2%</td>
</tr>
<tr>
<td>On the day of the trial or hearing\textsuperscript{17}</td>
<td>18 35.3%</td>
</tr>
<tr>
<td>Other (please specify)\textsuperscript{18}</td>
<td>5 9.8%</td>
</tr>
</tbody>
</table>

\textsuperscript{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.

\textsuperscript{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.

\textsuperscript{13} One expert had experience from both Australia and Singapore.

\textsuperscript{14} One of these was a public inquiry rather than court proceedings.

\textsuperscript{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.

\textsuperscript{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.

\textsuperscript{17} This category includes one respondent who selected “Other” but specified that he/she had been notified after trial had started.

\textsuperscript{18} Most of these said they had various experiences as to when they were notified.
Stage notified of hot-tubbing

<table>
<thead>
<tr>
<th>Stage notified of hot-tubbing</th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following first CMC</td>
<td>5.9%</td>
<td></td>
<td>9.8%</td>
</tr>
<tr>
<td>Following subsequent CMC</td>
<td></td>
<td>9.8%</td>
<td></td>
</tr>
<tr>
<td>Following pre-trial review</td>
<td></td>
<td>39.2%</td>
<td></td>
</tr>
<tr>
<td>On day of trial/hearing</td>
<td></td>
<td>35.3%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>9.8%</td>
<td></td>
</tr>
</tbody>
</table>

Once you were advised that hot-tubbing would be used, did that affect the way in which you prepared your oral expert evidence?

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Yes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39</td>
<td>9</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>81.3%</td>
<td>18.8%</td>
<td></td>
</tr>
</tbody>
</table>

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:

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

### Observation of the process

<table>
<thead>
<tr>
<th></th>
<th>Did not</th>
<th>Did</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exactly same questions</td>
<td>38.8%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Experts' own questions</td>
<td>30.6%</td>
<td>69.4%</td>
</tr>
<tr>
<td>Alternate the order</td>
<td>38.8%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Opportunity to object</td>
<td>42.9%</td>
<td>57.1%</td>
</tr>
<tr>
<td>Change in layout</td>
<td>28.6%</td>
<td>71.4%</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Role of Counsel</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each counsel conducted a full cross-examination of the other side's expert witness</td>
<td>14 (28.0%)</td>
</tr>
<tr>
<td>Each counsel conducted a re-examination of their own witness</td>
<td>7 (14.0%)</td>
</tr>
<tr>
<td>Each counsel asked some short clarifying questions of one or the other of the witnesses</td>
<td>34 (68.0%)</td>
</tr>
<tr>
<td>Each counsel decided no further examination was necessary</td>
<td>4 (8.0%)</td>
</tr>
<tr>
<td><strong>Total respondents</strong></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Role of counsel after judge-led questioning ended?

- **Full cross-examination**: 28.0%
- **Re-examination**: 14.0%
- **Short clarifying questions**: 68.0%
- **No further examination**: 8.0%

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."

<table>
<thead>
<tr>
<th>In your experience:</th>
<th>Yes</th>
<th>No</th>
<th>Could not assess</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you think that experts give their evidence in a more &quot;neutral&quot; manner when expert evidence is given via hot-tubbing?</td>
<td>22</td>
<td>21</td>
<td>7</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>44.0%</td>
<td>42.0%</td>
<td>14.0%</td>
<td></td>
</tr>
<tr>
<td>Do you think that expert evidence is more intelligible to the court when given via hot-tubbing?</td>
<td>31</td>
<td>15</td>
<td>4</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>62.0%</td>
<td>30.0%</td>
<td>8.0%</td>
<td></td>
</tr>
<tr>
<td>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?</td>
<td>29</td>
<td>16</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>58.0%</td>
<td>32.0%</td>
<td>10.0%</td>
<td></td>
</tr>
</tbody>
</table>

Experience of process...

- More neutral manner?
  - Could not assess: 14.0%
  - No: 42.0%
  - Yes: 44.0%

- More intelligible?
  - Could not assess: 8.0%
  - No: 30.0%
  - Yes: 62.0%

- Better expressed?
  - Could not assess: 10.0%
  - No: 32.0%
  - Yes: 58.0%
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."

<table>
<thead>
<tr>
<th>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:</th>
<th>Yes</th>
<th>No</th>
<th>Could not assess</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time during the trial</td>
<td>37</td>
<td>12</td>
<td>2</td>
<td>51</td>
</tr>
<tr>
<td>Saving costs to the parties</td>
<td>23</td>
<td>18</td>
<td>10</td>
<td>51</td>
</tr>
<tr>
<td>Improving the quality of the expert evidence</td>
<td>30</td>
<td>15</td>
<td>6</td>
<td>51</td>
</tr>
<tr>
<td>Assisting the court to determine disputed issues of expert evidence</td>
<td>36</td>
<td>7</td>
<td>8</td>
<td>51</td>
</tr>
</tbody>
</table>

**Hot-tubbing achieved the following aims better than other methods?**

<table>
<thead>
<tr>
<th>Hot-tubbing achieved</th>
<th>Could not assess</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving hearing time</td>
<td>3.9%</td>
<td>23.5%</td>
<td>72.5%</td>
</tr>
<tr>
<td>Saving costs</td>
<td>19.6%</td>
<td>35.3%</td>
<td>45.1%</td>
</tr>
<tr>
<td>Improving quality</td>
<td>11.8%</td>
<td>29.4%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Assisting the court</td>
<td>15.7%</td>
<td>13.7%</td>
<td>70.6%</td>
</tr>
</tbody>
</table>

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."