



## **PREAMBLE**

In order to share its experience in arbitration proceedings, FTI Consulting France proposes to regularly produce booklets summarizing the essential elements of a particular facet of these proceedings. They are written for the attention of experts, whether appointed by the parties or the Arbitral Tribunal, advisors, arbitrators and lawyers.

After the publication "Provision of expert evidence in construction and engineering disputes" this booklet is the second in a series launched in 2022. It intends to describe the means and importance of identifying, managing and sharing written evidence in arbitration proceedings as this represents a challenge, often neglected, and a workload clearly underestimated by the parties who have brought their case before Arbitral Tribunals.

This booklet was written by Vincent Lefeuvre, Senior Director at FTI Consulting France and technical, delay and quantum expert.

Given both the growth in the technical scope and complexity of cross-border construction projects and the growth in communication capacities, it is possible that the daily production of documents (**project documents**) by the parties, which are

then exchanged between them, will increase in the same proportions. Today, it is not uncommon that in the course of construction projects, between 200,000 and 1,000,000 documents are produced in various forms.

This volume of documents to be dealt with in the context of a dispute, on the one hand, and the acceleration or increasing complexity of legal processes - particularly with the ratification of the choice of arbitration in most of the contracts signed - on the other, make the mastery of project documentation absolutely essential. This represents the main silent witnesses of the events that shape a dispute.

Having access to this contemporaneous documentation is important in all international commercial arbitrations, and particularly so in complex cross-border construction disputes. The reason for this is that Arbitral Tribunals are tasked with understanding the facts in great detail in order to determine the cause and effect of each event brought to their attention by the parties and to apportion liability.

In an arbitration proceeding, the role of written evidence is to establish the facts. In general,

proper project documentation, part of which is to be presented to the Arbitral Tribunal as **written evidence**, is essential to meet the **burden of proof**, i.e. the burden of ensuring that a statement, supported by a party, is more likely to be considered true than false by the Arbitral Tribunal.

It is essential to identify the facts in a large volume of project documents, to validate their relevance and to produce them at the right time, with the required quality, to the Arbitral Tribunal, according to the rules of the Arbitration Chamber designated by the parties.

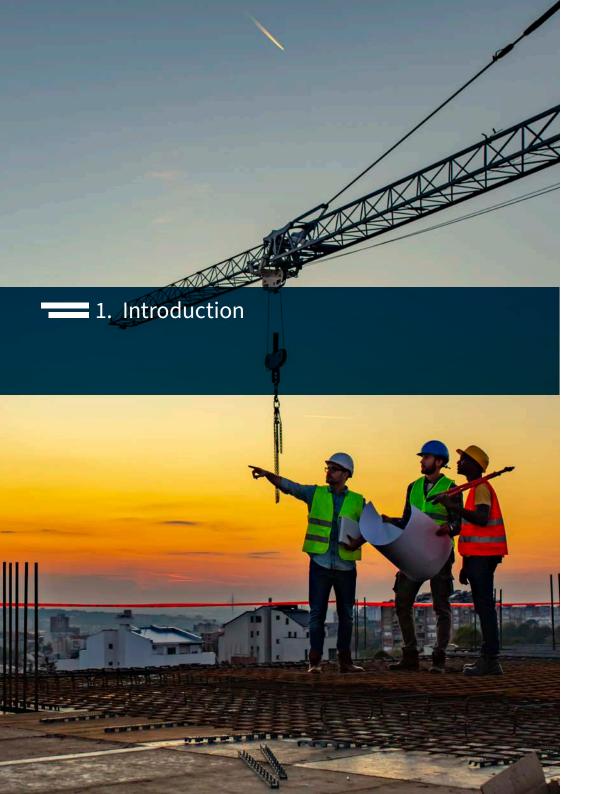
This second booklet describes the different ways in which documentation may be essential in a construction arbitration, provides a general overview of the steps that different types of documents have to go through in order to be ultimately accepted as evidence by the Arbitral Tribunal and underlines the absolute necessity of using suitable computerised means to meet this requirement.

It discusses in particular the legal framework in which the written evidence of a construction project in the arbitration phase fits, its definition and the means of identifying, managing and sharing it

### **Contents**

1.	Introduction			
2.	Project documents as evidence	1		
	The physicality of written evidence	1		
	The content of written evidence	1		
3.	Document Review	1		
	Filtering the wealth of information	1		
	Benefits of and need for project documentation reviews	1		
4.	Added value of IT in project document management during			
	arbitration proceedings	1		
	Characterisation of the IT tools required	1		
	Time is of the essence in arbitration proceedings	2		
	Maintaining confidentiality is key	2		
	Inshort	2		
5.	Arbitration Tribunals' rules and requirements	2		
	The use of written evidence in the different jurisdictions	2		
	Evidence produced by the parties	2		
	(i) Documents held by each party, produced spontaneously	2		
	(ii) Documents which are in the hands of the opposing party	2		
	(iii) Refusal to produce document to the opposing party	3		
	(iv) Documents in the possession of a third party	3		
6.	Conclusion	3		
Vincent LEFEUVRE				
Quotes				

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Nowadays, operating in "project mode" has become essential for managing the major challenges of industrial infrastructure construction. The technical progress achieved by the organisations that undertake such projects, their cross-border implantation, their financial means and the levels of competence achieved by their resources enable them to take on these challenges. However, these increasingly daring projects, to be delivered within ever tighter deadlines and budgetary envelopes, within an increasingly strict normative framework, are undermined by potentially very damaging risks. If these risks materialise in the form of an adverse event, it is important to be able to describe it and document it.

Operating in project mode essentially responds to the necessity of dividing a complex problem into a sufficient number of well-posed components, each of which can be solved by calibrated work units, grouping together a reasonable number of resources prepared for this purpose, and coordinated and equipped with the appropriate means in terms of materials and knowledge.

The increasing complexity of cross-border construction projects, in a constantly evolving environment, requires the daily cooperation and collaboration of countless work units: authorities, owners, general contractors, subcontractors, suppliers, engineers and others, which inevitably leads to an increasing number of interfaces between them. This may be the interface between design and procurement units or between

civil engineering and equipment installation contractors.

Generally speaking, interfaces are transfer functions that take outputs, sometimes called deliverables, from one or more operational work processes and turn them into inputs for one or more others. The management of these interfaces does not necessarily add value to the final product, the physical purpose of the construction project. Its sole rationale is to coordinate the operational work units that produce it and to bear witness to what is actually done. It does not form the central object of the construction project as such, but is necessary for the proper functioning of the operational work processes, which are intended to generate the final product. Management uses information of all kinds,

reporting on the progress of the work, expressing decisions, intentions, forecasts, notifying events and so on.

But this information alone cannot accurately and comprehensively describe the reality of the facts.

The facts, removed from their context, even considered in their entirety are never more than "photographs" of the real film which actually took place. What happened outside the camera focus? Isn't the photo misleading? Do all the photos of the same event, taken from a different angle, all show the same thing? Is there enough in the photo to clearly describe the scene? [1]

It is, however, collectively recognised that contemporaneous written records are the primary and most accurate source of information available to describe the events that took place during the performance of a Contract. However, just because an event is reported in a project document does not mean that its description is necessarily reliable. Many "photographs", or written materials, are produced during construction projects by people who do not always have a full understanding of the ins and outs of the project, who are not in a position to have a neutral view of the situation they describe or were simply unaware that the event they describe might one day be brought before an arbitration court. Confronting and examining all the information and discussing it appears to be a good way of extracting a certain objective reality. If the "photographs" are considered as a whole, in their context, analysed and compared with each other, they may provide the necessary information on which the parties can rely to establish the facts on which their statements are based, or to refute the arguments of the other party.

The process of understanding the documents and the information they contain is one of the only ways in which an Arbitral Tribunal can accurately elucidate the issues surrounding the parties'

claims. Another is to draw on appropriate experts and advisors whose understanding of the facts is facilitated by their experience. However, no matter how well qualified, experts and advisors do always rely on existing project documents to establish and explain the facts, their opinions only supplementing or rectifying them as necessary.

It is in any case unwise to embark on an arbitration proceeding without having invested sufficient time in a preliminary review of the project documents. This is to ensure that the party has at least a clear view of the potential written evidence at its disposal. Not to do so would be tantamount to defining the cruise - even with full knowledge of its port of destination - without knowing the ship.

It is often difficult to know, during the course of a construction project, precisely what events will later be the subject of an arbitration claim. As a result, these events are not always accurately recorded. The best way to ensure that the documents required for a potential arbitration claim are available is to establish sound recordkeeping practices early in the project and to stress to the entire project team the importance of good record-keeping.

However, when the arbitration is initiated, the majority of the project documents are already written and organised in a way that is completely beyond the reach of the lawyers appointed to defend the case and the experts who are supposed to establish certain complex facts. This is a parameter of the case. The issue at this stage of the project is no longer to inform project management but to optimise the understanding of the facts as they have been actually reported and organised.

The preliminary examination of project documents should therefore be seen by a party as a critical phase to be carried out before engaging itself in any arbitration proceedings. This review

aims to analyse both the substance and the form of the available project documents. In particular, during this period, it is necessary to identify, either exhaustively or by sampling, existing evidence that is missing, probably held by the opposing party or even by a third party, which is not necessarily directly involved in the dispute. More specifically, the preliminary analysis by sampling of project documentation may consist of, but is not limited to, analysing the quality of the schedules on which a delay analysis should be based or the availability of financial information able to support any quantum analysis.

The International Chamber of Commerce (ICC) Commission's report on the management of electronic document production [2] also agrees that the parties may use the technique of data sampling, by computer means, to retrieve and review part of the project databases containing written evidence potentially relevant to the arbitration proceeding. This is to assess whether the benefits of further examination of these databases justify the cost and workload involved.

Not all written evidence from the project is supposed of course to be presented to the Arbitral Tribunal, but the parties will often rely on a significant proportion of it in their briefs and reports (the submissions). Of the hundreds of thousands of documents produced during the Contract execution phase, the number of documents required to support construction arbitration cases is usually in the hundreds.

The questions that arise today are therefore the following:

What is the most efficient way to administer and produce both project documents and submissions without breaking the rules of the arbitration proceeding and within the time constraints? And how can IT, at each stage of the arbitration proceeding, take over some of this heavy workload?

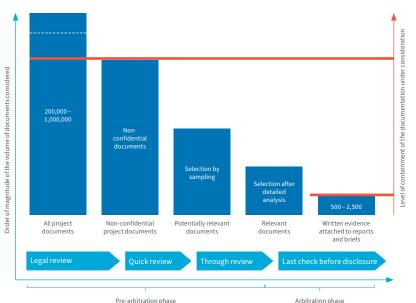
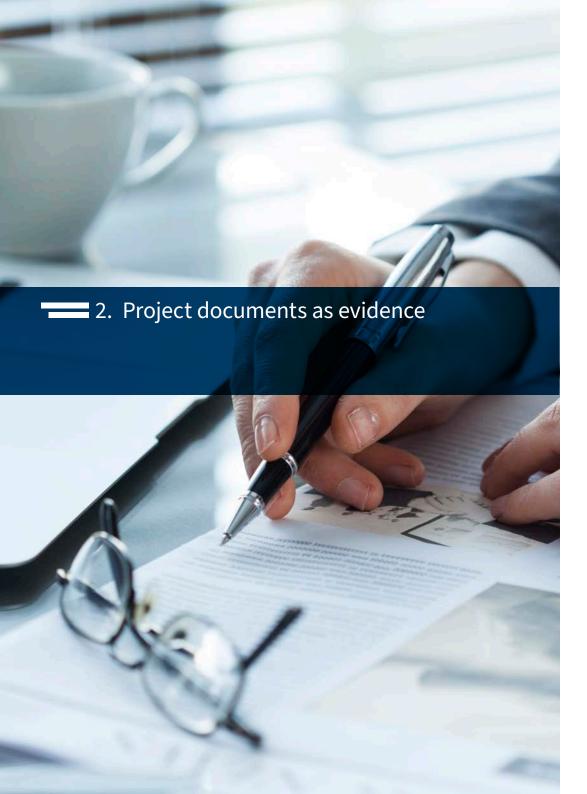


Figure 1: Result of the project documentation review process

Arbitration phase



Regardless of the Arbitral Tribunal in which it is produced, there is really no precise definition of what "written evidence" is. This question is addressed here under two headings: the first is its form and the second its substance.

#### The physicality of written evidence

Written evidence is, first and foremost, something that is written or saved on a physical medium.

It takes the form of recorded data or information such as letters, e-mails, contracts and their amendments, reports and all other written communications as well as their metadata if these documents are produced in electronic form, digital data from mathematical models used and updated during the execution of the project such as schedules, work progress calculation models, economic or technical models, photographs, films, audio and video tapes and CAD drawings.

Their diversity increases with the complexity of projects and the variety of record-keeping practices used by companies involved in construction projects. Companies inevitably produce records in order to register events throughout the project execution, to manage it effectively and to satisfy their duty to produce them as deliverables if and when required.

Their quality and even their existence can be affected, like any material object, by external factors such as robbery, loss, bad weather, time (loss of ink quality), computer system breakdowns or new versions of software no longer allowing the use of old versions of models or documents. A model developed on a spreadsheet in the 1990s is probably no longer usable today on contemporary tools.

It is worth noting that altered written evidence may no longer be admissible by an Arbitration Tribunal.

#### The content of written evidence

At the substantive level, most Arbitral Tribunals apply the adage "actori incumbit probatio" and, in this sense, evidence is anything that can establish the truth of a statement. It is presented by a party to the Arbitral Tribunal in order to establish a certain fact. By presenting this evidence, the party in question attempts to meet its "burden of proof" according to the commonly accepted rule of placing the burden of proving the existence of the facts on the party which bases its statements on them.

It is worth noting that, depending on the legal context, the evidence or body of evidence is supposed to demonstrate that the candidate fact to be established:

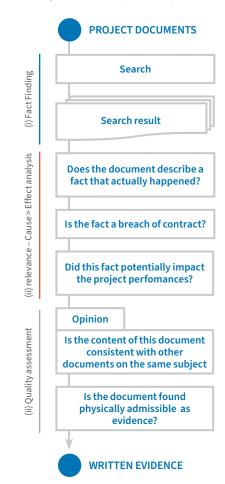
- (i) actually occurred, and was the main or subsequent cause of the loss of performance of the project which,
- (ii) (a) was under the control of the counterparty which thereby breached the contract, or (b) was due to force majeure,
- (iii) was not, in whole or in part, within the control of the plaintiff, and
- (iv) had a real impact (a consequence) on the Applicant's project performance.

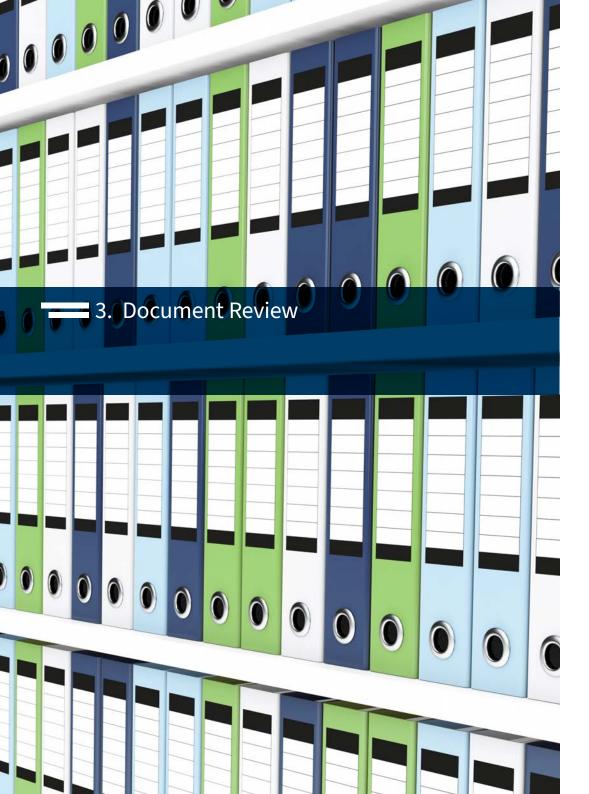
Evidence generally has a weighting in whether it actually establishes a fact or not. It can be given insignificant or no weight if the candidate evidence is inadmissible, tainted or irrelevant, or it can be given a high weight if it is irrefutable and perfectly in line with the claimant's statement. Their relative weights are linked to their content but also to their form. Although there is no rule on this, an e-mail will probably be given less weight than an official letter.

It may also be combined with other evidence in a pool of converging evidence tending to "show" the same thing.

In all cases, the production of written evidence follows more or less the same process, from finding documents that are supposed to support the statement, to checking their consistency with other documents relating to the same event and their form, through to validating their relevance

Figure 2: Evidence production process





#### Filtering the wealth of information

In the middle of the overwhelming number of project documents, the document review acts first and foremost as an oriented filter. It aims, from a large quantity of project documents, to highlight only those that are useful to establishing the facts of a given statement and leave out those that are irrelevant or unimportant.

A first [1] legal document review should be done to ensure that privileged or confidential documents are not filed in the arbitration. During the document review, the parties have the opportunity to exclude documents that are confidential for commercial or technical reasons or that are subject to legal privilege.

Secondly, a [2] quick or preliminary examination of documents should be done, as an independent preliminary assessment, in order to verify the general content and quality of the documents held. In the first instance, a quick review of all events will identify those that are relevant to the case. This includes checking the completeness and accuracy of the written evidence produced by the parties during the course of the project to determine the strengths and weaknesses of the case.

Then, a [3] more thorough examination of all the project documents must also be carried out, before using them as written evidence, in order to compare those that purport to describe the same fact with each other before extracting some objective reality from them. They must be analysed as a whole so that one can validate the other, or at least not contradict it. A party that refuses or neglects to disclose all relevant information to an expert or his lawyers, for example, runs the risk of obtaining from them an opinion which is based only on hypotheses, or which is simply not in conformity with the real facts, and is likely to be disregarded by the Arbitral Tribunal.

In addition, a thorough examination of the project documentation allows for an assessment of the actual usefulness of the written evidence in describing a fact, which is the subject of the supported claim.

Figure 3: Documentation PROJECT DOCUMENTATION review process (1) Legal review Is the documentation confidential? Yes No (2) Quick review Does the documentation support our statement? Yes No, not fully 'Go-no-go", negotiation or arbitration? (3) Thorough review Is the document relevant to the case? No Yes (4) Last check before submission Is the document strictly necessary to support the statement? No Yes 

It is the documents resulting from this in-depth review which, after a [4] final check, will be submitted to the Arbitral Tribunal since they will ultimately be used to build up the claims and counterclaims, to assess the delays, if any, and to establish the value of the financial loss.

#### Benefits of and need for project documentation reviews

Before embarking on an arbitration proceeding, it is highly recommended to first conduct a legal, a quick and then a thorough review of the project documents. This process is usually expensive and time-consuming. However, it is crucial for the successful outcome of a dispute for different reasons:

**Firstly**, as stated above, the party aiming to win the trial has to meet its burden of proof. That means that this party has to provide the Tribunal with evidence proving that the facts on which it relies actually occurred. Document review is the most reliable way to find the relevant evidence to support its statements.

**Secondly**, it is important to conduct a document review prior to the commencement of the Arbitration, as the structure of the documentation itself, its consistency and complexity may have an impact on the Arbitral timetable.

**Thirdly**, it is also important to carry out a document review prior to commencing the arbitration, to get a general idea of the actual course of the project events. This is fundamental to the development of the case strategy, to the proper structuring of the claims or defence and to mitigate any potential risk of going down a fruitless path.

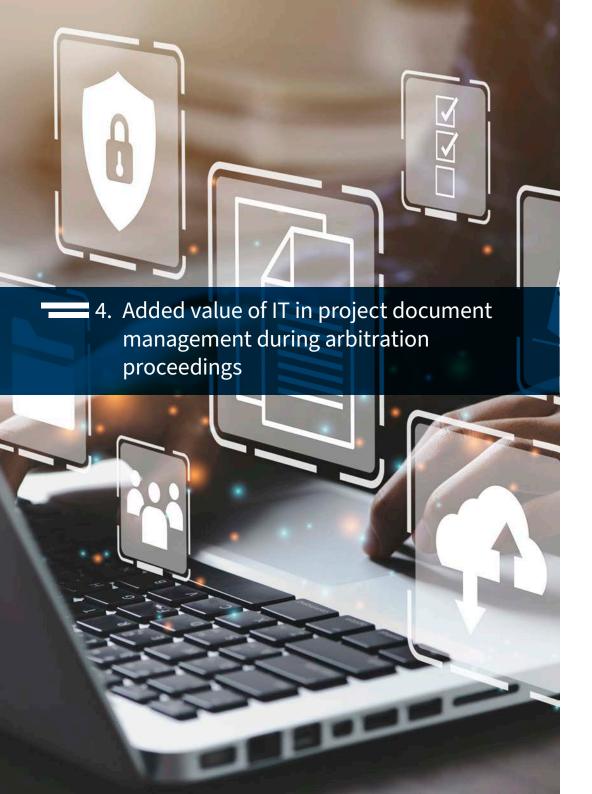
**Fourthly**, once the party has conducted the review and established the relevant documents held. it can then assess what documents it needs to support its claims or defence. Those documents, if

controlled by the opposing party or by a third party, may be subject to document disclosure.

The review of documentation is **fifthly** a preliminary to the assessment of the need for and choice of experts.

When and only when there is a lack of written evidence or the facts are not correctly reported, or the issue under arbitration is difficult for a layman to understand, an expert may be appointed by the Arbitral Tribunal to express an opinion on the facts which are not fully established by written evidence and therefore remain at the stage of hypothesis. In this case, the expert must be able, through his experience and skills, to establish and validate the consistency of the facts brought to his analysis.

It is worth noting that the Internal Institute for Conflict Prevention & Resolution distinguishes between the opinion formulated by the experts, which should be able to be compared with the opinion of the other experts involved in the arbitration proceeding, and the written evidence [10]. In any case, assumptions cannot replace facts. They often leave room for arbitrariness.



#### Characterisation of the IT tools required

Arbitration proceedings are generally quite short, and the time reserved for the production of evidence must be optimised. Due to the ever-increasing number of documents produced by construction projects, it is more necessary than ever to find adequate document management tools capable of simplifying and accelerating document review, management and disclosure.

Current technologies provide the parties with document content analysis tools, which can assist in the process of finding evidence from a large number of project documents. They may also offer Electronic Document Management System (EDMS)type tools whose utility is to organise, manage and share project documents and submissions in a controlled confidentiality environment.

Today, hybrid document management and content analysis tools are available to facilitate the production of written evidence and to eliminate or reduce low value-added tasks throughout the arbitration proceeding.

One of these tools, X-Doc®1, meets this need and is used simply as an example and a reference in the following parts of this booklet. As a simple estimate, storing just 300,000 "paper" documents represents around 120 meters of linear shelf space,

or a full room of 20-25 square meters. Although the originals of paper documents are still recognized as "official" and may be requested as evidence in court, in most cases the scanned version of the documents is deemed sufficient. It seems impossible, however, to imagine that the need for meticulous preservation of paper documents will disappear. Their digitization and storage on a single server, before any engagement in arbitration proceedings, should be seen only as a means of reducing the unproductive costs and risks of their handling and duplication. Their storage on a single server also ensures that all team members who need them to produce expert reports and briefs have access to the same up-to-date and complete database. As an example, X-Doc® has reduced the search and analysis times of the documentation by around 70% compared with the same work done without EDMS tools



# Time is of the essence in arbitration proceedings

Saving time means first eliminating or minimising low value-added activities and then avoiding doing the same work twice.

For parties that have chosen to benefit from the advantages of an IT platform to manage their project documentation, storing project documents on a single server ensures that all team members who need them to produce evidence and briefs have access to the same complete and up-to-date database. Leaving project documents, expert reports and briefs to be managed by different people on different isolated servers or, worse, on their personal computers, inevitably leads to loss, oversight and even leakage of sensitive data. Isolated document databases will never be exactly the same from one server or computer to another. The main challenge of a secure and efficient EDMS solution is to provide team members with the project documents, expert reports and briefs they need for their assignment. For example, lawyers may have access to all project documents, experts to the all the technical documents of the project but not more, , external consultants to the documents related to the subject they have to deal with, etc. An **EDMS** solution can also provide further productivity gains for team members engaged by a party to build their case. Expert reports and briefs are generally heavy documents, written by several people and supported by a lot of written evidence. EDMS solutions should enable professionals to connect written evidence (source documents: project documents defined as written evidence) with lawyers' briefs or experts' reports (**produced documents**), while assisting in the collaborative drafting of these documents. The search for evidence and the review of project documents, whether quick or deep, is the domain of the **search engine** which, in order to find them, analyses their **content**. The searches are based on the use of keywords, complex Boolean formulas,

metadata or ad-hoc artificial intelligence methods. An effective content analysis computer application is able to capture and provide users not only with what is written into the document, but also with the metadata contained in electronically stored documents: name of the author, date of creation. date of last modification, number of words, etc. Searches carried out quickly by these means make it possible to obtain samples of evidence which, once analysed, give the parties a good idea of the strength or weakness of the arguments that can be established for each issue in the dispute. These tools provide a quick inventory of the available evidence, its quality and its gaps and make it easier to find evidence in an ocean of unstructured information. Search engines act as radars, beacons and buoys in this case. They also use the "natural" intelligence of the project, which is much more effective than any algorithms. For example, the existing organisation of the client's own project documents and "Chronos" can be used and exploited. However, it should not be assumed that a computer application can replace the trained eye of a skilled professional. Artificial intelligence is not yet at the stage where it would be possible to imagine being able to dispense with a manual review of project documents in order to establish a reliable diagnosis of their content. However, computer applications can be designed so that this manual reading takes as little time as possible.

<sup>&</sup>lt;sup>1</sup> X-Doc<sup>®</sup> is is a global software application developed by Vincent Lefeuvre. For commercial purposes, X-Doc<sup>®</sup> technical specifications are available on request. Please contact Thierry Linares, Senior Managing Director FTI Construction Paris (t.linares@fticonsulting.com).

<sup>&</sup>lt;sup>2</sup> Register of sent and received letters

#### Maintaining confidentiality is key

A dispute is always a delicate process for each company. The data provided by the client for the resolution of the dispute is always critical and sensitive.

The need to avoid keeping project documents on users' personal computers and prevent these documents from transiting through emails between these same users, while sharing them securely between all team members involved in the case, or third parties (lawyers, technical, delay and quantum experts, client employees, opposing party, Tribunal members) has become a major issue that IT tools can resolve.

With regard to X-Doc®, document transfers are kept to a minimum. A hyperlink is sent, and the recipient can access the document via this hyperlink if he is connected to the database or if he enters the required password. This same principle of transfer, used between members of the same team, is also used to transfer part of the supporting evidence to the Arbitral Tribunal or to the opposing party (attachments of expert reports or lawyer briefs).

The challenges raised by the different IT tools are therefore to securely store a large number of documents, and save time and money optimizing the work from the search of written evidence until its presentation in Court.

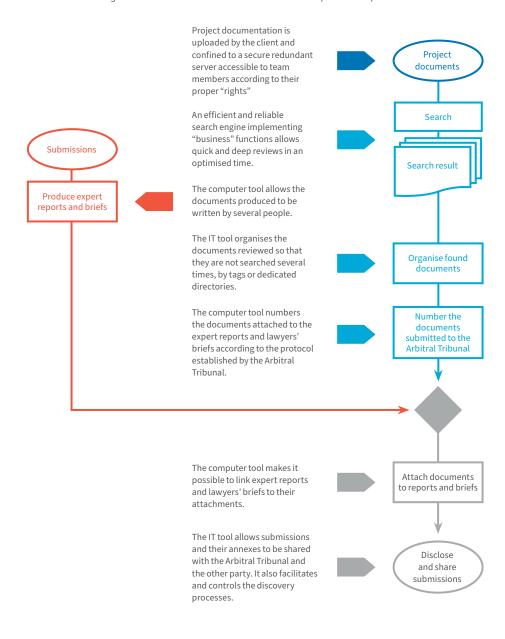
This is done in particular by:

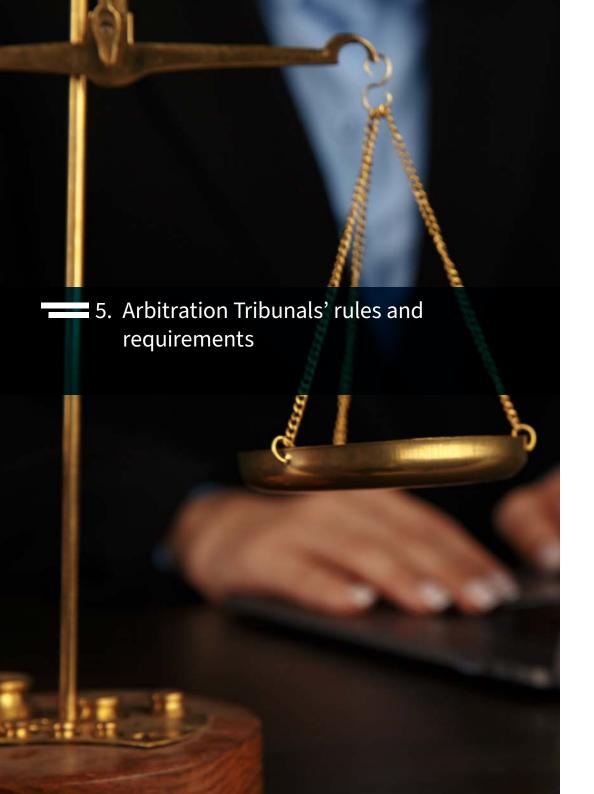
#### In short

- I. Avoiding reproducing and manipulating thousands of documents and neutralising duplicate documents from the search result,
- II. Allowing for quick review of sample documents to guide further evidence searches and monitoring the progress of the document review,

- III. Making it possible to extract and use important data not available on the "paper" version of the documents, but accessible in their original digital version,
- IV. Enabling members of the expert, counsels and consultancy teams to organise written
- V. Allowing the members of the experts, counsels and consultant teams to work in a collaborative way by being able to work together on a brief or an expert report and avoiding doing the same tasks several times,
- VI. Allowing written evidence to be numbered according to the protocol established by the Arbitral Tribunal or by the parties and securely transferring submissions and their annexes to the Arbitral Tribunal.
- VII. Respecting confidentiality as required.

Figure 4: Added value of an IT tool in the evidence production process





#### The use of written evidence in the different jurisdictions

The choice of an IT tool to assist in the management of project documentation in arbitration proceedings may be affected by the type of jurisdiction in which it occurs. At this point, it seems necessary to examine their rules and differences in broad terms.

Although these differences are much more theoretical and historical, they still play an important role in current practice.

In international arbitrations which give rise to proceedings involving parties from both common law and Romano-Germanic traditions, in the matter of administration of documentary evidence, it is often mentioned that the practice of arbitration is largely inspired by the civil law system, while the use of oral evidence comes from the traditional Anglo-American system.

In common law countries, the arbitrator and the parties seek to obtain the truth of the facts, while in civil law tradition countries, the arbitrator is concerned with the claims of the parties as they emerge from the available evidence. According to the Global Arbitration Review - The Guide to Construction Arbitration - Third Edition -

Documents in Construction Disputes [3], in the United States, parties have a duty to produce and submit all documents without exception that may be relevant to the case, whether or not they are favourable to the party holding them. In England, the extent of disclosure of documents is governed by factors of reasonableness and proportionality.

Civil law systems are considered to be less comprehensive than common law systems in that they allow parties to produce only the written evidence on which their statement is based. The production of any evidence that would be unfavourable to them is not mandatory. There are, however, specific arbitration rules that allow a party to request certain documents from the opposing party or from third parties, but these rules require the requesting party to specify the documents and thus considerably limit the possibilities of producing documents.

However, even if the two approaches to justice appear very different, arbitrators still had to somehow strike a balance between common law and the civil law rules. Numerous arbitration rules and guidelines on documentary evidence set the general rules on document disclosure.

What emerges nowadays in international arbitrations is a certain consensus between these two main types of approach on the rules of production of evidence. The production of documents in arbitration is indeed considered as:

"one of the most remarkable examples of a merger between different national civil procedure approaches." [4]

This trend is not likely to change in the future.

To come back to the computerised project documentation management tools, it is therefore essential that they integrate the fact that certain written evidence in the possession of a party must be shared with the opposing party and with the Arbitral Tribunal.

#### **Evidence produced by the parties**

In every arbitration, the parties invariably submit to the Arbitration Tribunal their briefs and expert reports along with the evidence supporting their statements.

The written evidence submitted by the parties and admissible by the Arbitral Tribunal can be divided into four categories: (i) the documents held by each party, produced spontaneously, (ii) the documents which are in the hands of the opposing party and which the opposing party wants to use. This is the question of discovery, (iii) the documents subject to a party's refusal to comply with the Arbitration Tribunal's request for production and (iv) the documents in the possession of a third party and for which judicial intervention for their production is necessary. The question of the admissibility of evidence rarely arises in the case of written evidence. In the absence of any specification by the parties, the

Arbitral Tribunal has a wide margin of discretion as to the admissibility of evidence. Two types of evidence are generally rejected by Arbitral Tribunals: those which would be contrary to public order and those which, if the parties are able to demonstrate it, are subject to professional secrecy and confidentiality rules.

Most Arbitral Chambers do not give a specific recommendation in this respect. It is therefore up to the parties to decide on the existence and extent of such exclusions. The first document review should therefore be conducted by the lawyers so that there is no risk that documents can be "seen" by unauthorised persons, thereby losing their confidential nature. It is clear that EDMS-type solutions must assume the possibility of segregating documents that are confidential or contrary to public order from those that are not.

#### (i) Documents held by each party, produced spontaneously

The spontaneous production of documents by the parties is generally the main source of written evidence on which Arbitral Tribunals rely to understand or establish the facts.

Apart from the problem of their content, which is not addressed in this booklet, the main difficulties in producing these documents generally lie in three areas.

The first is that they are not always easy to find, lost in an immeasurable number of documents. The first function of the "content analysis" part of the IT tool set up is therefore to bring assistance in searching for evidence, while the EDMS part will make it possible to organise it so as not to have to search for it several times.

The second is to number these documents according to the protocols established by the parties or by the Arbitration Chambers. This numbering can be chronological or follow the order in which they appear in reports or briefs.

The third relates to the transfer of documents

to the Arbitral Tribunal and the other party. The number of documents does not generally allow for simple e-mailing and the short time frame of the arbitration phases does not always allow for timely mailing. The IT tool must be able to provide assistance in the transfer or sharing of these documents.

The disadvantage of the misuse of IT tools for the transfer or sharing of documents with the Arbitral Tribunal is the ease with which the tool can be used. It is likely that the already overwhelming volume of documents produced in the course of Arbitral proceedings will increase even more.

This massive transfer of documents, not always relevant, responds to an anxiety of the parties involved in disputes to transmit as many documents as possible in order, for example, to avoid the risk of being told by the Arbitral Tribunal that the cause of the breach of contract or the effect on the performance of the project is not proven and therefore that the party has not met its burden of proof.

The search for written evidence, its management and the process of disclosure, whether or not it is in support of a report or a brief, have in any event become decisive issues in international arbitration proceedings today.

#### (ii) Documents which are in the hands of the opposing party

The real difficulty faced by Arbitrators is the production of documents for the benefit of one party, which are owned by the other.

It is worth recalling that disclosure of documents in the civil law tradition is only supposed to support the request of the parties, while the disclosing

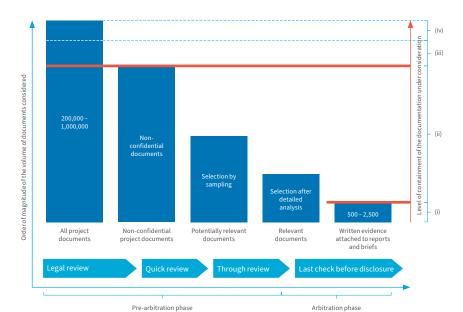


Figure 5: the four categories of written evidence

26 FTI Consulting, Inc.

of documents in common law jurisdictions is a constitutive element of the proceedings.

A distinction must be made between the rules relating to the burden of proof and those relating to the accessing of evidence. The former determines who bears the burden of proving the decisive fact in order to substantiate its case. The rules on accessing of evidence establish the technique by which the evidence is provided.

Both civil and common law Arbitral Tribunals apply the principle that the plaintiff has the burden of proving his or her injury. There is therefore no misunderstanding as to the burden of proof. The difference between the two systems is how to access this evidence. Can a party compel opponent to provide it with documents to allege the facts on which it bases its statement?

In the common law jurisdictions, the particularly wide field of document production results from the contradictory nature of the search for facts, left to the free will of the parties.

For instance, rule n°26 of the Federal Rules of Civil Procedure of the United States [5] allows each party to receive without judicial intervention disclosure of material that is congruent and not covered by solicitor-client privilege and provided that this is to produce admissible evidence.

In Anglo-Saxon tradition jurisdictions, there is an obligation for the parties to spontaneously produce all the documents and information at their disposal, even if this could be detrimental to their defence. In the minds of Anglo-Saxon courts, the goal is to arrive at an objective truth. This implies that the parties and the court have knowledge of all the facts, even indirect ones, which are linked to the dispute.

Discovery is supposed to meet this requirement. Indeed, discovery according to the Anglo-Saxon principle has three main objectives: presenting all the documentary evidence that each party

provides in support of its case, informing each of the parties of the opposing party's evidence to avoid any "surprise effect", and allowing better establishment of the facts by giving the parties access to the relevant documents which are not in their possession. In short, the parties make available to their opponent all the documents under their control or under third parties' control to enable the preparation of the defence.

Civil law jurisdictions, for their part, consider that the Arbitral Tribunal violates its neutrality by helping a party to obtain from the opposing party evidence which could be unfavourable to it.

The functions of discovery in common law jurisdictions are fulfilled by other means in civil law. For instance: rejoinders, conclusion of the parties, independent experts appointed by the courts, etc.

Indeed, the civil law tradition does not allow a party to force its adversary to submit to it all the evidence at its disposal. A party cannot base its argument on documents controlled only by the opposing party or a third party. However, in some modern civil law jurisdictions it is permissible for the party to request such documents to be provided if it is able to establish that these documents are necessary to support its claim. The applicant should then clearly identify the specific document(s) supposed to be held by the other party.

These details show that, depending on the choice of proceeding, whether common law or civil law, the trial may be conducted in very different ways. This also has consequences for the type of computer tool chosen to organise written evidence and guarantee its confidentiality.

In international arbitrations proceedings, the application of "discovery" and its scope is determined by the parties and in the absence of any determination from the parties, by the arbitrator. Its application is reviewed and

evaluated on a case-by-case basis and will depend on the characteristics of each case.

Even though discovery is allowed in international arbitration, albeit in a limited way, it is still highly criticised and has been strictly framed in Article 3 of the International Bar Association (IBA) Rules [6].

At the time of writing, the ICC Rules do not address the issue of discovery; however, they appear to implicitly grant this empowerment to Arbitration Tribunals.

However, an "international" approach has developed over time. International arbitration proceedings often combine the general right to compel the opposing party to disclose documents, as in US civil proceedings, with the obligation, in Roman-Germanic proceedings, to identify precisely the documents requested and to show that they are relevant to the case.

This practice therefore allows each party to submit to the other party a list of documents it wishes to obtain. The requested party must then provide these documents even if they are unfavourable to its defence.

The American Arbitration Association (AAA) rules [7] allow the Arbitrators to invite the parties to produce any testimony or evidence that they consider relevant or necessary to understand the facts. The request for documents and their production is always made through the Arbitrators. The request may come from the Arbitrators themselves or from one of the parties. The Arbitrators may accept or reject requests for the production of documents by a party. They will be rejected if the documents in question do not constitute admissible evidence, are not relevant, are not of proven importance or duplicate other documents already produced.

With these principles in mind, Article 3 of the IBA Rules on the Taking of Evidence in International Arbitration [6] has set out the requirements that the claimant must meet if he wants the Arbitral Tribunal to order disclosure of documents.

The request to produce documents must be submitted to the Arbitral Tribunal within the prescribed time limit set by the Tribunal. The request also has to contain a description of the document that is sufficient to identify it, or a description of categories of documents that is sufficiently narrow and specific. The requesting party has in addition to explain how the requested documents are relevant to the case and material to its outcome and confirm that the requested documents are not in its possession, and also explain why it assumes that the documents are in possession of the opposing party or a third party.

However, the requested party is not defenceless against the request for the production of documents. The IBA Rules on the Taking of Evidence in International Arbitration provide that the requested party can put forward an objection to the disclosure of documents based on the circumstances listed in its Article 9.2 [8]. Those circumstances include: A lack of sufficient relevance or materiality, a legal impediment or privilege under legal or ethical rules, an unreasonable burden to produce the requested evidence, a loss or destruction of the document that has been reasonably shown to have occurred, grounds of commercial or technical confidentiality, grounds of special political or institutional sensitivity, or a consideration of fairness or equality of the parties.

Arbitral Tribunals often organise requests for the production of documents by means of a "Redfern Schedule", which consists of four columns: identification of documents by categories of

documents requested, a summary description of the reasons for each request, a summary of the respondent's objections to the production of the documents and the Arbitral Tribunal's decision on each request.

If the requested party files objections, the requesting party has the right to challenge them and, thereafter, the Arbitral Tribunal has the power to resolve the issue of production of documents by a proceeding order.

In international arbitration, evidence administration and exchanges may have a major impact on the time and costs of the proceedings. It is therefore recommended to agree on these methods as soon as possible and to set a timetable for the production of documents.

If parties use a document content analysis tool to search for written evidence, the description of the document searched for can be done by means of keywords, authors' names, key dates or mathematical search formulas. Example: Search for "e-mail" "sent by Mr X" "to Mr Y" "on 20 September 2020" which contains "train", "bogie" and "reliability". The result of the search can be presented in the form of a search report showing whether or not the document searched for, by means of the search criteria entered, actually exists in the database of the requested party.

It would appear to be sound practice for the search criteria themselves, and not just the list of documents vaguely defined by the requesting party, to be submitted to the Arbitral Tribunal for approval, and for the Tribunal to have some notion of discovery so that the keywords and formulas do not restrict the search too much, or on the contrary are not too open. In the first case, no documents would appear in the search report, in the second case too many documents would appear.

Technically, it is important that the document content analysis tool is validated and that, for a set of criteria entered, it guarantees that all the documents corresponding to them are present in the search report.

#### (iii) Refusal to produce document to the opposing party

Where a party does not spontaneously produce the documents, the Arbitration Tribunal may order their disclosure.

If the party refuses to produce the document or adopts a filibustering attitude, the Arbitral Tribunal may first recall the party who refuses to produce the document of its duty of good faith and diligence. Further, and more convincingly, the Arbitral Tribunal may ultimately draw "negative inferences" from this denial and conclude that these documents were not produced because they are unfavourable to the party refusing to produce them.

This authority provided to the Arbitral Tribunal remedies the absence of imperium (or absolute power) to require the production of one or more documents AND is commonly accepted. For instance, the IBA rules [8] retains that arbitrator may make the necessary arrangements to allow the production of requested documents, including where such documents are covered by confidentiality constraints.

The ICC Arbitration Rules [9] give arbitrators entitlement to adjust the release of documents necessary to establish the facts of the case by all appropriate means, on a case-by-case basis.

The main challenge of an EDMS solution for refusing to produce written evidence on the grounds of confidentiality is therefore to maintain its confidential nature. A document seen or supposed to have been seen by an unauthorised person may alter its confidential nature.

Table 1: Shortened and decontextualised example of Redfern

lable 1 : Shortened and decontextualised example of Redfern						
ID	Document requested	Relevance and significance	Objection from the other party	Arbitral Tribunal decision		
1	Request for quotation, tender and contract entered into between the contractor and company "E1" for the execution of the works [Description of the works, activities or deliverables].	To prove the dates on which the contractor mobilised the means necessary for the execution of the works, as well as to prove the contractual schemes	paragraphs 1 to 8, the defendant requests the production of quotations, proposals and contracts between the contractor and its subcontractors, as well as correspondence between the contractor or one of its affiliates and various subcontractors. To justify this unusual request, the defendant briefly alleges that the above documents are intended to prove  (i) The dates of the works and the dates of the mobilisation of resources;  (ii) The contractual regime, in the case of points 1, 2, 3 and 5 of the claim.  It does not require much effort to rebut the claim and the justification of the applicants. In fact, as regards the proof of the dates of the works and the mobilization of resources for the execution of the contractual works, this proof is already provided by the means and mechanisms of the Contract, i.e. by the records kept at the site itself and exchanged between the parties to the Contract, i.e. the minutes of the meetings, the correspondence exchanged between the Project Owner, the Monitoring Committee and the Contractor, the progress reports, the monthly work measurement tables, etc, documents and records in the possession of the Respondent.  As regards the proof of contractual arrangements between the Contractor and its subcontractors or third parties, this is a matter for the respective parties alone and has no bearing on the case between the Claimant and the Defendant.  On the other hand, the contractual and precontractual documents or correspondence between the Claimant and the Defendant.  On the other hand, the contractual and precontractual documents or correspondence between the Claimant and the Defendant.  On the other hand, the contractual and precontractual of the prespective contracts, are to a large extent confidential between the information protected by business secrecy belonging to the parties concerned, so that only an extremely strong or decisive reason could lead to their disclosure, which is clearly not the case.	production of quotations, proposals and contracts between the contractor and its subcontractors, as well-founded, insofar the production of externation one of its affiliates and various subcontractors.  To justify this unusual request, the defendant briefly alleges that the above documents are	roduction of quotations, proposals and contracts etween the contractor and its subcontractors, as settled as correspondence between the contractor or ne of its affiliates and various subcontractors, op justify this unusual request, the defendant riefly alleges that the above documents are	The Claimants' refusal is well-founded, insofar as the production of extensive documentation covering requests for proposals, quotations and contracts concluded between the contractor and its
2	Request for quotation, tender and contract entered into between the contractor and company "E2" for the execution of the works [Description of the works, activities or deliverables].	Idem		subcontractors would be disproportionate and lacking in substance or "materiality" in relation to the possible evidential advantage for the Respondent and would constitute an		
3	Request for quotation, tender and contract entered into between the contractor and company "E3" for the execution of the works [Description of the works, activities or deliverables].	Idem		unreasonable burden of proof on the Claimants, it being understood that the Claimants do not deny that there were delays in reaching partial project milestones.  However, it is certain that, as the contractor claims that these delays are not attributable to it in the various claims submitted during the performance of the Contract, the burden of proof that it is not at fault lies with it.		
4	Request for quotation, tender and contract entered into between the contractor and company "E1" for the execution of the activities [Description of the works, activities or deliverables].	Idem				
5	Request for quotation, tender and contract entered into between the contractor and company "E5" for the execution of the works (Description of the works, activities or deliverables).	Idem				
6	Request for quotation, tender and contract entered into between the contractor and company "E6" for the execution of the works (Description of the works, activities or deliverables).	To prove the alleged facts of delay in (i) contracting with this subcontractor, as well as (ii) the commencement of manufacturing and installation activities of the [Description of the facilities]				
7	Request for quotation, tender and contract entered into between the contractor and company "E7" for the execution of the works (Description of the works, activities or deliverables).	In order to prove or refute the alleged but disputed fact that the contract and the construction of the facilities were carried out late.				
8	Request for quotation, tender and contract entered into between the contractor and company "E8" for the execution of the works (Description of the works, activities or deliverables).	In order to prove or refute the alleged but disputed fact that the tasks [Description of tasks] have not been performed within the contractually agreed timeframe.				
17	Monthly histograms (or at different intervals) of all the contractor's and subcontractor's personnel and equipment assigned to the following work fronts: [Description of the work fronts]	In order to prove or refute the alleged but disputed facts relating to (i) the planning and organisation of the work by the contractor, (ii) the acceleration measures adopted and (iii) the resources allocated by the contractor at each point in time on the indicated work fronts.	The Claimant does not have the histograms requested by the Respondent. In some specific cases, during the course of the works, the Claimant submitted to the Respondent certain tables containing a list of resources, materials and equipment allocated to particular work fronts, as was the case for the works/work fronts indicated in the Claim submitted to the Respondent on [Date].	In these terms, the Claimant's refusal to produce the documents is considered justified, and nothing can be determined with regard to claim 17 of the Defendant's application, since the Defendant has not requested any justification for the non-production of these documents.		

30 FTI Consulting, Inc.

#### (iv) Documents in the possession of a third party

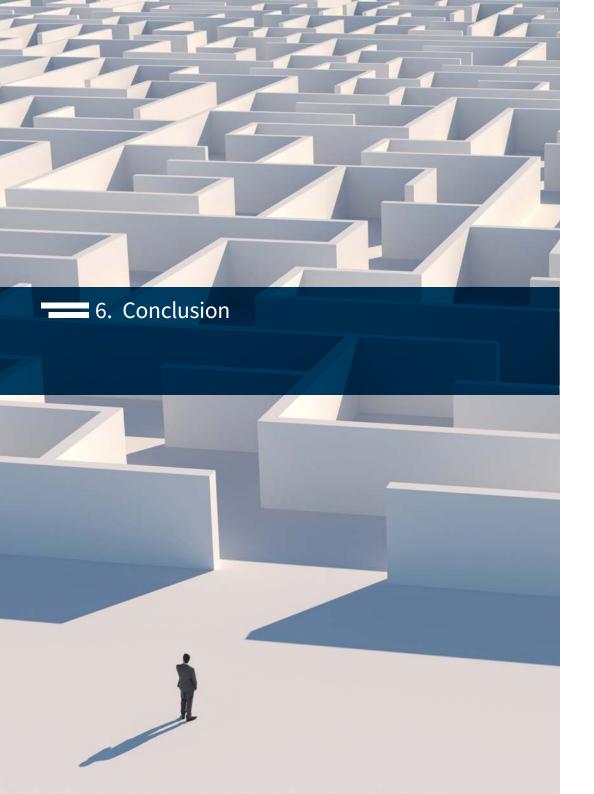
Some jurisdictions allow the Arbitral Tribunal to request the intervention of a State Judge empowered to order the production of documents.

This granted power, in principle, gives Arbitral Tribunals the power to summon third parties who may be in possession of documents. However, the question of the intervention of the State Judge to help the Arbitral Tribunal has been discussed at length and remains unresolved.

A compromise was found in international arbitrations. The use of documentary evidence, which is strongly influenced by the civil law tradition, allows limited production of documents under the control of the other party or third party. The different parties should not, however, automatically and massively produce all the documents at their disposal.

However, even if the obligation to produce documents is accepted in practice, it plays only a secondary role. The production of this kind of document is not enough for a party to build its case.





The factual description of the events of the case by the plaintiff is a target of paramount importance in attempting to meet its burden of proof. To reach it, a full knowledge of the facts and a meticulously prepared claim are irreplaceable in any attempt to achieve a positive resolution of its case before Arbitral Tribunals. Ultimately, the case will be awarded on its merits based on written evidence that establishes the facts.

To this end, and even more so if a formal discovery is envisaged, the quality and relevance of the written evidence must be verified before engaging in arbitration proceedings in order to ensure, on the one hand, that it sufficiently and predominantly serves the interests of the claim supported by the interested party and, on the other hand, that it is possible to extract from it the material for a credible claim strategy, while at the same time providing the elements of a response to the highly probable counter-claim of the opposing party. As soon as possible, a legal, quick and then thorough review of the project documents appear as essential steps to ensure that the arbitration proceeding goes without a hitch.

Other reasons to plan a review of the project documentation well in advance of the start of the arbitration proceeding are that, on the one hand, construction arbitrations are notoriously factintensive and technically intricate. The more time

the expert and the lawyers have to investigate and assimilate the facts, the more comprehensive, clear and precise their view will be.

On the other hand, written evidence may not be directly accessible to the party that needs it to support its statements. The process of requesting these documents may impact on the timeframe of the arbitration proceedings or simply fail if the opposing party refuses to produce them or if the Arbitral Tribunal considers it justified not to produce them. This risk must be considered and assessed before embarking on any arbitration proceedings.

In order to optimise the management of project documents and the production of written evidence, hybrid IT tools combining EDMS and content analysis functionalities are now available on the market. They allow parties to optimise the

time factor of arbitration proceedings and to focus only on activities with real added value.

To achieve this requirement, a document content analysis tool must at least: (i) Include the "business" functionalities necessary to search, classify and exploit evidence.

On the other hand, the EDMS part of the tool must allow collaborative work in the sense that (ii) a review carried out by one member of the team should not have to be repeated by another and (iii) an expert report or a brief should be able to be written, reviewed and validated simultaneously by several people.

In addition, it is essential that the chosen IT tool (iv) respects the rules of confidentiality imposed by the parties and the appointed Arbitral Tribunal. In this respect, the IT tool must make it possible (v) to put both the whole project documentation and the documents produced during the arbitration proceedings on the same server to avoid unnecessary duplication of information and (vi) to redundantly store this server in order to ensure integrity of the data.

In order to avoid wasting time, the IT tool must also be able to (vii) link the relevant project documents, written evidence, to the reports and briefs produced by experts and counsel. These project documents become annexes, (vii) which are then numbered according to a protocol established by the Arbitral Tribunal and finally allow the sharing of these documents with the Arbitral Tribunal and the other party.

Obviously, a computer tool, however powerful it may be, will not win the case on its own, but it is undeniable that not using one, or using one that is not suitable, may cause a loss or at least greatly complicate the task. The IT tool cannot analyse the documentation by itself. About ten years ago, "mad computer scientists" tried to do it. It was enough,

supposedly to enter a few keywords and the claim files were automatically generated. A disaster!

This task of analysis is in fact deeply linked to situational parameters, subject to interpretation and therefore deeply human.

That said, a large part of the time of the arbitration proceedings is devoted to the search for written evidence, its use and its sharing with the Arbitral Tribunal and with the opposing party necessarily encroaching on the time of analysis of this evidence.

This time invested in research, exploitation and sharing does not however bring any intrinsic added value to the defended statement itself but is a necessity, just like the analysis, to demonstrate its veracity.

The computer tool can do what is ultimately required of it: make it possible to mark out the project documentation and make it more manageable. This is to facilitate its use and limit the risk of missing out on critical information, potentially highly damaging to the outcome of the trial.

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Prior to specialising in technical aspects of litigation and arbitration cases, he applied his technical experience and skills in the context of international construction projects and industrial laboratories for over ten years.

He has expertise in forensic schedule delay analysis, risk analysis, technical performance analysis and quantification of economic damages in arbitration cases.

He has been called upon to produce expert reports and provide testimony to the Chambre de Commerce et d'Industrie ("CCI") in Europe and Brazil and the Centro de Arbitragem e Mediação da Câmara de Comércio Brasil-Canadá ("CAM-CCBC").

He was previously COO and Senior Advisor at Technopolis Consulting which he created in 2001. This independent and mature company today boasts a dozen consultants and a portfolio of major international customers, including leaders in their markets.

#### **Endnotes**

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- [5] LII Federal Rules of Civil Procedure Rule 26. Duty to Disclose; General Provisions Governing Discovery
- [6] IBA Rules on the Taking of Evidence in International Arbitration, Adopted by a resolution of the IBA Council, 29 May 2010 - International Bar Association - Article 3

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- [8] IBA rules on the Taking of Evidence in International Arbitration, Adopted by a resolution of the IBA Council, 29 May 2010 - International Bar Association - Article 9 Admissibility and Assessment of Evidence
- [9] ICC Arbitration Rules 2021 Article 23(1)
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