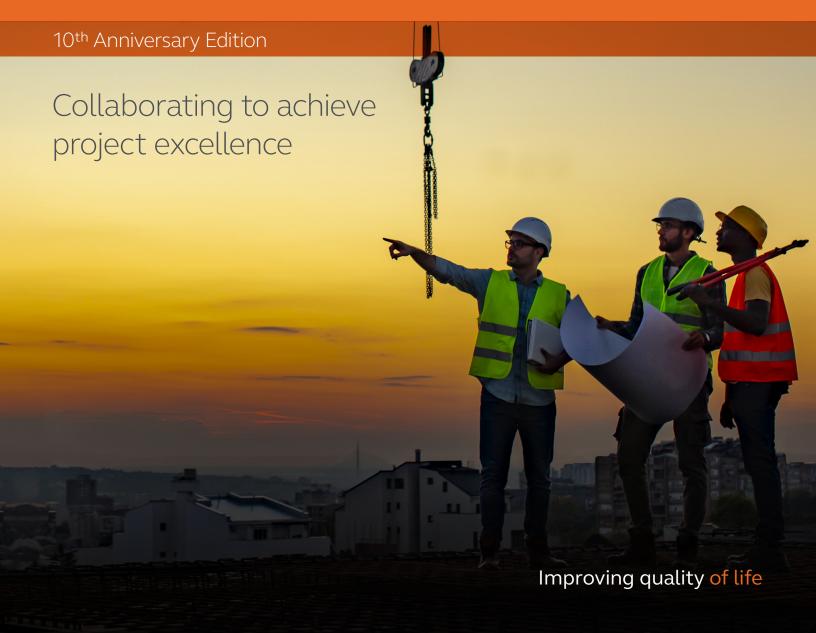


2020

Global Construction Disputes Report



Collaborating to achieve project excellence



Globally, the average value of contract disputes and length of resolutions in the construction and engineering sectors decreased slightly from 2019. However, consensus was that the overall number of disputes increased.

In the short-term, collaboration will play a vital role in the global response to the COVID-19 pandemic. This year's report recognizes the industry's future uncertainty surrounding COVID-19 and the unique challenges that will be posed when projects restart. Long-term, adopting collaborative ways of working can help project participants successfully avoid, mitigate and resolve disputes.



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Introduction



Roy Cooper, PE Head of Contract Solutions, North America

Arcadis

Welcome to the tenth annual Arcadis Global Construction Disputes Report, which reveals key themes and insights into the global construction disputes market. Any dispute is case specific, so to endeavor to group causes and develop averages can risk omitting critical information related to the overall nature of the dispute. However, given our range and depth of experience over the past year, both globally and regionally, we are confident that our findings reflect the market trends.

Our research indicates that worldwide construction activity started strong in 2019, but the future remains uncertain due to the COVID-19 pandemic. Serious challenges are anticipated globally, from project suspensions and restarts to industry-wide shortages of labor and materials. In addition, hurdles related to schedule and cost on suspended and new projects will need to be overcome. How the industry collaboratively responds to the many challenges that flow from the pandemic will play a large role in the quantity, duration and value of construction disputes in 2020 and beyond.

This year's report reveals that the average value and length of disputes dropped slightly from the 2019 report, but it remains to be seen if those trends can continue in a post-COVID-19 environment. It is worth noting that the results of the 2020 Global Construction Disputes Report were compiled prior to the COVID-19 outbreak.

The report also reveals the following:

- The value and length of disputes continue to differ from region to region.
- All regions saw an increase in mega disputes related to larger capital programs and private projects.
- Sophisticated forms of dispute avoidance such as risk management continue to gain favor across the industry.
- The industry is facing an uncertain economy, with some regions experiencing significant growth and others encountering tighter markets.
- Consistent with previous years, human factors and misunderstanding of contractual obligations continue to be a primary cause of disputes.



Over the past ten years of gathering insights and capturing dispute trends, many of the leading causes of disputes still revolve around the parties' failure to understand their contractual obligations related to contract administration. This is not surprising, as we have seen over the years the industry has become more sophisticated and owners are requiring a more formal dispute resolution process. In some cases, this leads to more successful outcomes while extending the duration of time it takes to resolve the dispute.

This year's report highlights that collaboration between project participants will be a key factor in successfully avoiding, mitigating and resolving disputes.

If you have any insights or questions regarding construction disputes or the report findings, please contact one of our regional leaders.

Guest foreword

It is with great pleasure that, for the second year in a row, I write the foreword to the annual Arcadis Global Construction Disputes Report.

Disputes in the construction industry continue to be proliferate due mainly – according to this year's report and in the following order – poorly drafted or incomplete and unsubstantiated claims, failure to make interim awards on extensions of time and compensation, and the Contractor/ Subcontractor failing to understand and/or comply with its contractual obligation.

As for the most used methods of dispute resolution, arbitration continues to be the most used adjudicative method. Only in continental Europe does litigation make the top three list. In all regions, the top one dispute resolution method is party-to-party negotiation. The only one exception is the United Kingdom, where the top one method is adjudication. Is it because adjudication is so effective that claimants prefer to catch the other party by surprise rather than attempt negotiation or mediation instead?

The effect of the COVID-19 is, and will be, inevitably, significant for the industry and for dispute resolution. It is, therefore, encouraging that, in line with what I advocated in my previous foreword, parties are already looking in their contracts for collaborative solutions to early risk identification and management and dispute avoidance. They should persist in this direction. At the same time, it will continue to be essential to provide, in contracts and subcontracts, for effective and well-designed binding dispute resolution methods such as adjudication, DAABS and arbitration that can easily function also in emergency situations such as the one caused by the COVID-19 pandemic.

As every year, this report offers interesting data and important insights. I commend it to construction practitioners all over the world.

RENATO NAZZINI, FCIARB

Professor, Centre of Construction Law and Dispute Resolution, King's College London

Collaborating to achieve project excellence in the wake of COVID-19

Prior to the COVID-19 outbreak, economists predicted a 3% acceleration in pace of growth in the global construction industry from what it was in 2019. However, following the global outbreak of the virus, the forecast for growth has been severely diminished. Regardless of the colossal impacts of COVID-19, some private owners are taking advantage of low interest rates to start projects rather than defer them. Similarly, some major public owners are experiencing significantly diminished use and congestion of mass transit, highways and airports and are accelerating work already in progress while avoiding public inconvenience.

At the time of this report, there is still no definitive timetable for when conditions would allow for a return in the global and regional construction markets. For projects that are shutdown, delayed, and in the queue, governments and public authorities will likely be aiming to advance spending on infrastructure projects as soon as possible to reinvigorate the economy.

There will be an overwhelming number of decisions that need to be made as the industry recovers from the COVID-19 pandemic. There will be disputes on existing projects and project startup factors of various types that need to be thought through. There will be a significant amount of schedule delay and damage considerations, but in general terms, each project can be categorized in one of three ways:

- Continuing: The project that continues through the impact of COVID-19
 In these cases there will no doubt be impacts caused by social distance measures, material and labor shortages, and government orders, to name a few. As is essential in the resolution of any dispute, the quality and quantity of documentation will play a key role in the resolution of disputes around continuing projects.
- Suspended: The project that was in progress and is suspended because of the pandemic

 It will be vitally important to understand

It will be vitally important to understand exactly where projects stood from a time and financial standpoint at the time of shutdown. Owners and contractors alike will need to segregate project issues that are related to COVID-19 as opposed to other project issues that were not related to the virus.

• New project or existing project restart: What happens when a new project starts or an existing project restarts Some project owners will change the way they administrate the delivery of their projects. The contract terms that the contractor agreed to at the time of bid may be far different. Labor and material availability and cost will no doubt be significantly different. Owners also may seek to accelerate or add in other requirements to take advantage of improved financial positions as a result of lower interest rates or stimulus packages. Post-COVID, it will be crucial at Notices to Proceed that all project participants understand the changes and requirements before construction begins.

These are just a few of the contractual, technical and financial factors that all project participants will have to consider. However, there is one vital factor that spreads across all of these and will be critical to successful project completions, regardless of where the project stood in relation to the outbreak of COVD-19 in a particular region. This vital factor for all projects is resilience to recovery through collaboration.

Collaboration among project participants is often overlooked in avoiding, mitigating and even when resolving disputes. A common thread running through the results of Arcadis' Global Construction Disputes Report is that bad relationships doom construction projects much more often than bad soil, bad weather, bad equipment, or a bad design. On the flip side, a willingness to compromise, set emotions aside and concentrate on what makes good business sense is a key contributor to successful dispute resolution.

With COVID-19, the industry is dealing with an impact that it has never faced. Creative solutions will be required to successfully start and complete projects. Components that are part of successful collaboration such as unlocking creativity, trust between project participants, dealing with change in a positive way, and sharing a common goal will all be vital for the successful completion of projects and overcoming impacts of the COVID-19 pandemic.



Overall findings



The global average length of disputes dropped slightly to

15 months

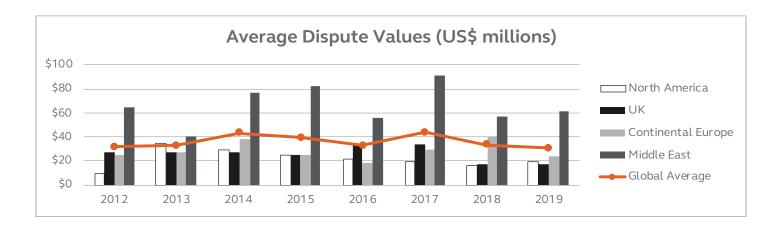
million (US)

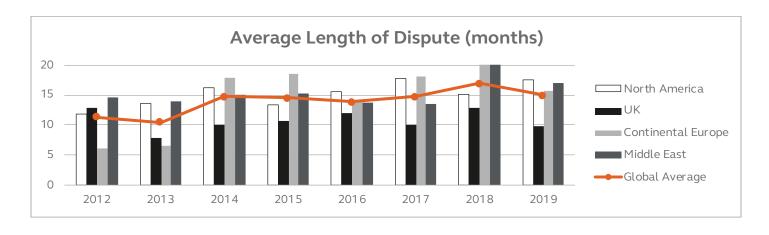
The overall volume of disputes increased slightly from last year's results, while the average value of disputes and the time taken to resolve them decreased slightly. As noted in the introduction, this year's report highlights that collaboration between project participants will be a key factor in successfully avoiding, mitigating and resolving disputes.

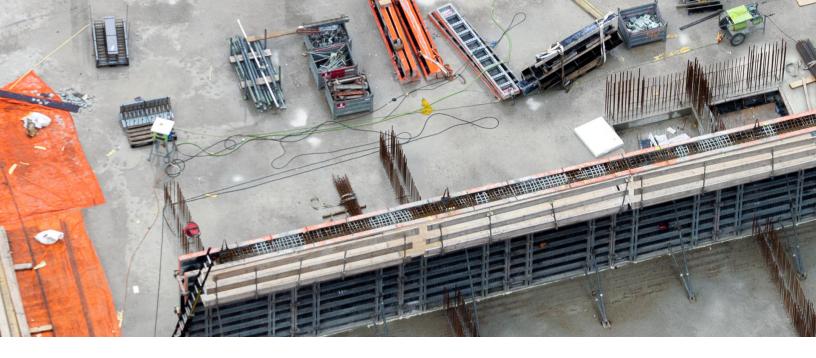
We define a dispute as a situation where two parties typically differ in the assertion of a contractual right, resulting in a decision being given under the contract, which in turn becomes a formal dispute. The value of a dispute is the additional entitlement to that included in the contract for the additional work or event which is being claimed. The length of a dispute is the period between when it becomes formalized under the contract and the time of settlement or the conclusion of the hearing.

Among regions surveyed, the buildings sector (education, healthcare, retail/commercial, government) saw the most disputes, the same as 2018.

REGION			E DISPUT \$ MILLIO		AVERAGE LENGTH OF DISPUTE (MONTHS)					
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019
North America	25.0	21.0	19.0	16.3	18.8	13.5	15.6	17.7	15.2	17.6
United Kingdom	25.0	34.0	34.0	17.9	17.8	10.7	12.0	10.0	12.8	9.8
Continental Europe	25.0	19.0	29.5	41.0	24.5	18.5	14.1	18.1	20.0	15.6
Middle East	82.0	56.0	91.0	56.7	62.0	15.2	13.7	13.5	20.0	17.0
GLOBAL AVERAGE	39.3	32.5	43.4	33.0	30.7	14.5	13.9	14.8	17.0	15.0







Poorly drafted or incomplete and unsubstantiated claims has become the number one cause of construction disputes.

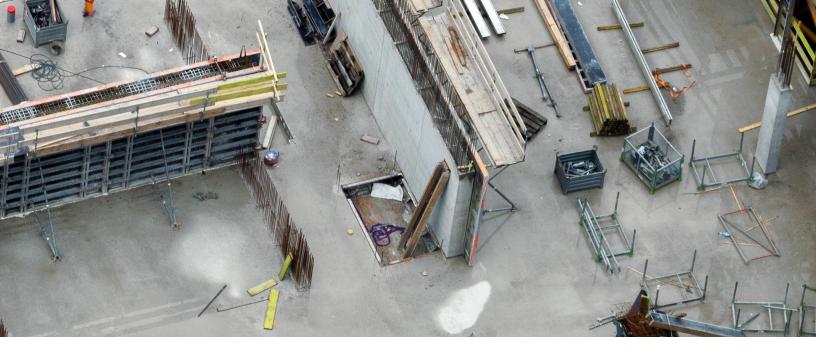
2019 RANK	OVERALL DISPUTE CAUSE	2018 RANK
1	Poorly drafted or incomplete and unsubstantiated claims	New ranking in 2019
2	Failure to make interim awards on extensions of time and compensation	New ranking in 2019
3	Owner/Contractor/Subcontractor failing to understand and/or comply with its contractual obligations	1

Poorly drafted or incomplete and unsubstantiated claims became the top cause of construction disputes for 2019, a dispute cause not ranked in the top three in 2018. This continues to emphasize a need to bring on experienced industry advisors early in the process, and to work toward identifying the human factors that can lead to miscommunication or misunderstanding.

Globally, the buildings (education, healthcare, retail/commercial, government) sector saw the most disputes, the same as 2018.

The highest value dispute handled by the team in 2019 was worth





The most popular methods for resolving disputes:

2019 RANK	MOST COMMON METHODS OF ALTERNATIVE DISPUTE RESOLUTION	2018 RANK
1	Party-to-party negotiation	1
2	Mediation	2
3	Arbitration	New ranking in 2019

Overall, our Contract Solutions Team handled slightly more disputes in 2019 than in 2018, and we expect this to continue in 2020.

2019 RANK	MOST IMPORTANT FACTORS IN THE MITIGATION / EARLY RESOLUTION OF DISPUTES	2018 RANK
1	Owner/contractor willingness to compromise	2
2	Accurate and timely schedules and reviews by project staff or third parties	New ranking in 2019
3	Contractor transparency of cost data in support of claimed damages	3

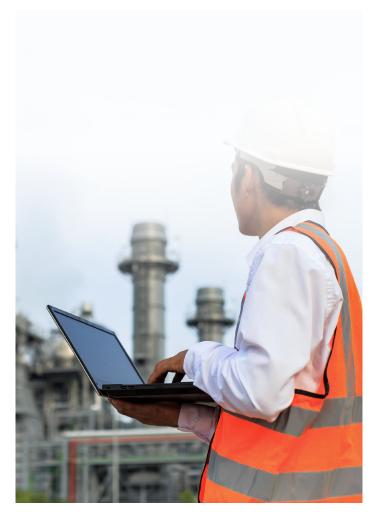
2019 RANK	THE MOST EFFECTIVE CLAIMS AVOIDANCE TECHNIQUES	2018 RANK
1	Risk management	1
2	Contract and specification reviews	2
3	Third-party schedule reviews	New ranking in 2019

North America

Dispute values, durations and volume all increased over the past year in North America. After continuously dropping since 2013, the value of disputes rose from \$16.3 million to \$18.8 million. The average time taken to resolve construction disputes for North America increased from 15.2 months in 2018 to 17.6 months in 2019. Overall, North America saw the volume of construction disputes increase compared to 2018, and the majority of participants in our survey expect this number to increase in 2020. With COVID-19's impact on the construction industry, we expect a further increase in claims related to delays and increased costs on projects. It is very difficult to predict the true widespread impact of this global pandemic, but with construction projects shutting down in some areas of North America, we know that projects will experience delays and disruption.

Construction continued to boom across North America in 2019 and, according to *Engineering News-Record*, the construction industry witnessed record growth in megaprojects. Many North American survey respondents are working on larger disputes than ever before – the highest value dispute our team worked on in North America was \$1.5 billion. Consistent with findings in 2018, the buildings sector in North America saw the most disputes for 2019. This sector includes education, healthcare and real estate development.

For North America, the 2019 results show that the greatest effort was spent on avoidance and the most common form of early resolution was settlement prior to proceedings. The majority of survey respondents noted the most effective claims avoidance technique is risk management, followed closely by constructability reviews. Consistent with last year's findings, risk management techniques are being utilized to reduce the likelihood that a construction project will end up in a dispute. In North America many owners have embarked on larger capital programs. Knowing that larger programs can have produce more complex disputes, many owners in the region are making significant investments in claims avoidance techniques such as risk management workshops and extensive training to their project management staff.

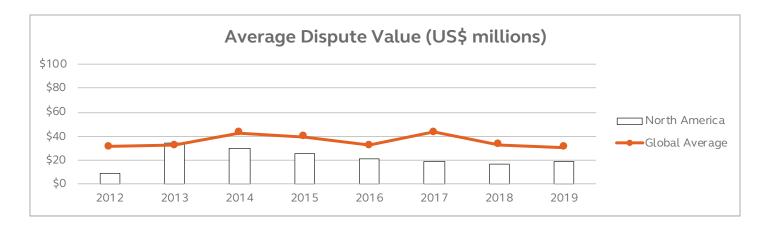


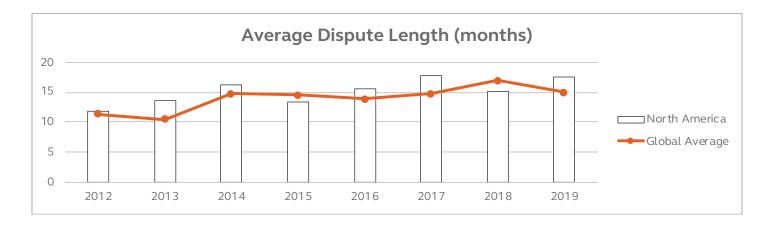
It is very difficult to predict the true widespread impact of COVID-19, but with construction projects shutting down in some areas of North America, we know that projects will experience delays and disruption.

2019 RANK	MOST COMMON DISPUTE CAUSES	2018 RANK
1	Contractor/Subcontractor failing to understand and/or comply with its contractual obligation	2
2	Errors and/or omissions in the Contract Document	1
	Poorly drafted or incomplete and unsubstantiated claims (tied at 3)	3
(three-way tie)	Owner directed changes (tied at 3)	New ranking in 2019
(three-way tie)	Unrealistic contract duration or completion date (tied at 3)	New ranking in 2019

2019 RANK	MOST COMMON METHODS OF ALTERNATIVE DISPUTE RESOLUTION	2018 RANK
1	Mediation	2
2	Party-to-party negotiation	1
3	Litigation	New ranking in 2019

	DISPUTE VALUE (US\$ MILLIONS)								LENGTH OF DISPUTE (MONTHS)							
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
North America	9	34.3	29.6	25	21	19	16.3	18.8	11.9	13.7	16.2	13.5	15.6	17.7	15.2	17.6





DISPUTE CAUSES

For the first time in five years, the most common cause for disputes in North America shifted from errors and/or omissions in the contract documents to contractor/subcontractor failing to understand and/or comply with its contractual obligation. This reiterates the need for all parties involved in a construction project to have a clear understanding of the contract documents in order to avoid costly delays that come with disputes on a project. In line with this, when the project manager or engineer was the material influence in the dispute, the most common cause was a lack of understanding of the procedural aspects of the contract.

The top causes in this report and those from prior years indicate that human factors such as biased opinions, relational breakdowns and a lack of collaboration are common threads in the failure to resolve construction disputes. We also found that the most important factor in the mitigation / early resolution of disputes was transparency between the parties and a willingness to compromise.

Poorly drafted or incomplete and unsubstantiated claims – new to the rankings in 2018 – stayed in the third position for North America, tied with owner-directed changes and an unrealistic contract duration or completion date.

When you couple this year's results with previous findings pointing to biased opinions, relational breakdowns and a lack of collaboration as top dispute causes, a common thread emerges. The human factors lead to more disputes than anything else.

RESOLUTION TECHNIQUES

The three most common methods of Alternative Dispute Resolution that were used during 2019 in North America changed a bit, with *mediation* moving from the number two spot in 2018 to number one in 2019. *Litigation* had not made the top three in previous years but moved into the number three spot for 2019. The common methods were:

- 1. Mediation
- 2. Party-to-party negotiation (top method for 2018)
- 3. Litigation

As in year's past, the top two responses indicate that project participants continue to utilize techniques to avoid formal litigation proceedings. However, in contrast to the last few years, we have seen an increase in disputes where project participants are remaining steadfast in their positions even if this means proceeding to litigation.

SOLUTIONS LOOKING FORWARD

Owners are more frequently utilizing the services of qualified claims professionals as part of their project teams to avoid, mitigate and resolve disputes on their largest programs. With these larger programs, owners are asking for upfront assistance to strategize how to assess their risk and avoid issues on their projects. With this expertise in place, they are able to take advantage of a well-thought-out strategy for avoiding, mitigating and resolving disputes throughout the lifecycle of their programs.

Moving forward in the year 2020, the construction industry will be dealing with the impacts of COVID-19 on all types of projects. There will be numerous considerations and issues that will need to be resolved for projects that are affected by the pandemic, with different areas of North America experiencing the impacts differently. One issue that has already shown to be prevalent is the interpretation of force majeure and suspension clauses in contracts. The interpretation of these clauses and how project participants react to them will be a primary driver in whether or not a dispute evolves.

North America will continue to have large programs with more complex technical disputes. The impacts of COVID-19 will complicate projects moving forward. Contractors and owners recognize this and understand that the construction industry will be vastly different in 2020 than it has been in the past. In early 2020, the focus of the industry has been addressing the technical and contractual implications of COVID-19. Looking ahead (and as proven in the past), collaboration between the project participants will be essential moving forward and will be a key driver in the success of projects.



GUEST COMMENTARY

The survey results reveal that one of the primary drivers of disputes has been the contractor/subcontractor failing to understand and/or comply with its contractual obligation. This is consistent with what we are experiencing in Connecticut. The Connecticut Department of Transportation (ConnDOT) has been moving away from "method" specifications towards "performance-related" specifications, and in addition, has revised numerous specifications to clearly shift the Quality Control responsibilities to the contractor. These and other advancements in the industry have led to more sophisticated specifications. The use of alternative delivery methods increases the use of these types of specifications. Contractors/subcontractors need to understand these significant specification changes when bidding on projects.

Poorly drafted or incomplete and unsubstantiated claims is another prevalent cause for a dispute. ConnDOT has a Claims specification that details the support required and a significant number of disputes/claims still fall short in providing proper support. Non-compliance with that specification leads to additional time and expense in the resolution process.

As highlighted in this report, the human element and good working relationships are essential in the equitable and expeditious resolution of disputes. Presuming that the owner and contractor are fair and reasonable, the vast majority of disputes should be able to be resolved prior to proceeding to a more formal dispute resolution forum. Collaboration and a "partnering" philosophy are key in the successful resolution of disputes and in today's climate. The earlier a dispute can be amicably resolved, the more cost efficient it is for all parties.

ConnDOT has already received numerous contractor notices of project impacts due to COVID-19. ConnDOT's contractual language supports a non-compensable time extension as the appropriate cure if the project's critical path is delayed due to any COVID-19 impacts. Pro-active resolution of COVID-19-related issues will be key in keeping projects moving and reducing costs. During Connecticut's COVID-19 public restrictions, our focus has been to keep our existing projects progressing. In Connecticut, our average daily traffic has decrease approximately 50% of normal due to public restrictions. ConnDOT is taking advantage of the significant reduction in traffic to implement strategies to increase productivity. Revising the limits of operations to allow longer periods of lane reductions and allowing the increased use of detours and ramp closures will reduce project schedules or mitigate any potential project delays associated with COVID-19. ConnDOT has also requested that all of our contractors update their Health & Safety Plans to include COVID-19 measures. In addition, it will be essential for contractors to have agility in executing the work, considering actions like procuring materials from alternate sources and taking advantage of relaxed limits of operations.

To overcome the impacts of COVID-19 on construction projects, flexibility by the owner and cooperation by the contractor will be essential. All project participants will need to be flexible as we move through and overcome the effects of the pandemic on the industry.

JAMES P. CONNERY, PE

Transportation Division Chief Bureau of Engineering and Construction Connecticut Department of Transportation

United Kingdom

Compared to the other regions surveyed, the United Kingdom continues to be the jurisdiction with the quickest average resolution time, and now also has the lowest average value. During 2019, United Kingdom survey respondents reported they saw a similar volume of disputes to 2018 in the construction and engineering industry, with the average value of disputes also remaining consistent at \$17.8 million. For the same period, the survey respondents recorded a drop in the average time taken to resolve disputes to 9.8 months. This is a 23% reduction compared to the 12.8 months experienced in 2018.

DISPUTE CAUSES

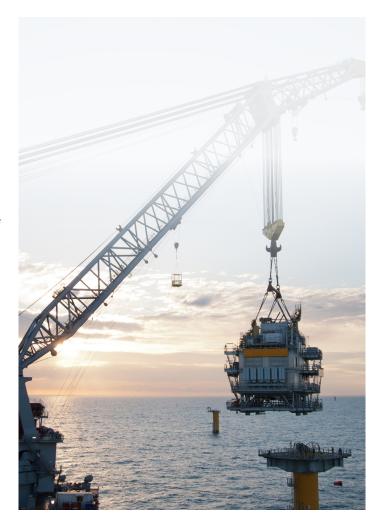
During 2019 a failure to make interim awards on extensions of time and compensation became the top ranked common cause of disputes within the United Kingdom industry. While this replaces a failure to properly administer the contract (the previous five years' top cause), it continues a trend of the top dispute cause relating to those administering contracts.

Repeating 2018's findings, over 75% of respondents continued to report Project Manager (PM) or Engineer's conduct was *always* or *very often* at the heart of how the dispute crystallized. The most common cause when the PM or Engineer's conduct was at the heart of a dispute crystallizing was a *lack of understanding of the procedural aspects of the contract*.

It is therefore unsurprising that over 60% of respondents stated that proper contract administration would have the single largest impact in avoiding disputes in which they were involved. It appears there may still be lessons to be learned for those administrating contracts.

The second ranked common dispute cause continues to be contractor/subcontractor failing to understand and/or comply with its contractual obligation. This suggests that contract obligations ostensibly drafted in plain English (such as the NEC forms) are not as easily understood by practitioners as the lawyers drafting them. Perhaps it is time for greater representation of true practitioners on the contract drafting bodies to ensure that those administering contracts fully understand the consequences of their actions/inactions.

The key focus from the survey responses relates to those administering the contracts, however, the second cause suggests contract obligations are drafted in a manner which makes it difficult for all parties to follow. Greater use of more collaborative standard forms of contracts, i.e. PPC 2000, TPC 2005 and FAC-1, might provide more confidence in project



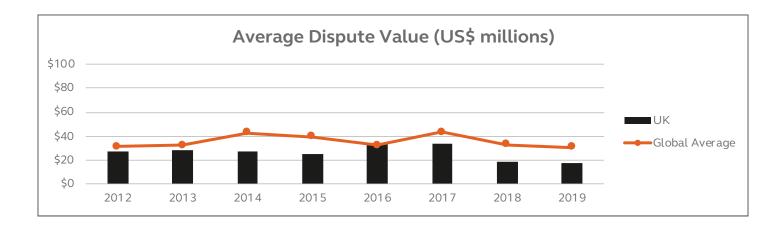
delivery. However, this can only really be driven by the owners and their representatives. Little appetite has been shown for these types of contracts, bearing in mind that it is now almost 20 years since the PPC/TPC forms were first introduced.

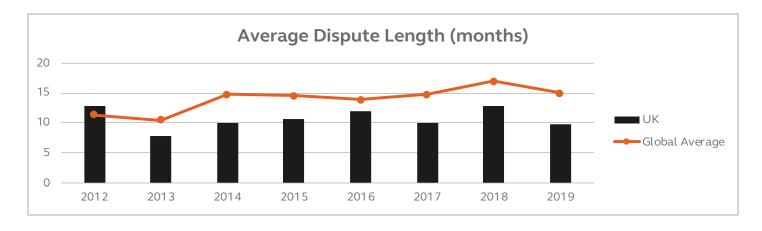
Positively, over half of respondents stated the *cost of resolution compared to value of outcome* was the most important factor when considering whether a dispute was successful or not. We hope next year's survey will show these views influenced the dispute resolution methods deployed and we will see an increase in usage of party-to-party negotiation, mediation, and other forms of early dispute resolution.

2019 RANK	MOST COMMON DISPUTE CAUSES	2018 RANK
1	Failure to make interim awards on extensions of time and compensation	New ranking in 2019
2	Contractor/Subcontractor failing to understand and/or comply with its contractual obligations	2
3	Poorly drafted or incomplete and unsubstantiated claims	New ranking in 2019

2019 RANK	MOST COMMON METHODS OF ALTERNATIVE DISPUTE RESOLUTION	2018 RANK
1	Adjudication (contractor or ad hoc)	2
2	Party-to-party negotiation	1
3	Arbitration	New ranking in 2019

	DISPUTE VALUE (US\$ MILLIONS)									LEN	IGTH C	OF DISI	PUTE (монт	HS)	
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
United Kingdom	27	27.9	27	25	34	34	17.9	17.8	12.9	7.9	10	10.7	12	10	12.8	9.8





RESOLUTION TECHNIQUES

The United Kingdom saw a return of adjudication (contract or ad hoc) as the most common dispute resolution method, replacing party-to-party negotiation which dropped to second place in 2019. Arbitration replaced mediation as the third most common resolution method in the United Kingdom. The recent introduction of some low value / low cost arbitration schemes, i.e. the Chartered Institute of Arbitrators' (CIArb) Business Arbitration Scheme, could be providing a boost in the use of arbitrations domestically within the United Kingdom.

While the industry should welcome further forms of lower cost dispute resolution, it is concerning that no early resolution methods appear in the top three. In recent years there has been a concentrated effort to promote the benefits and use of mediation, such as the Construction Industry Council's Model Mediation Agreement and Procedure, and other early alternative dispute resolution methods in construction and engineering disputes because of their typical lower time and cost benefits. Unfortunately, this is not reflected in this year's results.

One encouraging finding from the survey responses is that the most effort is being spent on the mitigation of disputes, which is a shift in effort from the resolution stage reported in 2019. However, respondents still reported the efforts spent in avoidance of disputes remains third, behind mitigation and resolution. 58% of respondents reported that settlement prior to proceedings (i.e. after a dispute had crystallized) was the most common form of early resolution.

Survey respondents ranked owner/contractor willingness to compromise as the most important factor in increasing mitigation/early resolution efforts. Ranked second is contract mandated early resolution forms such as mediation, disputes review boards. This suggests that where parties are unable to compromise, enforced early dispute resolution methods, such as the avoidance processes implemented by Network Rail and Transport for London, or tiered dispute contract clauses may be effective.

SOLUTIONS LOOKING FORWARD

The impacts of COVID-19 will certainly influence the industry and create new challenges. However, one source of positivity for the industry is the collaboration of numerous stakeholders to produce the NHS Nightingale Hospitals, temporary hospitals set up for the pandemic.

The project is a fantastic example of using collective efforts to produce project excellence. The industry should learn lessons from these projects, moving forward in 2020 with confidence and trust in the benefits of closer working. We have seen early indications of major stakeholders, including contractors, indicating a desire to sign the Conflict Avoidance Coalition (CAC) Conflict Avoidance Pledge (CAP). The CAC CAP findings resonate with our research.

One challenge financial institutions predict is another recession, and we hope that clients, contractors and industry stakeholders alike can draw upon lessons learned during the previous global financial crisis in 2008. We encourage the industry to use these lessons to improve collaboration and stick together.

It would be naïve to think that parties in a commercial world will always approach a project from the same viewpoint, however an increase in the early engagement of the supply chain and conjoined approaches could assist in reducing the impacts of any financial downturn.

The Brexit process moved forward during 2019 through the resounding general election victory for Prime Minister Boris Johnson leading to the official withdrawal of the UK from the EU on January 31, 2020. Negotiations will continue throughout the transition period, but we hope that the certainty of the government's direction will provide the industry with an investment boost in key areas.

Further collaboration is needed between parties drafting clauses and obligations in contracts, with a focus on those who will be delivering the works. A change in mentalities is required from all industry stakeholders as the contractual clauses cannot achieve project excellence on their own. We encourage parties to make administration of contracts easier. Additionally, increased usage of Building Information Modeling (BIM) and other collaborative risk management tools can help all parties understand project needs and goals.

In light of the current global situation we encourage stakeholders to deploy more efforts in the early resolution of disputes, especially those with known time and cost benefits, to minimize the potential impacts arising from differences. 2020 will pose a challenging period for the industry, but through collaborative efforts we can seek to change for the better. There has never been a better opportunity for positive change.



GUEST COMMENTARY

Time, cost, quality, health and safety. Key ingredients of any construction project, but tension between them so often results in disputes. It is therefore no surprise to see the classic battlegrounds of time and money top of the survey list, in a year when projects such as HS2 and Crossrail caught the headlines for the very same reasons. Quality and health and safety also featured in 2019, notably in the search for answers to the cladding issues raised by the devastating Grenfell Tower fire.

So, once again, we see the same problems: late, over budget, defects, and, featuring at the top of this year's survey, whether the contract administrator got it right and whether the contractor/subcontractor understood and met its obligations.

Whatever the construction dispute, if there is no agreement, someone has to decide who will pay for it all. Just who may, ultimately, have to be decided by an adjudicator, judge or arbitrator. They may also be asked to put right any contract misunderstandings and decide how the contract really should work.

But, does the new COVID-19 world present an opportunity to do dispute resolution differently?

While there is ample scope for legal debate in COVID-19 related disputes about frustration and what "force majeure" could mean, might commercial considerations now be more prominent? If parties want to continue working together and resume performance as soon as possible, where neither is at fault and both have suffered, understanding on both sides will be required. Is collaboration, rather than confrontational legal battles, a better way forward?

Survey respondents identified a willingness to compromise as the most important factor in the early resolution of disputes. This report considers how a collaborative approach might work and, in light of the new industry guidance produced in response to COVID-19 (including the new CAC pledge, the CLC best practice guidance and the government's own guidance on fair and reasonable contract behaviour), the construction industry is certainly being encouraged to find out.

It is clear that after COVID-19 things will never be the same. Whether the same will be true for dispute resolution remains to be seen.

SALLY DAVIES

Managing Partner, Mayer Brown International LLP (UK)

Continental Europe

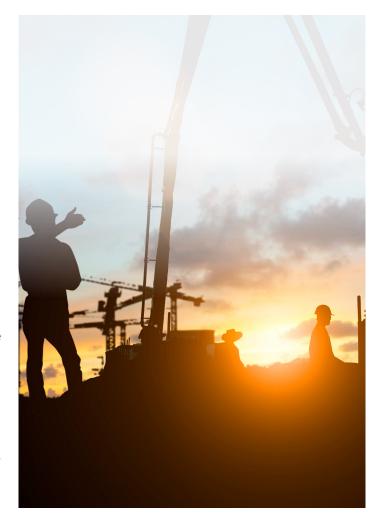
Continental Europe produced its lowest average value of disputes (\$24.5 million) and time taken to resolve them (15.6 months) since 2016, although there was an uptick in the number of disputes compared to 2018. The region continued to see growth in construction in 2019, but research indicates that growth will be slowing down. The market is still performing very well, and this plateau is expected after many years of growth for the region. Many countries are in the midst of or embarking on major infrastructure projects. This is consistent with our survey results which indicate the transportation market experienced the most disputes for 2019, which included highways, bridges, mass transit, airports and rail.

According to the *Arcadis International Construction Costs* 2020 Report, the volatility of the prices of commodities will continue to impact the European construction market. In addition, that report indicates concerns around funding of ongoing and planned major infrastructure projects for the future in Europe.

The key element in determining whether a dispute's outcome was a success was the ability to manage client/stakeholder's initial expectations. This is consistent with this year's report theme, which emphasizes the criticality of collaboration between project participants in the dispute resolution process.

Survey respondents indicated the most common form of early resolution was settlement following proceeding to trial. This confirms a clear trend over the past few years to avoid litigation and control the outcome as much as possible.

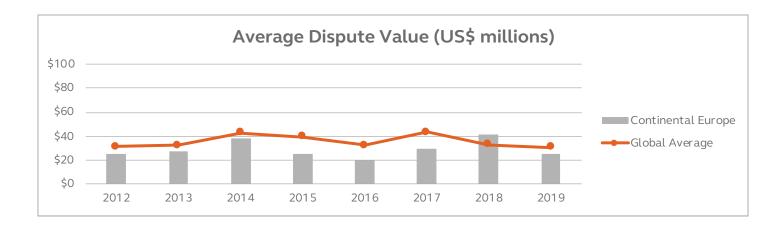
Survey respondents have indicated a greater use of Dispute Review and/or Dispute Adjudication Boards. The time taken to resolve disputes using dispute boards is typically considered to be quicker than arbitration or litigation processes.

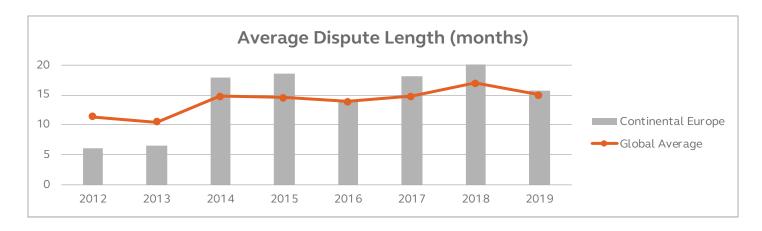


2019 RANK	MOST COMMON DISPUTE CAUSES	2018 RANK
1	Errors and/or omissions in the contract document	New ranking in 2019
2	An unrealistic contract duration or completion date	New ranking in 2019
3	A failure to properly administer the contract	3

2019 RANK	MOST COMMON METHODS OF ALTERNATIVE DISPUTE RESOLUTION	2018 RANK
1	Party-to-party negotiation	1
2	Arbitration	New ranking in 2019
3	Litigation	New ranking in 2019

	DISPUTE VALUE (US\$ MILLIONS)									LENGTH OF DISPUTE (MONTHS)							
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019	
Continental Europe	25	27.5	38.3	25	19	29.5	41	24.5	6	6.5	18	18.5	14.1	18.1	20	15.6	





DISPUTE CAUSES

The leading cause of disputes for Continental Europe for 2019 was errors and/or omissions in the contract documents followed by an unrealistic contract duration or completion date and a failure to properly administer the contract.

While it is new to the top three this year, it is not surprising to see *errors* and omissions in the contract documents as the leading cause of disputes – it has consistently ranked in top spots in the other regions over the years. In addition, a failure to administer the contract has consistently ranked as one of the main causes of disputes in Continental Europe and other regions. This cause indicates a breakdown in understanding of obligations by the parties and the failure to communicate, which emphasizes the importance of working together to successfully execute a project and limit disputes.

RESOLUTION METHODS

The three most common methods of dispute resolution in 2019 changed significantly from last year with the addition of *arbitration* and *litigation*. The top three methods were:

- 1. Party-to-party negotiation
- 2. Arbitration
- 3. Litigation

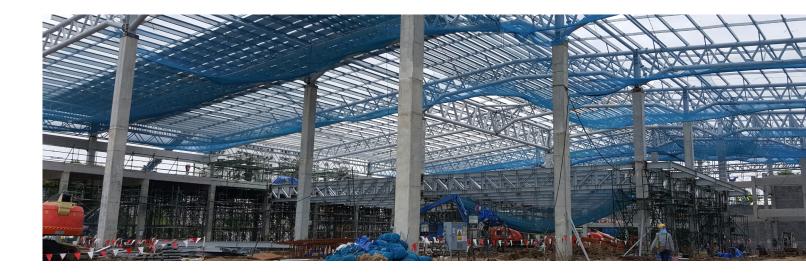
For the third year in a row, party-to-party negotiation remains the leading method to solving disputes. Last year's report noted the surprising fact that arbitration was not listed in the top three most common methods of dispute resolution in light of its strong and continuing growth in Continental Europe, notably in Paris. However, this year arbitration made its way up the list. New to the list for 2019 is litigation, which is also new to the list for North America.

SOLUTIONS LOOKING FORWARD

The effects of COVID-19 will be felt across the globe. Regions where the construction market was strong, such as Spain and Italy, have been hit particularly hard by the virus. According to the European Union, the construction industry in Europe is essential for the major infrastructure works and projects that promote community wellbeing. It accounts for 9% of EU27 GDP and employs 16 million workers. Therefore, the negative effects of COVID-19 on the construction industry in Europe are considerable.

Continental Europe will face the same challenges as the rest of the regions of the world that have been hard hit by this pandemic. Construction disputes are certain to arise on projects, whether they were suspended or continued on as essential work during the crisis. Regardless, it will be vitally important for all participants to understand both where their project stood and stands at any point in time from a cost and schedule standpoint. In particular, it will be essential to quantify impacts as a result of shutdowns so accurate completion estimates can be made in an effort to successfully restart the work.

Project participants should not lose sight of the techniques that are proven to avoid, mitigate and resolve construction disputes. This year's survey results highlight the importance of fair and appropriate risk balances in the contracts. This goes hand-in-hand with properly administering the contract, which was also a top survey result in this year's report. The critical necessity of project participants to collaborate when faced with challenges on their projects is emphasized throughout this report. Although we do not yet fully know the impact COVID-19 will have on the construction industry going forward, the need for collaboration will become heightened during this unprecedented time.



GUEST COMMENTARY

The report confirms that collaboration in the form of party-to-party negotiation remains the preferred method of dispute resolution. This result is based on surveys done before the unprecedented challenge of COVID-19 has put all parties in unchartered territory. This new development may prove to be fertile ground for parties to further resist squarely confrontational instincts when faced with disputes on projects, and to opt for a more collaborative approach. Doing so would be consistent with the increasing wish by parties to control the outcome of disputes through negotiation and settlement.

There is uncertainty in the industry as to how courts and tribunals will react to "COVID-19 claims," and to what extent contractual force majeure, hardship, or similar provisions apply in the circumstances. Parties may wish to eschew arbitration or litigation in favor of the certainty afforded by a negotiated settlement, with or without the help of a mediator or a dispute board, a mechanism that is increasingly and successfully used on major continental European construction projects (e.g., the CERN Dispute Board for the CERN Large Hadron Collider construction, the Gotthard Tunnel Dispute Board for the CHF 10 billion construction of the Gotthard Base Tunnel, or the Dispute Board for the International Tokamak Experimental Reactor Project in France). Such mechanisms may also assist parties on ongoing projects in getting them back on track faster and mitigating COVID-19 impacts overshadowing the parties' relationship mid-project.

Collaborative approaches will not always be suitable for resolving disputes. However, parties can also seek to gain more control and predictability as to the outcome of a dispute in contentious proceedings. For instance, they can require that tribunals be more (pro)active and seek to structure proceedings in a way that pushes tribunals to actively engage with the parties and the dispute throughout the proceedings, as is already the habit of arbitrators in several continental European jurisdictions.

Bearing in mind the main causes for disputes identified in the report, predictability and control over disputes should also receive more emphasis at the stage of contract drafting. Regardless of whether parties adopt standard form contracts, and whether they opt for a very detailed contract or the more concise type of contract that is typically preferred in continental European jurisdictions, clear rules provide for predictability and control. They also facilitate contract management, the second major cause for disputes. While even the clearest drafting will never fully eliminate the risk of disputes, solutions to the most common disputed issues need to be set out in the contract, so as to make the outcome of a possible dispute predictable. More innovative approaches to contracting that are geared towards collaboration and dispute avoidance, such as Alliancing (or "Integrated Project Delivery"), which so far are rarely applied in Continental Europe, may also gain interest and traction in circumstances where parties seek to find ways of sharing risks.

JOACHIM KNOLL

Partner, LALIVE

Middle East

The average value of disputes in the Middle East increased slightly to \$57 million in 2018 to \$62 million in 2019. Also, the average length of time needed to resolve a dispute decreased to 17 months, compared to 20 months in 2018. This decrease is likely attributed to the liable parties and participants in the dispute process realizing that slowing down the dispute resolution process is in no one's long-term interest, and that moving forward the claimants are not capable of withstanding long periods of time of uncertainty on the conclusion of their disputed amounts.

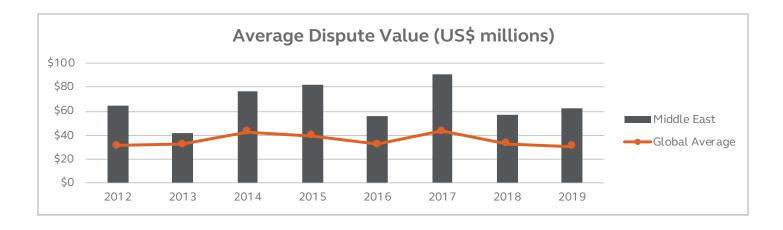
Like in Europe, transportation projects (e.g. highways, bridges, mass transit, airports, rail) topped the list for disputes for 2019. In many cases, this is due to timing. Many infrastructure projects have reached the stage where amicable settlement efforts have been exhausted and disputes had to be initiated.

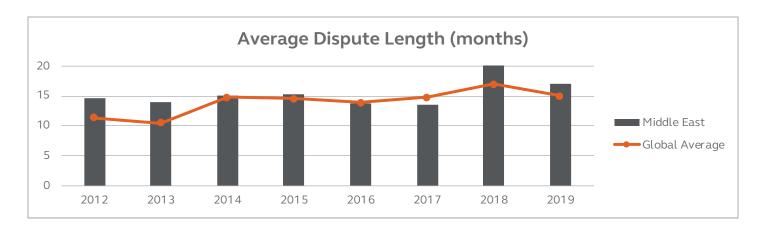


2019 RANK	MOST COMMON DISPUTE CAUSES	2018 RANK
1	Poorly drafted or incomplete and unsubstantiated claims	1
2	A failure to properly administer the contract	2
3	Failure to make interim awards on extensions of time and compensation	New ranking in 2019

2019 RANK	MOST COMMON METHODS OF ALTERNATIVE DISPUTE RESOLUTION	2018 RANK
1	Party-to-party negotiation	1
2	Arbitration	2
3	Mediation	3

	DISPUTE VALUE (US\$ MILLIONS)									LEN	IGTH C	F DIS	PUTE (моит	HS)	
	2012	2013	2014	2015	2016	2017	2018	2019	2012	2013	2014	2015	2016	2017	2018	2019
Middle East	65	40.9	76.7	82	56	91	56.7	62	14.6	13.9	15.1	15.2	13.7	13.5	20	17





DISPUTE CAUSES

Poorly drafted or incomplete and unsubstantiated claims as well as the failure to properly administer the contract remained both in first and second place as the cause for disputes for 2019, holding steady from the previous year's results. Failure to make interim awards on extensions of time and compensation ranked third, a new ranking for 2019.

The first and third causes in 2019 shed light on the typical "chicken or the egg" causality dilemma that is common on many construction projects. For example, if you asked an engineer as to why he or she is not able to make an interim award on extensions of time and compensation, they would reply by saying that is due to a poorly drafted or incomplete and unsubstantiated claim.

Situations like these require participants to strike a challenging balance. The contractor must understand that a well-written and substantiated claim improves the chances of receiving an interim award, and the engineer must be diligent in using his or her project records to fill in some gaps in the claim and not reject it based on the absence of documents that exist in the engineer's records.

RESOLUTION METHODS

The most common dispute resolution methods mirrored the 2018 results, with party-to-party negotiation, arbitration and mediation holding their positions. If parties continue to express a desire for quicker resolutions and commit to stronger collaboration, we expect these methods to continue to rank ahead of litigation.

SOLUTIONS LOOKING FORWARD

COVID-19 will likely impact construction projects in terms of the delivery and cost of local and international resources of material, labor and equipment, and will therefore present unprecedented challenges to the construction industry and its supply chain participants.

In light of the challenges, it will be imperative to produce well-written, concise and logical claims based on facts and evidence. The collection and identification of evidence will depend on keeping complete and accurate records, which must be considered a contract administration best practice. Notwithstanding the above, we have recently seen various parties in the construction sector attempting to collaborate and work together towards minimizing risks on the entire supply chain through collaborative risks registers, combined mitigation strategies and contracts based on project alliancing or partnering.

Strategizing and forming such types of collaborative alliances requires the involvement of carefully selected professionals in the construction industry who have a diverse set of skills including but not limited to: a deep understanding of construction risks and rewards, precise contract interpretation and its impact, an excellent grasp of project construction cost breakdowns, structured logic and a lengthy exposure to various types of claims and disputes for which such alliancing or collaboration mechanism is designed to minimize or prevent.

Moving forward, especially in light of COVID-19, now is the time for construction project parties and the related supply chain to collaborate and work together to minimize the impact of the new economic challenges on all the participants combined.



GUEST COMMENTARY

In our experience, the average aggregate value of construction related disputes including counterclaims in 2019 across the GCC was between USD 50-70 million.

The causes of disputes varied but recurring issues and factors remain, such as ambiguously drafted contracts, poor contract administration by both sides as well as deeply rooted and adversarial positions.

Although dispute resolution mechanisms under construction contracts in the market have become more elaborate over recent years (i.e. DABs and mediation are becoming more prevalent), the majority of construction contracts still provide that disputes shall proceed to litigation or arbitration if an amicable settlement cannot be achieved.

The majority of construction-related disputes we advise on are settled through direct negotiation but some disputes inevitably proceeded to formal dispute resolution proceedings in respect of which a court of first instance decision can be expected in 9-12 months and an arbitral award in the region of 15-18 months.

COVID-19 and its continuing impact will undoubtedly be the fundamental issue for the industry to address throughout 2020.

Stakeholders are very sensibly collaborating to seek mutually acceptable solutions to the many and daunting obstacles caused by the COVID-19 pandemic including emanating from liquidity as well as supply chain and labour issues.

However, amicable and enduring settlements cannot always be achieved, so formal disputes will undoubtedly crystallize between parties at all levels of the supply chain. We expect the long shadow cast by the COVID-19 pandemic to remain over the construction industry for the foreseeable future.

All stakeholders therefore need to proceed with caution but should also be on the lookout for the opportunities that will undoubtedly emerge as the new normal takes shape.

EUAN LLOYD

Head of Construction & Infrastructure Al Tamimi & Company

Methodology

This research was conducted by the Arcadis Contract Solutions team. It is based on global construction disputes the team handled in 2019 as well as contributions from industry experts. Due to limited responses in the past, input from Asia and South America were not included in the 2020 global report.



About Arcadis

Arcadis is the leading global Design & Consultancy firm for natural and built assets. Applying our deep market sector insights and collective design, consultancy, engineering, project and management services we work in partnership with our clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets. We are 27,000 people active in over 70 countries that generate \$3.5 billion in revenues.



Contract Solutions Expertise

The Arcadis Contract Solutions teams help clients avoid, mitigate and resolve disputes. The team is based around the globe and encompasses one of the industry's largest pools of procurement, contract and risk management experts, as well as quantum, delay, project management, engineering defects and building surveying experts.

Our specialists provide dispute avoidance and management strategies expertise, including dispute resolution and expert witness services. This is delivered through a blend of technical expertise, commercialism, sector insight and the use of live project data, combined with a multidisciplined and professional focus.

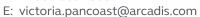




Contacts



Victoria Pancoast Associate Vice President, Director of Client Relations, North America T: +1 860 503 1505





Shawkat Abbas
Head of Quantum,
Middle East
T: +971 56 984 5391
E: shawkat.elabbas@arcadis.com



Gary Kitt
Head of Contract Solutions,
United Kindom
T: +44 20 7812 2310
E: gary.kitt@arcadis.com



Jordi Recan Head of Contract Solutions, Continental Europe T: +33 (0)1 40 74 36 10 E: jordi.recan@arcadis.com



Mario Torres
Head of Contract Solutions,
Germany and Central Europe
T: +49 15 202 7641 04
E: mario.torres@arcadis.com

