

2022 Global Construction
Disputes Report

Successfully
navigating
through
turbulent
times

Successfully navigating through turbulent times

From 2020 to 2021 the average value of disputes declined by 3% across the globe but remains at historically high levels compared to 2019 and earlier. The average time taken to resolve disputes increased significantly, by almost 15%, for the first time in three years. There was also a consensus that the overall number of disputes increased.

This year's report focuses on proactively addressing the changes that were experienced in the market in 2021. On the positive side, construction spending increased, and the market is preparing for an even greater influx of funds in the coming years. On the other hand, the market was negatively impacted by supply chain issues and the ongoing effects of COVID-19.





Contents

Introduction	4
Guest foreword.....	5
Successfully navigating through turbulent times	6
Overall findings	8
North America	12
United Kingdom.....	16
Continental Europe	20
Middle East.....	24
Methodology	28
Contacts.....	28

We define a construction dispute as ...

A disagreement in which two parties, typically the owner and the contractor, differ in the assertion of a perceived contractual right, resulting in a determination issued by the owner in accordance with the process specified in the contract. If the determination is disputed by the contractor, the matter becomes a formal dispute. The value of a dispute is the claimed value of additional work or event as asserted by the contractor. The length of a dispute is the duration between when the claim is formally submitted under the contract and the time of resolution or the conclusion of the hearing.

Introduction

Welcome to the 12th Annual Arcadis Global Construction Disputes Report: *Successfully Navigating Through Turbulent Times*, which reveals key trends and insights in the global construction disputes market.

While every dispute is unique, recognizing trends in common causes and tracking statistical averages provides valuable insight into industry issues and can steer project participants toward best practices and away from potential problems. Guided by our experience over the past year, both globally and regionally, we are pleased to share our findings regarding current market trends.

As was the case in 2021, our research indicates that there is continuing emphasis on increasing construction activity across the globe to stimulate economies in the wake of the global pandemic. The industry is responding to the opportunities created by stimulus funds directed into the market through programs like the \$550 billion United States Infrastructure Investment and Jobs Act, though potential benefits of these stimulus funds are now facing headwinds caused by inflation and supply chain issues. Arcadis' 2022 International Construction Costs Index discusses how the industry is being impacted by strained logistics networks, surging

demand for critical global commodities, waning stockpiles, and global inflationary pressures in the wake of COVID-19. In addition, the report predicts that the conflict in Ukraine is set to exacerbate material and hydrocarbon shortages, with significant repercussions for global commodity and energy markets. These factors all contributed to an increase in disputes in 2021.

This year's report reveals that the majority of respondents handled more disputes in 2021 than 2020. It also indicates that the average value of disputes decreased only slightly while the length of time to resolve disputes increased.

The report also reveals the following:

- The trends in the value and length of disputes continues to vary from region to region.
- Proper administration of the contract is a consistent element across the globe for successful and early resolution of disputes.
- Most disputes are settled through party-to-party negotiation and a willingness to compromise plays a key role in early resolution.
- Over 75% of respondents have encountered project impacts due to COVID-19.
- Over 70% of respondents have encountered project impacts due to supply chain issues.

Over the past 12 years of gathering insights and capturing dispute trends, two of the leading causes of disputes still revolve around the parties' failure to

understand their contractual obligations and poorly drafted or unsubstantiated claims.

More projects saw disputes in 2021 because of COVID-19, which is not surprising as project participants could not anticipate the extent of the impacts in 2020. The public infrastructure sector experienced fewer impacts as many projects continued as "essential" projects, while other projects in the buildings sector experienced more COVID-19 impacts when construction was suspended. Over the last year, we have found that whether impacts are caused by COVID-19, supply chain issues, or a combination of multiple factors, owners are proactively evaluating their contract language and dispute resolution processes to effectively avoid, mitigate and resolve disputes.

If you have any feedback or insight that you wish to share, please contact one of our regional leaders.



Roy Cooper, PE
Head of Contract Solutions,
North America

Guest foreword

White & Case LLP

Ellis Baker

Partner, White & Case LLP

The annual Global Construction Disputes Report from Arcadis provides valuable insights into the world of international arbitration – and other forms of dispute resolution – not readily available from other sources. The insights fall into two categories: the nature of the disputes and the means of resolving them. The ‘turbulent times’ through which the world continues to pass have their effect on both, and this is reflected in the content of the 2022 report as well as in its title.

The effect of COVID-19 in generating conflict in construction is particularly interesting, although (or perhaps because) the picture is uneven across the regions. In North America, nearly 70% of respondents had encountered disputes from this cause, and in the UK a remarkable 90% (up from 75% in 2020); in Continental Europe the number had actually reduced, while in the Middle East it is already anticipated that such claims will become less prominent as “post-pandemic normality” returns.

The consequences of supply chain problems as a cause of disputes are widely canvassed. In North America, they are seen as currently the most significant factor, and a ‘central’ cause in the Middle East, though the origins of this phenomenon certainly extend beyond COVID to the Ukraine crisis in Continental Europe and possibly the after-effects of Brexit in the UK.

The Arcadis report also confirms that the various forms of turbulence exert pressure on the practice of dispute resolution. It is surely not coincidence that one of the headline findings is that the time taken to resolve disputes increased

for the first time in three years and by 15% on average. The increase of almost 18% in North America was set against a background of lower dispute values, a contrast mirrored in the UK; time taken increased in Continental Europe and the Middle East too, but so did average dispute values.

Anyone involved in international construction dispute resolution, as I am, will find the increase in duration readily understandable. The whole industry has had to adapt to new challenges: difficulties with site visits, absences through illness of tribunal members, counsel or witnesses and proceedings conducted entirely remotely. It may be that, in the future, virtual hearings, for example on procedural issues, can actually save time, but the experience of the recent past has been more of disruption to schedules and adaptation to circumstances.

Physics Nobel Laureate Niels Bohr famously quoted the old Danish proverb that “Prediction is very difficult, especially if it’s about the future”. In welcoming the 2022 Arcadis report it can truly be said that, by shining a light on recent and current trends in construction dispute resolution, it has given us at least a sound basis to see ahead, as we go forward into times which look set to remain turbulent.

Successfully navigating through turbulent times

Current events have introduced a high degree of anxiety and uncertainty to the construction industry across the globe.

The tragic Russian invasion of Ukraine has caused a substantial setback to the world economy, and as humanitarian efforts continue in neighboring Poland and Romania, sanctions on Russia have created an economic impact felt in nearly every corner of the world. And while many regions have experienced a reprieve from the social and economic impacts of the COVID-19 pandemic, there are still many areas that are experiencing record-breaking surges of the coronavirus infection. Nearly 200 million people have been impacted by the COVID-19

lockdowns in major global powerhouse cities such as Beijing and Shanghai in early 2022, which then impacts the global economy. At the same time, we continue to face an ongoing fight against climate change, social injustice, population growth, and the resulting demand for natural resources that continues to put increasing strain on societies. The current social and geopolitical issues have resulted in unprecedented impacts to supply chains, labor shortages, inflation, and debt.

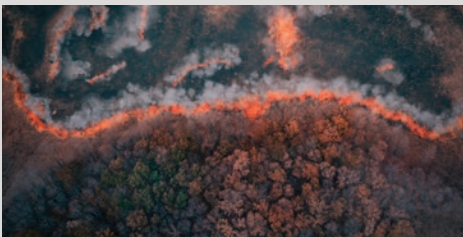
Despite today's challenges, construction presses on to meet societal needs.

The US construction market experienced nearly 10% growth in 2021. The UK experienced similar growth in 2021 and economists predict nearly 15% growth in the UK in 2022, with similar trends in other regions. As the need for construction continues, the global supply

chain is under pressure to keep up with the continuing demands for commodities like diesel fuel, steel, silicones, plastics, semiconductor, and countless others. The construction industry competes for many of the same commodities that are needed by other, equally urgent, buyers of these goods such as automotive manufacturers and energy producers, resulting in high demand for warehouse space as scarcity of common materials leads to material hoarding. Labor costs are also rising as employers pay premiums to maintain staffing levels to combat the industry shortages of skilled workers.

Construction markets remain competitive as builders struggle to overcome these challenging conditions while owners attempt to deal with the added risks from economic threats. Builder pricing to owners remained stable throughout the first half of 2021 despite soaring

Current events and challenges affecting the construction market



Social and economic factors

- Russian invasion of Ukraine
- COVID-19 pandemic
- Climate change
- Inequality
- Population growth
- Natural resource demands



Impacts to the construction industry

- Supply chain impacts
- Material cost increases
- Delays
- Labor shortages
- Impact to bottom line
- Increase in claims activity



Mitigation techniques

- Proactive risk management
- Alternative project delivery
- Contingency planning
- Pre-purchasing materials
- Constructability review
- Willingness to compromise



input costs, which is an indication that many companies remained focused on building their backlog of work and therefore absorbed the risk that increased input costs posed to the bottom line. With many projects bid at or below the break-even point, construction companies struggled to maintain a healthy profit margin. Owners should expect to see a rise in change requests and disputes as builders attempt to recover unanticipated costs. As 2021 progressed, contractors realized high input costs were here to stay, at least for the near to mid-term future. Paired with prominent growth in the amount of project starts, owners saw a significant uptick in pricing as contractors attempted to cover their growing costs with tender (bid) prices, continuing a sharp upward trend at the end of 2021 and into the first half of 2022.

Common questions that owners are asking today include “how much will this cost my project?” and “how can I limit my exposure to possible disputes for material price increases and delays?”. Sophisticated owners recognize that the window to act is during the early stages of project development. They implement a risk-based approach to recognizing the opportunities and mitigation measures that can be taken to avoid and minimize the effect of these conditions.

The solution to many of these challenges can often be found through selection of appropriate project delivery methods, establishing risk-based contingency plans, pre-purchasing of materials, and performing biddability reviews of the intended construction documents. But even with effective planning, disputes over cost inflation may be inevitable, and emphasis should be placed on early dispute resolution.

The 2021 survey results show that the most important factor in the mitigation and early resolution of disputes encountered is the owner and contractor’s willingness to compromise.

Recognition of the need for compromise, coupled with disputes avoidance techniques including contract and specification reviews, formalized risk management procedures, and constructability reviews, have proven to make a big difference in delivering successful projects while minimizing disputes during these challenging times that lie ahead.





Overall findings

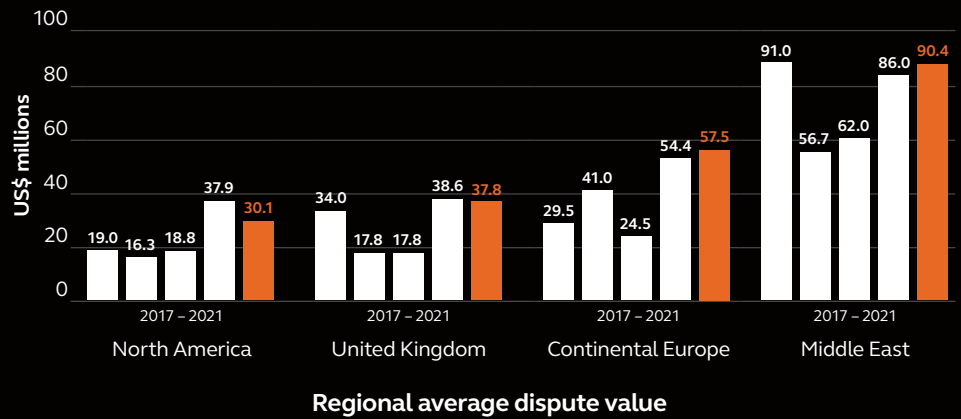
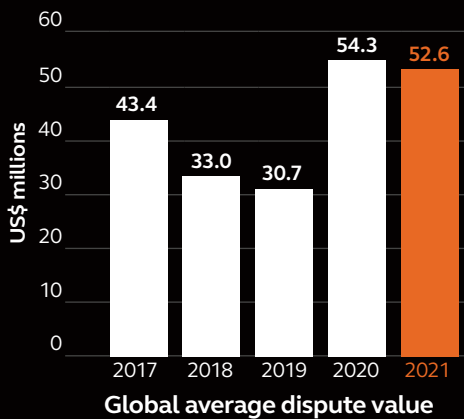
The average time taken to resolve disputes increased significantly from 2020 to 2021, though the average value of disputes decreased slightly. Still, the values of disputes in 2021 were significantly higher than values seen in 2019 and earlier.

Not surprisingly, a majority of respondents experienced disputes due to COVID-19 and supply chain impacts. Overall, our Contract Solutions team handled more disputes in 2021 than in 2020, and we expect this to increase in 2022. We attribute the increase in 2021 and expected increase in 2022 to the COVID-19 and supply chain impacts discussed in this report.



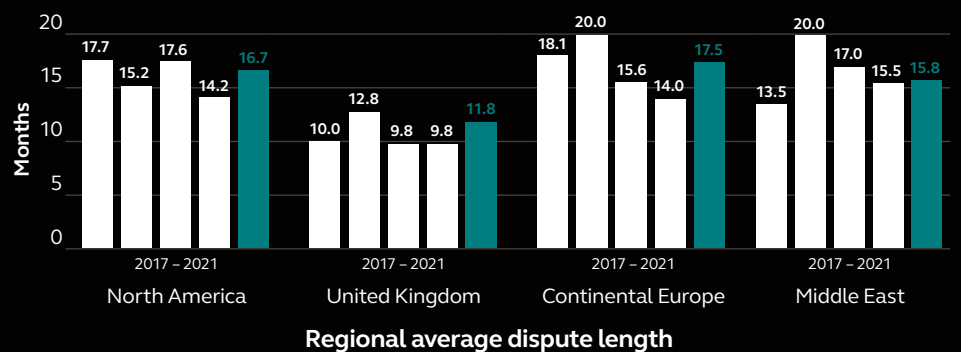
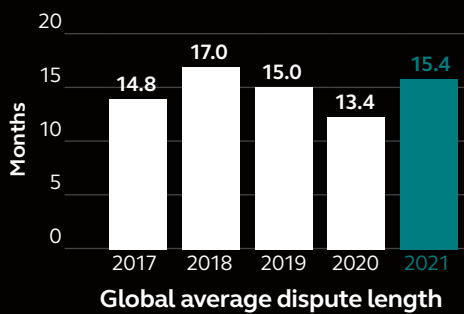
The global average value of disputes decreased slightly to **US\$52.6 million**

Average dispute values



The global average length of disputes increased to **15.4 months**

Average dispute length



Among regions surveyed, the buildings—education, healthcare, retail/commercial, government—sector saw the most disputes, the same as 2019 and 2020. The highest value dispute reported by respondents was US\$2 billion.



Overall dispute cause

2021 Rank		2020 Rank
1	Poorly drafted or incomplete and unsubstantiated claims	NA
2	Errors and/or omissions in the contract document	NA
3 (tie)	Owner/Contractor/Subcontractor failing to understand and/or comply with its contractual obligations	1
	Owner-directed changes	2

Poorly drafted or incomplete and unsubstantiated claims became the top cause of construction disputes for 2021.

Errors and/or omissions in the contract documents also appeared on the list this year as a top cause. Neither of these appeared in the top three in 2020.

Most common methods of alternative dispute resolution

2021 Rank		2020 Rank
1	Party-to-party negotiation	1
2	Adjudication	3
3	Mediation	2

Most effective claims avoidance techniques

2021 Rank		2020 Rank
1	Contract and specification reviews	2
2	Risk management	1
3	Constructability reviews	3 (tie)

Most important factors in the mitigation/early resolution of disputes

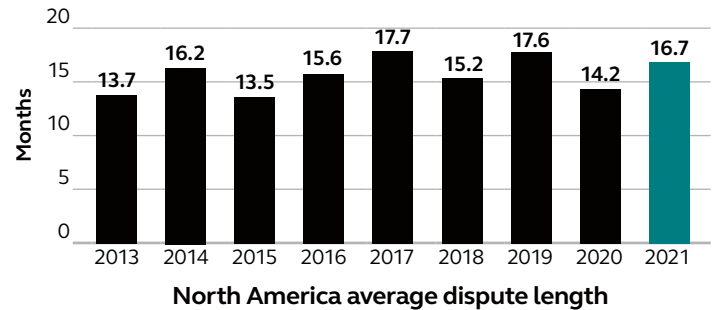
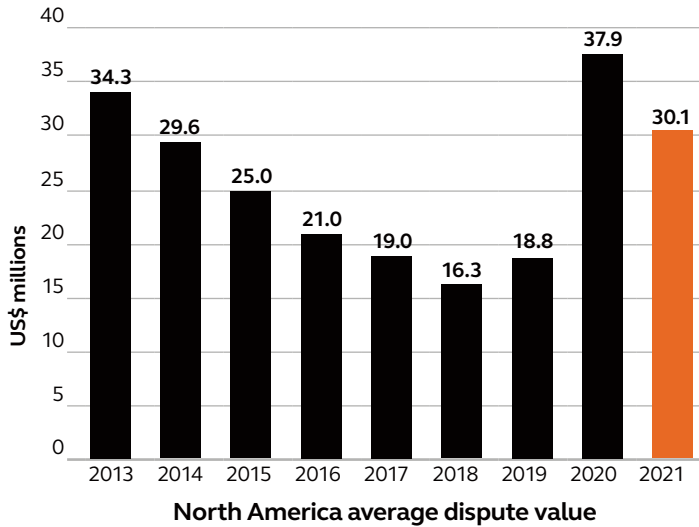
2021 Rank		2020 Rank
1	Owner/contractor willingness to compromise	1
2	Accurate and timely schedules and reviews by project staff or third parties	2
3	Contractor transparency of cost data in support of claimed damages	3



North America

Over the past year, the average value of disputes in North America decreased from \$37.9 million to \$30.1 million. While a \$7.8 million drop year over year is significant, dispute values in 2021 were still higher than any year from 2014 to 2019.





It is also noteworthy that the average time taken to resolve construction disputes for North America increased by almost 18%, from 14.2 months in 2020 to 16.7 months in 2021, even as average dispute values have decreased. The duration to resolve disputes has remained between 14 and 18 months over the last five years.

At the time of last year’s publication, COVID-19’s impact on the construction industry and consequential claims was still uncertain. This year, nearly 70% of respondents acknowledged that they had encountered a COVID-19-related dispute. The decrease in claim values suggests that both owners and contractors reacted quickly to COVID-19 claims, thereby avoiding compounding the amount of claims, but the claims took longer to resolve. In addition, a staggering 75% of respondents have encountered disputes related to supply chain impacts.

Of particular concern over the past year are the economic uncertainties in the market. The industry is encouraged by news that, according to the US Census Monthly Construction Spending report, construction spending was up by nearly 10% in the first two months of 2022 compared to the same period in 2021. The US market is also ramping up to deliver on the \$550 billion United States Infrastructure Investment and Jobs Act. As a result, both public agencies and contractors alike are preparing to

deliver historic volumes of work while confronted with a shortage of skilled labor. Compounding this issue were the rapidly rising costs of construction which are contrasted by contractor bids that only incrementally increased in 2021. These conditions have historically led to an increase in construction claims. Our survey in 2023 will tell the tale.

As in 2019 and 2020, many of our survey respondents for North America continue to work on larger disputes than ever before. The average value of disputes decreased slightly from \$37.0 million to \$30.1 million but remained at historic highs. The transportation market in North America experienced the most disputes in 2021, which is a change from 2019 and 2020, where the buildings sector saw the most disputes.

Continuing the trend observed in 2020, the results indicate that the greatest effort to manage claims was focused on claims avoidance and the most common form of early resolution was voluntary efforts to reach settlement prior to formal proceedings. Most survey respondents believed that the most effective claims avoidance technique was contract and specification review, which was new to the top spot for 2021. This result is not surprising as projects continue to become more complex, and more owners are using some form of non-traditional project delivery methods. Risk management was a close

second and, when done properly, provides a significant impact while at a relatively low cost.

Dispute causes

In 2021, the most common cause for disputes in North America was poorly drafted or incomplete and unsubstantiated claims and is new to the “top three” list for 2021. This result is also not surprising as owners in all sectors have been developing more robust administrative resolution processes that include specific claim notice and documentation requirements that are supported by contemporaneous records. Some contractors may not have adjusted to this “new way of doing business”, which may partly explain the extended and more costly resolution process. The most significant cause,

This year, nearly 70% of respondents acknowledged that they had encountered a COVID-19-related dispute.

however, is likely a result of supply chain impacts, which our survey indicates have affected 74% of respondents. Respondents specifically commented on the tension in the industry regarding how best to handle these impacts. Many owners observed that their contract documents may need to address risk allocation more directly to accommodate large fluctuations in today's market for material price increases. At the same time, contractors are confronted with decisions regarding how much of current and projected future increased costs they are required to include in their bids. The resulting increase in construction claims is no doubt related to the uncertainties caused by unpredictable market conditions including supply chain impacts and material price increases. Consequently, some contractors have reacted with poorly drafted, incomplete and unsubstantiated claims.

The second most common cause for disputes in North America for 2021 was errors and/or omissions in the contract documents, continuing the trend established in the 2019 and 2020 reports. As discussed in prior reports, projects are getting bigger, becoming more complex and have multiple stakeholders. This reality increases the importance of design coordination issues as well as the potential for errors and omissions if a stakeholder's requirements are not addressed. While design errors and omissions can lead to additional capital costs of a project, it is also the time required to resolve a design error or omission that is critical to mitigating schedule impacts and thus reducing the ultimate cost of related claims.

New to the list this year, as the third cause, is a traditional cause of disputes, differing site conditions .

Resolution techniques

In 2021, the results reflect that the greatest effort by respondents was spent on avoidance of claims and the most common form of early resolution was settlement prior to proceedings. The majority of survey respondents said

the most effective claims avoidance technique is contract and specification reviews, followed closely by risk management and constructability reviews. The results demonstrate the importance of owners proactively and consistently reviewing contract language and the appropriate allocation of risk as it pertains to items such as escalation and force majeure clauses.

Solutions looking forward

When we asked respondents to explain their top responses to the most common causes of contract disputes, there was a common theme regarding COVID-19 and supply chain impacts. While recognizing obvious market and societal issues, owners noted that contractors often did not present claims that were properly substantiated, directly related to claimed causes and in compliance with the contract documents. Conversely, contractors believe that they incurred real additional costs and that owners were relying on contract language that did not adequately address unprecedented impacts and utilized burdensome administrative resolution processes. Interestingly, one point of agreement by all respondents is that the construction industry is facing unprecedented impacts.

Events such as COVID-19, unprecedented inflation, material price escalation, labor shortages, and now a war in eastern Europe have all impacted the construction industry at the same time. As with more "traditional" impacts such as differing site conditions, owners and contractors who address these new impacts earlier in the project will have a greater likelihood of success. For example, at the outset of the pandemic public owners in the infrastructure sector took advantage of dramatically reduced vehicle traffic and

relaxed work zone requirements, allowing contractors to expand work areas and times. Our 2020 report indicated that while projects had experienced COVID-19 impacts, they had not yet crystallized into disputes. That was not the case in 2021, with nearly 70% of respondents encountering a COVID-19-related claim. Many owners and contractors proactively documented project impacts while keeping lines of communication open. These same owners and contractors also understood that a global pandemic was not reasonably foreseeable and quickly resolved these impacts. As a result, both owners and contractors were in a much better position to successfully resolve disputes at the earliest stage possible.

Project participants who successfully addressed COVID-19 impacts provide a model for addressing the economic factors that intensified in 2021 and are unlikely to slow down in 2022. The simple question is how the construction industry will address risk so that it is appropriately balanced between the project participants.

It is no surprise that most project participants want to resolve disputes early. Early resolution methods such as dispute review boards, early neutrals, and mediation are more and more prevalent and can be an important factor in contract success. Regardless of the various measures owners and contractors take regarding selection of project delivery methods, specification language, risk allocation and alternative dispute resolution, embracing a willingness to compromise will remain a key factor in early and successful resolution of disputes.



Guest commentary

North America

Daniel D. McMillan

Jones Day, Co-Leader of Global Construction Practice

In some respects, this year's report on construction disputes echoes the adage "the more things change, the more they stay the same."

As we continue to ride the ebb and flow of the COVID-19 pandemic, we see that respondents report more construction disputes in 2021 than in 2020 and an expectation that the number of disputes will continue to rise in 2022.

While these results may not be scientific, there does seem to be less reluctance to raise construction disputes. The first year of the pandemic, 2020, may have triggered some hesitancy to take on the added costs and uncertainty of pursuing disputes. Such caution appears to have dissipated in 2022. This certainly is consistent with the construction practice at Jones Day, where I see the flow of new dispute work as high as I recall at any point in my 35-year career.

In a sign of normalcy, the causes of disputes as reflected in the report are mostly traditional construction claims (e.g., differing site conditions, owner directed changes, defective specifications). The report notes that more than two-thirds of respondents have encountered disputes or claims specific to COVID-19 impacts. In my practice, such claims have been asserted on a wide range of projects, including subways, hospitals, and energy projects.

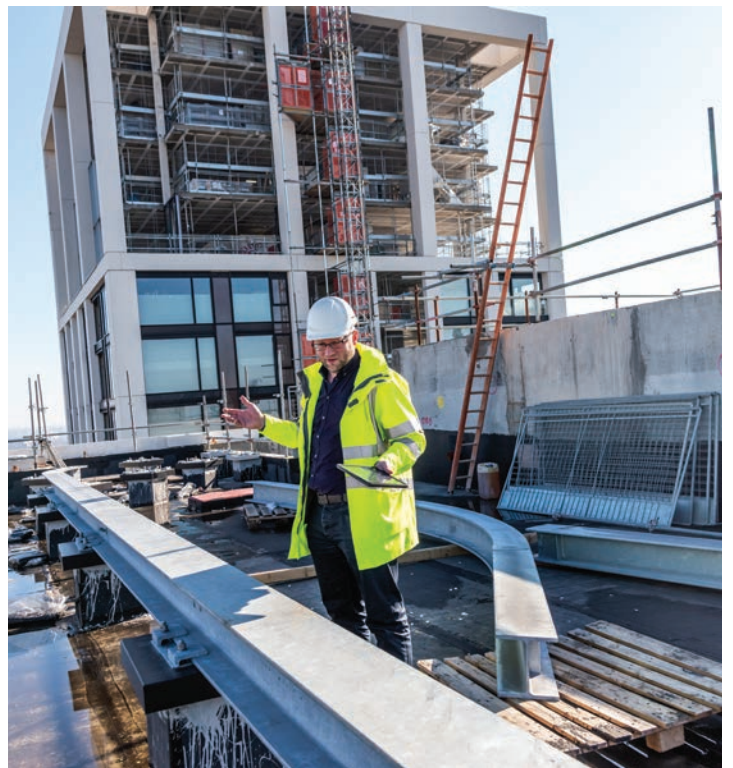
Although the pandemic caused everyone to pay closer attention to force majeure clauses, it also placed a new focus on managing supply chain risk. The construction industry is a global industry. It is rare to find a large project in North America where critical equipment and material suppliers are not located outside the United States. Regardless of who bears the risk of supply chain interruptions, project participants have become keen on how best to manage such risks both when planning and executing a project.

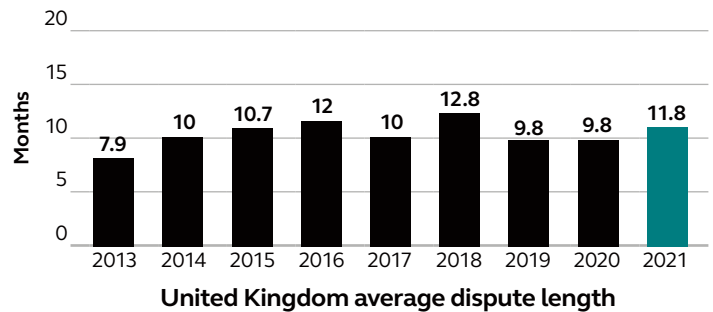
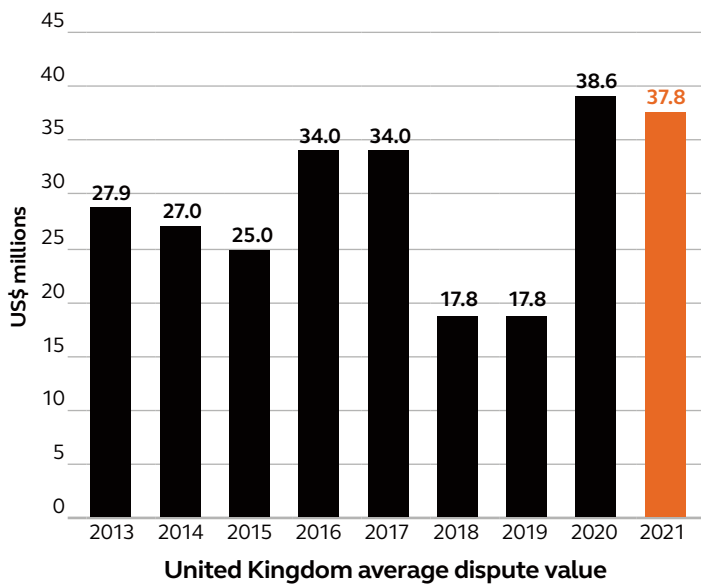
Claims may be back. Nevertheless, today's claims may more frequently emphasize issues like supply chain interruptions. Still, project participants, their consultants and counsel need to constructively manage such risks, just as they have other risks that manifested themselves in the past. In the words of Led Zeppelin, "[t]he song remains the same."



United Kingdom

The United Kingdom average dispute value continues to see a long-term increase, with the past two years reporting higher dispute values than previous years. The UK saw an average dispute value of \$37.8 million, and the highest reported dispute value was \$300 million.





The UK remains the region with the lowest average dispute length, being just under 12 months compared to the other regions surveyed for disputes in 2021. The most likely reason for this being that forms of dispute resolution with relatively fast procedures remain at the top of the most common dispute resolution procedures: adjudication, party-to-party negotiation and expert determination.

Dispute causes

Our UK survey respondents indicated new “most common” causes of disputes in 2021. The highest ranked cause was poorly drafted or incomplete and unsubstantiated claims. This was also a new most common response in the global results this year, indicating a wider issue. Deficient claims has not featured regularly as a common cause of dispute in recent years with UK respondents. This could indicate a more hardened approach that parties are taking when facing claims that fail to clearly evidence entitlement to the amounts that they wish to recover, or that there is an increase in poorly evidenced claims being issued in the current environment. The second highest cause of dispute was also a new feature in our most common causes: owner-directed changes. Considering the wide variety of issues that this cause covers, it is perhaps surprising that this has not been seen more often as a common cause of dispute.

The UK saw a second year of challenges in the construction market because

of COVID-19, inflation costs for both material and labor, disruption to the global supply chain, and the continued skilled labor shortage. These issues have undoubtedly caused increased cost and program pressures on employers, contractors and the supply chain during 2021 which will lead parties to consider the possible options for claims for additional recovery. This is likely one of the reasons why the UK survey respondents anticipated that there would be more disputes in 2022 than in 2021.

90% of UK survey respondents indicated that they had encountered disputes or claims related to COVID-19 in 2021, up from 75% in 2020. The most common type of COVID-19 claim or dispute was delay and disruption. Anecdotally we have seen a number of claims where demonstrating the true cost of that delay, increased costs due to loss of productivity and/or change in methods of working has been the primary cause of dispute. Contemporaneous records demonstrating the effect and subsequent increased cost have been key in ensuring resolution of a COVID-19 claim.

70% of survey respondents indicated that they had encountered disputes or claims related to supply chain impacts. Given the impacts of world-wide issues such as COVID-19 and more localized issues such as Brexit,

this does not come as a surprise. The industry as a whole is experiencing labor shortages and price increases for materials with decreased availability. It is no surprise that this will have led to increases in claims for delay and disruption and claims for increased costs.

As the effects of global issues look to be prevalent for the foreseeable future, all parties involved in construction projects will need to look to solutions such as alternative delivery methods, early-stage planning and collaboration to overcome shortages and delays, subsequently reducing the potential for disputes to arrive throughout the duration of the project.

The UK respondents have consistently scored owner/contractor/subcontractor failing to understand and/or comply with

The UK remains the region with the lowest average dispute length, being just under 12 months.



its contractual obligations as a common reason for disputes. As always, our view in previous reports has been that contractual obligations ostensibly drafted in plain English by lawyers may not be as easily understood by practitioners. The consistency with which this is highlighted within our 2021 survey responses goes to show that this is something practitioners still consider an issue and a direct cause of their disputes. Project managers would do well to identify this as a project risk and actively manage this risk, ensuring that stakeholders have the correct resources and knowledge to comply with their obligations.

Resolution techniques

Our UK results showed that adjudication remains the most common method of dispute resolution in 2021. Statutory adjudication in the UK has enabled a sophisticated and relatively quick resolution mechanism that the industry is well versed in operating. Party-to-party negotiation and expert determination were listed second-joint most common resolution techniques. These responses clearly show that swift resolution is considered favorably when considering the benefits and disadvantages of resolution techniques in disputes. This is the first time that expert determination has been identified as a common resolution technique, and it will be interesting to see if this remains as a common alternative to adjudication in the long-term.

After a dispute has crystallized, respondents indicated that the most common point of early resolution, prior to a decision being issued on the matter, is settlement prior to proceedings. As reported in previous years, the survey results showed that the parties' willingness to compromise, as well as accurate and timely schedules and reviews by project staff, were the most important factors in being able to mitigate disputes or achieve early resolution.

The UK respondents did not score alternative dispute resolution techniques as a common method of resolution in their disputes. Whilst party-to-party negotiation scored highly, there still appears to be few projects which adopt a dispute avoidance protocol. The responses also indicate that the UK has still not widely adopted the use of Dispute Adjudication Boards (DABs) on their projects, or the consistent use of mediation or conciliation. It appears that techniques reliant on determination by an appointed third party remain dominant as the preferred method of dispute resolution in the UK.

Solutions looking forward

UK respondents believe that they will see more disputes in 2022 and that they will be of a higher value than in 2021. There is uncertainty ahead concerning the outlook for the global economy, the conflict in Ukraine, surging global demand and energy prices, the disruption

of supply chains, and cost pressures from materials inflation and labor shortages. These factors will affect both projects in the pipeline and live projects. Nearly all projects that have been ongoing for the past two years will have come across these issues, as well as navigating the challenges of maintaining progress during the pandemic.

The Arcadis International Construction Costs 2022 report indicated that inflation on competitively tendered projects is around 5-6% in the UK, but total inflation is much higher, and some increased cost is being absorbed by the supply chain. With costs continuing to rise, the supply chain will not be able to absorb these pressures for long, as we have seen with the reluctance of the supply chain to hold fixed prices for an extended period of time.

The introduction of the Building Safety Bill poses one of the largest factors that will impact the construction industry in 2022 and beyond, subsequently increasing potential for disputes arising. An extended limitation period, introduction of Gateways and the new Developer Levy could potentially lead to extended timeframes and increased costs. Full understanding of the requirements the Bill introduces, careful advanced planning and risk management procedures are some of the potential ways to avoid disputes and subsequent claims.

These external factors will have to be addressed in projects over the next year. Perhaps it is unsurprising then that our UK respondents indicated strongly that the most effective claims avoidance technique is fair and appropriate risk balances in the contract and risk management. Projects should acknowledge the real risk of cost pressures and the potential disruption to their projects due to shortage or unavailability of resources and take early measures to mitigate the potential impact.

Guest commentary

United Kingdom

Alexandra Clough,
Partner, Bryan Cave Leighton Paisner LLP

Hello 2021, goodbye COVID-19?

Unfortunately, not. Whilst we hoped at the end of 2020 that 2021 would bring in a fresh start, sadly that was not the case. The UK continued to feel the effects of COVID-19 throughout 2021, with on and off lockdowns of varying severity. Towards the end of 2021, the impact on supply chains and spiraling materials costs started to bite, with many projects affected.

In this context, it is hardly surprising that respondents to the survey reported more disputes in 2021 than 2020, and that the number and value of disputes has been rising year on year. Most respondents expect the number to rise again next year, and to me that seems to be a reasonable assumption.

Notably, the number of disputes concerning COVID-19 has increased, with nearly all (90%) respondents having encountered such disputes. My experience is that COVID-19 had the greatest impact on projects that were already in difficulties and, in many cases, problems have been stored up until the end of those projects. As a result, I think we will see a high proportion of disputes involving COVID-19 continuing through 2022.

In addition to a greater number of disputes, respondents reported an increase in the length of time it took to resolve disputes. This could be a factor of the increasing complexity of disputes. In particular, it can be very difficult to disentangle causes and their effects in COVID-19 claims.

Despite this increase in length of time to resolve disputes, the UK still resolves its construction disputes significantly more quickly than other jurisdictions. This is no doubt because of statutory adjudication, which is by far the most popular method of dispute resolution for construction disputes in the UK. Adjudication has been remarkably successful in this respect. However, there is a significant and very noticeable lack of diversity in adjudicator appointments. The last time I had a female adjudicator on one of my cases was over 10 years ago, and I am not aware of a person of color ever being appointed on one of my cases. It would be great to see some concrete and measurable action from the major nominating bodies on this in 2022. As well as being worthwhile for its own sake, I predict that this would improve quality and service from the adjudicator population.

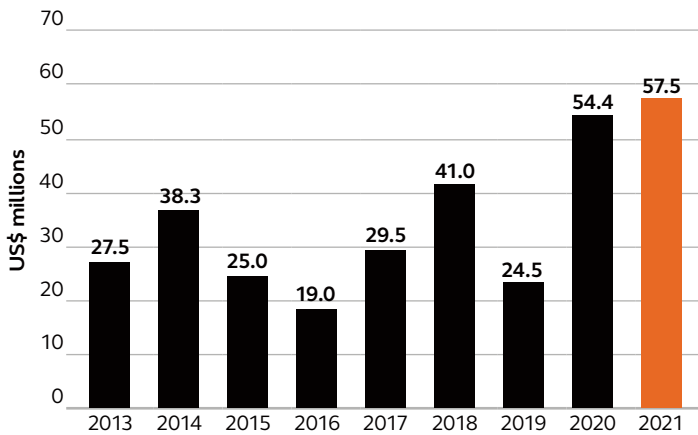


Continental Europe

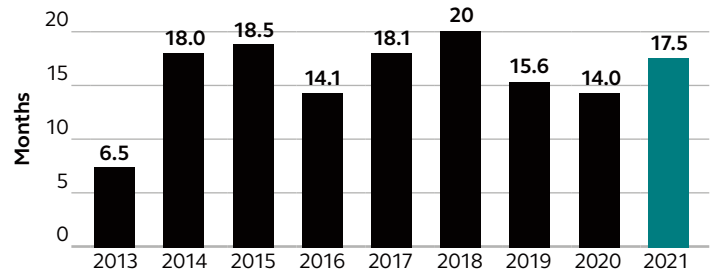
Continental Europe's average value of disputes rose again in 2021 to \$57.5 million, a 5.7% increase since 2020. The average duration to resolve disputes increased as well to 17.5 months. Dispute durations can now exceed two years in Continental Europe.

The need for a fair and appropriate risk balance appears more important than ever in 2021. This is likely the result of two years of construction projects heavily impacted by COVID-19 outbreaks, supply chain disruptions, raw and manufactured





Continental Europe average dispute value



Continental Europe average dispute length

materials shortages, price increases and labor scarcity, lowering companies' appetite for risk.

In this context, the conduct of the project manager is paramount to prevent disputes. The survey has highlighted the project manager's lack of partiality toward the employer's interest, lack of authority (limited by the employer), or lack of understanding of procedural aspects of the contract as the main factor for crystallization of disputes in 46% of cases. While the first two causes for dispute crystallization stem from companies' lowered risk appetite, the latter reveals a deeper problem, highlighted by the survey for many years: knowledge and understanding of contract management.

When properly handled, however, including right from the pre-contract stage, it ceases to be a root cause for disputes and becomes one of the most effective and important factors in the mitigation/early resolution of disputes. Lastly, stakeholder management is another essential skill of the PM role since the most favored dispute resolution technique continues to be party-to-party negotiations.

Dispute causes

The leading causes of disputes observed this year in Continental Europe were poorly drafted and unsubstantiated claims, errors or omissions in the contract

documents, and an unrealistic contract duration or completion date.

While it regularly shows as a leading cause for disputes, poor drafting and lack of substantiation of claims featured at the top spot this year, highlighting contractors' difficulty with supporting increasingly complex claims which were often related to long-term consequences of COVID-19, global supply chain issues, material shortages, and the unprecedented increases in the price of materials. Expectedly, errors and omissions in the contract documents was still reported as a predominant reason for disputes, as respondents consistently emphasize the importance of accurate contract documents in avoiding claims and disputes. Unrealistic durations and short completion dates ranks as the third cause for disputes and is often caused by owners' attempts to recover some of the backlog and delay accumulated during the last two years because of the COVID-19 pandemic.

As is often the case, survey respondents stress that many disputes originate from issues in the early stages of projects and highlight the importance of careful preparation and planning.

Resolution techniques

Settlements remain the top dispute resolution technique, especially reached through early party-to-party negotiations, followed by arbitration

and expert determination. However, dispute avoidance is still the best choice and construction actors believe proper contract administration, with balanced risks, is the best way to do so.

The fast agreements favored in 2020 have lowered the number of claims linked to COVID-19 in 2021, however, some disputes not linked to COVID and seeking resolution through alternate methods have proven to take much longer than early resolution methods.

Solutions looking forward

The average length of disputes fluctuated around 18 months, positioning Continental Europe as the region where disputes last the longest.

The infrastructure and construction industry in Continental Europe has been facing new challenges despite the ambitious stimulus package deployed by the European Union (“Next Generation EU”) and various economic recovery measures implemented by member states.

Parties looking to build projects are expected to continue to encounter significant bottlenecks in the global and regional supply chains, prolonged elevated energy prices, increased prices of plant and materials, and labor shortages. Most of these challenges are expected to continue beyond 2022 as global economies continue to show strong construction activity, high demand for resources, and inflationary pressure on prices.

The average value of disputes in Continental Europe has followed a mostly increasing trend, soaring from \$19m in 2016 to \$57m in 2021, while the average length of disputes fluctuated around 18 months, positioning Continental Europe as the region where disputes last the longest. Moreover, the number of disputes is expected to increase in 2022 compared to 2021.

To respond to this challenge, the parties’ effort at the early stages of projects has become more important than ever. In this respect, appropriate preparation of contract documents and suitable project schedules at the outset of projects has been identified as the most effective method for preventing claims. A clear majority of respondents identified contract and specification reviews as the most effective technique for claim avoidance, followed by third-party schedule reviews. Good risk management, which has consistently appeared as a key claim avoidance technique, still ranked third in the survey. These views also highlight the increasing positive opinion owners and contractors have of the role professional involvement can play in avoiding disputes.

Consistent with previous years, responses to the 2021 survey confirmed a clear preference for resolving disputes through direct negotiation and for arbitration as a preferred forum for formal proceedings. The most frequent methods for dispute resolution were party-to-party negotiation, arbitration, and expert determination. When it comes to finding resolutions, settlements prior to proceedings are the most common form of early resolution, and the owners’ willingness to compromise is still identified as the most important factor for resolving disputes.





Guest commentary

Continental Europe

François Doré
Risk Manager, Bouygues Bâtiment International

I fully subscribe to Arcadis' analyses on the subject of dispute avoidance. It has been my firm belief for many years now that the goal of dispute avoidance is achieved by securing first a clear deal, as embodied by the contract documents, capable of being read and understood by those who will actually perform the project, second a balanced risk allocation, and third proper contract management, to simply make sure that the preceding two are made reality.

Changes and extended design review periods, a common cause of disputes, should never have led to disputes in the first place as contracts usually provide detailed procedures for addressing both, and changes are not even a breach of contract. They are however likely to become disputes when they reveal an insufficiently defined contractual basis, embodied in the available design. When budgets and construction periods are uncertain and floating, one party, and sometimes both, are more likely to have overlooked some risk. And an imbalanced risk allocation is more likely to lead to claims and project failures.

Increasingly complex legal input requires correspondingly enhanced contract management skills (the industry standard FIDIC 'Rainbow Suite' 2017 edition contracts are twice the size of their 1999 predecessors) and training and professionalization of these services is key.

It is not the business of investors, consulting engineers, or contractors to be involved in protracted disputes. COVID-19 and the Ukrainian conflict are now causing economic turbulence, of a sort, and on a level which even recently would have appeared to belong to the past. The European Continent is particularly affected, perhaps not only, but primarily. The supply chain is affected by shortages and the return of inflation. In short, offer of goods and services being constrained.

These turbulences can be durable, as beyond the direct consequences of conflict, the various trains of sanctions adopted by the EU and other countries require political settlement. Supply routes and business patterns will, eventually, adapt and future contracts will (or should) address the present situation. Perhaps, the forms of contract suited for international contracting are generally better equipped for meeting such hardship, and it is the domestic markets which have the longest distance to cover.

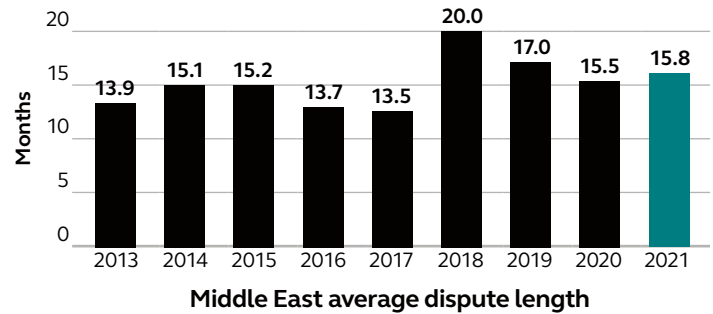
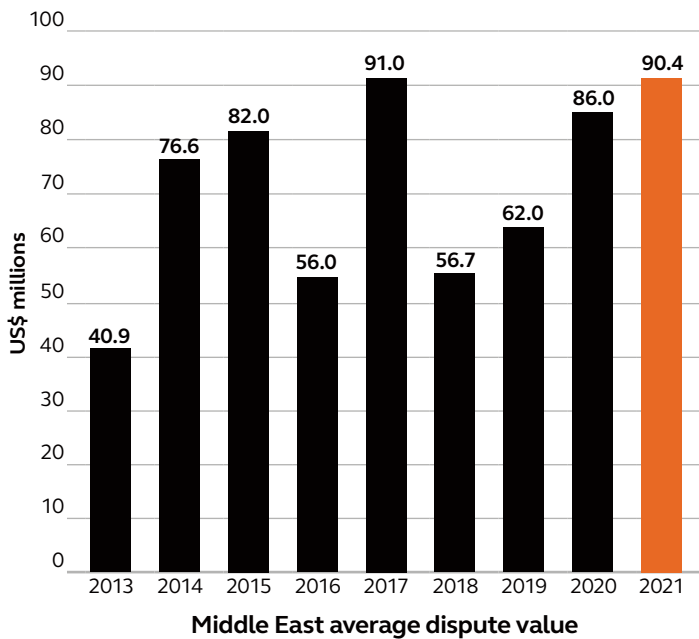
However, in the interim there will be a transition period, increased disputes, and maybe, and more gravely, increased project failures. Stakeholders are encouraged to bear this in mind and agree a balanced share of the unforeseen burden to bridge these troubled waters.



Middle East

The average value of construction disputes in the Middle East increased slightly from \$86 million in 2020 to \$90.4 million in 2021. The highest value dispute was \$1 billion, which is understandable given the magnitude of some of the current projects in the region compared to 2020, our respondents also advised there were more disputes in 2021 and they expect the number of disputes to continue to increase throughout 2022.





Survey respondents reported the average time taken for resolution of disputes was 15.8 months, close to the 15.5-month duration reported in 2020, which is the first increase in over two years, albeit a minor increase. This year's reported duration for resolving disputes is similar to the global average of 15.4 months, which is good news for this region, where disputes have traditionally taken longer to resolve than the global average.

Most disputes in 2021 came from building projects (including education, healthcare, retail, commercial and real estate developments), the same as 2020. No change in the second and third rankings, where transport and power projects remained at large. Although there has been a focus on infrastructure and turnkey power plant projects throughout the region over the past few years, building projects remain at the forefront of the construction market, in particular for the Kingdom of Saudi Arabia (KSA), and their Vision 2030 framework, and the United Arab Emirates (UAE), where projects were fully completed in the run up to the opening of Expo in October 2021.

Dispute causes

Owner/contractor/subcontractor failing to understand and/or comply with its contractual obligations remained the most common cause of dispute in 2021. In these cases, a party may have difficulty understanding its contractual obligations,

and while owners may prefer heavily amended construction contracts over standard forms without amendments, such amendments can create unfair risk balance, meaning parties are not fully aware of their obligations to comply accordingly. Budgetary factors may also impair a party's ability to employ key administrator resources who can administer the contract in a professional manner in line with its defined obligations. It is no surprise that respondents suggested that proper contract administration, fair and appropriate risk balances in the contract and accurate contract documents would have the largest impact in avoiding the disputes they were involved with as they are all underlying issues of this year's top cause.

Owner-directed changes was the second most common cause of disputes, making its first appearance inside the top three since 2018. This could be due to projects requiring an earlier start on site with incomplete employer's requirements and design, resulting in high volumes of owner-directed changes post-contract award. Where emphasis can shift toward making a project fit into the owner's preferred timeline, there will undoubtedly be design risk that may result in a large amount of owner change. This aligns with the respondents' view that risk management is one of the most effective claims avoidance techniques, with owner-

directed changes being a well-known risk factor in construction projects.

The third most common dispute cause reported was poorly drafted or incomplete and unsubstantiated claims. This shows that fundamental issues remain with a party's ability to properly demonstrate its entitlement, where the burden of proof lies with the claiming party. It is common to see extension of time claims using incorrect logic and analysis techniques, meaning the receiving party can easily reject the claim where poor narrative and incorrect logic prevent entitlement to a claim.

Resolution methods

The most common dispute resolution method in 2021 was party-to-party negotiation, the same as the previous two

Building projects remain at the forefront of the construction market, in particular for KSA and UAE.

years. This aligns with the strong culture of negotiation within the region and the respondents' view that settlement prior to proceedings was the most common form of early resolution in 2021. Parties favor negotiation over mechanisms such as arbitration and litigation due to time and cost as well as the desire to maintain good relationships for continued work.

Mediation was the second most preferred resolution method during 2021. Although this method appears to have been underutilized in the past, parties of a dispute may prefer the collaborative approach that mediation offers, as a facilitator helps both sides understand the issues, the facts surrounding the issues, and their position in relation to the issues to help move toward a resolution between the parties. Additionally, the time and cost effectiveness and flexibility associated with mediation may have appealed to more parties, in particular for COVID-related disputes, in order to keep their projects moving.

Litigation rounded off the third preferred choice for resolution of disputes, however it was closely followed by arbitration, meaning both remain prominent choices throughout the region.

Solutions looking forward

There are some remaining disputes surrounding COVID-19, however with fewer restrictions and high rates of vaccination in place it is expected that such claims will become less prominent as the world moves to a post-pandemic normality. The lingering effects, such as the worsening of the global supply chain crisis, is one of the biggest factors that the region will have to navigate in 2022, with disputes expected to center around this issue, which will lead to project overruns and additional costs. Contractors and subcontractors' close monitoring and management of suppliers is important to ascertain the best supply chain availability, which may mean a focus on more local markets with less emphasis on international shipments. This may result in added pressure on local suppliers to contain the extra demand placed on an already stressed market.

Price escalation is another issue facing the construction industry and it is expected that disputes will arise where parties are unlikely to be able to recover costs under their contracts, particularly where no adjustment for increase in costs exists under its terms and conditions and may revert to a claim under the law to try to retrieve their losses.

We may also see a surge in disputes related to late or non-payment to contractors and subcontractors for contract work executed where contractors and subcontractors exercise their rights to reduce the rate of progress or suspend the works due to non-payment. Owners need to recognize the consequences of poor cashflow on their projects.

Adherence to the basics of effective claims management such as early notification, accurate record keeping, correctly updated programs reflecting actual progress, and logically drafted claims based on factual evidence will assist parties to obtain earlier resolution and avoid the perils of this year's top dispute cause of owner/contractor/subcontractor failing to understand and/or comply with its contractual obligations.

As the construction industry continues to grow in the region throughout 2022, tighter programs and complexity of projects, price escalation and the supply chain crisis will undoubtedly mean that parties must focus on their ability to successfully navigate through turbulent times to avoid prolonged and expensive disputes for resolution of the issues on their projects.



Guest commentary

Middle East

Paul Taylor

Managing Partner – Dubai, Eversheds Sutherland

Given Eversheds Sutherland has domestic and cross-border construction disputes and arbitration teams with offices across the Middle East, we have been able to assess the findings of Arcadis from our first-hand experience of working on construction, engineering and infrastructure disputes in the Middle East in 2021, and it is apparent that what we encountered broadly reflects the survey findings.

By country, UAE remains at the center of construction claims and disputes, but some hesitancy to engage in arbitration following the restructuring of its arbitral institutions after Dubai Decree 34 has been noticed. Disputes in Qatar have been growing and crystallizing as the various infrastructure and stadia deadlines approached for the World Cup. KSA's aggressive and remarkable development plan is likely to be the next 'hotbed', with claims firms and legal practices focusing on that market and readying themselves for the first wave of big infrastructure disputes.

The larger disputes we saw in the market in 2021 typically stemmed from delay and disruption (inherent in the project, but also linked to COVID-19 and the effect and impact of site working practices and availability of resources and materials). Some variation claims have stemmed from reconfigured project requirements as the industry comes out of the COVID-19 lockdown phase and into more flexible times again.

The most popular and common forms of resolution that we saw were negotiation (in its various forms), arbitration and Dispute Boards. Mediation appears to us to have had a peak during COVID-19 for projects to be able to move on, but the contractually prescribed fora of Dispute Adjudication Boards and arbitration are back on the rise. Litigation remains commonplace as regards debt, bonds, financial distress, and payment claims, but not for technical delay and disruption cases where international contracting entities are involved.

While 2021 was undoubtedly a challenging year for those involved in construction disputes, we agree with the findings in that there will be an increase in the volume of disputes in the market in 2022 as company owners and contractors re-engage coming out of COVID.

Into 2022, at the time of writing, the situation in Ukraine and the impact on global financial markets, supply chain, and oil and gas, may well affect the disputes market and lead to a further increase in trade and supply disputes for the foreseeable future.



Methodology

This research was conducted by the Arcadis Contract Solutions team. It is based on global construction disputes the team handled in 2021 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 2022 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 29,000 people, active in over 70 countries that generate \$3.5 billion in revenues. We support UN-Habitat with knowledge and expertise to improve the quality of life in rapidly growing cities around the world.

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