



Civil Engineering Qualitative Research DEBRIEF



13 November 2025



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01

Introduction

Background and objectives



Background

The CMA has launched a market study into the design, planning and delivery of railway and public road infrastructure by the civil engineering sector in the UK. The market study will examine whether there are opportunities to improve interactions in this market so that both the public sector and industry are incentivised to build more cost-effective infrastructure and enable economic growth.

The CMA wants to assess the extent to which the process of competition drives good outcomes in the civil engineering sector and supports productivity, innovation, and growth.

The research focuses on businesses operating at Tier 2 and Tier 3 in the supply chain.

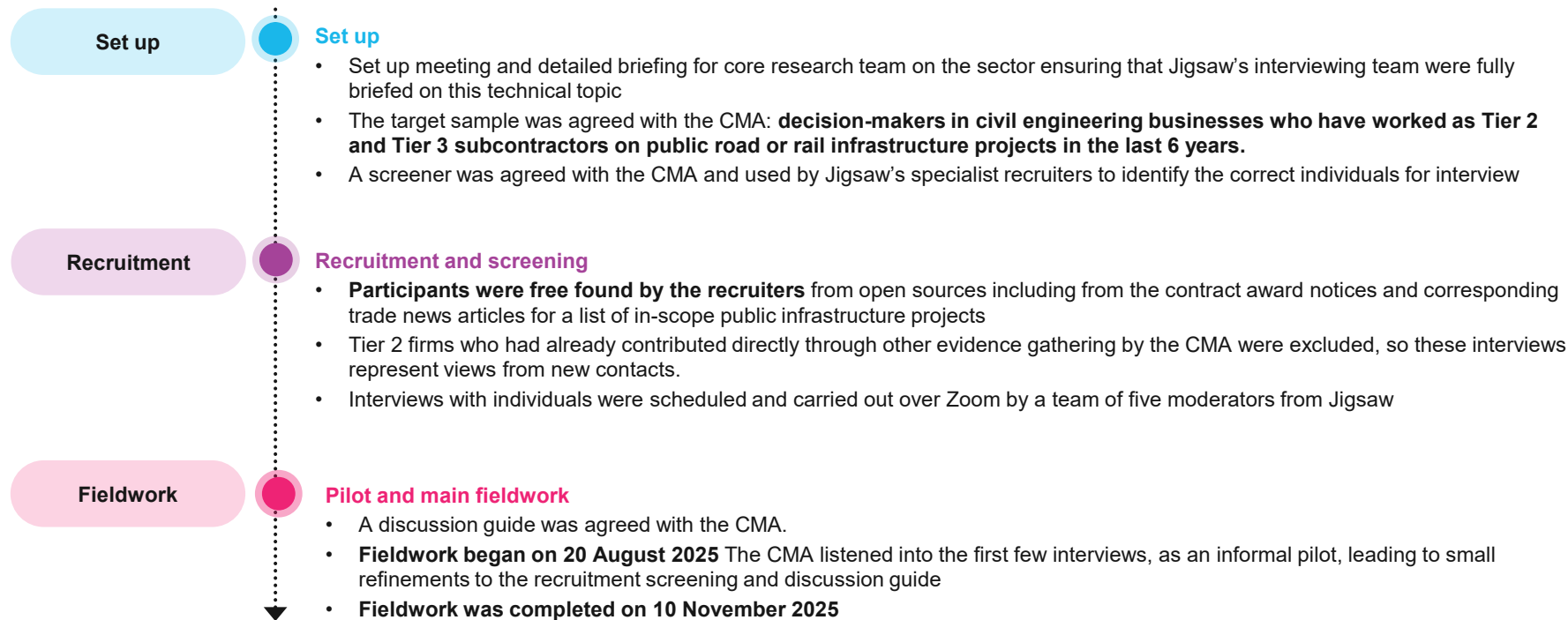


Objectives

- How can public authority procurers access and assess the right information to make well-reasoned decisions when procuring roads and railways, and how can they effectively work with the market to deliver best value projects?
- Do any procurement, planning, or other regulatory processes create significant barriers which limit companies' ability and incentive to enter, expand, invest, and innovate in this market?
- What market structures and features will best allow the civil engineering market to deliver road and railway infrastructure that supports UK productivity and growth?

Qualitative research approach

We conducted 60 x 60-minute one-to-one online interviews with decision-makers in civil engineering businesses



Methodological note on qualitative research

Note on the interpretation and limitations of qualitative research

Nature of qualitative research

In qualitative research, **findings are based on interviewees' recall and interpretation.**

Most of the information gathered in this research is from a **snapshot in time in 2025.**

Respondents are providing their **personal views on civil engineering contracting**, in their current role but also drawing on their wider expertise and knowledge.

Individuals who take part do so on the basis that their comments will remain **anonymous**, and no direct link will be made between their or the companies' views and any views or quotes that are reported. This is standard practice (and an industry requirement of the Market Research Society Code of Conduct) and aims to encourage open and honest answers from those who take part.

It is also important to keep in mind that the focus is less about quantification than about **understanding underlying issues, experiences and motivations.**

Implications

This report cannot talk in percentages or numbers of respondents who answered in a certain way:

Answers should **not be seen as necessarily representative** of the universe.

1

But can be seen as **strongly indicative** of perceptions in the market.

2

To give an indication of the strength of a finding from the interviews conducted we have used terms such as; '**a small number**', '**some**', '**many**' and '**most**.'

Verbatim quotes are annotated with the individual's business type only to support analysis but also preserve respondent anonymity.



02

Context

Qualitative sample profile – spread of Tier 2 and 3 businesses (as defined below)

We achieved a good spread of interviews. It was, however, more challenging to find Tier 3 businesses (as defined below) who are smaller, regional and working on rail, and those who only work as Tier 3. This may relate to the number of these types of businesses working in public road and rail infrastructure and/ or their level of interest or availability to take part in research.

| | |
|-----------------|-----------|
| Tier 2 or above | 20 |
| Mix Tier 2 & 3 | 32 |
| Tier 3 or below | 8 |
| Total | 60 |

Target audience

Decision-makers in civil engineering businesses who have worked as Tier 2 and Tier 3 subcontractors on public road or rail infrastructure projects in the last 6 years

Tier 2 definition for recruitment*:

Businesses that mainly work as sub-contractors to Tier 1s to deliver a particular part of a larger project using their specialised expertise. Their contractual relationship is with the Tier 1 business (who manage the project overall and have the direct contractual relationship with the public authority procuring the project).

Tier 3 definition for recruitment*:

Businesses that mainly work as sub-contractors to Tier 2s to perform specific tasks in one specialised field.

| Category | Sub-segment | Tier 2 | Target | Tier 3 | Target | Total | Target |
|---|------------------|--------|--------|--------|--------|-------|---------|
| | Totals | 28 | 25-30 | 32 | 30-35 | 60 | 60 |
| Nation (location of HQ) | England | 19 | 14-18 | 24 | 20-24 | 43 | Max. 47 |
| | Wales | 3 | 3-4 | 5 | 4-5 | 8 | Min. 5 |
| | Scotland | 3 | 3-4 | 3 | 4-5 | 6 | Min. 5 |
| | Northern Ireland | 2 | 1-2 | 0 | 3-4 | 2 | Min. 3 |
| | Ireland* | 1 | | 0 | | 1 | |
| English region (main location of work) | North | | | | | 17 | 11-16 |
| | Mids/SW | | | | | 16 | 11-16 |
| | East/SE/London | | | | | 16 | 11-16 |
| Company size | Micro/small | 1 | 1-3 | 9 | 8-10 | 10 | 9-13 |
| | Medium | 16 | 16-20 | 22 | 21-30 | 38 | 37-50 |
| | Large | 11 | 8-15 | 1 | 1-3 | 12 | 9-18 |
| Project experience | Rail | 15 | 15-20 | 15 | 10-15 | 30 | 30 min |
| | Road | 17 | 10-15 | 20 | 15-20 | 37 | 30 min |

*NB: Tiers 1, 2 and 3 were familiar terms, but definitions of these varied, as discussed later in this section

Context

1

Firm typologies

Some firms were independents, while many were part of larger groups

These groups were often Tier 1, with our participants working in autonomous Tier 2/3 firms (under the group umbrella, but able to bid and win work in their own right)

Firms tended to fall into either specialist or generalist roles – mostly the former

Some provided pure project management, others owned plant/equipment

The latter would also often employ many temporary contractors to fulfil contracts

2

Respondent roles

All had some input into decision over whether to tender for contracts

This could be senior leaders (COO; MD; Ops Director; Strategic Growth Director etc)

Or could be Project Manager; Ops Manager

Others worked for specialist bid teams so could be Estimators; Commercial managers etc

All had a technical civil engineering background which informed their outlook

3

Project types/scope

Work scope was broad with project types tending to inform later answers around contracts/frameworks etc

A minority were working on enhancements

Where Design and Build work happening, tended to be enhancements

Others working on maintenance and repairs – strong links between this and being on frameworks

4

Specialist v Generalist

Rail or road made up the majority of turnover for most (but not all) participants

Also widespread experience in construction work beyond rail/public road*

Rail or road specialism was present, but firms tended to describe their specialism in more precise terms

E.g specific types of steelwork; traffic management, but could be defined by geography as much as skillset

Others were project managers/generalists

5

Road v Rail

All issues reported on occur across both sectors but to varying degrees

Rail sector characterised by higher technical barriers to entry; future pipeline uncertainty and heavier regulatory burdens

More specialists than generalists in rail sector

Stronger sense of 'top down' environment in rail, with Tier 1s pushing risk down the chain

Road sector more collaborative

*e.g. other civil/ private sector - energy, water, environment, aviation, marine and ports, housing, commercial buildings, schools, hospitals, universities, utilities

Tiering

Tiers 1,2 and 3 were universally used terms, but definitions of these varied widely across the sample

1

Place in the contract chain

- Our working assumption was that Tier 1 is the principal contractor, while Tier 2s work to them and Tier 3s work to the Tier 2s etc
- For many, this assumption held true – especially in their understanding of a Tier 1
- This was often referred to as the principal contractor
- Many of our Tier 2s switched between Tiers 2 and 1 or Tiers 2 and 3, depending on contract/project type

2

Tier 2s

- Some Tier 2s claimed to occasionally operate as Tier 1s meaning they contracted directly to the public authority
- This was especially common where the firm had got onto a public authority framework
- Even here, while recognising no intervening Tier 1 contractor they would describe themselves as 'in a Tier 2 role'
- A majority of the firms we spoke to classified themselves as being in Tier 2 all or most of the time

3

Specialist firms

- Being a specialist firm (regardless of specialism) guaranteed that the firm would describe themselves as Tier 2 or 3
- Here, the role of providing specialist services means you cannot be the principal contractor (Tier 1)
- Specialist firms are often smaller, and this is another way firms use to define the Tier they see themselves operating in

4

Size/Value of project

- Some participants see Tier 1s as 'the really big firms'
- While this is often synonymous with principal contractor, their definition was linked to turnover or size of projects bid for
- Generalist Tier 2 firms felt their skillset meant they could do the Tier 1 role, but they were either not allowed to bid for huge contracts, or took the decision that these were too risky
- In that sense, they defined Tier 2 as 'smaller firm' rather than 'place in contract chain'



The way I see it is Tier 1 is, you know, the guys right at the top of the food chain, they're the ones in charge of the project. And then everybody below that, sort of subcontractors, will go with the Tier 2s, and the guys below that will be the Tier 3s, who will be probably, you know, in the supply chain to provide specialists support so they can build whatever they're building.

Tier 2

We, we are 95% Tier 2. The Tier 1 thing, we will never be Tier 1. We're not set up to be a principal designer or contractor because we don't want to be. Basically, it's too much hassle.

Tier 2 and 3

So maybe, you know, for me, like a Tier 1, I always look at that as maybe more like bigger value, a project with more with complexity.

Tier 2



I would say we're somewhere in 2 and 3 or between 2 and 3 due to the size of the company we are, who we employ and the value of the projects that we can take, but we will do almost anything up to a set value.

Tier 2 and 3

Tier 1 is your large construction company. So, they are construction companies that could undertake any of these works at any area of the UK. They are nationwide and large enough to be able to undertake. Most jobs Tier 2 are more regional, so they are companies who could undertake all the works, but only in certain areas. Or there are companies that can undertake some of the works but across the whole of the UK and then Tier 3 is the next level down. So, they are companies who can only undertake some of the works in some of the areas of the UK. Generally speaking, they are SMEs. Not always but generally speaking.

Tier 2



Tier 1 contractors are the main contractors which normally undertake the works and divide it into different packages and then basically manage the job, so what they do is just a huge level of project management and project administration. Instead of doing their job by themselves and then providing lots of subcontractors, dividing a huge package, a £1 million package into various segments and then distributing it between the list of the subcontractors that they have and are trusted, valued previously. While the Tier 2 and Tier 3 are again big corporations that are involved in industry and construction, they may do parts of the works by themselves, but partially they may also subcontract part of the scope which they are not experts in.

Tier 2

Nature of Tier 2 and Tier 3 firms

Even though the definitions of Tier 2 and Tier 3 are not precise and some businesses are subcontracted in both ways, there are some indications of differences in businesses and/or in the way they work in Tier 2 vs Tier 3 situations.

TIER 2

TIER 3

Can be generalist (adding capacity) or specialist

More likely to be specialist, or can be supplier e.g. plant hire

More control – direct relationship to main contractor

Less control – one more step removed from the client

Some also work direct to public authorities/ form Tier 1 JVs

Many also work as Tier 2s, a few direct to public authorities too

Often does, some may be involved in design or do both

Often delivering work, but less likely to be involved in design

More standardised contracting e.g. NEC contracts*

Can be simpler contracting e.g. email quotes

Contracting is relationship driven, can be at senior level

Contracting is relationship driven, can be more operational level

*NEC refers to New Engineering Contracts, a series of standard construction and civil engineering contracts endorsed by the UK's Institute of Civil Engineers. Further information is available at this link: <https://www.ice.org.uk/about-us/our-services/nec-contracts>



We can manage all the process from the pre- construction phase where, you know, we undertake the ECI. So, it's like early contract involvement and then from that early contract we are able to advise the client, which stages of the contract or which stages of the temporary design needs to be undertaken to follow the internal process.

Tier 2

So, we're there at the beginning, you know, what's the plan, what do we need? What's the constraints - they're multifaceted, could be land, could be access, could be whatever. But we're there and we're trying to engineer in collaboration, with other stakeholders, the right outcome. So that's brilliant. That's a great place to be.

Tier 2



We certainly have to bid for everything. So, everything that we win is done via a competitive tender. You know, in many cases those tenders can take a fairly significant amount of time to undertake but it is a differentiator.

Tier 2

We never get to challenge the scope of the project. Our scope by this point has narrowed and we're told, you know, you've got to put in a new cycle lane. Whether we do or don't or what the cycle lanes parameters are, we have no input into. That's been decided before us. And that usually gets decided in-house

Tier 3



They will ask me to send a quote over. They'll send me the project specifics. We've got this amount of holes to do this deep. Can you send me a quote based on this? Yeah, I'll literally knock up a quote in about 20 minutes, depending on, the intricacies of the project, send it straight over and they usually come back within two to three weeks and we get this project.

(...on control): For example, we turn up on a site and they want us to lay a surface course at 2 inches deep, but in actual fact, the road is failed down 4 inches deep. So, we need to change the laying depth and the specification. That's very difficult to do because contractually we're Tier 3. We've got to raise it with the Tier 2 contractor that got to raise it with Tier 1, Tier 1's got to raise it with the client, and it's got to come all the way back down the chain again.

Tier 3

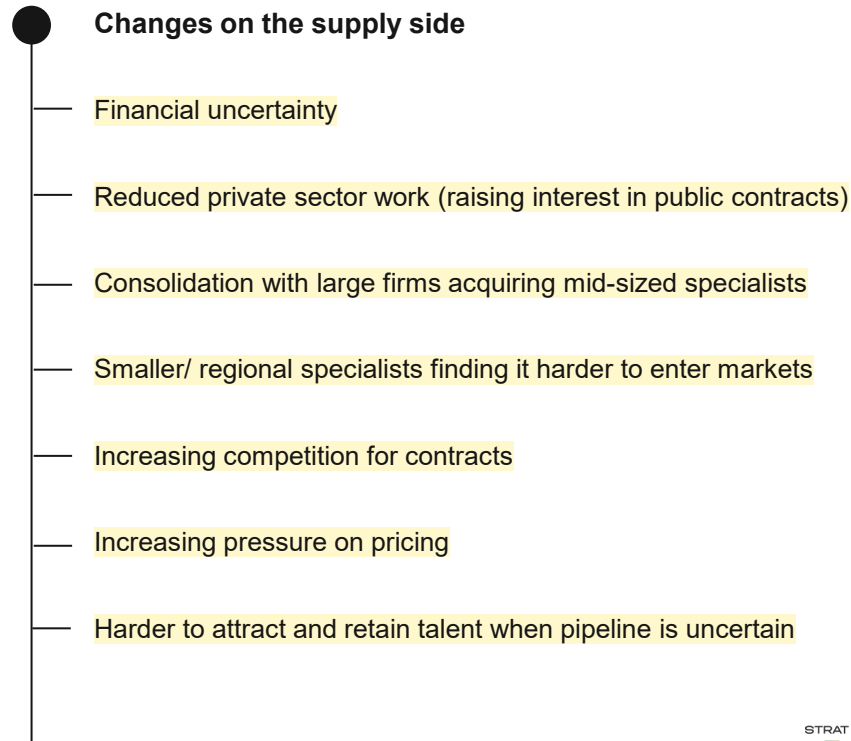
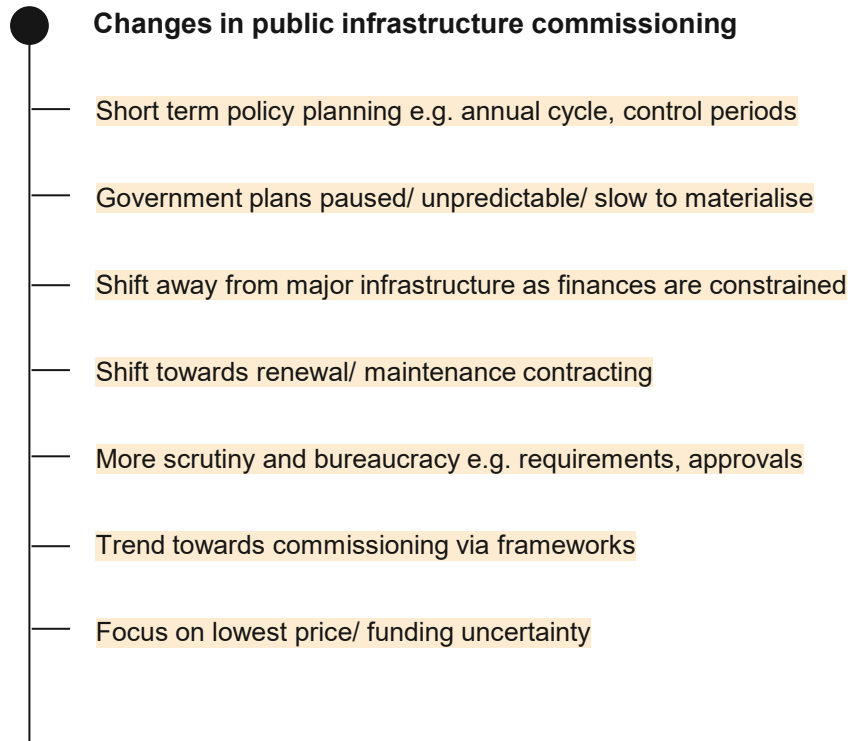


03

Nature of the market

Overview of changes in the market

Participants report uncertainty in public infrastructure commissioning in the last few years





I mean the government talks about spend reviews and you know, there's quite a lot of plans around how they're going to invest. But the reality of this spend review is, what, 5, 10% of that actually happens.

Tier 2

And similarly, when you (public authorities) cancel something or delay it, what am I supposed to do? These people, because I haven't got work for them, just go on something else.

Tier 3

Yeah, competing is always a challenge, whether you are big or small because you need to prove yourself the best selected for the client to award the job to you. So, depends on each level of the company- you have different challenges.

Tier 2



I think it takes too long, that would be my overall summary that the process takes too long. It probably does go into a level of detail beyond which is actually required as a competent company because, you know, we've delivered time and time again. I suppose we could land on most of these projects and just get on with stuff and do it, but we actually get involved in very long drawn-out processes to win the work.

Tier 2

Some of it's fairly onerous in what's been looked for from an accreditation perspective. And even getting on some of the frameworks, it's fairly onerous for some of the smaller companies who may be best placed to do them. Look, I know the accreditations are there for a reason, but I think if a company has justification or suitable experience to do a framework, they should be considered.

Tier 2



And in order to do that, it will ask you, what's your previous experience? What have you done like this before? Can you show us the jobs that you've done before? And if you're new into it and you can't, a lot of the time it's a black mark against your name. You're not going to start, especially with the public sector, that's not going to be where you start doing it. They're expecting you to have been doing it 10, 15, 20 years and have big experience on jobs of a similar nature so that they know, yes, you can deliver that. So, that's the first stumbling block for a lot of people getting into it without that experience.

Tier 2

Overview of nature of the market – Road

Public road infrastructure projects are delivered by a wider variety of contractors, but their nature can vary depending on who the client is

Road National Highways

Scheme Delivery Framework (SDF)-driven



Some long-term renewal/ maintenance contracts e.g. decades

More fragmented, more firms competing than for rail

Early engagement fairly common

Innovation can be held back as there are long-term incumbents

Delivery constraints e.g. traffic management, local approvals (S278)

*

Road Local Authorities

Use of frameworks and some smaller adhoc local contracts

Contracts often NEC, but with a lot of local variation

More likely to be lump sum contracting, tight margins

Smaller, shorter term local projects

Can favour local contractors e.g. in Scotland

Less early engagement, more transactional

Innovation can be held back as work is price-driven

Delivery constraints e.g. traffic management, local approvals (S278)

Overview of nature of the market – Rail

Rail infrastructure projects tend to be slower to design and deliver and are more specialist, so can feel to others like more of a 'closed shop'. A few are concerned that public sector cost-cutting is affecting flow and [✂]

● Rail – Network Rail

Framework-driven – 5-year control periods (CP6/ CP7)

[✂]

Control period peaks & troughs, (early years design, then build)

[✂]

Perception of less investment/ work available in rail currently

Fewer, larger contractors, more specialist/ more accreditations

Real term spend fall of c.30% over 5 years

Fewer suppliers than 5 years ago due to less work to go round

Tier 1s go for smaller contracts due to less work to bid for

Hard for Tier 2s to win work vs Tier 1s due to tender requirements

Tier 1s push risk down the chain more so than in 'road'

[✂]

Some early engagement, [✂]

Innovation can be held back by [✂]/ few competitors

Delivery constraints e.g. [✂], 'possession'

Ageing workforce/ staff loss – fading industry/ sense of nostalgia



Tier 2, rail



Tier 2, rail

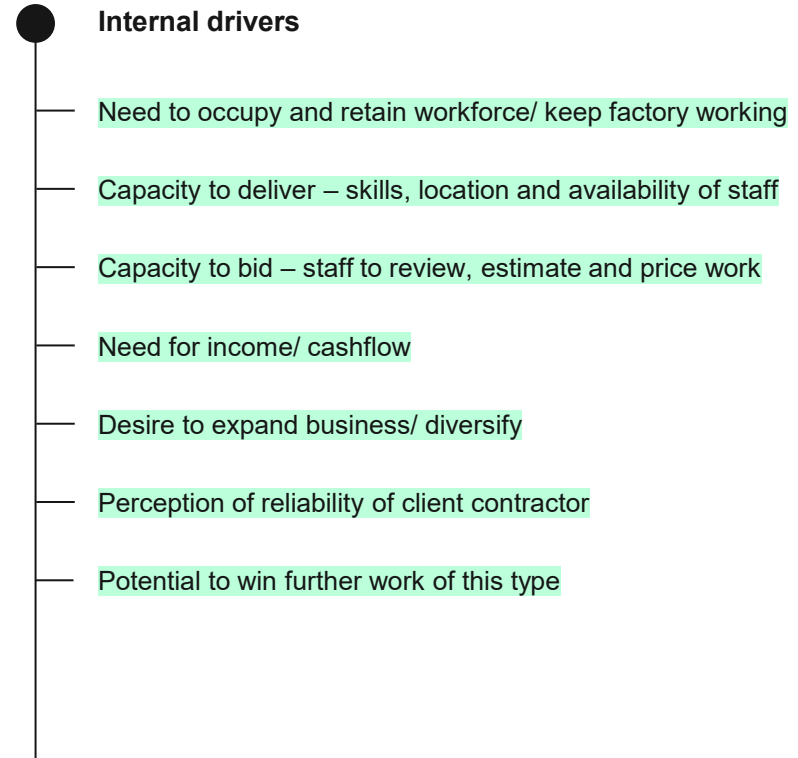
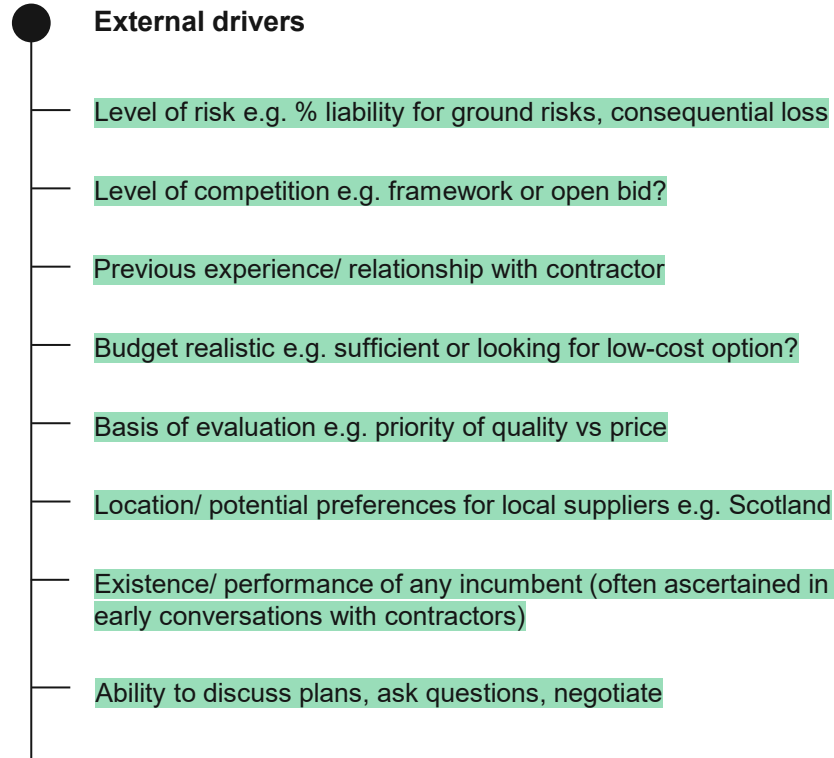


“And there's so many sort of ‘white tapes’ to work in rail with sort of competency cards and stuff like that. We've had to let them go because there's basically no work. To go out to work in construction probably costs about £300 in competency cards in terms of the highways. With rail, you need a thing here, we call ‘PTS’. So, if you're working near a site, or online on track, lineside on track, you can't go on there without special competency, and it costs thousands of pounds to renew.”

Tier 2, road and rail

Drivers of decision-making around whether to bid for subcontracts

The nature of the market influences choice of whether to bid – but so do internal business needs and goals. It's a multi-faceted decision, balancing risk vs reward.





So a good example, we had a job which was really, really small, like £10 grand, and they wanted it to be unlimited liability. And we're like, no way. You could sue us for millions. So, yeah, we had to walk away from the contract. So that's a big sticking point. And it's a big problem. And when you get asked to tender for works, a lot of the time you won't get a contract. So, you'll ask the company you're tendering to, what form of contract is it? Is it FIDIC? Is it NEC? Is it option A, B, C or D? So I've tendered for works where we received the offer. The contract that was offered was an option B, then it became an option A, then it became an option C, then it eventually became an option B. It took six months to negotiate that contract before we could start our works.

Tier 3



A good portion of our work we're looking at future potential. So you might be looking at one job now, but is there five similar jobs down the line that you might be in a good position for if you take this one? So, it's looking at future potential, it's looking at clients. Is it a client we've worked for before, is it a client we haven't worked for before? Have we got confidence in that client? If they're a bad client, they're known for not paying well or paying late things. Right, no, we'll ignore that one. There's a lot that goes into it and also at that point in time, we're also looking at our workforce internally. So, have we got the workforce available to deliver it? We do a lot of work, but everyone has a limit. How many contracts managers, surveyors, estimators have you got? Can you even spend the time to price it right now or are we busy?

Tier 2



But what's not helpful the last three, four years, is a sort of change of direction every three, six to 12 months. The fact that you (public sector) make clear commitments and then you take them away down the line, where a whole supply chain and I've been mobilizing. I'm talking about major project. But that is that. So, I think that clarity, sticking to your plan, sticking to the timeline and basically not going back onto decisions without properly thinking about the consequences to supply chain.

Tier 2

Tier 2, I think is a bit more manageable for us in terms of pipeline expectations on work. Tier 3 can be a bit more reactive. Tier 2 is definitely a lot more preferential, strategic position where we're able to plan work in, work with the client to develop work programmes. Whereas Tier 3, you're reacting all the time.

Tier 3



04

Overview of key barriers which limit firms' access, entry, expansion and innovation

Overview of key barriers – ability to compete

The most commonly mentioned barriers can deter firms from even accessing or considering some public contracts



Project uncertain

Pipeline of work not guaranteed

- Contracts potential to be delayed/ cancelled
- No guarantee of future pipeline of work meaning it's not worth investing in extra headcount/ skills/ equipment
- Frameworks not bringing any guarantee of work and affecting flow of work (lulls at start/ ends of 'control periods')



Risk/ liabilities

Too much risk transfer

- Near universal mention – often early or throughout interviews
- The level of risk being passed down the chain to subcontractors is a key barrier
- Risk being transferred down to subcontractors by public authorities, consultants and Tier 1 and 2 subcontractors
- Common use of multiple subclauses in contracts to enable this



Access

Insufficient contacts/ accreditations

- Eligibility requirements can be onerous e.g. multiple accreditations
- Tier 1 commissioning based on awareness/ existing relationships Tier 2 suppliers (and similarly for Tier 2 with Tier 3 suppliers)
- No access/ lack of ECI
- Some invitation-only tendering to established contractors



Pricing

Budget does not fit cost/ risk

- Low/ fixed price contracts for projects with unknown risks e.g. ground conditions not known
- Heavily price driven bid evaluation for some projects, with lower consideration/ points given for quality

Overview key barriers – the bidding process itself

These barriers are also commonly mentioned and can deter firms from bidding and add cost if they do bid or win work



Frameworks

Frameworks rigid/ limiting

- Increased use of frameworks can bring positives for suppliers who are involved, but no access for that type of project for several years for those not on the framework
- Frameworks bundling of projects/ limitations based on company size
- Frameworks and portals hindering engagement/ detailed discussion on complex projects



Bureaucracy

Burden of information required

- Evidence of previous public infrastructure work/ scale of projects seen to favour incumbents, even among those with relevant experience
- Evidence of fulfilment of wider criteria (Health & Safety, Social Value etc) required multiple times/ in different formats even if on a framework
- Time/ cost burden of preparing bid e.g. “£200,000 cost”



Poor design

Design inexperienced or not finalised

- Poor designs leading to multiple contract variations and negotiations during delivery
- Frameworks and portals hindering engagement/ detailed discussion on complex projects



Onerous admin

Future reporting burden

- Onerous reporting requirements/ change documentation during delivery



05

Experience of subcontracting and project delivery and challenges at each stage

Pre-engagement – Awareness and access

Pipeline of work can be uncertain or unpredictable in terms of access, volume, timing

Nature of the process

- Firms often have some established relationships with higher Tiers and sometimes with public authorities
- However, the pipeline of work can be unpredictable and future policy unclear
- Sometimes short notice/ short turnaround time for bids
- Different criteria and ways of working for different public authorities and Tier 1/ 2 contractors
- Access/ awareness can be restricted:
 - Perception e.g. firm not seen as big/ sufficiently experienced enough
 - Invitation-only tendering to established contractors
 - A reference of requirement to pay to be on one Tier 1 'approved supplier list'



Benefits

- Access to frameworks and established relationships can help with finding bid opportunities and stability/ regularity of work
- More control/ influence/ advantage for firms who are involved in design as well as delivery of their specialist area and who access Early Contractor Involvement (ECI)



Challenges/ Barriers

- Access to frameworks and established relationships favours incumbents making it harder for newer firms to bid/ win work
- Unpredictability is more easily weathered by larger firms able to commit resource or be flexible with capacity
- Harder to gain experience/ credibility in new areas as ways of working can vary e.g. variations across Local Authorities or different regions within Network Rail



It's very much driven by major frameworks and typically driven by contractor-engineer relationships in that space. Or then you've got the local authority space which is very much about, you know, having an office, a relationship and that element. So, I think you've got a limited number of firms actually that can compete for any sort of local authority projects.

Tier 2

There are rules and no one would ever admit to it, but certainly [X]. It can be approached now only through quality scoring, but it can (still) be approached in a way that favours who you want to do the work, albeit generally it still comes down to price.

Tier 2



You know, I do a lot in the water utility sector and again those frameworks, I've just won one now which is eight years. I know it's eight years, but the last one I had actually ran and that was originally for four years. So, the roll on an extension of these things, you know, it's great if you're in it, but if you're not, you know, you don't know when you're going to be able to get in or when you even have a chance to get into it.

Tier 3

One other one is experience with clients because a lot of them look for experience with a specific client, as in like Network Rail. They look at experience in the industry, whereas you might have all experience in the world as a Tier 2, but you don't have as a Tier 1, and then you struggle to pass that element of the PQQ.

Tier 2



I was in this situation at my previous company whereby we went for a framework, we won it or won a place on it. And then what they ran out of that framework was rather than commissioning jobs through the rates on that framework, they would send out what we call mini-competition tenders. So, each job was a mini-competition tender. You had all the scheduler rates for the items that were needed to do the job, and you had the chance to reprice them. And the idea of that was you would reprice it as cheap as possible at the time to try and win it.

Tier 3

Pre-engagement – Design

Insufficiently advanced or inexpert design can lead to issues in terms of cost and delivery

Nature of the process

- Loss of some public sector in-house project managers and designers/ expertise
- Often Consultants/ Tier 1 firms are involved in design only and subcontract all work on the ground to Tier 2 firms
- Some highlight unclear/ inexpert/ poor designs, not sufficiently informed by specialist knowledge or sufficient surveying of the site
- Some Tier 2 and 3 firms do not have contact or influence at design stage/ early engagement with public authorities



Benefits

- More control/ influence/ advantage for firms who are involved in design as well as delivery
- Some incumbent firms have the competitive advantage of being able to influence design, especially those who:
 - Operate sometimes as Tier 1 firms, as well as Tier 2 (or even Tier 3), so are known to public authorities
 - Have joint existing partnerships/ relationships with Tier 1 firms
 - Have specialist skills/ services that the Tier 1 firm does not have e.g. traffic management



Challenges/ Barriers

- Poor/ inexpert design and delivery skills in-house meaning insufficient challenge from public authority to consultants/ Tier 1 firms
- Poor designs leading to multiple contract variations and negotiations during delivery or last-minute changes that add to cost/ timing
 - A few cases of bidding to win work but based on design work that is seen as inexpert, ill-advised or not feasible
- Tier 1 consultants designing in issues at the start of projects that have few negative consequences for them but lead to ongoing variations/ challenges for Tier 2/ 3 firms who implement (feasibility/ cost/ timing). Participants tended to attribute this to consultants' lack of experience on the ground, but some alleged it could be done intentionally in that extra design revisions can make the consultants more money



And so, what happens is you end up getting so far and then you're like, actually it doesn't work, so you got to go back to the drawing board and start all over again with the design. And then it ends up costing everybody a lot of money because we get our cost, obviously we have to get our cost reimbursed, design is not our fault.

Tier 2

You end up coming up with problems like you've got to do some work, and they say, 'oh we can't do that work because that works blocked up, we need a new line there' and before you know it, your price of £1 million has doubled to £2 million because the design has failed, and they've not researched the job enough.

Tier 2



The contracts are often let before they're fully designed, and the designers change them. And when you change it, when you've got a construction site there with preliminary costs of say £100,000 a week just to be there, whether it's producing work or not, it's a lot more expensive at that stage in the process to be changing designs and Tier 1s and Tier 2s are seeing it over and over again where you get to site and then it changes and it changes and it changes and you almost end up with change on change on change, rather than spending that bit more time getting it right, making sure you can build it before you actually go there and do it efficiently.

Tier 2



*So, because of that, when I do a design or any of my team do a design that will go to another person and another person and another person, there might be 10 steps before it gets to the lads that are actually installing it on site. So, there's no telling what decisions are made with our design. **Tier 2***

*This literally happened to me today. I've been told I need to go to site next week, install instruments, get everything sorted before Friday before they start piling a bridge. And I haven't provided a quote, haven't got an order, haven't purchased the equipment, I haven't written a risk assessment method statement and that's, how this industry works. A lot of the time I've got to get a quote to them tomorrow, try and get everything sorted, get an order off them, get resource, get equipment and get on site and get it all installed by Thursday. **Tier 3***

Bidding process – Frameworks

Frameworks are becoming more common and can help both drive and hinder firms' resilience and productivity

Nature of the process

- Commonly used e.g. by Network Rail, National Highways etc
- Typically accessed via online portals
- Frameworks require initial assessment to join and competitive bidding by contractors on individual projects being tendered
- Framework arrangements can last several years, and can roll over e.g. up to 15 years
- Some frameworks have eligibility criteria within them e.g. limitations based on company size
- Frameworks tend to work on 'control periods' with reviews in between
- Feedback is given on failed bids, but information can be limited and come via procurement team/ non specialists



Benefits

- Can help provide stability and repeat work
- A steadier pipeline of work can help keep resource in use and build skills (less need to spend time and money to release/ rehire/ retrain staff)
- Fairer/ level playing field within the framework
- Better odds of success - avoids excessive number of bidders for open tenders/ low win rates



Challenges/ Barriers

- Lulls at start and end of control periods and policy planning cycles/ changes can pause/ affect pipeline of work
- No access to that public body/ project type for several years if not on the framework
- Frameworks advantaging larger players:
 - Bundling of projects
 - Limitations based on company size on some frameworks
 - Burden of information required to bid (see next slide)
- Major tender to get onto a framework but there is still competition and onerous mini-tenders to win projects – and no work guaranteed
- Frameworks and portals hindering detailed discussion on complex projects
- Evidence of previous work on public infrastructure seen to favour incumbents



They seem to be getting longer and longer, these frameworks. If you don't get on them, you're going to be out for a long time.

Tier 2

A lot of times we don't get invited or we're not able to bid for frameworks, Again, we're not quite geared up because we're not a Tier 1 contractor. You tend to find frameworks are overarching and it says, right, you will maintain this stretch of highway, the next 10 kilometers, or the next 10 kilometers of this rail section and you tend to find they're Tier 1 contractors because they're a jack of all, master of none.

Tier 2



So, for the larger frameworks, I feel it's a bit difficult to break into them when you don't have experience on larger frameworks, let's say on network grip.

Tier 2

The world of portals is something that's definitely changed. Again, there's a lack of personal engagement, face-to-face meetings and discussions, a lot less than used to go on and it makes it a lot harder to say, well, I've spotted this is wrong.

Tier 3

To be honest, you're working with these platforms is a bit challenging, you know, because not every person who wants to work within these systems need to get trained. There are specific items that you need to consider. If you don't know, you will miss some level of detail.

Tier 2



We're constantly asked to commit to so many things to get onto a zero-value framework. You promise that you will do all of these things for carbon emissions, you promise that you'll make efficiencies, and we do not promise you £1 of work. [✂] We're going to ask you to commit to things that cost thousands of pounds and we're not going to guarantee one bit of work.

Tier 2

Bidding process – Bureaucratic burden

The information requirements during bidding are onerous and wide ranging and add to cost of bidding

Nature of the process

- High volume of information required to bid (even if on framework)
- Can feel like information is required multiple times/ in multiple different formats across contractors and projects
- Evidence requirements can include:
 - Evidence of previous work on public infrastructure
 - Accreditations e.g. Constructionline Gold
 - Evidence of fulfilment of wider criteria (Health & Safety, Social Value etc)



Benefits

- Better odds of success if you're an established player with experience and resource to provide information in the right way
- Transparency
- Accreditations provide credibility
- When the tables are turned and firms are doing the subcontracting a third party, accreditations help with assurance/ eligibility checks



Challenges/ Barriers

- Time/ cost burden of preparing bid e.g. “£200,000 cost”, days spent by survey/ legal experts assessing whether even to bid
- Evidence of previous work on public infrastructure seen to favour incumbents and reduce interest in bidding for smaller/ new entrants to the market
- Accreditations can be costly to acquire and may not reflect actual capability, excluding smaller/ newer entrants
- Accreditations are not centralised/ different accreditations required by different contractors e.g. business “registered on 15+ platforms”



We have SSIP accreditation, so Safe Systems in Procurement accreditation. And that is where it's a good standard to have. It is a good standard to have. And it's, it's the whole construction and civil engineering industries behind it. But that is where the compliance firms have said, oh, we'll offer the gold rating now, where you have to pay £7,000 a year Constructionline Gold. And some contractors say you have to be gold, which they don't really have to say. And that limits a lot of smaller medium enterprises if they're a Tier 2 or Tier 3. We actually meet safe systems in procurement standards. The gold is really a marketing thing. Some companies - thankfully, I don't think the public sector have - but some Tier 1s or principal contractors have said, yes, we need Constructionline Gold. And it's a nonsense

Tier 3



The New Engineering Contract (NEC), that's a great contract, but not many people truly know how to run them. The clients are employing legal people, and they are applying court clauses [that dictate how legal disputes will be handled] to NEC. They are what you call Z clauses. The devil is in the detail. They're getting lawyers to overwrite in these Z clauses which are basically removing all the benefits of an NEC contract. It's absolutely ridiculous. You know, the market is just not functioning smoothly because of all this sort of designer chaos, legal chaos. If people were more simple and straightforward they would save so much money.

Tier 2



It's a third-party accreditation that basically does the work for us. So, had we done it ourselves for every member of our supply chain (and there will be hundreds, if not thousands), we would need to go out and accredit whatever quality [standards], 9001-140001-45000. We would need to go and make sure they have all that and they are keeping it up to date, they're maintaining it. That's a lot of work on our procurement department. Whereas Constructionline Gold are set up as a business who will do that for you. If you get the accreditation, then we know that they are checking up on all that stuff. So, it means we don't have to do it. So that's why we use them.

Tier 2

Bidding process - Bureaucratic burden: Accreditations

Examples of the variety of accreditations and other competency/ qualification schemes mentioned

Procurement & Quality Management

Constructionline Gold (~£7,000 annually)

ISO 9001 (Quality Management)

ISO 14001 (Environmental Management)

ISO 45001/ 45000 (Occupational Health & Safety)

SSIP (Safety Schemes in Procurement)

Site Access & Competency Credentials

PTS (Personal Track Safety for rail)

Competency cards (highways ~£300)

Rail risk certification (~£15,000 annually)

Sector specific qualifications

Sector Scheme qualifications (for painting, steel fabrication)

Execution Class 3 (minimum for steel work on roads)

PADS numbers (Network Rail Product Approval Data Sheet)

CE marking (product certification)

Manufacturer approvals (authorised installer status)

Professional Memberships

British Drilling Association

British Tunnelling Association

Federation of Piling Specialists

Association of Geotechnical Specialists

British Geomembrane Association



“So, what we have is product approval in the rail industry, managed by Network Rail. So, it's a very, very stringent set of rules, processes and procedures you have to go through where you demonstrate that your signal, or whatever equipment, meets the relevant standards for the railway industry, has been obviously produced correctly, in a form where there's traceability within it and it demonstrates it can meet those standards and any performance requirements. Once you've done that, you're given a number PADS, that the industry can use as a standard. So, if a Tier 1 or Network Rail says, right, we need PADS, then that actually means I can order our kit. So that's a very lengthy and expensive process to go through and has and still remains constantly a barrier to entry for other people getting into the rail industry

Tier 2



You know, you can say that you've got, 9001 and you've got the 14,001, environmental, health and safety etc. You have all these in place, but then you've also then got to say, this is how we will manage this particular project. You know, you're having to put a programme together for projects. It can be very, very time-consuming. Say you're interested in the project, then get invited to tender and then go through the tender process. The amount of money that we spend on the quality side of it. I think it's important but maybe there should be a recognised standard, one off for our type of contractor, where you prove that you can meet certain quality standards. So, if you've got the ISO tickets, why do you then have to demonstrate?

Tier 3



They're all looking for basically the same information. They want to know can you do the job? Are you qualified? What's your health and safety like? Those kind of standard things. If there was a, you know, a kind of a central database of all this to negate some of that, I think that would help both of us as a contractor, as a supplier and the contractors as well.

Tier 3

I think my rail risk certification last year was about £15,000. It was like, well, I've got to do a lot of work to make that back in profit, so I'll just go and do something else. It actually puts you off

Tier 3

Bidding process – Non-standard contracts and increased risk

NEC standardisation of contracts is helpful in principle, but extensive use of subclauses adds legal cost/ time and can lead to subcontractors avoiding certain projects or pricing in risk

Nature of the process

- NEC4 standard contracts commonly used - however, most cite regular addition of multiple variations via Z clauses e.g. “10-page NEC contract, with 100 pages of subclauses”
- Subclauses can:
 - Pass on liabilities e.g. ground risk
 - Restrict change mechanisms
 - Amend payment terms e.g. payment retention/ slower payment terms than the Tier 1 contract for Tier 2/ 3 firms e.g. payment in 60 days not 30
- Risk can be transferred by Tier 1/2 contractors, consultants and public authorities. Risk transfer can vary based on institution/ firm but also individual preferences
- Risk varies widely based on scale and type of firm and service provided
- Construction Playbook not well known – where known it is helpful in principle, but application by those commissioning is mixed



Benefits

- Civil engineering in public road/ rail as a whole carries less risk as public bodies don't go bankrupt
- Can appreciate there is public value in reduced risk of delivery and cost risk (and that it's not just public sector wanting to be difficult!)
- Better odds of success if you're a larger firm with resource to review/ negotiate/ manage risk



Challenges/ Barriers

- Risk carried by contractors least able to shoulder it or influence initial designs/ brief
- Adds legal cost/ time to review and consider non-standard aspects of potential contract
- Subcontractors “pricing higher to cover risks” (especially where NEC ‘A’ contracts used)
- Increased risk of disputes
- Process favours larger firms able to commit resource/ can make smaller firms more selective on what to bid for
- Delayed payment terms can hinder cash flow
- Low profit margins and/ or delayed payment terms can hinder ability of Tier 2/3 firms to bid and to invest in innovation/ new methods



The other thing to mention, actually, these NEC contracts, they're supposed to be standard forms of contract that everybody knows what the wording is and what the risk is. By the time you get that contract, it's probably been – I want to use another word, but I can't – bastardised about 10,000 times and been amended so much that it doesn't resemble the original form of contract. And that is a big problem, you know, in terms of, again, people mucking around with liability, and mucking around with a form of contract. And if that didn't happen, that would make procurement a lot quicker. And it's not what's supposed to happen with the standard formal contract.

Tier 3



Ground condition is one of the risks we carry as a groundwork's contractor. So, if we found something that wasn't supposed to be here, that would be our risk to deal with it. We don't tend to accept design liability. So as such, if we turn around and we say, we were supposed to build a wall here. That wall is not fit for purpose. The Designer would have to come back with a solution, and we should be entitled under contract to amend our price in relation to the new solution.

Tier 2

*I mean, where the consultants are driving this, they're doing it entirely based on their experience, where they've got good results from previous things. Again, they are trying to win the work from councils. If consultants, if they don't get results, they don't get work. So, the more results they get, the more focused in on a way of doing things they will become and then that's what they'll promote. **Tier 2***



So, they're always playing with the contract. And what that means is it doesn't always work. When you've got your experts from maybe the six largest contractors in the country or the six largest consultancies, they're looking at this contract and how it's actually going to work, through the winning strategy right the way through the delivery, people pick holes in it because it's been changed so much. So, one Z clause might impact 10 standard core clauses.

Tier 2

*We are getting sometimes asked for levels of PI insurance which aren't readily available. So most professional indemnity insurances are on an aggregate basis. So that could be basically five claims at £2 million. Whereas some, some public bodies, I'm sure are looking for £10 million each and every. **Tier 3***

Bidding process – Pricing

Pricing models vary based on scale and type of service being provided and do not necessarily promote efficiency or innovation

Nature of the process

- Some contractors/ projects are focused on finding the cheapest bidder, whereas some framework tenders now put more value on quality not just cost
- Pricing models vary based on scale and type of service provided
 - Fixed price often for renewal/ maintenance
 - Target contract with activity schedule often for higher risk enhancement/ ad hoc projects
 - Some use of bill of quantities e.g. day rates for labour, and cost-plus



Benefits

- Fixed price offers cost control/ value for money for public sector
- Activity schedule often a way to highlight the expertise of the business and the quality/ feasibility of approach
- Target cost contracts can be more collaborative/ offer shared risk and problem-solving



Challenges/ Barriers

- Fixed price/ lump sum contracts can be a financial risk for firms if project scope unclear/ unforeseen
- Good firms may avoid bidding on price-driven contracts to avoid 'race to the bottom' on price (and avoid existential risk)
- Firms underpricing to win work make competing hard and can add cost in the long run. This can be:
 - Intentional under-costing – firms trying to win work at a loss/ no profit to generate credentials or expertise/ keep staff working/ or with the aim of renegotiating variations at later stage
 - Unintentional under-costing – due to error/ inexperience/ failure to understand risks, which again can lead to variations/ renegotiations/ disputes/ failure to deliver
 - Delivering lower quality work – e.g. using lower cost, less high quality/ resilient materials that require more maintenance or have shorter life-span
- One case of overseas contractor in Ireland offering prices that cannot be matched by a UK firm as receive Republic of Ireland government subsidies.



*I think when we're in a competition we're always mindful of price and they need to be as competitive as possible. It is still a cost-driven sector. People talk about value all the time, but in reality, it is still very cost-driven. And I think whatever your role as a subcontractor, I think that's still a big part of it. **Tier 2***

*The most important part of a contract is scope. Get the scope right and you can get fair prices from everybody. The scope is the best way of levelling the playing field. **Tier 2***

*How do you start doing something? Really? You have the best price ever. **Tier 3***

*Right now, there is a company who's trying to move themselves up, so they are bidding stuff very low to win some more work. So, they'll lose money on a couple of contracts, but then you'll get the evidence of working on those contracts, so they'll make the money further. **Tier 2***



*We can go on different versions of (NEC) and there has been a few targets costs which are option E where we would tell the client we expect to spend £150k and then that can vary where things go wrong or things go better. But the preferred option everywhere we go is option A which is a fixed lump sum. **Tier 2***

*It's actually a cost-plus design and build and I still see it as quite risky. Even though it's a 50, 50 split in profit and loss over a certain point with the client. It's still very risky when a design isn't fully developed. There's a lot of comments on a design that you inherit and you take it forward to AFC (Approval for Construction) stage. I find that very risky from a cost certainty perspective and from a contracting perspective. **Tier 2***



*The scope may still be a bit wishy washy because an activity schedule is basically you will do this type of work, whereas if you have a bill of quantities, (NEC) option B, that is the type of contract I prefer. It's a bit more granular in terms of the breakdown and then the thing that changes, the quantities go up and down and you price for 10 days and it takes 5 days or it takes 12 days, but you've got an agreed rate. **Tier 3***

*Now the innovation that we've come up with, it does stuff faster and it does it cheaper. Now we've got contracts on two roads, annual contracts to use our patented technology because they know it's saving money. Whereas if we go to a Tier 1 with it, who's on a 15% uplift on whatever, if we go to them and say, well look, you don't need to do it that way anymore, we can do it this way and it'll give you a 25% saving, they're completely turned off because they're only going to make 15% of the lesser figure, right? **Tier 2***

Delivery - Contract management

Uncertainty of public policy and upfront design issues and can impact business cost and productivity

Nature of the process

- Some mentions of projects put on hold/ delayed due to policy change e.g. local road enhancements or slow government processes e.g. granting access permissions
- Some report high degree of contract variations on projects mainly driven by inexpert/ unclear/ poor initial designs
- Some mention detailed project reporting/ compliance needs from public sector/ Tier 1
- Some refer to extended payment terms set by Tier 1 firms (may be different to terms set by public authority)
- A few mention multiple consultants/ Tier 1 managers on site
- A few cases of use of project bank accounts



Benefits

- Civil engineering of public road/ rail overall carries less risk as public bodies don't go bankrupt (unlike private ventures e.g. Carillion)
- Fewer mentions of issues in general of Tier 1 and 2 contract management day-to-day (where there is frustration, it is more with the original policy, contracting and terms)
- Project bank accounts providing more financial certainty/ more collaborative



Challenges/ Barriers

- Time/ staff lost to other projects/ firms if contracts are delayed significantly or cancelled
- Contract variations requiring time and cost to renegotiate
- Burden of reporting/ compliance e.g. 2 members of staff who just fulfil this need
- A few report extended payment/ lack of adherence to payment terms (which can just be poor management) affecting cashflow
- If multiple consultants/ Tier 1 managers on site, it can make liaison inefficient for Tier 2s. Plus, some seem less incentivised to stick to timetable/ avoid delays as can get ongoing management fees
- Project bank accounts inconsistently applied (example of one being 'empty' when there was an issue), create extra admin and Tier 1 provider can still dispute payments/



*I mean, in some cases, we could be waiting, let's say 12 months to get paid for a variation because we're wrangling over, you know, what the value of that change would be and that can put a Tier 2 and Tier 3 under a significant cash flow pressure. We have seen that in the past on infrastructure projects, mainly rail, to be fair. **Tier 2***

*All right, So a lot of the Tier 1 have set up a project bank account with National Highways. When National Highways pay the Tier 1, they pay the money into the project bank account. So, the Tier 1 can't access that money. All they can do is pay the Tier 2s out of it. So, if any of the Tier 1s go bankrupt like Carillion did (this was the reason why they were set up, because of what happened at Carillion), in theory, that money's still in the project bank account, so all the suppliers can get paid. **Tier 2***



We're doing loads of work, and we're not getting paid for it. Even though we're invoicing, the debt's going up, we need money in the bank. So then do you stop work and say, we're not doing any work that could put you in breach of your contract. So how that works is, you have to work that out between you as the project's going on.

Tier 3

I don't know how the finances work with them. Whether they're annual and then I've worked in other organisations not on highways or rail and like come February, March, they've still got a big budget which you've got to spend and it's like they're just throwing it everywhere notice and get it spent till before April.

Tier 2



The client (Tier 1) at the moment's got an easy ride of it. They just give it to someone (Tier 2) and let them sort it. I think a lot of jobs you could miss out the, the principal contractor, the Tier 1 and go straight to the subcontractor because there's a lot of management on site. So, we love an engineer, they love three engineers. Why do they need three engineers when we're delivering the works?

...Plus, you've got 45-day payment terms. So, you've got to be cash rich to have a business this day in construction to sort of wait for money. You're always running behind two or three months.

Tier 2



06

**Suggestions from businesses on improvements
to the market (in order of importance)**

Financial certainty and better fiscal management

Take long term views over funding – stick to commitments (mentioned by several, failure to address has wider consequences – e.g. small contractors go out of business, which reduces competition)



Multi-year funding

- Contractors would like to see longer term, ring-fenced funding available
- CP7 promised this, but has failed to deliver it
- Too much funding based around 12-month cycles and this leads to multiple issues downstream
 - Projects start before ready
 - 'Build' phases rushed because 'Design' took too long
- Worse for local authorities, but does happen on National Highways frameworks too



Funding certainty

- Being on a framework used to imply certainty for contractors
- Feeling is this no longer exists. Contractors appreciate frameworks still mean competition, but would like some certainty around levels of funding available long term via a framework
 - Mentioned in context of rail more than road



Fairer payment terms

- Some evidence of 'paid when paid' practice, which puts squeeze on smaller contractors
- Some clients/Tier 1s try and insert clauses pushing payment terms out to 90 days – does not work for smaller contractors who want 30 days max
 - Often spotted, but contractors would rather not negotiate over this

Shared liabilities

Standardise approaches to contracts so that risk is shared (also mentioned by several participants as having broad impact when risk apportioning is not fair)



NEC Options C or E?

- Contract types appear to vary widely and there is an appetite for more standardisation
- NEC Option C explicitly shares risk – cost overruns/extra profit are shared, and contractors like this approach
- NEC Option E (cost-plus) also offers contractors some protection
- Both these options viewed more positively than Option A (fixed price) where risk is often pushed down the chain due to all parties trying to work within a fixed price model



Allocate risk fairly/sensibly

- All projects involve risk. Smaller contractors feel the principal/larger contractors should take on more of this than they sometimes do
- This should be written into contracts
- Also felt that contracts should anticipate risk/contingencies better than they do and this causes problems further down the line
- Links to ECI, but also to wanting an open/trusting working relationship from principal contractor downwards



Reduce Z clauses

- Some Tier 1s insert a lot of extra clauses into standard NEC contracts – often designed to push risk onto Tier 2/3s
- Presented as 'take it or leave it' – again suggesting a hierarchical rather than partnership way of working
- Ideal would be to stick as closely to the standard NEC contracts as possible

Early Engagement

ECI should be standard (happens in road more than rail, but seen as best practice all round)



ECI where possible

- Early Contractor Involvement (ECI) generally regarded as best practice, but not always happening
- Where ECI happens, generally a sign of a collaborative approach led by the PA/Tier 1
- Some specialist Tier 2s believe they should be brought in earlier and can provide multiple examples where lack of ECI has led to project overruns (cost and timing)



Wait until 'buckets in the ground'

- Designs can be produced based on historical data and/or theoretical assumptions
- Tier 2/3s believe work should not start until the actual proposed site has been tested and taken into account in the design - 'buckets in the ground'
- Links to Option A contracts which state contractor has to 'deal with ground conditions' – leads to contractors increasing price to cover many eventualities



Inconsistency across Local Authorities

- Sense that more variability across Local Authorities in terms of both design competency and approvals processes
- Contrasts with national bodies like National Highways or Network Rail
- Makes it harder for contractors and can lead to some tending to shy away from bidding for this work
- Desire for more consistency across the country

Reducing bureaucracy

Reduce admin burden of bidding to increase efficiency/enable smaller firms to bid



Streamline procurement processes

- Some find bid requirements onerous and/or repetitive
- Contractors with past experience felt number of questions/documentation required was very time-consuming with full time bidding teams needed
- This favours larger contractors due to cost of maintaining bidding teams
- Should be a central portal which retains much of the info required after it's been submitted once
- Faster PQQ stage, fewer allowed through to final bid stage



Fairer access to frameworks / bids

- Smaller/specialist contractors would like Lots specific to their area to give them more of a chance to get onto frameworks – felt to favour larger/generalists at the moment
- Feeling that certain accreditations are unfair on smaller contractors, preventing them applying to get onto frameworks. Are these necessary?
- Greater standardisation around bids so can be confident bids are being compared fairly. Also, greater transparency for same reason



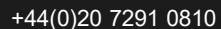
Less reliance on price

- Feeling that some (especially local authorities) overweight tenders towards price – disincentivises bidding for some and risks lower quality bids
- Contractors prefer a maximum 30%, but will accept 40/60 price/quality



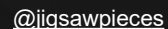
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