



Why do PI underwriters need to think about the quality of construction?

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The cost of poor construction quality and errors to the industry

The million-dollar question is in fact a £21bn problem

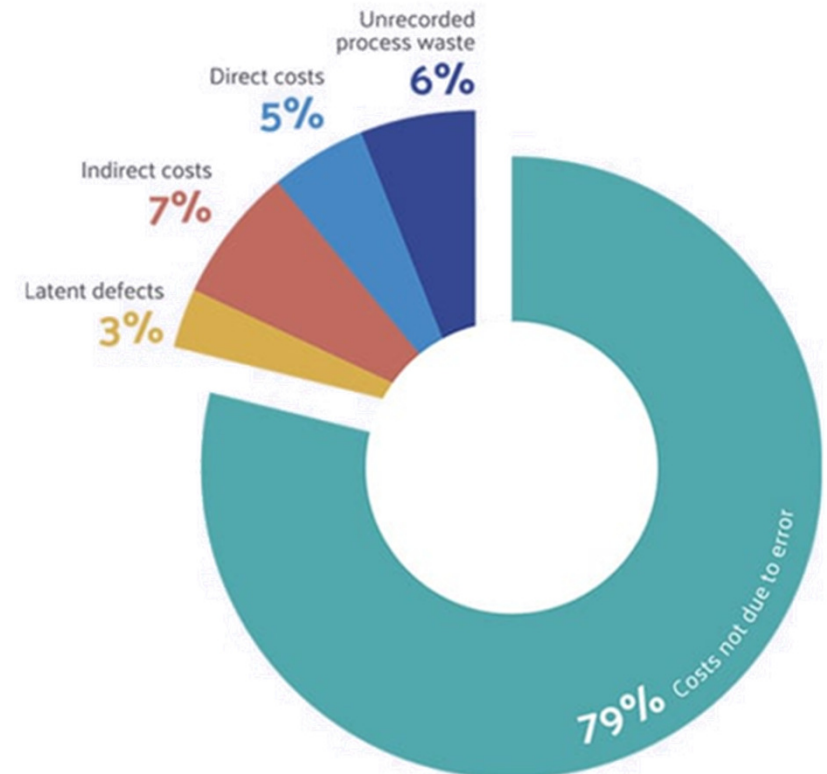
- UK construction: £100bn construction output in the UK. 7% of UK GDP. Employs 2.1m people
- Construction rework is the industry's *single biggest client*; 21% of all output.

- Cost of error is made up of four elements:

1. Direct costs - *the extra costs to put it right*
2. Indirect costs - *costs associated with investigating the error*
3. Unrecorded process waste - *unrecorded and concealed errors*
4. Latent defects - *errors that only arise post completion*



- Average construction industry profit margins are ~3%.
- Annual spend on error is ~7 times the total industry profits.



Construction suffering more insolvencies than any other sector

Construction Quality

HAVE I GOT NEWS
FOR YOU



News

Glasgow health board details claim against Multiplex

The Cole Report blames in Edinburgh schools

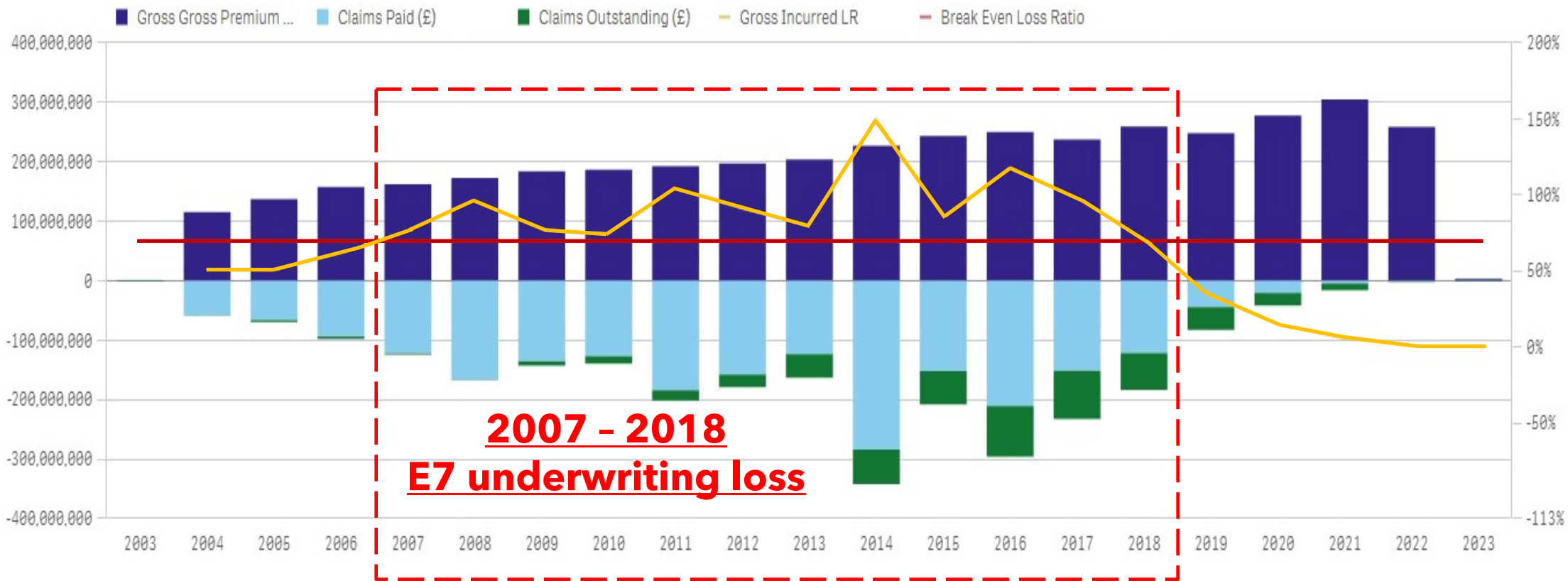
By Phyllis Stephen - February 10, 2017 6:53 pm 712 0

London developer to Hackney Wick flats over safety fears

L&G modular homes hit by problems

The cost of poor construction quality to the Insurance market

"We won't tolerate loss-making syndicates," states Lloyd's chief Patrick Tiernan



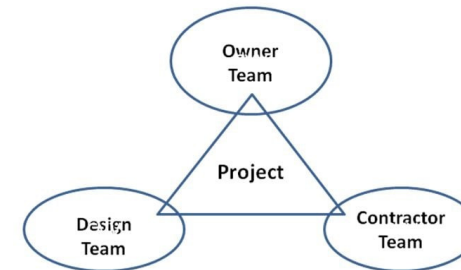
What do we mean by quality and who can influence it?

*Noun: 1. the standard of something as measured against other things of a similar kind
2. a distinctive attribute or characteristic possessed by someone or something*

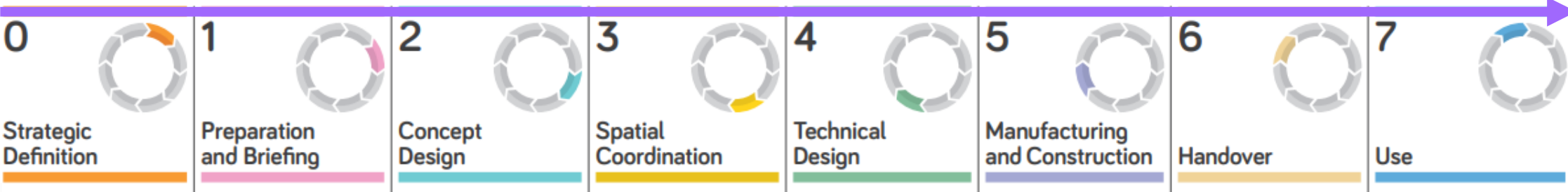
Definition of Quality

- Construction quality is difficult to define; an abstract term.
- Quality is a subjective outcome informed by the employers' expectations, the project team capability and expertise, contractual terms, suitability of materials and the execution of workmanship
- Quality is most notable by its absence
- However, defining it is critical. If not, it is impossible to achieve
- For the purposes of PI, quality usually means:
 - meeting and executing the technical design specifications;
 - delivering on schedule
 - costs within budget
 - working without dispute

Influencers of Quality



QUALITY MUST BE MANAGED THROUGH ALL PROJECT STAGES



Is poor quality construction an inevitability?

No, but it's hard to achieve in the current system

Construction is complex and unpredictable

- Every project is specifically designed and produced to suit its environment
- Huge number of physical and relationship interfaces
- Low profit and economic uncertainty leads to radical steps to survive, i.e. inferior products or techniques
- Times of low demand = incessant erosion of profit margin
- Times of high demand = further disorganisation and reduction in control
- Value engineering out project costs to make money results in an industry that is cost not value focussed

Construction is a fragmented system

- A huge and diverse range of consultants and tradesmen
- There is too much separation between the client, designers and the contractor
- Fragmentation can lead to non-standardised processes and undesirable outcomes
- Competence is patchy; professional and non-professional
- Fragmentation is more difficult to control
- A fragmented system will always be more adversarial

Culture and building regulations

- Passing the buck, assigning blame and passing risks associated with quality down the supply chain
- Responsibilities unclear
- Government strategic plans are making it worse: faster development; lower costs etc.
- Building regulations have been unclear and subject to gamesmanship
- Lack of independent supervision and inspection

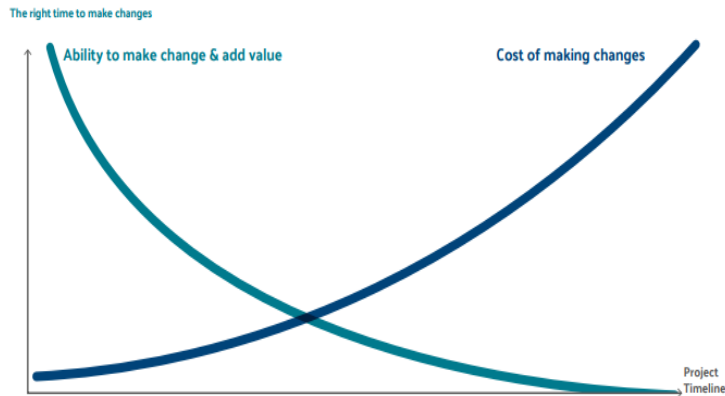
Construction is a complex system but the opportunity to get it right begins with the client and procurement

Client influence and tender process

Why are you still participating in the race to the bottom?

Client attitude and experience

A sole focus on lowest price is likely to result in mistrust, disputes and poor quality of construction



But what can the client do?

- Know where the cost and risk lies in their project
- Have compiled a "should cost" model
- Know what a sensible price is
- Select experienced partners

Clients need to be better informed of the consequences of poor quality and the cost of depreciation of their asset in later life

Budget for an independent clerk of works or resident engineer

Represents the interests of the client on site

Checks that the quality of both materials and workmanship are in accordance with the design information

Return to Two Stage Tendering

Single stage tendering can drive down costs, but with a lack of specialist expertise at the outset, is often a false economy.

Alliancing/Partnering

Basic or Integrated. Limits claims.

In theory all parties are working to the same outcomes and are signed up to the same success measures.

Enhance the philosophy of *your problem is my problem, and your success is my success.*

Early Contractor Involvement

Contributes to the early design process

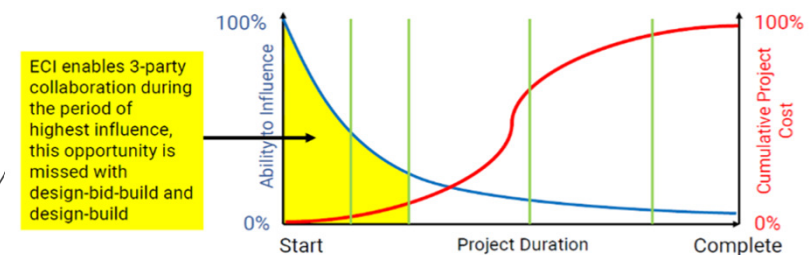
Introduces innovations

Enhances buildability, sequencing, and construction risk

Allows contractor more time to develop a construction strategy, recruit staff and identify partners

Helps develop the cost plan and construction programme

ECI Explained:





Quality in Construction

Getting It Right Through Insurance

4 July 2023

Kennedys

Quality in Construction



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Error

Occurrence & Causes

Kennedys

Error

Areas where costs are greatest

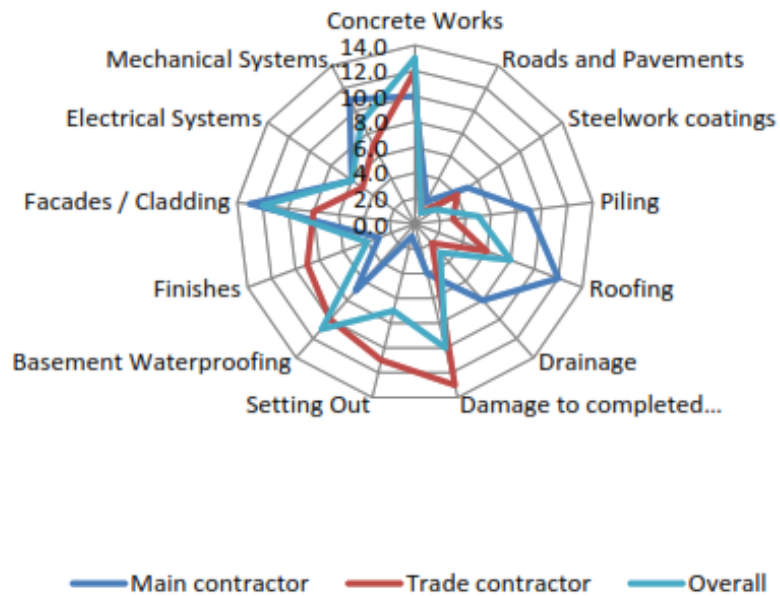
- Concrete works
- Mechanical systems
- Facades/cladding
- Electrical systems
- Finishes
- Roofing
- Basement waterproofing



Error

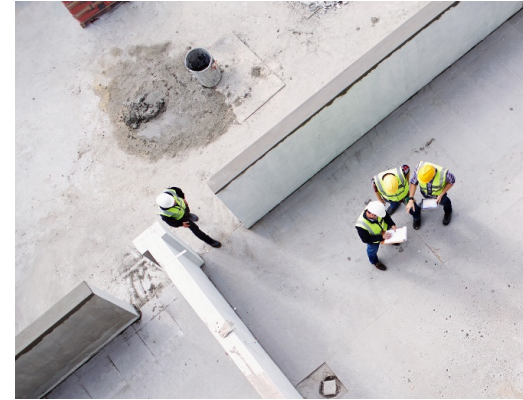
Areas where costs are greatest

A2. SURVEY: Error Areas Ranking - Building Sector
(high values are more significant)



Error

Root Causes



- Inadequate planning (from task through to project level).
- Late design changes.
- Poorly coordinated and incorrect design information.
- Poor culture in relation to quality
- Excessive commercial (financial and time) pressures
- Ineffective communication between team members
- Inadequate supervisory skills



Culture

Insurers influencing change

Kennedys

Culture

Quality - Safety

Dame Judith Hackitt's Report following the Grenfell disaster was scathing about the attitudes and culture of some of those involved in construction and the corrosive effect of the lowest cost procurement culture.

// Culture - the ideas, customs and behaviour of a particular society or group of people.

- Culture Change has happened before: assisted by legislation - Construction (Design and Management Regulations) 1994.
- Building Safety Act 2022 - may achieve something similar.



// It has been clear ... that whilst some parts of industry are willing to make changes, there has been a strong sense of “wait and see”

- Dame Judith Hackitt, Chair of the ISSG



Insurers can make a difference:

- Risk engineering
- Pre-Contract Engagement
- Construction Phase Partnering
- Sharing Best Practice



Quality Culture Competence

Paul Lowe
Partner
London

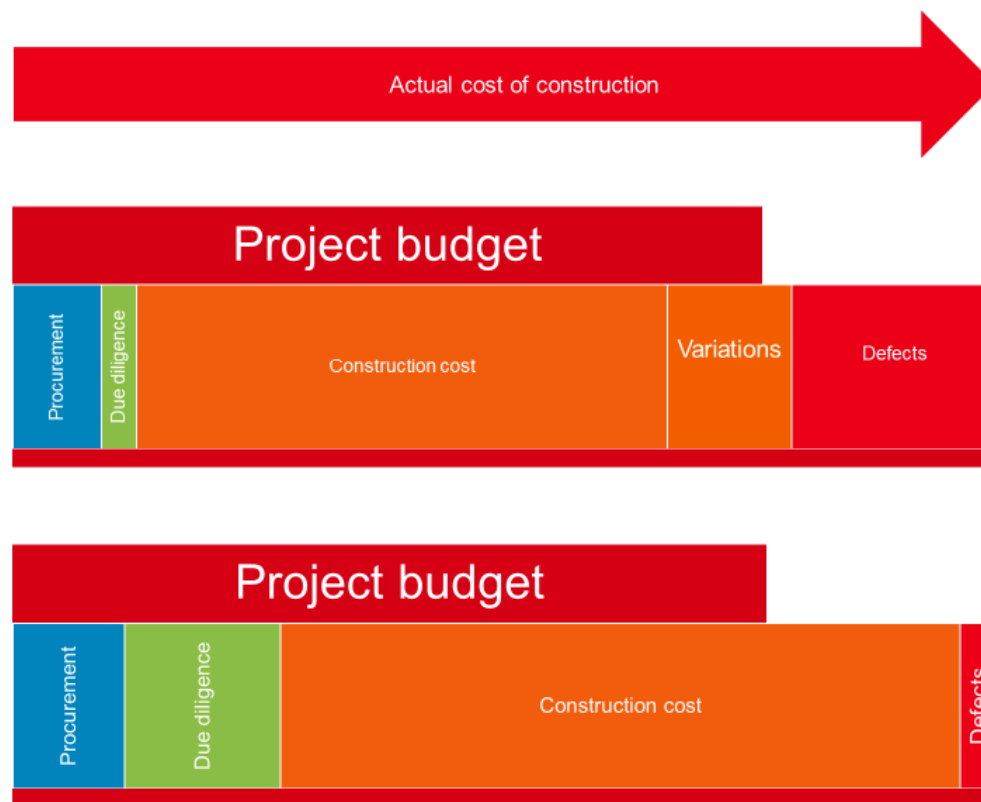
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What influences the cost of quality in D&B construction?

Does good quality cost the same as bad quality

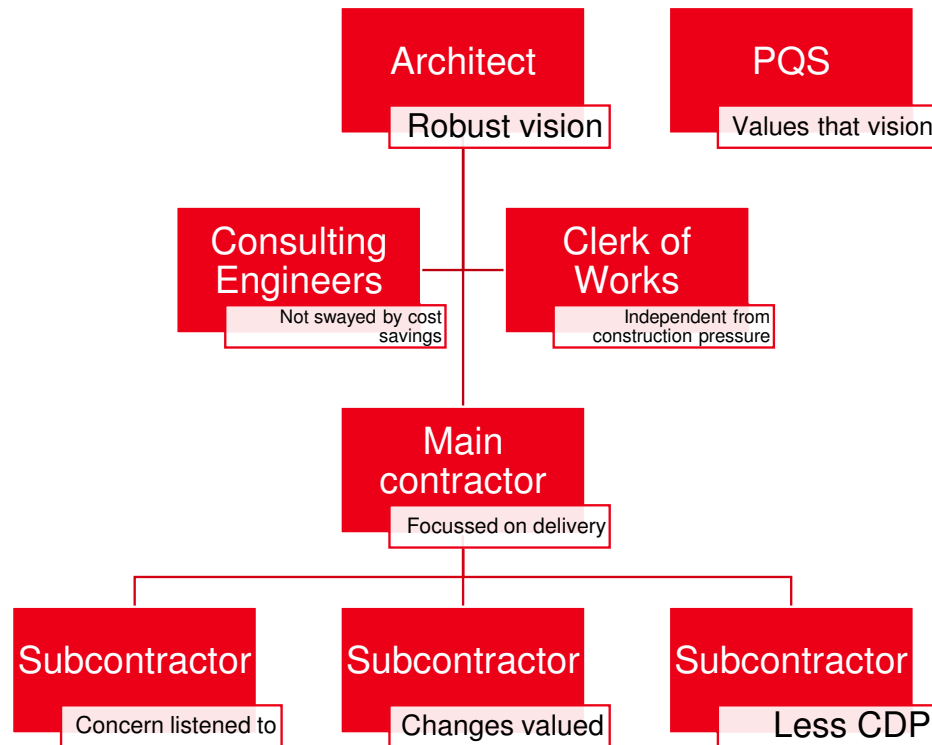
Due diligence often prioritises financial resilience of a (sub)contractor and its insurer's solvency!

Enhanced due diligence on securing specific skills to undertaken the works. Specialist managerial staff may be needed. Additional specialised designers or co-ordination specific designers. Validating supply chain design portions all need to the factored in.



Was it always this difficult?

What was different when the Architect led the team?



What did traditional contracting get right?

Architects took accountability for quality.

Clients buy into an Architects vision.

The Clerk of Works independence was key.

The main contractor can focus on delivering quality in the knowledge key changes would be valued in terms of time and cost.

- Motivated Project Manager
- Motivated Quantity Surveyor

Supply chain work with developed designs and less CDP (Contractor Design Portion). Those most qualified were undertaking the design.

What does the construction PI market ask?

Is it time to broaden the line of enquiry?

The status quo:

- Subconsultants due diligence on PI levels
- Vetting of supply chain (financial)
- Standard subcontract terms, i.e. net contribution clauses and waivers
- Risk concentration with key suppliers
- Proportion of fixed price contracts

An alternative approach:

- How does accident frequency vary on different types of construction within an insured?
- What proportion of near misses trigger some tangible change to project process?
- Are supply chain managers & operatives included in your wellbeing initiatives?
- What is the average distance between projects and offices housing senior management?

What can Construction PI learn from other lines?



Thatcham Research was established by the motor insurance industry in 1969, with the specific aim of containing or reducing the cost of motor insurance claims while maintaining safety standards.

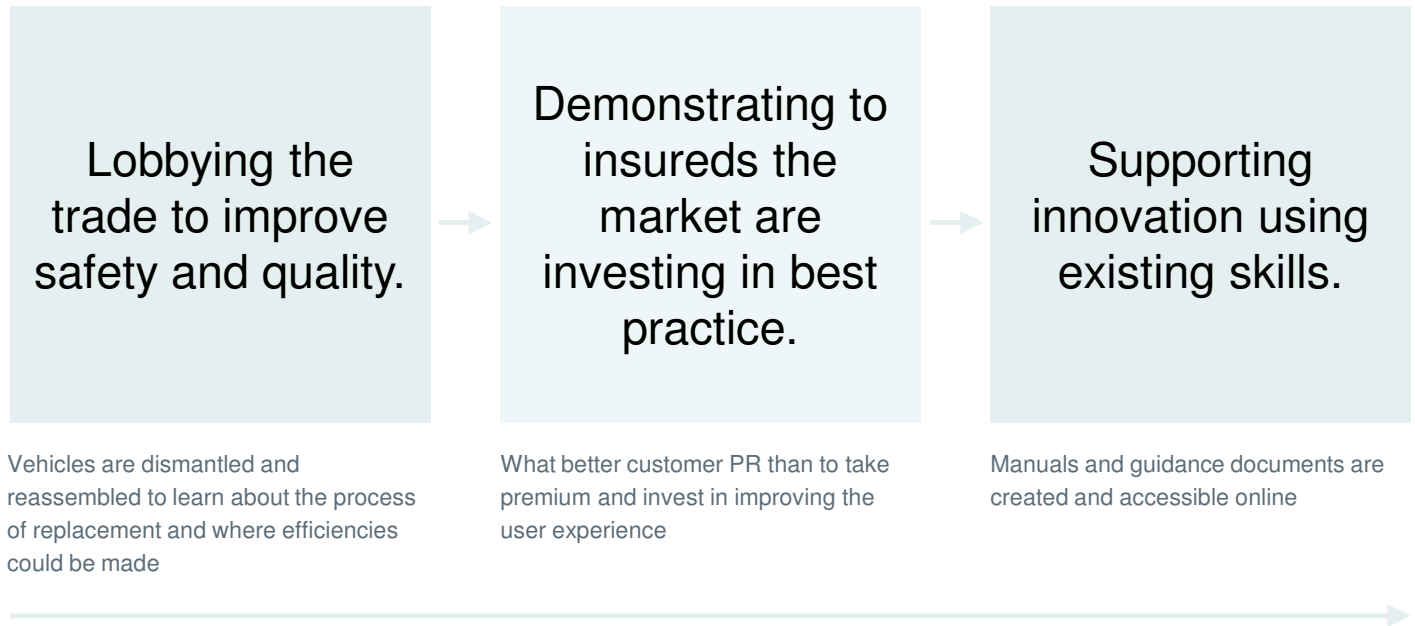
We remain the UK's only 'not for profit' insurer funded research centre, and hold a unique position thanks to our involvement and engagement with vehicle manufacturers, regulators, law enforcement organisations, automotive bodies and insurers to provide a holistic view of the benefits or shortcomings of vehicle technologies.

<https://www.thatcham.org/about/>

What can Construction PI learn from other lines

Continued...

What Thatcham get right
and what could PI learn
about their proactive
approach to safety and
quality.



What can the Construction PI market do to **carefully** support innovation during industry attempts to **decarbonise**?