



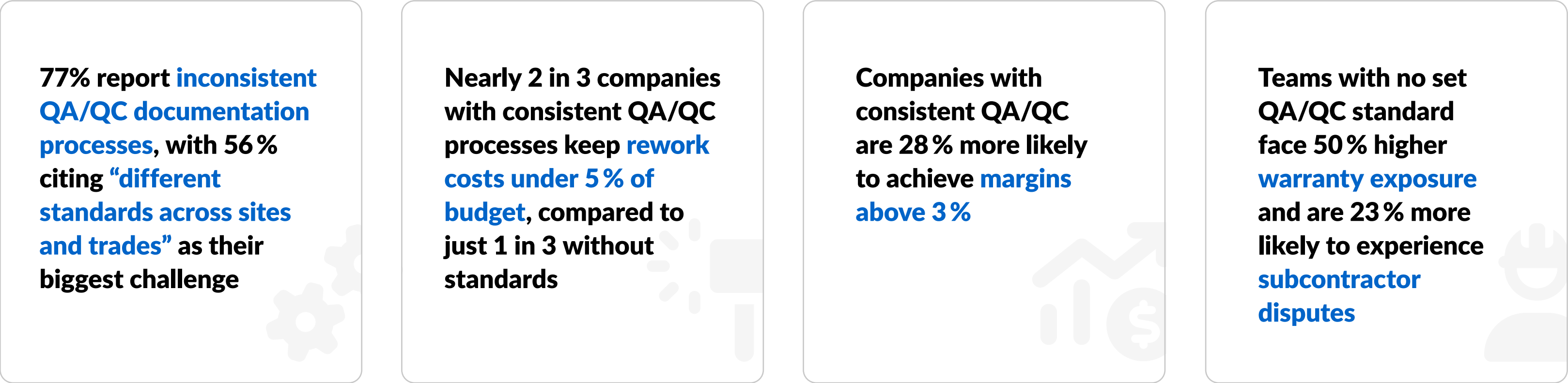
Construction QA/QC Impact Report

Why Better QA/QC Means
Better Margins

Executive Summary

Our Construction QA/QC Impact Study reveals critical insights about quality processes and their impact on project profitability margins from professionals who directly perform or oversee QA/QC processes across Europe, the Middle East, and Asia-Pacific.

Key findings include:



The data confirms that consistent QA/QC processes drive profit through reduced rework and cost control. Consistent QA/QC protects teams from delays, disputes and warranty claims that cascade into unpredictable costs. These insights help construction professionals recognise QA/QC as a profit strategy.

To capture these gains, leaders must enforce unified standards across all teams and trades, replacing fragmented approaches with systematic models that eliminate subcontractor variability and deliver measurable margin improvements.

Key Insights by Chapter

1

Chapter 1: QA/QC is a Priority – But Inconsistency Diminishes Margins

- QA/QC was ranked as one of the top three priorities at the beginning of the construction phase, with over 70 % of companies beginning QA/QC processes from day one of construction. However, only 15 % of early starters rarely face rework or delays, revealing that timing alone is insufficient.
- Despite prioritising and starting QA/QC in the beginning of a project, nearly 8 in 10 construction teams (77 %) report inconsistent QA/QC documentation.
- Consistency is linked to profitability. Companies with very consistent QA/QC processes are around one quarter more likely to report margins above 3 % than those without any set standard (60 % vs 47 %).
- Companies with no set QA/QC standard are 21 % more likely to report avoidable rework, and twice as likely to have no visibility of rework costs. Similarly, these teams are also 50 % more likely to report warranty claims and 23 % more likely to report subcontractor disputes.

[Read chapter ▶](#)

1

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Chapter 2: How Poor QA/QC Creates Cascading Challenges

- Quality issues create widespread schedule disruption, with two-thirds of companies (67 %) reporting lost time and project delays as direct consequences of poor QA/QC processes.
- Quality failures compound into additional costs when delays occur. 76 % of companies report increased labour costs & overtime expenses, 50 % report client relationship disruptions and 32 % report contractual penalties.
- Additionally, poor quality documentation reduces the ability to verify work, attribute responsibility, and resolve disagreements when disputes arise – with companies reporting subcontractor disputes and warranty risks.

[Read chapter ▶](#)

2

Key Insights by Chapter

3

Chapter 3: The Roots of QA/QC Inconsistency

- Driving consistent QA/QC processes remains a challenge for many. Despite 45 % saying they enforce QA/QC processes, standards still vary across teams and subcontractors for 65 %.
- Digital adoption of site-based platforms for QA/QC is not yet the norm, with 67 % using paper or generic software from early project stages.
- Companies with very consistent QA/QC processes are 5.6 × more likely to be on a single site-based platform within early project stages — an important lever to improve project outcomes.

[Read chapter ▶](#)

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Chapter 4: QA/QC: A Project Profitability Driver

- Over three-quarters of companies (78 %) believe stronger QA/QC processes would improve margins and for more than one-third of these companies, they have already seen profitability gains from better QA/QC.
- Where companies see the gains coming from is also clear. Nearly half (48 %) identify reducing rework and cost as their top QA/QC priority, and it's more than a hypothesis. Nearly 2 in 3 companies with consistent QA/QC keep rework costs under 5 % of budget, compared to just 1 in 3 with no set standard (56 % vs 37 %).
- With a clear link between QA/QC and profitability, the question becomes how to deliver systematic implementation, in a regulatory environment that fails to provide an operational standard.

[Read chapter ▶](#)

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Methodology

Survey Design

This report is based on insights from QA/QC professionals who directly perform or oversee quality processes. In total, 811 qualified respondents participated: 455 (56.1 %) capture QA/QC documentation on site and 356 (43.9 %) review or oversee QA/QC records. This qualified sample ensures the findings reflect the views of active QA/QC practitioners.

The data comes from a 22-question online survey conducted August–September 2025. The survey examined QA/QC consistency, documentation methods, challenges, financial impacts, and technology adoption. [Download the full data](#)

About PlanRadar

PlanRadar is a leading platform for digital documentation, communication and reporting in construction, facility management and real estate projects. With over 170,000 users in more than 75 countries, PlanRadar enables customers to work more efficiently, enhance quality and achieve full project transparency.

For more information, visit www.planradar.com

Sectors

Survey respondents emerged from a variety of sectors across construction, including:

-  Project Management/Consultancy (23 %)
-  General Contractors (20 %)
-  Specialty Contractors (19 %)
-  Architecture Firms (12 %)
-  Developers/Owners (8 %)
-  Other construction entities (18 %)

Geographic Scope

A global sample drawn from 13 countries across Europe, the Middle East, and Asia-Pacific:

- | | | |
|---|---|--|
|  AT |  IT |  CH |
|  CZ |  SA |  UK |
|  FR |  MA |  AE |
|  DE |  SG | |
|  HU |  ES | |



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**QA/QC is a Priority —
But Inconsistency
Diminishes Margins**

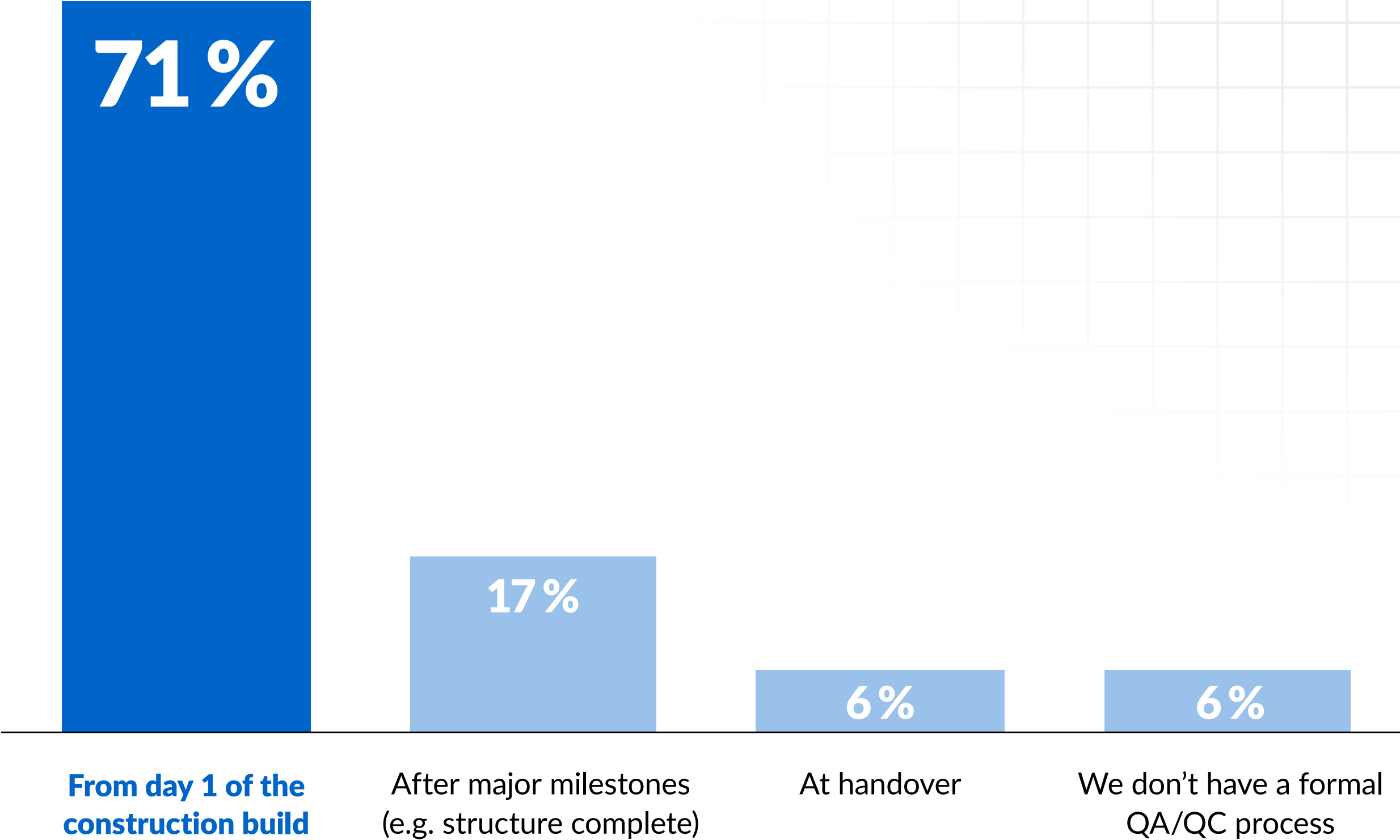
Starting QA/QC from Day 1 of the Build Isn't Enough

QA/QC was ranked as one of the top three priorities at the beginning of the construction phase — putting it on par with schedules, budgets and operational set up as a fundamental early-stage concern. More than half of companies ranked all three as top concerns, showing that quality management is no longer treated as a secondary task but as a core operational priority.

This commitment carries through into practice: **over 70% of companies** say they begin QA/QC processes from day one of construction. Yet starting early doesn't significantly reduce rework or delays. **Only 15% of early starters rarely face these issues** — barely different from those who begin QA/QC later in the project.

The message is clear: while QA/QC is prioritised from the start, **timing alone** isn't enough.

When do you typically begin formal QA/QC processes?



The QA/QC Lottery: Project Inconsistency Leaves Outcomes to Chance

Nearly 8 in 10 construction teams (77 %) report that QA/QC documentation is inconsistent — either lacking any set standard (12 %) or varying by subcontractor and team member (65 %). Only 23 % say their QA/QC processes are very consistent across projects.

This inconsistency leaves quality outcomes to chance, heavily dependent on which teams and subcontractors are on site. The industry is playing a “QA/QC lottery”, with documentation standards shifting from project to project and trade to trade.

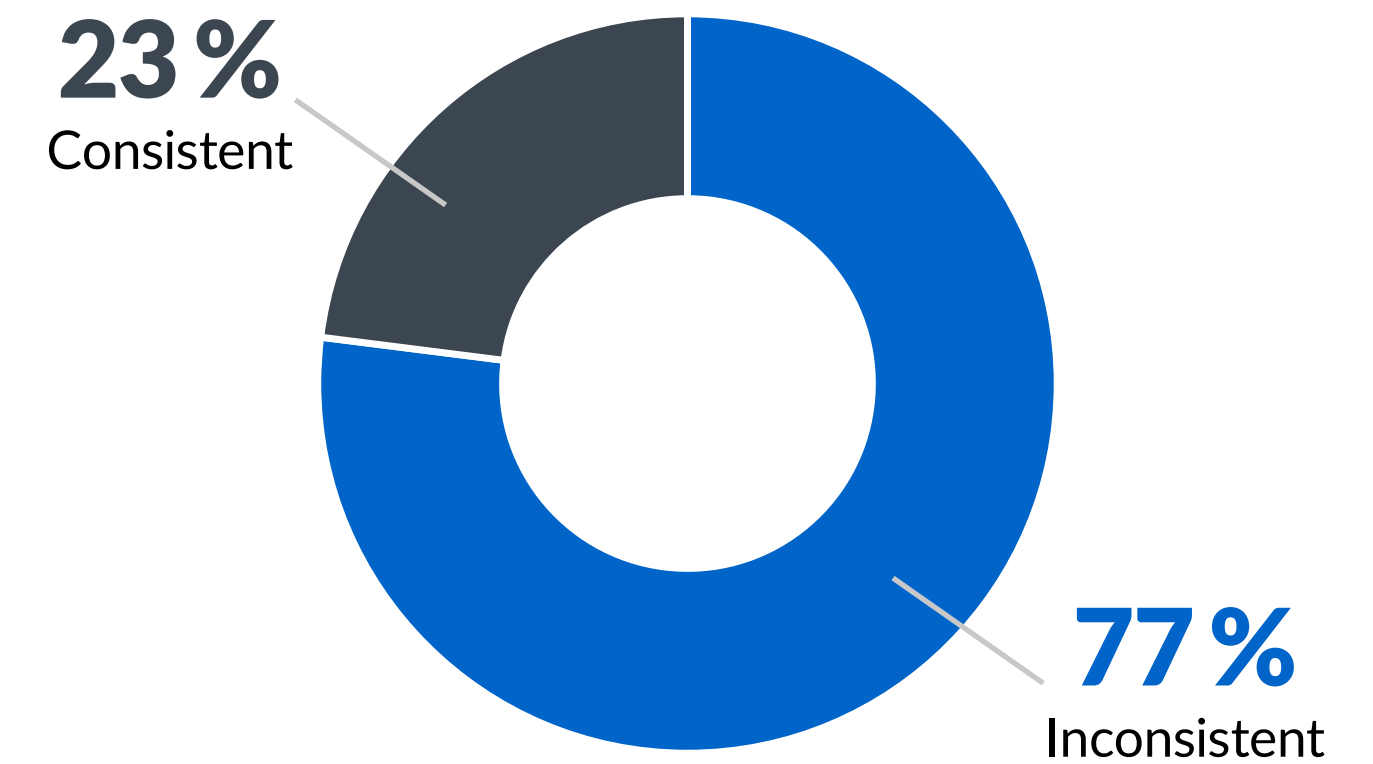
When asked about their biggest QA/QC challenges, respondents pointed overwhelmingly to inconsistency: **“different standards across sites and trades” was the most frequently reported problem, with 56 % citing it.** This highlights that the central pain point is not the presence of QA/QC processes, but the lack of a common standard.

The roots of inconsistency in QA/QC processes stem from two fronts:

- **Company-level fragmentation.**
Different subcontractors, varying documentation practices and lack of enforceable frameworks create uneven practices within organisations.
- **System-level ambiguity.**
When regulators fail to provide detailed operational standards, they leave room for subjective interpretation and divergent operational execution.

In the absence of a regulator-defined QA/QC framework that establishes industry-wide consistency, company standards are often inconsistent from the outset and subject to interpretation across projects, teams, and trades.

How would you describe the consistency of QA/QC documentation across your projects?



The top challenge faced in QA/QC processes:
“different standards across sites and trades”

The Cost of Inconsistency: Why QA/QC Standards Matter

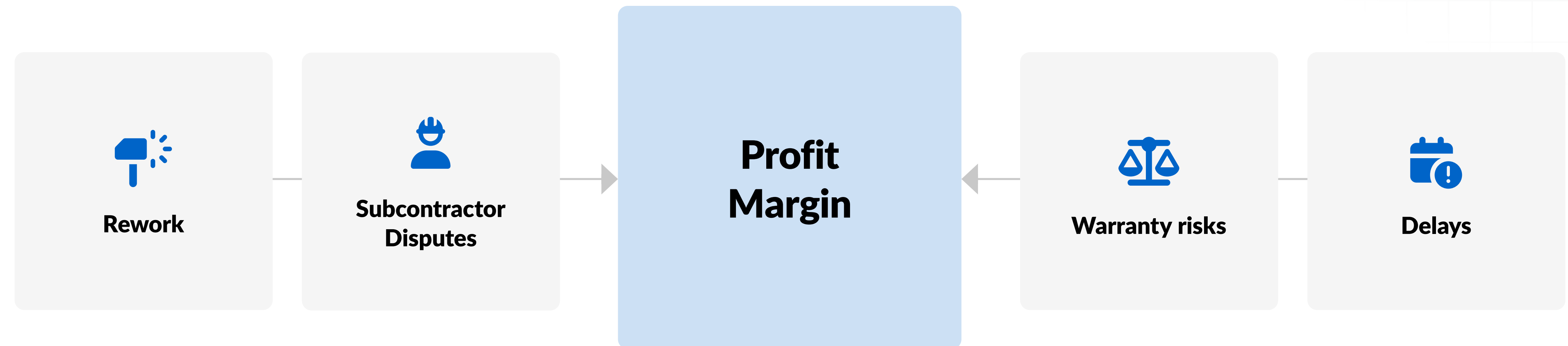
Inconsistency in QA/QC processes isn't just an operational frustration. Our survey data shows it has clear financial and project consequences — from hidden costs to greater risk exposure.

Consistency Matters for Project Margins

Consistency pays. Companies with very consistent QA/QC are **28% more likely to report margins above 3%** than those without any set standard (60% vs 47%). The findings indicate an association between consistent QA/QC processes and stronger project margins.



Companies with consistent QA/QC are 28% more likely to report margins above 3%



Rework costs are hidden when there is no QA/QC standard

Nearly half of companies with no set QA/QC standard admit they have **no idea how much rework is costing them**. In fact, they are almost **twice as likely to lack visibility** compared to companies with very consistent QA/QC (43 % vs 22 %).

Without visibility into quality-related delays and costs, organisations cannot justify investment in better QA/QC processes, leaving them perpetually vulnerable to costly surprises.

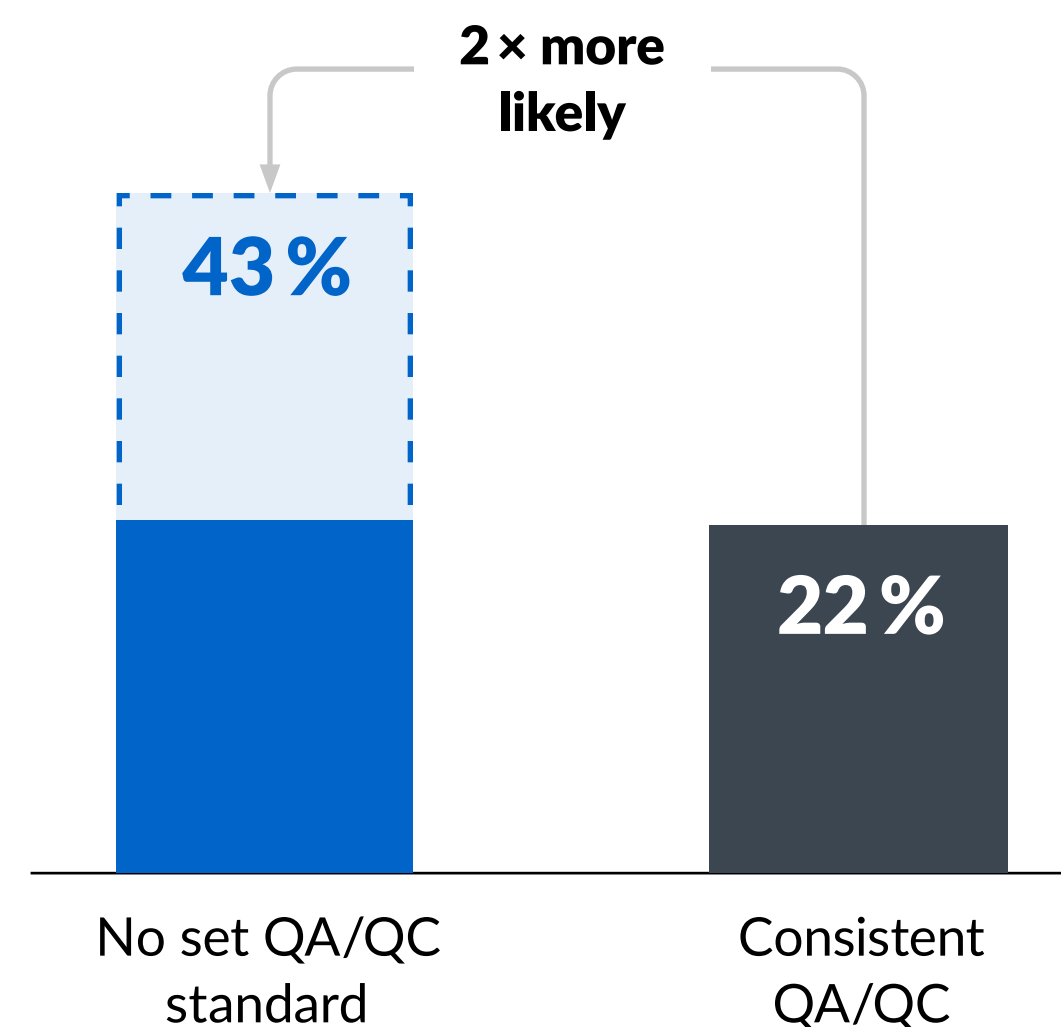
Even when margins above 3 % are reported at handover, companies without QA/QC standards face a fragile profitability picture. Hidden rework costs that surface during the warranty period can trigger costly disputes and claims, eroding the margins that looked secure at project close.

Where rework costs were measured by respondents, consistency is associated with significantly tighter cost control. We asked "What is the estimated cost of rework per project due to quality issues?" and nearly **2 in 3 companies with very consistent QA/QC** keep rework costs under 5 % of budget, compared to just **1 in 3 with no set standard** (56 % vs 37 %).

The same inconsistency that obscures rework budgets also makes rework itself far more likely.

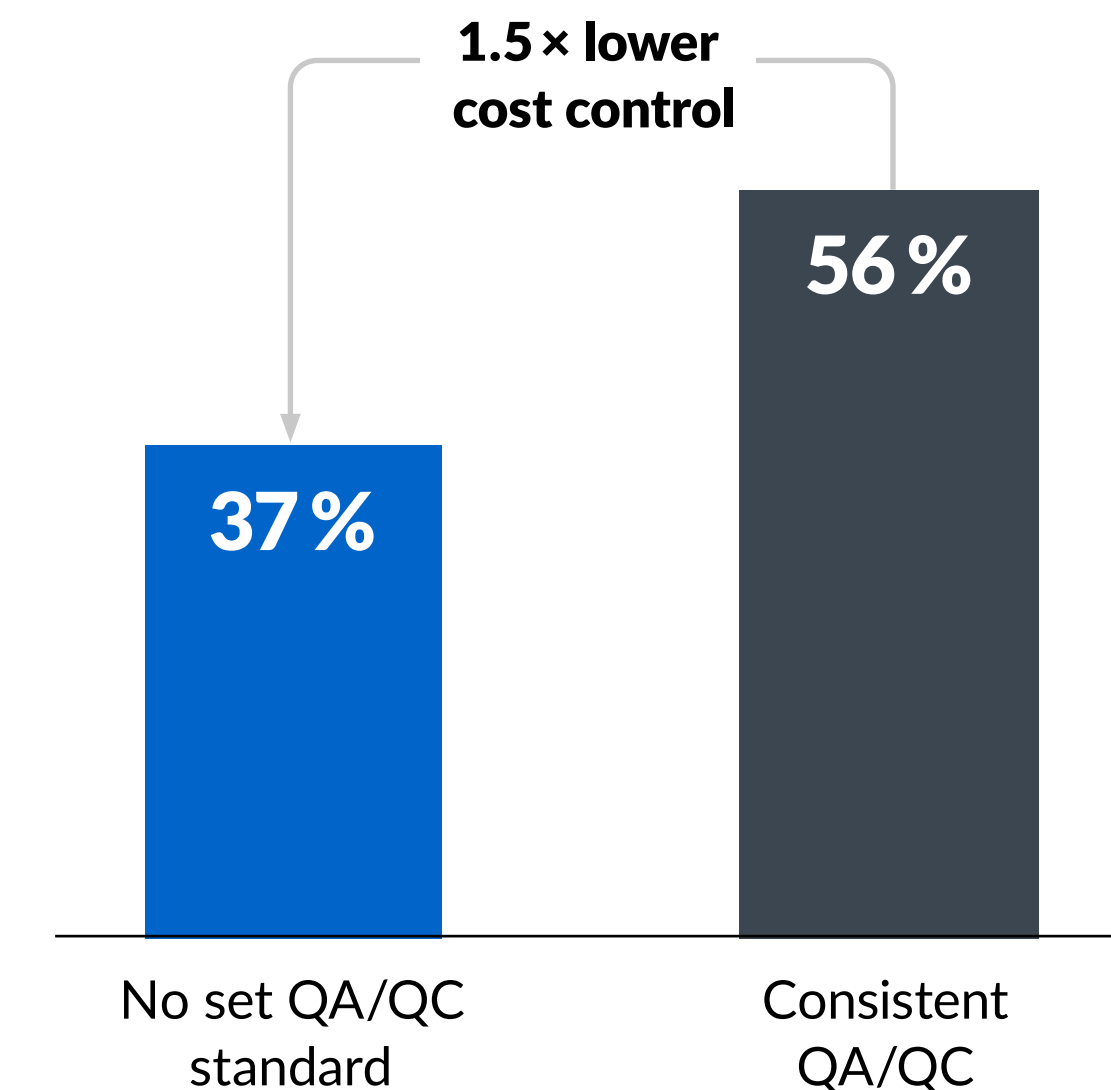
Nearly half with no set QA/QC standard have no idea of rework costs

Rate of companies with unknown rework costs:



No set QA/QC standard = 1.5 × lower chance of rework costs ≤5%

Rate of companies with rework costs ≤5%:

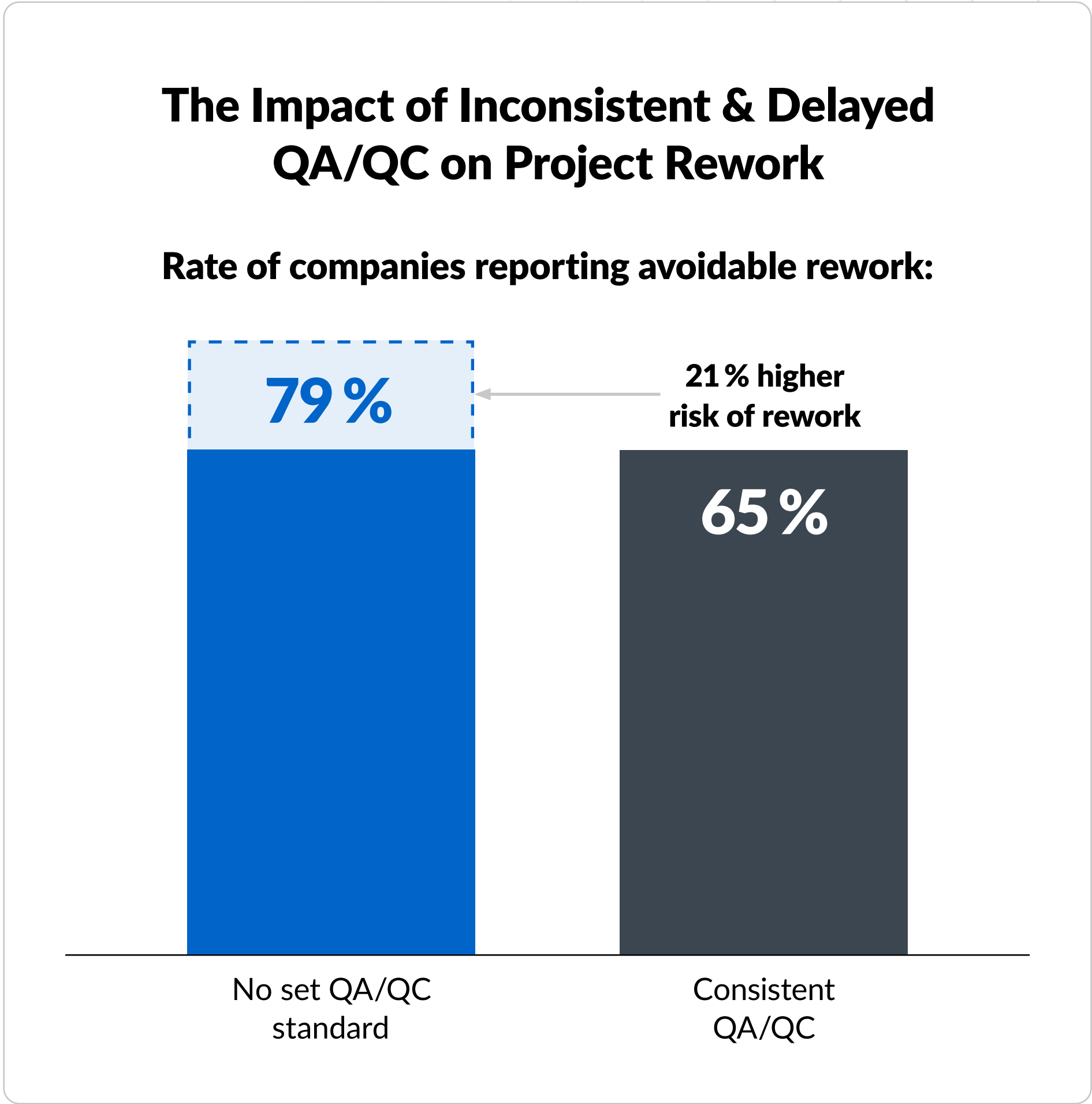


The Risks of QA/QC Inconsistency

We asked respondents: “How has inconsistent or delayed QA/QC impacted your projects?” The most frequently reported consequence was **avoidable rework**, cited by nearly 4 in 5 companies with no set QA/QC standard (79 %). Without consistent processes in place, **rework is a highly probable outcome** — an almost unavoidable part of project delivery.

By contrast, companies with very consistent QA/QC processes are significantly less exposed. While the issue is not eliminated, they are **almost one-fifth less likely** to report avoidable rework (65 % vs 79 %). Expressed in relative terms, this equates to a 21% higher risk of avoidable rework for companies with no set QA/QC standards. Consistency doesn’t make rework disappear, but it reduces both its likelihood and its financial impact: when rework does occur, these companies are far more likely to keep its costs under control.

“ **4 in 5 companies with no set QA/QC standard report avoidable rework**



While avoidable rework is the most common problem, other knock-on effects of poor QA/QC also stand out — with big differences between companies that enforce standards and those that don't.

 Subcontractor disputes

Almost half of companies with no set QA/QC standard report subcontractor disputes caused by quality issues (43%), compared to only about one-third of those with very consistent QA/QC (35%). Put another way, companies without standards are about one-quarter (23%) more likely to face disputes with subcontractors.

Subcontractor disputes

23 %

more likely
without QA/QC standards



 Warranty risk

More than half of companies with no set QA/QC standard reported warranty claims or risks (54%), compared to just over one-third with very consistent QA/QC (35%). This means companies without standards are more than 50% more likely to face warranty exposure — turning QA/QC inconsistency into a direct commercial liability.

Warranty risk

50 % +

more likely
without QA/QC standards



For construction leaders, the message is clear: enforceable QA/QC standards protect profitability by giving cost visibility and reducing risks — companies without them are more than 50% more likely to face disputes or warranty claims, and nearly twice as likely to have no idea what rework is costing them. To capture these gains, leaders must create clarity where regulation leaves ambiguity and build company-wide standards that hold across every project and subcontractor.

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How poor QA/QC Creates Cascading Challenges

The Impact of Quality Failures on Project Schedules

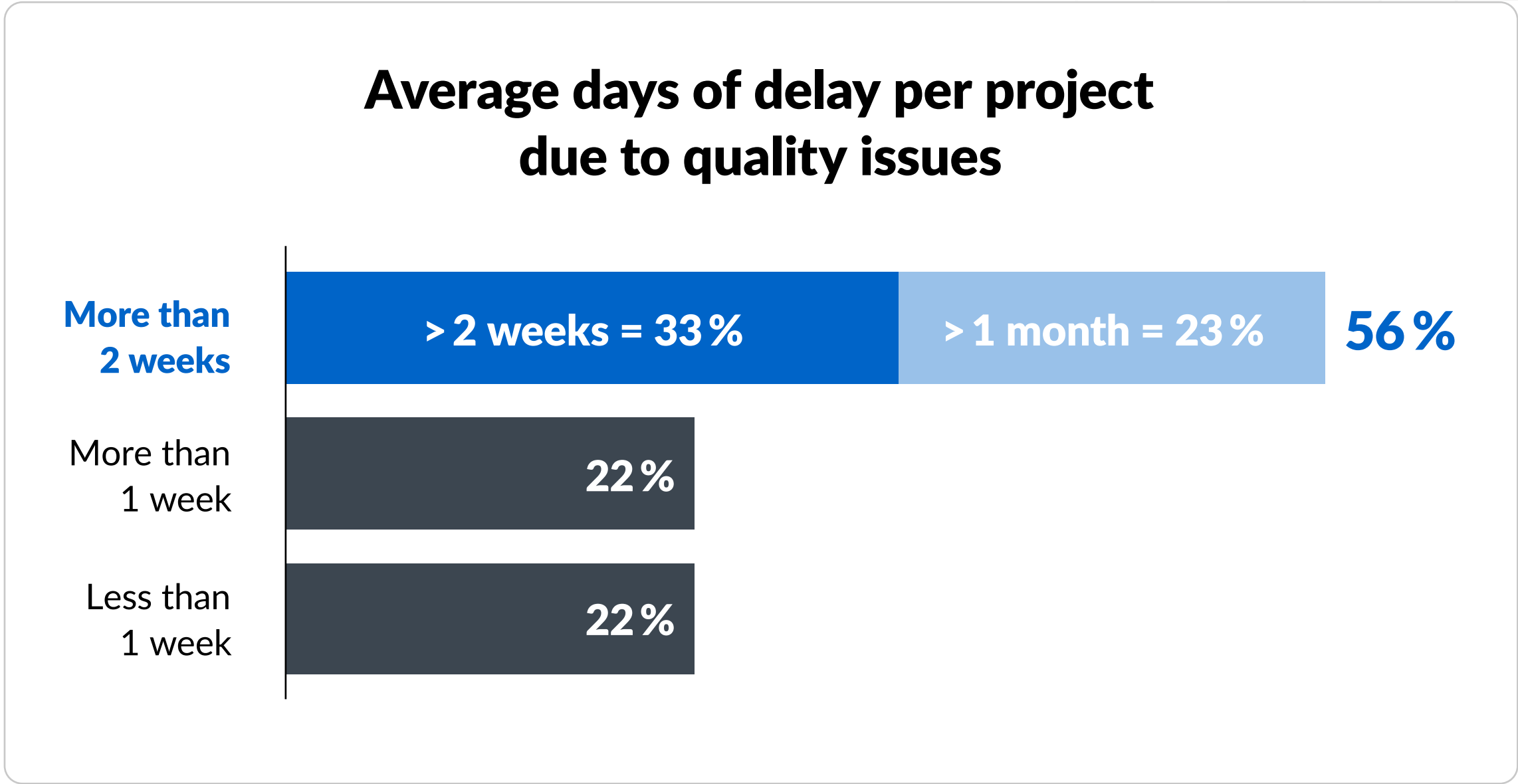
Two out of three companies (67 %) report lost time and project delays as a consequence of quality issues, making it one of the most frequently cited impacts of poor QA/QC, second only to avoidable rework. And this isn't a rare event: **more than 8 in 10 companies** say rework or delays from poor quality control **affect their projects on a recurring basis**, either on some projects (51 %) or on most projects (33 %).

Delays caused exclusively by QA/QC failures are difficult for many companies to quantify – but two-thirds of respondents were able to make the connection. Among those who could, the picture is stark: **nearly 6 in 10 reported that quality issues delay their projects by more than two weeks** on average (56 %). For almost 1 in 4 (23 %), delays extend beyond a month, underscoring the serious disruption poor QA/QC creates for schedules, subcontractor coordination, and overall project delivery.

Instead of fixing the root causes, construction has learned to live with schedule delays as though they were inevitable.



2 out of 3 report lost time and project delays from quality issues



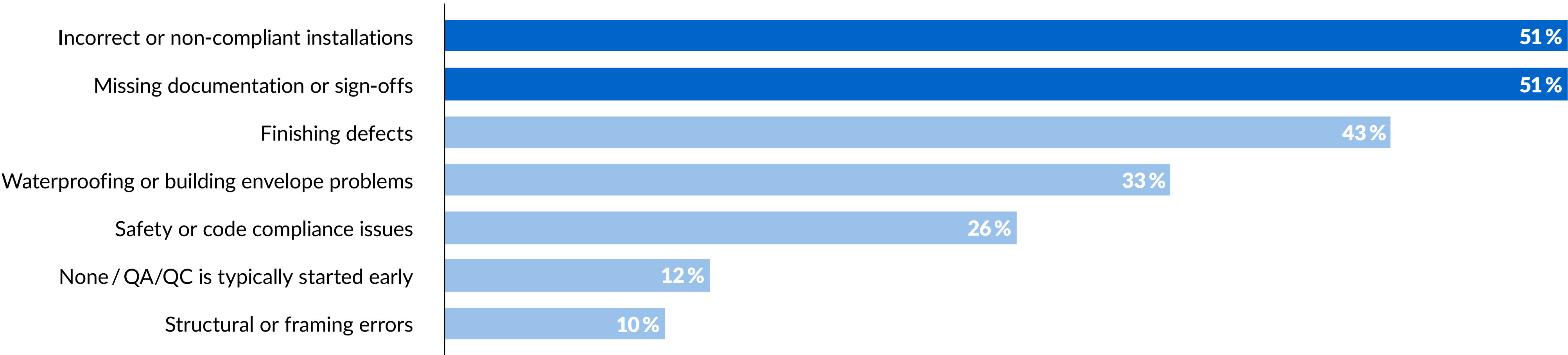
The Most Frequently Missed Issues Create the Longest Delays

The most frequently missed issues are those that hit projects hardest. **Over half of companies (51 %) report that incorrect or non-compliant critical system installations**, such as MEP and fire safety errors, slip through QA/QC checks and require expensive dismantling and reinstallation. An equal **51 % report missing documentation or sign-offs**, creating work stoppages and forcing retrospective documentation under time pressure.

Other frequent misses, from finishing defects to waterproofing failures and even safety issues, add to the disruption, but it is the system-level errors and missing approvals that create the costliest setbacks.

Poor QA/QC processes miss problems that become exponentially more disruptive as construction progresses.

The most frequently missed project issues as result of poor QA/QC



The Financial Cascade: When Delays Multiply into Additional Costs

Quality failures trigger a domino effect of escalating costs:

1. Immediate operational costs surge.

Three-quarters of companies (76 %) face additional labour costs and overtime expenses as teams work to recover lost time, deploying extra crews and authorising overtime to compress schedules and get projects back on track.

2. Client relationships deteriorate.

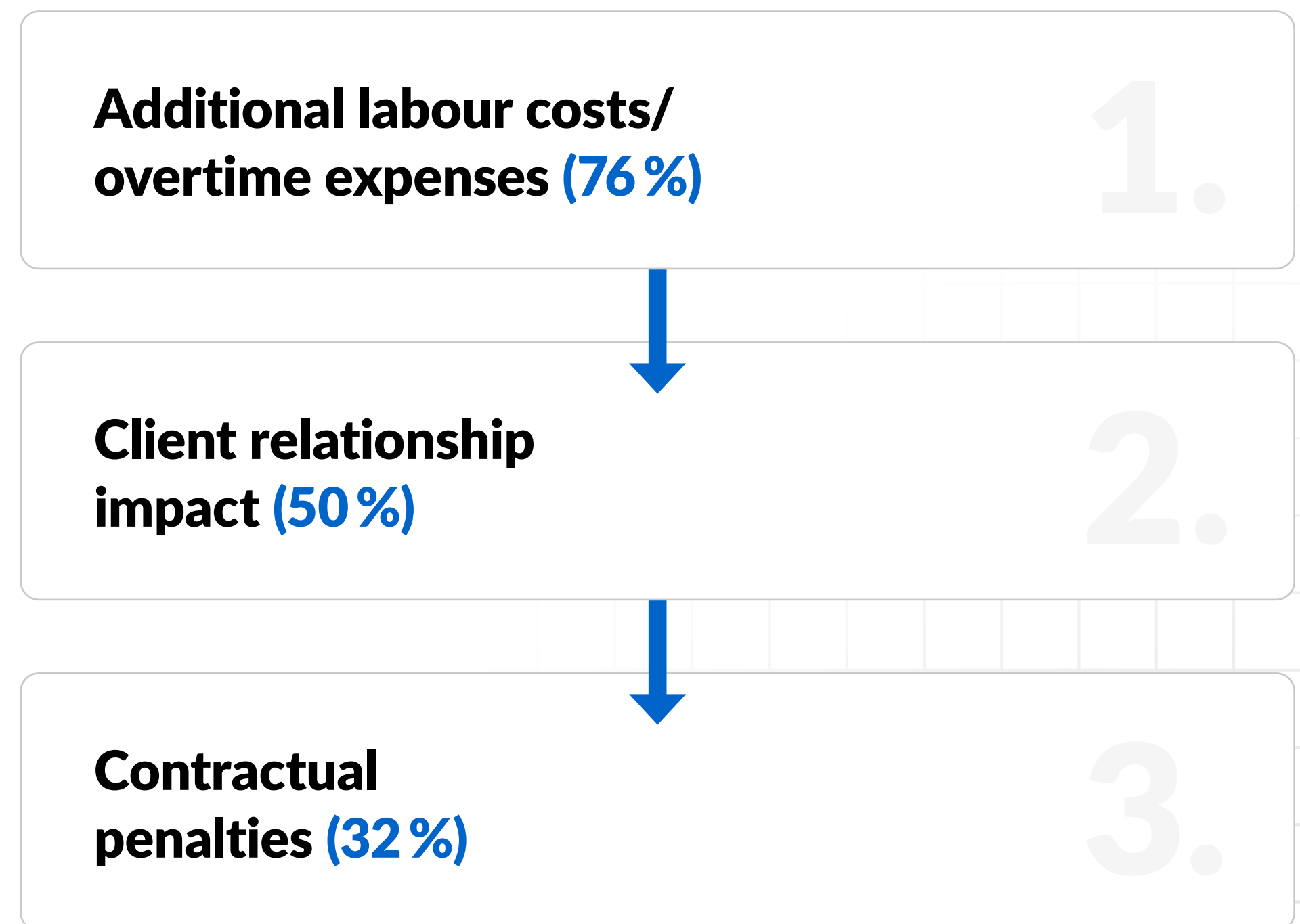
As delays persist, half (50 %) suffer client relationship damage — eroding confidence, complicating future negotiations, and losing referrals.

3. Contractual penalties activate.

One-third (32 %) pay contractual penalties when completion dates are missed, turning time overruns into profit loss.

A single quality failure can trigger this entire cascade simultaneously — immediate operational expenses, damaged business relationships, and contractual penalties — often inflicting far greater financial damage than the original problem itself.

Rate of companies reporting additional costs when quality issues cause delays:



Weak QA/QC Erodes Defensibility

Poor documentation reduces a team's ability to verify work, attribute responsibility, and resolve disagreements. **43% report disputes with subcontractors** linked to inconsistent or delayed QA/QC, while **40% say these issues have caused claims or warranty risks**. Where processes lack structure, the evidentiary trail is thin — positions weaken, and commercial risk rises.

Quality issues don't just create immediate problems, they trigger cascading damage that compounds across operational, commercial, and legal dimensions simultaneously.

Subcontractor disputes

43 %

report disputes linked to poor QA/QC



Claims & warranty risks

40 %

experience claims or elevated warranty risk



3

The Roots of QA/QC Inconsistency

Why Inconsistency Happens

In Chapter 1, we saw that the most frequently reported QA/QC challenge is “different standards across sites and trades”. The data shows that inconsistency is the industry’s central pain point. But why does it persist?

When we asked companies how they ensure subcontractors meet QA/QC expectations, the answers revealed a fragmented picture. Only around one-third (32 %) said they provide standard forms and enforce their QA/QC processes. A further 13 % said they enforce QA/QC via digital tools. Taken together, this suggests that 45 % of companies believe they “enforce” QA/QC standards with subcontractors.

Yet the reality tells a different story.

45 % of companies believe they “enforce” QA/QC standards with subcontractors.



The top challenge faced in QA/QC processes: “different standards across sites and trades”

How do you ensure subcontractors meet your QA/QC expectations?

Approach	% of respondents
We provide standard forms and enforce our QA/QC processes	32 %
We have a digital tool and enforce subcontractors to use our forms	13 %
We have no defined QA/QC process for subcontractors	22 %
We provide guidance, but it’s not enforced	11 %
Subcontractors manage QA/QC their own way	11 %
We have a digital tool and allow subcontractors to submit their own QA/QC forms	11 %

In practice, **77 % of respondents report QA/QC documentation is inconsistent across projects**. This apparent contradiction highlights the gap between policy and practice:

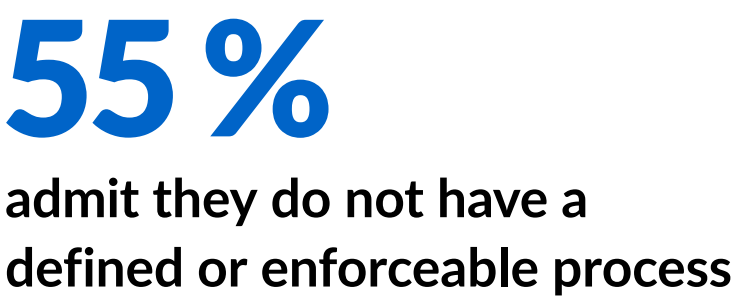
- **Enforcement ≠ Consistency.**
While 45 % claim to enforce QA/QC through standard forms or digital tools, 65 % still say standards vary across teams and subcontractors. One reason is that enforcement often breaks down on site: 42 % of companies name “ensuring teams follow the QA/QC plan” as one of their top three challenges. This shows that even where enforcement mechanisms are in place, they do not guarantee consistent execution.
- **Lack of enforceable processes drives inconsistency.**
The majority — 55 % — admit they do not have a defined or enforceable process. This includes 22 % with no defined QA/QC process for subcontractors at all, and another 33 % that only provide guidance or allow subcontractors to manage QA/QC their own way. With subcontractors left to set their own standards, it is unsurprising that documentation varies so widely across sites and trades.
- **Fragmented application undermines technology’s potential.**
Even among companies using digital tools, practices diverge: 13 % enforce subcontractors to use company QA/QC forms, while nearly the same share (11 %) invest in digital platforms yet still allow subcontractors to submit their own forms. This shows that technology by itself does not guarantee consistency — it depends on how rigorously it is applied and enforced.

Taken together, the findings show that inconsistency persists not because QA/QC is ignored, but because enforcement is fragmented, processes are weak or optional, and even technology is applied unevenly — leaving subcontractors to define their own standards.

Enforcement ≠ Consistency



Lack of enforceable processes



Fragmentation undermines technology’s potential



Digital Adoption of QA/QC Platforms

Overall, digital adoption for QA/QC is not yet the norm. In the early project stages, only 28 % of companies are using purpose-built, site-based tools, while the majority (67 %) are using paper or a mix of generic software.

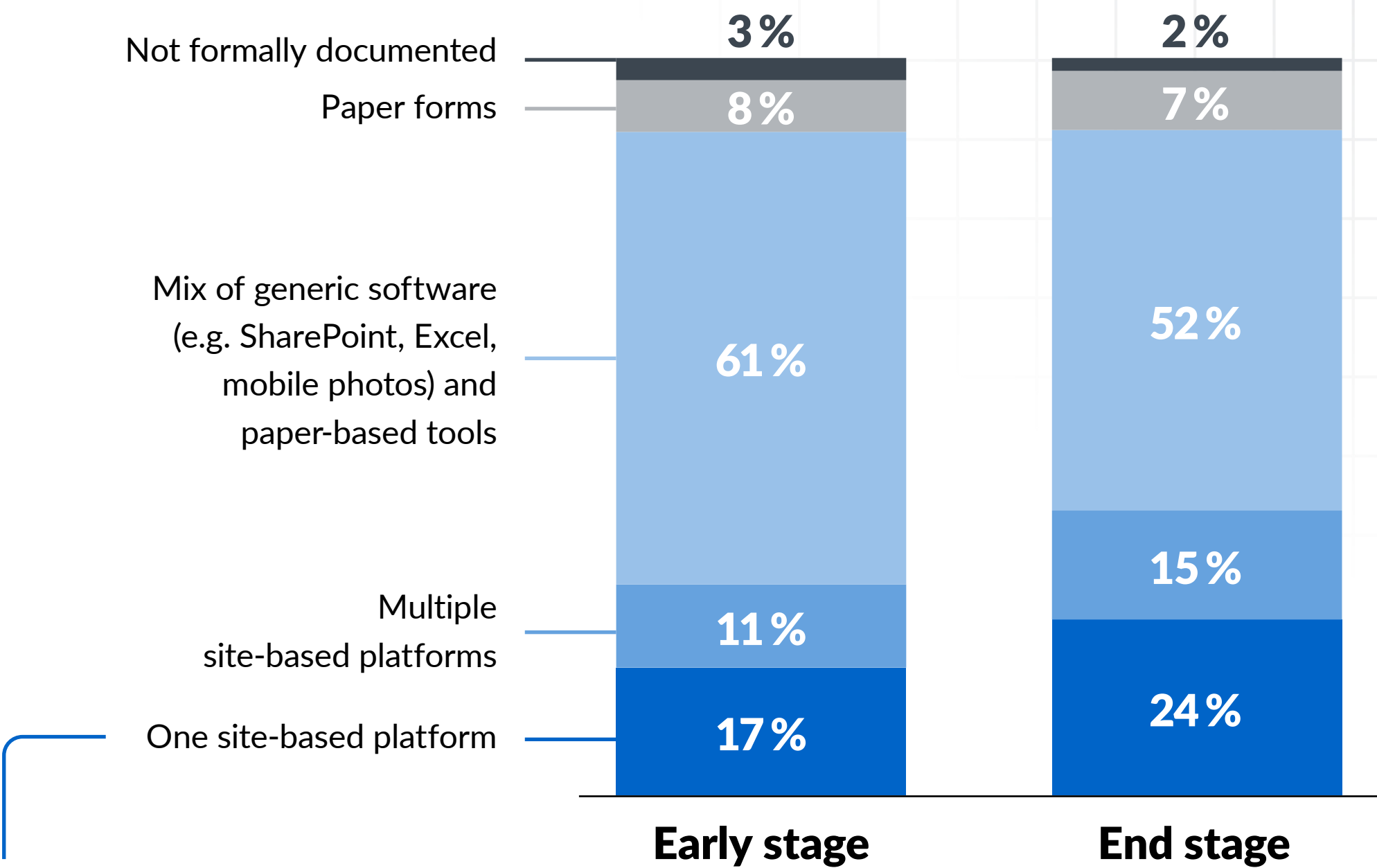
Running QA/QC on a single, site-based platform is an even bigger exception. Only 17 % of companies start in early project stages with one platform in place (rising to 24 % by late project stages). Most teams start with mixed tools that capture activity but do not enforce structured data or consistent steps across trades.

What Consistent Teams Do Differently

At early project stages, companies with very consistent QA/QC are 5.6 × more likely to be on a single site-based platform, and they keep that method in place (29 % early; 30 % late). Companies with no set QA/QC standard lag and only marginally improve (5 % early; 12 % late). One platform reinforces one way of working and when managed when used from day one, processes become enforceable and consistent.

A single, site-based platform doesn't guarantee consistency, but teams that use it are far more likely to achieve it, making it a clear step towards standardisation.

How QA/QC is typically documented in the early & end stages of a project:



Very few start with one site-based platform

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QA/QC: A Project Profitability Driver

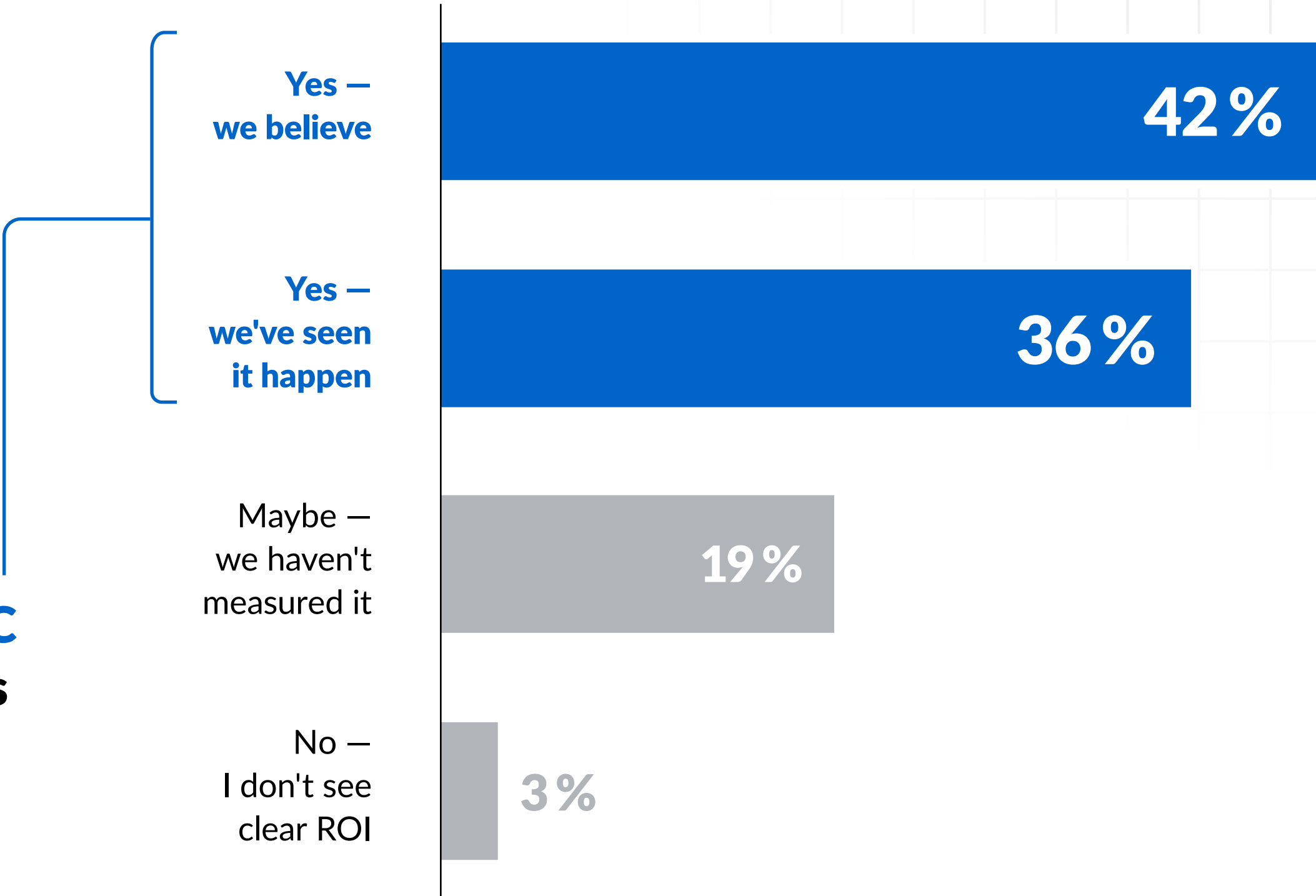
The Industry Agrees: Strong QA/QC & Profitability are Linked

The construction industry is almost unanimous in linking QA/QC to profitability. Over **three-quarters of companies (78%) believe that stronger QA/QC processes would improve margins** — and for more than one-third (36%), this is not just belief but lived experience. These companies report they have already seen profitability gains from better QA/QC, while a further 42% recognise that improvements are needed to unlock similar benefits.

Scepticism is virtually extinct: only 3% say they don't see a clear ROI from better QA/QC, and just under one in five (19%) admit they haven't measured the impact. This consensus is backed by concrete evidence: **companies with very consistent QA/QC are around one-quarter more likely to report margins above 3% than those without any set standard (60% vs 47%)**. The data shows quality management is now viewed as a proven driver of financial performance, not a side consideration.

78% believe that stronger QA/QC processes would improve margins

Do you believe QA/QC processes would increase profitability?



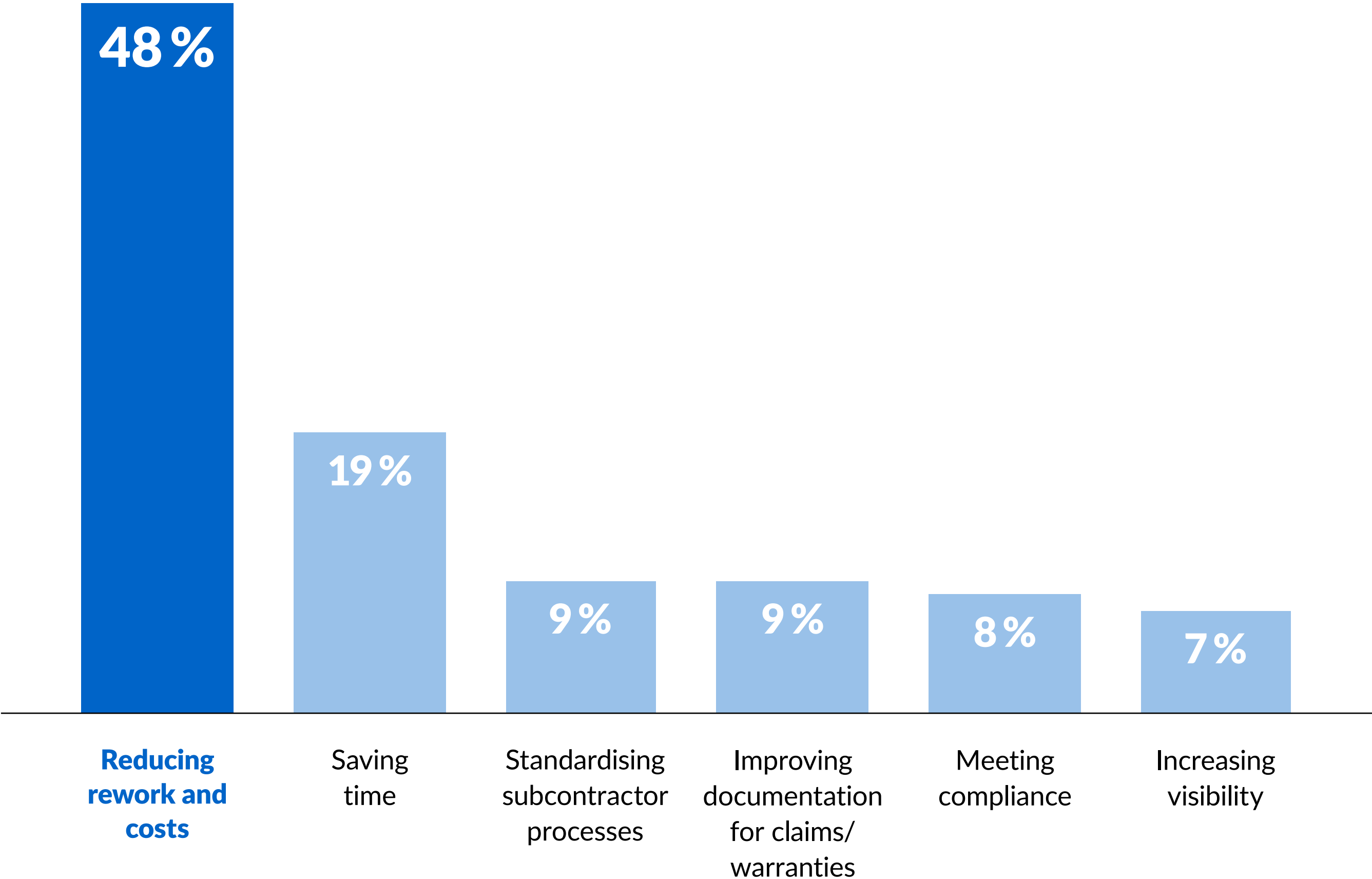
Data Supports Intuition: Consistent QA/QC Cuts Rework & Lifts Margins

Where companies see the gains coming from is also clear. **Nearly half (48%) identify reducing rework and cost as their top QA/QC priority**, far ahead of saving time (19%) or standardising subcontractor processes (9%). This reinforces the profitability link: companies see cost avoidance through rework reduction as the primary path to stronger margins.

The data supports this intuition: **nearly 2 in 3 companies with consistent QA/QC keep rework costs under 5% of budget** compared to just 1 in 3 with no set standard (56% vs 37%). Additionally, companies with consistent processes are almost **one-fifth less likely to report avoidable rework than those without standards** (65% vs 79%).

The industry agrees: QA/QC is a profit strategy. The challenge now is moving from today's fragmented, inconsistent approaches to a systematic model that delivers reliable, measurable gains.

What is your top priority for improving QA/QC?



5

From Analysis to Action: How PlanRadar Delivers Systematic QA/QC

Driving QA/QC Consistency from the Project Site

The evidence throughout this report points to a single conclusion: the construction industry has recognised QA/QC as essential but struggles with systematic implementation, further challenged by a regulatory environment that fails to provide an operational standard.

PlanRadar was designed to close this execution gap. As a leading platform for digital documentation, communication, and reporting, it enables construction teams to embed quality processes directly into daily workflows.

By integrating SiteView 360° reality capture with robust QA/QC tools, teams can combine site observations and quality documentation in a single platform. A simple site walk with a helmet-mounted camera delivers a full 360° visual record of progress, streamlining which QA/QC data needs to be captured on the next site visit.

This dual capability means every build stage is documented with both visual evidence and structured QA/QC data. Dashboards and instant reporting provide real-time insights, helping teams identify issues earlier, minimise delays, reduce rework, and prevent disputes.

The result: a practical, scalable way to strengthen QA/QC implementation — delivering transparency, accountability, and quality across the entire build.



Ending the QA/QC Lottery: Consistency in an Adaptable Platform

While 45 % of companies claim to enforce QA/QC standards through digital tools, 77 % still report inconsistent documentation. Even among digital platform users, 11 % allow subcontractors to submit their own forms, demonstrating that it's the 'how' in technology adoption that can solve the inconsistency challenge.

PlanRadar's fully flexible forms embed QA/QC into every stage — enabling companies to meet varying regulations and adapt requirements across QA/QC stages throughout the project. Preset templates guide teams through the exact process while preventing variation, with required fields ensuring completeness. Easy-to-use on site, teams collect and report data within structured parameters that guarantee consistency across all projects.



“We built a customised ticket structure, with categories and filters that reflect our way of working. Each project has its own templates and workflows: with PlanRadar, we were able to adapt without forcing ourselves.”

— ICM Group



“With PlanRadar, we have digitised all aspects of our quality approach. The forms are much easier to fill in than our old Excel files, and what's more, they're very simple to create.”

— Nicolas Penguen, Process Engineer,
CCE France



Preventing Quality Issues from Cascading

When QA/QC is completed or reviewed too late (36 % report this challenge), quality issues cascade into costly project disruptions. Late discovery leads to rework that causes schedule delays, compounding across the entire project timeline.

PlanRadar breaks this cascade with real-time quality management that catches issues before they multiply.

- Teams record 360° evidence and inspection data pinned directly to drawings, enabling decisive and on-time QA/QC sign-offs.
- Dashboards show exactly what's completed and what needs attention across all trades, addressing the lack of QA/QC oversight that affects 35 % of projects.
- SiteView 360° documentation ensures nothing gets missed, preventing late discoveries that turn minor quality gaps into major project delays.



“PlanRadar was a game changer for my quality control. I can bring 99 people onto one dashboard and stay updated on everything happening on site with visuals, documentation, and even Excel summaries.”

— Stefan Dobrzak,
Shapoorji Pallonji – Head of QA/QC



Managing Warranty Risk Through Audit Trails

Poor QA/QC documentation creates dual vulnerability: companies with no set standards are 50%+ more likely to face warranty exposure and significantly more likely to face subcontractor disputes. Without comprehensive documentation, teams cannot prove work completion or resolve disagreements, leaving companies financially exposed on multiple fronts.

PlanRadar reduces this vulnerability through comprehensive audit trails with timestamped photos, location-accurate evidence, and complete documentation chains. 360° SiteView captures complete site records at every stage, providing immersive documentation that proves when work was completed, who performed it and to what standard.

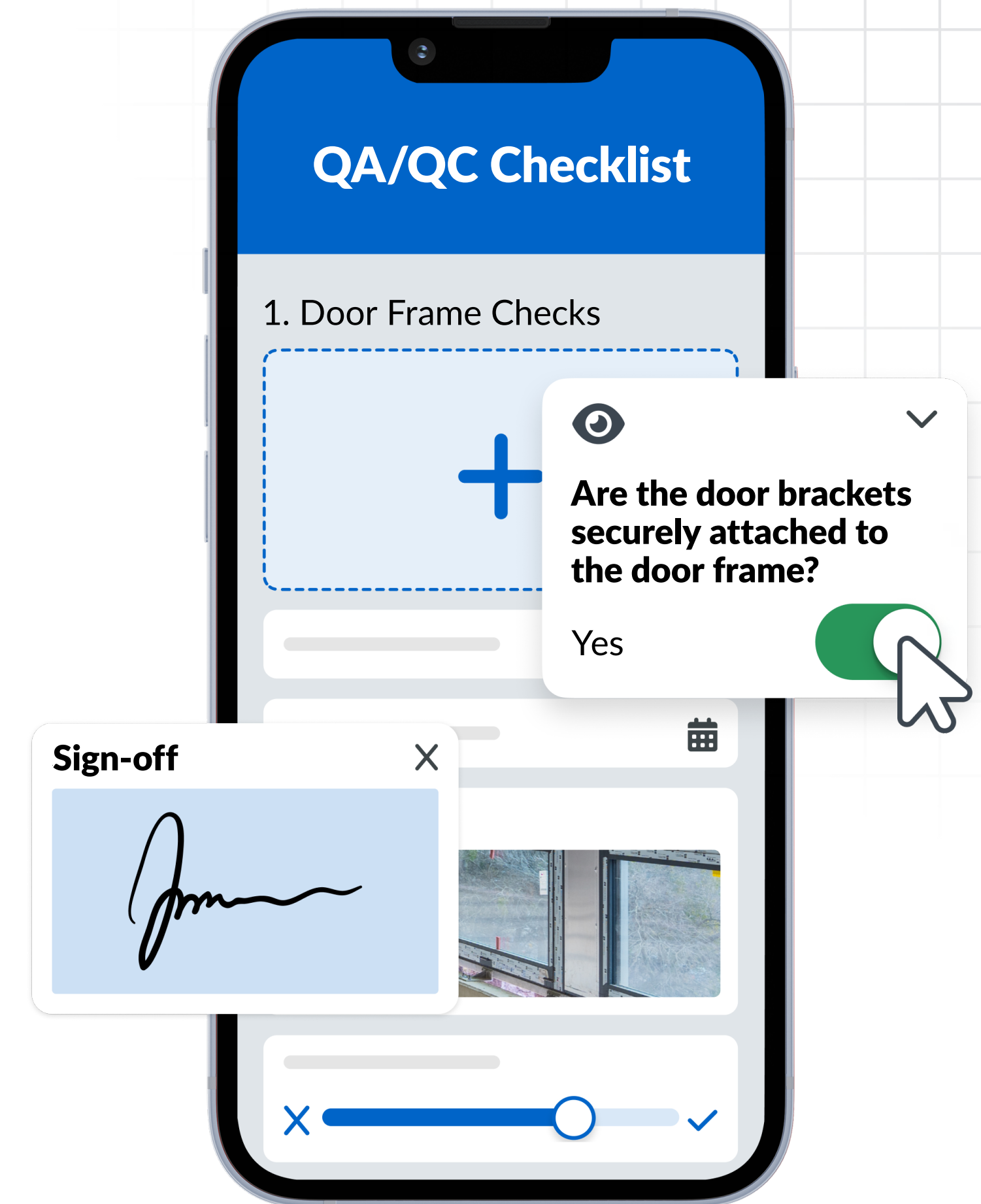
Eliminating Low-Impact Busywork

One of the biggest challenges faced in QA/QC processes is too much time spent on low-impact tasks like report compiling (50% of companies cite this as a top challenge), pulling resources away from actual quality work and site oversight.

PlanRadar customers cut post-site reporting time in half, recording all QA/QC data onsite in the mobile app and generating fully formatted reports in minutes, significantly reducing administrative tasks and allowing more time for the build.

The Implementation Advantage

Easy to use, adaptable, free for subcontractors — PlanRadar provides a seamless platform to move the industry from recognition that QA/QC processes matter, to being able to deliver measurable results. PlanRadar helps companies transition from the QA/QC lottery to systematic quality control and safeguards the bottom line on every build.

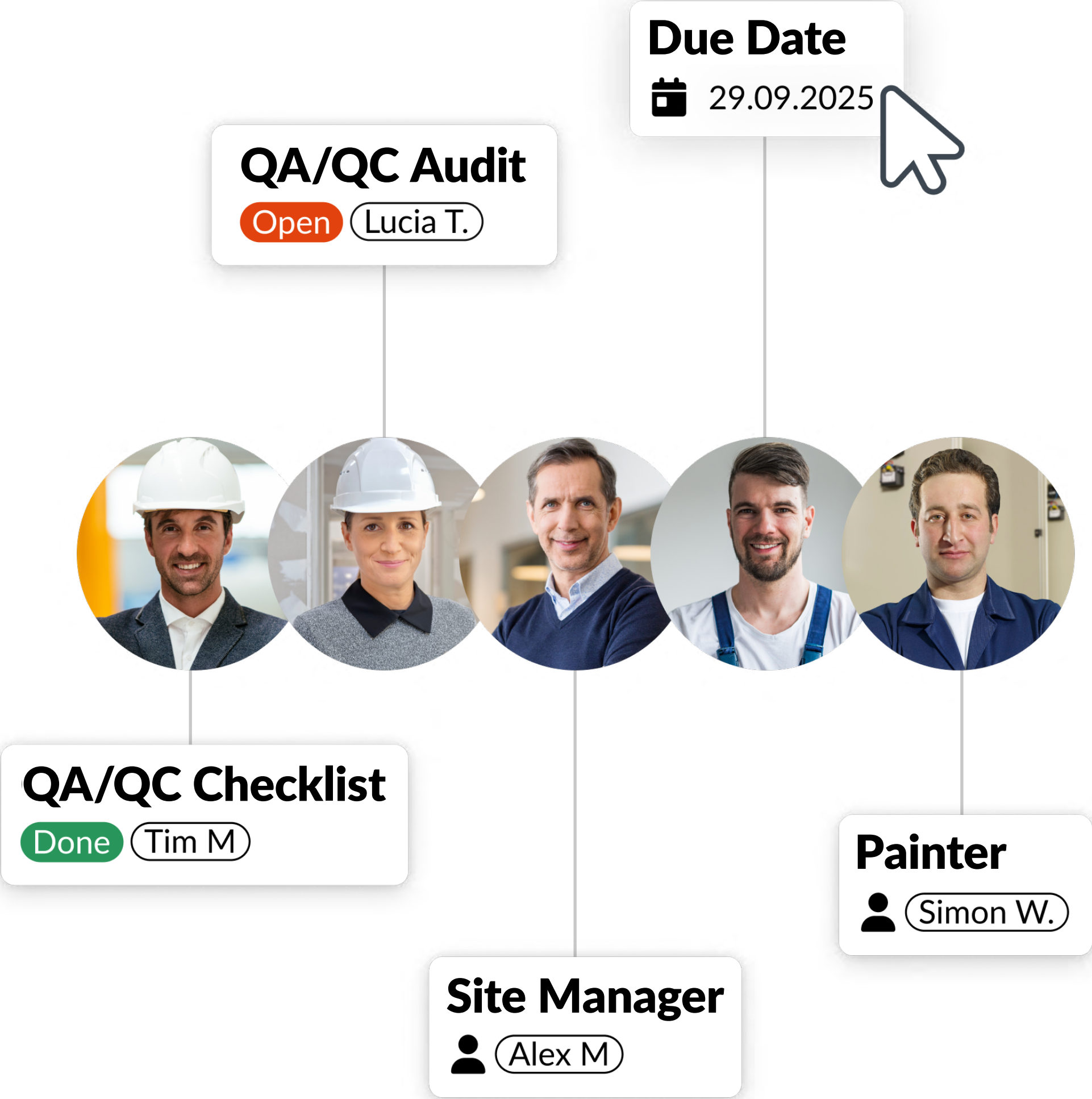


Conclusion

Quality improves when people make it consistent. Technology can solve much of the consistency challenge, but its outcome depends on project leaders, site teams, and subcontractors working together to one standard – and holding the line when it matters. Without rigorous application and enforcement, even the best tools simply digitise fragmented practices.

The path is simple: define a single QA/QC standard, digitise it in one platform, and hold teams to it from day one. When leaders set clear processes and enforce consistency, rework falls, timelines steady and margins strengthen.

What’s next? Use this report to inform action – what will you do to take the first step towards consistency?





PlanRadar is a leading platform for digital documentation, communication and reporting in construction, facility management and real estate projects. With over 170,000 users in more than 75 countries, PlanRadar enables customers to work more efficiently, enhance quality and achieve full project transparency.



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