Technical Report Management

An Emerging Technology Category for the AEC Industry

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SECTION 1

EXECUTIVE SUMMARY

In today's AEC industry, technical reports are mission-critical deliverables that encapsulate a firm's expertise, key findings, and compliance on projects. Technical Report Management (TRM) refers to the integrated approach and technology platform for streamlining the end-to-end process of developing, reviewing, and finalizing technical report deliverables. TRM provides a centralized, collaborative system to manage report content, workflow, standards, and data. The purpose of this report is to assess how AEC firms manage processes associated with technical reports. Furthermore, this research examines the role of TRM in the industry's journey towards digital maturity. To that end, we leveraged existing and primary research to understand the benefits from TRM in the context of the current and emerging economic, operational, quality, and workforce trends in the AEC industry.

Engineering firms are at an inflection point. Record levels of infrastructure investment have driven peak workloads and employment, intensifying competition for skilled talent. At the same time, productivity in AEC has not kept pace with other sectors, highlighting a critical need to leverage technology and innovative practices to boost efficiency. Technical report production processes are often seen as back-office tasks, but they actually play a strategic role in firm performance. Nearly every project or new business opportunity comes with a substantial technical report requirement, meaning a firm's capacity to produce high-quality reports can directly limit (or enable) growth. Given this reality, the goal of this report is to articulate why investing in TRM tools is not just an IT upgrade, but a strategic growth initiative. We will explore how TRM addresses pressing challenges in project delivery, quality control, and knowledge management, and how it aligns with broader trends like digital transformation, AI adoption, and workforce development in AEC.

The Architecture, Engineering, and Construction (AEC) industry is experiencing unprecedented project demand amid workforce shortages and rapidly evolving technology. Technical report deliverables are under increasing pressure to be produced faster and with higher quality. However, many AEC firms still rely on fragmented, manual

processes for report creation, leading to inefficiencies, inconsistency, and reputational risk. Market forces are driving the need for TRM solutions for AEC firms.

Industry research and stakeholder interviews reveal that TRM can significantly improve operational productivity (cutting report development time by 40-70% in some cases), enhance quality and first-pass approval rates, and mitigate knowledge loss as senior experts retire. With AEC firms forecasting nearly 10% revenue growth in 2025 yet citing talent acquisition and retention as their #1 challenge, the strategic value of investing in TRM is clear. By streamlining workflows, embedding best practices, and leveraging automation and data insights, TRM tools enable firms to boost profitability, reducing project risks, and strengthening competitive positioning. This report provides an insight-driven analysis for AEC executives, outlining the economic rationale, key benefits, and implementation considerations for TRM adoption. It concludes with recommendations for integrating TRM into organizational strategy to drive sustainable profitable growth.
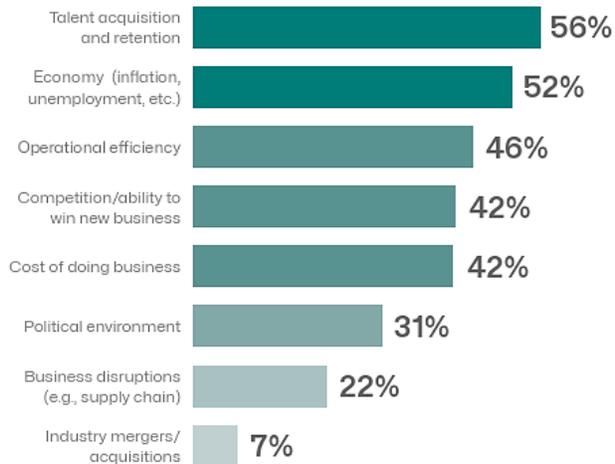
SECTION 2

MARKET DEMAND AND ECONOMIC IMPACT

The market context for AEC firms underscores both strong demand and significant pressures that make the case for TRM increasingly compelling. On the demand side, architecture and engineering firms remain broadly optimistic about growth. Firms are forecasting 9.6% net revenue growth for 2025, and operating profit margins have reached a 10-year high at 21.4% of net revenue, as reported by the latest Deltek Clarity Study. According to the ACEC Research Institute's Engineering Business Sentiment Report (2025 Q1), over half of firms believe they will see higher backlog levels over the next year. At the same time, 75% predict an increase in hiring. This optimism persists despite economic headwinds. A key driver behind these growth ambitions is digital transformation investments.

Capturing market opportunities in this environment comes with challenges. Record infrastructure spending has filled pipelines but also intensified competition for skilled labor, creating capacity constraints for firms. When backlog is strong but staff resources are limited, inefficiencies in any part of the project delivery process translate to real economic costs like lost opportunities, overtime, or project delays. Technical report development is one such area that, if not managed well, can become a bottleneck affecting profitability and client satisfaction. Over half of AEC firms now cite talent acquisition and retention as a top business concern, outranking concerns like inflation or competition. In research interviews, firm leaders noted that highly paid technical staff spend excessive hours on routine documentation tasks. These challenges in allocating resources often result in deteriorating margins. Simply put, firms facing more work but with fewer available people must find ways to do more with less without compromising quality or timelines.

BUSINESS CONCERNS

Concern	Percentage
Talent acquisition and retention	56%
Economy (inflation, unemployment, etc.)	52%
Operational efficiency	46%
Competition/ability to win new business	42%
Cost of doing business	42%
Political environment	31%
Business disruptions (e.g., supply chain)	22%
Industry mergers/ acquisitions	7%

Talent acquisition and retention emerged as the most pressing concern, surpassing factors like the economy and operational efficiency. This reflects an industry shift: with abundant project opportunities but a limited talent pool, firms worry more about having the capacity to deliver than about generating demand. (Source: Unanet's Inspire Report 2025 Edition)

The economic impact of inefficient technical report processes can be significant. When report preparation delays a project deliverable, it can delay invoicing and cash flow, but more importantly it negatively impacts the client experience. Conversely, improving report turn-around times can directly improve revenue recognition and client satisfaction. If your firm cannot scale its report production effectively, it may have to turn down projects or bids, limiting revenue growth. TRM addresses this by enabling firms to handle higher project volume and complexity without linear increases in staff. By automating repetitive tasks and streamlining workflows, TRM frees up technical experts to focus on value-added work. This efficiency translates into economic gains: more projects delivered per year, higher utilization of billable staff on high-value work, and potentially faster project completions.

Strong project opportunities, tight labor supply, and greater client expectations for quality and speed create a clear economic case for TRM. Investing in tools that accelerate technical report delivery and improve efficiency helps ensure firms can capitalize on market demand. Moreover, it positions firms to maintain profitability even as costs rise, by attacking non-value-added activities in the reporting process. The next sections delve into exactly how TRM drives operational improvements, quality gains, and strategic advantages for AEC firms.

SECTION 3

OPERATIONAL EFFICIENCY

One of the most immediate benefits of Technical Report Management is in operational efficiency. Traditional report development in AEC firms is often described as cumbersome and fragmented. In interviews, staff described workflows involving multiple disjointed tools. Engineers perform calculations in one software, copy results into Word documents, manually insert photos and tables, and track edits via emailed PDFs. This piecemeal approach causes redundancy and delays. From initial drafting to incorporating reviewer comments, addressing client revisions, assembling appendices, and final formatting, a single report might require many hours of work by multiple team members and can jeopardize project timelines.

TRM directly tackles these inefficiencies by introducing automation, integration, and structured workflows into report production. A modern TRM platform typically provides:

- Standardized workflows with automated task routing (e.g. notifications, approvals) that guide report writers and reviewers through each step in a logical, efficient sequence;
- Time-saving content features like auto-populating data fields throughout a report or using smart templates (so information is entered once and flows wherever needed); and
- Collaborative authoring environments where multiple contributors can work on the report simultaneously with version control.

By replacing ad-hoc copy-paste routines with structured processes, TRM minimizes duplicate effort. For example, if a lab result is entered in one section, the software can propagate it across the entire document automatically. One engineer interviewed noted that before implementing a TRM solution, their team would manually re-enter the same project data into the cover page, several tables, and conclusions. With TRM, such repetitive tasks are handled by the system, freeing engineers to focus on analysis rather than clerical adjustments.

Data integration is another productivity booster. Traditional reporting often requires manual data pulls from various sources (spreadsheets, databases, GIS maps, etc.). TRM platforms can integrate with the other systems an AEC firm uses, linking to ERP databases for project financial data or to GIS/mapping tools for site figures. This means relevant data flows into the report without manual transfer, improving speed and accuracy. Mobile data collection is also a game-changer: field staff can upload site photos and field notes directly into the report template from a mobile device, rather than waiting to be back at the office to transfer and format them. Such capabilities drastically cut down cycle time, especially for field-intensive reports (environmental surveys, construction observation reports, etc.), and reduce the risk of omissions or mistakes when transcribing field information.

Firms that have adopted TRM report substantial time savings in report development. Some AEC companies have been able to reduce report development time by up to 70% after implementing TRM. Even more conservative cases cite time savings of 40% per deliverable. These efficiencies accumulate significantly over multiple projects. If a firm produces hundreds of reports a year, cutting half the effort per report translates to thousands of labor-hours saved. TRM also tends to shorten review cycles, as the process becomes transparent and well-coordinated (reviewers get notifications, can comment in-line, and trust that the latest version is always at hand). Faster report turnaround not only saves internal effort but can impress clients and consistently support on-time project delivery. TRM can boost productivity without requiring additional hires, a critical advantage given the current labor market. A recent industry publication noted that AEC firms are using TRM platforms specifically to "improve efficiency and productivity without additional staff". By automating workflows and providing data insights, these tools allow the existing workforce to accomplish more.

TRM introduces analytics and process visibility that further drive operational improvement. Under a manual and decentralized approach, many firm leaders had little insight into how long report preparation was taking or where the bottlenecks were. TRM platforms often include dashboards or analytics that track metrics like average report cycle time, number of revisions, sections causing delays, and others. Access to this data enables continuous improvement. Managers can identify weak points in processes and address them. Over time, this data-driven optimization can yield additional productivity gains beyond the initial automation wins. By streamlining workflows, eliminating redundant tasks, and illuminating

the process with data, TRM vastly improves operational efficiency in technical report production.

Change in Total Factor Productivity
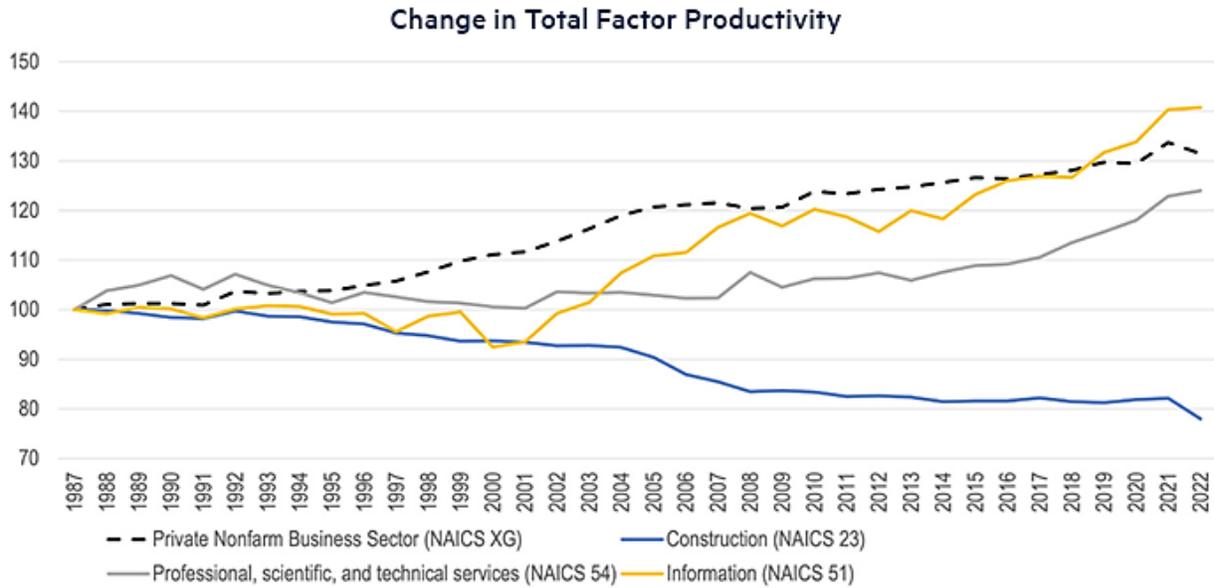
Amid record infrastructure spending and peak employment, the industry still lags in technology adoption, innovation, and productivity. (Source: ACEC; BLS)
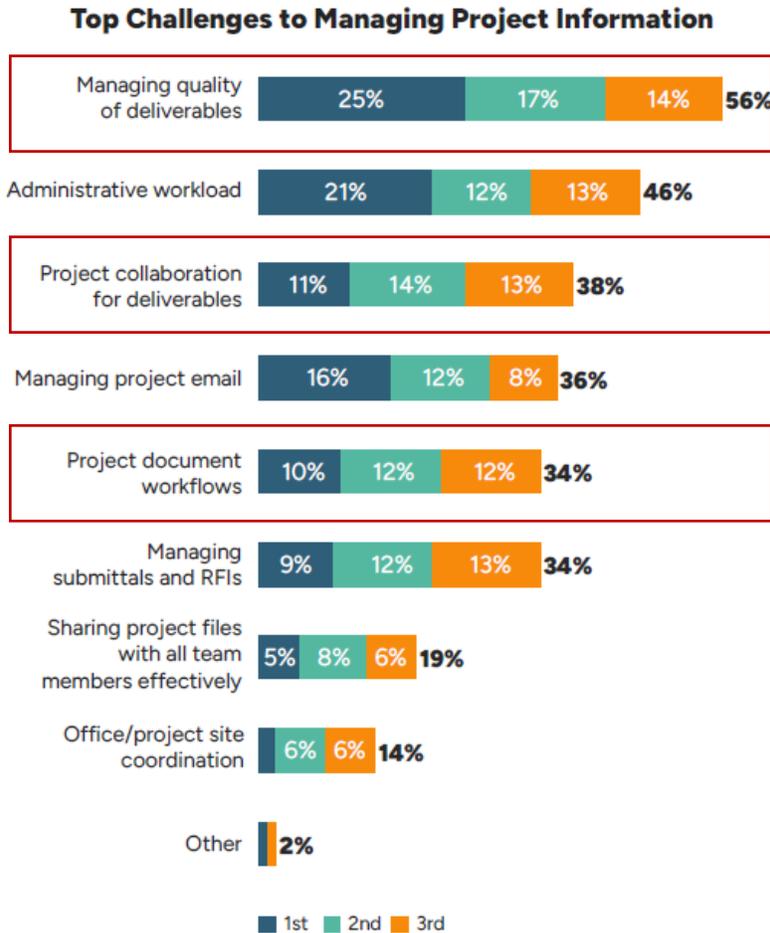
SECTION 4

QUALITY, RISK, AND KNOWLEDGE MANAGEMENT

Beyond raw efficiency, TRM delivers improvements in the quality of deliverables and helps mitigate various risks associated with technical documentation. High-quality reports are essential: they are often the most visible work product delivered to clients (and sometimes regulators or the public), so errors or inconsistencies in reports not only lead to costly rework but can also damage a firm's reputation. Traditional manual report processes are prone to typos, incorrect data transposed from one document to another, sections accidentally omitted, outdated boilerplate, inconsistently applied branding elements, and other pain points. When multiple people edit a report using cut-and-paste methods, maintaining consistency is a serious challenge. Such quality issues not only undermine client confidence but also create risk if important information is missed or misrepresented.

TRM imposes governance and standardization that significantly improve report quality. Common TRM features include content libraries and enforced templates that ensure every report uses up-to-date standards for terminology, formatting, and branding. For example, firms often have approved language for safety disclaimers or methodology descriptions; a TRM system can lock those sections so that authors must use the standardized text (or choose from approved options) rather than writing them from scratch each time. This guarantees consistency across all deliverables. Likewise, TRM can restrict editing permissions on critical sections or implement content locking, so that junior staff cannot accidentally overwrite a senior engineer's conclusions, for instance. By having a single source of truth for templates and style, TRM virtually eliminates formatting errors and ensures compliance with corporate quality guidelines across reports.

A measurable outcome of this enhanced quality control is the increase in first-pass approvals of reports. Firms using TRM have reported up to a 50% increase in reports being approved by the client or regulator on the first submission (rather than coming back with significant revisions). Fewer revision cycles indicate that the reports are more accurate and aligned with requirements out of the gate. This not only saves time (as discussed

earlier) but also reduces the risk of missing project deadlines or incurring additional costs due to rework. In industries like environmental consulting or civil engineering, where a flawed technical report might delay a permit or construction start, the value of getting it right the first time is enormous.

Top Challenges to Managing Project Information

Challenge	1st	2nd	3rd	Total
Managing quality of deliverables	25%	17%	14%	56%
Administrative workload	21%	12%	13%	46%
Project collaboration for deliverables	11%	14%	13%	38%
Managing project email	16%	12%	8%	36%
Project document workflows	10%	12%	12%	34%
Managing submittals and RFIs	9%	12%	13%	34%
Sharing project files with all team members effectively	5%	8%	6%	19%
Office/project site coordination	6%	6%		14%
Other				2%

■ 1st   ■ 2nd   ■ 3rd

Managing quality is a top challenge for firms when managing project information. (Source: 2025 Deltek Clarity Report)

From a risk management perspective, TRM helps mitigate several types of risk:

- Project Risk: By ensuring reports are completed faster and correctly, TRM reduces the chance that a reporting delay will hold up a project or that an error will lead to design/construction mistakes. Improved data integrity (through integration and auto-population) means decisions are based on accurate information, lowering technical risk.

- Compliance Risk: Many technical reports must comply with regulatory standards or client-specific requirements. TRM allows firms to embed compliance checklists and standard sections (e.g. OSHA safety criteria, ASTM methodologies, etc.) into the workflow, so nothing is overlooked. Consistent documentation can also demonstrate due diligence, which is crucial in audits or legal disputes.
- Liability Risk: Poor quality reports can expose firms to liability – for example, an engineering report that omitted a critical analysis could lead to a construction failure and subsequent litigation. TRM's quality controls (and the audit trail of who made what changes) bolster the defensibility of the firm's work. If every calculation and assumption is well-documented and reviewed through the system, there's less ambiguity in the deliverable. Some TRM systems even maintain an archive of all revisions and comments, creating a knowledge trail that can be referenced later if questions arise.

Equally important is TRM's role in knowledge management within AEC organizations. Technical reports encapsulate a huge amount of institutional knowledge as they contain design rationales, project learnings, and expert insights. Yet historically, once a report was sent to the client, that knowledge often became siloed, sitting in a PDF on a server. New staff had limited ways to learn from past reports aside from manually searching files or relying on mentorship from experienced colleagues. TRM platforms turn technical reports into a more usable knowledge repository. Because content is structured and stored centrally, team members can easily search past reports for relevant sections or data (for example, to find how a similar project's foundation issues were addressed). This access to past deliverables helps propagate best practices and lessons learned across the firm, rather than starting each report from scratch. In our research, younger engineers expressed that being able to reference high-quality past reports through the TRM system dramatically shortened their learning curve.

As the AEC workforce evolves (discussed more in the next section), TRM helps to preserve institutional knowledge amid turnover. Many industry professionals expect to retire by 2031, so firms are at risk of losing a wealth of expertise. TRM can't replace human mentorship, but it ensures that standard approaches and accumulated insights are codified in the firm's deliverables and templates. TRM creates a structured knowledge base of reporting content and process data that remains with the organization even as individuals come and go. The ACEC future-of-data study underscores that data is now a critical asset for AEC firms, and effective management of that data, including the

knowledge in technical reports, is key to maintaining a competitive edge. By treating technical report content as managed data (subject to governance, analysis, and easy retrieval) TRM elevates what was once an isolated task into part of the firm's knowledge ecosystem.

TRM significantly raises the quality and consistency of technical deliverables, thereby reducing risks associated with errors and non-compliance. Simultaneously, it serves as a knowledge management tool, capturing the expertise embedded in reports and providing leaders and teams with the information needed to continuously improve. These factors contribute not only to immediate project success, but also to long-term organizational learning and risk mitigation, strengthening the firm's resilience and reputation.

SECTION 5

WORKFORCE IMPLICATIONS

Perhaps one of the most profound drivers for TRM adoption in AEC is its impact on the workforce. As discussed previously in this report, the AEC industry is amid a well-documented talent shortage. TRM plays a significant role in alleviating current labor challenges as well as helping to create a more attractive work environment for the next generation of professionals. The average age of the AEC workforce is 41 and trending downward as veteran leaders retire out, taking years of experience with them. This demographic shift means firms not only struggle to fill positions but also face a mentorship and skills transfer gap. Any solution that helps utilize existing staff more effectively and reduce burnout is extremely valuable.

AEC firms are competing not just with each other but with tech companies and other industries for young talent, especially as the industry needs new skills such as data analytics and AI. Showcasing a modern, tech-enabled work environment can be a differentiator in recruitment. Young professionals entering the field expect up-to-date tools and resources. If a firm is known to be technology-forward, it signals to candidates that the company invests in making employees' jobs more efficient and values innovation. On the flip side, if new hires find themselves wrestling with archaic processes (e.g. spending hours formatting Word documents or copying data manually), they may become frustrated and more likely to leave for a more modern workplace. Adopting TRM can help a firm brand itself as digitally mature and employee-friendly, which is increasingly important for attracting capable engineers and specialists.

Change in Number of Occupations at A/E Firms 2012 vs. 2022
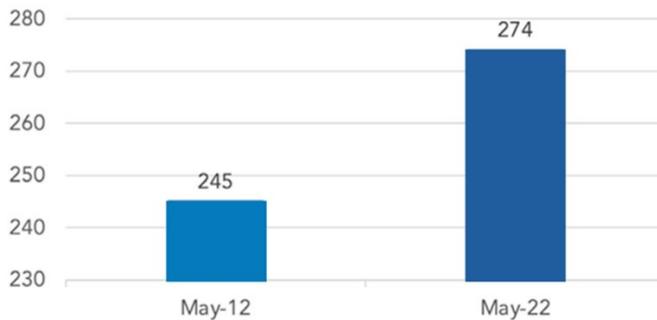
In addition to trying to keep up with evolving technologies, firms are facing increased competition for talent. These factors have been driving AEC firms to diversify their workforce. Emerging roles in firms include Software Developers, Software Quality Assurance Analysts and Testers, Data Scientists, and Web and Digital Interface Designers. (Source: ACEC Report: The Future of Data in Engineering)

Training and skill development go hand-in-hand with technology adoption. As one industry CEO observed, "the biggest mistake firms make is thinking a tool will solve their problems. It's not the tool – It's how people use it. To get real ROI from platforms and tools, you have to train aggressively and explain the why behind the investment.". This insight highlights that simply implementing TRM is not enough; firms need to invest in upskilling their workforce to leverage it fully. TRM adoption can become a catalyst for broader professional development. Firms can establish or enhance training programs for report writing, data management, and analytics in tandem with the TRM rollout.

TRM also supports workforce agility and collaboration. Remote teams are quite common in engineering firms today. Therefore, having a cloud-based platform for report development means team members can collaborate. This flexibility has become important for both productivity and employee satisfaction as many AEC professionals value the option to work from home or on the road without losing access to necessary tools. TRM fits well into modern IT ecosystems and can facilitate cross-office collaboration on reports.

Instead of relying solely on apprenticeship-style knowledge transfer (which is constrained by the availability of senior mentors), younger engineers can learn from the body of knowledge embedded in past reports and the structure imposed by TRM. According to ACEC, firms that foster data and digital skills within their workforce will be better positioned for the future. Implementing TRM inherently pushes the firm in that direction by exposing staff to new digital workflows, encouraging data-driven thinking, and often involves using AI and other advanced features. As AI and machine learning become more

integral to engineering processes, having a workforce comfortable with digital tools like TRM is a stepping stone to adopting even more advanced technologies down the line.

SECTION 6

STRATEGIC VALUE AND COMPETITIVE POSITIONING

Investing in Technical Report Management is a strategic move that can elevate a firm's market position and long-term viability. In an industry as competitive as AEC, the firms that harness technology and data effectively are pulling ahead. Studies project a clear divide between "winners and losers," where those that embrace technology solutions and data-driven decisions to solve problems for their clients will be best positioned for success. Let's examine how adopting TRM contributes to strategic advantages:

1. Differentiation and Client Satisfaction: High-quality reports delivered on or ahead of schedule are a competitive differentiator in the eyes of clients. Technical reports often influence a client's perception of project success (e.g., a clear, well-structured report can instill confidence that the project was well executed). Firms that consistently produce superior reports faster than competitors stand to win more repeat business and referrals. By implementing TRM, a firm can market its ability to provide high-quality deliverables through cutting-edge processes.

2. Speed and Agility in Project Delivery: From a strategic standpoint, cycle time is king – the faster a firm can deliver results (without sacrificing quality), the more projects it can take on and the more responsive it can be to client needs. It allows greater agility. Integrating a change is much easier due to the modular, automated nature of the report content. Strategically, this agility translates to better client service and a reputation for reliability, which strengthen market position.

3. Data-Driven Strategy and Innovation: The data and insights gleaned from TRM usage improve the report process and can inform broader business strategy. TRM analytics might reveal that certain project types yield thin margins, signaling the firm to price those projects differently or invest in further template optimization for them. By analyzing content across hundreds of reports, a firm might identify a common design challenge and decide to develop a new service offering or research initiative to address it. Firms using TRM are inherently practicing better data management (on their deliverables and

processes), positioning them to be more proactive and innovative. They have the information at hand to make decisions related to allocation of resources and investing in new capabilities.

4. Alignment with Industry Direction (Digital Maturity): The AEC industry is admittedly not as digitally mature as some others. Only about 20% of firms currently consider themselves at an advanced stage of digital transformation. However, a majority plan to reach that level in the next few years (52% believe they will achieve advanced digital maturity within three years). The clock is ticking on adopting modern tools. What is a competitive advantage today will become a baseline expectation tomorrow. Implementing TRM now allows a firm to join the ranks of the digitally advanced early, rather than playing catch-up later. It also yields immediate benefits that can be reinvested. Technology and AI adoption ranks among the top strategic priorities for firms across the board. TRM incorporates elements of AI and falls under the umbrella of digital tools that improve data security. By aligning with these strategic priorities, TRM investment supports a firm's broader digital transformation roadmap. It sends a message to stakeholders (employees, clients, and partners) that the firm is serious about leveraging technology to improve outcomes.

5. Talent Strategy and Organizational Value: As discussed in the workforce section, firms that effectively use tools like TRM are more likely to attract talent. In addition to having lower talent acquisition costs over time, there is a shift towards continuous improvement and innovation, which is key in high-performing organizations. On the flip side, firms that ignore process improvements risk stagnation. Another strategic dimension is enterprise value. Technology-enabled firms are often valued higher in mergers and acquisitions because they promise better scalability and lower operational risk. By formalizing and optimizing the technical reporting process, TRM adds to the institutional infrastructure of a firm. It reduces key-person dependence and makes the firm's performance more predictable and transferable. A firm's digital maturity can influence how it's perceived by clients, investors, and potential acquisition targets.

TRM helps differentiate service delivery, increases agility, feeds a culture of data-driven improvement, and aligns the firm with the future state of the industry. By embracing TRM, AEC firms signal that they are committed to excellence in every facet of project execution – not only in design and engineering but also in how they deliver information and insight. In an environment where technology and talent are pillars of competitive advantage, TRM addresses both.

SECTION 7

APPENDICES

7.1 – Quotes from Interviews

- Revenue and Costs
    - "Technical reports aren't a direct revenue generator for us – they're typically rolled into project costs, but they do eat up a lot of time that we can't always bill for."
    - "We view report writing as a necessary overhead. We try to recoup costs in our project fees, but honestly, the time spent on reports often exceeds what we budgeted."
    - "There's no separate line item for 'report production' when we bill clients, but the effort definitely affects profitability. Efficient report processes can save us money, ironically."
    - "Some specialized reports we can charge as an extra service, but mostly the cost of preparing reports is baked into project deliverables, so controlling that cost is important."
- Process Management
    - "We've had to put in place a structured review process: draft, peer review, project manager review, and final sign-off. It's a bit cumbersome but necessary for quality."
    - "Our report process is pretty linear... field data comes in, then a staff engineer drafts the report, a senior engineer reviews it, and finally it goes to the client. Tracking each step is still manual."
    - "We try to manage the report workflow using a shared spreadsheet or our project management software, but to be honest, it's mostly managed via email reminders and personal to-do lists."
    - "I oversee the process through weekly check-ins. We don't have a fancy system; it's basically the project manager making sure drafts are done and reviews happen on schedule."

- o "Each project engineer has their own way of writing reports"
- o "It's hard to know the status of a report – you only find out it's behind schedule when it's almost due."
- o "Senior engineers spend hours after work piecing together appendices"
- Tools Used
  - o "We're primarily using Microsoft Word with some custom templates. For calculations or data, we pull from Excel and then embed those results into the Word report."
  - o "Honestly, it's pretty low-tech. We use Word for writing and sometimes specialized software for analysis, but the integration is manual. A lot of copying figures from one place to another."
  - o "We've experimented with some report generation tools, but right now it's still mostly Word plus Excel. We also use Bluebeam for marking up drafts and PDFs."
  - o "Our tech stack for reporting is basically Office 365. We haven't adopted any dedicated reporting software, so it's Word documents, Excel data tables, and PDFs for deliverables."
- Pain Points
  - o "We copy-paste data from spreadsheets into Word and then into PDFs. It's very manual"
  - o "One pain point is definitely the time consumption. Reports can take days of work, especially with back-and-forth edits. It's also hard to maintain consistency across different authors."
  - o "Formatting issues are a huge headache. We spend so much time fixing numbering or aligning images. Also, making sure everyone is using the latest template is a constant battle."
  - o "Version control is tough. We have multiple people contributing and it's easy to lose track of which draft is current. And of course, tight deadlines make it stressful."
  - o "Data duplication and errors are big pain points. We might have the same data typed in multiple places. If something changes, we have to catch it everywhere, and that doesn't always happen."
  - o "When our go-to report guru retired, we realized we didn't have a playbook – just a bunch of old reports as reference."
- Solutions

- o "We've started developing standard templates and sections that we can reuse. The idea is to not start from scratch every time, and it's helped a bit in speeding up the process."
- o "One thing we did was create a checklist for report quality control. It's a small thing, but it ensures that at least the basics are always covered before a report goes out."
- o "We're actually piloting a new document management system to help with version control and collaboration. It's early, but I think it'll streamline how we produce reports."
- o "Our company formed a working group to improve reporting. We're looking at everything from better training for junior staff on report writing to potentially investing in report automation tools."

- AI and Automation
  - o "We haven't really applied AI in our reporting process yet. I know there are tools out there, but so far it's all human effort – writing, reviewing, editing."
  - o "I personally tried using a generative AI tool to draft some boilerplate text. It was interesting, but it still needed a lot of editing to fit our context, so it's not part of our standard workflow."
  - o "Automation for us is mostly limited to Excel macros populating parts of the report. True AI usage hasn't taken off here yet, though people are curious about it."
  - o "We're watching the AI space, but our reports are too specialized for a generic AI to handle without training. For now, automation is basically templates and maybe some data import scripts."

- Outlook
  - o "I see a trend toward more digital reporting – interactive reports or dashboards instead of static PDFs. We're not there yet, but clients are starting to ask for more dynamic deliverables."
  - o "The future might bring more integration across systems. I can imagine our field data collection apps feeding directly into a report template, cutting down manual input."
  - o "I think reporting will become more standardized across the industry. There's pressure to do things faster and cheaper, so we'll likely adopt more tools or even AI to help get reports out."

o "We expect tighter turnaround times and possibly real-time reporting. Also, regulations change, so keeping up with those in our report templates is something we foresee needing more automation for."

7.2 – Sources

- Research interviews with 15 AEC firms with sizes ranging between 12 and 1,500 employees (average: ~420) with expertise across all disciplines (architecture, planning, civil engineering, transportation, environmental, geotechnical, geospatial, land development, MEP, materials testing, CM/PM, and others)
- 46th Deltek Clarity (2025)
- ACEC Report "Future of Data in Engineering" (2024)
- Unanet Inspire Report "Future of Work in AEC" (2025)
- SmartBrief Industry News (Dec 2024)
- AECbytes Tech Report Management Viewpoint (2024)