

Your Lifelong Productivity Partner

White Paper:

Breaking Through Execution Bottlenecks in Product & Engineering Teams

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Introduction: The Unseen Execution Crisis

In today's hypercompetitive and digitally complex environment, companies are racing to innovate, ship features, and adapt to fast-changing market conditions. Yet beneath this urgency lies a troubling and pervasive challenge: execution bottlenecks. Delays, inefficiencies, and breakdowns in product and engineering workflows are quietly sabotaging progress, draining resources, and eroding morale. And while productivity platforms and agile practices promise relief, the invisible force of mental strain is compounding the crisis.

Beyond poorly designed sprints or misaligned goals, today's execution failures are increasingly driven by less visible forces — team fatigue, decision paralysis, and mental overload. These factors introduce invisible bottlenecks that algorithms don't track, tools don't surface, and managers often misunderstand. This white paper explores the full scale of execution bottlenecks, their business impact, the current landscape of solutions, and how modern organizations must evolve to address both operational inefficiencies and the rising mental crisis that throttles productivity from within.

1. Scale of the Problem: When Work Gets Stuck

Execution issues are alarmingly widespread. Studies show that only about one-third of projects are delivered on time. In software development, the outlook is even more grim: just 16.2% of projects are completed on time and on budget. Over 70% of organizations experience at least one project failure annually, and 65–80% of IT projects fail to meet their original objectives, often running late or exceeding cost estimates.

These statistics underscore a deeper truth: execution bottlenecks are not anomalies — they are systemic. Within engineering teams, the pace is routinely compromised by sprint inefficiencies, backlog pileups, and cross-functional misalignments. Agile workflows often limp forward with unfinished stories bleeding into future sprints, eroding momentum and clarity.

A closer look at productivity metrics reveals that just ~15% of a task's lifecycle involves active work. The remaining 85% is lost to wait states — code reviews, dependency stalls, approval queues, or simply ambiguity. Engineering leaders estimate that nearly a quarter of their teams' time is wasted on non-value activities such as redundant meetings or chasing status updates. Only 10% of engineering heads say their companies consistently launch on time.

But beneath these numbers lies a more subtle layer: cognitive bottlenecks. Developers juggling multiple tickets, unclear handoffs, and constant context switching experience mental fragmentation. The human brain, unlike a cloud processor, cannot parallelize unlimited tasks. Execution suffers not just from broken tools, but broken focus. In the same way that a stalled story in Jira slows delivery, a mentally drained engineer delays progress across the board.

2. Business Impact: The Trillion-Dollar Drain

The financial fallout from execution delays is enormous. The Project Management Institute estimates that 11.4% of all project investments are lost due to poor execution practices. With over \$48 trillion spent annually on projects, that equates to trillions in squandered value.

Delayed product launches hit businesses where it hurts: the bottom line. Gartner reports that late launches typically achieve just 20% of their projected impact. That means an app, service, or feature shipped even a few weeks late could earn only a fraction of its expected

revenue. Moreover, missed launch windows allow competitors to gain traction, acquire users, and control the narrative.

Budget overruns are equally catastrophic. Over half of all software projects exceed budgets, some by nearly double. For startups and scaling companies, the effects can be existential. McKinsey's research shows that 17% of large IT projects fail so severely that they jeopardize the organization's survival. Case in point: Kmart's \$1.4 billion IT failure is often cited as a key factor in its collapse.

Execution delays also waste irreplaceable effort. Around 45% of features built are never used, often because they arrive too late or are misaligned with real needs. Meanwhile, team capacity remains frozen — the longer a project drags on, the longer engineers are stuck in limbo instead of moving to the next priority. This creates a backlog of innovation, compounding technical debt and throttling growth.

Yet most teams don't just face technical bottlenecks — they are mentally overwhelmed. Stress, ambiguity, and burnout silently corrode execution from within. A team stuck in endless cycles of planning, rework, and firefighting is not just inefficient — it is demoralized. This human inefficiency may be harder to measure, but it's just as costly.

3. Competitive Landscape: Tools, Gaps, and the Limits of Automation

A growing suite of tools promises to tackle execution bottlenecks. Each brings unique capabilities, yet none offer a comprehensive fix.

Atlassian (Jira & Atlassian Intelligence): Atlassian (Jira Software & Atlassian Intelligence): Atlassian's Jira is the de facto standard for software project tracking, used by hundreds of thousands of companies worldwide (the Atlassian Cloud alone supports 290,000+ customers, including NASA, Reddit, and others). Its strength lies in being a unified source of work tracking - teams log tasks, user stories, bugs, etc., enabling transparency. Atlassian has recently introduced Atlassian Intelligence, adding AI features to Jira and Confluence. This includes smart suggestions (e.g., automatically turning meeting notes into Jira tasks) and built-in analytics. Jira's cloud platform now offers realtime team insights to "report on team health and remove bottlenecks" via Jira **Software's insights dashboards**. The **advantage** is deep integration: Atlassian's tools span project tracking, documentation, CI/CD integration (Bitbucket), and now AI, which can surface obstacles or optimize workflows within that ecosystem. However, a limitation is that Jira traditionally relies on manual inputs and discipline – it will list issues, but it's up to humans to notice something is stuck. The new AI capabilities (e.g., automatic issue creation from text or breaking down work with one click) help with productivity, but they predominantly operate within Atlassian's environment. Jira might not automatically

detect a behavioral issue like an engineer overloaded with too many tasks or a cultural issue like inadequate cross-team communication; it provides the data, but interpreting bottlenecks still often falls to project managers. In short, Atlassian is a powerful foundation and is now layering AI, but its focus is on workflow automation and information aggregation rather than deep behavior change.

Asana: Asana is a leading work management SaaS known for its intuitive interface and cross-functional appeal. Teams across product, marketing, and engineering use Asana to plan projects, assign tasks, and track status. Its **strength** is in facilitating collaboration and visibility for all types of work, not just software development, and it has robust features for deadlines, dependencies, and status reporting. Many fast-growing companies use Asana to keep product roadmaps on track. However, Asana's orientation is more towards general project tracking and less about engineering-specific metrics. It does not natively analyze developer workflows (no integration to your git data or code reviews out-of-thebox), so it may not catch, say, that code review latency is rising or that a particular microservice team is a bottleneck. In terms of real-time bottleneck detection, Asana can indicate a task is overdue, but it doesn't diagnose why (e.g., waiting on code merge, unclear requirements, etc.). Its limitation is that it's largely reactive – reliant on team members to update task status – and lacks the deeper engineering analytics or Al-driven root cause analysis that newer tools provide. In summary, Asana is excellent for coordinating work and ensuring nothing is forgotten, but on its own, it doesn't automatically resolve execution snags beyond standard project management practices.

LinearB: LinearB is an engineering analytics and automation tool focused on development team efficiency. It connects to sources like Git repositories, ticketing systems, and CI pipelines to produce metrics on cycle time, deployment frequency, PR review time, and more. LinearB's strength is giving engineering leaders real-time visibility into where work is slowing down in the software delivery pipeline - for example, it can show if feature branches are sitting idle awaiting code review or if deploy frequency dropped this month. It also offers automated alerts and actions: for instance, pinging the team in Slack if a pull request has been open without review for over 2 days. The **advantage** here is a data-driven view of bottlenecks specific to engineering, plus some workflow automation (they promote "WorkerB" bot for developer assistance). LinearB claims teams using its platform see significant improvements, like faster cycle times. The **limitation** is that LinearB's scope is somewhat confined to the software dev process. It excels at code-related bottlenecks (like slow merges or too much WIP in progress), but it may not incorporate higher-level project context or human factors. It relies on integration with Jira or project tools to correlate story progress, and if work is stuck due to something outside the dev pipeline (e.g., unclear product requirements or a dependency on another team), LinearB will flag the symptom (slow cycle) but not the broader organizational cause. Essentially, LinearB tackles execution at the developer workflow level; it may not fully address cross-team alignment or non-code work blockers.

Hatica: Hatica is a newer "engineering analytics" platform that takes a holistic view of team productivity. It **aggregates data from git repos, project trackers, CI/CD, and even collaboration tools** into one dashboard. Hatica's focus is on **end-to-end visibility**: it provides metrics like sprint health, planned vs delivered work, investment of engineering

time across projects, and typical DevOps/DORA indicators. A key strength of Hatica is surfacing blockers and work patterns – it explicitly helps identify where work is getting stuck. As the company describes, Hatica "provides visibility into what your teams are working on, identifies blockers, and gets actionable insights" in one place. It also has features geared toward behavioral aspects, like tracking "Maker Time" (focus time vs. meeting time) for developers and highlighting an "always-on" culture if people are working after hours. These insights can help engineering managers spot unhealthy workflow habits (e.g., too many interruptions or context switches). The limitation of Hatica and similar tools is that, while they do a great job aggregating data and pointing out issues, they often stop at insight. It's then up to leadership to drive the change (e.g. reduce meetings or reallocate work). They don't solve the bottleneck in real-time; they alert you to it. Also, like LinearB, they depend on integration completeness – they work best when all relevant tools are connected (Jira, GitHub, etc.), which in a large enterprise can be a project in itself. In summary, Hatica's strength is comprehensive analytics that bridge project management and developer operations, and it stands out by touching on team behavioral productivity (focus time, burnout signals). The trade-off is that it's primarily an analytics and reporting solution – very valuable for identifying problem areas, but the onus is on the organization to act on those insights continuously.

Propelo: Propelo positions itself as an Al-driven "engineering excellence" platform and is arguably one of the more proactive solutions in this space. It connects to all the DevOps and project tools (similar to Hatica) to provide deep analytics, but importantly, it also offers automation to address issues. According to its creators, Propelo's mission is to help teams make data-backed decisions faster while providing intelligent automation playbooks to reduce the task burden on developers. In practice, this means Propelo can not only identify a bottleneck (say, a QA environment is constantly a gating factor or tickets of a certain type linger too long) but also suggest or execute steps to fix it – for example, auto-assigning the right reviewer, or prompting a process change. The strength of Propelo is this combination of insights + action. It uses AI/ML to find patterns (like which types of work are frequently stalled) and can trigger workflows to mitigate them (akin to having a project coach that not only warns you but also helps you course-correct in real time). Propelo is relatively new but has been recognized for its approach; it's described as an "engineering excellence platform" that provides data-led insights and workflow automation to remove bottlenecks and improve productivity. The **limitations** at this stage could be the complexity of setup and the scope of what its playbooks can cover. Companies may need to trust the platform to make certain changes, and it likely requires tailoring to each organization's processes. Also, like any Al-driven tool, its recommendations are only as good as the data it has and the algorithms – there's a risk of focusing on metrics that are easy to measure rather than deeper cultural issues. Nonetheless, Propelo represents a cutting-edge approach in this space by actively intervening in the workflow, not just monitoring it.

Other Notable Players: In addition to the above, it's worth mentioning that traditional Agile project tools (Azure DevOps, Trello, Monday.com, etc.) and newer AI copilots (like GitHub's AI pair programmer or productivity assistants) all address pieces of team productivity. Companies like **Atlassian** are infusing AI across their suite (for example, Jira

can now draft tickets or summarize project status via Atlassian Intelligence). There's also a market of value stream management and planning tools (e.g. Pluralsight Flow – formerly GitPrime, or WorkBoard for OKR alignment) that tackle strategic alignment to execution. Each of these has strengths – for instance, WorkBoard focuses on linking daily work to quarterly objectives to avoid misalignment. However, no single tool has eliminated execution bottlenecks. The current solutions either excel at **tracking and surfacing problems** (project management, analytics dashboards) or at **streamlining specific** workflows (DevOps automation), but often behavioral and real-time coordination issues remain gaps. This competitive landscape shows strong demand for improving execution, but also room for a new solution that can integrate the **human**, **process**, and tool dimensions of bottlenecks seamlessly.

Across the landscape, the same pattern emerges: tools are excellent at detection, decent at diagnosis, but weak on resolution. None address the full triangle of execution pain — tools, process, and team psychology.

4. The Hidden Bottleneck: Mental Overload

The rise of execution platforms reflects growing awareness of work friction. But one key ingredient is often missing: the mental health of the team. Today's knowledge workers are not just blocked by code reviews or backlog debt — they're slowed by anxiety, overwork, unclear priorities, and emotional fatigue.

Mental overload creates bottlenecks as real as a slow build pipeline. Consider these scenarios:

- A developer receives five Slack pings during a code session and loses deep focus.
- A PM is unclear on product strategy, revises the scope three times in a week, and stalls decision-making.
- A designer burned out from sprint churn misses subtle bugs, requiring late-stage rework.

These aren't task failures — they're attention failures. And they're becoming epidemic. In one survey, 68% of tech workers reported moderate to severe burnout. Burnout doesn't just kill morale; it kills output. It causes procrastination, errors, lack of creative problem solving — all of which cascade into visible delays and invisible waste.

We need to treat mental resilience as part of operational strategy. That means creating work environments with fewer context switches, protected focus time, healthier expectations, and clearer strategic direction. Engineering throughput is not just a technical challenge — it's a psychological one.

5. Strategic Urgency: Why It Matters Now (2024–2025)

Effective execution has moved to the forefront of business priorities in 2024 and 2025, for both large enterprises and scaling startups. After years of digital transformation investments, companies are now intensely focused on *realizing the benefits* of those investments, which means ensuring teams actually deliver results efficiently. In a recent Gartner C-level survey, "increasing operational efficiencies and productivity" was the #1 enterprise priority for 2024, ranked above growth or revenue, and this was the second year in a row efficiency topped the list. In fact, every C-suite leader – CEOs, CTOs, CFOs, etc. – independently cited productivity/efficiency as a top priority in 2024. This reflects an economic environment where organizations must *do more with less*. With uncertain markets and pressures on margins, simply throwing more headcount at problems is no longer viable; instead, companies must unlock more output from the teams they have. This macro trend puts a spotlight on tools and practices that can remove impediments and waste.

Executive Mindshare: Top executives are vocally concerned about execution. As Google's CEO Sundar Pichai famously told his employees, the company needed to improve productivity by 20% and launched a "Simplicity Sprint" initiative to streamline work (after recognizing that with rapid growth, "our productivity as a whole is not where it needs to be" and things were moving slower). Similarly, Meta's CEO Mark Zuckerberg declared 2023 the "Year of Efficiency," aggressively restructuring teams to speed up decisionmaking and project delivery after observing creeping costs and slippage in execution. These actions at Big Tech signal a broader industry realization: execution speed and alignment are critical competitive levers. A company that can innovate or respond to customer needs faster has a clear edge. Conversely, internal bottlenecks are seen as an urgent risk – in Pichai's words, economic storm clouds mean you must tighten up internally to weather them. Startups, too, feel this acutely; venture capitalists in 2024 are advising founders to focus on efficient growth, making sure every sprint counts toward business outcomes (gone are the days of blitzscaling at any cost). In practical terms, this means there's high receptivity to solutions that can demonstrably improve team throughput or eliminate delays.

Alignment and Behavioral Optimization: Another reason this problem is urgent now is that organizations have recognized the *missing link* in execution is often **team alignment and behavior**, not just planning. It's been observed that many companies have clear strategies on paper but falter in execution because teams are not rowing in the same direction. A striking data point from MIT Sloan research found that beyond the C-suite, only 22% of senior executives and *just 13%* of frontline managers can even name their company's top priorities. And around 40% of employees don't know the company's strategy or how their work connects to it. This "shallow alignment" leads to teams inadvertently working at cross purposes or focusing on low-impact tasks – a recipe for bottlenecks and dropped balls. As one CEO put it, "We were aligned on the strategy on the page, but we weren't aligned on the execution... if you don't align, you all end up

moving 1% every day in random directions.". In 2024, more execs are zeroed in on this challenge: ensuring that daily execution maps to strategic goals and that teams maintain focus. This has strategic implications: companies are investing in OKR (Objectives and Key Results) frameworks and tools to cascade goals, and are hungry for analytics that tell them if work is truly progressing or just appearing busy. There's also growing interest in behavioral optimization – using insights to change how teams work. For instance, recognizing that too many interruptions are killing developer productivity and then systematically reducing unnecessary meetings or "work about work." Modern productivity platforms are starting to incorporate such features (Hatica's "Maker time" metric is one example, highlighting if engineers have enough focus time vs. being stuck in meetings). Organizations in 2024 know that optimizing these human factors (like focus, engagement, and avoidance of burnout) is key to sustained execution excellence.

Competitive Pressure and Trends: The urgency is also driven by competitive dynamics. In fast-moving markets, being slow can mean failing – a delayed feature release can cede ground to an agile startup. Conversely, companies that turn execution into a strength (often through cultural change plus tooling) have become breakaway success stories. Executives see that trends like AI and automation are now mature enough to apply to internal operations. Two-thirds of CEOs in a late-2024 survey viewed accelerating AI adoption as one of the biggest opportunities for the next year, largely because they expect AI to drive efficiency and better decision-making. This means many enterprises have board-level support to invest in Al-driven solutions that can pinpoint and eliminate bottlenecks in real time. We're essentially at a convergence point: the technology (AI, data analytics) is available to tackle execution problems in new ways, and the need (productivity, alignment, speed) is paramount on the corporate agenda. Startups that address this pain are finding receptive customers and investors. In the U.S., we also see trends like remote/hybrid work adding to the complexity – coordination and communication gaps can widen when teams are distributed, making traditional management even harder. This has only underscored that visibility and proactive issue resolution are crucial to leadership.

In summary, execution bottlenecks represent a massive problem, as shown by the high rates of project delays and failures, with direct economic consequences in the billions of dollars and strategic consequences for growth and competitiveness. The current solutions in the market each tackle parts of the problem, yet many companies still struggle with work getting stuck or misaligned. With efficiency and productivity now the top priority of executives, there is a timely opportunity for a new approach that combines the strengths of existing tools and addresses their gaps. An ideal solution would give organizations live visibility into work across silos, diagnose the behavioral and process reasons for bottlenecks, and help resolve them dynamically (e.g. via Al-driven nudges or automation) - essentially acting as an "execution co-pilot" for teams. The interest in such capabilities is high because the stakes are high: In 2024–2025, companies that can consistently execute faster, without burning out their teams, will outpace their competition, delight customers, and hit their revenue targets, while those mired in bottlenecks will fall behind. Investors recognize this imperative, which is why backing solutions to the execution problem is not just addressing a pain point but fueling a key strategic advantage for businesses in the modern era.

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