

PRD - Quality Intelligence

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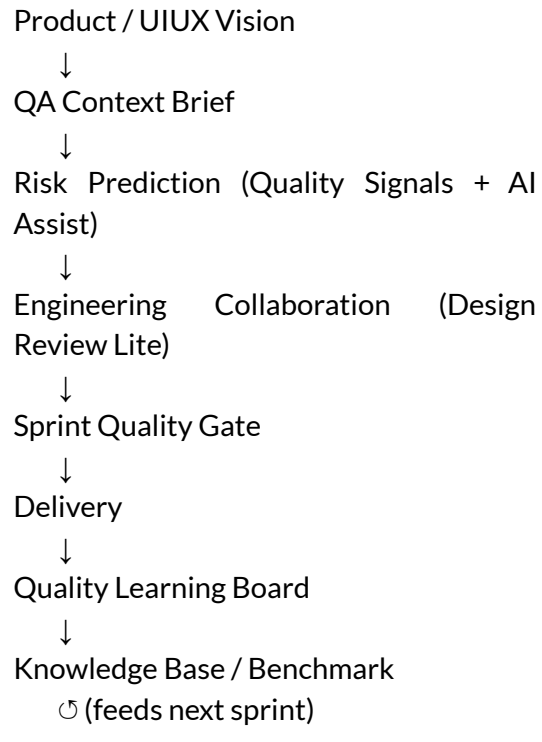
Quality Intelligence adalah model kerja QA yang menerjemahkan visi produk, niat desain, dan sinyal engineering menjadi keputusan kualitas sejak dini.	Quality Intelligence is a QA operating model that converts product vision, design intent, and engineering signals into early quality decisions.
1. Background Paper.id memiliki tim Quality Assurance yang berperan dalam menjaga kualitas produk melalui proses pengujian dan pencegahan dini. Selama ini QA telah menjalankan fungsi operasional dengan	1. Background Paper.id currently has a Quality Assurance team responsible for maintaining product quality through testing and early prevention practices. QA has been operating to ensure

<p>memastikan fitur yang dikembangkan memenuhi standar sebelum dirilis.</p> <p>Namun, seiring meningkatnya kompleksitas produk dan proses bisnis, pendekatan QA yang masih berfokus pada tahap akhir pengembangan belum cukup efektif untuk mendeteksi risiko lebih awal. Beberapa isu kualitas baru terlihat saat sprint sudah berjalan, sehingga berdampak pada efisiensi, rework, dan pengalaman pengguna.</p> <p>Dengan berkembangnya teknologi, khususnya Artificial Intelligence, terdapat peluang untuk meningkatkan peran QA menjadi lebih preventif dan prediktif. Untuk itu, diperlukan perubahan bertahap pada proses dan budaya kerja agar QA dapat berkontribusi lebih awal dalam siklus pengembangan serta mempersiapkan organisasi menuju AI-ready quality culture.</p>	<p>developed features meet quality standards before release.</p> <p>However, as product complexity and business processes grow, a QA approach that focuses mainly on late-stage testing is no longer sufficient to detect risks early. Some quality issues are only discovered after development is underway, impacting sprint efficiency, increasing rework, and affecting user experience.</p> <p>With the advancement of technology, especially Artificial Intelligence, there is an opportunity to evolve QA toward a more preventive and predictive role. This requires a gradual shift in process and culture, enabling QA to contribute earlier in the development lifecycle while preparing the organization for an AI-ready quality culture.</p>
<p>2. Masalah Apa yang Ingin Diselesaikan?</p> <p>Saat ini proses Quality Assurance masih bergantung pada pendekatan manual dan pengalaman individu, sehingga pengetahuan tersebar, belum memiliki benchmark yang jelas, serta membutuhkan waktu lebih lama untuk memahami konteks produk dan risiko di setiap sprint. QA juga sering terlibat ketika pengembangan sudah berjalan, menyebabkan potensi isu kualitas terlambat terdeteksi dan berdampak pada rework serta efisiensi delivery. Tanpa sistem pembelajaran yang terstruktur dan pendekatan berbasis AI, produktivitas QA sulit ditingkatkan secara konsisten, knowledge tidak terdokumentasi dengan baik, dan organisasi belum memiliki standar kualitas bersama.</p>	<p>2. What are the problems we're trying to solve?</p> <p>Currently, the Quality Assurance process relies heavily on manual practices and individual experience, resulting in fragmented knowledge, unclear benchmarks, and longer time to understand product context and risks in each sprint. QA often becomes involved after development has started, causing potential quality issues to be detected late and leading to rework and reduced delivery efficiency. Without a structured learning system and AI-driven approach, QA productivity is difficult to scale consistently, knowledge remains undocumented, and the organization lacks shared quality standards.</p>

<p>3. Apa Dampaknya Jika Tidak Dilakukan Sekarang?</p> <p>Jika inisiatif ini tidak dimulai sekarang, proses QA akan tetap berjalan lambat, reaktif, dan bergantung pada cara kerja lama, sementara kompleksitas produk terus meningkat. Hal ini berpotensi memperbesar rework, menurunkan efisiensi sprint, dan memperlambat delivery. Selain itu, tanpa adaptasi terhadap pendekatan berbasis AI, tim QA berisiko tertinggal dalam perkembangan teknologi, kehilangan kesempatan untuk membangun <i>knowledge</i> yang terstruktur, serta kesulitan mengikuti standar kualitas modern. Dalam jangka panjang, kondisi ini dapat mempengaruhi daya saing tim dan kemampuan organisasi untuk berinovasi secara berkelanjutan.</p>	<p>3. What is the cost of not doing now?</p> <p>If this initiative is not started now, QA processes will remain slow, reactive, and dependent on traditional ways of working while product complexity continues to grow. This increases rework, reduces sprint efficiency, and slows delivery. In addition, without adapting to AI-driven approaches, the QA team risks falling behind technological advancements, missing opportunities to build structured knowledge, and struggling to keep pace with modern quality standards. Over time, this can impact team competitiveness and limit the organization's ability to innovate sustainably.</p>
<p>4. Seperti Apa Definisi Keberhasilan?</p> <p>Keberhasilan inisiatif ini terlihat ketika QA mampu berperan sebagai quality enabler lintas fungsi — memahami visi produk, konteks desain dari UI/UX, kebutuhan teknis engineer, serta membantu menurunkan beban Program Triage melalui pencegahan dini. QA tidak lagi hanya fokus pada pengujian, tetapi menjadi pusat pemahaman kualitas yang menyatukan perspektif bisnis, desain, dan teknis.</p> <p>Non-Metric Goals</p> <ul style="list-style-type: none"> • QA memiliki pemahaman menyeluruh terhadap visi produk dan desain sejak awal sprint • Kolaborasi QA dengan Product, UIUX, dan Engineering terjadi lebih awal dan lebih efektif 	<p>4. What does success look like?</p> <p>Success is achieved when QA evolves into a cross-functional quality enabler — able to absorb product vision, UIUX design context, engineering quality needs, and help reduce Program Triage workload through early prevention. QA no longer focuses solely on testing, but becomes a central quality hub that connects business, design, and technical perspectives.</p> <p>Non-Metric Goals</p> <ul style="list-style-type: none"> • QA gains early and holistic understanding of product vision and design intent • Stronger early collaboration between QA, Product, UIUX, and Engineering • Quality knowledge is documented and used as shared benchmarks

<ul style="list-style-type: none"> • Knowledge kualitas terdokumentasi dan dapat digunakan sebagai benchmark bersama • Risiko kualitas teridentifikasi sebelum fase development berjalan jauh • Beban Program Triage berkurang karena isu dicegah lebih awal <p>Metric Goals</p> <ul style="list-style-type: none"> • Feedback loop lebih cepat (waktu dari development ke feedback QA menurun) • Penurunan jumlah isu yang muncul di akhir sprint atau setelah release • Penurunan rework akibat miskomunikasi kebutuhan atau desain • Peningkatan stabilitas delivery sprint <p>Kesuksesan berarti QA menjadi pusat Quality Intelligence – menerjemahkan visi produk, niat desain, dan sinyal engineering menjadi keputusan kualitas sejak dini.</p> <p>Business Outcome:</p> <ul style="list-style-type: none"> • Pada akhirnya, Quality Intelligence bertujuan meningkatkan prediktabilitas delivery dan pengalaman pengguna melalui keputusan kualitas yang lebih awal. 	<ul style="list-style-type: none"> • Quality risks are identified before development progresses too far • Reduced dependency on Program Triage due to earlier issue prevention <p>Metric Goals</p> <ul style="list-style-type: none"> • Faster feedback loops (shorter time from development to QA feedback) • Fewer issues discovered at late sprint stages or post-release • Reduced rework caused by unclear requirements or design misalignment • Improved sprint delivery stability <p>Success means QA becomes the Quality Intelligence hub – translating product vision, design intent, and engineering signals into early quality decisions.</p> <p>Business Outcome:</p> <ul style="list-style-type: none"> • Ultimately, Quality Intelligence aims to improve delivery predictability and customer experience through earlier quality decisions.
<p>5. Siapa Target Audiens?</p> <p>Target utama dari inisiatif ini adalah tim Quality Assurance. Program ini dirancang untuk membantu QA meningkatkan produktivitas, memperjelas knowledge dan benchmark kualitas, serta membangun kemampuan analisis lintas fungsi – mencakup pemahaman visi produk, konteks desain UI/UX, dan kebutuhan kualitas engineering. Dengan fokus pada QA sebagai</p>	<p>5. Who are the target audiences?</p> <p>The primary target audience for this initiative is the Quality Assurance team. This program is designed to help QA improve productivity, establish clearer quality knowledge and benchmarks, and strengthen cross-functional analytical capabilities – including understanding product vision, UI/UX design context, and engineering quality needs. By focusing on QA as the core</p>

<p>pusat perubahan, diharapkan praktik kualitas yang lebih preventif dan berbasis pembelajaran dapat terbentuk secara bertahap dan berdampak pada seluruh proses delivery.</p> <p>Kepemilikan:</p> <ol style="list-style-type: none"> 1. Pemilik: QA Team 2. Penggerak: QA Lead 3. Dukungan: Product, UI/UX, Engineering 	<p>change driver, preventive and learning-based quality practices can gradually be embedded and positively impact the overall delivery process.</p> <p>Ownership:</p> <ol style="list-style-type: none"> 4. Owner: QA Team 5. Driver: QA Lead 6. Support: Product, UI/UX, Engineering
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<p>6. Bagaimana Implementasinya Akan Berjalan?</p>  <pre> graph TD A[Visi Produk / UIUX] --> B[Ringkasan Konteks QA] B --> C[Prediksi Risiko (Sinyal Kualitas + Bantuan AI)] C --> D[Kolaborasi Engineering (Design Review Ringkas)] D --> E[Sprint Quality Gate] E --> F[Delivery] F --> G[Quality Learning Board] G --> H[Knowledge Base / Benchmark] H --> I["⌚ (menjadi input untuk sprint berikutnya)"] </pre> <p>Ringkasan:</p> <ol style="list-style-type: none"> 1. QA menyerap konteks produk & desain sejak awal 2. QA memprediksi risiko menggunakan sinyal kualitas + bantuan AI 3. QA membantu engineering membangun kualitas sebelum delivery 	<p>6. Quality Intelligence Operating Flow</p>  <pre> graph TD A[Product / UIUX Vision] --> B[QA Context Brief] B --> C[Risk Prediction (Quality Signals + AI Assist)] C --> D[Engineering Collaboration (Design Review Lite)] D --> E[Sprint Quality Gate] E --> F[Delivery] F --> G[Quality Learning Board] G --> H[Knowledge Base / Benchmark] H --> I["⌚ (feeds next sprint)"] </pre> <p>Summary:</p> <ol style="list-style-type: none"> 1. QA absorbs product + design context early 2. QA predicts risks using signals + AI assistance 3. QA enables engineering quality before delivery 4. QA captures learning as benchmarks for next sprint
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<p>4. QA menangkap pembelajaran sebagai benchmark untuk sprint selanjutnya</p>	
<p>7. Requirement</p> <p>Level 0 — Reactive Quality (Old School)</p> <p>Requirement: Tidak ada kebutuhan khusus. QA masih bergantung pada testing manual dan proses existing.</p> <hr/> <p>Level 1 — Preventive Quality (Current Starting Point)</p> <p>Requirement:</p> <ul style="list-style-type: none"> • QA Context Brief sebelum grooming • Diskusi risiko awal dengan Product & Engineering • Quality gate sederhana di sprint • Dokumentasi dasar knowledge kualitas <p>Fokus: perubahan proses dan pola pikir, tanpa AI tooling.</p> <hr/> <p>Level 2 — Predictive Quality Intelligence (Manual AI Thinking)</p> <p>Requirement:</p> <ul style="list-style-type: none"> • Quality signals (hotfix, rework, late issues) • Quality Learning Board • Knowledge base sebagai benchmark bersama • Akses QA ke ChatGPT (OpenAI) dan Claude (Anthropic) untuk analisis konteks, dokumentasi, dan ide testing • 15–30 menit per sprint untuk sharing dan learning <p>Fokus: membangun feedback loop dan pola prediktif.</p> <hr/> <p>Level 3 — Assisted Quality Intelligence (Early AI Tooling)</p>	<p>7. Requirement</p> <p>Level 0 — Reactive Quality (Old School)</p> <p>Requirement: No specific requirements. QA relies on manual testing and existing processes.</p> <hr/> <p>Level 1 — Preventive Quality (Current Starting Point)</p> <p>Requirements:</p> <ul style="list-style-type: none"> • QA Context Brief before grooming • Early risk discussions with Product & Engineering • Simple sprint quality gates • Basic quality knowledge documentation <p>Focus: process and mindset shift, no AI tools yet.</p> <hr/> <p>Level 2 — Predictive Quality Intelligence (Manual AI Thinking)</p> <p>Requirements:</p> <ul style="list-style-type: none"> • Quality signals (hotfixes, rework, late issues) • Quality Learning Board • Shared knowledge base as benchmarks • QA access to ChatGPT (OpenAI) and Claude (Anthropic) for context analysis, documentation, and test ideation • 15–30 minutes per sprint for learning and sharing <p>Focus: building feedback loops and predictive patterns.</p> <hr/> <p>Level 3 — Assisted Quality Intelligence (Early AI Tooling)</p>

<p>Requirement:</p> <ul style="list-style-type: none"> • Penggunaan ChatGPT dan Claude secara konsisten untuk test ideation, risk analysis, dan dokumentasi • Guideline internal prompting • Review manusia atas output AI • Penyempurnaan knowledge base <p>Fokus: meningkatkan produktivitas QA dengan bantuan AI.</p> <hr/> <p>Level 4 — Autonomous Quality Intelligence (Future)</p> <p>Requirement:</p> <ul style="list-style-type: none"> • Integrasi AI dengan workflow QA • Otomatisasi quality signals • Sistem rekomendasi risiko • QA sebagai pengarah sistem <p>Tahap ini bersifat jangka panjang dan belum menjadi fokus saat ini.</p>	<p>Requirements:</p> <ul style="list-style-type: none"> • Consistent use of ChatGPT and Claude for test ideation, risk analysis, and documentation • Internal prompting guidelines • Human review of AI outputs • Enhanced knowledge base <p>Focus: improving QA productivity with AI assistance.</p> <hr/> <p>Level 4 — Autonomous Quality Intelligence (Future)</p> <p>Requirements:</p> <ul style="list-style-type: none"> • AI integrated into QA workflows • Automated quality signals • Risk recommendation systems • QA acting as system steward <p>This is a long-term stage and not the current focus.</p>
<p>8. Timeline Process (dengan Det Requirement per Tahap)</p> <p>Month 1 — Preventive QA Foundation (Level 1) (Current Starting Point) Fokus: Membangun kebiasaan QA untuk masuk lebih awal ke proses.</p> <p>Aktivitas QA</p> <ul style="list-style-type: none"> • Membuat QA Context Brief sebelum grooming • Diskusi risiko di grooming • Penerapan sprint quality gate sederhana • Mulai dokumentasi knowledge kualitas dasar <p>Requirement</p> <ul style="list-style-type: none"> • Template QA Context Brief • Checklist quality gate • Shared document untuk knowledge QA <p>Manager POV</p> <ul style="list-style-type: none"> • QA sudah ikut grooming secara aktif • Risiko mulai dibahas sebelum development 	<p>8. Quality Intelligence Rollo Timeline</p> <p>Month 1 → Preventive Intelligence (Level 1) (Current Starting Point) Focus: Early QA involvement.</p> <p>QA Activities</p> <ul style="list-style-type: none"> • QA Context Brief before grooming • Risk discussions in grooming • Simple sprint quality gates • Basic quality knowledge documentation <p>Requirements</p> <ul style="list-style-type: none"> • QA Context Brief template • Quality gate checklist • Shared QA knowledge doc <p>Manager POV</p> <ul style="list-style-type: none"> • QA actively joins grooming • Risks discussed before development • Knowledge no longer siloed <p>Progress Indicators</p> <ul style="list-style-type: none"> • QA joins ≥80% grooming

<ul style="list-style-type: none"> Knowledge tidak lagi hanya di kepala individu <p>Progress Indicator</p> <ul style="list-style-type: none"> QA hadir di ≥80% grooming Semua ticket punya konteks QA Minimal 1 knowledge note per sprint <hr/> <p>Month 2 — Predictive QA (Manual AI Thinking) (Level 2) Fokus: QA mulai membaca pola dan memprediksi risiko.</p> <p>Aktivitas QA</p> <ul style="list-style-type: none"> Tracking quality signals (late issues, rework, hotfix) Membuat Quality Learning Board Mulai pakai ChatGPT (OpenAI) dan Claude (Anthropic) untuk: Analisis konteks Ide test scenario Dokumentasi knowledge 15–30 menit sharing internal QA per sprint <p>Requirement</p> <ul style="list-style-type: none"> Quality Learning Board (spreadsheet sederhana) Akses QA ke ChatGPT & Claude Folder knowledge QA <p>Manager POV</p> <ul style="list-style-type: none"> QA mulai bicara pola, bukan hanya bug Knowledge mulai terstruktur Feedback QA lebih cepat <p>Progress Indicator</p> <ul style="list-style-type: none"> Quality signals terupdate tiap sprint Minimal 3 insight quality terdokumentasi Feedback QA lebih awal dibanding bulan sebelumnya <hr/> <p>Month 3 — Assisted QA (Early AI Usage) (Level 3) Fokus: Meningkatkan produktivitas QA dengan AI assistance.</p> <p>Aktivitas QA</p> <ul style="list-style-type: none"> Konsisten gunakan AI untuk: Risk analysis 	<ul style="list-style-type: none"> All tickets have QA context At least 1 knowledge note per sprint <hr/> <p>Month 2 → Predictive Intelligence (Level 2) Focus: Pattern recognition and early prediction.</p> <p>QA Activities</p> <ul style="list-style-type: none"> Track quality signals Maintain Quality Learning Board Use ChatGPT (OpenAI) and Claude (Anthropic) for: Context analysis Test ideation Knowledge documentation 15–30 min QA sharing per sprint <p>Requirements</p> <ul style="list-style-type: none"> Quality Learning Board Access to ChatGPT & Claude QA knowledge folder <p>Manager POV</p> <ul style="list-style-type: none"> QA talks patterns, not just bugs Knowledge becomes structured Faster QA feedback <p>Progress Indicators</p> <ul style="list-style-type: none"> Signals updated every sprint ≥3 quality insights documented Earlier QA feedback <hr/> <p>Month 3 → Assisted Intelligence (Level 3) Focus: Productivity improvement using AI.</p> <p>QA Activities</p> <ul style="list-style-type: none"> Consistent AI usage for risk analysis & test ideation Internal prompting guidelines Human validation of AI outputs <p>Requirements</p> <ul style="list-style-type: none"> Prompt guidelines QA review flow Expanded knowledge base <p>Manager POV</p> <ul style="list-style-type: none"> Faster context understanding Better test scenarios QA shifts to quality strategy <p>Progress Indicators</p>
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<ul style="list-style-type: none"> • Test ideation • Ringkasan konteks • Membuat basic prompting guideline internal • Review manusia atas semua output AI <p>Requirement</p> <ul style="list-style-type: none"> • Prompt guideline sederhana • Review flow QA terhadap output AI • Knowledge base makin diperluas <p>Manager POV</p> <ul style="list-style-type: none"> • QA lebih cepat memahami konteks • Test scenario lebih matang • QA fokus ke strategi, bukan pekerjaan repetitif <p>Progress Indicator</p> <ul style="list-style-type: none"> • Waktu memahami ticket berkurang • Test coverage lebih tajam • Rework akibat miskomunikasi menurun 	<ul style="list-style-type: none"> • Reduced ticket understanding time • Sharper test coverage • Less rework from misalignment <hr/> <p>Month 4 → Benchmark Intelligence Focus: Standardizing QA practices.</p> <p>QA Activities</p> <ul style="list-style-type: none"> • Define quality benchmarks • Monthly quality review • Lightweight QA playbook • Share learnings with stakeholders <p>Requirements</p> <ul style="list-style-type: none"> • QA Playbook • Monthly Quality Summary • Benchmark checklist <p>Manager POV</p> <ul style="list-style-type: none"> • Clear QA standards • Predictable quality patterns • QA becomes quality reference
<p>Month 4 — Stabilization & Benchmarking Fokus: Menjadikan praktik sebagai standar tim QA.</p> <p>Aktivitas QA</p> <ul style="list-style-type: none"> • Menetapkan benchmark kualitas • Review ulang quality signals bulanan • Finalisasi QA playbook ringan • Sharing hasil ke stakeholder (Product / UIUX / Eng) <p>Requirement</p> <ul style="list-style-type: none"> • QA Playbook • Monthly Quality Summary • Benchmark checklist <p>Manager POV</p> <ul style="list-style-type: none"> • QA punya standar kerja jelas • Pola masalah bisa diprediksi • QA jadi quality reference <p>Progress Indicator</p> <ul style="list-style-type: none"> • Benchmark digunakan konsisten • Isu late-stage menurun • Sprint delivery lebih stabil 	<p>Progress Indicators</p> <ul style="list-style-type: none"> • Benchmarks used consistently • Fewer late-stage issues • More stable sprint delivery

9. Risks & Mitigation

Risk	Mitigation
QA kesulitan beradaptasi dengan proses baru	Implementasi bertahap, mulai dari praktik sederhana (context brief, quality signals), serta sharing internal QA setiap sprint
AI digunakan tanpa arah yang jelas	Menyediakan guideline penggunaan dasar (untuk analisis, dokumentasi, dan ide testing) serta tetap mewajibkan review manusia
Knowledge tetap tersebar dan tidak terdokumentasi	Membangun satu knowledge base QA sebagai benchmark bersama dan mewajibkan minimal satu insight per sprint
Resistensi perubahan karena beban kerja harian	Menjaga aktivitas tetap ringan (15–30 menit per sprint) dan fokus pada quick wins
Ekspektasi berlebihan terhadap AI	Menetapkan sejak awal bahwa AI adalah alat bantu produktivitas, bukan pengganti judgment QA
Progres tidak terlihat oleh leadership	Menggunakan progress indicator bulanan (feedback speed, late issues, rework) dan monthly quality summary

9. Risks & Mitigation

Risk	Mitigation
QA struggles to adapt to new processes	Gradual rollout starting with simple practices (context briefs, quality signals) and regular QA sharing each sprint
AI used without clear direction	Provide basic usage guidelines (analysis, documentation, test ideation) and require human review for all outputs
Knowledge remains fragmented	Build a single QA knowledge base as shared benchmarks and require at least one insight per sprint
Change resistance due to daily workload	Keep activities lightweight (15–30 minutes per sprint) and focus on quick wins
Unrealistic expectations of AI	Clearly position AI as a productivity assistant, not a replacement for QA judgment
Progress not visible to leadership	Track monthly indicators (feedback speed, late issues, rework) and publish a monthly quality summary

These mitigations ensure the initiative remains practical, measurable, and

Mitigasi ini memastikan inisiatif tetap praktis, terukur, dan berkelanjutan tanpa mengganggu proses delivery yang sedang berjalan.	sustainable while minimizing disruption to ongoing delivery
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Summary

Ringkasan Eksekutif – Quality Intelligence

Paper.id saat ini memiliki tim Quality Assurance (QA) yang bertanggung jawab menjaga kualitas produk. Namun, seiring meningkatnya kompleksitas produk dan proses bisnis, pendekatan QA yang masih berfokus pada pengujian di tahap akhir tidak lagi cukup untuk mendeteksi risiko lebih awal. Hal ini berdampak pada meningkatnya rework, menurunnya efisiensi sprint, serta kurang stabilnya hasil delivery.

Inisiatif Quality Intelligence bertujuan mentransformasi QA dari fungsi pengujian reaktif menjadi quality enabler lintas fungsi — yang mampu menyerap visi produk, konteks desain UI/UX, kebutuhan kualitas engineering, serta membantu menurunkan beban Program Triage melalui pencegahan dini. Quality Intelligence memperkenalkan model kerja terstruktur yang menerjemahkan konteks produk, niat desain, dan sinyal engineering menjadi keputusan kualitas sejak awal. Pendekatan ini dimulai dengan perbaikan proses dan budaya kerja (Preventive dan Predictive Quality), kemudian dilanjutkan dengan bantuan AI secara bertahap untuk meningkatkan produktivitas, kejelasan knowledge, dan benchmark kualitas bersama.

Target utama dari inisiatif ini adalah tim QA, dengan hasil yang diharapkan berupa kolaborasi lebih awal dengan stakeholder, dokumentasi knowledge kualitas, feedback loop yang lebih cepat, serta berkurangnya isu di tahap akhir. Keberhasilan non-metrik tercapai ketika QA menjadi pusat Quality Intelligence lintas fungsi. Keberhasilan metrik diukur melalui percepatan feedback, penurunan rework, berkurangnya late issues, dan meningkatnya stabilitas delivery sprint.

Implementasi dilakukan melalui rollout selama empat bulan:

Executive Summary – Quality Intelligence

Paper.id currently has a Quality Assurance (QA) team responsible for maintaining product quality. However, as product complexity and business processes continue to grow, a QA approach that focuses primarily on late-stage testing is no longer sufficient to detect risks early. This results in increased rework, reduced sprint efficiency, and unstable delivery outcomes.

The Quality Intelligence initiative aims to transform QA from a reactive testing function into a cross-functional quality enabler — capable of absorbing product vision, UI/UX design context, engineering quality needs, and reducing Program Triage workload through early prevention. Quality Intelligence introduces a structured operating model that converts product context, design intent, and engineering signals into early quality decisions. The approach begins with process and culture improvements (Preventive and Predictive Quality), followed by gradual AI assistance to improve productivity, knowledge clarity, and shared quality benchmarks.

The primary target audience is the QA team, with expected outcomes including earlier collaboration with stakeholders, documented quality knowledge, faster feedback loops, and fewer late-stage issues. Non-metric success is achieved when QA becomes a shared Quality Intelligence hub across functions. Metric success is measured through faster feedback cycles, reduced rework, fewer late discoveries, and improved sprint delivery stability.

Implementation is structured across a four-month rollout:

- Month 1: Preventive Quality Foundation (context briefs, risk discussions, quality gates)
- Month 2: Predictive Quality Intelligence (quality signals, learning board, early AI thinking)

<ul style="list-style-type: none"> • Month 1: Preventive Quality Foundation (context brief, diskusi risiko, quality gate) • Month 2: Predictive Quality Intelligence (quality signals, learning board, early AI thinking) • Month 3: Assisted Quality Intelligence (analisis dan dokumentasi dengan bantuan AI) • Month 4: Stabilization & Benchmarking (QA playbook dan standar kualitas) <p>Pada tahap awal, kebutuhan tooling dibatasi pada akses QA ke ChatGPT dari OpenAI dan Claude dari Anthropic sebagai asisten produktivitas, tanpa perubahan infrastruktur besar. Fokus utama adalah membangun pola pikir, workflow, dan sistem pembelajaran berkelanjutan sebelum adopsi AI yang lebih dalam.</p> <p>Dengan mitigasi risiko yang jelas melalui implementasi bertahap, guideline penggunaan AI, knowledge base bersama, serta progress indicator bulanan, inisiatif ini dirancang agar tetap praktis dan terukur. Outcome jangka menengah yang diharapkan adalah QA yang lebih strategis, kualitas pengambilan keputusan yang lebih baik, serta kesiapan organisasi dalam membangun budaya Quality Intelligence yang berkelanjutan.</p> <p>Quality Intelligence memungkinkan QA beralih dari sekadar menemukan defect menjadi pengarah keputusan kualitas.</p>	<ul style="list-style-type: none"> • Month 3: Assisted Quality Intelligence (AI-supported analysis and documentation) • Month 4: Stabilization & Benchmarking (QA playbook and quality standards) <p>At the initial stage, tooling requirements are limited to QA access to ChatGPT from OpenAI and Claude from Anthropic as productivity assistants, without major infrastructure changes. The primary focus is building mindset, workflows, and a continuous learning system before deeper AI adoption.</p> <p>With clear risk mitigation through gradual rollout, AI usage guidelines, shared knowledge bases, and monthly progress indicators, this initiative is designed to remain practical and measurable. The medium-term outcome is a more strategic QA function, improved quality decision-making, and organizational readiness for a sustainable Quality Intelligence culture.</p> <p>Quality Intelligence enables QA to move from finding defects to guiding quality decisions.</p>
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How It Works (Step by Step)

<p>Cara Kerja (Mohon Dibaca dengan Santai)</p> <p>Quality Intelligence bukan tool baru, bukan role baru, dan bukan perubahan besar sekaligus. Ini adalah cara kerja QA untuk menangkap konteks, membuat keputusan kualitas lebih awal, dan belajar bersama secara bertahap.</p> <p>Dokumen ini menjelaskan cara menggunakan repository Quality Intelligence langkah demi langkah. Tidak perlu memahami semuanya sekaligus. Mulai dari yang kecil. Sistem ini akan berkembang seiring waktu.</p> <p>Yang terpenting adalah konsistensi, bukan kelengkapan.</p>	<p>How This Works (Please Don't Be Overwhelmed)</p> <p>Quality Intelligence is not a new tool, not a new role, and not a big-bang change. It is a way for QA to capture context, make better quality decisions earlier, and learn together over time.</p> <p>This document explains how to use the Quality Intelligence repository step by step. You do not need to understand everything at once. Start small. The system grows with you</p> <p>What matters most is consistency, not completeness.</p>
<p>Gambaran Umum Repository</p>	<p>The Repository at a Glance</p>

```

quality-intelligence-repo/
├── documentation/
│   ├── business-units/
│   │   ├── network/
│   │   │   ├── _bu-context.md
│   │   │   ├── _okr-alignment.md
│   │   │   └── _quality-flavour.md
│   │   └── quality-scopes/
│   │       ├── subscription-revamp/
│   │       │   ├── scope-context.md
│   │       │   └── - Why this exists (business + user goal)
│   │       ├── design-intent.md
│   │       │   └── - UX & system assumptions
│   │       ├── existing-tests-context.md
│   │       │   ├── - WHY current test cases exist
│   │       │   └── - What risk each test is covering
│   │       ├── risk-hypotheses.md
│   │       │   └── - What can still go wrong
│   │       ├── validation-notes.md
│   │       │   ├── - How QA validates this scope
│   │       │   └── - Manual vs automation
│   │       └── learning-notes.md
│   │           └── - What we learned sprint by sprint
│   ├── revenue-and-growth/
│   │   └── same structure
│   ├── pivot/
│   │   └── same structure
│   ├── quality-learning-board/
│   │   ├── cross-by-patterns.md
│   │   │   ├── - Patterns seen across multiple business units
│   │   │   └── - Repeated risks and systemic issues
│   │   └── monthly-summary.md
│   │       ├── - High-level quality summary per month
│   │       └── - Used for leadership and reflection
│   ├── benchmarks/
│   │   ├── quality-standards.md
│   │   │   ├── - Shared benchmarks derived from learning
│   │   │   └── - Not theoretical rules, but proven practices
│   ├── checklists/
│   │   ├── checklist-before-run.md
│   │   │   ├── - Minimum context required before testing or AI analysis
│   │   │   └── - Forces clarity before execution
│   ├── prompts/
│   │   ├── Standardized AI prompts
│   │   │   ├── - Ensures consistent AI assistance
│   │   │   └── - Prevents random or low-quality outputs
│   ├── automation-sources/
│   │   ├── Read-only references to automation projects
│   │   │   ├── - Cypress / Playwright
│   │   │   ├── - Appium / Flutter
│   │   │   ├── - K6
│   │   │   └── - Used only as quality signals, not execution
│   ├── board/
│   │   ├── index.html
│   │   │   ├── - Human-readable quality board
│   │   │   ├── - Sprint quality summary
│   │   │   └── - Stakeholder communication
│   ├── mcp/
│   │   ├── mcp-config.md
│   │   │   ├── - MCP configuration for reading external sources
│   │   │   └── - Docs, Sheets, Slides, GitHub
│   ├── claude.md
│   │   └── AI usage guideline from manager / leadership perspective
│   └── .gitignore

```

quality-intelligence-repo adalah otak kualitas bersama.

- Repository ini menyimpan konteks, bukan eksekusi
- Menjelaskan alasan kita melakukan testing, bukan hanya apa yang dites
- Mengubah pengalaman QA individu menjadi knowledge bersama

The quality-intelligence-repo is our shared quality brain.

- It stores context, not execution
- It captures why we test, not only what we test
- It turns individual QA experience into shared knowledge

If something is not written here, it is easy to forget, repeat, or relearn the hard way.

<p>Jika sesuatu tidak ditulis di sini, besar kemungkinan akan dilupakan, diulang, atau dipelajari ulang dengan cara yang sulit.</p>	
<p>Langkah demi Langkah: Cara Kerja Quality Intelligence</p> <p>Langkah 1 — Semua Menggunakan Repository yang Sama (Fondasi) Mengapa langkah ini penting: Knowledge QA saat ini masih terfragmentasi dan sangat bergantung pada ingatan individu. Quality Intelligence dimulai dengan membuat knowledge terbuka dan bisa dibagikan.</p> <p>Yang kita lakukan:</p> <ul style="list-style-type: none"> • Menggunakan satu repository untuk konteks dan pembelajaran kualitas • Semua QA berkontribusi • Tidak ada knowledge QA yang hanya tersimpan di kepala individu <p>Pola pikir: Repository ini bukan tentang dokumentasi yang sempurna. Ini tentang membuat cara berpikir kita terlihat.</p> <hr/> <p>Langkah 2 — Mulai dari Konteks Business Unit (Bukan Test) Risiko kualitas berasal dari tujuan dan batasan bisnis, bukan dari test case.</p> <p>Setiap Business Unit (misalnya network, revenue-and-growth, pivot) memiliki folder sendiri di: documentation/business-units/</p> <p>Di dalam setiap BU kita mendokumentasikan:</p> <ul style="list-style-type: none"> • <code>_bu-context.md</code> → peran dan tanggung jawab BU • <code>_okr-alignment.md</code> → definisi sukses BU • <code>_quality-flavour.md</code> → arti kualitas yang baik di BU tersebut <p>Hasilnya:</p>	<p>Step-by-Step: How Quality Intelligence Works</p> <p>Step 1 — Everyone Uses the Same Repository (Foundation) Why this step exists: QA knowledge today is fragmented and depends too much on individual memory. Quality Intelligence starts by making knowledge shared and visible.</p> <p>What we do:</p> <ul style="list-style-type: none"> • We use one repository for quality context and learning • Everyone contributes • No private QA knowledge living only in someone's head <p>Mindset: This repo is not about perfection. It is about making our thinking visible.</p> <hr/> <p>Step 2 — Start With Business Unit Context (Not Tests) Quality risks come from business goals and constraints, not from test cases.</p> <p>Each Business Unit (e.g. network, revenue-and-growth, pivot) has its own folder under: documentation/business-units/</p> <p>Inside each BU we document:</p> <ul style="list-style-type: none"> • <code>_bu-context.md</code> → what this BU does • <code>_okr-alignment.md</code> → what success means • <code>_quality-flavour.md</code> → what “good quality” looks like here <p>Outcome: QA understands why it matters before deciding how to test.</p> <hr/> <p>Step 3 — Capture Deep Context Using Quality Scopes</p>

QA memahami mengapa sesuatu penting sebelum memutuskan bagaimana cara mengetesnya.

Langkah 3 — Menangkap Konteks Mendalam dengan Quality Scope
Quality Scope ada untuk menangkap konteks tingkat perubahan, sementara konteks Unit Bisnis menangkap pemahaman tingkat domain.
Test case sudah ada — tetapi niat dan konteks di baliknya sering hilang.

Quality Scope merepresentasikan apapun yang membutuhkan konteks mendalam:

- feature
- epic
- refactor
- perubahan berisiko
- inisiatif jangka panjang

Di dalam Quality Scope kita mendokumentasikan:

- alasan scope ini ada
- niat desain
- konteks test yang sudah ada
- hipotesis risiko
- cara validasi QA
- pembelajaran dari sprint ke sprint

Hasilnya:

Validasi dan pembuatan test case menjadi lebih mudah dan terarah.

Langkah 4 — Gunakan Checklist Sebelum “Menjalankan Apapun”
Testing atau analisis AI tanpa konteks hanya menghasilkan noise.

Sebelum testing atau menggunakan AI, kita menggunakan:

[checklists/checklist-before-run.md](#)

Checklist ini memastikan:

- konteks sudah jelas
 - asumsi diketahui
 - judgment QA diterapkan sejak awal
-

Langkah 5 — AI Digunakan Setelah Konteks Jelas

AI digunakan sebagai asisten, bukan pengganti judgment QA.

Quality Scope exists to capture change-level context, while Business Unit context captures domain-level understanding.

Test cases already exist — but their intent is often lost.

A Quality Scope represents anything that needs deep context:

- feature
- epic
- refactor
- risky change
- long-running initiative

Inside each Quality Scope we capture:

- why it exists
- design intent
- existing test intent
- risk hypotheses
- validation approach
- learning notes

Outcome:

Test case validation and creation become easier and clearer.

Step 4 — Use the Checklist Before “Running Anything”

Testing or AI analysis without context creates noise.

Before running tests or using AI, we use:
[checklists/checklist-before-run.md](#)

This ensures:

- context is clear
 - assumptions are explicit
 - QA judgment is applied early
-

Step 5 — AI Is Used Only After Context Exists

AI is used to assist, not replace QA judgment.

AI helps with:

- context analysis
- risk thinking
- test ideation
- documentation

<p>AI membantu:</p> <ul style="list-style-type: none"> • analisis konteks • pemikiran risiko • ide test • dokumentasi <p>Hal ini mencerminkan prinsip PRD bahwa AI meningkatkan produktivitas dan kejelasan, bukan wewenang atau akuntabilitas.</p> <p>Keputusan akhir tetap milik QA.</p> <hr/> <p>Langkah 6 — Pembelajaran Menjadi Ingatan Bersama</p> <p>Pembelajaran dicatat:</p> <ul style="list-style-type: none"> • di dalam setiap Quality Scope • lintas BU melalui Quality Learning Board <p>Ini mencegah kesalahan yang sama terulang.</p> <hr/> <p>Langkah 7 — Board Digunakan untuk Storytelling</p> <p>Board digunakan untuk:</p> <ul style="list-style-type: none"> • tren • insight • komunikasi ke stakeholder <p>Bukan untuk data mentah.</p>	<p>This reflects the PRD principle that AI improves productivity and clarity, not authority or accountability.</p> <p>AI never makes final decisions.</p> <hr/> <p>Step 6 — Learning Becomes Shared Memory</p> <p>Learning is captured:</p> <ul style="list-style-type: none"> • inside each Quality Scope • across BUs via the Quality Learning Board <p>This prevents repeating the same mistakes.</p> <hr/> <p>Step 7 — The Board Is Only for Storytelling</p> <p>The board is for:</p> <ul style="list-style-type: none"> • trends • insights • communication <p>Not raw data.</p>
<p>Penutup</p> <p>Tidak perlu melakukan semuanya sekaligus. Mulai dari satu BU, satu Quality Scope, satu learning note.</p> <p>Quality Intelligence tumbuh melalui praktik, bukan paksaan.</p>	<p>Final Reminder</p> <p>You do not need to do everything at once. Start with one BU, one Quality Scope, one learning note.</p> <p>Quality Intelligence grows through use, not enforcement.</p>