

EON Assist IQ

AI-Powered Smart Glasses: Revolutionizing Field Safety with Hands-Free SOP Guidance and Verification

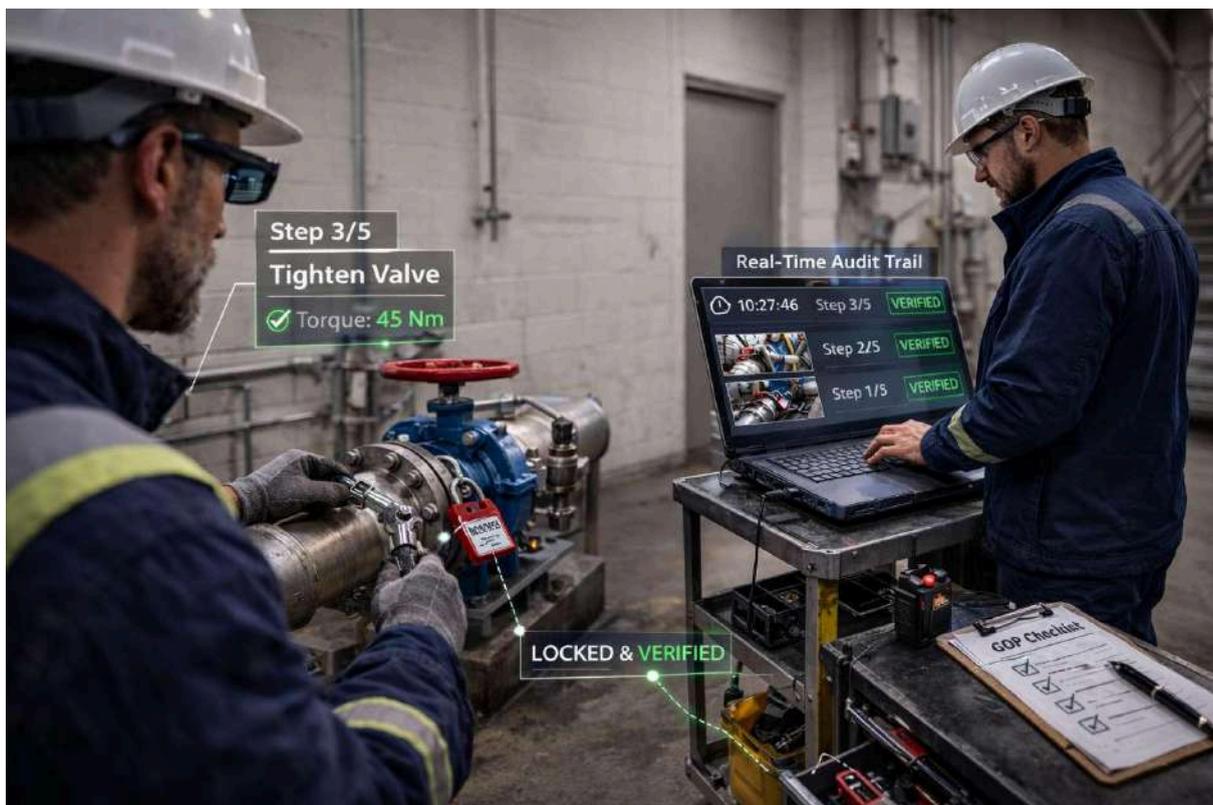


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1: EXECUTIVE SUMMARY

EON Assist IQ represents a transformative advancement in **AI-powered field operations**, delivering hands-free procedural guidance through **Meta Ray-Ban Display smart glasses**. Designed specifically to address the challenges of safety-critical tasks across industries such as manufacturing, oil and gas, aerospace, healthcare, and construction, the platform combines **step-by-step SOP guidance**, **AI photo verification**, and **real-time audit trails** to bridge the gap between training and real-world execution. By revolutionizing how field operations are performed, verified, and documented, **EON Assist IQ** ensures compliance, reduces errors, and accelerates workforce readiness for high-stakes environments.

Each year, industrial sectors lose billions of dollars due to **procedural errors**, **compliance failures**, and **documentation gaps**. These operational inefficiencies are compounded by the limitations of traditional tools such as paper-based checklists, tablets, and bulky AR headsets, which fail to provide hands-free, real-time guidance in the field. **EON Assist IQ** addresses this problem by delivering **hands-free SOP guidance** directly to the technician's field of view through **Meta Ray-Ban Display smart glasses**, ensuring workers stay completely immersed in their tasks while receiving step-by-step instructions formatted for the glasses' **600×600px HUD display**.

The platform's **AI-powered photo verification** capability, driven by **Claude Vision**, ensures procedural compliance at each step. Using voice commands, workers capture verification photos, which are analyzed in real time to confirm whether the step has been executed correctly (e.g., whether a valve is closed, a padlock properly installed, or the required PPE worn). The system only advances to the next step upon successful verification, guaranteeing precision and accountability throughout the process. This eliminates ambiguity and provides **verifiable proof** of actions taken, akin to the "delivery proof photo" model, but applied to industrial safety-critical operations.

Equally transformative is **EON Assist IQ's real-time audit trail**. Every step of a procedure is logged with **timestamped**, **GPS-tagged**, and **photo-verified evidence**, which is instantly visible on a **live dashboard** accessible to supervisors and auditors. This level of transparency not only enhances operational oversight but also streamlines compliance reporting, allowing organizations to generate complete **PDF audit reports** with a single click.

As the field execution layer of EON Reality's **Genesis platform**, **EON Assist IQ** completes the lifecycle of workforce transformation: workers train in immersive VR simulations, practice with AI tutors, perform real-world tasks guided by smart glasses, and generate verified proof of competency—all within a unified ecosystem. By integrating training and execution, **EON Assist IQ** closes the gap between knowledge and performance, empowering workers to achieve measurable outcomes such as reduced **time-to-competency**, improved **knowledge retention**, enhanced **safety**, and minimized errors.

With industries facing a critical skills gap due to the retirement of 42% of the workforce in the next decade, **EON Assist IQ** offers a scalable solution to capture institutional knowledge

and ensure it is applied consistently across field operations. The platform is uniquely positioned to address the \$170 billion annual cost of poor quality in U.S. manufacturing, where inspection inconsistencies, human error, and documentation gaps drive operational losses. By leveraging **consumer-grade smart glasses** like the **Meta Ray-Ban Display**, **Claude Vision’s multimodal AI**, and **no-code integration platforms** like Make.com and n8n, **EON Assist IQ** delivers cutting-edge capabilities at a fraction of the cost and complexity of bulky AR headsets, making it practical for daily field use.

In summary, **EON Assist IQ** is more than a tool; it is a paradigm shift in industrial field operations. By combining **AI-powered guidance, verification, and audit capabilities** in a hands-free, real-time format, the platform ensures safety, compliance, and operational excellence. With its ability to transform how industries perform and verify safety-critical tasks, **EON Assist IQ** sets the standard for workforce readiness in the **AI era**.

2: THE PROBLEM/CHALLENGE

Industrial field operations are plagued by **procedural errors, compliance failures, and documentation gaps**—issues that collectively cost industries billions of dollars each year. Despite the widespread implementation of **Standard Operating Procedures (SOPs)** designed to ensure worker safety and regulatory compliance, the gap between knowing what to do and consistently doing it under real-world conditions remains the primary cause of workplace incidents, operational losses, and audit failures. **EON Assist IQ** addresses these challenges head-on, offering a practical, scalable solution to bridge the critical gap between training and execution.

The Root of the Problem: Procedural Errors and Knowledge Attrition

Field errors in industrial operations are overwhelmingly **procedural**, not technical. Workers often know the correct actions but fail to execute consistently due to **fatigue, pressure, or time constraints**. In fact, **80%** of these errors stem from procedural inconsistencies rather than a lack of technical knowledge. This issue is further exacerbated by the impending retirement of **42%** of the industrial workforce within the next decade, creating an unprecedented **skills gap** as decades of institutional knowledge are lost. Without effective mechanisms to capture and transfer this expertise, industries face significant challenges in maintaining compliance and operational efficiency.

The Financial Impact of Operational Failures

The cost of procedural errors is staggering:

- **\$1.7M**: The average fine for a single **LOTO (Lockout/Tagout)** compliance violation, excluding investigation costs, legal liability, and lost production.
- **\$170B**: The annual cost of poor quality in U.S. manufacturing alone, driven by inspection inconsistencies and human error.
- **65%**: The proportion of safety-critical audit findings related to incomplete or missing documentation, highlighting the critical role of accurate record-keeping.

These figures underscore the urgent need for a solution that not only guides workers through procedures but also ensures verifiable compliance and real-time documentation.

Why Current Solutions Fall Short

Organizations have long relied on traditional tools such as **paper-based checklists**, **tablets**, and **video monitoring**, but each comes with significant limitations. Paper checklists can be lost, damaged, or completed retroactively, offering no proof that steps were actually performed. Tablets and mobile apps require workers to remove gloves or stop their tasks, creating workflow interruptions—particularly in challenging environments like scaffolding, ladders, or confined spaces. Video monitoring, while providing passive oversight, generates massive amounts of footage that are rarely reviewed and raises privacy concerns. Existing AR solutions like **HoloLens** or **Magic Leap**, though technically advanced, are bulky, expensive (**\$3,500+**), and impractical for daily field use, particularly in harsh industrial environments.

A Convergence of Technologies Enables a Solution

Three key technological shifts in 2025–2026 have made **AI-powered smart glasses** viable for field guidance:

1. **Consumer-grade smart glasses**: The **Meta Ray-Ban Display glasses** (\$799) offer a practical, affordable solution with features like a **600×600px HUD display**, **12MP camera**, and voice-controlled navigation—all in a lightweight form factor indistinguishable from regular glasses.
2. **Multimodal AI vision**: Advances in AI models like **Claude Vision** and **GPT-4o** enable real-time photo analysis with sufficient accuracy to verify procedural compliance, such as determining whether a valve is closed or PPE is correctly worn.
3. **No-code integration platforms**: Tools like Make.com and n8n allow organizations to connect smart glasses, AI models, and audit databases without custom app development, reducing **time-to-deployment** from months to days.

Bridging the Gap with EON Assist IQ

EON Assist IQ leverages these advancements to deliver **hands-free SOP guidance**, **AI-powered photo verification**, and **real-time audit trails** through **Meta Ray-Ban Display smart glasses**. By enabling workers to perform safety-critical tasks with both hands occupied while receiving step-by-step guidance, the platform eliminates the workflow interruptions and inefficiencies associated with traditional tools. Its **AI photo verification** ensures procedural compliance at every step, while the **real-time audit trail** generates timestamped, GPS-tagged, and photo-verified evidence accessible through a live dashboard.

In conclusion, **EON Assist IQ** solves the critical challenges of procedural errors, compliance failures, and documentation gaps by providing a practical, scalable, and cutting-edge solution for industrial field operations. By addressing the limitations of existing tools and harnessing the latest advancements in **AI-powered smart glasses**, the platform empowers organizations to achieve operational excellence in high-stakes environments.

3: THE SOLUTION

EON Assist IQ is revolutionizing field operations by enabling safety-critical tasks to be executed with precision and confidence, powered by cutting-edge AI technologies and consumer-grade smart glasses. This platform bridges the gap between training and real-world execution, ensuring procedural compliance and reducing risks associated with human error, incomplete documentation, and compliance violations.

Hands-Free SOP Guidance for Field Operations

At the core of **EON Assist IQ** is its ability to deliver **step-by-step Standard Operating Procedure (SOP) guidance** directly through the HUD display of **Meta Ray-Ban Display glasses**. Instructions are presented in a concise, high-contrast format optimized for the glasses' 600×600px screen resolution. This ensures workers can follow procedures without losing focus on their tasks. The system is designed for hands-free operation, allowing workers to advance steps using **voice commands** or **gesture input** through the **Neural Band wristband**. This capability is especially useful in environments where workers must use both hands, such as scaffolding, confined spaces, or high-altitude operations.

AI-Powered Photo Verification for Accuracy

Procedural errors account for 80% of field mistakes, and **EON Assist IQ** tackles this challenge head-on with **AI photo verification** powered by **Claude Vision**. At every safety-critical step, the worker captures a photo of their completed action using a voice command. The AI system analyzes the photo against specific criteria, such as whether a valve is properly closed, a padlock is correctly installed, or personal protective equipment (PPE) is

worn appropriately. If the verification fails, the system instructs the worker to retry the step until compliance is achieved. This ensures that tasks are completed accurately and consistently, removing ambiguity from the execution process.

Real-Time Audit Trails for Transparency

EON Assist IQ generates a **real-time audit trail** for every procedure, turning field operations into fully verifiable processes. Each verification event is logged with critical metadata, including timestamps, GPS coordinates, and photo evidence. Supervisors and auditors can monitor progress live via a web-based dashboard, observing completed steps marked with green checkmarks and photo thumbnails. At the end of a procedure, a detailed **PDF audit report** can be generated with a single click, providing comprehensive documentation for regulatory compliance and internal quality assurance.

Integration with EON Genesis for Closed-Loop Knowledge Transfer

One of **EON Assist IQ's** standout attributes is its seamless integration with the **Genesis platform**. This closed-loop system begins with workers training in immersive VR simulations, practicing with AI tutors, and culminates in real-world execution guided by **smart glasses**. The platform ensures workers not only learn and train effectively but also perform tasks accurately and generate verified proof of competency. This lifecycle approach—**Learn** → **Train** → **Perform** → **Automate**—addresses the industrial skills gap caused by the retirement of 42% of the workforce within the next decade and captures institutional knowledge for future generations.

Addressing High-Stakes Challenges

Industries such as oil and gas, manufacturing, aerospace, healthcare, and construction face billions of dollars in losses annually due to procedural errors, compliance failures, and documentation gaps. **EON Assist IQ** mitigates these losses by delivering a robust solution that combines hands-free operation, AI-driven accuracy, and real-time transparency. By ensuring procedural compliance at every step, the platform significantly reduces the \$170 billion annual cost of poor quality in U.S. manufacturing and minimizes the risks associated with incomplete documentation, which account for 65% of safety-critical audit findings.

In summary, **EON Assist IQ** represents the next generation of field operations technology—a solution designed to not only guide workers through procedures but also verify, document, and ensure compliance in real time. With its hands-free capabilities, AI photo validation, and integration into a broader training and execution ecosystem, **EON Assist IQ** is setting a new standard for industrial field operations.

4: KEY FEATURES/CAPABILITIES

EON Assist IQ delivers a suite of powerful features that transform industrial field operations, enabling workers to execute safety-critical tasks with confidence and precision. Below is a detailed exploration of the platform's core capabilities.

Hands-Free SOP Guidance

Workers receive **step-by-step SOP guidance** directly on the HUD display of **Meta Ray-Ban Display glasses**, ensuring uninterrupted focus on their tasks. Instructions are tailored to the glasses' 600×600px resolution, presented in short, numbered, high-contrast formats for easy readability. Steps can be advanced using **voice commands** or **gesture input** through the **Neural Band wristband**, allowing workers to operate entirely hands-free. This capability is especially critical in environments where physical movement is restricted, such as confined spaces or elevated work areas.

AI-Powered Photo Verification

At every safety-critical step, workers use a simple voice command to capture a photo of their completed action. The platform's **Claude Vision AI** analyzes the image against predefined criteria, such as ensuring a valve is closed, verifying PPE compliance, or checking padlock installation. The system provides immediate feedback—either verifying the step or instructing the worker to retry—before allowing the procedure to advance. This feature eliminates ambiguity and ensures tasks are executed correctly, addressing the root cause of 80% of field errors: procedural inconsistencies.

Real-Time Audit Trails

Every verification event is logged in real time, creating a transparent and accessible **audit trail**. Each log includes timestamps, GPS coordinates, photo evidence, and the AI's analysis results, which supervisors can monitor via a live dashboard accessible from any browser. Completed steps appear instantly, marked with green checkmarks and photo thumbnails, providing supervisors with immediate visibility into field operations. At the end of a procedure, a comprehensive **PDF audit report** can be generated, ensuring accountability and simplifying compliance with regulatory standards.

Equipment Identification

Procedures begin with **equipment identification**, where workers scan a QR code affixed to the equipment. The system instantly loads the correct SOP for that specific asset, ensuring step-by-step guidance is tailored to the task at hand. This capability streamlines operations and reduces the risk of errors caused by mismatched procedures or equipment.

Seamless Integration with EON Genesis

EON Assist IQ is part of the **Genesis platform**, enabling closed-loop knowledge transfer from training to real-world execution. Workers first practice in immersive VR simulations, develop mastery with AI tutors, and then perform tasks guided by **smart glasses**. This lifecycle approach—**Learn** → **Train** → **Perform** → **Automate**—ensures workers achieve full competency while capturing institutional knowledge for future generations. By addressing the industrial skills gap, **EON Assist IQ** prepares the workforce for high-stakes operations.

Adaptive Guidance for Diverse Skill Levels

The platform's AI engine adapts guidance based on the worker's experience level and task complexity. Novice workers receive more detailed instructions, while experienced operators benefit from streamlined steps that emphasize verification rather than explanation. This adaptive approach maximizes efficiency and ensures all workers, regardless of skill level, complete tasks with confidence.

Consumer-Grade Hardware for Industrial Use

Meta Ray-Ban Display glasses provide an affordable yet powerful hardware solution for field operations. Priced at \$799, these glasses include a 12MP camera, in-lens HUD, voice control, and gesture input, ensuring workers can operate hands-free even in harsh industrial environments. Unlike bulky AR headsets, **Meta Ray-Ban Display glasses** are lightweight and practical for daily use, making them ideal for industries such as oil and gas, manufacturing, and construction.

EON Assist IQ combines these features into a single, robust platform that empowers workers to execute safety-critical tasks with precision, confidence, and transparency. From hands-free guidance to AI-powered verification, real-time audit trails, and seamless integration with training ecosystems, the platform ensures measurable outcomes in time-to-competency, knowledge retention, and safety compliance.

5: HOW IT WORKS

EON Assist IQ is a groundbreaking AI-powered field operations platform designed to deliver hands-free procedural guidance, real-time verification, and comprehensive audit trails. It operates through a streamlined six-step workflow, seamlessly integrating cutting-edge technology like **Meta Ray-Ban Display glasses**, **Claude Vision AI**, and a **Progressive Web App (PWA)** to redefine safety-critical tasks and compliance processes. Below is a detailed breakdown of its operational workflow:

Step 1: Equipment Identification

The process begins with **equipment identification**, ensuring that the worker is guided through the correct Standard Operating Procedure (SOP) for the specific task at hand. Workers simply scan a QR code affixed to the equipment, which instantly loads the appropriate SOP into the system. This eliminates guesswork and ensures that every procedure is tailored to the exact asset being handled. For a more dynamic experience, workers can also use voice commands to confirm the equipment type, further enhancing convenience and accuracy.

Step 2: Step-by-Step SOP Guidance

Once the correct SOP is loaded, **EON Assist IQ** provides **step-by-step SOP guidance** directly through the **600×600px in-lens heads-up display (HUD)** of the **Meta Ray-Ban Display glasses**. Each instruction is designed to be concise, high-contrast, and numbered for clarity, making it easy for workers to follow. **Voice commands** and **Neural Band wrist gestures** allow workers to navigate through the steps without interrupting their workflow or needing to use their hands, ensuring they remain focused on the task at all times. This feature is particularly valuable in high-stakes environments where both hands are often occupied.

Step 3: Photo Verification Using AI

At each safety-critical step, workers are prompted to capture a photo using a simple voice command. The captured image is instantly analyzed by **Claude Vision AI** to verify procedural compliance. For instance, the AI can determine whether a valve is properly closed, a padlock is correctly installed, or personal protective equipment (PPE) is being worn. The system provides immediate feedback—either a "verified" status or a "retry" message—ensuring that tasks are completed correctly before progressing to the next step. This capability eliminates ambiguity and drastically reduces the likelihood of human error during safety-critical operations.

Step 4: Automatic Logging of Timestamped Data

Every action performed by the worker is automatically logged in real time. The platform records key data points such as **timestamps**, **GPS coordinates**, **photo evidence**, and the AI's analysis results. This information is transmitted to a **real-time dashboard**, which supervisors and auditors can access from any browser or tablet. The automatic logging of data ensures that every action is fully documented, providing a layer of transparency and accountability that is critical in industrial operations.

Step 5: Advancement to the Next Task Upon Verification

The system is designed to ensure procedural accuracy at every step. Workers can only advance to the next task after their current action has been successfully verified by the AI. This "gatekeeper" functionality ensures that no steps are skipped or performed incorrectly, maintaining the integrity of the procedure. By enforcing this level of compliance, **EON Assist IQ** significantly reduces the risk of errors that could lead to safety incidents or regulatory violations.

Step 6: Instant Generation of Audit Reports

Once the procedure is completed, **EON Assist IQ** generates a comprehensive audit report with a single click. The report includes a detailed log of all actions performed, complete with **photo-verified evidence**, timestamps, and GPS data. These reports are fully exportable as PDFs, making them ideal for regulatory submissions, internal audits, and legal defense in the event of disputes. The instant availability of a legally defensible audit trail not only streamlines compliance but also provides peace of mind for organizations operating in high-stakes industries.

By integrating these six steps into a cohesive workflow, **EON Assist IQ** transforms field operations, providing workers with the tools they need to execute tasks with precision and confidence. The platform bridges the gap between training and real-world execution, ensuring that safety-critical procedures are carried out consistently and verifiably.

6: BENEFITS/OUTCOMES

The deployment of **EON Assist IQ** delivers transformative benefits for organizations operating in safety-critical and compliance-driven industries. By leveraging AI-powered field operations, this platform addresses the root causes of procedural errors, compliance failures, and documentation gaps, resulting in measurable outcomes across multiple dimensions:

1. Reduced Procedural Errors

With **80% of field errors** stemming from procedural lapses rather than technical issues, **EON Assist IQ** directly tackles this challenge through real-time, **step-by-step SOP guidance** and **AI-powered photo verification**. Workers are guided through every critical step, with instant validation ensuring that tasks are performed correctly. This drastically reduces the likelihood of errors caused by fatigue, pressure, or environmental distractions.

2. Compliance Cost Avoidance

Organizations face significant financial penalties for compliance violations—**\$1.7 million** on average for a single Lockout/Tagout (LOTO) incident. By providing a **real-time audit trail** complete with photo-verified evidence, **EON Assist IQ** ensures adherence to regulatory requirements. The platform's ability to document every action with **timestamps** and **GPS coordinates** creates a legally defensible record, protecting organizations from costly fines and legal liabilities.

3. Incident Reduction and Safety Improvements

Incomplete or missing documentation accounts for **65% of safety-critical audit findings**, often leading to hazardous oversights. **EON Assist IQ** eliminates these gaps by automatically logging every action performed, providing supervisors with real-time visibility into field operations. This proactive approach enhances workplace safety, minimizing the risk of accidents and injuries.

4. Faster Training-to-Competency Timelines

As **42% of the industrial workforce** is set to retire within the next decade, organizations face a growing skills gap. **EON Assist IQ**, as part of the broader **Genesis platform**, bridges this gap by enabling workers to transition seamlessly from VR-based training to real-world task execution. The hands-free guidance and automated verification features accelerate the time it takes for new workers to achieve full competency, ensuring uninterrupted operational efficiency.

5. Workforce Productivity Gains

Traditional tools like paper-based checklists and mobile apps are cumbersome and disruptive, often requiring workers to pause their tasks to record data manually. In contrast, **EON Assist IQ's** hands-free operation, powered by the **Meta Ray-Ban Display glasses** and **Neural Band wristband**, allows workers to stay focused and efficient. By streamlining workflows and eliminating interruptions, the platform significantly enhances productivity.

6. Measurable ROI and Payback Period

The financial impact of procedural errors, compliance failures, and operational inefficiencies is staggering—**\$170 billion annually** in U.S. manufacturing alone due to poor quality. **EON Assist IQ** delivers measurable ROI by improving compliance, reducing errors, and increasing workforce efficiency. Organizations can expect to achieve payback within 3–6 months of deployment, making the platform a cost-effective solution for high-stakes operations.

7. Legally Defensible Audit Trails

In industries where compliance and accountability are paramount, the ability to generate **photo-verified audit reports** in real time is invaluable. **EON Assist IQ** provides organizations with a comprehensive record of every task performed, complete with supporting evidence. These reports not only simplify regulatory audits but also serve as critical documentation in the event of disputes or investigations.

By addressing these key challenges, **EON Assist IQ** empowers organizations to operate more safely, efficiently, and confidently in an increasingly complex industrial landscape. Whether reducing costs, improving safety, or accelerating workforce readiness, the platform delivers tangible benefits that align with the demands of today's high-stakes environments.

7: INDUSTRY USE CASES

EON Assist IQ is applicable across any industry where workers perform safety-critical, multi-step procedures that require verification and documentation. The following ten use cases represent the highest-impact applications across key market segments.

Use Case 1: Energy Pathways

AI-Guided Lockout/Tagout (LOTO) Compliance at Oil & Gas Facilities

The Challenge

A single missed LOTO step can trigger a \$1.7M violation — yet paper-based checklists remain the norm in most oil and gas facilities. Workers often execute multi-step isolation procedures on high-energy equipment in harsh conditions, with supervisor sign-offs happening hours after the work is complete.

The EON Assist IQ Solution

Field technicians scan a QR code on the equipment, receive step-by-step LOTO instructions on their HUD, and capture verification photos confirmed by Claude Vision AI before each step advances. Every action is logged with timestamps and GPS, generating a legally defensible audit trail meeting OSHA 29 CFR 1910.147 requirements.

Target KPIs

- 95%+ first-pass verification rate on safety-critical steps
- 60% reduction in LOTO procedure completion time
- Zero missed steps across all guided procedures
- 100% digital audit trail coverage replacing paper logs

Use Case 2: Smart Manufacturing

AI-Verified Quality Inspection on High-Speed Production Lines

The Challenge

Holding tablets while inspecting complex assemblies slows throughput and introduces documentation errors. Skilled inspectors are retiring faster than new ones can be trained, and inconsistent quality leads to costly rework and warranty claims.

The EON Assist IQ Solution

EON Assist IQ displays HUD-guided checklists at each assembly station. Claude Vision AI compares verification photos against known-good reference standards and instantly flags deviations. Inspection data flows automatically to the quality management system, ensuring consistent quality regardless of inspector experience level.

Target KPIs

- 40% improvement in inspection throughput per shift
- 75% reduction in escaped defects reaching downstream processes
- 90% reduction in inspection documentation time
- 50% faster new inspector qualification timeline

Use Case 3: Aerospace & Defense

Guided Aircraft Maintenance with Real-Time Technical Order Compliance

The Challenge

Aircraft maintenance technicians must follow hundreds of technical order steps precisely, often in confined spaces where holding manuals or tablets is impractical. Missed steps range from costly aircraft-on-ground delays to catastrophic safety failures.

The EON Assist IQ Solution

EON Assist IQ delivers technical order instructions adapted to the specific tail number and task card, with AI confirming fastener patterns, torque markings, and part numbers via photo verification. Completed task cards with full photo evidence are submitted digitally to the MRO system, reducing aircraft-on-ground time and ensuring full FAA/EASA compliance.

Target KPIs

- 30% reduction in maintenance task completion time
- Zero repeat inspections due to documentation gaps
- 50% reduction in FOD-related incidents during maintenance
- 100% digital technical order compliance documentation

Use Case 4: Healthcare Life Sciences

Medical Equipment Calibration and Sterile Processing Verification

The Challenge

Errors in medical device calibration or sterile instrument processing carry serious patient safety and liability consequences. Both biomedical engineers and sterile processing technicians operate in environments where tablet use is impractical and documentation must be unimpeachable.

The EON Assist IQ Solution

EON Assist IQ identifies each device via QR code, loads the manufacturer-specific protocol, and guides technicians hands-free through every adjustment point. Photo evidence at each critical step creates an unbreakable accountability chain, with calibration certificates auto-generated for FDA and accreditation body audits.

Target KPIs

- 99.9% calibration accuracy on first attempt
- 80% reduction in sterile processing errors
- 45% improvement in calibration round completion time
- 100% automated documentation for regulatory compliance

Use Case 5: Construction & Infrastructure

Guided Safety Inspections and Code Compliance Verification on Job Sites

The Challenge

Inspectors navigating active job sites with both hands occupied cannot easily reference complex building codes — and paper forms are frequently lost or backdated. Non-compliance discovered late in the project cycle causes costly and disruptive rework.

The EON Assist IQ Solution

EON Assist IQ loads phase-specific inspection checklists on the HUD, with Claude Vision AI comparing verification photos against code requirements in real time. Deficiencies are flagged immediately, responsible subcontractors are notified instantly, and completed inspection reports reach the project team within minutes.

Target KPIs

- ✓ 70% reduction in rework caused by late-discovered code violations
- ✓ 2× more inspection points covered per day per inspector
- ✓ Same-day inspection report availability vs. 2–3 day current average
- ✓ 35% reduction in project delays due to failed inspections

Use Case 6: First Responders

Hands-Free Hazmat Incident Response with Real-Time Protocol Guidance

The Challenge

First responders must rapidly identify unknown hazardous substances and execute decontamination procedures while wearing full protective gear that makes device use nearly impossible. Incorrect identification can be lethal, and post-incident documentation is frequently incomplete.

The EON Assist IQ Solution

Hazmat team members photograph placards from a safe distance; Claude Vision AI identifies the substance and loads the correct Emergency Response Guidebook protocol on the HUD. Every containment and decontamination step is guided hands-free and photo-documented, creating a complete incident timeline automatically for regulatory submission.

Target KPIs

- 50% faster substance identification and protocol initiation
- Zero protocol deviation incidents during guided responses
- 90% reduction in post-incident report compilation time
- 100% photo-documented incident timelines for regulatory submission

Use Case 7: Mining

Underground Equipment Pre-Shift Inspection with AI Verification

The Challenge

Pre-shift equipment inspections in poorly lit underground environments are high-stakes — yet MSHA-required paper documentation is frequently incomplete or retroactively filled in. Missing an inspection point on heavy equipment can lead to catastrophic failure or methane ignition.

The EON Assist IQ Solution

EON Assist IQ loads the MSHA-compliant inspection checklist via QR tag and guides operators through every checkpoint, with AI confirming component condition before the machine is cleared for operation. Full compliance documentation is generated automatically, eliminating falsified records and ensuring nothing is missed.

Target KPIs

- 100% pre-shift inspection completion rate vs. ~70% industry average
- 45% reduction in unplanned equipment downtime from missed defects
- Zero MSHA citations related to inspection documentation gaps
- 25% reduction in equipment-related safety incidents

Use Case 8: Maritime

Port State Control and Vessel Safety Inspection Guidance

The Challenge

Vessel inspections span hundreds of checkpoints across engine rooms, cargo holds, and bridge equipment, where inspectors navigate steep ladders and wet decks while referencing complex international regulations. Missed deficiencies result in detentions costing shipowners over \$100,000 per day.

The EON Assist IQ Solution

EON Assist IQ loads vessel-specific SOLAS/MARPOL protocols based on vessel type and flag state, guiding photo documentation at each checkpoint while AI flags expired certifications, missing safety markings, and equipment issues. Inspection reports with full photo evidence are generated automatically for port authority submission.

Target KPIs

- 40% reduction in inspection duration per vessel
- 60% fewer vessel detentions due to documentation deficiencies
- 100% photo-documented inspection findings
- 30% improvement in deficiency detection rate

Use Case 9: Data Centers

AI-Guided Server Rack Installation and Change Management Verification

The Challenge

A single cable patching error in a data center can cause outages affecting thousands of customers, yet technicians juggling heavy equipment struggle to document changes consistently. Change management requires before-and-after photo evidence that is rarely captured completely under manual processes.

The EON Assist IQ Solution

EON Assist IQ displays target rack layouts and cable schedules on the HUD, guiding each connection hands-free while AI verifies routing, port assignments, and labeling against the planned configuration. Change tickets are auto-closed with complete before-and-after photo evidence, eliminating misconfigurations and costly rollbacks.

Target KPIs

- 80% reduction in cable patching errors
- 50% faster change ticket completion with documentation
- Zero unplanned outages due to physical infrastructure errors
- 100% change management photo compliance vs. ~60% manual average

Use Case 10: Electric Vehicles

High-Voltage Battery Service Safety Protocol with AI Verification

The Challenge

EV battery service on 400V–800V systems is lethal if isolation steps are skipped — yet demand for qualified technicians far outpaces supply. The EV service industry is growing faster than the workforce can be trained, increasing the risk of under-qualified technicians performing high-voltage work.

The EON Assist IQ Solution

EON Assist IQ loads the manufacturer-specific disconnect procedure via VIN scan, displaying each step with safety warnings while AI verifies disconnect points, PPE, and multimeter readings. The system will not advance until verification passes, making it impossible to skip a critical safety step and generating complete photo-verified service records for warranty compliance.

Target KPIs

- Zero high-voltage safety incidents during guided procedures
- 70% faster new technician qualification for HV battery work
- 100% safety protocol compliance with photo verification
- 40% reduction in HV service time through streamlined workflow

8: CONCLUSION

EON Assist IQ represents a paradigm shift in the way industrial field operations are executed, verified, and documented. By bridging the gap between virtual training and real-world execution, it delivers transformative capabilities that redefine safety, compliance, and efficiency standards. The **AI-powered field operations platform** tackles the persistent challenges of procedural errors, documentation gaps, and compliance violations through innovative and hands-free solutions.

Bridging Virtual Training and Field Execution

At its core, **EON Assist IQ** completes the lifecycle initiated by the **Genesis platform**, enabling seamless progression from immersive VR training to verified real-world performance. Workers train in virtual simulations powered by AI tutors, where they gain hands-on experience in a controlled environment. When deployed in the field, **EON Assist IQ** ensures procedural consistency and accuracy through **step-by-step SOP guidance**, delivered directly to the technician's field of view via **Meta Ray-Ban Display glasses**. This integration not only enhances workforce readiness but also ensures that critical knowledge is applied effectively in real-world scenarios.

Revolutionary Hands-Free Execution

The ability to perform safety-critical tasks with both hands occupied is a defining feature of **EON Assist IQ**. Traditional solutions like paper-based checklists, mobile apps, and bulky augmented reality headsets fail to address the practical realities faced by workers in industrial environments. **EON Assist IQ** solves this by leveraging **consumer-grade smart glasses** coupled with the **Neural Band wristband** for **gesture input** and **voice control**, enabling workers to advance instructions without interrupting their workflow. The **hands-free SOP guidance** ensures that workers can focus entirely on the task at hand, minimizing distractions and reducing the risk of human error under pressure.

AI-Powered Verification and Audit Trails

The integration of **Claude Vision AI** into **EON Assist IQ** sets a new benchmark for procedural compliance. At each critical step, workers capture a photo via voice command, which is analyzed by the AI for accuracy. The **AI-powered photo verification** confirms whether the step has been executed correctly, verifying details such as valve positions, padlock installations, or the presence of PPE. Only after successful verification can the procedure advance, ensuring that every action meets predefined compliance standards.

In addition, **EON Assist IQ** generates a **real-time audit trail**, logging every verification event with timestamps, GPS coordinates, and photo evidence. Supervisors and auditors can monitor progress through a live dashboard, where completed steps are displayed with green checkmarks and photo thumbnails. At the conclusion of the procedure, a full **photo-verified audit report** can be generated instantly. This system transforms field operations into a transparent, verifiable process that eliminates documentation gaps—a critical factor, given that **65% of safety-critical audit findings** stem from incomplete or missing documentation.

Addressing the Skills Gap and Enhancing ROI

The impending retirement of **42% of the industrial workforce** within the next decade poses an unprecedented challenge for organizations. With decades of institutional knowledge at risk

of being lost, **EON Assist IQ** provides a scalable solution to capture, preserve, and apply expertise across the workforce. By guiding less experienced workers through complex procedures with **AI-powered field operations**, the platform mitigates the impact of the skills gap while maintaining operational excellence.

Moreover, the platform delivers measurable outcomes that translate directly into financial benefits. By reducing procedural errors—which account for **80% of field errors**—and minimizing compliance violations that cost an average of **\$1.7M** per incident, **EON Assist IQ** generates substantial ROI. Beyond cost savings, the platform’s ability to ensure consistent execution and documentation improves safety standards, protects workers, and safeguards organizational reputation.

The Future of Industrial Operations

The convergence of technologies in **2025–2026**, including **consumer-grade smart glasses**, **multimodal AI vision**, and **no-code integration platforms**, has made solutions like **EON Assist IQ** viable for the first time. Priced at just **\$799**, the **Meta Ray-Ban Display glasses** deliver capabilities comparable to enterprise-grade augmented reality headsets, which cost over **\$3,500** but lack practicality in harsh field environments. Combined with the power of **Claude Vision AI**, **EON Assist IQ** leverages these advancements to deliver cutting-edge performance without the barriers of cost or complexity.

EON Assist IQ is more than a tool—it is a transformational platform that empowers organizations to bridge the gap between training and execution, enabling workers to perform safety-critical procedures with confidence and precision. By embracing this solution, enterprises can enhance operational efficiency, achieve regulatory compliance, and set new benchmarks for safety and performance in industrial environments.

Conclusion

In an era where procedural errors, compliance failures, and documentation gaps cost industries billions annually, **EON Assist IQ** offers a revolutionary solution that addresses these challenges head-on. Through **step-by-step SOP guidance**, **AI-powered photo verification**, and **real-time audit trails**, the platform ensures that every procedure is executed correctly and documented transparently. As part of the **Genesis platform**, it integrates training, execution, and verification into a single ecosystem—empowering workers, protecting organizations, and transforming industrial operations for the AI era.

The future of field operations is hands-free, AI-powered, and photo-verified. With **EON Assist IQ**, organizations can be confident that their workforce is ready to meet the demands of high-stakes operations with precision, accountability, and measurable results. The platform is not just a tool for today—it is the foundation for the workforce of tomorrow.