EON AI Ventures

Field IQ AR Hardware Strategy:
A Multi-Path Approach to Work Intelligence in Oil & Gas

How EON AI Ventures deploys Field IQ across training centers, live plants, and hazardous areas — using head-mounted displays, industrial tablets, certified assisted reality, and AR glasses that work today — without waiting for a HoloLens successor.

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1. Executive summary

Field IQ is EON's field acquisition system for work intelligence: the worker recognises what is in front of them, opens knowledge and procedures, gets expert support, and captures what happened so EON Delta — EON's work-intelligence model — can improve the full loop in production.

HoloLens 2 defined the optical AR experience many energy customers preferred. Microsoft ended production. There is no commercial HoloLens 3. Meta display-class smart glasses help with capture and AI glance but do not replace true spatial Field IQ overlays on plant assets.

EON AI Ventures' answer is not a single headset. It is a multi-task, multi-path hardware strategy: different devices for different contexts, one content and cloud architecture, and confidence in deploying what works now — including AR glasses that already deliver working Field IQ experiences — while tracking what improves through 2027.

Core recommendation

- Deploy Quest-class (and Vision Pro premium) head-mounted displays now for training centers.
- Deploy phone and rugged/IS tablet AR now for live field recognise → overlay → capture.
- Deploy RealWear Navigator Z1 + IS tablets now for hazardous Zone 1 hands-free work.
- Deploy working AR glasses now where they fit — DigiLens ARGO-class spatial glasses and enterprise see-through platforms as operational pilots that work, not science projects; advance Snap Specs and peers as they ship.
- Keep Meta Ray-Ban Display–class devices for capture and AI assistance; do not treat them as the primary spatial platform.
- Build once on OpenXR (+ optional visionOS). Do not wait for a HoloLens 3.

2. Why hardware strategy is a Think Big problem

EON's Think Big agenda has two linked goals: (1) put products in the hands of on the order of 10,000 field users at a single customer for daily performance — not classroom volume — and (2) build EON Delta, a leading AI model for work intelligence, trained on real work data. Field IQ is the acquisition layer. Without the right hardware in each environment, there is no scale, no data, and no Delta advantage.

Customers have been clear. they are open to a full solution. They liked HoloLens 2. They ask what replaces it. Answering "wait for the next glasses" is not a strategy. Answering with a multi-way stack that ships in 2026 is.

3. Design principles

- **Context first.** Match the device to the job and the zone — training immersion, outdoor plant, and Zone 1 are different problems.
- **Deploy now.** Prefer what operators can buy, manage, and certify this year.
- **Glasses that work.** AR glasses that already support spatial overlays, capture, and Field IQ workflows deserve production pilots — measured, expanded, and sold — not soft-pedaled as "maybe someday."
- **One content pipeline.** OpenXR + Unity (and optional visionOS) so content survives vendor exits.
- **Cloud and model as backbone.** Field IQ portals and EON Delta are the constant; hardware fleets change.
- **Safety certifications gate the plant.** ATEX/IECEx and Class/Division reality beats brochure FOV.

4. The four device classes (+ hazardous)

4.1 Handheld — phones and tablets

ARKit and ARCore already support the Field IQ loop: point the camera, recognise the asset, place labels and symbols, open knowledge portals, stream to an expert, capture the work delta. LiDAR-equipped iPads deliver excellent handheld spatial quality. In oil and gas, rugged and intrinsically safe Android tablets matter as much as consumer Pro devices.

Deploy now: iPhone/iPad Pro; Samsung Tab Active class; Pepperl+Fuchs/Ecom Tab-Ex 05 (ARCore-ready IS path); Getac ZX-EX Zone 2 Android.

Strengths: immediate MDM, best recognition cameras, IS options, strongest structured capture. Limits: one hand occupied unless mounted.

4.2 Head-mounted displays — highest quality and capacity today

Modern HMDs (Meta Quest 3 class, Pico enterprise, HTC VIVE Focus Vision, Samsung Galaxy XR, Apple Vision Pro, Varjo for fidelity bays) offer the best visual quality and compute capacity currently available for immersive Field IQ training and performance rehearsal. They are the right default for training centers and academies. They are not, as a class, ATEX Zone 1 outdoor plant devices.

EON's position: HMDs are not a compromise while we wait for glasses. For training-center immersion they are the strongest choice today. Deploy them.

4.3 True see-through AR glasses — working pilots, expanding fleets

This is where humility has been overdone. Enterprise see-through platforms such as DigiLens ARGO already combine waveguide optics, 6DoF tracking, and OpenXR pathways suitable for Field IQ spatial overlays on safe and controlled sites. Vuzix enterprise lines support outdoor-bright assisted and emerging binocular

workflows. Snap Specs brings true consumer AR form factor into late 2026. Chinese enterprise waveguide devices expand regional options.

EON AI Ventures treats these as pilots that work: scoped deployments with real users, real SOPs, and real capture into Field IQ — then scale. They are not demoted to "research only." They are not yet a universal Zone 1 hologram replacement for HoloLens Industrial Edition; that gap is acknowledged. But dismissing glasses as not ready enough under-sells what Field IQ can already deliver in glasses form.

4.3.1 Display / HUD smart glasses — secondary spatial role

Meta Ray-Ban Display–class devices and similar HUD glasses are valuable for always-wearable capture, AI glance, and lightweight guidance. EON has implemented Meta glasses and is clear-eyed: they are not satisfactory as the primary true Field IQ spatial overlay platform (fixed HUD, limited or no 6DoF asset anchoring). They remain in the stack for capture and assistance — secondary, not central.

4.3.2 Hazardous areas — assisted reality that is certified

Immersive HMDs generally lack ATEX Zone 1 / Class I Div 1 certification. HoloLens 2 Industrial Edition's Class I Div 2 capability has no clear immersive successor. The industry's working answer is RealWear Navigator Z1-class intrinsically safe assisted reality plus IS phones/tablets. That is hands-free expert-on-shoulder and digital procedures inside the fence — not full optical holograms, but certified and proven in O&G.

5. Decision matrix

Context	Primary hardware now	Role	2026–27 motion
Training center	Quest-class HMD; Vision Pro premium; Varjo optional	Highest quality immersion	Add Galaxy XR / next Quest gen pilots
HoloLens optical continuity	Magic Leap 2 bridge (if sourced); residual HL2	Short continuity only	Exit by end of support 2027
Live field (non-haz / Zone 2)	Phone + rugged/IS tablet AR	Recognise → overlay → capture	Scale MDM fleets; deepen CV models
Hazardous Zone 1	RealWear Z1 + IS tablets	Hands-free certified guidance	Watch for certified true spatial glasses
Glasses-form spatial AR	DigiLens ARGO-class & peers — working pilots	True overlays in glasses form	Expand fleets as Snap Specs / Artemis mature
Capture / AI glance	Meta Display–class	Secondary	Keep integrated, not primary spatial

6. Software architecture implications

- Ship Field IQ on iOS and Android first, including IS tablet SKUs.
- Standardize training HMD content on OpenXR (Quest-class first).
- Integrate RealWear for Zone 1 expert-on-shoulder into the same portals.
- Ship and expand DigiLens ARGO-class (and equivalent) glasses experiences as working Field IQ clients — same portals, same capture into Compound IQ / Distillery → EON Delta.
- Keep Meta Display–class integrated for capture/AI, not as the only client.
- Avoid HoloLens-only or Display-glasses-only core architecture.

7. What is around the corner (through ~2027)

No HoloLens 3. Magic Leap exits first-party headsets with support through 2027. Meta's next Quest generation is widely expected around 2027; Orion-line / Artemis-class glasses are the consumer true-AR bet to watch. Snap Specs ships into the true-AR glasses wave in late 2026. Android XR / Samsung expands enterprise HMD and later glasses options. ATEX-certified true spatial AR glasses remain a gap — plan plant architecture accordingly while still deploying certified assisted reality and IS tablets at full strength.

8. Recommendation

EON AI Ventures recommends a multi-path Field IQ hardware strategy executed now:

- Train on head-mounted displays — strongest quality and capacity today.
- Perform in the field on tablet AR and on AR glasses that already work for the job.
- Perform in hazardous zones on RealWear + IS tablets.
- Treat HoloLens 2 / Magic Leap 2 as bridges with end dates, not as the destination.
- Keep display-class smart glasses secondary for spatial Field IQ.
- Build once on OpenXR so every fleet upgrade compounds into EON Delta.

Do not wait. Do not over-humble the glasses path. Do not oversell a single device. Multi-task, multi-way, context-true — that is how Field IQ reaches thousands of users in the field.