

EON AI VENTURES · WORK INTELLIGENCE · HEALTHCARE

EON Universal

Facility-Agnostic Training & Field Intelligence

Turning any worker into a multi-year expert.

A composable equipment ontology for biomedical & clinical engineering.

Built for hospital device fleets — the biomed shop and the bedside.



White Paper Companion Deck · Version 1.0 · July 2026



THE OPPORTUNITY

Any technician. Any device.

The senior clinical engineers who hold decades of judgment are retiring as hospital device fleets grow and connect. The BMETs replacing them are green — where being wrong is a patient-safety and escalation problem, not an inconvenience.



Recognise

Names every component on sight.



Guide

Composes the correct procedure, step by step.



Escalate

Stops and hands off to a human when unsure.

The worker is green. **The guidance is not.**



THE CORE INSIGHT

Composition, not enumeration

A hospital isn't a monolith to be memorised. Across every ward, biomed work is performed on a finite library of known device classes — the same infusion pumps, ventilators, monitors, defibrillators and analyzers, site after site.

Think of a language. You could memorise every full sentence you'll ever need — endless and hopeless. Or you learn the **words** and build any sentence. EON Universal learns the **components** — then composes any device, on any ward.

Enumeration — model every site

- Scales with the number of sites — unbounded
- Every new site is a new modelling effort
- Permutations are effectively infinite — hopeless

Composition — model the vocabulary

- Scales with component classes — bounded, ~50 to start
- Recognise nodes, infer topology, compose
- Every job makes the system smarter — it compounds

You don't model every hospital. **You model the device classes every hospital is built from.**



Fifty classes, not five hundred hospitals

~50

equipment classes
to start

15

top classes carry
most daily value

80%+

of real field
interactions covered

Built on GMDN / UMDNS (ISO 15225) — the medical-device nomenclatures that clinical engineers already use. When the system recognises a device, its output maps straight into the hospital's CMMS / asset register and the device's service records. It speaks their data language on day one.

TIER 1

~50 classes

Core devices a biomed touches
— 80%+ of work orders

TIER 2

~300 types

Makes & models — rarely
surprised

TIER 3

1,000–2,000

Maintainable items: sensors,
batteries, valves, boards

Each class carries a six-layer competence record — see next.



The six-layer competence record

1

Identity

GMDN/UMDNS class, model, aliases

2

Geometry

3D model + multi-angle imagery

3

Anatomy

Subcomponents & boundary

4

Function

What it does; operating envelope

5

Behavior

How it responds to upsets

6

Procedure

Operate · inspect · isolate · fix

Recognition keys on layers 1–2. Guidance composes from layers 3–6.



ONE METHOD, EVERY HEAVY INDUSTRY

The same engine, beyond healthcare

Because the system understands devices rather than memorising hospitals, the method transfers to any sector built from a finite parts vocabulary. Learn the devices once; help every site built from them.



Healthcare — biomed

Device fleet · GMDN/UMDNS

THIS DECK'S FOCUS



Oil, gas & petrochemical

~50 classes · ISO 14224

First library in build



Aerospace & MRO

Fleet LRUs · ATA chapters*

Same composition logic



Power & energy

Turbines, switchgear, BOP*

Adjacent vertical

**Illustrative — class families are representative; healthcare anchors to GMDN/UMDNS, oil & gas is the first library in active build.*



THE DIFFERENCE

Genesis shows the steps. EON Universal understands the work.

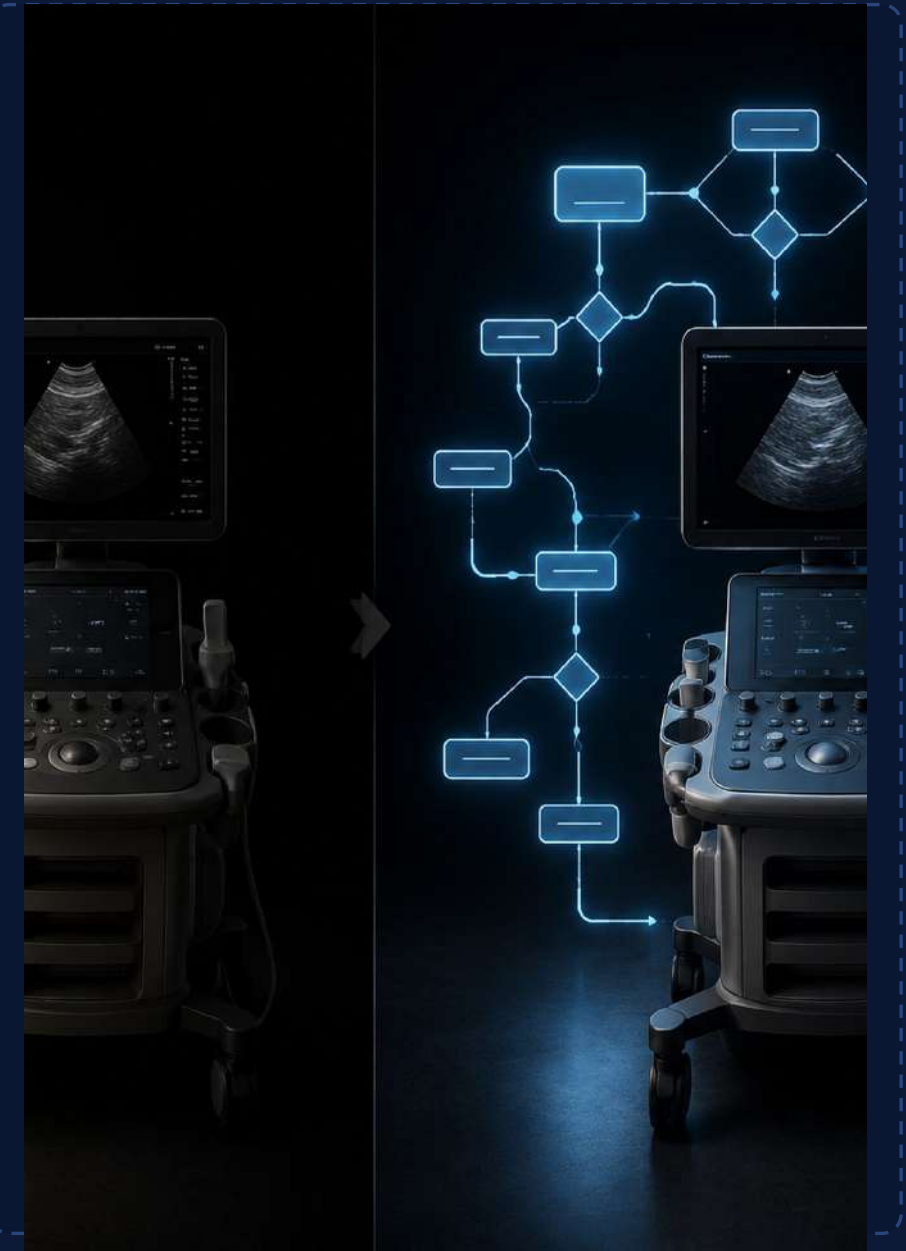
GENESIS — the core engine

- Needs 3D models supplied to it
- Handles sequential SOPs only — not conditional
- Knows what to do/show, but not why
- Cannot configure different capabilities
- Does not recognise things in real life

EON UNIVERSAL — intelligence + library

- The component library + the configurator
- Conditional SOPs that branch on live conditions
- Explains why each step matters
- Generalises to makes & models it has never seen
- Recognises equipment on sight — feeds FieldIQ + Holodeck

This is the step nobody has taken — not even a simulator. **That understanding is the entire product.**



What EON Universal makes possible



Each part explains what it is, how it works — and lets you try it.

Talking components



Inject a fault; the trainee must recognise and respond, not follow a script.

Fault diagnosis



Defensible, scored evidence a worker is ready — against the standard.

Certification



Branching service procedures with safety gates: discharge the capacitor before opening.

Conditional procedures



Unlimited, valid device configurations from one component library.

Generative configurations



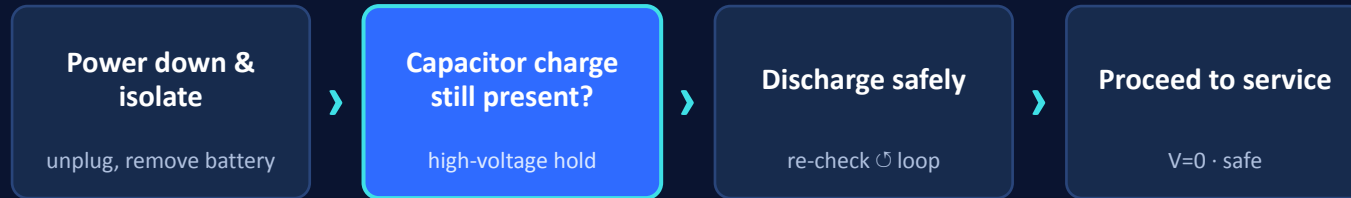
Every session improves the shared library for the next worker.

Compounds



Conditional SOPs: procedures that branch

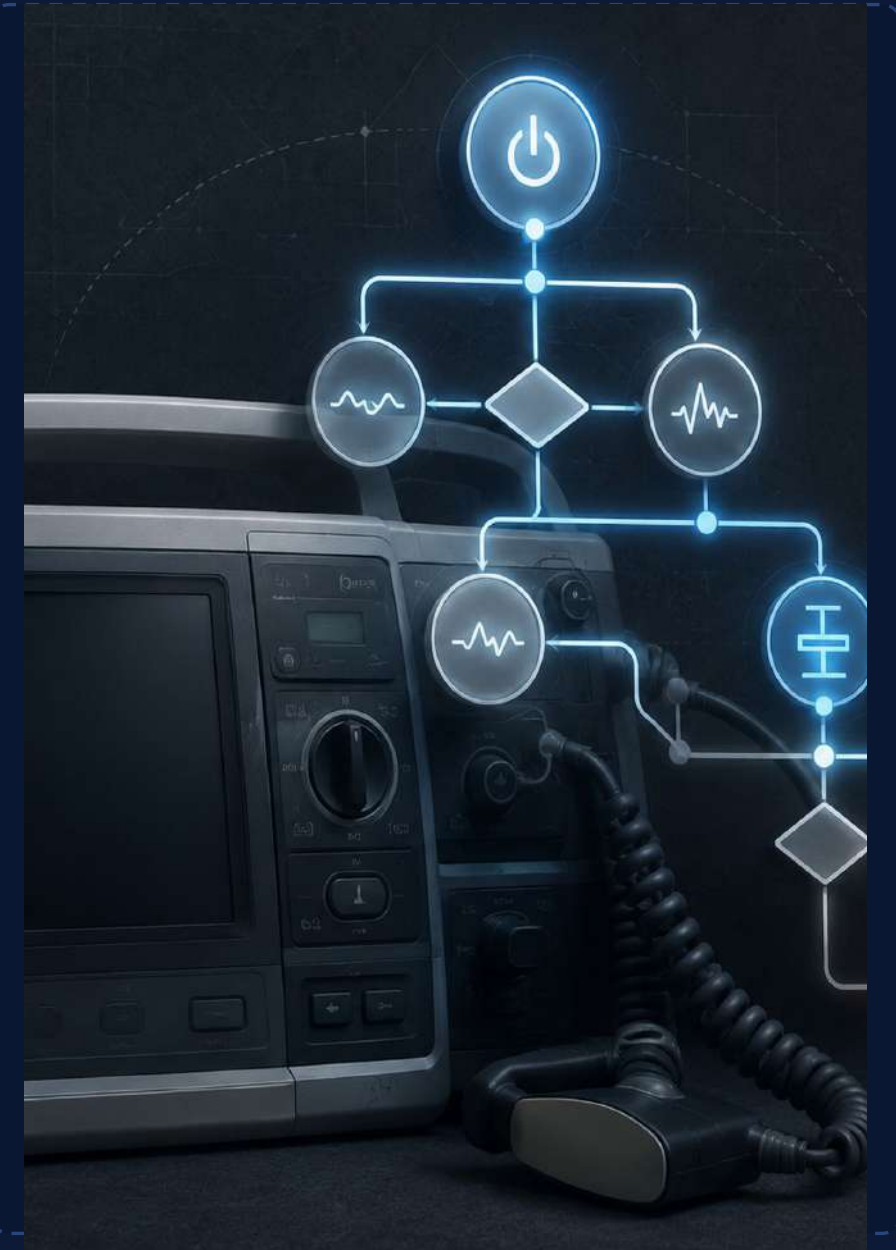
A fixed SOP is a straight line. A conditional SOP is a decision tree with safety gates — the next action depends on a live condition. Only authorable because Universal understands the equipment.



Abnormal → STOP & escalate (Verdict)

Why this is the proof. The 'capacitor charge still present?' branch only exists because Universal knows a defibrillator's capacitor holds a lethal charge after power-off. **Genesis has no concept of stored charge — so it cannot branch on it.**

Seven training use cases: talking components · guided & scored SOP · conditional SOPs · fault injection · generative configs · AR-only practice · certification



Author once — deliver everywhere



ANYWHERE

Phone / AR glasses

AR-only at 1:1 scale.
Practice off-shift with no device on the bench.



IN THE SHOP

Tablet / AR on the device

LiDAR overlays the digital twin onto the real device — each part tappable.



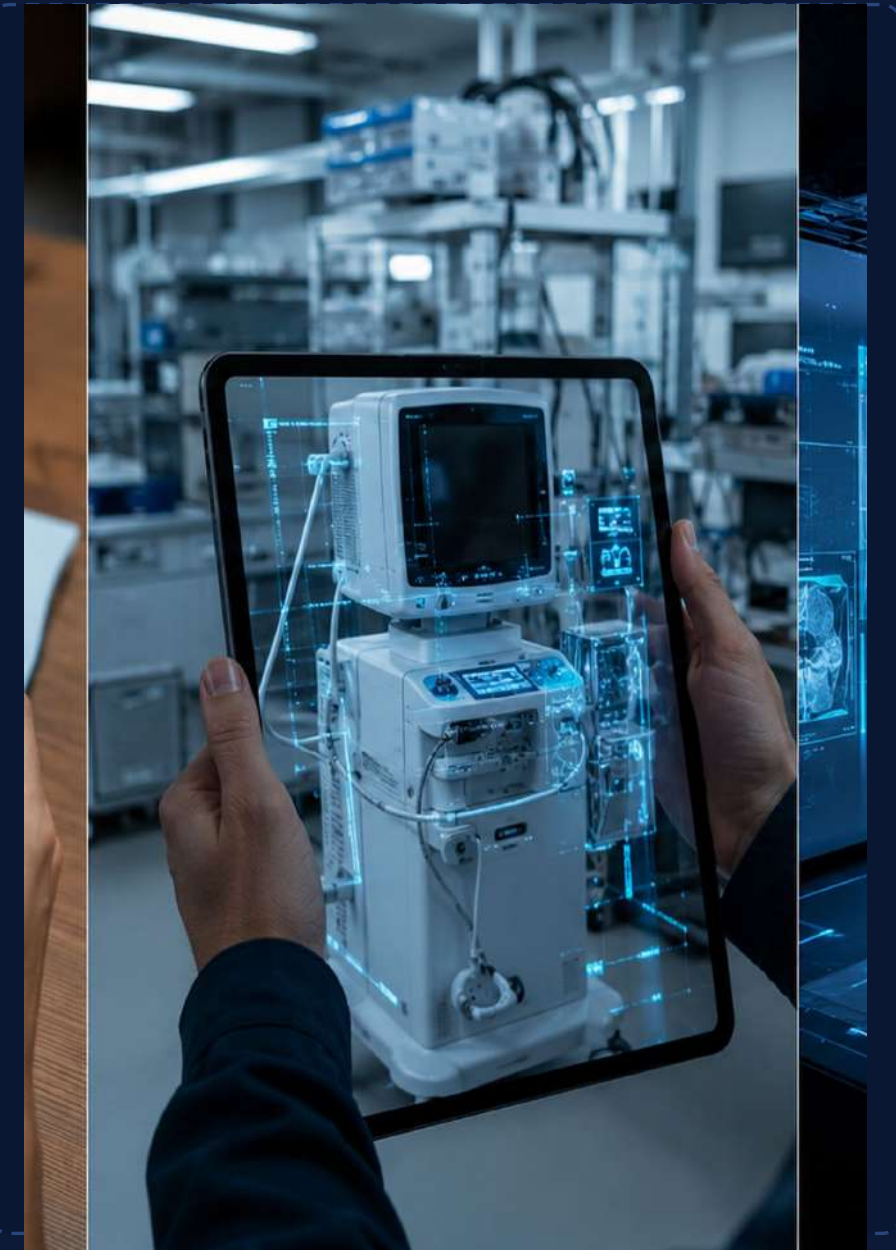
IMMERSIVE

The CAVE (Holodeck)

LED walls and floor surround the trainee in a generated bay at full scale.

Phone off-shift → tablet/AR on the device → CAVE for immersive, infinite training.

The same understanding drives all three. The CAVE — a modern LED reborn iCube — is the premium upsell tier.



The Pyramid — layer by layer

6 Field

Use everything in the real field — the eventual goal

5 SOPs

Standard procedures applied on the foundation

4 Foundational skills

Must-know basics, especially safety

3 Function

What each labelled component does

2 Label

Every component identified and tagged

1 3D model

An accurate model — the base of everything

You cannot skip a level. Layers 1–4 understand components, not facilities — which is exactly the bridge to the universal solution.



Own the work, not the weights



Genesis

The core engine. Models, labels, runs step-by-step SOPs.



EON Universal

Adds intelligence, the library, the configurator, recognition.



Field IQ + Holodeck

Delivery: field recognition, on-the-spot guidance, scenarios.

- ✓ Every job makes the system smarter — a product that compounds.
- ✓ Works on facilities it has never seen — recognise, infer, compose.
- ✓ A bounded library you own — not a per-site modelling cost forever.

Genesis shows the steps. **EON Universal understands the work.**

