

From Bridge to Simulator

The next generation of EON-XR

On EON XR Infinite, the retirement of EON-XR Classic, and what both mean for the people who commission and build training.



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1. Executive summary

EON Reality is entering next-generation simulation. This paper sets out what that sentence actually means, why the change is happening now rather than later, and what it changes for the institutions and employers who already run training on EON-XR.

Three things are announced together, and they only make sense together.

- **EON XR Infinite is available.** An author names a subject and, minutes later, has a narrated, interactive 3D Simulation: a real 3D object at the centre that the learner can operate, an environment around it, the parts named, a procedure document written, and a scored assessment at the end.
- **EON-XR Classic is being discontinued.** Not because it was a bad product, and not because customers stopped valuing it, but because a substantial amount of the third-party technology underneath it has been switched off by the companies that made it.
- **Every existing customer has a path across at no additional cost.** On the subscription they already hold, with hands-on help to bring their existing work with them.

The argument of this paper is short enough to state here in full.

EON-XR was an excellent product, and it deserves to be described accurately rather than quietly buried. It was a bridge between a traditional LMS and the real lab. It gave teachers and trainers immersive material where they would otherwise have had slides, and it did that job for years. What it could not do was full simulation — and the reason is precise: there were no real 3D objects available to teach with, so a presenter pointed at images and video instead. Customers told us exactly this. Good value against an LMS for learn, train and perform; still far away from a real simulator.

EON XR Infinite closes that specific gap. The learner no longer watches a presenter gesture at a picture of the object. The learner operates the object. That is a change in kind rather than a change in degree, and it is the only claim in this paper we would ask a reader to test for themselves in a live session.

The retirement of EON-XR Classic is the honest consequence of a dependency problem that no amount of engineering effort can outrun. The rest of this paper explains that in section 3, without blaming anyone, and explains in section 7 what the transition looks like for a customer who has already invested years of work in the old platform.

2. What the bridge era achieved, and where it stopped

The gap EON-XR was built to fill

A traditional learning management system is very good at a particular set of jobs. It holds material, sequences it, delivers text and video, asks questions, records who completed what, and reports on all of it. What it cannot do is put a learner's hands on the thing being taught. For that, the traditional answer has always been the laboratory, the workshop, the training rig or the plant floor — expensive, scheduled, limited in capacity, and in many subjects simply unavailable.

EON-XR sat in the gap between those two. It was a bridge. It let an ordinary teacher or trainer, with no modelling skill and no development budget, produce immersive material and put it in front of learners in a headset. Measured against the alternative most of those organisations actually had — which was a slide deck — it was a large improvement, and customers said so.

EON-XR was an excellent product. It was a bridge between a traditional LMS and the real lab, and it did real work for real customers for years.

Where it stopped, and why

The limit of EON-XR was not a lack of ambition or a lack of care. It was an absence of raw material. There were no real 3D objects available to teach with, and there was no practical way for a teacher to obtain them. Everything downstream followed from that single scarcity.

So the product did the best available thing. A presenter stood in the scene and pointed at images and video. The Knowledge Portal — a picture with labelled regions the presenter could point to — existed for exactly the same reason: pictures were what there was. It was a sensible workaround for the constraint of its time, and it is old-fashioned now.

The other consequence was more painful for the author. If a real 3D object was ever going to appear in a session, somebody had to find it, prepare it and upload it. Uploading was the only route content had into the product, which meant every piece of work an author produced depended on the single step most likely to break.

None of this made EON-XR a simulator, and we should not have pretended otherwise. A presenter describing a jet engine over a photograph of a jet engine is a good lecture. It is not a simulation. Our customers were more precise about this than our marketing was: EON-XR gave good value against an LMS for learn, train and perform, and it was far away from a real simulator.

3. Why the ground moved

EON-XR is a mature product, and like every mature product of its generation it was assembled on top of other companies' technology. Roughly three dozen third-party suppliers sat underneath it. That was not a design flaw; it was how software of that era was sensibly built, and it is how most of the software our readers run was built too.

A significant number of those suppliers have since discontinued their products or left the business. The avatar creator is the clearest case: the service behind it no longer exists, so there is nothing left to connect to. When a customer reports that the avatar has stopped working, the accurate answer is not "we will fix it" — it is "the thing it called is gone".

Why this is not a bug backlog

This distinction matters more than it may appear, because it determines what a responsible vendor should do next.

A bug backlog shrinks as you work it. Every fix is permanent, and the list gets shorter. What EON-XR has is different: the next failure is scheduled by somebody else's roadmap, not ours. Three dozen suppliers is three dozen independent clocks that nobody at EON Reality controls. Each patch buys months rather than years, and every repeated breakage costs a customer's trust twice — once when it breaks, and again when they learn the fix was temporary.

The honest internal conclusion was that EON-XR cannot be returned to full health at any price, because parts of it belong to companies that no longer exist. We would rather say that plainly than keep asking customers to be patient with something that cannot be repaired.

The comparison that fits

When the carriers switched off the 3G network, millions of perfectly good phones stopped working. Nothing was wrong with the phone. The owner had done nothing wrong. The network underneath it was simply gone. The responsible carriers did not try to repair the phones — they handed their customers a new and better one.

That is the shape of what has happened here, and it is worth being explicit about why the comparison is the right one. Nobody was careless. The handset owner certainly was not. Repair was not a matter of effort or budget — nobody asks a carrier to fix their 3G phone, because everybody understands that the problem is not in the handset. And the remedy in the story is the remedy we are offering: a free upgrade to something better.

We are not naming the suppliers who switched their products off, and we do not intend to. They made ordinary commercial decisions about their own businesses. Pointing at them would be a way of avoiding our own responsibility, which is simply to move our customers onto something that works.

4. What changes with a real Simulator

The vocabulary matters here, so we will be precise about it. What an author creates in EON XR Infinite is a Simulation. What plays it is a Simulator. We have deliberately retired the word “lesson” for this artefact, because the difference between the two is the whole point of the product.

A real object, operated

The centre of a Simulation is a real 3D object, not a picture of one. The learner turns it, takes it apart, works it and is examined on it. The author does not model it, does not commission it and does not upload it: they name the subject, and the platform finds a suitable licence-cleared model, inserts it, and builds the Simulation around it.

The platform then does the work an instructional designer would otherwise do by hand. It names the parts by looking at the actual 3D object rather than by guessing from the title — in a live run it named twelve parts on a real jet engine. It writes the procedure document automatically. It builds a photorealistic 360° environment around the subject; one real environment was generated in about thirty seconds. It narrates the result aloud, and it will deliver the same Simulation to learners in more than one language.

Four phases, ending in a scored assessment

Every Simulation carries the same four-phase structure, which will be familiar to anyone who has designed practical training:

- **Show Me** — the procedure is demonstrated on the real object, with narration.
- **Train Me** — the learner is taken through it.
- **Let Me Try** — the learner performs it themselves.
- **Evaluate Me** — the learner is scored, and administrators can see the results.

The progression from demonstration to unaided performance is not a new idea; it is how practical skills have always been taught. What is new is that it now happens on the object itself rather than on a description of the object, and that the last phase produces a score rather than a completion tick.

A human reviews every AI-produced label before publication

This is a mandatory step in EON XR Infinite and it cannot be skipped or configured away, which is unusual enough in AI-assisted products that it deserves an explanation rather than a bullet point.

A vision model will label a 3D object fluently whether or not it is correct. Fluency is not accuracy. In most software a wrong label is a cosmetic defect; in education, the wrong label is the lesson. A confidently mislabelled component does not merely fail to teach — it teaches something false, to everyone who takes the course, until somebody notices. That is not a risk a teaching platform is entitled to take in exchange for speed.

So a person reviews and corrects the labels before anything publishes. The platform is built to make that review fast and to show the reviewer exactly what the model saw, but it is not built to let anyone bypass it.

Provenance and licence clearance on every asset

Every 3D model the platform reaches is licence-checked for commercial use before anyone sees it. The check is made on the licence itself rather than on descriptive text, and it defaults to refusing anything it cannot positively clear — an unknown licence is treated as a denied licence, not as an acceptable risk. Attribution is recorded and carried forward, so the original creator's credit travels with the object into every Simulation that later uses it.

For any published Simulation, EON Reality can answer where every asset came from and under what licence it is used. For an institution that has to answer a procurement question, an audit question or a rights question about the material its staff have published, this is not a technical detail. It is the difference between a defensible answer and a search through somebody's downloads folder.

5. Why “Infinite”

The name is a claim about supply, and it is worth unpacking because it is the clearest difference between this product and every catalogue-based alternative, including our own earlier work.

A catalogue product has a fixed number of subjects in it. Someone decided in advance which topics were worth building, built those, and the subjects nobody built are simply unavailable. If your curriculum, your equipment or your onboarding path is not in the catalogue, the catalogue cannot help you, and the answer is a quotation and a production queue.

EON XR Infinite is not a catalogue. It reaches roughly a million free 3D models, every one licence-checked before anyone sees it, and it assembles a Simulation around whichever of them fits the subject the author named. The supply of subjects is endless rather than enumerated. That is where the name comes from, and it is the reason the product suits an institution whose subject list is long, changeable and specific to itself.

One further consequence of the same design: a single subject does not return a single course. It returns five, graded from Level 1 “Starting out” to Level 5 “Mastery”. The author takes one, takes several, or writes their own. The same object serves the introductory session and the advanced one without being rebuilt.

The flywheel

There is a second sense in which the supply is not fixed, and over time it may matter more than the first.

When a reviewer approves an object — having corrected its labels, confirmed its parts and published the Simulation built on it — that object joins the library. The next author who needs it does not repeat the search, the download, the labelling or the review. They get the finished object immediately, with the original creator's credit carried forward.

The effect is measurable. In a live run, a repeat build of an already-approved subject took 0.2 seconds against 25 seconds for the first build of the same subject. That is a single measurement rather than a benchmark, and we present it as one — but the direction is the point. Every Simulation an institution publishes makes the next one cheaper to produce, and the thing accumulating in the library is not raw scraped geometry. It is objects a human has looked at, corrected and approved.

A catalogue depreciates. A library of this kind appreciates, and it appreciates fastest for the customers who use it most.

6. The architecture, in plain terms

EON XR Infinite is not a separate product and it is not a rewrite. It is a layer that sits on top of EON Genesis, EON Reality's enterprise platform. Two things follow from that, and both are worth a buyer's attention.

It was possible to build quickly because most of it already existed

The engine, the environments, the photorealistic presenters, the review corridor, the publishing machinery, the tenancy and sign-on — all of that is Genesis, and all of it has years of work behind it. EON XR Infinite adds the part that was genuinely missing: the ability to acquire a suitable object for an arbitrary subject, name its parts, and assemble a Simulation around it without a human modelling anything. A layer of that size can be built in a short time precisely because it is a layer.

Improvements compound rather than diverge

Because EON XR Infinite runs on Genesis rather than beside it, an improvement to Genesis reaches EON XR Infinite automatically. There is no second codebase drifting away from the first, no feature that exists in one product and is "planned" for the other, and no version of the familiar problem where the cheaper product is quietly the neglected one. The two get better together because there is only one thing to get better.

The division of labour between the two

Genesis and EON XR Infinite are aimed at different jobs, and the distinction is clean.

Genesis is focused on the enterprise. Its output concerns a specific asset — this machine, this valve, this tag number — so it must create its geometry, because if the geometry is not the customer's actual equipment then everything built on it is wrong.

EON XR Infinite makes no such promise, and does not need to. It teaches a heat exchanger, a cell, an engine. The learner is being taught a concept, not being examined on one particular machine. The moment a specific object stops being required, the sensible thing is to stop building objects and start finding them. In one line: Genesis creates, EON XR Infinite retrieves.

The underlying technologies for the new generation are licensed. EON Reality has licensed the technologies behind EON XR Infinite from **EON AI Ventures Inc.**, and has built the next-generation EON-XR on them. EON Genesis itself was originally developed by EON AI Ventures. The two are separate

legal entities, with formal intellectual-property and operational agreements that enable collaboration between them. EON XR Infinite runs on a modern Babylon-based engine, and on the headsets our customers already own, including the Meta Quest 3.

7. What this means for existing customers

The upgrade costs nothing

Every existing EON-XR customer is offered EON XR Infinite at no additional cost, on the subscription they already hold. There is no upsell attached to this, nothing to sign, and no change to what is paid. We are not going to convert a difficult situation into a sales opportunity.

The step that kept failing is removed, not repaired

If there is one sentence in this paper worth remembering, it is this one. Authors who fought with 3D model uploads will not be given a better uploader. They will not upload at all. They name a subject, and the platform finds, checks and assembles the models. The step that was failing has been taken out of the job rather than patched.

“We fixed the uploader” invites the reasonable reply “for how long?”. “You will not need the uploader” ends that conversation permanently, and it is the more honest of the two answers.

What happens to the work you have already built

We are not going to leave your existing content behind, and we are not going to pretend that a single button will move it. What we will do is go through everything you have built, with you and hands-on. Some of it will convert. Some of it we will rebuild alongside you, and in most of those cases it will be better in the rebuild — because the material that most needs rebuilding is usually the material that was working around the missing 3D object in the first place. Either way, that work is ours, not yours.

A small number of things will not carry over at all, and we would rather you heard that from us at the beginning than discovered it in month three. An expectation set early is a conversation. The same fact discovered late is a complaint.

The people, not just the platform

Every account gets a named person who owns the transition from start to finish, not a shared inbox. Training for your authors is included in the transition by default rather than offered as an extra. And the person inside your organisation who became the EON-XR expert is the first person we want in the room, not the last — they know your content better than we do, and it goes better when they lead it.

8. What we deliberately do not claim

A white paper that only lists strengths is an advertisement. The boundaries below are deliberate design decisions, and each is a reason to trust the rest of the document rather than a caveat buried at the end.

This is a teaching and training system

EON XR Infinite is built to teach and to train. We do not position it as producing a regulator-grade competence record, and nothing in this paper should be read as a claim about certification, licensure, regulatory compliance or formal competence standing. Where an organisation needs a record of

competence on a specific piece of equipment, that is a different job with different evidentiary requirements — and, in our own product line, a different product.

The scored Evaluate Me phase is exactly what it says: an assessment inside a training product, with results visible to administrators. It is a teaching instrument, not a credential.

It teaches a heat exchanger, not your heat exchanger

The object at the centre of a Simulation is a suitable, licence-cleared representative of the subject — not a digital twin of the specific machine on your site. For teaching a concept, a mechanism or a procedure, that is the right choice and it is what makes an endless subject supply possible at all. For work that must be tied to one identified asset, it is the wrong tool, and we will say so in the meeting rather than after the purchase order.

We do not claim the AI is right

We claim something narrower and more defensible: that no AI-produced label reaches a learner without a human approving it first. The model is fast and it is frequently correct, and neither of those is a reason to publish its output unread. The mandatory review step exists because we do not trust the model on its own, and we would be suspicious of any education vendor who told you they did.

We do not claim EON-XR was bad

It would be convenient for this announcement if the retiring product had been poor. It was not. It was a good product that ran out of ground to stand on, for reasons that had nothing to do with the people who built it or the customers who chose it.

9. How the claims in this paper were verified

Public documents about new technology are usually written from a roadmap. This one was not, and the difference is worth stating so a reader knows how to weigh it.

- **Every capability described here has been observed running.** Nothing in sections 4, 5 or 6 is included on the strength of a plan, a design intention or a forthcoming release. Capabilities that are designed but not yet demonstrated were removed from this paper rather than described in the future tense.
- **Timing figures are individual live observations, not benchmarks.** The 0.2-seconds-against-25-seconds repeat build, the roughly thirty-second environment and the twelve named parts on a jet engine each come from one recorded run. They are not offered as guaranteed performance across all subjects or all hardware.
- **Approximate figures say that they are approximate.** “Roughly a million models” and “roughly three dozen suppliers” are estimates of scale and are written as such. Where we could not establish a number to our own satisfaction, we left it out rather than rounding it into confidence.
- **The licence position was checked against the licences themselves.** The commercial-use decision is made on each catalogue’s licence identifier and defaults to refusal; text descriptions and labels are not treated as evidence. Licences that are unresolved or contested are refused by default rather than accepted pending review.
- **Quality judgements are distinguished from mechanical results.** That a system produced a complete, structurally valid Simulation is a mechanical fact and is reported as one. Whether the

result is good teaching is a human judgement, and where that judgement has not yet been made by a qualified reviewer we have not asserted it here