

VERUS SURGICAL

SURGICAL INTELLIGENCE, FROM THE SENSOR UP

Make the unseen visible.

Surgical scopes capture far more than they show. We keep the signal the imaging chain throws away, and use AI to reveal what surgeons cannot see.



MEMBER OF



INCEPTION
PROGRAM

aws activate

TUM VENTURE
LABS

What decides the outcome is invisible under white light. Perfusion, tissue viability, and critical structures.

When something stays hidden, patients pay for it.

01

Perfusion & blood flow

CLINICAL EXAMPLE

Anastomotic leaks cut by ~33%

Complications caused by poor blood supply at the join, which white light cannot show. Perfusion-guided assessment cuts leak rates by ~33%[\[1\]](#).

[\[1\]](#) Blanco-Colino et al. 2018; Arezzo et al. 2020

02

Tissue viability

CLINICAL EXAMPLE

Ischemia & dead tissue

Whether tissue will survive can't be judged by eye. It needs additional imaging, and today that means an injected ICG dye.[\[2\]](#)

[\[2\]](#) Skinner et al. 2023; Liu et al. 2023

03

Critical anatomy

CLINICAL EXAMPLE

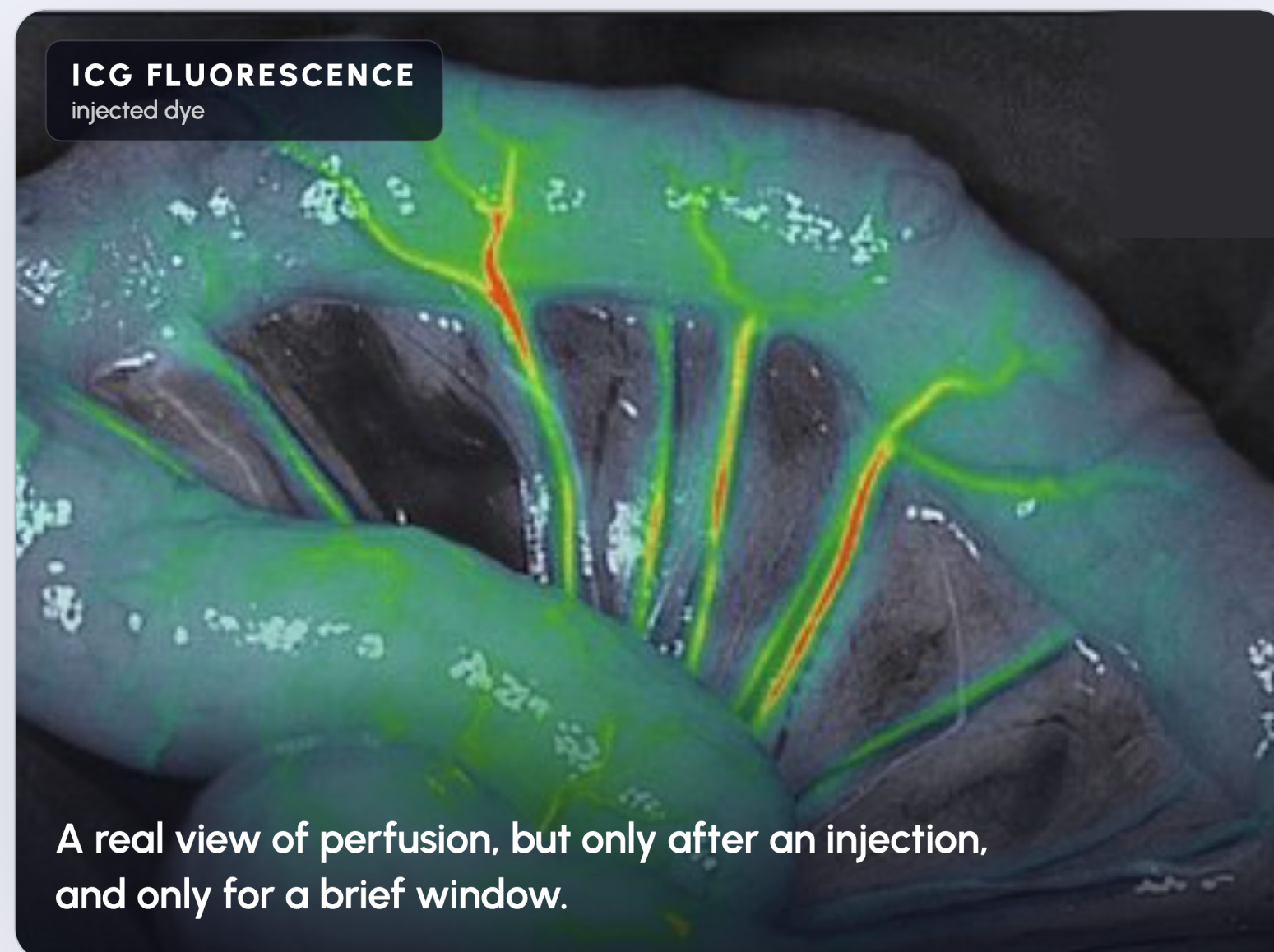
>70% of bile-duct injuries unrecognized

The biliary tree is invisible under white light, so 70-85%[\[3\]](#) of injuries go unrecognized during surgery. Mean repair runs \$51K+.

[\[3\]](#) Dip et al. 2021; O'Brien et al. 2020

The clinically established status quo.

White light, plus a dye when you need to see more.



WHITE LIGHT · 2D / 3D / 4K

No more than the eye already sees.

Resolution and 3D change the picture, not the information. The signal that reveals perfusion, viability, and hidden structures is already gone.

THE ICG DYE, AND ITS LIMITS

- **Adds cost and time.** [1] Every use means buying dye and pausing the case to inject it and wait for uptake.
- **No continuous imaging.** [2] ICG gives a single wash-in, wash-out window; perfusion cannot be reassessed on demand.
- **Timing- and skill-dependent.** [3] Brightness is judged by eye, and dose, timing, and camera angle all change the reading.
- **Allergic reactions.** [4] ICG carries a risk of hypersensitivity, including rare but serious anaphylaxis.

How others try to close the gap.

And where each one stalls.

LASER-SPECKLE ADD-ON

Activ Surgical

Laser-speckle imaging snapped onto existing camera systems.

WHERE IT STALLS

- ✗ Added cost & hardware; 2D only, manual focus
- ✗ Very motion-sensitive: breathing, peristalsis and scope motion create false signals
- ✗ Relative perfusion only; hard to compare patients
- ✗ Snap-on module; not applicable to robotics

HYPERSPECTRAL IMAGING

Hypervision Surgical

Hyperspectral imaging with a laser light source and custom chips.

WHERE IT STALLS

- ✗ High cost; supply-chain risk on a custom chip
- ✗ Superficial oxygenation only, not deep perfusion
- ✗ Sub-HD image quality; worse at distance; manual focus
- ✗ 2D only; not applicable to robotics

AI / SOFTWARE-ONLY

AI add-on vendors

AI layered on top of existing, already-processed imaging.

WHERE IT STALLS

- ✗ Extra hardware cost and footprint
- ✗ Works on compressed video only; 70+ products competing on the same leftover data
- ✗ Once the data is lost, AI can't recover information removed, thus the real clinical value is limited.

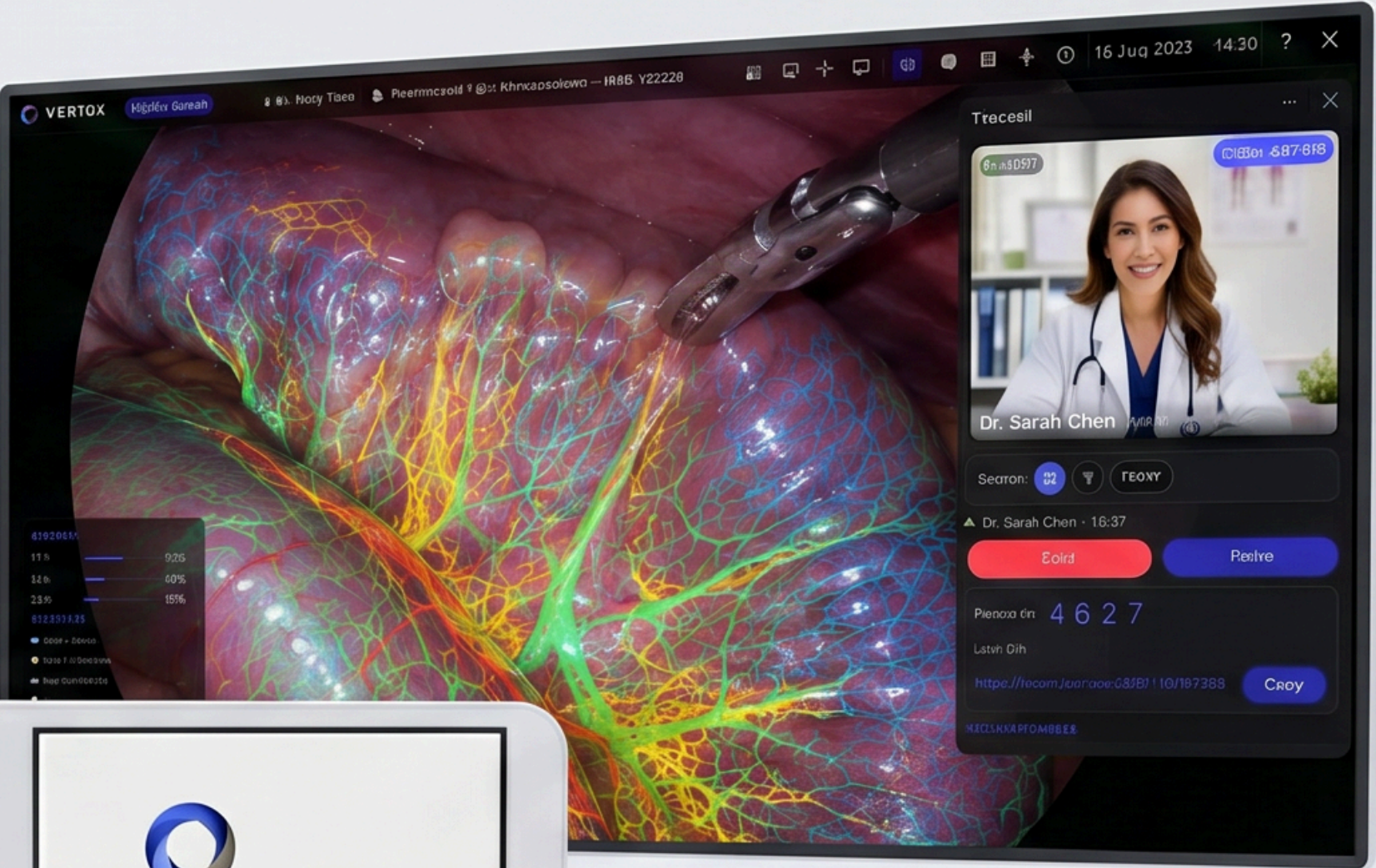
Every one is bolted onto a pipeline that already threw the signal away.
Verus keeps the raw signal from the sensor up: one integrated system, 2D to 3D, lap to robotic.

OUR VISION, OUR PROMISE

We keep the whole signal. AI reads what the eye can't.

An AI-native intelligent imaging stack that shows the surgeon what the naked eye can't: perfusion-like imaging and tissue identification.

- ✓ **Dye-free**
No injections needed.
- ✓ **At incumbent price**
The cost of a regular imaging system.
- ✓ **Continuous**
On demand, at the surgeon's will.
- ✓ **Known form factor**
No new workflow or equipment.
- ✓ **In 2D and 3D**
For laparoscopic and robotic surgery.

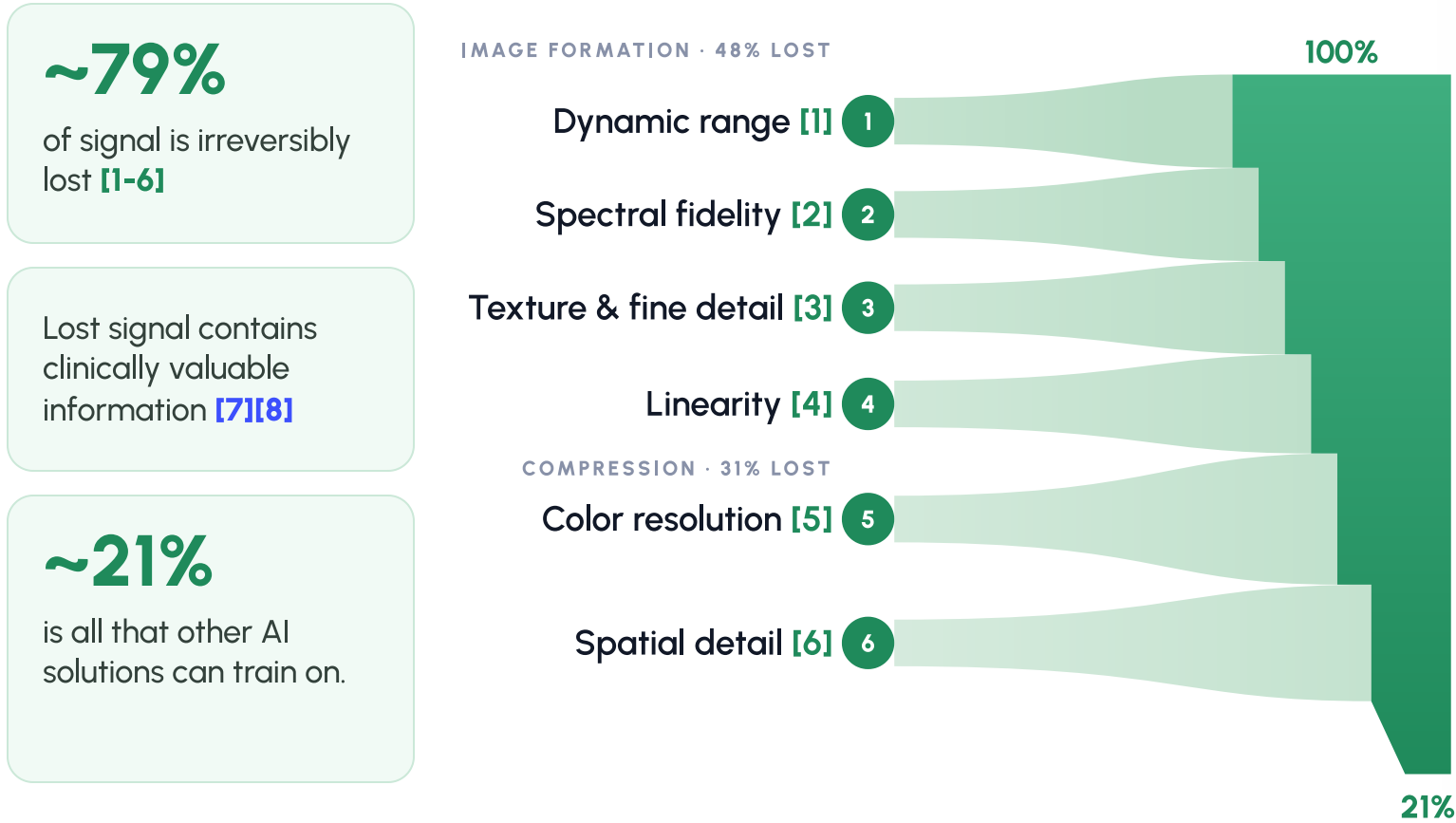


Surgical scene shown is for illustration purposes only.



One camera, two pipelines. Imaging & AI in parallel.

CONVENTIONAL PIPELINE: POLISHED IMAGE FOR THE SURGEON'S EYE



VERUS-EXCLUSIVE PIPELINE: FOR CLINICAL VALUE FROM IMAGING AI



CONVENTIONAL PIPELINE: WHAT EVERY SYSTEM DOES TODAY

AI trained on conventional RGB cannot make the unseen visible anymore. The information is lost.

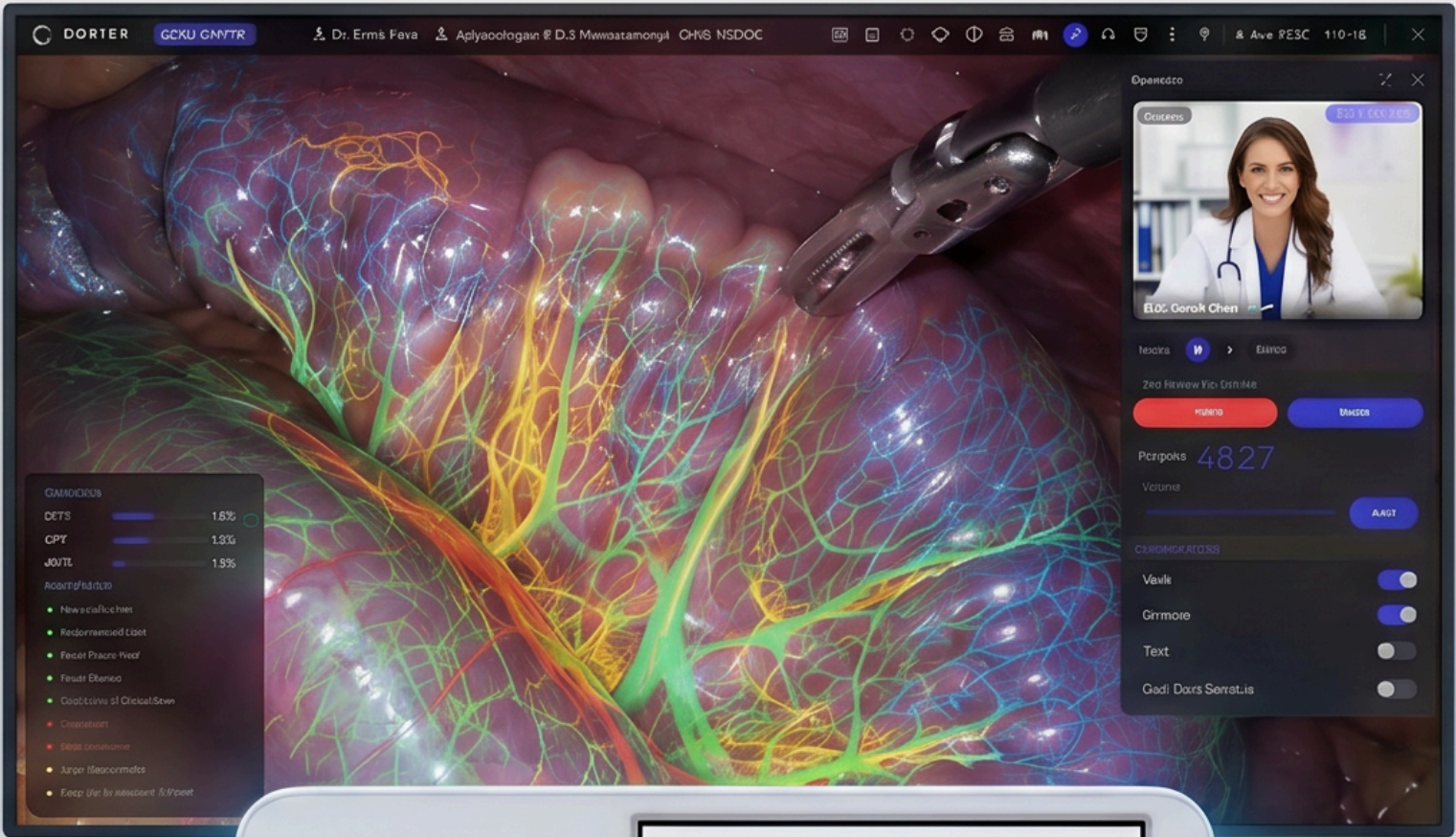
VERUS-EXCLUSIVE PIPELINE: ALLOWING AI TO ACCESS ALL INFORMATION

AI trained on the full data can make the unseen visible and show clinically valuable information.

THE VERUS SOLUTION COMBINES BOTH INTO ONE PRODUCT: EXCELLENT IMAGING AND CLINICALLY VALUABLE AI

THE VERUS PLATFORM

One platform.
Three layers.



Surgical scene shown is for illustration purposes only.



01

Verus Scopes

Our intelligent 2D & 3D/stereo scope capture and keep the full raw imaging signal.



02

Verus Edge

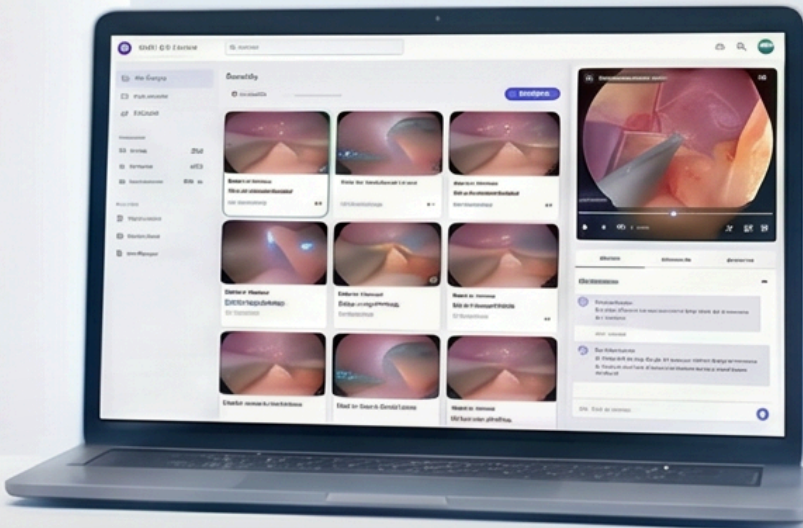
Real-time AI on high-compute edge, turning raw data into surgical insight.



03

Verus Cloud

A living surgical library. Knowledge compounds with every case. Including live communication & teleconferencing.



One AI platform. A scope for every procedure.

CORE INTELLIGENCE · ON THE EDGE

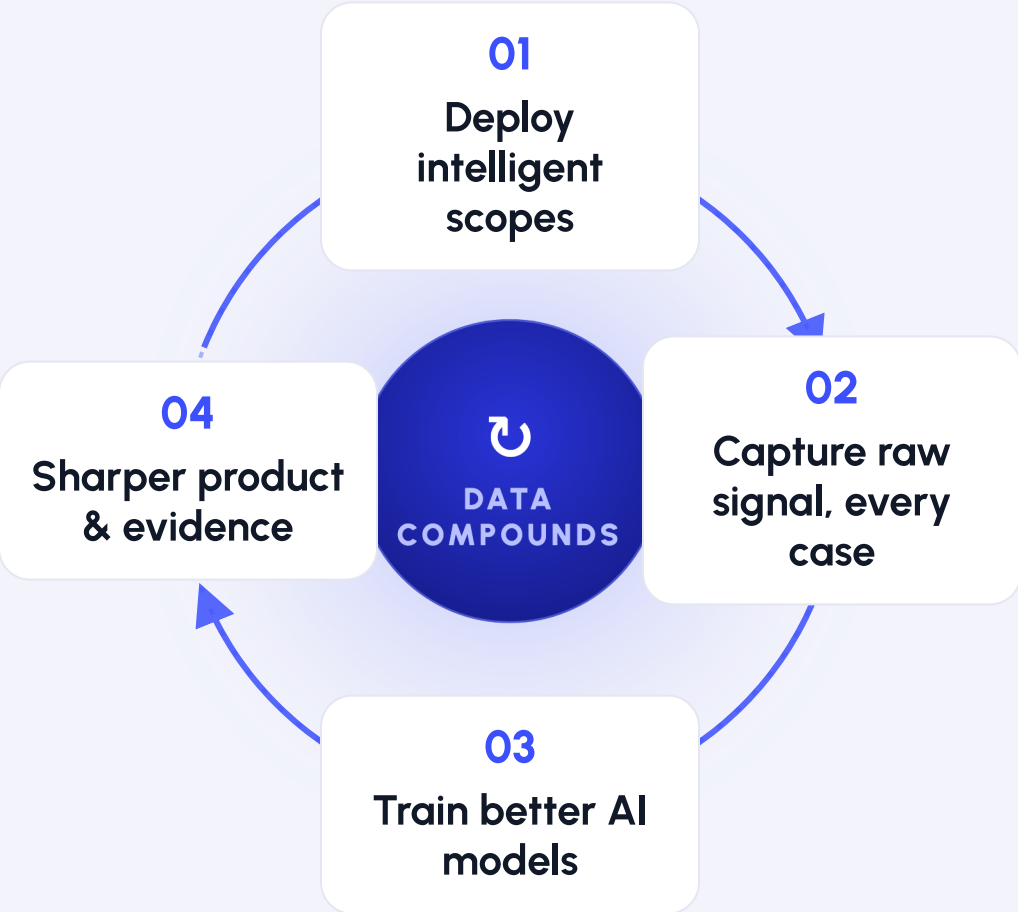
The Verus AI Platform

One AI system, shared across every Verus scope. It turns each scope's raw sensor signal into real-time intelligence and ships new capabilities as software, without new hardware.

THE SAME PLATFORM ACROSS DIFFERENT CLASSES OF SCOPE



The data others can't get. And how we get it.



FASTEST COMPLIANT ROUTE · INDIA

- › **Test license in hand.** Real surgeries in weeks, under executed agreements.
- › **De-identified & localized.** Transferable to the US under the governance stack.
- › **Distribution MOU signed.** Systems into flagship hospitals.
- › **Model-development rights.** Reuse rights on multimodal data at clinical volume.

HOW WE SECURE THE DATA, COMPLIANTLY

Every case is collected under a US-standard governance stack, so the evidence is defensible, reusable, and de-risked.

- › **Site & data-use agreements**
Executed per hospital; scope of use and ownership defined.
- › **De-identification & localization**
Stripped at source; stored in-region to meet local law.
- › **Commercial model-development rights**
Explicit rights to train and commercialize models.
- › **Ethics approval & consent**
IRB / ethics review and patient consent on every case.
- › **Compliant cross-border transfer**
A lawful pathway so evidence reaches the US.
- › **Ground-truth labels & outcome linkage**
Cases linked to surgical outcomes for supervised training.

A compliant, outcome-linked dataset with model-development rights is the moat, and no software-only competitor can assemble it.

First pre-clinical study done.
First customers & partners signed.



"I can operate with this right now."
Operating surgeon, first pre-clinical study, April 2026. Integrated LED and imaging performance validated on live tissue.

OEM LOI

Tier-one robotics OEM

Signed LOI for engagement and co-developing Verus into their robot.
Name under NDA.

MOU

Advanced MedTech Solutions, India

Distribution partnership. MOU for first units for evaluation at flagship hospitals.

PURCHASE ORDER

Spine surgery company, Germany

First systems ordered for minimally invasive spine surgery, each carrying the workflow intelligence layer.

LOI + FEASIBILITY

Vision Engineering, UK

Embedding our imaging into their microscopes under a paid feasibility contract.

BUSINESS MODEL

OEM-first.
We own the imaging and AI stack, not just another box.

01 · OEM PARTNERSHIP

Provided to laparoscopic and surgical robotic OEMs

Distribution of imaging and AI stack through OEMs. Recurring hardware and software revenue.

02 · DIRECT, EARLY MARKETS

Intelligent & cloud-connected 2D systems to seed data

Verus 2D systems sold into flagship hospitals to seed data and revenue before scale, by end of 2026.

03 · SOFTWARE & DATA

Recurring, at software speed

New clinical claims ship as validated software features after regulatory approval on installed hardware.

~\$75K

All-in 2D system price. Same cost as non-AI incumbent systems, which require add-ons to provide cloud connectivity and teleconferencing.

\$46/min [1]

Average US OR cost. Visualization and Intelligence save time. Complications would cascade from here.

[1] OR cost per minute: Smith et al., J. Orthopaedic Business 2022 (mean \$46.04); Childers & Maggard-Gibbons, JAMA Surgery 2018 (\$36-\$37).

MARKET

A \$7.3B visualization market in 2030, entered through a focused wedge.



WHY NOW · THREE REINFORCING FORCES

- 1 Robotics pull**
3D is becoming the baseline in robotic workflows. Robotic-assisted surgery grows \$11.3B to \$21.3B at 13.5% CAGR. [6]
- 2 AI & compute readiness**
Edge GPUs now enable real-time inference at the surgical field. AI-based surgical robots reach \$25.2B at 18.9% CAGR. [8]
- 3 Incumbent constraints**
Closed, tower-first stacks lock out raw sensor data and move at hardware speed, not software speed.

SOURCES · REPRODUCIBLE FROM PUBLISHED REPORTS

TAM \$7.3B = midpoint of published surgical-visualization estimates (\$6.0B[3] · \$7.6B[2] · \$12.2B MnM · \$4.5B Reanin). SAM & SOM are Verus top-down estimates.

[1] Grand View Research, Laparoscopic Devices Market Report 2030, global market ≈\$12.5B by 2030.

[2] Grand View Research, Surgical Imaging Market Report 2030, ≈\$7.6B by 2030, ~5.8% CAGR.

[3] Data Bridge, Surgical Visualization Products Market to 2032, \$2.4B (2022) → \$6.0B (2030), 13.6% CAGR.

[6] Mordor Intelligence, Robotic-Assisted Surgery Systems \$11.3B (2025) → \$21.3B (2030), 13.5% CAGR; APAC 15.8%.

[8] Grand View Research, AI-Based Surgical Robots Market, \$6.4B (2022) → \$25.2B (2030), 18.9% CAGR.

[12] Data Bridge, U.S. Surgical Visualization Products Market, \$752M (2022) → \$1.66B (2030), 10.4% CAGR.

TEAM

One core team, built for this challenge.



Dr. Bernhard Fuerst
CEO

Head of Johns Hopkins medical robotics lab, J&J Digital Imaging lead, KARL STORZ Principal. 38+ patents, 2,600+ citations.



Joern Becker
VP, Marketing & BD

20+ years in product, marketing, and business development, with deep investment and M&A expertise.



Dr. Abinaya Adithya
Director, Clinical & Regulatory

Cancer surgeon across four countries. Former TÜV SÜD clinical assessor. EU MDR specialist.

ADVISORS

Oliver Kupka (former CEO, Avatera) · Matt Gibb, PhD (Innersight Labs, acquired by KARL STORZ) · Katharina Gerlach (QMS) · Dr. K Ragunath (surgeon) · Prof. Nassir Navab (academic advisor) · Manufacturing Expert (name under NDA)

\$300K buys three things before the next round.

PRE-SEED
\$300K

1 Collect data to train AI models

Put our first intelligent and cloud-connected systems into real surgeries and gather the first proprietary dataset from live cases.

WHY IT MATTERS

The data is the core asset and the moat, and competitors can't copy it.

2 Build prototype to run perfusion-like imaging

Expand first scopes to enable dye-free perfusion-like imaging and demonstrate on live tissue.

WHY IT MATTERS

Turns the idea into a working product an investor can see.

3 Transition from provisional patent to patent family

Turn our provisional patent into filed international (PCT) protection, with a 3rd-party freedom-to-operate analysis.

WHY IT MATTERS

Locks in the IP before the deadline and validates freedom-to-operate.

A small round, a finite plan: this converts the open questions into evidence, the concrete basis for a valuation step-up at the next raise.

Then **\$2.4M seed** → 2D + 3D to FDA / CE submission.

\$2.4M takes both scopes to regulatory submission.

SEED
\$2.4M

1 Develop the 8mm 3D/
stereo scope

Build the 3D imaging scope that extends the platform beyond the 2D system, adding depth and stereo visualization on the raw-signal architecture.

WHY IT MATTERS

Completes the platform and opens the 3D-visualization and robotics market.

2 File FDA 510(k) and CE
(MDR) for both scopes

Complete design verification and validation, then submit both the 2D and 3D systems to the FDA and the EU notified body.

WHY IT MATTERS

Opens the regulatory path to first commercial sales in the US and EU.

3 Clinical validation together
with OEM partners

Run multi-site clinical validation with OEM partners, expanding the proprietary dataset and hardening the platform.

WHY IT MATTERS

Turns raw data into clinical features and embeds Verus in partner systems.

A milestone-driven round: both scopes will reach regulatory submission and the AI features will be clinically validated, the foundation for commercial launch.

Follows the \$300K pre-seed → positions Verus for a Series A.

VERUS SURGICAL

THE FUTURE OF SURGICAL AI STARTS AT THE SENSOR

Make the unseen visible.

Start with 2D. Compound the data. Expand to 3D. Own the intelligence in every scope.

WHAT WE ARE

AI-native surgical imaging. We keep the raw signal others discard, across 2D and 3D scopes. We make the unseen visible, unlocking the full potential of intelligent surgery.

WHERE WE ARE

Early preclinical validation, with first customers and OEM LOIs signed. Raising a \$300K pre-seed, with a \$2.4M seed to follow.

GET IN TOUCH

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California, USA & Munich, Germany