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RE:MARK

TECHNICAL DUE DILIGENCE
SUMMARY MEMORANDUM

SAMPLE DELIVERABLE — ILLUSTRATIVE ONLY

Technical Due Diligence — Summary Memo

Novaform Vision GmbH (fictional) — AI-based automated visual inspection for metal machining

TARGET	Novaform Vision GmbH (<i>fictional</i>)
CLIENT	[European VC fund — Series A lead candidate]
ROUND CONTEXT	€8M Series A at €32M pre-money
ENGAGEMENT	Technical DD, fixed fee, 15 working days
DATE	[Month 20XX]
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01 VERDICT

RECOMMENDATION

Conditional Proceed

The core technology is real and competently engineered. However, two findings materially affect valuation and one must be remediated before close. The headline detection metric is not supported by production evidence, and the core model carries an unresolved licensing exposure. Neither is fatal; both are priced into the current deck as if they did not exist.

#	AREA	FINDING	RATING
1	Performance claims	99.4% detection rate measured on saturated public benchmark, not production data	⚠ FLAG
2	Commercial traction	"12 deployments" = 2 paid production systems + 8 unpaid pilots + 2 internal demos	⚠ FLAG
3	Architecture & engineering	Edge inference stack well designed, deployable, maintainable	✓ PASS
4	IP & licensing	Core model fine-tuned from a research codebase under a non-commercial license	✗ CRITICAL
5	Team composition	Strong ML team; no controls/automation engineer — integration cost pushed onto customers	⚠ FLAG
6	Data moat claim	Customer contracts do not grant training rights on production images	⚠ FLAG

The engagement verified the technical claims that materially affect the investment thesis. Method: architecture review (repository access, 3 sessions with CTO), evidence-based validation of performance claims (raw evaluation logs, test protocols, site data where available), structured founder and technical-team interviews, licensing and dependency audit, and one customer site visit.

Every claim in the deck was classified as **verified**, **partially verified**, or **not supported by evidence**. This memo reports only findings with deal impact; the full report (40 pp.) documents all evidence reviewed.

03 KEY FINDINGS

3.1 Performance claims FLAG

The deck claims **99.4% defect detection**. The number is real, but it was measured on a public academic benchmark known to produce optimistic results: clean backgrounds, consistent lighting, and defect types that are well separated from normal samples — conditions that rarely hold on a real production line. This is a known limitation of that benchmark, not a criticism of Novaform specifically; most published anomaly-detection models score above 99% on it, which is itself evidence that the benchmark no longer discriminates between a good model and a great one. A high score confirms the model is competent. It says nothing about how it will perform on the customer's actual line.

On the one production dataset made available (customer site, ~34,000 inspection events over 4 months), measured performance was **96.1% detection at a 2.8% false-positive rate**. This is a *good* result for this class of problem — but the false-positive rate is the economically relevant number: at the customer's line speed, 2.8% false positives generate ~110 unnecessary manual re-inspections per shift. The customer confirmed this is the main friction point in the relationship.

DEAL IMPACT

The technology works; the deck metric is marketing. Revenue projections assume a detection/false-positive trade-off that the production data does not yet support. Recommend re-basing the revenue model on the 96/2.8 operating point.

3.2 Commercial traction FLAG

"12 deployments" decomposes, per purchase-order and contract review, into: **2 paid production systems** (both same customer group), **8 unpaid or hardware-cost-only pilots**, and **2 internal demo cells**. Pilot-to-paid conversion to date: 1 of 6 concluded pilots.

DEAL IMPACT

The company is at the validation stage, not the scaling stage the deck implies. This is a stage question, not a fraud question — but it belongs in the valuation discussion.

3.3 Architecture and engineering quality PASS

The strongest area. Edge inference is competently engineered: quantized model on industrial-grade hardware, graceful degradation on camera failure, OTA update path with rollback, clean separation between inference and the operator interface. Code quality, CI, and test coverage are above what I typically see at this stage. The system I inspected on-site matched the repository state — no demo-ware gap.

3.4 IP and licensing CRITICAL

The core detection model is fine-tuned from a university research codebase released under a **non-commercial license**. The dependency is not disclosed in the data room. The company's position ("we rewrote most of it") does not hold: repository history shows the licensed code in the current training pipeline.

DEAL IMPACT

Unresolved, this is a material exposure — the entire product line derives from it. Remediation is feasible (clean-room reimplementation, est. 3–4 engineer-months, or a commercial license from the university TTO) but must be a **condition precedent to close**, with the cost borne visibly in the use of proceeds.

3.5 Team composition FLAG

Founding team is strong on ML and software. There is **no controls/automation engineer** on staff — every deployment's PLC integration, light-curtain interlocks, and line-stop logic has been done by the customer's own automation staff or external integrators. This is the hidden reason pilot conversion is slow: the integration cost sits with the customer and is invisible in Novaform's pricing.

DEAL IMPACT

First two hires post-round should include a senior automation engineer; the hiring plan in the deck does not contain one.

3.6 Data moat claim FLAG

The deck claims a compounding data advantage ("every deployment makes the model better"). Contract review shows customer agreements **do not grant training rights** on production images; two explicitly prohibit it. The moat, as currently contracted, does not exist.

DEAL IMPACT

Fixable in future contracts, but the defensibility narrative should be discounted until the paper matches the pitch.

04 CONDITIONS AND RECOMMENDATIONS

CONDITIONS PRECEDENT TO CLOSE

- 1. Licensing exposure (3.4) resolved or a funded, board-approved remediation plan with clean-room protocol in place.
- 2. Data-room correction of the deployment count and inclusion of the production performance data (3.1, 3.2).

RECOMMENDED FOR THE 100-DAY PLAN

- 3. Senior automation/controls hire in the first two positions filled.
- 4. Standard customer contract amended to include training rights with anonymization provisions.
- 5. Internal evaluation protocol re-based on production operating points; retire the benchmark metric from all external material.

Overall: with conditions 1–2 satisfied, the technical risk profile is consistent with a Series A in this category. The engineering quality is genuinely above median; the gap is between what has been built (good) and what has been claimed (better). That gap is negotiable. The license exposure is not.

05 EVIDENCE REVIEWED (EXTRACT)

EVIDENCE	ACCESS	STATUS
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Full source repositories incl. history	Read-only, 15 days	Reviewed
Raw evaluation logs and test protocols	Data room	Reviewed
Production inspection data, Site A	On-site + export	Reviewed
All customer contracts and POs	Data room	Reviewed
Dependency and license audit (SBOM)	Generated during engagement	Attached to full report
CTO + ML lead + founder interviews	5 sessions	Transcribed notes on file

RE:MARK — Technical Due Diligence & Integration Advisory for VC/PE

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Reminder: Novaform Vision GmbH does not exist. All findings above are constructed to illustrate the depth and evidence standard of the engagement.