Plan Optik AG — Company Analysis

Ticker P4O (Xetra) · ISIN DE000A0HGQS8 · Elsoff, Germany · report generated 2026-05-25. End-to-end fundamentals, financials, sector, competitive position, the AI/data-center angle, valuation and risks. Analysis, not investment advice.

Snapshot

- Ticker: ETR: P4O
- Price: ~€11.35
- Market cap: ~€51m
- Revenue: €11.27m FY2025 (-4.9%)
- Growth: -4.9% (cyclical trough)
- Profitability: net -€0.06m; EBITDA €1.6m (~14%)
- FCF: near breakeven (capex via KfW debt, not equity)
- Net cash / debt: ~€3.3m net cash (end-2024)
- Valuation: ~4x sales
- Currency: EUR
- Geography: global; ships to 40+ countries (mix undisclosed)
- What: structured glass/quartz wafers, microfluidics & CPO interposers
- Value chain: components — glass wafers/interposers, microfluidics
- End markets: MEMS, microfluidics/medical, photonics/CPO, automotive
- Founded / HQ: 2005 / Elsoff, Germany
- CEO: Michael Schilling (founder)
- Top competitors: Corning, LPKF, Tecnisco, Samtec, NSG
- Key customers: MEMS, microfluidics & photonics OEMs
- Key suppliers: Corning, Schott, AGC (glass substrate)
- Catalyst: 2026 recovery (+€1m revenue); 2027 customer ramp / CPO design-wins
- Verdict: Niche glass-wafer specialist; genuine but unproven CPO/AI optionality
- Confidence: 0.55

Executive summary

Plan Optik is a small (FY2025 revenue €11.3m), founder-led German manufacturer of micro-structured glass, quartz and glass-silicon wafers used in MEMS (micro-electromechanical systems) sensors, microfluidics, optics and — increasingly — advanced semiconductor packaging. It is a technically credible niche specialist with a conservative, net-cash balance sheet, currently working through a cyclical earnings trough: profits fell from a 2023 peak to roughly breakeven in 2025 under customer destocking plus one-off costs from its market uplisting and IFRS (International Financial Reporting Standards) conversion. The investment debate is dominated by an "AI" optionality: the company explicitly targets co-packaged optics (metallized glass interposers, InP (indium phosphide) laser carriers) and through-glass-via packaging, both of which ride genuine secular tailwinds. But it operates at wafer (thin polished disc of semiconductor (silicon, glass, III-V) on which chips are built) scale in a market whose headline AI prize — glass-core substrates for accelerator packages — is being contested at panel scale by Intel, Samsung, SKC/Absolics and TSMC. At ~4x sales and a high-twenties-or-richer normalized P/E (price-to-earnings) on a thin ~4.5m-share float, the stock already prices a thematic premium.

Verdict: a financially solid, niche glass-wafer specialist with real but unproven AI/co-packaged-optics optionality; risk/reward hinges on the unquantified 2027 customer ramp becoming named, recurring photonics/packaging revenue rather than samples and narrative. Confidence: 0.58

1. Company overview

Plan Optik AG was formed in 2005 from Plan-Optik GmbH (Elsoff-Mittelhofen, Germany) and remains led by founder Michael Schilling as chairman of the management board [S8]. It employs roughly 97 people, ships

to more than 40 countries, and produces structured wafers up to 300 mm [S9]. The group includes subsidiaries Little Things Factory GmbH (glass/quartz/glass-silicon components and systems) and MMT GmbH (microdosage pumps); in December 2025 it divested non-core AIRTUNE to refocus on wafer-based series production [S9]. The shares are listed in Frankfurt and were uplisted toward the regulated market's General Standard, accompanied by a conversion to IFRS — both of which carried one-off costs in 2025.

2. Business model & products

Plan Optik is, in essence, a high-precision contract micro-fabricator of glass. It buys specialty substrate and adds value through structuring, etching, anodic/fusion bonding, thinning and metallization. The product portfolio spans packaging wafers, substrate and quartz wafers, micro-lenses, coated mirrors, microfluidic components, glass interposers and carrier wafers for ultra-thin silicon/GaAs substrates [S9]. Its proprietary Volume Laser Induced Structuring (VLIS) targets high-throughput structuring for semiconductor applications, and it is a recognized supplier of through-glass-via (TGV (through-glass via)) glass wafers alongside Corning, LPKF, Samtec, Tecnisco and NSG [S9][S10]. End-markets are diversified but individually small: MEMS sensors, microfluidic/medical diagnostics, optics/photonics, automotive, aerospace and consumer electronics. The model's strength is specialization and customer intimacy; its weakness is that the underlying process capabilities are increasingly available from competing processors, and the company does not own the glass it structures.

3. Financial analysis

Plan Optik is in a cyclical downcycle off a 2023 record, not (yet) structural decline. Revenue fell from €13.3m (2023) to €11.9m (2024, -10.5%) and €11.3m (2025, -4.9%), while profitability compressed far more sharply as fixed costs, cost inflation and one-off listing/IFRS expenses bit into a low-volume base [S1][S2][S3].

EUR '000	2023	2024	2025
Revenue	13,253	11,858	11,274
EBITDA (earnings before interest, taxes, depreciation & amortisation)	3,075	2,506	1,602
EBIT (earnings before interest & taxes (operating profit))	2,321	1,114	129
Net income	1,669	678	-59
EBITDA margin	~23%	~21%	~14%

The 2025 EBIT collapse to €0.1m and the small net loss (-€59k) look alarming, but EBITDA remained a healthy €1.6m (~14%), implying ~€1.5m of depreciation — i.e. the operating cash engine is intact and the swing was driven by one-offs plus destocking rather than a broken business. The cushion, however, is thin: at this scale, modest volume or cost moves flip the result. (Note: 2023 figures predate the IFRS conversion and are not perfectly comparable.)

The balance sheet is a genuine strength. At end-2024 the group held €5.2m cash against €1.9m bank debt — a net cash position of ~€3.3m — with equity of ~€12.7m and a debt/equity ratio near 0.15 [S4]. Critically, the planned capacity expansion is being funded with a low-interest KfW (German state development bank) loan of €2.5m drawn across 2025–26, i.e. cheap debt rather than dilution [S5]. The caveat: management has used capital increases before (including one excluding subscription rights) [S6], so equity issuance remains a tool — and a risk — if the AI ramp demands larger capex (capital expenditure).

4. Sector & market context

Plan Optik sits at the intersection of several growing but differently-scaled markets. The broad glass-wafer market is mid-sized and steadily growing — roughly US$455m in 2025 rising to ~US$987m by 2034 (~9% CAGR (compound annual growth rate)), with demand led by MEMS (~58%), photonics, microfluidics and AR/VR [S15]. The more strategically interesting, faster niche is through-glass-via substrates:

small today (~US$0.18bn in 2025, ~US$0.24bn in 2026, ~US$0.32bn in 2027) but projected to compound ~34% to ~US$3.3bn by 2035, with MEMS packaging, RF (radio frequency) and photonics the main uses [S16]. MEMS packaging substrates more broadly run ~US$2.4bn (2025) to ~US$3.2bn (2030) [S17]. Underlying end-demand — the MEMS sensor market (~US$20bn in 2026, automotive ~29% share, driven by ADAS (advanced driver-assistance systems) and EVs, ~8% CAGR) — is the cyclical driver that whipsawed Plan Optik in 2024–25 [S17]. Above all, glass is undergoing a structural "inflection" in semiconductors as the industry hits the limits of organic substrates, a shift analysts describe as a strategic platform reshaping devices and supply chains [S18]. Plan Optik is correctly positioned in a rising tide; the question is how much of it a sub-scale processor can capture.

5. Competitive landscape

Competition comes from three directions. Upstream, the specialty-glass material is dominated by Corning, Schott, AGC and NSG — Plan Optik is their customer, not their peer. Laterally, in glass structuring and TGV it competes with LPKF (LIDE (laser-induced deep etching) laser process), Tecnisco, Samtec, Kiso Micro and a long tail of MEMS foundries, several of which have more scale or vertical integration [S10]. Above, the headline AI-packaging prize — glass-core substrates — is being built at panel scale by Intel, Samsung Electro-Mechanics, SKC's Absolics and TSMC (CoPoS), with Ibiden, Shinko and Unimicron in the substrate ecosystem [S12]. Plan Optik is not on that qualification path and cannot fund that capex. Its defensible space is wafer-level, high-mix, precision work where relationships, yield and customization matter more than cost-per-unit at volume — a real but narrow moat exposed to commoditization if volumes standardize.

6. AI & data-center angle

The most credible AI vector is not substrates but optical interconnect. As AI clusters shift from copper to light, co-packaged optics (CPO (co-packaged optics)) is becoming central — NVIDIA frames it as key to power efficiency at scale [S13]. Plan Optik explicitly targets this layer: Opto-Wafer-Level Packaging with metallized glass interposers for CPO, and specialized InP carrier wafers for high-speed EML (electro-absorption modulated laser) lasers [S11]. Glass is a preferred CPO platform (low optical loss, CTE match, TGV, ion-exchange waveguides), and the company's TGV/structuring/bonding skills map directly onto photonic packaging. This is genuine, differentiated positioning — but it remains optionality: no named CPO customer or production volume has been disclosed, the near-term disclosed ramp is a microfluidics (diagnostics) customer, and the addressable wafer-level CPO work is a fraction of the panel-scale substrate TAM (total addressable market). Treat the AI angle as a credible call option, not a booked growth driver.

7. Growth drivers & catalysts

- Cyclical recovery (2026): management guides group revenue up by more than €1m as major customers complete destocking and lift orders [S1].
- New-customer series ramps (2027+): described as the next "growth surge" in the Components business, but unquantified and not explicitly attributed to AI/photonics [S1][S14].
- CPO / photonics design-ins: any named, qualified co-packaged-optics or glass-interposer (thin substrate carrying high-density wiring between a chip and its package) program would be the single most important re-rating catalyst [S11].
- Capacity expansion: the KfW-funded production build-out supports higher volumes without (yet) diluting shareholders [S5].
- Operating leverage: with 23% EBITDA margins demonstrated in 2023, a volume recovery on the expanded base could lift earnings disproportionately.

8. Headwinds & key risks

- Sub-scale and capital-intensive: €11m revenue spread across many niches; fixed-cost-heavy manufacturing with utilization-driven margin volatility.
- Cyclicality & customer concentration: semiconductor/MEMS/automotive demand is cyclical and likely concentrated in a few programs; a single slip moves the P&L.
- Shallow-ish moat / commoditization: buys its glass; structuring is increasingly available from LPKF

and Asian foundries.

- Scale mismatch on the AI prize: the substrate megamarket belongs to billion-dollar, panel-scale players.
- Valuation & thin float: ~4.5m shares make the stock prone to sentiment-driven swings; a thematic multiple is already embedded.
- Dilution: a larger AI capex could require an equity raise despite the current debt-funded path.
- Narrative ahead of fundamentals: the "AI packaging" framing is partly retail-driven and could de-rate if 2027 disappoints.

9. Valuation

At ~€11.35 per share (re-rated from ~€9.30 in April 2026) on ~4.52m shares, market capitalization is ~€51m; net cash makes enterprise value modestly lower (~€48m) [S7]. On ~€11.3m sales that is ~4.3x EV/sales — a growth/thematic multiple, not a value one. The trailing P/E is not meaningful on the 2025 loss; even on 2024 earnings (~€0.15 EPS) the multiple is rich (~70x), and on the 2023 peak (~€0.37 EPS) still ~30x. In other words, the market is paying up for the recovery-plus-AI-optionality scenario. The valuation only makes sense if the 2026 recovery and a 2027 photonics/packaging ramp materialize; absent that, there is multiple-compression risk back toward an industrial micro-cap range (~2x sales).

10. Verdict & what to watch

Plan Optik is a well-run, financially conservative niche specialist correctly positioned in a structurally growing area (glass in semiconductors), with a genuine but unproven co-packaged-optics optionality. The downside is cushioned by net cash and a focused, founder-aligned model; the upside is real but binary and largely in 2027. Because the stock already prices a thematic premium, the risk/reward is balanced rather than obviously attractive today. Verdict: credible niche enabler, premium already priced — confidence 0.58.

Decision boundaries (what would change the view):

- A named, qualified, recurring CPO / photonics / glass-interposer program -> materially more positive (+).
- Semiconductor/photonics-packaging revenue exceeding ~20% of group sales -> more positive (+).
- The 2027 ramp slipping or staying generic/unquantified through FY2026 -> more negative (-).
- A dilutive equity raise to fund "AI capacity" (vs the KfW debt path) -> more negative (-).
- EV/sales compressing toward ~2x as the AI narrative fades -> valuation reset.

Open questions (highest-leverage unknowns):

- Revenue mix by end-market and top-customer concentration.
- Whether the 2027 ramp is photonics/AI-linked or legacy MEMS/microfluidics.
- Free cash flow vs capex, and the scale/cost of the planned expansion.
- Any named CPO/glass-interposer customer in qualification (vs sampling).

Management & founders

Founder-led by Michael Schilling (CEO since the 2005 conversion from Plan-Optik GmbH). The group includes subsidiaries Little Things Factory (glass/quartz components) and MMT (microdosage pumps); it divested non-core AIRTUNE in December 2025 to refocus on wafer-based series production. Small, focused team (~97 employees) — founder alignment is a plus; sub-scale is the recurring risk.

Customers & suppliers

Customers: MEMS-sensor, microfluidic/diagnostics, optics/photonics and (emerging) advanced-packaging / co-packaged-optics OEMs across 40+ countries; individually small accounts with some concentration. Suppliers: Plan Optik *buys* specialty glass substrate (Corning, Schott, AGC) and adds value via structuring, bonding and metallization in-house — so it is a high-precision processor rather than a glass maker.

Recent news

- FY2025 results: revenue €11.27m (-4.9%), near-breakeven (EBITDA €1.6m).
- 2026 guidance: revenue up ~€1m as major-customer destocking ends.
- Co-packaged optics: positioning OWLP metallized glass interposers + InP

laser carriers for the AI-interconnect opportunity.

- Structure: General Standard uplisting + IFRS conversion; AIRTUNE divested.

Appendix — methodology & sources

Generated by AutoLab (thesis mode) on 2026-05-30. The loop iteratively scouts the weakest point, researches it, red-teams it, and integrates the findings; . Headline confidence 0.58.