

<b>Buy</b> <b>EUR 10.00</b>  Price <b>EUR 6.60</b> Upside <b>51.5 %</b>	<b>Value Indicators:</b> EUR DCF: 9.97 FCF-Value Potential 27e: 9.70	<b>Warburg Risk Score:</b> <b>2.5</b> Balance Sheet Score: 4.0 Market Liquidity Score: 1.0	<b>Description:</b> Highly specialised machine manufacturer developing laser applications for special purposes
	<b>Market Snapshot:</b> EUR m Market cap: 161.7 No. of shares (m): 24.5 EV: 164.2 Freefloat MC: 161.7 Ø Trad. Vol. (30d): 287.70 th	<b>Shareholders:</b> Freefloat 100.00 % Active ownership 10.60 %	<b>Key Figures (WRE):</b> 2025e Beta: 1.3 Price / Book: 1.8 x Equity Ratio: 68 % Net Fin. Debt / EBITDA: 0.3 x Net Debt / EBITDA: 0.4 x

**Near-term visibility subdued but growth prospects for 2027 intact**

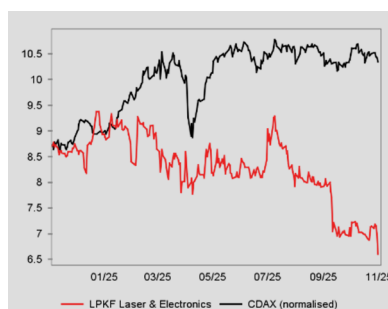
<b>Stated Figures Q3/2025:</b> in EUR m	Q3/25p    Q3/25e    Q3/24    yoy    9M/25p    9M/25e    9M/24    yoy	<b>Comment on Figures:</b> ▪ Sales remained solid in the electronics, development and welding businesses, but dropped to a low level in solar as larger follow-up orders have not yet come in. ▪ Thanks to relatively low personnel expenses, adj. EBIT was balanced in Q3.
<b>Sales</b> <b>EBIT adjusted margin</b>	24.8    25.8    27.3    -9.2% 0.0    -0.7    -0.6    - 0.0%    21.2%    -2.2%    -	83.9    85.0    82.5    1.8% -0.8    -1.5    -5.6    -86.5% -0.9%    -1.8%    -6.8%

LPKF released **Q3 results and confirmed its recently revised FY 2025 guidance**. Revenues reached ~ EUR 25m in Q3. A decline was expected in comparison to the relatively strong Q2 owing to the low H1 order intake. **Orders remained at a low level of EUR 22m in Q3**, equalling a book-to-bill ratio of 0.9x (0.8x after 9M). The **sharp yoy-decrease largely reflects the lack of follow-up solar orders**. US-related demand, however, has picked up somewhat since the summer, benefitting the development and electronics business.

**Midterm growth prospects remain intact but near-term visibility is subdued**. On a recent trip to Asia, the CEO visited a number of **LIDE customers**. He sees the **company's technology as being well perceived and well positioned at most advanced packaging players**. As well as its structuring expertise, LPKF will **provide its customers with an adjacent step (laser-based singulation)**. The overall production process for glass substrates, however, is not yet mature. The industry is expected to sort out yield issues in other steps later in 2026 so that the **supply chain might place orders for higher volume production late next year**. This would lead to material sales contributions from 2027 onwards. In **display, legacy technologies are competing on price and, for now, visibility on the timing of raising penetration at key players remains limited**. In **solar, the adoption of perovskite technology is a key driver behind increasing the relevance of thin film PV**. Related CAPEX is likely to be significant. However, the technology is **not considered to be mature yet**, which reduces the near-term visibility of CAPEX plans of key customers (potential adoption in 2028 with orders in 2027).

**Visibility on 2026 is still considered to be low**, as revenues are likely to decline somewhat in solar and welding (which benefited from large consumer contract) and larger LIDE orders are not expected to materialize before H2 next year. We therefore cut the forecasts and expect flat sales development. The **expectation of a significant pick-up from 2027 onwards, however, remains unchanged as LIDE adoption in advanced packaging and perovskite PV represent major growth opportunities**, which are likely to move into volume production by 2027/28. As announced earlier, LPKF will **re-shape its organization ("North Star") to better address demand volatility** across different product groups, which should result in higher profitability (10% EBIT margin at sales of EUR 130m). LPKF should define required measures before year-end. While near-term estimates are reduced, the **Buy rating and PT remain unchanged** based on the expectation of a return to growth and double-digit margins in 2027 and significant future opportunities.

<b>Changes in Estimates:</b> FY End: 31.12. in EUR m	2025e (old)    +/-    2026e (old)    +/-    2027e (old)    +/-	<b>Comment on Changes:</b> ▪ Reduction in 2026 estimates resulting from low visibility and low ytd order intake ▪ Return to stronger growth in 2027 expected to be driven by major opportunities of LIDE in adv. packaging and potentially perovskite PV
<b>Sales</b> <b>EBIT</b>	118.5    0.0 %    140.0    -14.9 %    160.1    -6.0 % -1.7    n.m.    8.2    n.m.    21.1    -11.1 %	



**Rel. Performance vs CDAX:**

1 month:	-6.1 %
6 months:	-18.7 %
Year to date:	-41.6 %
Trailing 12 months:	-42.1 %

**Company events:**

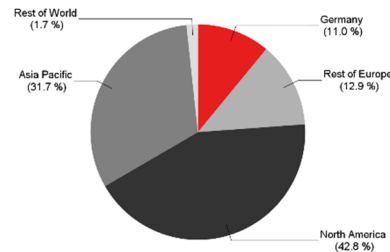
FY End: 31.12. in EUR m	CAGR (24-27e)	2021    2022    2023    2024    2025e    2026e    2027e
<b>Sales</b> Change Sales yoy Gross profit margin <b>EBITDA</b> Margin <b>EBIT</b> Margin <b>EBIT adj.</b> Margin <b>Net income</b>	7.0 % -2.8 % 74.7 % 68.6 % 8.1 % 0.1 0.1 0.1 % -	93.6    123.7    124.3    122.9    118.5    119.1    150.4 32.2 %    0.5 %    -1.2 %    -3.5 %    0.5 %    26.3 % 70.1 %    70.3 %    69.7 %    70.8 %    70.8 %    69.9 % 7.6    15.1    12.8    5.8    6.8    8.3    27.9 12.2 %    10.3 %    4.7 %    5.8 %    7.0 %    18.6 % 6.5    3.7    -2.5    -1.5    -0.5    18.8 6.5    4.4    0.1    1.5    2.5    18.8 5.3 %    3.5 %    0.0 %    1.2 %    2.1 %    12.5 % -0.1    1.4    1.8    -4.5    -3.5    -2.7
<b>EPS</b> <b>EPS adj.</b> <b>DPS</b> Dividend Yield <b>FCFPS</b> <b>FCF / Market cap</b>	- - - n.a. -0.03 -0.1 %	0.00    0.06    0.07    -0.18    -0.14    -0.11    0.50 0.00    0.06    0.07    -0.18    -0.14    -0.11    0.50 0.00    0.00    0.00    0.00    0.00    0.00    0.00 n.a.    n.a.    n.a.    n.a.    n.a.    n.a.    n.a. -0.03    0.01    -0.45    0.08    0.04    0.13    0.38 -0.1 %    0.1 %    -4.9 %    0.9 %    0.6 %    1.9 %    5.7 %
<b>EV / Sales</b> <b>EV / EBITDA</b> <b>EV / EBIT</b> <b>P / E</b> <b>FCF Potential Yield</b>	5.9 x 72.1 x n.a. n.a. 1.1 %	2.2 x    1.8 x    1.7 x    1.4 x    1.4 x    1.0 x 17.9 x    17.8 x    36.6 x    24.1 x    19.3 x    5.4 x 41.5 x    61.8 x    n.a.    n.a.    n.a.    8.1 x 190.2 x    131.1 x    n.a.    n.a.    n.a.    13.2 x 2.9 %    3.9 %    1.4 %    2.4 %    3.2 %    13.1 %
<b>Net Debt</b> <b>ROCE (NOPAT)</b> <b>Guidance:</b>	-9.6    -9.0    3.3    3.5    2.5    -0.6    -9.8 0.0 %    1.8 %    2.3 %    n.a.    n.a.    n.a.    15.3 % Sales EUR 115-125m. Adj. EBIT margin 0-5%	

**Sales development**  
in EUR m



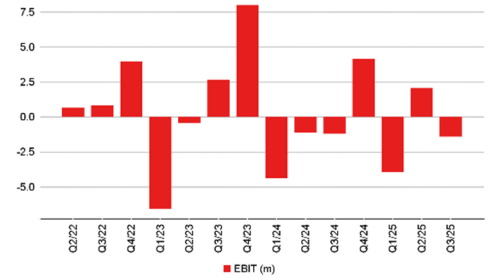
Source: Warburg Research

**Sales by regions**  
2024; in %



Source: Warburg Research

**EBIT development**  
in EUR m



Source: Warburg Research

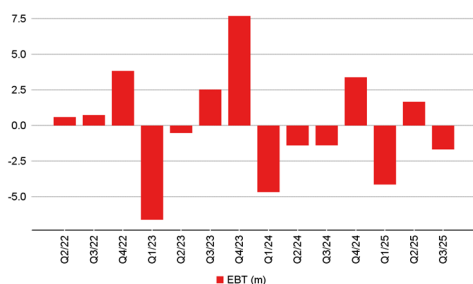
**Company Background**

- Global market leader/top supplier of laser-based processing tools replacing conventional and non-digital processes.
- LPKF is an innovation leader and usually the first supplier of new laser-based processing technologies.
- Approx. 50% of revenues are generated with the development and production of PCBs (segments Development and Electronics) where LPKF is global market leader with market shares of up to 65% in its applications.
- LPKF's Solar BU offers laser scribe to producers of thin film solar modules. In the future the new LTP technology will also contribute to this segment.
- The Welding segment offers versatile applications for a range of customer industries including automotive, consumer electronics and healthcare

**Competitive Quality**

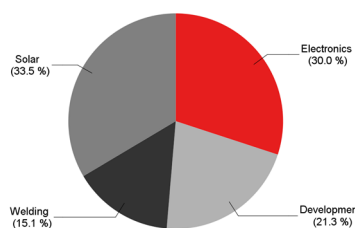
- LPKF is the technologically leading company in the market of laser applications and often first supplier of its customers.
- The high innovative strength of the company ensures the market-leading position and gives LPKF a first-mover advantage in new products that offer highly attractive TCO compared to conventional solutions.
- The company holds a dominant market-leading position in selected niches (e.g. in development and solar segment) but there is also some dependency on single customers.
- International service and distribution network fosters close relationships to customers.
- The focused low-asset business model and high R&D efforts offer high scalability and attractive capital returns.

**EBT development**  
in EUR m



Source: Warburg Research

**Sales by segments**  
2024; in %



Source: Warburg Research

**Net income development**  
in EUR m



Source: Warburg Research

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2025e	2026e	2027e	2028e	2029e	2030e	2031e	2032e	2033e	2034e	2035e	2036e	2037e	
Sales	118.5	119.1	150.4	180.5	207.6	232.5	255.7	276.2	292.8	304.5	315.1	324.6	332.7	
Sales change	-3.5 %	0.5 %	26.3 %	20.0 %	15.0 %	12.0 %	10.0 %	8.0 %	6.0 %	4.0 %	3.5 %	3.0 %	2.5 %	2.5 %
EBIT	-1.5	-0.5	18.8	23.6	26.8	29.5	32.5	35.1	37.2	38.7	40.0	40.6	41.6	
EBIT-margin	-1.3 %	-0.4 %	12.5 %	13.1 %	12.9 %	12.7 %	12.7 %	12.7 %	12.7 %	12.7 %	12.7 %	12.5 %	12.5 %	
Tax rate (EBT)	-16.4 %	-40.2 %	10.1 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	30.0 %	
NOPAT	-1.8	-0.7	16.9	16.6	18.7	20.7	22.7	24.6	26.0	27.1	28.0	28.4	29.1	
Depreciation	8.3	8.8	9.2	9.0	9.8	10.5	10.2	11.0	11.7	12.2	12.6	13.0	13.3	
in % of Sales	7.0 %	7.4 %	6.1 %	5.0 %	4.7 %	4.5 %	4.0 %	4.0 %	4.0 %	4.0 %	4.0 %	4.0 %	4.0 %	
Changes in provisions	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	-4.1	-5.4	6.6	7.2	6.2	5.7	5.3	4.7	3.8	2.7	2.5	2.2	1.9	
- Capex	8.1	8.7	8.8	9.0	10.4	11.6	11.5	12.4	12.0	12.5	12.9	13.3	13.6	
Capex in % of Sales	6.8 %	7.3 %	5.9 %	5.0 %	5.0 %	5.0 %	4.5 %	4.5 %	4.1 %	4.1 %	4.1 %	4.1 %	4.1 %	
- Other	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	2.0	4.2	10.0	8.9	11.9	13.8	16.1	18.5	21.9	24.1	25.2	25.9	26.9	28
PV of FCF	2.1	4.0	8.7	7.0	8.6	9.1	9.7	10.2	11.0	11.1	10.6	9.9	9.4	136
share of PVs	6.01 %			39.06 %										54.93 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	3.00 %	Financial Strength	1.10
Cost of debt (after tax)	2.8 %	Liquidity (share)	1.30
Market return	8.25 %	Cyclicality	1.30
Risk free rate	2.75 %	Transparency	1.40
		Others	1.30
<b>WACC</b>	<b>9.58 %</b>	<b>Beta</b>	<b>1.28</b>

Valuation (m)

Present values 2037e	112		
Terminal Value	136		
Financial liabilities	8		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	5	No. of shares (m)	24.5
<b>Equity Value</b>	<b>244</b>	<b>Value per share (EUR)</b>	<b>9.97</b>

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth							Beta	WACC	Delta EBIT-margin						
		1.75 %	2.00 %	2.25 %	2.50 %	2.75 %	3.00 %	3.25 %			-1.5 pp	-1.0 pp	-0.5 pp	+0.0 pp	+0.5 pp	+1.0 pp	+1.5 pp
1.47	10.6 %	8.17	8.29	8.41	8.54	8.68	8.83	8.99	1.47	10.6 %	7.15	7.61	8.08	8.54	9.01	9.47	9.94
1.37	10.1 %	8.76	8.90	9.05	9.21	9.38	9.56	9.75	1.37	10.1 %	7.72	8.22	8.71	9.21	9.70	10.20	10.69
1.33	9.8 %	9.09	9.24	9.40	9.57	9.76	9.96	10.17	1.33	9.8 %	8.04	8.55	9.06	9.57	10.09	10.60	11.11
1.28	9.6 %	9.44	9.60	9.78	9.97	10.17	10.39	10.63	1.28	9.6 %	8.38	8.91	9.44	9.97	10.50	11.03	11.55
1.23	9.3 %	9.81	9.99	10.18	10.39	10.62	10.86	11.12	1.23	9.3 %	8.75	9.30	9.84	10.39	10.94	11.49	12.03
1.19	9.1 %	10.20	10.40	10.62	10.85	11.10	11.37	11.66	1.19	9.1 %	9.15	9.71	10.28	10.85	11.42	11.98	12.55
1.09	8.6 %	11.09	11.33	11.59	11.88	12.19	12.52	12.89	1.09	8.6 %	10.04	10.65	11.26	11.88	12.49	13.10	13.72

- Comparably high growth rates in 2026 and 2027 driven by anticipated LIDE orders
- Margin increase resulting from the high scalability of LPKF's business model
- The "Others" line comprises adjustments for leasing related depreciations

**Free Cash Flow Value Potential**

Warburg Research's valuation tool "FCF Value Potential" reflects the ability of the company to generate sustainable free cash flows. It is based on the "FCF potential" - a FCF "ex growth" figure - which assumes unchanged working capital and pure maintenance capex. A value indication is derived via the perpetuity of a given year's "FCF potential" with consideration of the weighted costs of capital. The fluctuating value indications over time add a timing element to the DCF model (our preferred valuation tool).

in EUR m	2021	2022	2023	2024	2025e	2026e	2027e	
Net Income before minorities	-0.1	1.4	1.8	-4.5	-3.5	-2.7	12.4	
+ Depreciation + Amortisation	7.5	8.6	9.1	8.4	8.3	8.8	9.2	
- Net Interest Income	-0.2	-0.4	-0.6	-1.5	-1.5	-1.4	-1.4	
- Maintenance Capex	1.9	2.5	2.5	2.5	2.4	2.4	3.0	
+ Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>= Free Cash Flow Potential</b>	<b>5.8</b>	<b>7.9</b>	<b>9.0</b>	<b>2.9</b>	<b>3.9</b>	<b>5.2</b>	<b>19.9</b>	
FCF Potential Yield (on market EV)	1.1 %	2.9 %	3.9 %	1.4 %	2.4 %	3.2 %	13.1 %	
WACC	9.58 %	9.58 %	9.58 %	9.58 %	9.58 %	9.58 %	9.58 %	
<b>= Enterprise Value (EV)</b>	<b>547.8</b>	<b>270.6</b>	<b>228.1</b>	<b>213.2</b>	<b>164.2</b>	<b>161.1</b>	<b>151.9</b>	
<b>= Fair Enterprise Value</b>	<b>60.3</b>	<b>82.3</b>	<b>93.8</b>	<b>30.6</b>	<b>41.2</b>	<b>53.9</b>	<b>207.4</b>	
- Net Debt (Cash)	3.0	3.0	3.0	3.0	2.0	-1.0	-10.3	
- Pension Liabilities	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
- Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
- Market value of minorities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
+ Market value of investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<b>= Fair Market Capitalisation</b>	<b>56.9</b>	<b>78.8</b>	<b>90.4</b>	<b>27.1</b>	<b>38.7</b>	<b>54.5</b>	<b>217.2</b>	
Number of shares, average	24.5	24.5	24.5	24.5	24.5	24.5	24.5	
<b>= Fair value per share (EUR)</b>	<b>2.32</b>	<b>3.22</b>	<b>3.69</b>	<b>1.11</b>	<b>1.58</b>	<b>2.22</b>	<b>8.87</b>	
premium (-) / discount (+) in %					-76.1 %	-66.3 %	34.4 %	
<b>Sensitivity Fair value per Share (EUR)</b>								
	12.58 %	1.73	2.42	2.78	0.81	1.18	1.70	6.85
	11.58 %	1.90	2.64	3.03	0.89	1.29	1.84	7.40
	10.58 %	2.09	2.90	3.33	0.99	1.42	2.02	8.07
WACC	<b>9.58 %</b>	<b>2.32</b>	<b>3.22</b>	<b>3.69</b>	<b>1.11</b>	<b>1.58</b>	<b>2.22</b>	<b>8.87</b>
	8.58 %	2.61	3.61	4.14	1.25	1.77	2.48	9.85
	7.58 %	2.97	4.10	4.70	1.44	2.02	2.81	11.10
	6.58 %	3.44	4.75	5.44	1.68	2.35	3.23	12.73

▪ To maintain its production, we assume an investment of 2% of sales

**Valuation**

	2021	2022	2023	2024	2025e	2026e	2027e
Price / Book	6.0 x	3.0 x	2.4 x	2.3 x	1.8 x	1.9 x	1.6 x
Book value per share ex intangibles	2.99	2.99	2.98	2.81	2.59	2.42	3.02
EV / Sales	5.9 x	2.2 x	1.8 x	1.7 x	1.4 x	1.4 x	1.0 x
EV / EBITDA	72.1 x	17.9 x	17.8 x	36.6 x	24.1 x	19.3 x	5.4 x
EV / EBIT	n.a.	41.5 x	61.8 x	n.a.	n.a.	n.a.	8.1 x
EV / EBIT adj.*	n.a.	41.5 x	51.9 x	n.a.	111.0 x	64.5 x	8.1 x
P / FCF	n.a.	n.a.	n.a.	111.6 x	173.3 x	52.4 x	17.5 x
P / E	n.a.	190.2 x	131.1 x	n.a.	n.a.	n.a.	13.2 x
P / E adj.*	n.a.	190.2 x	131.1 x	n.a.	n.a.	n.a.	13.2 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	1.1 %	2.9 %	3.9 %	1.4 %	2.4 %	3.2 %	13.1 %

\*Adjustments made for: -

**Consolidated profit & loss**

In EUR m	2021	2022	2023	2024	2025e	2026e	2027e
<b>Sales</b>	<b>93.6</b>	<b>123.7</b>	<b>124.3</b>	<b>122.9</b>	<b>118.5</b>	<b>119.1</b>	<b>150.4</b>
Change Sales yoy	-2.8 %	32.2 %	0.5 %	-1.2 %	-3.5 %	0.5 %	26.3 %
Increase / decrease in inventory	7.3	-5.2	1.5	-0.7	-1.5	0.2	0.3
Own work capitalised	5.9	6.3	5.3	5.7	5.6	5.5	5.5
<b>Total Sales</b>	<b>106.7</b>	<b>124.8</b>	<b>131.2</b>	<b>127.9</b>	<b>122.6</b>	<b>124.8</b>	<b>156.2</b>
Material expenses	36.8	38.0	43.7	42.2	38.6	40.5	51.1
<b>Gross profit</b>	<b>69.9</b>	<b>86.7</b>	<b>87.5</b>	<b>85.7</b>	<b>84.0</b>	<b>84.3</b>	<b>105.1</b>
<i>Gross profit margin</i>	<i>74.7 %</i>	<i>70.1 %</i>	<i>70.3 %</i>	<i>69.7 %</i>	<i>70.8 %</i>	<i>70.8 %</i>	<i>69.9 %</i>
Personnel expenses	44.3	49.5	52.4	57.0	54.3	53.0	54.1
Other operating income	3.3	4.2	4.2	4.6	4.1	4.0	4.0
Other operating expenses	21.2	26.4	26.5	27.4	27.0	27.0	27.0
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBITDA</b>	<b>7.6</b>	<b>15.1</b>	<b>12.8</b>	<b>5.8</b>	<b>6.8</b>	<b>8.3</b>	<b>27.9</b>
<i>Margin</i>	<i>8.1 %</i>	<i>12.2 %</i>	<i>10.3 %</i>	<i>4.7 %</i>	<i>5.8 %</i>	<i>7.0 %</i>	<i>18.6 %</i>
Depreciation of fixed assets	3.8	4.1	4.6	4.4	4.3	4.2	4.0
<b>EBITA</b>	<b>3.8</b>	<b>11.0</b>	<b>8.2</b>	<b>1.4</b>	<b>2.5</b>	<b>4.1</b>	<b>24.0</b>
Amortisation of intangible assets	3.7	4.5	4.5	3.9	4.0	4.6	5.2
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBIT</b>	<b>0.1</b>	<b>6.5</b>	<b>3.7</b>	<b>-2.5</b>	<b>-1.5</b>	<b>-0.5</b>	<b>18.8</b>
<i>Margin</i>	<i>0.1 %</i>	<i>5.3 %</i>	<i>3.0 %</i>	<i>-2.1 %</i>	<i>-1.3 %</i>	<i>-0.4 %</i>	<i>12.5 %</i>
<b>EBIT adj.</b>	<b>0.1</b>	<b>6.5</b>	<b>4.4</b>	<b>0.1</b>	<b>1.5</b>	<b>2.5</b>	<b>18.8</b>
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.2	0.4	0.6	1.5	1.5	1.4	1.4
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>EBT</b>	<b>-0.2</b>	<b>6.1</b>	<b>3.1</b>	<b>-4.1</b>	<b>-3.0</b>	<b>-1.9</b>	<b>17.4</b>
<i>Margin</i>	<i>-0.2 %</i>	<i>5.0 %</i>	<i>2.5 %</i>	<i>-3.3 %</i>	<i>-2.6 %</i>	<i>-1.6 %</i>	<i>11.6 %</i>
Total taxes	-0.1	4.8	1.3	0.4	0.5	0.8	5.0
<b>Net income from continuing operations</b>	<b>-0.1</b>	<b>1.4</b>	<b>1.8</b>	<b>-4.5</b>	<b>-3.5</b>	<b>-2.7</b>	<b>12.4</b>
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income before minorities</b>	<b>-0.1</b>	<b>1.4</b>	<b>1.8</b>	<b>-4.5</b>	<b>-3.5</b>	<b>-2.7</b>	<b>12.4</b>
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Net income</b>	<b>-0.1</b>	<b>1.4</b>	<b>1.8</b>	<b>-4.5</b>	<b>-3.5</b>	<b>-2.7</b>	<b>12.4</b>
<i>Margin</i>	<i>-0.1 %</i>	<i>1.1 %</i>	<i>1.4 %</i>	<i>-3.7 %</i>	<i>-3.0 %</i>	<i>-2.3 %</i>	<i>8.2 %</i>
Number of shares, average	24.5	24.5	24.5	24.5	24.5	24.5	24.5
<b>EPS</b>	<b>0.00</b>	<b>0.06</b>	<b>0.07</b>	<b>-0.18</b>	<b>-0.14</b>	<b>-0.11</b>	<b>0.50</b>
EPS adj.	0.00	0.06	0.07	-0.18	-0.14	-0.11	0.50

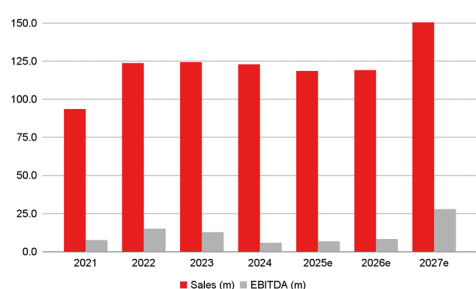
\*Adjustments made for:

**Guidance: Sales EUR 115-125m. Adj. EBIT margin 0-5%**

**Financial Ratios**

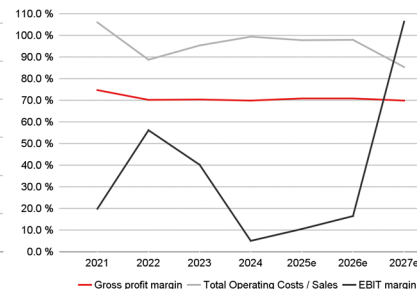
	2021	2022	2023	2024	2025e	2026e	2027e
Total Operating Costs / Sales	105.9 %	88.7 %	95.2 %	99.3 %	97.7 %	97.8 %	85.3 %
Operating Leverage	35.8 x	339.8 x	-84.0 x	n.a.	11.4 x	-147.8 x	n.a.
EBITDA / Interest expenses	30.8 x	37.9 x	20.7 x	3.8 x	4.5 x	5.8 x	20.5 x
Tax rate (EBT)	32.9 %	77.4 %	43.1 %	-10.8 %	-16.4 %	-40.2 %	29.0 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	125,426	167,161	163,386	161,485	171,832	185,688	241,049

**Sales, EBITDA**  
in EUR m



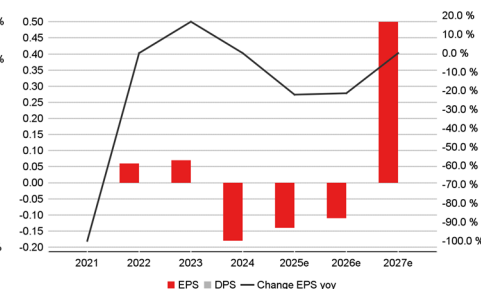
Source: Warburg Research

**Operating Performance**  
in %



Source: Warburg Research

**Performance per Share**



Source: Warburg Research

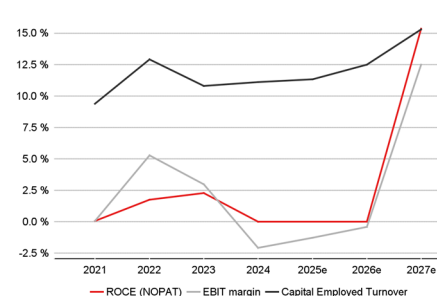
**Consolidated balance sheet**

In EUR m	2021	2022	2023	2024	2025e	2026e	2027e
<b>Assets</b>							
Goodwill and other intangible assets	19.1	20.7	22.0	22.9	24.4	25.3	25.6
thereof other intangible assets	0.7	1.0	1.6	1.3	1.3	1.3	1.3
thereof Goodwill	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Property, plant and equipment	46.3	45.0	43.0	42.1	39.8	38.0	36.9
Financial assets	0.0	0.4	0.3	0.1	0.1	0.1	0.1
Other long-term assets	0.2	0.0	0.0	0.2	0.2	0.2	0.2
<b>Fixed assets</b>	<b>65.6</b>	<b>66.1</b>	<b>65.4</b>	<b>65.4</b>	<b>64.6</b>	<b>63.7</b>	<b>62.8</b>
Inventories	28.5	27.7	31.3	26.9	29.6	27.7	33.4
Accounts receivable	17.2	27.5	36.4	30.1	25.3	23.8	28.8
Liquid assets	15.2	12.8	10.7	5.1	6.0	9.1	18.3
Other short-term assets	5.8	4.4	4.7	4.2	4.2	4.2	4.2
<b>Current assets</b>	<b>66.7</b>	<b>72.3</b>	<b>83.0</b>	<b>66.2</b>	<b>65.1</b>	<b>64.8</b>	<b>84.7</b>
<b>Total Assets</b>	<b>132.2</b>	<b>138.4</b>	<b>148.5</b>	<b>131.6</b>	<b>129.7</b>	<b>128.4</b>	<b>147.5</b>
<b>Liabilities and shareholders' equity</b>							
Subscribed capital	24.5	24.5	24.5	24.5	24.5	24.5	24.5
Capital reserve	15.5	15.5	15.5	15.5	15.5	15.5	15.5
Retained earnings	12.0	12.7	12.2	13.3	9.7	7.0	19.4
Other equity components	40.2	41.2	43.0	38.5	38.1	37.6	40.2
Shareholders' equity	92.2	93.9	95.1	91.8	87.8	84.6	99.5
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total equity</b>	<b>92.2</b>	<b>93.9</b>	<b>95.1</b>	<b>91.8</b>	<b>87.8</b>	<b>84.6</b>	<b>99.5</b>
Provisions	2.7	3.9	3.6	4.3	4.3	4.3	4.3
thereof provisions for pensions and similar obligations	0.4	0.4	0.3	0.5	0.5	0.5	0.5
Financial liabilities (total)	5.2	3.4	13.6	8.0	8.0	8.0	8.0
Short-term financial liabilities	1.8	1.7	12.2	7.1	7.1	7.1	7.1
Accounts payable	7.2	7.5	10.0	7.4	7.8	7.8	9.9
Other liabilities	24.9	29.7	26.2	20.2	21.7	23.7	25.7
<b>Liabilities</b>	<b>40.0</b>	<b>44.5</b>	<b>53.4</b>	<b>39.8</b>	<b>41.8</b>	<b>43.8</b>	<b>47.9</b>
<b>Total liabilities and shareholders' equity</b>	<b>132.2</b>	<b>138.4</b>	<b>148.5</b>	<b>131.6</b>	<b>129.7</b>	<b>128.4</b>	<b>147.5</b>

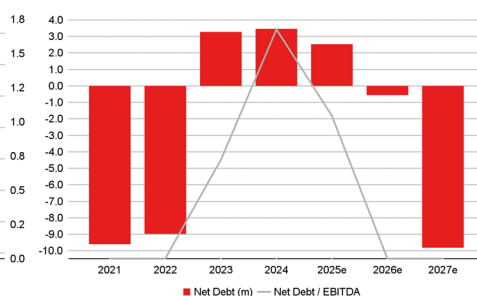
**Financial Ratios**

	2021	2022	2023	2024	2025e	2026e	2027e
<b>Efficiency of Capital Employment</b>							
Operating Assets Turnover	1.4 x	1.7 x	1.5 x	1.5 x	1.6 x	1.8 x	2.1 x
Capital Employed Turnover	1.1 x	1.5 x	1.3 x	1.3 x	1.3 x	1.4 x	1.7 x
ROA	-0.2 %	2.1 %	2.7 %	-6.9 %	-5.5 %	-4.3 %	19.7 %
<b>Return on Capital</b>							
ROCE (NOPAT)	0.0 %	1.8 %	2.3 %	n.a.	n.a.	n.a.	15.3 %
ROE	-0.1 %	1.5 %	1.9 %	-4.8 %	-3.9 %	-3.2 %	13.4 %
Adj. ROE	-0.1 %	1.5 %	1.9 %	-4.8 %	-3.9 %	-3.2 %	13.4 %
<b>Balance sheet quality</b>							
Net Debt	-9.6	-9.0	3.3	3.5	2.5	-0.6	-9.8
Net Financial Debt	-10.0	-9.3	2.9	3.0	2.0	-1.0	-10.3
Net Gearing	-10.4 %	-9.6 %	3.4 %	3.8 %	2.9 %	-0.7 %	-9.9 %
Net Fin. Debt / EBITDA	n.a.	n.a.	22.9 %	51.1 %	30.0 %	n.a.	n.a.
Book Value / Share	3.8	3.8	3.9	3.7	3.6	3.5	4.1
Book value per share ex intangibles	3.0	3.0	3.0	2.8	2.6	2.4	3.0

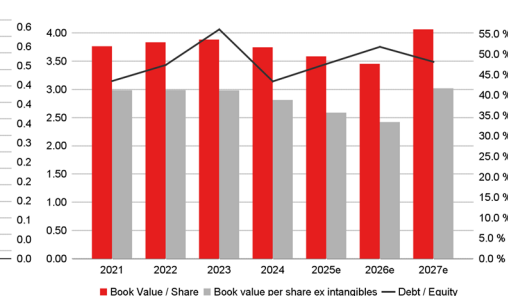
**ROCE Development**



**Net debt in EUR m**



**Book Value per Share in EUR**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

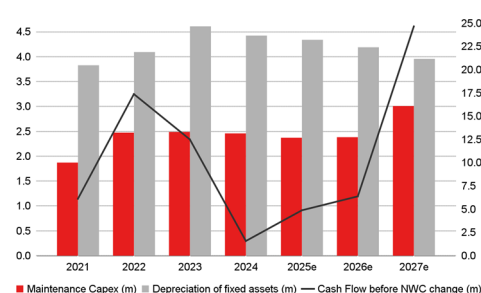
**Consolidated cash flow statement**

In EUR m	2021	2022	2023	2024	2025e	2026e	2027e
Net income	-0.1	1.4	1.8	-4.5	-3.5	-2.7	12.4
Depreciation of fixed assets	3.8	4.1	4.6	4.4	4.3	4.2	4.0
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	3.7	4.5	4.5	3.9	4.0	4.6	5.2
Increase/decrease in long-term provisions	-0.5	1.1	-0.1	0.7	0.0	0.0	0.0
Other non-cash income and expenses	-0.8	6.3	1.8	-3.0	0.1	0.3	3.1
<b>Cash Flow before NWC change</b>	<b>6.1</b>	<b>17.4</b>	<b>12.5</b>	<b>1.6</b>	<b>4.9</b>	<b>6.4</b>	<b>24.7</b>
Increase / decrease in inventory	-9.4	-0.3	-5.0	3.8	-2.7	1.9	-5.7
Increase / decrease in accounts receivable	-3.6	-10.3	-9.3	6.5	4.8	1.5	-5.0
Increase / decrease in accounts payable	-0.5	0.3	2.3	-2.4	2.0	2.0	4.1
Increase / decrease in other working capital positions	15.3	1.5	-3.8	0.0	0.0	0.0	0.0
Increase / decrease in working capital (total)	1.8	-8.9	-15.9	7.9	4.1	5.4	-6.6
<b>Net cash provided by operating activities [1]</b>	<b>7.9</b>	<b>8.5</b>	<b>-3.4</b>	<b>9.4</b>	<b>9.0</b>	<b>11.8</b>	<b>18.1</b>
Investments in intangible assets	-5.4	-6.2	-5.9	-4.8	-6.1	-6.3	-6.0
Investments in property, plant and equipment	-3.2	-2.1	-1.8	-2.8	-2.0	-2.4	-2.8
Payments for acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.1	0.1	0.0	0.1	0.0	0.0	0.0
<b>Net cash provided by investing activities [2]</b>	<b>-8.6</b>	<b>-8.2</b>	<b>-7.7</b>	<b>-7.5</b>	<b>-8.1</b>	<b>-8.7</b>	<b>-8.8</b>
Change in financial liabilities	-2.1	-2.3	9.7	-13.0	0.0	0.0	0.0
Dividends paid	-2.5	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	-0.7	-0.8	-1.0	-1.0	0.0	0.0	0.0
<b>Net cash provided by financing activities [3]</b>	<b>-5.2</b>	<b>-3.1</b>	<b>8.7</b>	<b>-14.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Change in liquid funds [1]+[2]+[3]</b>	<b>-5.9</b>	<b>-2.9</b>	<b>-2.4</b>	<b>-12.1</b>	<b>0.9</b>	<b>3.1</b>	<b>9.3</b>
Effects of exchange-rate changes on cash	1.0	0.5	0.3	0.2	0.0	0.0	0.0
Cash and cash equivalent at end of period	15.2	12.8	10.7	-1.2	6.0	9.1	18.3

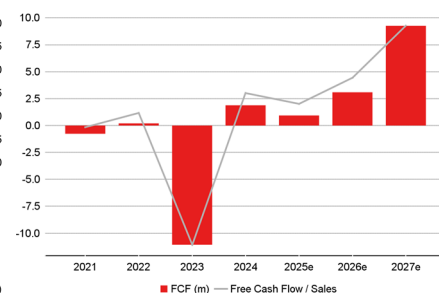
**Financial Ratios**

	2021	2022	2023	2024	2025e	2026e	2027e
<b>Cash Flow</b>							
FCF	-0.8	0.2	-11.1	1.9	0.9	3.1	9.3
Free Cash Flow / Sales	-0.8 %	0.2 %	-8.9 %	1.5 %	0.8 %	2.6 %	6.2 %
Free Cash Flow Potential	5.8	7.9	9.0	2.9	3.9	5.2	19.9
Free Cash Flow / Net Profit	670.2 %	14.5 %	-631.1 %	-41.7 %	-26.3 %	-113.1 %	74.9 %
Interest Received / Avg. Cash	0.1 %	0.2 %	0.1 %	0.0 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	4.1 %	9.2 %	7.3 %	14.1 %	19.0 %	18.0 %	17.0 %
<b>Management of Funds</b>							
Investment ratio	9.3 %	6.7 %	6.2 %	6.1 %	6.8 %	7.3 %	5.9 %
Maint. Capex / Sales	2.0 %	2.0 %	2.0 %	2.0 %	2.0 %	2.0 %	2.0 %
Capex / Dep	115.2 %	96.5 %	84.5 %	90.2 %	96.8 %	98.5 %	96.1 %
Avg. Working Capital / Sales	21.2 %	18.3 %	26.5 %	31.4 %	29.7 %	25.5 %	20.6 %
Trade Debtors / Trade Creditors	238.2 %	365.8 %	365.3 %	409.0 %	324.4 %	305.1 %	290.9 %
Inventory Turnover	1.3 x	1.4 x	1.4 x	1.6 x	1.3 x	1.5 x	1.5 x
Receivables collection period (days)	67	81	107	89	78	73	70
Payables payment period (days)	71	72	83	64	74	70	71
Cash conversion cycle (Days)	88	68	137	151	152	108	109

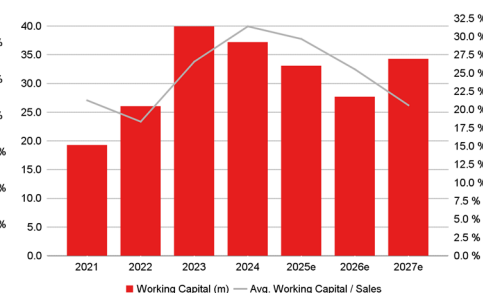
**CAPEX and Cash Flow**  
in EUR m



**Free Cash Flow Generation**



**Working Capital**



Source: Warburg Research

Source: Warburg Research

Source: Warburg Research

## LEGAL DISCLAIMER

This research report ("investment recommendation") was prepared by the Warburg Research GmbH, a fully owned subsidiary of the M.M.Warburg & CO (AG & Co.) KGaA and is passed on by the M.M.Warburg & CO (AG & Co.) KGaA. It is intended solely for the recipient and may not be passed on to another company without their prior consent, regardless of whether the company is part of the same corporation or not. It contains selected information and does not purport to be complete. The investment recommendation is based on publicly available information and data ("information") believed to be accurate and complete. Warburg Research GmbH neither examines the information for accuracy and completeness, nor guarantees its accuracy and completeness. Possible errors or incompleteness of the information do not constitute grounds for liability of M.M.Warburg & CO (AG & Co.) KGaA or Warburg Research GmbH for damages of any kind whatsoever, and M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are not liable for indirect and/or direct and/or consequential damages. In particular, neither M.M.Warburg & CO (AG & Co.) KGaA nor Warburg Research GmbH are liable for the statements, plans or other details contained in these investment recommendations concerning the examined companies, their affiliated companies, strategies, economic situations, market and competitive situations, regulatory environment, etc. Although due care has been taken in compiling this investment recommendation, it cannot be excluded that it is incomplete or contains errors. M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH, their shareholders and employees are not liable for the accuracy and completeness of the statements, estimations and the conclusions derived from the information contained in this investment recommendation. Provided a investment recommendation is being transmitted in connection with an existing contractual relationship, i.e. financial advisory or similar services, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH shall be restricted to gross negligence and wilful misconduct. In case of failure in essential tasks, M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are liable for normal negligence. In any case, the liability of M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH is limited to typical, expectable damages. This investment recommendation does not constitute an offer or a solicitation of an offer for the purchase or sale of any security. Partners, directors or employees of M.M.Warburg & CO (AG & Co.) KGaA, Warburg Research GmbH or affiliated companies may serve in a position of responsibility, i.e. on the board of directors of companies mentioned in the report. Opinions expressed in this investment recommendation are subject to change without notice. The views expressed in this research report accurately reflect the research analyst's personal views about the subject securities and issuers. Unless otherwise specified in the research report, no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in the research report. All rights reserved.

## COPYRIGHT NOTICE

This work including all its parts is protected by copyright. Any use beyond the limits provided by copyright law without permission is prohibited and punishable. This applies, in particular, to reproductions, translations, microfilming, and storage and processing on electronic media of the entire content or parts thereof.

## DISCLOSURE ACCORDING TO §85 OF THE GERMAN SECURITIES TRADING ACT (WPHG), MAR AND MIFID II INCL. COMMISSION DELEGATED REGULATION (EU) 2016/958 AND (EU) 2017/565

The valuation underlying the investment recommendation for the company analysed here is based on generally accepted and widely used methods of fundamental analysis, such as e.g. DCF Model, Free Cash Flow Value Potential, NAV, Peer Group Comparison or Sum of the Parts Model (see also <http://www.mmwarburg.de/disclaimer/disclaimer.htm#Valuation>). The result of this fundamental valuation is modified to take into consideration the analyst's assessment as regards the expected development of investor sentiment and its impact on the share price.

Independent of the applied valuation methods, there is the risk that the price target will not be met, for instance because of unforeseen changes in demand for the company's products, changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rate etc. For investments in foreign markets and instruments there are further risks, generally based on exchange rate changes or changes in political and social conditions.

This commentary reflects the opinion of the relevant author at the point in time of its compilation. A change in the fundamental factors underlying the valuation can mean that the valuation is subsequently no longer accurate. Whether, or in what time frame, an update of this commentary follows is not determined in advance.

Additional internal and organisational arrangements to prevent or to deal with conflicts of interest have been implemented. Among these are the spatial separation of Warburg Research GmbH from M.M.Warburg & CO (AG & Co.) KGaA and the creation of areas of confidentiality. This prevents the exchange of information, which could form the basis of conflicts of interest for Warburg Research GmbH in terms of the analysed issuers or their financial instruments.

The analysts of Warburg Research GmbH do not receive a gratuity – directly or indirectly – from the investment banking activities of M.M.Warburg & CO (AG & Co.) KGaA or of any company within the Warburg-Group.

All prices of financial instruments given in this investment recommendation are the closing prices on the last stock-market trading day before the publication date stated, unless another point in time is explicitly stated.

M.M.Warburg & CO (AG & Co.) KGaA and Warburg Research GmbH are subject to the supervision of the Federal Financial Supervisory Authority, BaFin. M.M.Warburg & CO (AG & Co.) KGaA is additionally subject to the supervision of the European Central Bank (ECB).

## SOURCES

All data and consensus estimates have been obtained from FactSet except where stated otherwise.

**Additional information for clients in the United States**

1. This research report (the "Report") is a product of Warburg Research GmbH, Germany, a fully owned subsidiary of M.M.Warburg & CO (AG & Co.) KGaA, Germany (in the following collectively "Warburg"). Warburg is the employer of the research analyst(s), who have prepared the Report. The research analyst(s) reside outside the United States and are not associated persons of any U.S. regulated broker-dealer and therefore are not subject to the supervision of any U.S. regulated broker-dealer.
2. The Report is provided in the United States for distribution solely to "major U.S. institutional investors" under Rule 15a-6 of the U.S. Securities Exchange Act of 1934 by CIC.
3. CIC (Crédit Industriel et Commercial) and M.M.Warburg & CO have concluded a Research Distribution Agreement that gives CIC Market Solutions exclusive distribution in France, the US and Canada of the Warburg Research GmbH research product.
4. The research reports are distributed in the United States of America by CIC ("CIC") pursuant to a SEC Rule 15a-6 agreement with CIC Market Solutions Inc ("CICI"), a U.S. registered broker-dealer and a related company of CIC, and are distributed solely to persons who qualify as "Major U.S. Institutional Investors" as defined in SEC Rule 15a-6 under the Securities Exchange Act of 1934.
5. Any person who is not a Major U.S. Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein.

**Reference in accordance with section 85 of the German Securities Trading Act (WpHG) and Art. 20 MAR regarding possible conflicts of interest with companies analysed:**

- 1- Warburg Research, or an affiliated company, or an employee of one of these companies responsible for the compilation of the research, hold a **share of more than 5%** of the equity capital of the analysed company.
- 2- Warburg Research, or an affiliated company, within the last twelve months participated in the **management of a consortium** for an issue in the course of a public offering of such financial instruments, which are, or the issuer of which is, the subject of the investment recommendation.
- 3- Companies affiliated with Warburg Research **manage financial instruments**, which are, or the issuers of which are, subject of the investment recommendation, in a market based on the provision of buy or sell contracts.
- 4- MMWB, Warburg Research, or an affiliated company, reached an agreement with the issuer to provide **investment banking and/or investment services** and the relevant agreement was in force in the last 12 months or there arose for this period, based on the relevant agreement, the obligation to provide or to receive a service or compensation - provided that this disclosure does not result in the disclosure of confidential business information.
- 5- The company compiling the analysis or an affiliated company had reached an **agreement on the compilation of the investment recommendation** with the analysed company.
- 6a- Warburg Research, or an affiliated company, holds a **net long position of more than 0.5%** of the total issued share capital of the analysed company.
- 6b- Warburg Research, or an affiliated company, holds a **net short position of more than 0.5%** of the total issued share capital of the analysed company.
- 6c- The issuer holds shares of more than 5% of the total issued capital of Warburg Research or an affiliated company.
- 7- The company preparing the analysis as well as its affiliated companies and employees have **other important interests** in relation to the analysed company, such as, for example, the exercising of mandates at analysed companies.

Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
LPKF	5	<a href="https://www.mmwarburg.com/disclaimer/disclaimer_en/DE0006450000.htm">https://www.mmwarburg.com/disclaimer/disclaimer_en/DE0006450000.htm</a>

**INVESTMENT RECOMMENDATION**

Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

-B-	<b>Buy:</b>	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	<b>Hold:</b>	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	<b>Sell:</b>	The price of the analysed financial instrument is expected to fall over the next 12 months.
“-“	<b>Rating suspended:</b>	The available information currently does not permit an evaluation of the company.

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING**

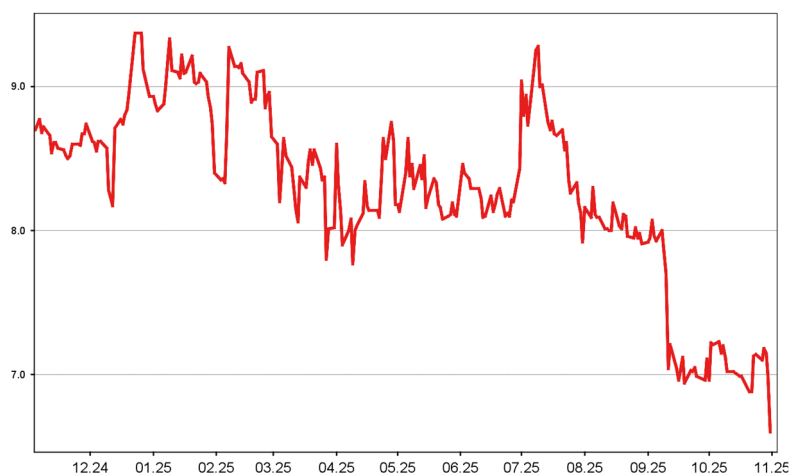
Rating	Number of stocks	% of Universe
Buy	140	70
Hold	50	25
Sell	6	3
Rating suspended	4	2
<b>Total</b>	<b>200</b>	<b>100</b>

**WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING ...**

... taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	37	73
Hold	11	22
Sell	1	2
Rating suspended	2	4
<b>Total</b>	<b>51</b>	<b>100</b>

**PRICE AND RATING HISTORY LPKF AS OF 03.11.2025**



Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

**EQUITIES**

**Matthias Rode** +49 40 3282-2678  
Head of Equities mrode@mmwarburg.com

**RESEARCH**

**Henner Rüschemier** +49 40 309537-270  
Head of Research hrueschmeier@warburg-research.com

**Stefan Augustin** +49 40 309537-168  
Cap. Goods, Engineering saugustin@warburg-research.com

**Christian Cohrs** +49 40 309537-175  
Industrials & Transportation ccohrs@warburg-research.com

**Felix Ellmann** +49 40 309537-120  
Software, IT fellmann@warburg-research.com

**Jörg Philipp Frey** +49 40 309537-258  
Retail, Consumer Goods jfrey@warburg-research.com

**Fabio Hölscher** +49 40 309537-240  
Automobiles, Car Suppliers fhoelscher@warburg-research.com

**Philipp Kaiser** +49 40 309537-260  
Real Estate, Construction pkaiser@warburg-research.com

**Thilo Kleibauer** +49 40 309537-257  
Retail, Consumer Goods tkleibauer@warburg-research.com

**Andreas Pläsier** +49 40 309537-246  
Banks, Financial Services aplaesier@warburg-research.com

**Malte Schaumann** +49 40 309537-170  
Technology mschaumann@warburg-research.com

**Oliver Schwarz** +49 40 309537-250  
Chemicals, Agriculture oschwarz@warburg-research.com

**Simon Stippig** +49 40 309537-265  
Real Estate, Telco sstippig@warburg-research.com

**Marc-René Tonn** +49 40 309537-259  
Automobiles, Car Suppliers mtonn@warburg-research.com

**INSTITUTIONAL EQUITY SALES**

**Klaus Schilling** +49 69 5050-7400  
Head of Equity Sales, Germany kschilling@mmwarburg.com

**Tim Beckmann** +49 40 3282-2665  
United Kingdom tbeckmann@mmwarburg.com

**Jens Buchmüller** +49 69 5050-7415  
Scandinavia, Austria jbuchmueller@mmwarburg.com

**Matthias Fritsch** +49 40 3282-2696  
United Kingdom, Ireland mfritsch@mmwarburg.com

**Roman Alexander Niklas** +49 69 5050-7412  
Switzerland, Poland, Italy miklas@mmwarburg.com

**Sascha Propp** +49 40 3282-2656  
France spropp@mmwarburg.com

**Leyan Ilkbahar** +49 40 3282-2695  
Roadshow/Marketing liikbahar@mmwarburg.com

**Antonia Möller** +49 69 5050-7417  
Roadshow/Marketing amoeller@mmwarburg.com

**Juliane Niemann** +49 40 3282-2694  
Roadshow/Marketing jniemann@mmwarburg.com

**SALES TRADING**

**Oliver Merkel** +49 40 3282-2634  
Head of Sales Trading omerckel@mmwarburg.com

**Bastian Quast** +49 40 3282-2701  
Sales Trading bquast@mmwarburg.com

**Christian Salomon** +49 40 3282-2685  
Sales Trading csalomon@mmwarburg.com

**DESIGNATED SPONSORING**

**Sebastian Schulz** +49 40 3282-2631  
Designated Sponsoring sschulz@mmwarburg.com

**Jörg Treptow** +49 40 3282-2658  
Designated Sponsoring jtreptow@mmwarburg.com

**MACRO RESEARCH**

**Carsten Klude** +49 40 3282-2572  
Macro Research cklude@mmwarburg.com

**Dr. Christian Jasperneite** +49 40 3282-2439  
Investment Strategy cjasperneite@mmwarburg.com

**Our research can be found under:**

Warburg Research [research.mmwarburg.com/en/index.html](http://research.mmwarburg.com/en/index.html)  
Bloomberg RESP MMWA GO  
FactSet [www.factset.com](http://www.factset.com)

LSEG [www.lseg.com](http://www.lseg.com)  
Capital IQ [www.capitaliq.com](http://www.capitaliq.com)

**For access please contact:**

**Andrea Schaper** +49 40 3282-2632  
Sales Assistance aschaper@mmwarburg.com

**Kerstin Muthig** +49 40 3282-2703  
Sales Assistance kmuthig@mmwarburg.com