

# Nabaltec

## High-tech white powders

Re-initiation of coverage

Chemicals

31 July 2024

**Price** €15.50

**Market cap** €136m

€1.19/€

Net cash (€m) at 31 March 2024 21.8

Shares in issue 8.8m

Free float 45%

Code NTG

Primary exchange Xetra

Secondary exchange N/A

### Share price performance



% 1m 3m 12m

Abs (3.5) (2.0) (23.0)

Rel (local) (4.4) (4.5) (31.1)

52-week high/low €19.75 €12.45

### Business description

Nabaltec develops, manufactures and distributes environmentally friendly, specialised products based on aluminium hydroxide and aluminium oxide. It is one of the world's leading suppliers of mineral flame-retardant fillers and speciality alumina.

### Next events

H124 results 22 August 2024

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**Nabaltec is a research client of Edison Investment Research Limited**

Nabaltec is a leading global producer of functional fillers and specialty alumina, serving a wide range of growing end-uses including halogen-free flame retardants and electric vehicle (EV) battery separators. The company's strong product focus, technical product support and customer relationships are key differentiators. It has a healthy balance sheet and is able to exploit potential growth in the high-growth boehmite and data centre markets. Nabaltec trades at a 47% discount to peers on FY24e EV/EBITDA and a 32% discount on FY24e P/E. We initiate our coverage with a valuation of €29.9 per share, 93% above the current share price.

Year end	Revenue (€m)	EBIT* (€m)	EPS* (€)	DPS (€)	P/E (x)
12/22	218.8	29.2	3.00	0.25	6.5
12/23	200.1	18.3	1.30	0.28	14.9
12/24e	204.1	18.2	1.27	0.29	12.2
12/25e	212.3	19.1	1.35	0.34	11.5

Note: \*EBIT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

## Data centres, AI and EV exposure driving growth

Nabaltec produces a wide range of products centred on aluminium hydroxide, aluminium oxide and boehmite (aluminium oxide hydroxide). It has global production capacity of c 265kt/y, with operations in Germany and the United States, as well as a global customer base. Its products include mineral-based flame retardants, which help prevent electrical cable fires from spreading (increasingly important in high-growth AI data centres) and boehmite, used in EV battery separators. It also produces widely used products in refractory and ceramic applications and viscosity-optimised hydroxides (VH), which are used as gap fillers and adhesives in lithium-ion batteries, assisting with thermal management.

## Strong balance sheet provides options

Nabaltec is coming through a period of cyclical weakness (revenue was down 8.5% in FY23 and down 5.2% y-o-y in Q124), although much of this was due to weakness in the highly cyclical speciality alumina market. In this note, we introduce estimates for FY24 and FY25, forecasting revenues of €204m for FY24 and EBIT of €18.2m, an EBIT margin of 8.9%, broadly in line with guidance of revenues 'slightly above' FY23 sales of €200m and EBIT margins of 7–9% (Q124 margin was 9.3%). Importantly, Nabaltec's strong balance sheet (net debt/EBITDA 0.2x at end-FY23 and -0.7x – ie net cash positive – at end-Q124) provides it with options, and we see the company comfortably able to fund some growth capex in the next three years to build out its production capacity for boehmite, ground grades, and surface-treated and viscosity-optimised aluminium hydroxides.

## Valuation: Low multiples despite growth exposure

Nabaltec trades at a 47% discount to its peers based on our CY24e EV/EBITDA (4.5x vs 8.5x median for peers) and it is trading at 12.2x CY24 P/E on our estimates, a 32% discount to peers. We value Nabaltec on a 50:50 blend of a DCF valuation (€30.9/share) and an EV/EBITDA 2024/25 multiple blend valuation (€29.0/share) for a combined valuation of €29.9/share, 93% above its current level.

## Investment summary

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### A leader in functional fillers and specialty alumina

Nabaltec and its group of companies manufacture and distribute environmentally friendly, highly specialised products based on mineral raw materials. The group is one of the leading suppliers of functional fillers and specialty alumina based on aluminium hydroxide and aluminium oxide. The group's annual capacity is c 265kt and Nabaltec offers a wide range of unique products used in a multitude of applications, including halogen-free flame retardants, battery separators in EVs and ceramics.

### Valuation

Nabaltec trades at a 47% discount to its peers based on CY24e EV/EBITDA (4.5x vs 8.5x median for peers) and on 12.2x CY24 P/E on our estimates, a 32% discount to peers. We value Nabaltec on a 50:50 blend of a DCF valuation (€30.9/share) and an EV/EBITDA multiple valuation (of €29.0/share) for a valuation of €29.9/share, 93% above its current level.

Nabaltec's share price has traded above this valuation, peaking at more than €37/share in February 2022, but has declined over the past two years due to cyclical weakness in some of its end-markets. The market reaction looks overdone, in our view, as Nabaltec has a healthy balance sheet (net debt/EBITDA peaking at 0.2x on our estimates in 2025) and is able to invest to continue building in structural growth markets. We see the stock as well positioned to re-rate once the general economic sentiment improves and the EV market ends its current flat spot. Key catalysts for a re-rating would be quarterly earnings progression during 2024, confirming conservative guidance, and cyclical improvements across its various end-uses.

### Financials

Nabaltec grew its revenues at a CAGR of 3.9% in the nine years from FY14 to FY23, although individual years could be volatile (+17.2% in FY21 following a pandemic low of -10.9% in FY20). EBIT margins were more stable, averaging 9.4% in FY14–23 (-10.2% in FY20, although this trough was due to a one-off impairment in its Nashtec investment, and 5.7–13.1% in other years). Nabaltec buys chemical grade aluminium hydroxide and smelter grade alumina (SGA) as raw materials. Aluminium hydroxide is typically priced at 12-month or 24-month fixed prices. SGA is priced on accepted industry benchmarks (CRU API Index) and a portion is also priced at 12-month fixed prices. The split is broadly two-thirds aluminium hydroxide and one-third CRU API Index. Nabaltec ultimately passes raw material price fluctuations in the long-term through to end-consumers, so its revenue should be more structurally volatile than its margins as a processor. We forecast longer-term revenue growth of 4.75% based on volume trends in its core end-use markets.

Nabaltec is coming through a period of cyclical weakness (revenue was down 8.5% in FY23 and down 5.2% y-o-y in Q124). We introduce estimates, expecting revenues of €204m in FY24 and EBIT of €18.2m, an EBIT margin of 8.9%, broadly in line with guidance for revenues 'slightly above' FY23 sales of €200m and EBIT margins of 7–9% (Q124 margin was 9.3%). Importantly, Nabaltec's strong balance sheet (net debt/EBITDA of 0.2x at end-FY23 and -0.7x – ie net cash positive – at end-Q124) provides it with options, and we see the company as comfortably able to fund some growth capex in the next three years.

Near-term earnings are likely to be driven by trends in some of its higher structural growth segments such as boehmite. Boehmite accounted for 9% (€17.3m) of sales in FY23, down from a peak of 13% (€24m) in FY21 but up from 4% (€7m) in FY18 when it started in the boehmite segment. In its Q1 results, Nabaltec commented that sales volumes continue to stagnate, as 'there

is still no impetus from industry, particularly in Europe'. This appears to be partly driven by stalling growth in EV sales in Europe (battery separators are a key application), but this is (rightly, in our view) seen by Nabaltec as a cyclical rather than structural slowdown. Nabaltec is accelerating some capital spending over the next two years, in part to expand boehmite capacity but also to benefit process optimisation at its Schwandorf site and to facilitate the expansion of viscosity-optimised aluminium hydroxides.

## Risks and sensitivities

Nabaltec faces some exposure to increases in energy costs. To partly mitigate this risk, Nabaltec secured its gas price for five years starting in 2020, avoiding the worst effects of the energy crisis. Electricity pricing was fixed for 50% of requirements through to 2022 and prices in Germany have been high in 2023. However, prices have since weakened.

## Company structure and core markets

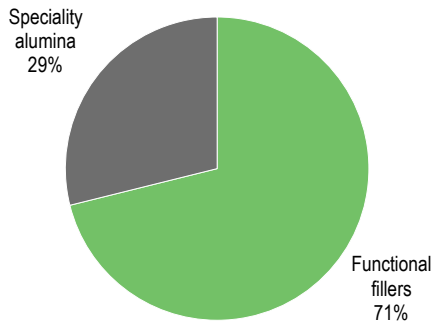
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Nabaltec was formed in 1995 through the spin-off of the speciality alumina division of VAW Aluminium and listed on the German Stock Exchange in 2006. It is headquartered in Schwandorf, Germany, where its European volume manufacturing facility is located. Other sites Corpus Christi, US, which is set up for volume manufacturing of fine precipitated aluminium hydroxide functional fillers, Naprotec in Chattanooga, Tennessee and a trading company in Shanghai. In FY23, Nabaltec employed 516 people.

Nabaltec's products have an extremely diverse range of applications, including:

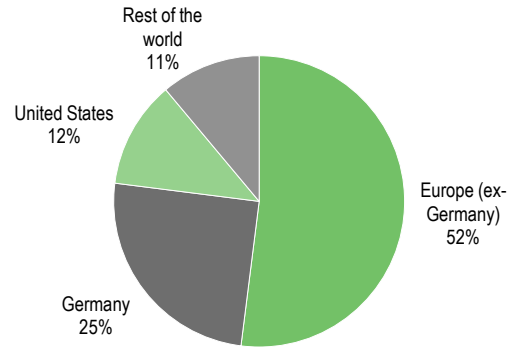
- Flame-retardant filling material for the plastics industry, used in cabling in tunnels, airports, high-rises and electronic equipment. The newest, and largest, growth driver, however, is the use of cables in data centres and server rooms, which has seen massive growth since 2023. Both Microsoft and Amazon plan to open giant server farms in Germany (Nabaltec's base of operations), which have extremely high regulatory requirements and will require vast amounts of flame-retardant cables.
- Fillers and additives for use as a separator coating in lithium-ion batteries, as an all-natural barrier layer in foil or in gap fillers to improve heat conductivity. The demand for EVs has dramatically increased in recent years (although this has stalled recently), with the push towards net zero carbon, and the continued demand should act as another catalyst for Nabaltec, as it is well positioned to capitalise on this.
- It also produces viscosity-optimised aluminium hydroxides that are used as gap fillers and adhesives in lithium-ion EV batteries, assisting with thermal management, which is critical for safety and preventing fires.
- Ceramic raw materials applied in the refractory industry, in technical ceramics and abrasives.
- Highly specialised ceramic raw materials for ballistics, microelectronics and ceramic fillers.

**Exhibit 1: FY23 revenue split by division**



Source: Nabaltec data, Edison Investment Research

**Exhibit 2: FY23 revenue split by geography**



Source: Nabaltec data, Edison Investment Research

## Nabaltec’s key products

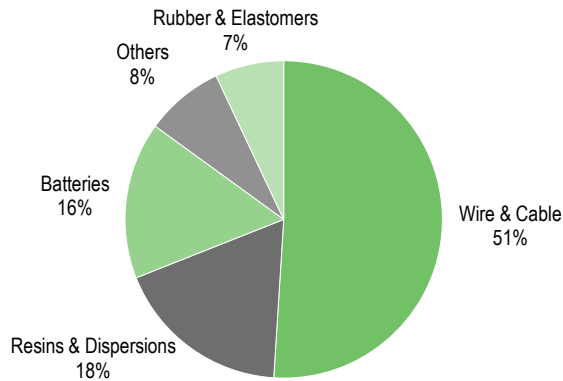
### Functional fillers

Functional fillers accounted for 71% of revenue in FY23. Nabaltec produces fine precipitated aluminium hydroxide sold as a functional filler. This places it as one of the leading producers among the likes of Huber Engineered Materials, Aluminum Corporation of China and INOTAL Aluminium. Nabaltec has achieved this through the quality and reliability of its products, its long-term relationship with customers and its sustained investment in R&D and capacity.

Fillers are added to plastics to make a product safer in the event of fire, without compromising the performance of the product itself. The flame-retardant fillers are based primarily on aluminium hydroxide ( $\text{Al}(\text{OH})_3$ ) and sold under the APYRAL brand. These fillers are added to plastic coatings used in electrical insulation and, when exposed to fire, the aluminium hydroxide splits into aluminium oxide and water. This is an endothermic reaction (ie it absorbs heat) and the water released in the reaction cools the surface of the plastic and helps suppress any flammable gases nearby. This is particularly useful for plastics, such as polyvinyl chloride (PVC), as they release toxic black smoke when burned and the ability to suppress smoke generation is an important technical requirement in the US market. The aluminium oxide released by the reaction acts as a barrier that prevents further release of particulates from the plastic while also shielding it from heat.

Aluminium hydroxide and magnesium hydroxide have similar suppressant characteristics, but aluminium hydroxide has a cost advantage and magnesium hydroxide is therefore used for temperatures in the range 200–300°C. For the highest temperatures (ie up to 320°C), aluminium oxide hydroxide ( $\gamma\text{-AlO}(\text{OH})$ ) or boehmite is used. Boehmite is supplied for use as a raw material in the manufacture of catalysts used in petrol refining. It is starting to be used as a flame retardant in the plastic substrate of printed circuit boards and as the coating of separators in lithium-ion batteries, which improves thermal stability, thus improving battery safety.

**Exhibit 3: Functional fillers market segments in FY23**



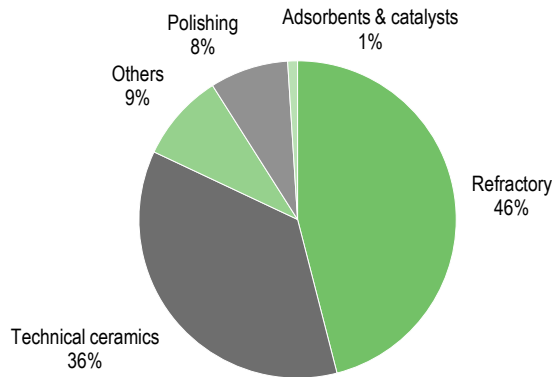
Source: Nabaltec, Edison Investment Research

Another key product line in the functional filler segment is viscosity-optimised aluminium hydroxides (hydrates), which will play a significant role in the company’s growth in the E-mobility sector. These products are used as thermal management adhesives/gap fillers in lithium-ion batteries. The benefits of using viscosity-optimised hydrates include reduced risk of overheating, which enables fast charging while also extending battery life. The underlying pressures of improved battery safety and stability requirements, especially in Europe, are driving growth for these products. In FY23 viscosity-optimised hydrates made up c 23% of Nabaltec’s E-mobility revenues (including boehmite) at €5.1m and this percentage increased to 33% in Q124 (€1.8m). To keep up with the increasing demand, part of Nabaltec’s c €50m investment to increase its capacity for its E-mobility product lines will be used to increase the production capacity for viscosity-optimised hydrates, taking the current 20,000MT per year to 50,000MT by mid-2025.

Speciality alumina is the common name for aluminium oxide ( $Al_2O_3$ ), a widely produced material on an industrial scale, being the intermediate step in industrial aluminium production (between bauxite and aluminium metal). The speciality alumina market is quite different, requiring very high purities and products tailored to specific end-uses.

Nabaltec’s speciality alumina business accounted for 29% of CY23 revenue. It produces a wide range of branded products specifically tailored to customer requirements. End-use applications include raw material usage in the ceramics industry, where it improves the insulation properties of ceramics, while also improving the hardness and ability to withstand significant temperature fluctuations. Alumina-based ceramics are used in a variety of end-use applications including pump impellers and bodies, acid-carrying pipe linings and various abrasive and electrical insulation applications. Nabaltec also produces aluminium oxide powder, which is used in high-performance applications outside of the ceramics industry (eg as a replacement for asbestos in brake linings, engine catalysts and polishing powders). Nabaltec can provide the high level of product consistency these technical applications require.

**Exhibit 4: Speciality alumina market segments in FY23**



Source: Nabaltec, Edison Investment Research

Nabaltec also offers semi-finished, ready-to-press ceramic bodies based on its own aluminium oxides, with additional mineral dopants that are appropriate for specific applications. These high-performance ceramics have low shrinkage properties, so the dimensions of the finished shape are the same as those defined by the mould, as well as extremely high mechanical strength. Their low weight and extremely high hardness make them suitable for use as ballistic protection for personnel and vehicles. Their resistance to wear and chemical attack makes the ceramic bodies ideal for seals and other components used in the chemical industry. Their electrical insulating properties and high thermal conductivity make them valuable materials in the electrical engineering and electronics industries. The ceramic material is also resistant to high temperatures and temperature cycling.

Market drivers include the growing demand for technical ceramics in transportation and in plant and mechanical engineering, and the increasing demand for high-quality speciality alumina for efficient and sustainable steel production in Europe.

A 2023 report by Fact.MR forecast that speciality alumina (excluding tabular alumina) in Europe would grow at a CAGR of 4% until 2028, reaching 1.15m tonnes.

## Strategy and growth areas

### Investment

Key areas in which Nabaltec is looking to invest in 2024 are boehmite and the expansion of its viscosity-optimised aluminium hydroxides. This is so that it can continue to develop and bolster its capabilities alongside the rapidly increasing demand for thermal management in battery storage systems, especially for EVs. Nabaltec currently operates successfully in the US through its Nashtec subsidiary (in fine hydroxides) and it is making significant progress via Naprotec LLC (in a wide variety of ground grades of aluminium hydroxides, surface-treated aluminium hydroxides and viscosity-optimised aluminium hydroxides) at its second production site in Chattanooga, Tennessee. The company has some spare capacity at its Nashtec and Naprotec sites in the US, so it does not need to expand these in the near future.

### Halogen-free flame retardants

Demand for non-halogenated flame retardants continues to grow as a result of the tightening of fire safety requirements and increasing focus on the reduction of fumes, via the Construction Products Regulation in the European Union. This is of particular concern in areas where it is difficult to escape quickly, such as tunnels, airports and high-rise buildings, and for electronic products that may be taken on aircrafts.

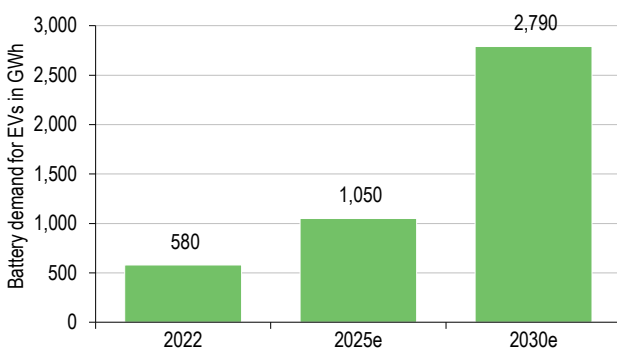
Other market drivers include the trend towards eco-friendly products, as required by EU regulations such as the Restriction of Hazardous Substances (RoHS) and Waste from Electrical and Electronic Equipment (WEEE), as well as the global growth in plastics for use in construction and electronics and electrical wiring. A report published by MarketsandMarkets in October 2023 projected that the flame-retardant market would grow at a CAGR of 5.2% between 2023 and 2028, with its value growing from \$7.0bn in 2023 to \$9.5bn in 2028. In the transition to a carbon-neutral, data-driven future, flame-retardant plastics are a key driver that will continue to further Nabaltec's growth. As a market leader in halogen-free flame retardants, Nabaltec is extremely well-positioned to capitalise on the growth expected in the industry.

The proliferation of data centres globally is a key driver of the significant escalation in demand for flame-retardant wiring solutions. Data centres house massive amounts of computing power in high-density environments, and therefore the risk of electrical faults, overheating and potential ignition sources is amplified. IndustryARC estimates that the data centre market size could reach \$418bn by 2030, growing at a CAGR of 9.6% between 2023 and 2030. One of the biggest problems facing data centres is the cooling process, which can become extremely expensive. This is why halogen-free flame-retardant wires will become so vital. Given that Nabaltec is an extremely well-established player in this area, it is well-positioned to grow, in our view.

## E-mobility

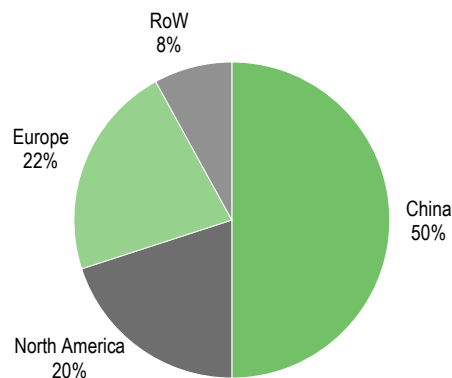
The use of boehmite as a separator coating in lithium-ion batteries enhances battery thermal stability, mechanical strength, safety performance and, in turn, longevity. Boehmite is another high-growth area that Nabaltec is focusing on. The global push towards net zero carbon is continuing, and although some backlash to targets is being experienced with political change in Europe, the official target remains to phase out of cars with combustion engines by 2035. Affordability and consumer preferences are also supportive for switching to EVs and it is highly likely, in our view, that demand for EVs and, in turn, for lithium-ion batteries will continue to grow. Although the boehmite/viscosity-optimised hydrate market saw a slight downturn in revenues in 2022 and 2023 from the highs in 2021, Nabaltec displayed industry forecasts in its investor presentation showing that demand for batteries for EVs will nearly quintuple by 2030 from 2022 demand levels (see Exhibit 5).

**Exhibit 5: Battery demand in EVs (GWh)**



Source: Nabaltec, Edison Investment Research

**Exhibit 6: Forecast EV battery demand by geography (2030)**



Source: Nabaltec, Edison Investment Research

## German chemicals industry sees slow recovery amid energy and demand challenges

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The Verband der Chemischen Industrie (VCI) reported in May that it expects the German chemicals industry to grow production by c 3.5% and revenues to rise by c 1.5% in 2024. This is a clear sign of a slow-but-steady recovery in the sector, which had previously seen a 20-month stint of reducing production volumes. The EU27's chemicals production increased for the third month in a row in April 2024, with Q124 production growth 0.6% above that seen in Q123 and 1.5% in Q423. To put this in perspective, to reach pre-pandemic levels, the EU27's chemical production would need to grow a further 18%. However, these are promising signs for the sector, which started 2024 better than expected, reaching its highest output level since 2022. Germany in particular saw 5.4% y-o-y output growth in Q124, showing one of the most promising signs of recovery.

The VCI strongly believes that if the German chemicals industry is to rebound by 2030, competitive energy pricing is necessary for the economy and the green transformation. German electricity prices were at some of the highest levels in Europe throughout 2023, and gas prices were at least 50% above pre-COVID-19 levels, both of which effectively acted as a competitive disadvantage. Combined with a softening in demand for Europe-made chemicals, this has created a challenging environment as the sector looks to regain strength. Demand for European-made chemicals could continue to weaken as exports from China increase.

Multiple factors contributed to this decrease in demand for chemicals globally in 2023, including a recession in Europe, inflation in the US and a lower-than-expected rebound in demand from China. Over-ordering in 2021 and 2022 was a key issue, which led many chemical manufacturers to focus on reducing costs and improving efficiency instead of further production. The green energy transition is at the forefront of the chemicals industry due to government incentives and regulations. Over 2024 and ahead, chemicals that support technologies associated with the clean energy transition will be vital and they should see increased demand and growth. An example is Nabaltec's use of boehmite as a separator coating in lithium-ion batteries.

## Management

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**Johannes Heckmann (CEO):** Mr Heckmann was appointed as CEO in January 2017. He has been a member of Nabaltec's management team since 1995 and was appointed to the management board with responsibility for production and R&D at the time of the IPO in 2006. Prior to joining Nabaltec, he worked as a project manager for Amberger Kaolinwerke and at Schindler Aufzüge.

**Günther Spitzer (CFO):** Mr Spitzer was appointed as CFO in January 2017 and is responsible for finance/controlling, administration, IT and HR. He joined the business that would become Nabaltec, VAW Aluminium's Schwandorf plant, in 1985 as a commercial employee, became head of the finance department in 1998 and director of finance in 2009.

**Dr Alexander Risch (COO):** Dr Risch was appointed COO on 1 October 2021 and is responsible for R&D, as well as production and sales. Between 2006 and 2021, prior to joining Nabaltec, Dr Risch managed the sales, marketing and order processing divisions at Hoffmann Mineral globally, where he gathered experience of industrial fillers and their functionality.



## Shareholders

Nabaltec's shareholder register includes two significant stakes held by two families: that of CEO Johannes Heckmann and that of Gerhard Witzany, who retired from the management board in December 2016. The largest institutional investor is Allianz Global Investors, which holds 3.93%.

### Exhibit 7: Major shareholders

Shareholder	Position (%)
Heckmann family	28.20
Witzany family	27.23
Allianz Global Investors	3.93
Fidelity Ltd	2.80
Genstar Capital	2.72

Source: Bloomberg as at 22 July 2024

## Valuation

We value Nabaltec using a 50:50 blend of a DCF valuation (of €30.9/share) and an EV/EBITDA multiple valuation (of €29.0/share) for a valuation of €29.9/share.

For our DCF valuation we use a weighted average cost of capital (WACC) of 6.8% (risk-free rate of 3.5%, equity risk premium of 4.6% and beta of 0.72, and 100% equity cost at present due to negligible levels of balance sheet leverage) and a 1% terminal growth rate. We model 10 years of earnings, and for a terminal value assume terminal capex (included in terminal cash flow) at similar levels to depreciation and earnings at through-cycle margins. Our DCF valuation yields a value of €30.9/share.

For our peer-multiple based valuation, we apply CY24 peer EV/EBITDA multiples (8.5x) to our CY24 estimates and CY25 peer EV/EBITDA multiples (7.5x) to our CY25 estimates. Once adjusted for debt, this yields values of €29.7/share for 2024 and €28.3/share for 2025, which we blend to reflect being partway through 2024. This yields €29.0/share.

### Exhibit 8: DCF valuation

	EV (€000s)	Per share (€)	EBITDA 2024e (€m)	Implied EV/EBITDA (x)
<b>Nabaltec</b>	<b>266,625</b>	<b>30.3</b>	<b>31,395</b>	<b>8.5</b>
Net cash/(debt) FY23	(4,978)	(0.57)		
Other adjustments	0	0		
<b>Total equity value</b>	<b>261,647</b>	<b>29.7</b>		
Number of shares (000's)	8,800			
<b>Value per share (€)</b>	<b>30.9</b>			
Current share price (€)	15.5			
% upside/(downside)	99%			

Source: Edison Investment Research

### Exhibit 9: DCF sensitivity table (€/share)

		WACC						
		5.3%	5.8%	6.3%	6.8%	7.3%	7.8%	8.3%
<b>Terminal growth rate</b>	<b>0.0%</b>	36.8	33.3	30.4	27.9	25.8	23.9	22.3
	<b>0.5%</b>	39.5	35.4	32.1	29.3	26.9	24.9	23.1
	<b>1.0%</b>	42.7	37.9	34.0	<b>30.9</b>	28.2	25.9	24.0
	<b>1.5%</b>	46.8	41.0	36.4	32.8	29.7	27.2	25.0
	<b>2.0%</b>	52.1	44.9	39.4	35.0	31.5	28.6	26.2
	<b>2.5%</b>	59.3	50.0	43.1	37.8	33.7	30.3	27.6
	<b>3.0%</b>	69.7	56.9	47.9	41.4	36.4	32.4	29.2

Source: Edison Investment Research

## Relative peer valuation comparison

Nabaltec operates in a specific market section of the chemicals business, focused on functional fillers and specialty alumina. It does have industry peers, although most of these are either private or listed in China, so are not useful for peer comparison purposes. Nabaltec is also relatively small (market cap of c €130m) within the chemicals industry, which makes comparisons to broader and larger groups somewhat problematic. Nonetheless, in Exhibit 10 we include a broad cross-section of European chemicals and associated materials producers to provide some guidance on how the market values companies in a similar sector. We have used the median value for multiples in our valuation methodology to reduce the effect of outliers.

**Exhibit 10: Peer comparison**

	Market cap (€m)	EV/EBITDA 2024e (x)	EV/EBITDA 2025e (x)	P/E 2024e (x)	P/E 2025e (x)
Ercros	356	7.8	6.4	22.5	14.3
Calriant	5,042	8.1	7.0	17.2	13.9
Elementis	1,062	8.5	7.9	16.8	14.3
Evonik Industries	8,777	6.1	5.7	13.1	11.8
Fuchs	4,709	8.8	8.1	16.1	14.5
Victrex	1,135	11.5	9.7	17.8	14.3
BASF	38,513	7.5	6.6	12.6	10.3
Givaudan	40,770	25.1	23.8	34.0	32.8
Covestro	10,187	10.0	7.5	*248.6	21.2
Lanxess	2,167	8.0	6.1	*201.5	11.6
Wacker Chemie	4,904	7.5	5.5	20.7	11.5
Trealt	336	11.4	10.3	19.7	17.6
Ems-Chemie Holding	17,582	27.5	24.6	36.4	35.9
<b>Average</b>		<b>11.4</b>	<b>9.9</b>	<b>20.6</b>	<b>17.2</b>
<b>Median</b>		<b>8.5</b>	<b>7.5</b>	<b>17.8</b>	<b>14.3</b>
<b>Nabaltec (consensus)</b>	<b>132.9</b>	<b>4.0</b>	<b>3.6</b>	<b>12.7</b>	<b>12.0</b>

Source: LSEG as at 30 July 2024. Note: \*Multiple is excluded from the average and median.

**Exhibit 11: Peer multiple valuation cross-check**

<b>Nabaltec</b>	<b>FY24e</b>	<b>FY25e</b>
EBITDA (€m)	31,395	34,193
Market multiple (x)	8.5	7.5
Per share (€)	30.2	29.2
Nabaltec (enterprise value) (€m)	265,961	257,133
Opening net cash/(debt) (€m)	(4,978)	(7,767)
Other adjustments (€m)	0	0
<b>Total equity value (€m)</b>	<b>260,983</b>	<b>249,366</b>
Number of shares (000s)	8,800	8,800
<b>Value per share (€)</b>	<b>29.7</b>	<b>28.3</b>
<b>Value per share (€) – blend of FY24e/25e</b>		<b>29.0</b>

Source: Edison Investment Research

## Competitors

As discussed above, Nabaltec does not have any direct listed peers operating within its markets. As a guide, the competitors in its various market segments are listed below. These companies are either private or listed in China and are therefore not useful for valuation purposes.

### Exhibit 12: Peers

Functional fillers – halogen-free flame retardants	Listing
Huber Engineered Materials	Private
Inotal	Private
KC Corporation	Private
Eti Alüminyum	Private
Functional fillers – e-mobility	
Estone	Shanghai
Shanghai Putailai	China
Sinocera	China
KC Corporation	Private
Speciality alumina	
Almatis	Private
ALTEO	Private
Silkem	Private
Huber Engineered Materials	Private

Source: LSEG, Edison Investment Research

## Financials

Despite Nabaltec's target markets facing significantly greater challenges, together with weaker industrials growth in CY23 compared to CY22, the company was still able to generate the second-highest revenue in its history, at €200.1m. Revenue for Q124 (€54.0m) was only slightly lower than Q123's record high (€57.0m) and was in line with Q122 levels. This bodes well for the remainder of FY24.

For our financial model and projections, our key assumptions and forecasts include the following:

- A 29% tax rate, to broadly reflect the German taxation environment (15% federal corporate taxation and 14% local). The taxation rate for Nabaltec in FY23 (by our calculation) was 29.3%.
- Revenue growth trends towards 4.75% from FY26 onwards, in line with the long-term growth outlooks for its major end-uses. We assume the EBIT margin trends towards 10% in the longer term (FY23: 9.1%, FY22: 13.1%).
- Longer-run capex to depreciation trending towards 103% (107% in FY23). We foresee capex to be higher in the next few years (€30m or 227% of depreciation in FY24, €25m or 166% of depreciation in FY25) as Nabaltec completes some investments, in part to expand boehmite capacity but also to benefit process optimisation at the Schwandorf site and the expansion of viscosity-optimised aluminium hydroxides.
- Reported EPS in FY23 was €1.30, down from €3.00 in FY22, but the final full-year dividend was €0.28/share. We forecast that the payout ratio (ie DPS/EPS) trends towards 30% of earnings over the next few years (22% in FY23). Our forecasts indicate that a strong balance sheet is maintained (net debt/EBITDA of 0.2x in FY24).

## Sensitivities and risk management

Nabaltec employs a proactive risk management strategy, as its success hinges on identifying associated risks and opportunities and addressing them conscientiously. Effective risk management is vital for Nabaltec, enabling it to secure long-term economic success in international markets and foster sustainable development. By bringing potential risks and opportunities under control, Nabaltec can navigate the evolving business landscape with confidence, safeguarding its future growth and reinforcing its commitment to sustainability.

## Energy costs

One of the key risks Nabaltec faces is its exposure to price increases in energy costs. These affect not only Nabaltec, but also some customers in certain segments (refractory and ceramics), which in turn could lead to a reduction in sales. Energy prices rose significantly in 2022 and 2023, although Nabaltec was in part insulated through its forward purchasing of gas prices. Gas and electricity prices have since weakened significantly, but volatility in these energy costs remain a potential source of pressure in cost inputs.

Management expects energy costs to continue at similar levels or slightly ease in 2024. Nabaltec also holds a long-term natural gas contract, running from 2020 to the end of 2024, which has partially mitigated the effects of recent price increases for natural gas. Its German manufacturing facility in Schwandorf is directly connected to a waste-to-energy plant, which further aids Nabaltec in offsetting increases in energy costs.

## Weakening demand

Multiple macroeconomic factors in 2023 resulted in a weakening in demand for European chemicals. These included the recession in Europe, higher-than-expected inflation in the US and a lower-than-expected rebound in demand from China.

A key mitigating factor for the reduction in demand seen in 2023 was the increasing transition towards green energy, especially with the global goal of reaching net zero by 2050. However, this means chemicals associated with clean energy technologies (eg Nabaltec's boehmite, which is used as a separator coating in lithium-ion batteries for EVs and VH products, which play an important role in thermal management in lithium-ion batteries) should see an increase in demand if the target of net zero is to be reached.

## Competition from China

Many of Nabaltec's directly linked competitors are Chinese companies. China has seen its exports in chemicals continue to increase. Therefore, if the reduction in demand for European chemicals seen in 2023 does not reverse, Nabaltec will come under increased pressure from China, as well as risk losing its current position in Asian markets.

## Raw materials

Nabaltec buys chemical grade aluminium hydroxide and smelter grade alumina (SGA) as raw materials. Nabaltec does have some exposure in the medium to longer term to fluctuations in raw materials prices, although it seeks to mitigate these risks through longer-term raw materials purchasing strategies that help protect its margin as a value-added processor. Aluminium hydroxide is typically priced with 12–24-month fixed prices and SGA is priced on accepted industry benchmarks (CRU API Index) and a portion is also priced at 12-month fixed prices. The split is broadly two-thirds aluminium hydroxide and one-third CRU API Index. Nabaltec ultimately passes raw material price fluctuations in the long-term through to end-consumers, so its revenue should be more structurally volatile than its margins as a processor.

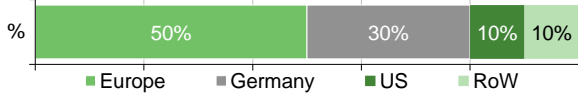
## Liquidity

Nabaltec's two largest shareholders are the Heckmann and Witzany families, who hold 28% and 27%, respectively. This could create some risk with regard to the liquidity of the stock.

**Exhibit 13: Financial summary**

	€'000s	2020	2021	2022	2023	2024e	2025e
Year-end 31 December		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>							
Revenue		159,576	187,017	218,839	200,133	204,102	212,266
Cost of Sales		(74,987)	(88,151)	(106,399)	(101,856)	(102,051)	(106,133)
Gross Profit		83,244	101,755	120,042	102,018	105,113	109,317
EBITDA		23,552	37,288	42,369	31,003	31,395	34,193
Operating profit (before amort. and excepts.)		(15,863)	24,551	29,167	18,339	18,175	19,108
Exceptionals		0	0	0	0	0	0
Operating Profit		(15,863)	24,551	29,167	18,339	18,175	19,108
Other		0	0	0	0	0	0
Net Interest		(1,972)	(1,768)	(1,714)	(2,200)	(2,373)	(2,418)
Profit Before Tax (norm)		(17,835)	22,783	27,453	16,139	15,802	16,690
Profit Before Tax (reported)		(17,835)	22,783	27,453	16,139	15,802	16,690
Tax		(1,818)	(6,522)	(1,078)	(4,721)	(4,582)	(4,840)
Profit After Tax (norm)		(19,653)	16,261	26,375	11,418	11,219	11,850
Profit After Tax (FRS 3)		(19,653)	16,261	26,375	11,418	11,219	11,850
Minority interests		0	0	0	0	0	0
Discontinued activities / Other		(1,137)	3,398	12,796	(609)	0	0
Average Number of Shares Outstanding (000's)		8,800	8,800	8,800	8,800	8,800	8,800
Net income (normalised)		(19,653)	16,261	26,375	11,418	11,219	11,850
Net income (FRS3)		(20,790)	19,659	39,171	10,809	11,219	11,850
EPS - normalised (€)		(2.23)	1.85	3.00	1.30	1.27	1.35
EPS - normalised fully diluted (€)		(2.23)	1.85	3.00	1.30	1.27	1.35
EPS - reported (€)		(2.23)	1.85	3.00	1.30	1.27	1.35
Final distributed dividend per share (€)		0.15	0	0.25	0.28	0.29	0.34
Gross Margin (%)		52.2%	54.4%	54.9%	51.0%	51.5%	51.5%
EBITDA Margin (%)		14.8%	19.9%	19.4%	15.5%	15.4%	16.1%
Operating Margin (before GW and except.) (%)		-9.9%	13.1%	13.3%	9.2%	8.9%	9.0%
<b>BALANCE SHEET</b>							
Fixed Assets		128,127	122,516	135,315	120,716	137,495	147,411
Intangible Assets		452	396	575	880	880	880
Tangible Assets		124,018	119,982	118,789	118,985	135,764	145,680
Right of use assets		0	0	15,000	0	0	0
Investments/Other		3,657	2,138	951	851	851	851
Current Assets		70,485	98,190	145,754	160,166	155,209	151,958
Stocks		32,888	33,935	45,737	51,131	48,984	46,699
Debtors		11,243	12,049	12,503	23,080	23,472	24,411
Cash		26,354	52,206	87,514	85,955	82,753	80,849
Other		0	0	0	0	0	0
Current Liabilities		(16,947)	(79,625)	(24,918)	(16,511)	(18,220)	(20,833)
Creditors		(16,442)	(24,034)	(27,084)	(16,524)	(18,646)	(21,259)
Short term borrowings		(505)	(59,268)	(783)	(971)	(558)	(558)
Long Term Liabilities		(104,830)	(44,587)	(122,686)	(122,561)	(122,561)	(122,567)
Long term borrowings		(58,977)	0	(89,954)	(89,962)	(89,962)	(89,968)
Other long-term liabilities		(45,853)	(44,587)	(32,732)	(32,599)	(32,599)	(32,599)
Net Assets (ex-minority)		76,835	96,494	133,465	141,810	151,924	155,969
<b>CASH FLOW</b>							
Operating Cash Flow		30,193	33,280	33,235	20,724	25,944	28,476
Net Interest		(1,765)	(1,423)	(781)	(949)	(2,373)	(2,418)
Tax		(5,745)	(2,767)	(2,944)	(6,011)	(4,582)	(4,840)
Capex		(10,323)	(6,736)	(25,810)	(13,994)	(30,000)	(25,000)
Acquisitions/disposals		0	0	77	0	0	0
Financing		0	0	0	0	0	0
Dividends		(1,320)	0	(2,200)	(2,464)	(2,580)	(2,962)
Other		(13,536)	3,614	2,262	5,407	4,582	4,840
Net Cash Flow		(2,496)	25,968	3,839	2,713	(9,009)	(1,904)
Opening net debt/(cash)		41,900	33,128	7,062	3,223	4,978	7,767
HP finance leases initiated		0	0	0	0	0	0
Other		11,268	98	0	(4,468)	6,220	(6)
Closing net debt/(cash)		33,128	7,062	3,223	4,978	7,767	9,677

Source: Nabaltec accounts, Edison Investment Research

<p><b>Contact details</b></p> <p>Alustraße 50 - 52 92421 Schwandorf Germany +49 9431 53-0 www.nabaltec.de/en/</p>	<p><b>Revenue by geography</b></p>  <table border="1"> <thead> <tr> <th>Geography</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Europe</td> <td>50%</td> </tr> <tr> <td>Germany</td> <td>30%</td> </tr> <tr> <td>US</td> <td>10%</td> </tr> <tr> <td>RoW</td> <td>10%</td> </tr> </tbody> </table>	Geography	Percentage	Europe	50%	Germany	30%	US	10%	RoW	10%		
Geography	Percentage												
Europe	50%												
Germany	30%												
US	10%												
RoW	10%												
<p><b>Management team</b></p>													
<p><b>CEO: Johannes Heckmann</b></p> <p>Mr Heckmann was appointed CEO in January 2017. He has been a member of management at Nabaltec since 1995 and was appointed to the management board with responsibility for production and R&amp;D at the time of the IPO in 2006. Prior to joining Nabaltec, he worked as a project manager for AKW Amberger Kaolinwerke and at Schindler Aufzüge.</p>	<p><b>CFO: Günther Spitzer</b></p> <p>Mr Spitzer was appointed as CFO in January 2017 and is responsible for finance/controlling, administration, IT and HR. He joined the business that would become Nabaltec, VAW Aluminium's Schwandorf plant, in 1985 as a commercial employee, became head of the finance department in 1998 and director of finance in 2009.</p>												
<p><b>COO: Dr Alexander Risch</b></p> <p>Dr Risch was appointed COO on 1 October 2021 and is responsible for research and development, as well as production and sales. Between 2006 and 2021, prior to joining Nabaltec, Dr Risch managed the sales, marketing and order processing divisions globally at Hoffmann Mineral, where he gathered experience in industrial fillers and their functionality.</p>													
<table border="1"> <thead> <tr> <th>Principal shareholders</th> <th>(%)</th> </tr> </thead> <tbody> <tr> <td>Heckmann family</td> <td>28.20</td> </tr> <tr> <td>Witzany family</td> <td>27.23</td> </tr> <tr> <td>Allianz Global Investors</td> <td>3.93</td> </tr> <tr> <td>Fidelity</td> <td>2.80</td> </tr> <tr> <td>Genstar Capital</td> <td>2.72</td> </tr> </tbody> </table>		Principal shareholders	(%)	Heckmann family	28.20	Witzany family	27.23	Allianz Global Investors	3.93	Fidelity	2.80	Genstar Capital	2.72
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