A European Battery Stronghold. Potential acquisition of Akasol AG by Varta AG

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Abstract

European battery manufacturers and automotive companies have started to invest into lithium-ion battery production with a strong delay to Asian competitors. Nonetheless, we expect global production capacity to shift towards Europe during the next decade, driven by high current investment rates as well as the benefit of proximity to Europe's leading automotive manufacturers.

While lithium-ion battery productions will be mostly driven by an increased demand for electronic vehicles, consumer electronics will also play an important role for lithium-ion battery market growth. This thesis models a potential acquisition of Akasol AG, a manufacturer of lithium-ion batteries for electronic vehicles, by Varta AG, a manufacturer of small-sized lithium-ion batteries for consumer electronics. The objective of this paper is to find out whether such an acquisition can provide viable synergies to the merged company and provide a recommendation on whether to proceed with this acquisition or not. Our analysis suggests that the merged company would be able to realize synergies amounting to a net present value of €392.9 million, driven by joint procurement efforts and joint research and development capex spending. We suggest a maximum share price premium of 30%, leading to a total purchase price of €1106.3m. This transaction shall be completed towards the third quarter of 2022 and shall be financed through the issuance of debt and equity.

Abstrato

Os fabricantes europeus de baterias e as empresas automóveis começaram a investir na produção de baterias de iões de lítio com um forte atraso em relação aos concorrentes asiáticos. No entanto, esperamos que a capacidade de produção global mude para a Europa durante a próxima década, impulsionada pelas elevadas taxas de investimento actuais e pelo benefício da proximidade com os principais fabricantes automóveis europeus.

Enquanto a produção de baterias de iões de lítio será principalmente impulsionada por uma maior procura de veículos electrónicos, a electrónica de consumo desempenhará também um papel importante no crescimento do mercado de baterias de iões de lítio. Esta tese constitui uma potencial aquisição da Akasol AG, um fabricante de baterias de iões de lítio para veículos electrónicos, pela Varta AG, um fabricante de baterias de iões de lítio de pequenas dimensões para a electrónica de consumo. O objectivo deste trabalho é descobrir se tal aquisição pode proporcionar sinergias viáveis à empresa resultante da fusão e fornecer uma recomendação sobre se se deve ou não proceder a esta aquisição. A nossa análise sugere que a empresa resultante da fusão seria capaz de realizar sinergias no valor actual líquido de 392,9 milhões de euros, impulsionadas por esforços conjuntos de aquisição e despesas conjuntas de investigação e desenvolvimento. Sugerimos um prémio máximo de preço de 30%, levando a um preço de compra total de 1106,3 milhões de euros. Esta transacção será concluída no terceiro trimestre de 2022 e será financiada através da emissão de dívida e capital próprio.

Acknowledgements

First and foremost, I would like to express my appreciation to my supervisor António Borges de Assunção for his continued support throughout an extended thesis period. I would also like to thank my academic director José Faias for giving me a chance to complete this Master Thesis as well as for being part of a truly great academic program.

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List of Abbreviations

Abbreviation	Definition
CAGR	Compound Annual Growth Rate
Capex	Capital Expenditure
CoD	Cost of Debt
CoE	Cost of Equity
COGS	Cost of Goods Sold
D&A	Depreciation and Amortization
DCF	Discounted Cash Flow
E	Expected
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings before Interest, Taxes, Depreciation and Amortization
EPS	Earnings per share
EV	Enterprise Value
EV	Electronic Vehicle
F	Forecast
FCF	Free Cash Flow
FTE	Full Time Employee
FY	Fiscal Year
GWh	Gigawatt hour
H1	First half of a year
ICE	Internal Combustion Engine
IPCEI	Important Project of Common European Interest
IPO	Initial Public Offering
KWh	Kilowatt hour
LIB	Lithium-ion Battery
LTM	Last twelve months
m	million
M&A	Mergers and Acquisitions
NewCo	Merged company
NPV	Net present value
NWC	Net Working Capital
OEM	Original Equipment Manufacturer
PP&E	Property, Plant and Equipment
R&D	Research and Development
SG&A	Selling, General and Administrative
TWh	Terawatt hour
TWS	True Wireless Stereo Headset
USD	United States Dollar
WACC	Weighted Average Cost of Capital

1 Executive summary

Even though lithium-ion battery technology dates back to the 1970s, commercialization of lithium-ion batteries has only started to gain strong momentum since the beginning of the 21st century. The lithium-ion battery market is a very novel industry that has grown strongly in a short period of time and has experienced very little merger and acquisition activity so far. It is a market dominated by large Asian battery companies with competition from Europe and the USA trying to catch up through substantial investments in gigafactories and research and development.

This paper models an acquisition scenario in which two companies, that operate in the lithium-ion battery industry, but serve different end markets, are estimated to achieve viable synergies through joint procurement efforts. Varta AG is a leading manufacturer of coin-sized lithium-ion batteries for the healthcare and entertainment end-markets while Akasol AG is one of Europe's leading manufacturers of lithium-ion battery systems for commercial electronic vehicles. Our analysis suggests proceeding with the acquisition of Akasol AG by Varta AG in the third quarter of 2022, with a purchase price of €160.7 per share. This implies a premium of 30% to the Akasol AG's last recorded share price of €123.6. The total acquisition cost of the deal would amount to €1106.3m including €974m of target equity, €121.4m refinancing of net debt and an accumulated €10.9m of advisory, debt and equity issuance fees. Since the acquiror Varta AG has a very healthy debt to equity ratio of only 27.2% debt and 72.8% equity, we suggest financing the acquisition with €705.9m of newly issued debt as well as €389.6m of newly issued equity. A limited amount of €73.1m cash on balance sheet shall be used to finance the remaining €10.9m of transaction-related fees.

We shall note that both businesses are strongly dependent on stable raw material prices as well as well-functioning supply chains for the production of lithium-ion batteries. The year 2022 is marked by several events that drive global economic uncertainty and especially raw material price increases. Our business plan assumptions already account for these risks to a certain degree, but external shocks such as the Covid-19 pandemic as well as the Ukraine-Russia war, create a very unpredictable market environment and enhance the effect of any usual operative business risk.

Section two of this paper provides an overview of the prevailing literature on Mergers and Acquisitions including its drivers and motivation as well as synergies and the most common valuation techniques. Section 3 provides an overview of the lithium-ion battery industry including market sizing, drivers, capacity, raw material prices and competitive environment.

The company overview in section 4 provides us with an understanding of each company including business description, ownership, share price development and historical financial analysis.

This paper intends to answer whether Varta AG is well-advised to proceed with the transaction or not. Section 5 of the paper intends to provide answers to this question by looking at potential synergies, share price premium and a potential accretion or dilution effect.

Finally, the paper summarizes our key findings in a conclusion.

2 Literature review

2.1 Mergers and Acquisitions

Mergers and acquisitions are terms frequently used in combination yet there is a clear difference between the two expressions. While acquisitions or takeovers can be defined as activities by which the acquiring firm controls more than 50% of the equity of the target firm, in a merger at least two firms agree to combine under legal procedures established in the states in which the merger participants are incorporated (Singh, 1972) (Halpern, 1983).

2.1.1 Drivers & motives of M&A

A very frequently cited motive for merger activity is the achievement of rapid growth, which goes beyond what each of the separate companies could achieve as a stand-alone entity. Most commonly, scholars and practitioners refer to so called synergies that allow to increase a combined company's cash flows and therefore enhance its firm value (Gaughan, 2018) (Halpern, 1983).

On the other hand, less attention is given to those theories in which M&A activity is driven by overconfidence, managerial hubris and macroeconomic phenomena. Broadly speaking, Trautwein (1990) distinguishes between those theories that regard M&A consequences as the moving cause behind mergers, and those that do not.

The first category differentiates between theories of Mergers and Acquisitions either driven by shareholders' interest or managers' interest (Trautwein, 1990). Halpern (1983) classifies this more distinctively into theories of value-maximization and theories of non-value maximizing behaviour by the management of the acquiring firm.

A value-maximizing acquisition leads to a positive expected economic gain for the combined entity. The acquirer is expected to earn at least a normal rate of return, while, depending on the competitiveness in the market, the target company is expected to receive at least some proportion of the economic gain. Value-maximization can be attained through the above-mentioned synergies, which are either of operational, financial or managerial nature (Trautwein, 1990) (Halpern, 1983). Another way to achieve value-maximization is to take advantage of an asymmetry of information. In this case, the acquirer possesses information about the target company which is not available to the public and hence not reflected in the current share price of the target. This information could reveal a current undervaluation of the target company and therefore justify its acquisition (Halpern, 1983). This theory agrees with the findings of Shleifer and Vishny (2002), who postulate a model in which transactions are

driven by stock market valuations. A fundamental assumption of their theory is that markets are inefficient, and firms can be valued incorrectly by the market. This would mean that managers who are holding private and correct information, are acting completely rational in an inefficient market, taking the role of the arbitrageur.

In a non-value maximizing acquisition, the acquirer attempts to maximize growth in sales or assets in order to build a large empire. These acquisitions do not lead to any economic gain for the combined firm. The cost of negotiation as well as issues concerning the management and coordination of a larger company empire could easily lead to reverse synergies and eventually provide an economic loss (Halpern, 1983). Another reason why managers are motivated to engage in empire building mergers and acquisitions is because their compensation is closely related to growth in sales (Jensen, 1986). In a declining industry and in the absence of apt incentives to decision makers, instead of divesting unprofitable business units and releasing cash for investors in order to reinvest in other industries, managers tend to maintain the size of the business or even increase it through further acquisitions (Anand and Singh, 1997).

2.1.2 Synergies

While a transaction rationale can be related to any of the above-mentioned M&A motivations, many practitioners and scholars like to justify acquisition premia with the creation of synergies. Damodaran defines synergy as "the additional value that is generated by combining two firms, creating opportunities that would not been available to these firms operating independently" (Damodaran 2005, p. 3). He claims that synergy is also one of the most widely misused rationales for mergers and acquisitions.

2.1.2.1 Operating Synergies

Operating synergies allow a company to increase its operating income through either cost reductions, growth or a combination of both (Damodaran, 2005). The very controversial revenue-enhancing operating synergies can be achieved through increased pricing power, a combination of functional strengths or growth from faster growth-markets and new market entry (Gaughan, 2018).

Combining companies that operate in similar business segments may lead to reduced competition and a higher market share, resulting in greater pricing power. Greater pricing power in turn allows to increase profit margins and operating income (Damodaran, 2005). Trautwein (1990) names this the monopoly theory in which the company gains market power through a wealth transfer from customers. Some scholars attribute these synergies not to an increased market power but to increased efficiency gains and buying power (Fee and Thomas, 2004).

Apart from this, if the merger results in a very large pricing gain, the transaction might not be approved by regulatory authorities which try to avoid monopoly building.

A combination of functional strengths occurs when the merging companies complement each other with capabilities that either one of the parties' lacks. Gaughan (2018) refers to the pharmaceutical industry in which a drug company with great R&D but a lack in manufacturing capabilities merges with a company that lacks R&D but offers great manufacturing capabilities. A combination of functional strengths can be achieved in a variety of mergers because they can be transferable across different businesses (Damodaran, 2005).

Companies operating mainly in industrial countries with very mature markets, high competition and a low perspective of gaining further market share, might seek new opportunities in faster growing markets abroad. By buying into a new market, the acquirer would have immediate access to distribution networks and brand name recognition and use these strengths to increase sales of its products (Damodaran, 2005).

Cost synergies are usually more straightforward and easier to achieve than revenue synergies. Through economies of scale, the firm may become more cost-efficient and therefore more profitable. Economies of scale can be expressed as a decrease in per-unit costs resulting from an increase in the size or scale of a company and are usually expected in horizontal mergers (Gaughan, 2018).

2.1.2.2 Financial Synergies

While operating synergies enhance the value of a company by increasing its operating income, profit margins and cash flows, financials synergies can enhance the value of a company by increasing cash flows and decreasing its discount rate (Damodaran, 2005).

A combined company's cash flows may become more predictable and stable, allowing to increase its debt capacity. Being able to borrow more than they could have as individual entities, the company increases tax benefits and thereby lowers its cost of capital. Tax benefits can also arise through the write up of target company assets or by using net operating losses to shelter income. The acquiring firm can use a target's net operating losses to reduce the effective amount of taxes paid. Writing up assets leads to higher depreciation charges that lower the tax burden and increase firm value (Damodaran, 2005).

2.1.3 Type of payment

Mergers and acquisitions can be paid for with all cash, all securities or a combination of both. Securities could be the stock of the acquiror, either common stock or preferred stock, but also other securities such as debentures. If a stock transaction is registered, the stock can be freely

traded on organized stock exchanges. On the other hand, a transaction might also be privately held, whereat the sale of stock would be restricted to a limited number of mostly institutional buyers (Gaughan, 2018). In case of a stock offering, the bidder may provide either a fixed or floating exchange ratio. With a floating exchange ratio, the bidder offers a dollar value of shares, whereas at a fixed exchange ratio the number of shares purchased by a bidder will be determined by dividing the firm value offered by the bidder's averages stock price during a predefined time period (Gaughan, 2018). Since securities transactions require both parties to agree on the value of purchased stock as well as the value of stock used for payment, this makes stock transactions much more complicated than cash transactions. Hence, from a seller's point of view stock transactions create uncertainty and may therefore be more attractive to bidders. On the other hand, in large transactions which are being paid only in cash, the bidder might need to issue debt in order to finance the acquisition, carrying unwanted and adverse risk effects (Gaughan, 2018). An acquisition with stock usually requires approval by the SEC and therefore takes longer than a cash acquisition. This increases the duration between first announcement and effective date, increasing competitiveness of the acquisition market at the expensive of the bidder (Datta et al., 1992). Additionally, DeAngelo and Rice (1984) demonstrated that equity issuances can be perceived negatively by the capital markets. While managers most commonly would prefer a cash offer if they think their firm is undervalued, stock offers may be the payment type of choice if managers believe the firm is overvalued. Hence, market participants interpret a cash offer positively and a stock exchange offer as bad news about the bidding firm's true value (Travlos, 1987). Finally, shareholders of the target firm incur tax liabilities in the case of a cash transaction and are likely to seek compensation in the form of higher purchase price premiums (Datta et al., 1992). Considering the above complications and limitations related to stock-financed transactions, bidders and targets are nevertheless more likely to benefit from a cash-financed transaction.

2.2 Valuation Methods

Damodaran (2006) classifies the most common valuation techniques into the categories intrinsic valuation, relative valuation and contingent claim valuation. While intrinsic valuation comprises the most commonly used discounted cash flow analysis, relative valuation includes market-oriented valuation approaches which use equity -and firm value related ratios or so-called multiples of comparable companies in order to derive a valuation for the target company. Contingent claim valuation comprises the use of option pricing models that measure the value

of assets which share option characteristics (Damodaran, 2006). Our analysis will focus on most intrinsic valuation since relative valuation will not be applied in our case study.

2.2.1 Intrinsic valuation

The most commonly used intrinsic valuation is called discounted cash flow analysis or "DCF analysis". This valuation technique is being applied by most finance professionals including investment bankers, investors and university professors and is based on the premise that the value of a company can be derived by the present value of its projected free cash flow. These projections are created through a variety of assumption on, inter alia, future revenue performance, margin development, capex spending and net working capital needs. Free cash flows are typically being forecasted for a period of 5 to 10 years, depending on the subjective assessment of the analyst. Since the accuracy of the projections is likely to reduce over longer time periods, a terminal value is being used to capture the remaining company value beyond the projection period (Rosenbaum, Pearl, 2009).

Even though there are several approaches to calculate free cash flow, the most commonly used approach by practitioners is shown below (Rosenbaum, 2009):

$$FCF\ to\ the\ firm = EBIT * (1 - Tax\ rate) + D\&A - Capex - Change\ in\ NWC \quad (1)$$

The above cash flow is called free cash flow to the firm and is different from free cash flow to equity. Free cash flow to the firm is available to all claim holders in the firm and are pre-debt cash flows. The below formula shows free cash flow to equity, where interest has been paid already and any debt repayments as well as newly issued debt has already been accounted for (Damodaran, 2006):

$$FCF\ to\ equity = Net\ income + D\&A - Capex - Change\ in\ NWC + (Net\ debt\ raised - debt\ repayment) \quad (2)$$

The most commonly used discount rate used in order to calculate the Net Present Value or "NPV" of future cash flows is called Weighted Average Cost of Capital or "WACC" and can be expressed with the following formula (Rosenbaum, Pearl, 2009):

$$WACC = CoE * \frac{Equity}{Total\ capital} + CoD * (1 - Tax\ rate) * \frac{Debt}{Total\ Capital} \quad (3)$$

In order to calculate the WACC we need an estimate for cost of equity and cost of debt, as well as information on equity as percentage of total capital and debt as percentage of total capital. Cost of equity can be calculated using the CAPM methodology and cost of debt can be determined looking at corporate bond yields or information provided in a company's financial reporting. Information on the capital structure can be usually retrieved from the balance sheet

section of annual reports. The CAPM methodology requires a risk-free rate of return, levered company beta, and a market risk rate of return as per below (Rosenbaum, Pearl, 2009):

$$CoE = r_f + \beta_L * (r_m - r_f)$$

For discounted cash flow purposes, the terminal value is most commonly being calculated with the Perpetuity Growth Method as per below, where r is the WACC, g is the long-term growth rate and FCF_n is the free cash flow of the last projection year (Rosenbaum, Pearl, 2009):

$$Terminal\ value = \frac{FCF_n * (1+g)}{(r-g)} \quad (4)$$

After having discounted projected future cash flows as well as the terminal value with the above-mentioned WACC, we will be able to calculate the enterprise value ("EV") as the sum of NPV of projected cash flows and NPV of terminal value. In order to arrive at an equity value, the analyst will need to deduct net debt and add preferred stock plus any noncontrolling interest to the enterprise value (Rosenbaum, Pearl 2009) (Gaughan, 2018).

The DCF analysis requires practitioners to understand the fundamental drivers of a business rather than rely on market perceptions. Additionally, DCF valuation is market independent and therefore less impacted by market anomalies such as bubbles and economic crises. It is a self-sufficient valuation approach and does not rely on directly comparable companies, which makes it a very valuable valuation approach when comparable companies and comparable transactions are difficult to find. Finally, it is a flexible valuation tool that allows to run multiple scenarios on different growth rates, margins and capex requirements (Damodaran, 2006) (Rosenbaum, Pearl, 2009).

On the other hand, there are also limitations to intrinsic valuation. While the granularity and flexibility of a DCF is an advantage it is at the same time more vulnerable to errors. The smallest change in key assumption can produce very different valuation results. Accurate forecasting becomes more difficult the longer the projection period is, and the terminal value can take up to three-quarters of the enterprise value, thereby reducing the significance of projected annual free cash flow. DCF valuation is also less useful if overall market perceptions are ahead of fundamentals. In this case DCF valuation might provide misleading results to portfolio managers or equity research analysts who are required to find equities to buy even in overvalued markets (Damodaran, 2006) (Rosenbaum, Pearl, 2009).

2.2.2 Conclusion

While academics like debate the pros and cons of above-mentioned valuation techniques, be it intrinsic or relative, in practice, the most common valuation methods are being applied simultaneously in order to derive a valuation range for the company to be valued. Depending on the appropriateness of each valuation method, the analyst might weigh the result of one valuation method stronger than the result of another. Ultimately, the quality of the valuation result depends on the quality and depth of information used, as well as the analyst's ability to make reasonable and realistic assumptions. The final purchase price of an acquisition is further subject to negotiations between acquiror and target which stretch the M&A process.

3 Industry overview

3.1 Global lithium-ion battery market

The commercialization of lithium-ion batteries since the early 1990s reshaped the global battery market and significantly contributed to the strongly growing Electronic Vehicle ("EV") market as well as to technological development in Electronic Devices, Energy Storage and other applications such as aviation, drones, power tools, electric bikes and scooters.

Valued at 40.5 billion USD in 2020, the global lithium-ion battery market is projected to grow at a CAGR of 14.6%, amounting to c. 92 billion USD in 2026. Growth is mainly driven by a global shift towards cleaner fuel alternatives and a resulting increased demand for electronic vehicles, but also by a growing user base of portable devices such as smartphones, tablets and earphones. While the consumer electronics application segment held the highest revenue share of over 40% in 2021, the lithium-ion battery market for automotive applications is expected to lead growth with a CAGR of 28.1% from 2021-2028.[1] [2]Lithium-ion batteries have emerged as a viable alternative source of energy due to its superior characteristics in zero carbon emissions, lightweight, space saving and high energy density.

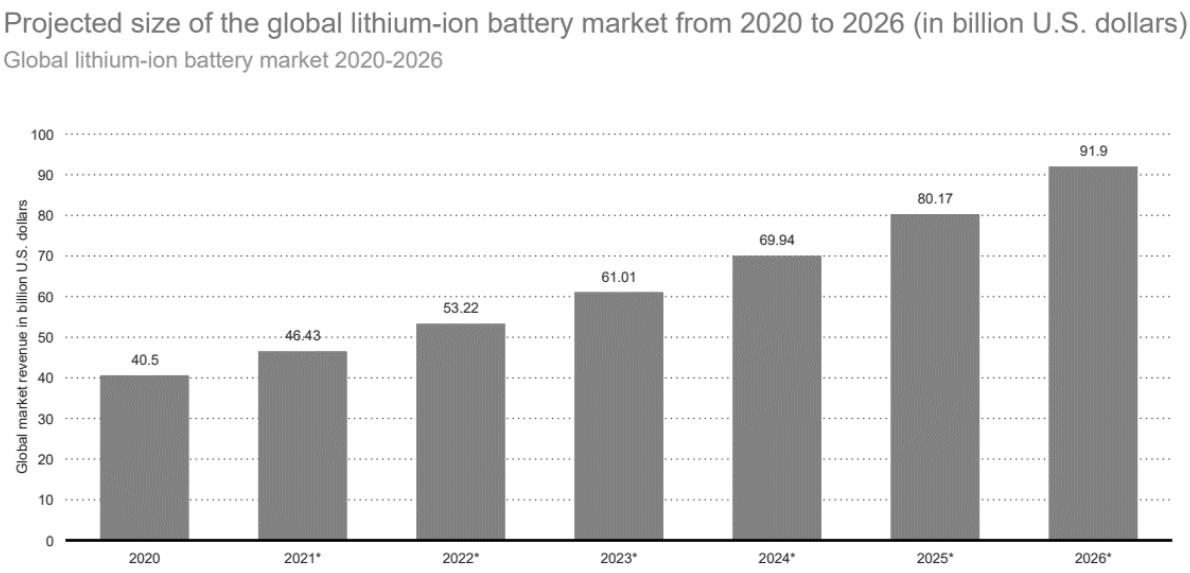

Figure 1. Global lithium-ion battery market size, Statista, Research and Markets Data

The global demand for batteries is expected to increase from 185 GWh in 2020 to over 2,000 GWh by 2030. As outlined above, future battery demand is primarily driven by the

[1] Bloomberg. Lithium-ion Battery Market Size Worth $182.53 Billion By 2030: Grand View Research, Inc. Business section, June 2022, Bloomberg website, https://www.bloomberg.com/press-releases/2022-06-07/lithium-ion-battery-market-size-worth-182-53-billion-by-2030-grand-view-research-inc

[2] Fortune Business Insights. Electric Vehicle Battery market Size, Share & Covid-19 Impact Analysis, Fortune Business website, https://www.fortunebusinessinsights.com/industry-reports/electric-vehicle-battery-market-101700

transportation sector, including passenger cars, and commercial vehicles like buses and trucks. Even though consumer electronics were one of the first and major application areas of lithium-ion batteries, demand in terms of gigawatt hours (60 GWh in 2020 and 110 GWh by 2025) is relatively low due to small energy capacities of, inter alia, gadgets such as phones, tablets and earphones. Stationary demand, such as energy storage for industrial, grid and telecom sectors still represent the smallest share of battery demand yet is expected to grow from 25 GWh in 2020 to 160GWh in 2030, surpassing demand of consumer electronics due to its higher energy capacities.[3]

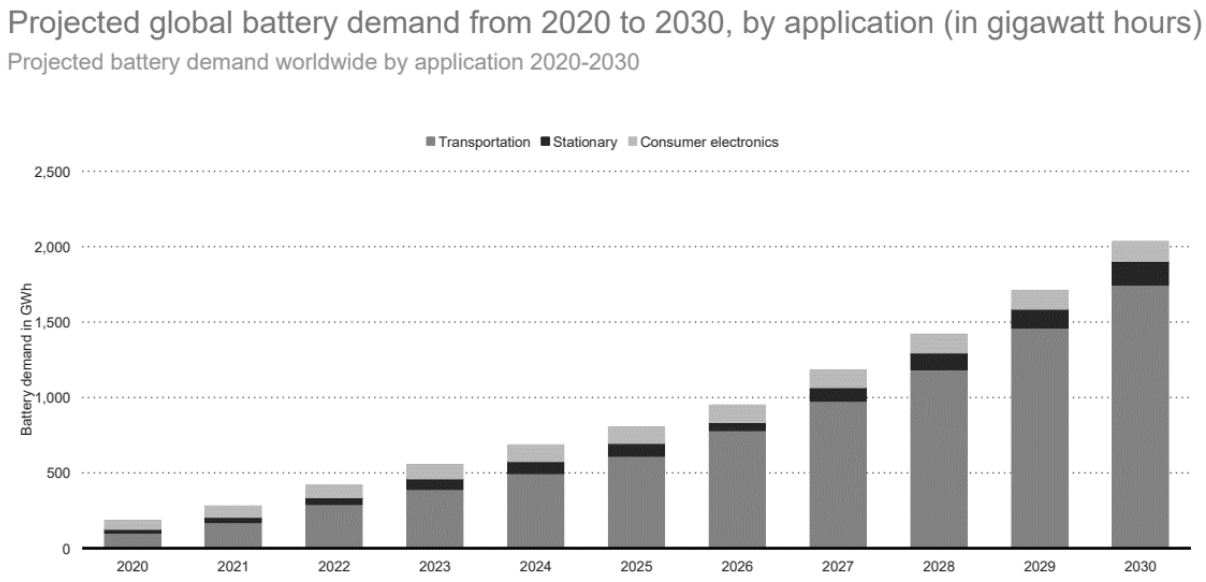

Figure 2. Global lithium-ion battery demand. Statista, BloombergNEF and US Department of Energy data

[3] Statista. Projected global battery demand from 2020 to 2030, by application. Electronics section, June 2021, Statista website, https://www.statista.com/statistics/1103218/global-battery-demand-forecast/

3.2 Battery costs and raw materials

Due to advancements in mass production as well as technological development, prices for lithium-ion battery packs have steadily declined from 2011 to 2020 at roughly -20% p.a. and are expected to fall even further in line with a maturing electronic vehicle market, reaching 101 USD per KWh in 2023 versus 917 USD per KWh in 2011. High battery prices have been a major obstacle for the cheap production of electronic vehicles, hindering a profitable mass production in competition with conventional cars.[4]

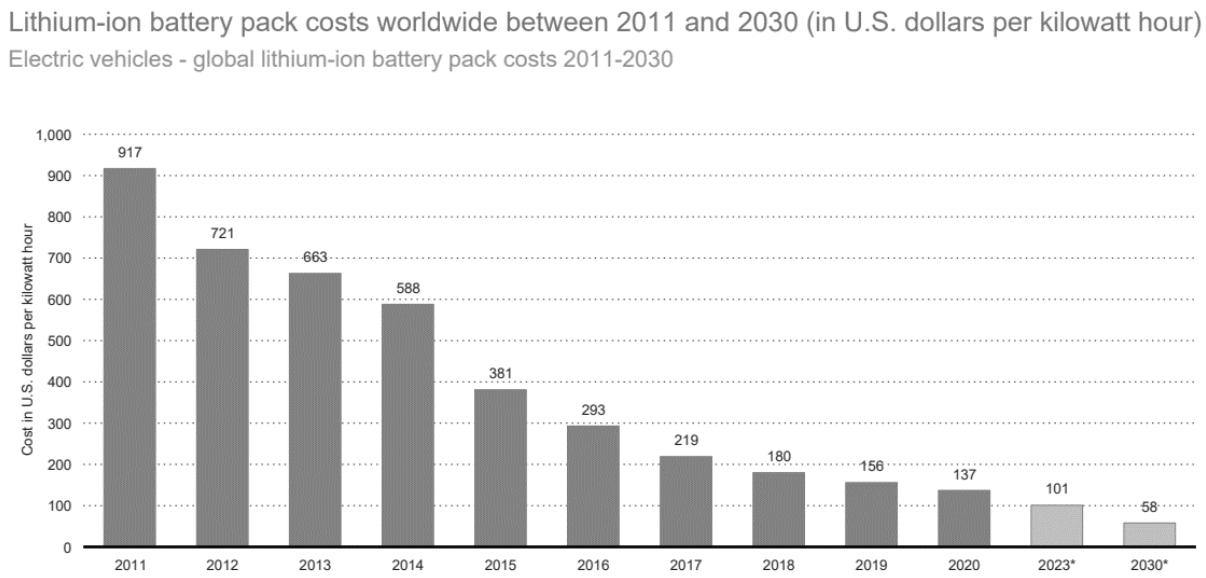

Figure 3. Lithium-ion battery pack costs worldwide, Statista, BloombergNEF data

Yet with a price of roughly 100 USD per KWh, electric cars are expected to reach price parity with conventional cars.[5] Nonetheless, since lithium and other key raw materials are a finite resource which require mining and transportation over vast distances, prices for lithium-ion batteries could rise dramatically upon exhaustion of raw materials or supply chain constraints. Hence, a market for lithium-ion battery recycling has grown in recent years and is expected to grow seven-fold at a CAGR of 32% between 2020 and 2027.[6]Key raw materials of lithium-ion batteries include lithium, cobalt, graphite and Nickel, which are important components of the cathode. Stable supply in the past years has helped electric vehicle manufacturers to decrease battery costs, but currently increasing raw material prices are likely to dampen price declines

[4] Statista. BloombergNEF. Lithium-ion battery pack costs worldwide between 2011 and 2030. Electronics section, December 2020, Statista website, https://www.statista.com/statistics/883118/global-lithium-ion-battery-pack-costs/

[5] Nature. BloombergNEF. Electric cars and batteries: how will the world produce enough?. News feature section, August 2021, Nature website, https://www.nature.com/articles/d41586-021-02222-1

[6] Statista. Fortune Business Insights. Lithium Ion Battery Recycling Market Size, Share & Covid-19 Impact Analysis. Lithium-Ion Battery Recycling Market section, October 2021, Fortune Business Insights website, https://www.fortunebusinessinsights.com/industry-reports/lithium-ion-battery-recycling-market-100244

in the near future. Benchmark mineral intelligence has recently launched a lithium-ion battery raw material price index which records a year-on-year growth of 147.1%, 156.4% and 353.1% for key raw materials NCM Mid-Nickel, NCM High-Nickel and lithium iron phosphate, respectively (2021-2022).[7]

Demand for key battery raw materials is expected to increase dramatically until 2050. Roland Berger estimates a demand overhang for the key lithium-ion battery raw materials Lithium, Nickel, Cobalt and Graphite and capex investment of €250 billion to 300 billion globally along the supply chain until 2030.[8] Considering increased production costs related to currently surging energy prices, production is likely to lag behind the below demand forecast for 2050.

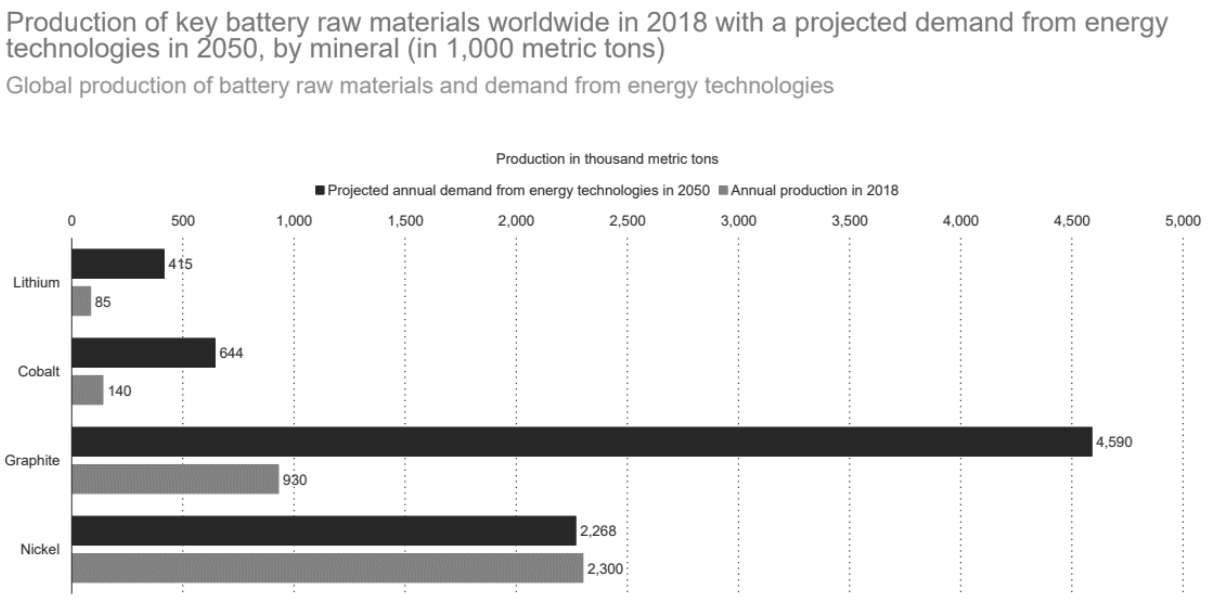

Figure 4. Production of key battery raw materials worldwide, Statista, World Bank and US Geological Survey data

3.3 Manufacturing Capacity and competitive environment

Battery manufacturing capacity is clearly led by China with 79% of global lithium-ion battery manufacturing capacity in 2021. Even though China is expected to remain the leading producer of lithium-ion batteries with roughly 65% of capacity globally by 2025, especially European countries are expected to strongly expand production capacities. With investments into

[7] Benchmark Mineral Intelligence. Benchmark Launches Lithium Ion Battery Raw Material Price Index. Announcements section, April 2022, Benchmark minerals website, https://www.benchmarkminerals.com/membership/benchmark-launches-lithium-ion-battery-raw-material-price-index/

[8] Roland Berger. The Lithium-Ion (EV) battery market and supply chain. Market drivers and emerging supply chain risks., Presse, April 2022, Roland berger pdf report, https://content.rolandberger.com/hubfs/07_presse/Roland%20Berger_The%20Lithium-Ion%20Battery%20Market%20and%20Supply%20Chain_2022_final.pdf

manufacturing facilities like Tesla's Berlin Gigafactory, Germany is poised to become the second largest producer of lithium-ion batteries in the world by 2025, accounting for around 11% of the global production capacity, followed by the USA and Poland with 6.3% and 4.8% respectively.[9] European LIB capacity is set to rise 14-fold across 2021-25 to 673 GWh and expected to more than double to 1.4 TWh in 2030. US LIB capacity is forecast to rise 10-fold in 2021-25 to 382 GWh and subsequently to 620 GWh by 2030. Updated market data from S&P Market Intelligence suggest that China, Europe and the US will hold 58.3%, 24.3% and 10.5% of global LIB capacities by 2030, respectively.[10]

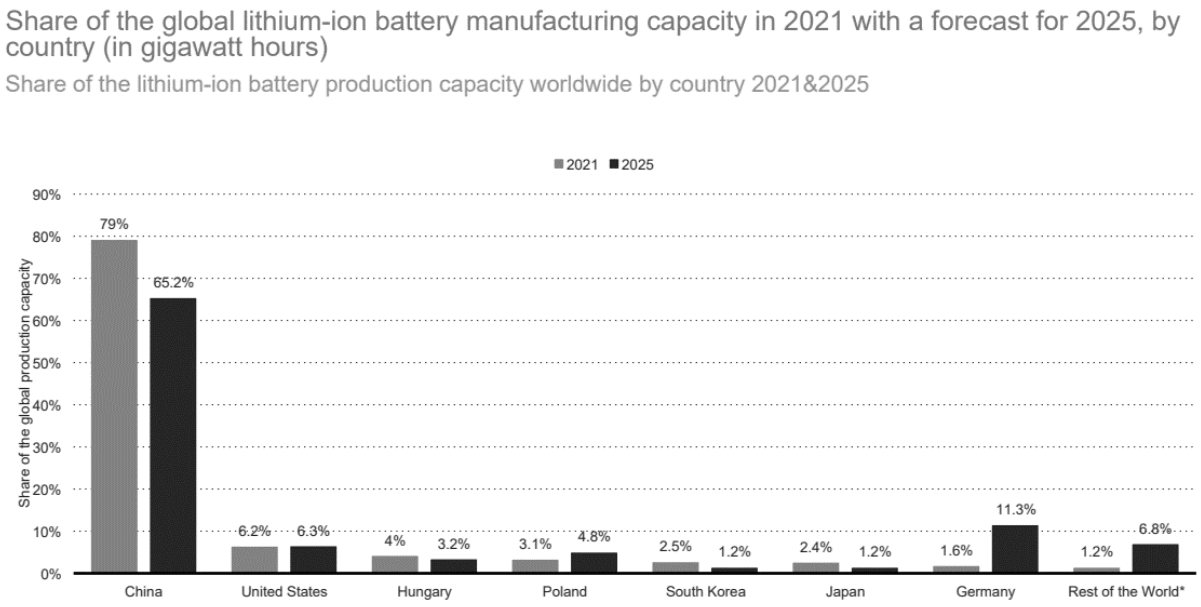

Figure 5. Lithium-ion battery manufacturing capacity by country, Statista, Visual Capitalist, S&P MI data

Chinas leading position in global LIB production is driven by a huge domestic market for electric vehicles. China has by far the highest demand for lithium-ion batteries, expected to amount to 740 GWh in 2030. This would represent almost half of the global demand for electric vehicle lithium-ion batteries in 2030.

[9] Visual capitalist. S&P Global Market Intelligence. Mapped: EV Battery Manufacturing Capacity, by Region. Article & Editing, February 2022, Visual capitalist website, https://www.visualcapitalist.com/sp/mapped-ev-battery-manufacturing-capacity-by-region/

[10] S&P Global Market Intelligence. Investment in lithium-ion batteries could deliver 5.9 TWh capacity by 2030. Research section, April 2022, S&P Market Intelligence website, https://www.spglobal.com/marketintelligence/en/news-insights/research/investment-in-lithium-ion-batteries-could-deliver-5-point-9-twh-capacity-by-2030

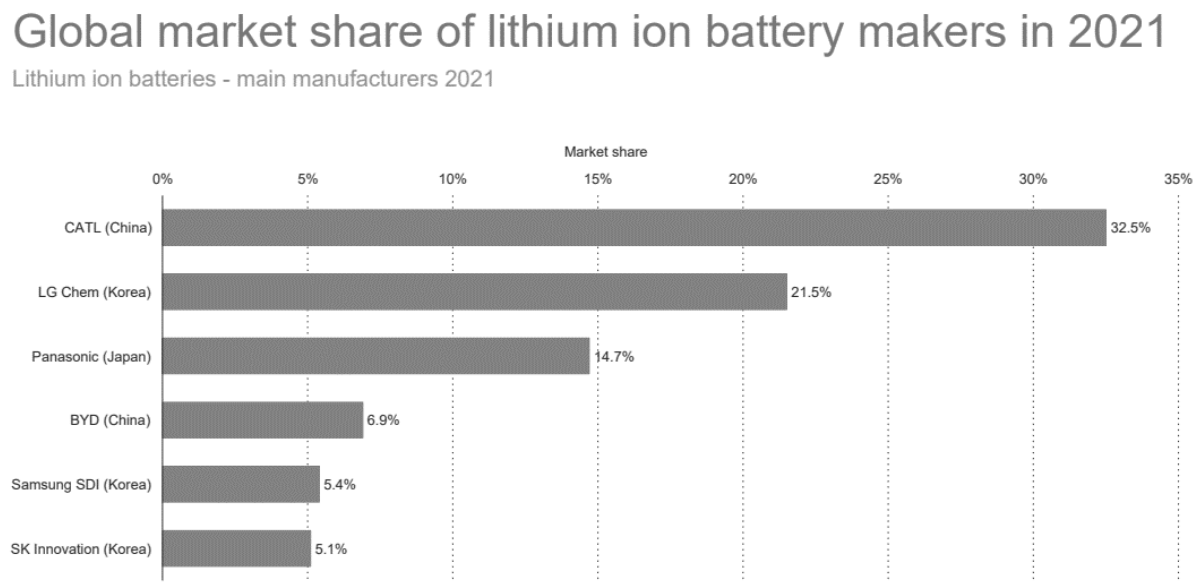

Figure 6. Global market share of lithium ion battery manufacturers, Statista, Visual Capitalst, SNE research data

The above table shows Asia's clear dominance in battery manufacturing as of 2021. China-based battery manufacturer CATL has surpassed Korean manufacturer LG Chem with 32.5% global market share, accounting for c. one-third of global lithium-ion battery production. LG Chem and Japanese manufacturer Panasonic follow with 21.5% and 14.7%, respectively.

3.4 Lithium-ion battery manufacturing in Europe

Europe has played a neglectable role in global lithium-ion battery manufacturing so far. In 2018, less than 3 percent of the total global demand for EV batteries was supplied by companies outside China, Korea and Japan and only approximately one percent was supplied by European companies.[11]In 2021, roughly 6% of global LIB production capacity was covered by Europe, yet a large part of that capacity relates to manufacturing sites in Hungary and Poland which are owned by Korean manufacturers LG Chem and Samsung SDI.[12] Most of Europe's large automotive manufacturers have secured their supply by signing long-term contracts with Asian producers. As most European car manufacturers have initially opted not to produce batteries themselves and failed to secure supplies from European plants, they ran the risk of operating at a disadvantage to competing car manufacturers.

[11] McKinsey & Company. Recharging economies: The EV-battery manufacturing outlook for Europe. Insights section, June 2019, McKinsey & Company website, https://www.mckinsey.com/industries/oil-and-gas/our-insights/recharging-economies-the-ev-battery-manufacturing-outlook-for-europe

[12] S&P Global Market Intelligence. Investment in lithium-ion batteries could deliver 5.9 TWh capacity by 2030. Research section, April 2022, S&P Market Intelligence website, https://www.spglobal.com/marketintelligence/en/news-insights/research/investment-in-lithium-ion-batteries-could-deliver-5-point-9-twh-capacity-by-2030

Having acknowledged this risk in recent years, Europe is now starting to invest heavily in a domestic lithium-ion battery market. While joint ventures and partnerships with Asian battery suppliers already help shift some of the production to Europe, the EU is investing billions in order to fund R&D, create a "battery passport" to favour EU made battery cells and support key member states in adjacent activities, from mining raw materials to recycling used batteries. According to the European Battery Alliance, 111 major battery projects are being developed across EU member states in 2022 (of which a few displayed in the figure below) with a total investment along the entire value chain amounting to 127 billion euros. Worth mentioning is Swedish battery manufacturer Northvolt, having finished its first Gigafactory in 2021 and expected to finish another one in Erfurt, Germany in 2022. Other dominant players in Europe will be Tesla with its Gigafactory in Grünheide, producing up to 200 GWh, and LG Chem having finished its first Gigafactory in 2018 in Poland. Tesla, Northvolt and LG Chem are expected to have a combined market share of 33% in Europe by 2030. European policymakers are supporting local LIB production via several initiatives such as the second Important Project of Common European Interest (IPCEI) which includes 12 member states and a total of €12 billion public as well as private investments in new battery projects.[13] [14]

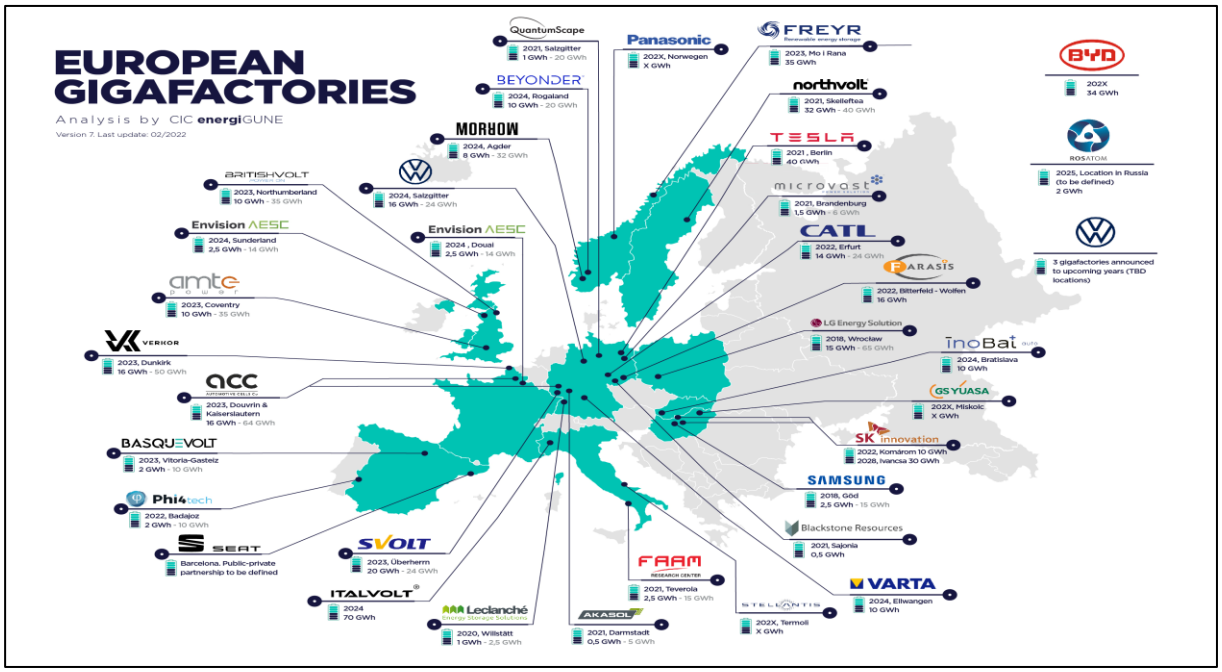

Figure 7. Gigafactories in Europe, CIC energi GUNE data

[13] FleetEurope. How Europe aims to achieve battery independence from China. New energies section, August 2021, FleetEurope website, https://www.fleeteurope.com/en/new-energies/europe/features/how-europe-aims-achieve-battery-independence-china?a=FJA05&t%5B0%5D=Charging&t%5B1%5D=Connectivity&curl=1

[14] European commission. A new European Battery Academy launched to boost skills for fast-growing battery ecosystem in Europe. News section, February 2022, European commission website, https://ec.europa.eu/social/main.jsp?langId=en&catId=1517&newsId=10183&furtherNews=yes

4 Company overview

The industry analysis of this paper has shown us that Europe is investing significant funds in an effort to create a domestic battery market, which is able to serve a booming electric vehicle demand. Germany is poised to play a key role in developing such a market. So far, lithium-ion battery production in Germany has been driven by foreign battery manufacturers, settling all over Europe for the benefit of gaining proximity to Germany's leading automotive companies. Even though governments are investing in and subsidising the lithium-ion battery industry in Europe, only a few companies, such as Northvolt and Tesla managed to compete with the major Asian players. With very little consolidation potential in Europe's lithium-ion battery market, Varta AG has been investing in research and development of lithium-ion battery cells for electric vehicles in recent years through its V4Drive segment and has clear ambitions to participate in the growing market. Nonetheless, setting up the production of larger lithium-ion batteries for electric vehicles on a larger scale and from its own R&D efforts is very time consuming and could take up to several years. This paper suggests that the acquisition of Akasol, AG, a niche player in the production of lithium-ion batteries for commercial electronic-vehicles, could provide viable synergies to the development of an EV-focused business segment within Varta AG. In order to further assess this opportunity, it is necessary to investigate these companies on a standalone basis. [15]

4.1 Varta AG

Varta AG develops, produces and sells microbatteries, household batteries and energy storage solutions worldwide. The company operates a "Microbatteries and Solutions" segment which includes lithium-ion button cells and zinc-air batteries for hearing aid as well as entertainment applications such as true wireless headsets and lithium-ion battery packs for medical technology, robotics, connectivity and telecommunications. This is the company's OEM business with major customers including Apple, Sennheiser, Samsung, Sony, Bose, and Sonova. Varta's "Household Batteries" segment provides batteries for end customers including household batteries, rechargeable batteries, chargers and power banks as well as residential and commercial energy storage solutions. Varta AG has acquired the consumer batteries business (Varta Consumer Batteries GmbH & Co. KGaA) in January 2020 from the US company Energizer Holdings, Inc at a purchase price of €110.9m.

[15] Varta AG, Financial Reports and Investor presentations, Varta AG website, https://www.varta-ag.com/en/investoren/publications

The company was founded in 1887, headquartered in Ellwangen, Germany and is majority-owned by Montana Tech Components AG, a Swiss-based industrial holding company. Varta employed 4,666 thousand FTE's as of Dec 2021 and operates five production and battery manufacturing facilities in Germany, Romania, and Indonesia in addition to distribution centers in the USA, Europe and Asia. Varta sells its products directly from these centers to customers in more than 75 countries across the globe. [16]

4.1.1 Ownership structure

Varta was founded in 1887 by Adolph Müller and has undergone a history of restructurings since then. In 2002 VARTA AG has been split up with its Automotive Batteries division being sold to Johnson Controls and its Consumer Batteries division being sold to Spectrum Brands, Inc. In 2007 Montana Tech Components AG bought the R&D and Microbattery business from Deutsche Bank and the Quandt Family and in 2011, the entire holding company VARTA AG was finally bought by Montana Tech Components AG. At that time, Varta AG had established itself as one of the leading battery providers for hearing aid, established a joint venture with Volkswagen and shortly afterwards created the business unit VARTA storage. By 2015 VARTA AG had reached fully automated production of small lithium-ion batteries and in October 2017 the company was listed on the Frankfurt Stock Exchange with the trading symbol VAR1. In 2019 VARTA AG was also listed on the MDAX and TecDAX. In 2020, VARTA AG reintegrated the household battery business, which was formerly sold to Spectrum Brands, now bought from the US-based Energizer Holdings, Inc.[17]

All of the above events influenced company ownership over many years. According to sources from capital IQ, majority shareholder remains the Montana Tech Components AG with 55.45% of common stock, followed by institutional investors such as BlackRock (1.38%) and the Vanguard Group (1.27%), Mirae Asset Global Investments (0.93%) and Handelsbanken Asset Management (0.75%).

Montana Tech Components AG	BlackRock	Vanguard Group	Mirae Asset GI	Handelsbanken AM	Others
55.45%	1.38%	1.27%	0.93%	0.75%	40.22%

Table 1. Varta AG Ownership structure, CapitalIQ data

[16] Varta AG, Financial Reports and Investor presentations, Varta AG website, https://www.varta-ag.com/en/investoren/publications

[17] Varta AG, History, 130 years of innovation heritage. Varta AG website, https://www.varta-ag.com/de/ueber-varta/unternehmen/geschichte

4.1.2 Share price development

Varta AG has been first listed on the Frankfurt Stock Exchange in October 2017 under the ticker VAR1. Since 2019 Varta AG has also been listed on the MDAX and TecDAX. Varta's share price has increased to 64.2 as of 1st September 2022 since the successful IPO in 2017, yet subject to a good amount of volatility. Major events which have impacted the share prices were the acquisition of the Varta Consumer Batteries European business from Energizer in January 2020, Covid-19, Dividend Affirmations and a wave of shorting transactions in late 2020. The acquisition of Varta Consumer had a dilutive effect on the company's share price, decreasing from €123.2 on January 2nd, 2020, to €95.0 by 9th January 2020. In addition to the impact of the Covid-19 pandemic in the first quarter of 2020, share performance had suffered several short seller attacks, causing the share to drop to as low as €58.4 in March 2020. One year later though, in January 2021, the share price had recovered and increased up to a peak of €181.3. Hence, even though Covid-19 did have in impact in early 2020, the company share price performed well in 2020. The peak in January 2021 was owed to short sellers exiting their short positions with buy orders as they experienced significant losses in betting on a price decline. Across the years as a whole share price lagged behind the market trend being 3.3% down versus the beginning of the year.

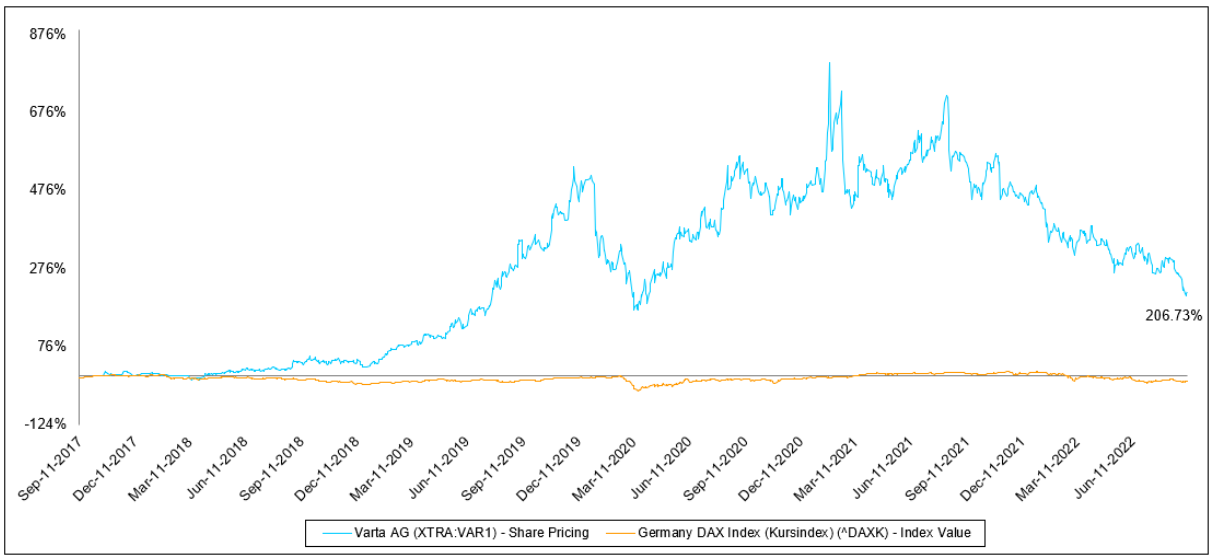

Figure 8. Varta AG share price development, CapitalIQ data

4.1.3 Historical financials

Varta AG operates two main revenue segments, Lithium-ion Solutions & Microbatteries (FY21 57% of revenues) as well as Household Batteries (FY21 43% of revenues). As we can observe from the table below, Varta originally comes from a healthcare background, providing zinc-air batteries for hearing-aid applications. While revenues for healthcare applications grew by a

CAGR of 9.7% from 2016 to 2021, the Entertainment & Industrial segment experienced extraordinarily high growth with a CAGR of 33.7%. One of the major revenue drivers of this segment was the roll-out and increase in wallet share of lithium-ion coin cells to blue-chip customers such as Apple, Sennheiser, Bose and Sony. Hence, the company's revenue mix has shifted from healthcare to consumer electronics within only 5 years. Entertainment and industrial revenues represent 30% of revenues, consumer batteries 38% and healthcare only 20% as of 2021. In 2016 healthcare had still contributed 53% to total revenues. The strong increase in revenues from FY19 to FY20 is mostly driven by organic growth of the microbatteries segment as well as inorganic growth from the acquisition of Varta Consumer Batteries in 2020. FY19 total revenues do not include Varta consumer revenues of €290m in order to show reported numbers and avoid distorting Gross Profit margin.

	Historical financials						
Varta Profit & Loss Statement	**2016A**	**2017A**	**2018A**	**2019A**	**2020A**	**2021A**	**CAGR 16-21**
Revenue							
Lithium-ion Solutions & Microbatteries	194.6	222.5	253.4	342	508.1	514.3	21.5%
% growth	n/a	14.3%	13.9%	35.0%	48.6%	1.2%	
Microbatteries	177.3	203.7	218.9	301.5	458.9	452.3	20.6%
% growth	n.a.	15%	7%	38%	52%	-1%	
Healthcare	113.7	134.4	139.3	151.0	153.8	180.6	9.7%
Entertainment & Industrial	63.6	69.3	79.6	150.5	305.1	271.7	33.7%
Power Packs	17.3	18.8	34.5	40.5	49.2	62.0	29.1%
V4 Drive	0.0	0.0	0.0	0.0	0.0	0.0	
Household Batteries	17.3	18.8	25.9	20.3	361.1	388.6	86.3%
% growth	n/a	8.7%	37.8%	-21.6%	1678.8%	7.6%	
Consumer Batteries				290.0	329.1	342.3	
Energy Storage	17.3	18.8	25.9	20.3	32	46.3	21.8%
Revenues Total	**213.8**	**242.1**	**271.65**	**362.7**	**869.5**	**902.9**	**33.4%**
% growth	n/a	13.2%	12.2%	33.5%	139.7%	3.8%	

Table 2. Varta AG historic revenue development, Varta AG annual reports, equity reports, own calculation

Most important sales regions are Europe (57.9% of FY21 sales), Asia (35.3% of FY21 sales), North America (5.4% of FY21 sales) and Other (1.3% of FY21 sales). As we can see from the table below, Europe sales have recovered strongly from the Covid-19 pandemic in 2020, increasing by 12.8% from FY20-FY21. On the other hand, sales in Asia fell by 3.7% due to restrained business development for rechargeable batteries in the True Wireless Stereo Headset (TWS) segment and sales in the USA fell by -15.8% due to expiring delivery commitments to Energizer which were previously agreed upon as part of the acquisition of Varta Consumer.

Revenues by Geography (in €k)	2020	2021	Change (%)	% total
Europe	464.0	523.2	12.8%	57.9%
Asia	331.2	318.9	-3.7%	35.3%
North America	58.4	49.2	-15.8%	5.4%
Other	16.0	11.7	-27.0%	1.3%
Group total	**869.6**	**902.9**	**3.8%**	n/a

Table 3. Varta AG revenues by geography, Varta AG annual reports, own calculation

Major cost positions as of FY21 are cost of materials (36.9% of revenues) and SG&A (34.1% of revenues. Key raw materials are, amongst others, lithium, nickel, steel, aluminium and graphite and comprise the highest share of cost of materials (€297.844 as of FY21) with the remainder being related services and materials processing and refining by third parties. Considering Varta AG's coin cell production is highly dependent on these raw materials, supply chain disruptions and raw material price increases could be a serious threat to the business.

Varta P&L	2016A	2017A	2018A	2019A	2020A	2021A
Revenues Total	213.8	242.1	280.3	362.7	869.5	902.9
% growth	n/a	13.2%	15.8%	29.4%	139.7%	3.8%
Own work capitalized	3.4	3.5	4.2	4.3	5.0	9.4
Inventory Increase/Decrease	-11.3	3.1	3.9	0.6	-4.2	11.3
COGS	-78.538	-99.928	-106.867	-123.527	-315.547	-333.154
% growth	n/a	27.2%	6.9%	15.6%	155.4%	5.6%
% sales	36.7%	41.3%	38.1%	34.1%	36.3%	36.9%
Gross Profit	127.386	148.834	181.484	244.129	554.758	590.438
% growth	n/a	16.8%	21.9%	34.5%	127.2%	6.4%
% sales	59.6%	61.5%	64.7%	67.3%	63.8%	65.4%
Personnel costs	-76.7	-86.0	-92.4	-114.4	-257.1	-247.8
Other operating expenses	-34.9	-44.2	-40.1	-45.9	-122.5	-132.5
Other operating income	8.0	14.5	7.1	7.8	37.4	72.0
SG&A	-103.6	-115.8	-125.4	-152.5	-342.2	-308.2
% growth	n/a	11.7%	8.3%	21.6%	124.4%	-9.9%
% sales	48.5%	47.8%	44.8%	42.0%	39.4%	34.1%
Reported EBITDA	23.8	33.0	56.0	91.6	212.5	282.2
% growth	n/a	39.1%	69.7%	63.5%	132.0%	32.8%
% sales	11.1%	13.6%	20.0%	25.3%	24.4%	31.3%

Table 4. Varta AG historic P&L, Varta AG annual reports, own calculation

Above mentioned cost of materials contribute to a Gross Profit margin of in between 60-70% historically. SG&A are largely comprised of personnel expenses (€247.805 as of FY21) and other operating expenses (€132.453 as of FY21). Personnel expenses are mostly wages and salaries which increased strongly (FY19-FY20) due to the acquisition of Varta Consumer

Batteries from Energizer, statutory social security contributions and pension expenses. Major other operating expense positions are legal, auditing and consulting fees, partly driven by ongoing patent disputes with Asian competitors, maintenance, outward freight and custom duties as well as cost of energy, followed by a series of smaller cost positions.

Reported EBITDA margins increased from 11.1% in FY16A to 31.3% in FY21A. This was mainly driven by a declining personnel expense and other operating expense cost ratio. In relative terms, personnel expenses declined from 35.9% to 27.4% of revenues, while operating expenses declined from 16.3% to 14.7% of revenues. This was mainly possible due to achieved economies of scale, realized cost synergies with the acquisition of Varta Consumer Batteries and fixed cost operating leverage.

The below table shows an extract of Varta AG's historic cash flow statement with its main contributors to operating cash flow. Cash conversion has been rather volatile historically, mainly driven by Net Working Capital swings and a strong increase in capex spending.

Varta Cash Flow Statement	2016A	2017A	2018A	2019A	2020A	2021A
Reported EBITDA	**23.8**	**33.0**	**47.4**	**91.6**	**212.5**	**282.2**
Change in Inventories	0.9	-12.3	-2.3	-7.2	-20.4	-22.9
Change in Trade receivables & other current assets	-3.9	-9.2	-8.0	-28.2	13.3	-34.3
Change in Trade payables and other current liabilities	8.6	15.1	38.0	58.0	43.0	-32.6
Change in Provisions and liabilities from pensions	2.9	1.9	0.6	4.9	32.9	-20.4
Change in Net Working Capital	**8.5**	**-4.4**	**28.3**	**27.5**	**68.9**	**-110.2**
Income tax paid	-3.3	-5.6	-6.9	-12.9	-39.1	-51.5
Operating cash flow after tax	**26.1**	**20.0**	**69.8**	**105.7**	**232.8**	**114.5**
Cash conversion (% EBITDA)	109.7%	60.7%	147.4%	115.4%	109.5%	40.6%
Cash conversion (% EBITDA and incl. Capex)	14.8%	9.1%	28.6%	3.2%	-32.7%	-21.4%
Capex (tangible & intangible)	**-22.5**	**-17.0**	**-56.3**	**-102.8**	**-302.2**	**-174.8**
% sales	10.5%	7.0%	20.7%	28.3%	34.8%	19.4%

Table 5. Varta AG cash flow statement, Varta AG annual reports, own calculation

Net Working Capital items have been largely impacted by the first-time consolidation of Varta Consumer in 2020 as well as organic revenue growth. Hence, inventories and trade receivables more than doubled from FY19 to FY20 and trade payables also increased from €88.9m in FY19 to €137.4m in FY20. Inventory and receivables positions further grew in FY21, owing to an increase in business volume. While FY18-FY20 recorded a net working capital inflow, driven by higher trade payables and other current liabilities positions as well as decreasing other current assets, FY21 was marked by a strong net working capital outflow of €110.2m, driven by the above-mentioned increase in inventories and trade receivables but also by a reduction in trade payables and advance payments received as well as a reduction in provisions and liabilities from pensions.

Varta Cash Flow Statement	2016A	2017A	2018A	2019A	2020A	2021A
Net Working Capital						
Inventories	42.6	53.8	56.7	64.0	133.3	157.1
Inventory change	-42.6	-11.2	-2.9	-7.3	-69.3	-23.8
% sales	19.9%	22.2%	20.9%	17.6%	15.3%	17.4%
Trade receivables	15.7	20.1	26.3	52.0	120.1	162.9
Receivables change	-15.7	-4.4	-6.2	-25.7	-68.1	-42.8
% sales	7.3%	8.3%	9.7%	14.3%	13.8%	18.0%
Trade payables	22.1	32.5	35.0	88.9	137.4	132.1
Payables change	22.1	10.4	2.5	53.8	48.5	-5.2
% COGS	28.1%	32.5%	32.8%	71.9%	43.5%	39.7%
Trade Working Capital (TWC)	**36.2**	**41.4**	**48.0**	**27.1**	**116.1**	**187.9**
% sales	16.9%	17.1%	17.7%	7.5%	13.4%	20.8%

Table 6. Varta AG Trade Working Capital, Varta AG annual reports, own calculation

Capex spending has accelerated from FY19 onwards due to an investment program aiming at significantly expanding production capacities in the microbatteries segment. The program was set to last until 2021, thereafter reducing capex spending to normal levels. This capex includes investment in intangible assets (e.g., patents) as well as property, plant and equipment (PP&E). FY20 capex spending further includes the acquisition of shares in Varta Consumer Batteries in the amount of €81.5m, resulting from the final purchase price of €110.9m less acquired cash holdings of €29.4m.

4.2 Akasol AG

Akasol AG is one of the leading German manufacturers of lithium-ion battery systems for buses, commercial vehicles, rail vehicles, industrial vehicles, ships and boats as well as stationary energy applications. The company was founded in 1990, is headquartered in Darmstadt, Germany and employed 374 permanent staff as of June 30, 2021. Akasol develops battery systems for hybrid, electric and hydrogen-powered vehicles. Having spent many years on research and development of lithium-ion batteries, Akasol is now proceeding towards automation of serial production in an effort to make the business profitable. This was primarily driven by the construction of Akasol's "Gigafactory 1" which has started operations in Darmstadt, Germany, in autumn 2020 and "Gigafactory 2" which was successfully opened in Michigan, USA. Besides these two Gigafactories, Akasol operates another serial production facility in Langen and a prototype facility in Weiterstadt, Germany. As of December 2020, Akasol generated 92.4% of revenues in Europe, 6.1% in the US through its subsidiary Akasol Inc. and only 1.5% of revenues in Asia.

4.2.1 Share price development and company ownership

Akasol AG has been traded on the Frankfurt Stock Exchange since June 29, 2018. In spring 2021 (mid-February) though, the American automotive company BorgWarner submitted a voluntary public takeover offer to acquire all outstanding Akasol shares for a consideration of 120 euro per share. On May 31st, 2021, the offer was accepted by Akasol shareholders for 89.08% of the outstanding shares.

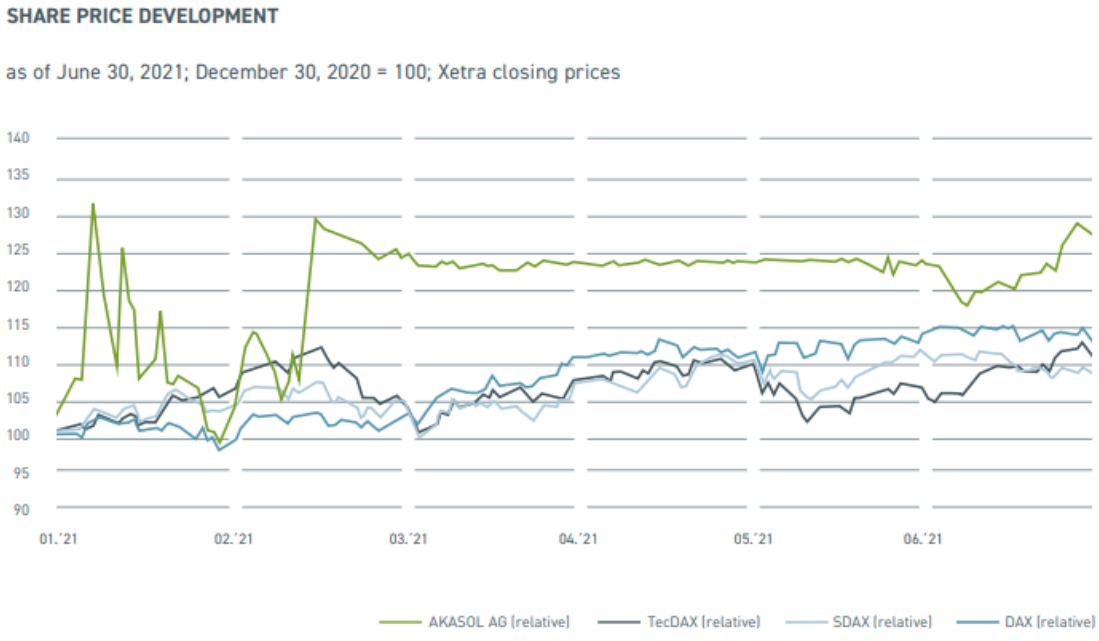

Figure 9. Akasol AG share price development, Akasol AG H1 2021 report

As we can see from the chart above, the share price has remained mostly stable at the initial offer price in the first half of 2021 and closed at €123.60 per share as of June 30th, 2021, which was 27% above the December 30th, 2020, price of €97.15per share. During this same time period, the Akasol share has outperformed the DAX, MDAX, SDAX and TecDAX by 13.2%, 10.6%, 8.5% and 10.9%, respectively. Market capitalization as of June 30th, 2021, amounted to €749.2 million. On February 10th, 2022, Borg Warner completed the registration of a merger squeeze resulting in 100% ownership of Akasol AG.

4.2.2 Historical Financials

The below table shows historical financials from FY16 to LTM Jun-21. Since Akasol has been taken private in June 2021, the latest available proxy for full year 2021 financials is LTM Jun-21. Even though revenues have been growing at a 50% CAGR from 2016 to LTM Jun-21, the business has been mostly loss-making so far. Reported EBITDA decreased from €2m in FY16 to -€6.3m in LTM Jun-21 and EBIT decreased from €1.3m to €12.2m during the same time period. A major reason for the low historic profitability of the business is the continuous investment in the establishment of company structures and improvement of internal processes. Akasol Management has made strong efforts during the last years in order to lay the foundation for serial production of lithium-ion battery systems. Since this effort is connected to various one-off cost events and initially higher investments in personnel costs, machinery and company structure, historic company profitability is less representative of future performance. Hence, this analysis shall focus on the most recent business developments.

Akasol P&L	2016A	2017A	2018A	2019A	2020A	LTM Jun-21
Revenues Total	**13.4**	**14.5**	**21.6**	**47.6**	**68.3**	**100.8**
% growth	n/a	7.7%	49.1%	120.7%	43.4%	47.5%
COGS	-6.2	-6.9	-12.5	-36.9	-53.7	-74.8
% growth	n/a	10.8%	81.3%	195.7%	45.7%	39.2%
% sales	46.2%	47.5%	57.8%	77.4%	78.6%	74.2%
Gross Profit	7.6	8.6	13.0	16.9	20.2	26.0
% growth	n/a	13.8%	50.6%	30.2%	20.0%	28.5%
% sales	56.2%	59.4%	60.0%	35.4%	29.6%	25.8%
Personnel costs	-3.8	-4.8	-7.0	-13.5	-19.1	-22.6
% growth	n/a	27.0%	45.5%	92.5%	40.8%	18.7%
% sales	28.3%	33.4%	32.6%	28.4%	27.9%	22.5%
Other operating expenses	-1.9	-2.6	-6.7	-6.8	-10.0	-9.7
% growth	n/a	35.5%	160.7%	1.6%	48.7%	-3.4%
% sales	14.0%	17.6%	30.8%	14.2%	14.7%	9.6%
Other operating income	0.1	0.5	0.6	0.3	0.6	
% growth	n/a	382.9%	9.5%	-52.3%	103.9%	-100.0%
% sales	0.8%	3.7%	2.7%	0.6%	0.8%	0.0%
SG&A	-5.6	-6.9	-13.1	-20.0	-28.5	-32.3
% sales	41.5%	47.3%	60.7%	42.0%	41.8%	32.1%
Reported EBITDA	2.0	1.7	-0.2	-3.2	-8.3	-6.3
% growth	n/a	-11.5%	-108.7%	1987.4%	163.6%	-23.7%
% sales	14.7%	12.0%	-0.7%	-6.6%	-12.2%	-6.3%
Depreciation and Amortization	-0.6	-0.6	-0.8	-2.1	-3.8	-5.8
% sales	4.8%	4.3%	3.8%	4.5%	5.6%	5.8%
EBIT	1.3	1.1	-1.0	-5.3	-12.1	-12.2
% sales	9.9%	7.7%	-4.5%	-11.1%	-17.7%	-12.1%

Table 7. Akasol AG historic P&L, Akasol AG annual reports, CapitalIQ data

Even though FY20 revenues had been affected by Covid-19 lockdowns and hence reduced customer orders lasting through and including July 2020, the company has managed to increase revenues by 43% year-on-year mainly due to rapid realization of catch-up effects towards the second half of 2020. This was supported by adequate inventory production and stock build-up. Despite volatile market conditions due to Covid-19, cumulative total customer orders under framework agreements stood at around €2 billion at the end of FY20 for the period through to 2027.

COGS have ranged between 40-60% of sales in FY16-FY18 and then rose to 70-80% in FY19-LTM Jun-21. The sudden increase in the cost of material ratio from 57.8% in FY18 to 77.4% in FY19 is largely driven by a non-realization of expected price reductions for upstream suppliers in FY19. Furthermore, FY19 inventories of finished goods and work in progress increased by €2.6m mainly due to the establishment of safety stock for the products of a major customer and due to delivery postponements. SG&A accounted for c. 40% of revenues historically, except for 2018, and grew roughly in line with a revenue CAGR of 50% FY16A-

LTM Jun-21. This was mainly driven by one-time expenses in personnel affairs, such as the support of external consultants in organizational and process development of the company, but also the establishment of a human resources department required for further company growth. Other operating expenses grew at a 39% CAGR from FY16-LTM Jun-21 and include legal and consulting costs, among others for the development of a new location in the USA in 2019, advertising and trade fair costs as well as freight costs. The strong year-on-year growth of c. 50% in operating expenses from FY19-FY20 was driven by an increase in space costs (i.e., necessary expenses of launching and running a logistics hub).

As we can derive from the analysis above, Akasol AG has invested heavily in building up important raw material sourcing structures, logistics hubs, and acquiring necessary personnel for future company growth. Management deems most of these costs as non-recurring and hence expects to be able to reduce costs strongly for the period of FY22E-FY26E.

Since the business is still in a start-up phase, requiring high investment in company structures, it is less sensible to look at historic cash conversion. Net working capital has doubled every year between FY17-FY19 and then only increased slightly between FY19-FY20 and FY20-LTM Jun-21. Inventories and trade receivables increased on the back of revenue growth, while the increase in payables is mainly driven by outstanding invoices for construction work of gigafactories and production sites. In fact, the company recorded negative operating cash flow of -€10.1m and -€25.5m in FY18 and FY19, respectively, which then turned positive at €10m and €13.4m in FY20 and LTM Jun-21, respectively. This was mainly driven by a strong decline in inventory change and moderate increases in trade receivables. Hence, below Trade Working Capital items hint at stabilizing net working capital needs.

Akasol Cash Flow Statement	2016A	2017A	2018A	2019A	2020A	LTM Jun-21
Net Working Capital						
Inventories	3.9	5.3	10.6	27.8	29.4	33.5
Invenory change	n/a	-1.4	-5.3	-17.2	-1.6	-4.0
% sales	29.0%	36.9%	49.3%	58.4%	43.1%	33.2%
Trade receivables	2.1	2.1	7.6	15.2	21.1	16.9
Trade receivables change	n/a	0.0	-5.5	-7.6	-5.9	4.2
% sales	15.4%	14.3%	35.0%	31.9%	30.8%	16.7%
Trade payables	0.7	1.4	4.1	10.4	16.1	10.4
Trade payables change	n/a	0.6	2.7	6.3	5.6	-5.6
% COGS	12.0%	19.8%	32.8%	28.3%	29.9%	14.0%
Trade Working Capital	**5.2**	**6.0**	**14.1**	**32.6**	**34.4**	**39.9**
% sales	38.8%	41.7%	65.3%	68.4%	50.4%	39.6%

Table 8. Akasol AG historic Cash Flow Statement, Akasol AG annual reports, CapitalIQ data

Capex spending increased heavily from FY19 onwards. In FY19 and FY20 only, the company invested roughly €70m in new property, plant and equipment. The investment in PP&E is

related to the construction of Gigafactory 1 and 2 as well as the expansion of production capacity at all serial production locations within the framework of setting up the new company headquarters in Darmstadt.

4.2.3 H1 FY21 performance

Revenues increased from €18.2m in the first six months of FY20 to €45.8m in the first six months of FY21, reflecting a 151% revenue increase. The positive sales development was supported by stable call-offs by Akasol customers. This was a strong performance considering the backdrop of the noticeable effects of the Covid-19 pandemic (i.e., shortage in the availability of materials such as electronics and steel). As revenue performance indicates, Akasol AG has managed to maintain security of supply for key materials in the first six months of FY21. The company recorded negative operating profit (EBIT) of -€12.1m in the first half of FY21 versus €7m in the previous year, mainly driven by further investment to support revenue growth, but also due to one-time expenses of around €7.5m related to the takeover of BorgWarner. Cost of materials increased from €16.0 million in the first half of FY20 to €35.4 million in the first half of FY21, yet the cost of materials ratio remained broadly the same. The personnel expense ratio had declined from 39.5% to 26.2%.

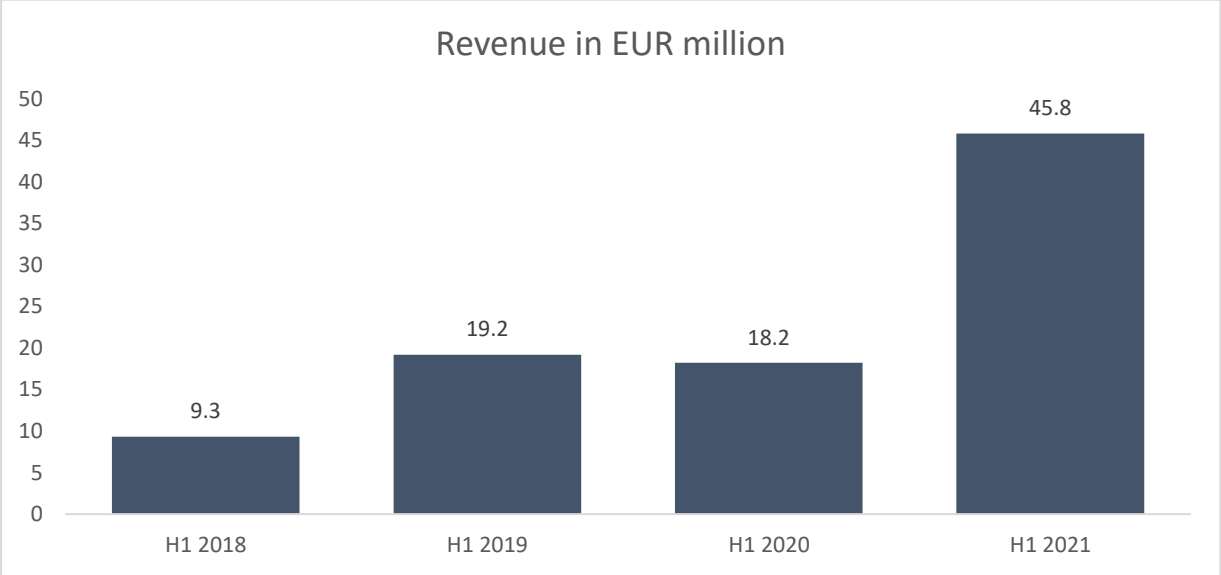

Figure 10. Akasol AG half year 2021 revenue performance, Akasol AG H1 2021 report

5 Valuation

Firstly, we will forecast financial statements of the acquiror and target on a standalone basis, including profit and loss statement, balance sheet and cash flow statement. Each company section will also include a calculation on standalone WACC. Secondly, the forecasted financial statements will be merged in order to establish our merged NewCo, including potential synergies. In order to determine an implied premium for our target company we first need to calculate the net present value of our assumed synergies, using merged company WACC. Then we will run a discounted cash flow analysis first on the target in order to provide an estimate for target EV and implied value per share excluding and including synergies, which will finally lead us to an estimate for target share price premium. Lastly, we will run a DCF valuation on the combined company including synergies in order to analyse a potential accretion or dilution on merged company level. The following section starts with projections of future revenue as well as the development of major cost positions, then moving on to net working capital and capex, of each company separately.

5.1 Varta AG standalone projections

5.1.1 Revenues

Company revenue growth is being largely driven by an increasing consumer demand for true-wireless Bluetooth headsets, a stable demand for mission-critical hearing-aid applications as well as consumer batteries and innovative energy storage. According to the historical financial analysis above, we know that Varta AG has been investing heavily in the expansion of production capacity for lithium-ion coin cells in order to meet ever increasing consumer demand. End of FY21, the company had completed an investment program which has started in FY19 and increasing production capacity of lithium-ion coin cells to more than 200m per year. Since a few of Varta's largest customers manufacture their products in Asia, and customers have suffered Covid-19 related production stops, Varta's Entertainment and Industrial segment experienced a revenue decline in FY21. Even though the first half of FY22 was still marked by local lockdowns and supply-chain constraints for some of Varta's customers as well as strongly increasing raw material prices, growth is expected to rebound towards the second half of FY22. According to management and industry experts, consumer demand for true-wireless headsets has remained strong, even during the Covid-19 crisis and Covid-19 restrictions in China are expected to ease towards the second half of FY22. While raw material and energy prices are expected to remain high as long as the Ukraine war endures, lock-down induced supply-chain constraints are likely to be reduced to a minimum. Due to the

above-mentioned impact on business performance in the first half of FY22, overall FY22 revenue growth in Entertainment and Industrial is forecasted to remain flat with customer orders and related revenue growth recovering from FY23 onwards. Varta's micro battery segment for hearing aid applications has remained remarkably resilient in Covid-19 impacted FY20-21, even growing by 17% year-on-year. Due to its global, leading market position in the hearing aid segment as well as the mission critical nature of the products, revenues are expected to grow at a high single-digit growth rate, roughly in line with pre-covid levels. Power packs and V4 Drive technology are smaller, very new revenue segments, of which the former is expected to grow at a 3-year historic average and the latter will be commercialized from FY23 onwards, hence growth rates are initially higher and then flattening out towards the end of the forecast period.

			Projections						
Varta Profit & Loss Statement	**2020A**	**2021A**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**CAGR 16-21**	**CAGR 22E-26E**
Revenue									
Lithium-ion Solutions & Microbatteries	508.1	514.3	541.1	600.3	681.3	774.8	882.1	21.5%	13.0%
% growth	48.6%	1.2%	5.2%	10.9%	13.5%	13.7%	13.8%		
Microbatteries	458.9	452.3	466.7	509.5	571.2	641.0	719.9	20.6%	11.4%
% growth	52%	-1%	3%	9%	12%	12%	12%		
Healthcare	153.8	180.6	195.0	210.7	227.5	245.7	265.4	9.7%	8.0%
% growth	2%	17%	8%	8%	8%	8%	8%		
Entertainment & Industrial	305.1	271.7	271.7	298.9	343.7	395.3	454.5	33.7%	13.7%
% growth	103%	-11%	0%	10%	15%	15%	15%		
Power Packs	49.2	62.0	74.4	89.3	107.1	128.6	154.3	29.1%	20.0%
% growth	21%	26%	20%	20%	20%	20%	20%		
V4 Drive	0.0	0.0	0.0	1.5	3.0	5.3	7.9		
% growth	n.a.	n.a.	n.a.	n.a.	100%	75%	50%		
Household Batteries	361.1	388.6	419.6	452.6	486.5	524.4	566.9	86.3%	7.8%
% growth	1678.8%	7.6%	8.0%	7.9%	7.5%	7.8%	8.1%		
Consumer Batteries	329.1	342.3	359.4	377.4	396.3	416.1	436.9		
% growth	13%	4%	5%	5%	5%	5%	5%		
Energy Storage	32	46.3	60.2	75.2	90.3	108.3	130.0	21.8%	21.2%
% growth	58%	45%	30%	25%	20%	20%	20%		
Revenues Total	**869.5**	**902.9**	**960.8**	**1052.9**	**1167.9**	**1299.2**	**1448.9**	**33.4%**	**10.8%**
% growth	139.7%	3.8%	6.4%	9.6%	10.9%	11.2%	11.5%		

Table 9. Varta AG revenue forecasts, own calculation

The household battery segment, which includes the recently acquired Varta consumer batteries business and the energy storage systems segment, is largely driven by a moderate mid-single-digit growth in consumer batteries and a very high demand for home energy storage systems. Revenue growth in energy storage systems was not impacted by Covid-19, growing at rates of up to c. 50% per annum in FY20 and FY21. This segment also recorded 15% revenue growth in the first half of FY22 compared to FY21. Considering raw material and energy price uncertainty we expect demand for home energy storage systems to remain strong towards the second half of FY22 and throughout the entire forecast period.

5.1.2 Operating costs

Operating costs are largely comprised of raw materials and personnel expenses. Both of these cost positions are driven by the ongoing business expansion and further revenue growth. Cost

of raw materials and supplies as well as other operating expense on the other hand, are also driven by external factors such as raw material price increases. Since the outbreak of the Ukraine-Russia war in the first quarter of FY22, key raw material prices have spiked and remained at an elevated level since then. Covid-19 lockdowns in key production areas had previously already led to supply-chain constraints which met an increased demand in lithium-ion batteries, driving prices up. While we expect prices for key raw materials to remain at an elevated level at least until mid of FY23E, Varta AG has been successfully passing on these elevated prices to customers, although with a time-lag. Even though the cost of material ratio has remained broadly the same in FY20 and FY21, we assume a slight increase in FY22 versus the prior year, considering elevated raw material and energy prices. For the remaining forecast years, the cost of material ratio is assumed to be recovering towards pre-Covid-19 levels.

Personnel costs declined by 3.6% in FY21, mainly driven by the elimination of restructuring expenses related to the acquisition of Varta consumer in FY20. In FY22 we assume first effects of personnel cost synergy realization from the merger between Varta AG and Varta Consumer. Many administrative and back-office functions became redundant due to the merger and are assumed to be streamlined during the integration of Varta consumer. This brings personnel cost as a percentage of sales down to 25%, which is the working assumption for projection years FY23E to FY26E.

Other operating expenses remain at an elevated 15% of sales, slightly above FY21, but in line with a 6-year historic average as main other operating expenses are not expected to reduce in the near future. Ongoing patent disputes leading to higher legal, auditing and consultancy fees are expected to endure during the forecast period and cost of energy as well as freight costs are assumed to remain high considering the current increase in raw material and energy prices. Other operating income had increased by 92% from FY20 to FY21 mainly due to income from subsidies and government grants related to the Important Project of Common European Interest (IPCEI) in the area of battery technology. The government stimulus had started in FY20 and is assumed to remain elevated until FY23, thereafter declining towards pre-stimulus percentage of sales operating income.

While gross profit margin is assumed to recover towards the end of the forecast period due to a likely resolution or better mitigation of the Ukraine-Russia conflict, we expect SG&A cost to grow at an elevated level since the company is still investing in the expansion of production capacity, which will eventually require a greater workforce. This will lead to a slight decline in EBITDA margin until the end of the forecast period.

			Projections						
Varta Profit & Loss Statement	**2020A**	**2021A**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**CAGR 16-21**	**CAGR 22E-26E**
COGS	**-315.5**	**-333.2**	**-365.1**	**-389.6**	**-420.4**	**-454.7**	**-507.1**	**33.5%**	**8.6%**
% growth	155.4%	5.6%	9.6%	6.7%	7.9%	8.2%	11.5%		
% sales	36.3%	36.9%	38.0%	37.0%	36.0%	35.0%	35.0%		
Gross Profit	**554.8**	**590.4**	**604.7**	**672.3**	**756.4**	**853.5**	**950.8**	**35.9%**	**12.0%**
% growth	127.2%	6.4%	2.4%	11.2%	12.5%	12.8%	11.4%		
% sales	63.8%	65.4%	62.9%	63.9%	64.8%	65.7%	65.6%		
Personnel costs	-257.1	-247.8	-240.4	-263.4	-292.2	-325.0	-362.5	26.4%	10.8%
% growth	124.7%	-3.6%	-3.0%	9.6%	10.9%	11.2%	11.5%		
% sales	29.6%	27.4%	25.0%	25.0%	25.0%	25.0%	25.0%		
Other operating expenses	-122.5	-132.5	-144.1	-157.9	-175.2	-194.9	-217.3	30.6%	10.8%
% growth	167.2%	8.1%	8.8%	9.6%	10.9%	11.2%	11.5%		
% sales	14.1%	14.7%	15.0%	15.0%	15.0%	15.0%	15.0%		
Other operating income	37.4	72.0	76.9	63.2	58.4	52.0	43.5	55.3%	-13.3%
% growth	381.8%	92.6%	6.7%	-17.8%	-7.6%	-11.0%	-16.4%		
% sales	4.3%	8.0%	8%	6%	5%	4%	3%		
SG&A	**-342.2**	**-308.2**	**-307.6**	**-358.2**	**-409.0**	**-468.0**	**-536.4**	**24.4%**	**14.9%**
% growth	124.4%	-9.9%	-0.2%	16.4%	14.2%	14.4%	14.6%		
% sales	39.4%	34.1%	32.0%	34.0%	35.0%	36.0%	37.0%		
Reported EBITDA	**212.5**	**282.2**	**297.0**	**314.1**	**347.5**	**385.5**	**414.4**	**64.0%**	**8.7%**
% growth	132.0%	32.8%	5.3%	5.8%	10.6%	11.0%	7.5%		
% sales	24.4%	31.3%	30.9%	29.8%	29.8%	29.7%	28.6%		

Table 10. Varta AG operating expenses forecast, own calculation

5.1.3 Capex, Depreciation and Net Working Capital forecast

Capex spending has been unusually high from FY19A to FY21A due to the acquisition of Varta consumer batteries in FY20 and the investment program aimed at expanding production capacities for coin-cell lithium-ion batteries, which has started in FY19 and was largely concluded in FY21. We assume continued investment in production capacities during the forecast period, as expected by management, yet on a more moderate level of 15% of sales in FY22 as opposed to the last three historic years averaging roughly 30% of sales. Even though the investment program has provided a base for mass production of con-cell lithium-ion batteries, we expect further investments in capacity expansion at existing facilities as well as investments in new facilities due to increased demand for true wireless headsets. Furthermore, we assume investment in the development of new battery products such as the V4 Drive and batteries for non-commercial as well as commercial vehicles from FY23 onwards, increasing capex as percentage of sales to 17%.

Depreciation is being forecasted as a percentage of the Property Plant and Equipment beginning balance of each respective forecast year. This percentage is in line with the last historic year and amounts to roughly 8.9% of Property Plant and Equipment. We do note that Property Plant and Equipment is assumed to experience a strong increase during the forecast period due to a comparably slow depreciation of existing PP&E compared to very high capex spending in new PP&E. Please refer to the Appendix for a more detailed overview of PP&E forecast.

Trade working capital increased strongly since FY20 due to the acquisition of Varta consumer batteries but also due to stock build up in order to ensure uninterrupted production and delivery to customers as well as granting slightly more favourable payment conditions to its major

customers which were suffering from Covid-19 lockdowns, supply chain disruptions and a more restrained consumer behaviour. Accounts payables days had also reduced from FY20 to FY21 in order to ensure raw material delivery of a few struggling suppliers. These slightly more unfavourable trade working capital conditions are assumed to last through FY22E and FY23E and then achieving yearly improvements in inventory days, accounts receivable days as well as payable days due to the implementation of net working capital improvement measures.

5.2 Varta AG WACC

For the cost of equity of Varta AG's WACC calculation we took the German ten-year government bond yield from Bloomberg as the risk-free rate, an equity risk premium for Germany provided by Aswath Damodaran's webpage from NYU stern and our 5y monthly beta taken from Thomson Reuters Eikon. This led to a cost of equity of 7.38%. Since there was no information provided in Varta AG's annual report on cost of debt, we approximated an interest rate based on average interest paid over the last two historic financial years. Considering the higher risk incurred due to increasing raw material prices, increased inflation and Covid-19 impact, we applied a premium to this rate and fixed cost of debt at 4.75%. The tax rate of 30% used Varta AG's marginal tax rate and German corporate income tax. Assuming the capital structure of 70% equity and 30% debt will remain target, we will arrive at a WACC of 6.17%.

5.3 Akasol AG standalone projections

5.3.1 Revenues

Recording the company overview section above, we know that Akasol has been investing in necessary company structures and processes to support future company growth during the historical period under analysis. The company has been preparing to transition from a start-up and R&D driven business to a profitable and cash generative business. This transition shall be the focus of our profit and loss forecast.

Akasol AG has been growing at a historic CAGR of 50% per annum between 2016 and LTM Jun-21. This growth was largely driven by the acquisition of new customers but also by the roll-out of new product lines to an existing, smaller customer base, geographically focused on the Nordics region. Being one of the largest Europe-based and headquartered producers of lithium-ion battery systems for commercial vehicles, Akasol AG is considered to be a strong alternative to the many APAC-based battery giants. Especially considering its strong focus on commercial vehicle batteries as well as proximity to many of Europe's large automotive manufacturers, Akasol AG brings a competitive advantage versus larger competitors. Considering major battery producers in China are suffering Covid-19 induced production stops, European

automotive manufacturers are assumed to divert to local battery manufacturers for viable alternatives. Hence, we model a growth case that exceeds historic revenue growth of 50% per annum especially in the first few forecast years and will then revert to historic average towards the end of the forecast period. Additionally, Akasol AG had closed framework agreements in FY21 with a major Belgian manufacturer of buses and commercial vehicles with a total volume in the mid-double-digit million-euro range as well as further contracts Goldhofer AG, a manufacturer of vehicles for special transport and KTEG, a manufacturer of excavators. At first glance this seems like a very optimistic business plan, but considering available capacity at the two gigafactories, customer demand and strong competitive positioning in the commercial-vehicle niche, we deem this revenue growth to be achievable.

			Projections							
Akasol Profit & Loss Statement	**2020A**	**LTM Jun-21**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**CAGR 16-21**	**CAGR 16-20**	**CAGR 22E-26E**
Revenues Total	**68.3**	**100.8**	**161.3**	**254.8**	**395.0**	**592.5**	**859.1**	49.6%	50.1%	51.9%
% growth	43.4%	47.5%	60.0%	58.0%	55.0%	50.0%	45.0%			
COGS	-53.7	-74.8	-112.9	-152.9	-197.5	-296.2	-429.5	64.5%	71.5%	39.7%
% growth	45.7%	39.2%	50.9%	35.4%	29.2%	50.0%	45.0%			
% sales	78.6%	74.2%	70.0%	60.0%	50.0%	50.0%	50.0%			
Gross Profit	20.2	26.0	55.4	108.9	204.5	303.2	436.5	28.0%	27.9%	67.6%
% growth	20.0%	28.5%	113.0%	96.7%	87.7%	48.3%	44.0%			
% sales	29.6%	25.8%	34.3%	42.7%	51.8%	51.2%	50.8%			
Personnel costs	-19.1	-22.6	-32.3	-51.0	-79.0	-118.5	-171.8	42.8%	49.6%	51.9%
% growth	40.8%	18.7%	42.5%	58.0%	55.0%	50.0%	45.0%			
% sales	27.9%	22.5%	20.0%	20.0%	20.0%	20.0%	20.0%			
Other operating expenses	-10.0	-9.7	-16.1	-25.5	-39.5	-59.2	-85.9	38.8%	52.0%	51.9%
% growth	48.7%	-3.4%	66.3%	58.0%	55.0%	50.0%	45.0%			
% sales	14.7%	9.6%	10.0%	10.0%	10.0%	10.0%	10.0%			
Other operating income	0.6		0.8	1.2	1.9	2.8	4.1			
% growth	103.9%	-100.0%	n/a	58.0%	55.0%	50.0%	45.0%			
% sales	0.8%	0.0%	0.5%	0.5%	0.5%	0.5%	0.5%			
SG&A	-28.5	-32.3	-47.6	-75.2	-116.6	-174.9	-253.6	42.1%	50.4%	
% sales	41.8%	32.1%	29.5%	29.5%	29.5%	29.5%	29.5%			
Reported EBITDA	-8.3	-6.3	7.8	33.7	87.9	128.3	182.9	-226%	n/a	
% growth	-163.6%	23.7%	222.5%	333.9%	160.8%	46.0%	42.5%			
% sales	-12.2%	-6.3%	4.8%	13.2%	22.2%	21.7%	21.3%			

Table 11. Akasol AG P&L forecast, own calculation

5.3.2 Operating costs

Operating expenses had outweighed revenues from FY18-LTM Jun-21 for reasons analysed in the company overview section. This trend is assumed to invert over the forecast period.

We know that the cost of material ratio had increased strongly due to a non-realization of price reductions of major upstream suppliers. This ratio is assumed to remain high in FY22E given current raw material price increases. Nonetheless, the company is expected to increase procurement efforts and apply a multi sourcing strategy during the forecast period. This will reduce dependence on above-mentioned upstream suppliers and allow Akasol AG to negotiate favourable procurement conditions. Additionally, increased raw material prices are assumed to be passed on to customers in a timelier manner, driven by regular discussions with key customers.

In order to maintain the high revenue growth rates, Akasol AG will have to invest in further capacity expansion at existing gigafactories or new production facilities. This will lead to a constant increase in variable personnel costs, yet important fixed personnel for central, administrative and R&D functions have largely been build up to a sustainable level in recent years. As of June 2021, roughly 50% of employees are related to research and development as well as administrative functions. Being a very R&D-centric company that relies on highly skilled talent, Akasol AG will also have to acquire new talent during the forecast period, but at a lower rate compared to historic levels. Baring this in mind, Akasol AG will have achieved a strong degree of operating leverage, allowing the company to achieve continuously high revenue rates without having to increase headcount at historic levels. Hence, we forecast personnel costs at a lower rate of 20% of sales going forward.

Other operating expenses mainly include legal and consulting costs, costs of space as well as cost for transport and packaging. These are assumed to remain roughly in line with LTM Jun-21 level. These had historically increased due to the establishment of a logistics hub, which was a one-off investment unlikely to repeat during the forecast period.

5.3.3 Capex, Depreciation and Net working Capital

Since Akasol AG did not generate positive cash flows historically, the company had to finance the construction of the two gigafactories as well as capacity expansion in existing facilities through the issuance of long-term debt. In order to support future revenue growth, we assume Akasol AG to issue another €100m of long-term debt via a capex facility, leading to a FY22E debt to equity ratio of 70% vs 30%, respectively. This shall support further capacity expansion, especially towards the fourth quarter of FY22, but also during the remaining forecast years. Hence, capex is assumed to remain high at 30% of sales in FY22 and then reduce to a moderate 6% of sales, based on the premise that growth capex spending has been sufficient to support targeted business plan revenue growth.

Depreciation is again forecasted as a percentage of the PP&E beginning balance of each respective forecast year. This percentage is in line with the latest historical financial year. During the forecast period, depreciation is assumed to average 32% of capex spending.

Inventory days are conservatively assumed to be in line with LTM Jun-21 for the forecast years FY22E and FY23E, which still reflect higher stock levels in order to assure security of production and delivery to customers and will then slightly reduce towards the end of the forecast period, reflecting a reduction in safety stock. Trade receivables decreased strongly from FY20 to LTM-Jun-21. Considering that LTM Jun-21 numbers might not fully reflect trade

receivable swings of a given full year and looking at historic trade working capital days of above 100, we assume trade working capital days to increase from roughly 60 days in LTM Jun-21 to 80 days towards the end of the forecast period. Assuming Nordic customers are less impacted by Covid-19 lockdowns and hence experience normal business activity, trade receivables are still assumed to be slightly improved versus historical levels. Trade payables had also reduced strongly as of LTM Jun-21 compared to December 2020 and are unlikely to be reflective of normal business activity. With trade payable days of above 100 historically, we conservatively assume a slow recovery during the forecast period.

5.4 Akasol AG WACC

In order to calculate discounted cash flows for Akasol AG we will first need to calculate the weighted average cost of capital.

For the cost of equity of Akasol AG's WACC calculation we also used the German ten-year government bond yield from Bloomberg as well as the German equity risk premium provided by Aswath Damodaran's webpage. Since the company has been taken private in June 2021, we must derive our beta from a comparable peer group.

Company name	Beta	Debt %	Equity %	Tax rate	Unlevered beta
Romeo Power	1.35	11%	89%	27.0%	1.23
CATL	1.22	58%	42%	25.0%	0.60
Panasonic	1.21	32%	68%	30.0%	0.91
BYD	0.95	45%	55%	25.0%	0.59
Samsung SDI	0.89	24%	76%	25.0%	0.72
SK innovation	1.26	53%	47%	25.0%	0.68
Ultralife corporation	1.30	16%	84%	27.0%	1.15
Average industry beta					0.84

Table 12. Akasol AG WACC peer group, Thomson Reuters Eikon, own calculation

We therefore retrieved company betas as well as the capital structure of the above per group from Thomson Reuters Eikon and the tax rates for each respective headquarter country from Aswath Damodaran's webpage. Afterwards we unlevered each beta and arrived at an unlevered industry beta of 0.84. We then re-levered this beta at an assumed target capital structure of 70% equity and 30% debt, which is in line with the capital structure at the end of the forecast period. This gave us a beta of 1.0 and an overall cost of equity of 7.6%.

The cost of debt was equally approximated through the average interest rate on FY20 and FY21 long-term debt. Since the outcome of this calculation led to a very low cost of debt, not being reflective of the current market scenario, as well as future risk incurred by Akasol AG, we also applied a risk premium to this interest rate, locking cost of debt in at 4.75%. Assuming a target capital structure of 70% equity and 30% debt, we will arrive at a WACC of 6.32%.

Since Varta AG and Akasol AG both operate within the lithium-ion battery segment, similar weighted average cost of capital is not unrealistic. Hence the WACC of the merged company amounts to 6.24%.

5.5 Merged company

After having concluded the forecast analysis of each company on a standalone basis we will now look at the merged company. Our working assumption is that the merger will be completed as of 1st of September 2022 based on a share price of €64.2 per share for the acquirer Varta AG and a last available share price of €123.6 as of 30th June 2021 for the target Akasol AG. Realization of synergies is assumed to commence from FY23E onwards, since the acquisition will be completed towards the end of FY22. The acquisition of Akasol AG is assumed to be financed by 40% equity and 60% debt, including refinancing of the target net debt of €121.4m. For further structuring assumptions please refer to exhibit 1 of the appendix.

5.5.1 Synergies

In order to build new pro-forma financial statements, we will first have to estimate potential synergies. Varta AG and Akasol AG essentially serve two entirely different end markets, yet both produce lithium-ion batteries based on similar technology. As outlined in the literature review at the beginning of this paper, most common synergies are being generated on revenue or cost level. Since Varta AG has merely started investing in R&D of larger lithium-ion batteries for the e-mobility market, but hasn't managed to commercialize newly developed products, the newly merged company is less likely to generate revenue synergies in any foreseeable future. This would require sharing similar customers in the same end-markets, eventually allowing to sell existing products to newly acquired customers from the acquisition.

On the other hand, we see very strong synergy potential in joint procurement efforts, considering key raw materials and supplies are essentially the same between a coin-cell lithium-ion battery and a larger lithium-ion battery system for commercial or non-commercial vehicles. In order to estimate cost synergies, we applied a bottom-up approach in which we assumed an increased ability to bundle raw material orders, allowing to order in higher volumes and eventually increase pricing power towards major suppliers. In our financial model, we expressed this synergy as a slight decline in COGS as percentage of sales versus the FY21 cost of material ratio. Holding this lower ratio constant throughout the remaining forecast years, this will allow us to derive absolute synergy values for each respective year, amounting to €93.7m in total. Looking at gross profit in the below table, this will eventually stabilize gross profit margin at roughly 60% of sales towards the end of the forecast period. The run rate of above-

mentioned synergies amounts to 100% since these procurement synergies are expected to materialize fully in each respective year.

The merged company is also assumed to incur restructuring costs of €5m in FY22F and €10m until 2025F. These costs largely refer to consultancy costs related to the integration of Akasol AG into Varta's existing company structures.

Combined Company Financials	2020A	2021A	2022F	2023F	2024F	2025F	2026F
Income statement							
Sales							
Varta AG	870.3	923.6	969.8	1,061.9	1,176.9	1,308.2	1,457.9
Akasol AG	74.0	100.8	168.3	261.8	402.0	599.5	866.1
Synergies	0.0	0.0		0.0	0.0	0.0	0.0
NewCo sales	**944.3**	**1,024.4**	**1,138.0**	**1,323.7**	**1,578.9**	**1,907.6**	**2,324.0**
Growth rate		8.5%	11.1%	16.3%	19.3%	20.8%	21.8%
COGS w/o synergies	(369.3)	(408.0)	(478.0)	(547.7)	(629.6)	(763.9)	(922.2)
Synergy creation				33.8	16.6	23.3	19.9
% sales	39%	40%		41.4%	39.9%	40.0%	39.7%
COGS incl. Synergies				(513.9)	(613.0)	(740.6)	(902.3)
% sales				39%	39%	39%	39%
Gross profit	**575.0**	**616.4**	**660.1**	**809.8**	**965.9**	**1,167.0**	**1,421.7**
Margin	0.6	60.2%	58.0%	61.2%	61.2%	61.2%	61.2%
SG&A	(370.8)	(340.6)	(355.2)	(433.4)	(525.6)	(642.9)	(790.0)
Research and development	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating costs related to restructuring	0.0	0.0	(5.0)	(10.0)	(10.0)	(10.0)	0.0
EBITDA	**204.2**	**275.9**	**299.8**	**366.4**	**430.3**	**514.1**	**631.7**
Margin	21.6%	26.9%	26.3%	27.7%	27.3%	27.0%	27.2%

Table 13. Combined company P&L incl. synergies, own calculation

In addition to the above cost synergies, we also assume a total of €20m of capex synergies, distributed equally over the forecast years 2023F to 2026F. Considering both companies run a very R&D-driven business model and Varta AG has initiated first R&D efforts for the development of larger lithium-ion batteries for the automotive sector, capex synergies are very likely to be achieved. Varta AG could for instance profit from Akasol AG's R&D expertise in large lithium-ion batteries, reducing the need of hiring further R&D personnel and roll out its own pilot products on existing production facilities of Akasol AG, instead of investing in new production facilities. In our financial model, capex synergies are being reflected in the calculation of the merged company's PP&E balance and then feed via reduced depreciation into our NewCo profit and loss statement.

Since we have an estimate of potential synergies being generated over the forecast period, we can now calculate the net present value of our synergies. We do this by discounting them with the weighted average cost of capital of our merged company of 6.21%. Our merged company WACC is a weighted average of both, the Varta AG WACC and Akasol AG WACC. The according weights are being determined by calculating each company's share of FY26 combined EBITDA excluding synergies. This share is then being applied to each company's WACC on a standalone basis and summed up to derive a new merged company WACC. With

an assumed long-term growth rate of 1.5% and the above-mentioned WACC, we arrive at a total NPV of assumed synergies amounting to €392.2m Please refer to exhibit 13 and 9 of the appendix for a merged WACC overview as well as an overview of synergy NPV calculation.

5.6 DCF Akasol AG

Before we calculate our discounted cash flows, we must note again that synergy realization is assumed to occur from FY23 onwards. Usually, we would forecast a minimum of five years in a DCF valuation, but since the share price premium will be based on potentially realized synergies, we will do the discounted cash flow calculation based on FY23-FY26.

We will start by discounting cash flows using the standalone WACC of 6.32% which we calculated previously. This leads us to a NPV of free cash flows of €75.9m and a NPV of the terminal value of €673.8m. The sum of these two figures equates to €749.7m, which is our EV for Akasol AG. Now we can deduct net debt of €121.4m in order to arrive at our equity value of €628.2m. Dividing the equity value by of 6.1m diluted shares outstanding will lead us to an implied value per share of €103.6. This compares to a clean and standalone share price of €123.6 and reflects a discount of 16.2%.

In order to extend the analysis, we ran a sensitivity on this premium using different WACC and long-term growth rates as per below.

		Growth rate				
	-16.2%	0.50%	1.00%	1.50%	2.00%	2.50%
WACC	7.32%	-45.8%	-40.6%	-34.6%	-27.5%	-18.9%
	6.82%	-39.6%	-33.5%	-26.3%	-17.5%	-6.8%
	6.32%	-32.3%	-25.0%	-16.2%	-5.2%	8.5%
	5.82%	-23.7%	-14.7%	-3.7%	10.3%	28.5%
	5.32%	-13.3%	-2.1%	12.1%	30.5%	55.5%

Table 14. Akasol AG implied share price sensitivity, own calculation

If we now add our NPV of assumed synergies to the above equity value, we will arrive at an equity value including synergies of €1,021.1m. With 6.1m of dilutes shares outstanding this translates to an implied value per share including synergies of €168.4. This implies a premium of 36.3% versus the clean and standalone share price of €123.6. Even though we deem the realization of assumed procurement synergies as realistic, Akasol AG is still in a growth phase, requiring further investment to expand its position as a leading European player. In order to account for possible capex spending above the very moderate level assumed in our business plan, competitive pressures, as well as the risk that raw material prices will not decline in any foreseeable future, we would advise Varta AG to be cautious on the above premium of 36.3%.

Hence, we suggest applying a discount to the implied premium and enter negotiations with a maximum premium of 30%. Please refer to exhibit 10 of the Appendix for a more detailed DCF overview.

5.6.1 Accretion and Dilution Analysis

Having determined our share price premium of 30% we can now look at our NewCo accretion and dilution profile. Many mergers or acquisitions can be dilutive especially throughout the first years after the acquisition, driven by overall EBITDA margin dilution or restructuring expenses. As we can see from the table below this is exactly the case for acquisition scenario.

EPS accretion & dilution analysis	2022F	2023F	2024F	2025F	2026F
Proforma NewCo normalized cash net income	140.0	156.3	194.8	247.2	322.8
NewCo weighted average shares outstanding	46.8	46.8	46.8	46.8	46.8
NewCo Fully diluted Cash EPS	3.0	3.3	4.2	5.3	6.9
Varta AG standalone EPS	3.5	3.6	3.9	4.3	5.1
Accretion/dilution	-15.5%	-7.9%	6.7%	22.0%	35.7%

Table 15. Combined company EPS accretion & dilution analysis, own calculation

In FY22F and FY23F Varta AG's standalone EPS are above diluted cash EPS of the NewCo, driven by negative net income of Akasol AG in the first forecast year as well as a rather small increase in FY23F net income. With synergies taking effect and Akasol growth accelerating, earnings per share become accretive from FY24F onwards with up to 36.0% EPS accretion in FY26F.

5.7 DCF Merged Company

Lastly, we ran a discounted cash flow valuation on the merged company in order to analyse accretion on a merged company level. In order to do that we first calculated a weighted merged company WACC skewed towards Varta AG, which amounts to 6.21%. Using the merged company WACC and a long-term growth rate of 1.5% we arrive at an estimated EV of €3,875.2m and an equity value of €3,023.3m. Based on 46.8m shares outstanding we calculate an implied value per share of €64.6. If we now compare this to Varta AG's share price of €64.2m dated September 1st, 2022, from a merged company perspective, the acquisition of Akasol AG had an accretive effect of 0.66% on the old share price.

		Growth rate				
	0.66%	0.50%	1.00%	1.50%	2.00%	2.50%
WACC	7.21%	-36.1%	-29.8%	-22.4%	-13.6%	-2.9%
	6.71%	-28.4%	-20.9%	-12.0%	-1.1%	12.3%
	6.21%	-19.4%	-10.3%	0.7%	14.2%	31.5%
	5.71%	-8.6%	2.5%	16.3%	33.8%	56.7%
	5.21%	4.4%	18.3%	36.1%	59.3%	91.2%

Table 16. Combined company share price sensitivity, own calculation

Considering the acquiror only has €73.1m of cash on balance sheet as of FY21A, we advise Varta AG to issue new debt as well as equity in order to finance the acquisition. Since Varta has a very moderate amount of debt on balance sheet as of FY21, which is less than 30% of the capital structure, we suggest financing the acquisition with 60% debt and 40% equity as per below. Total debt fees amount to €10.9m and can be financed by excess cash on balance sheet.

Sources and uses (€m)			
Uses		Sources	
Target equity	974.0	Excess cash	10.9
Target net debt refinancing	121.4	Convertible bond issue	0.0
M&A fees (net of tax shield)	1.7	Debt issuance	705.9
Debt fees (net of tax shield)	3.7	Equity issuance	389.6
Convertible bond fees (net of tax shiel	0.0		
Equity fees (net of tax shield)	5.5		
Total uses	1,106.3	Total sources	1,106.3

Table 17. Transaction sources and uses, own calculation

Please refer to exhibit 1 of the Appendix for more detailed structuring assumptions and exhibit 11 for the DCF of the merged company.

6 Conclusion

The global lithium-ion battery industry is still being dominated by major Asian competitors such as CATL, LG Chem, Panasonic and BYD. With only 6% of global lithium-ion production capacity as of 2021, Europe contributes marginally to the growing e-mobility and portable devices end markets. European battery producers are investing strongly in the expansion of production through the construction of several gigafactories and are surely, yet slowly driving the establishment of a domestic battery market which is expected to compete with Asian competitors in the future. While many automotive OEMs created joint ventures in the past to secure battery supply for their electronic vehicles and less so through the acquisition of entire companies, we might expect increased M&A activity of lithium-ion producers or even OEMs in order to gain critical size versus larger competitors.

Our analysis focused on an intrinsic valuation of the target as well as of the merged company. Current global market conditions, including the Covid-19 pandemic, Russia-Ukraine war, increased inflation and an overall surge in raw material prices are likely to increase volatility of company stock prices. Hence, we deem multiple valuation as less viable for our analysis and opted to apply a purely intrinsic valuation approach.

Our DCF valuation excluding synergies on the target implied a discount of 16% to the last recorded share price of €123.6. Nonetheless, our analysis values potential synergies at a total net present value of €392.2m. This implies a maximum premium over the market price of 36.3%. We do advise Varta AG to take this premium analysis with caution, since standalone valuation excluding synergies lead to a 16% discount and the company is strongly exposed to the above-mentioned market risks. Finally, the last available share price is based on Jun-21 data as well as the closest available proxy for Akasol's full year 2021 financials are LTM Jun-21 figures. This information gab should also be discounted when negotiating a share price premium with Akasol AG.

Appendices

Exhibit 1. Merger Model Structuring Assumptions

Structuring Assumptions

Acquiror	Varta AG
Share price (€)	64.16
Currency	EUR
Number of diluted shares (m)	40.4
Diluted equity	2,593.5

Target	Akasol AG
Share price (€)	123.6
Offer premium	30.0%
Offer price	160.68
Currency	EUR
Number of diluted shares (m)	6.1
Diluted equity at offer price	974.0
Diluted equity at last recorded share price	749.2

Acquisition terms	
Advisory fees (on equity value)	0.25%
Equity portion of financing	389.6
Secondary issue	Yes
Equity issuance discount	5.00%
Equity fees	2.00%
Shares issued (m)	6.4
Debt portion of financing	584.4
Debt issuance fees	0.75%
Interest on acquisition debt	5.00%
Debt fee amortization period	5
Amortising debt	No
Refinance target net debt	Yes

MISC assumptions	
Target brand value in EUR	100.0
PP&E step up in EUR	10.0
PP&E step up depreciation period	10.0
Target marginal tax rate	30.0%
NewCo marginal tax rate	30.0%

Sources and uses			
Sources		**Uses**	
Excess cash	10.9	Target equity	974.0
Equity issuance	389.6	Target net debt refinancing	121.4
Debt issuance	705.9	M&A fees (net of tax shield)	1.7
		Debt fees (net of tax shield)	3.7
		Equity fees (net of tax shield)	5.5
Total sources	**1,106.3**	**Total uses**	**1,106.3**

Goodwill calculation	
Equity purchase price	974.0
Akasol AG book value	66.4
Existing goodwill	0.0
Brand value	100.0
PP&E step up	10.0
Deferred tax liability on step up	(33.0)
Fair value of identifiable book value	143.4

Exhibit 2. Merger Model Opening Balance Sheet

Merger Model - Opening BS

Figures in EURO m except per share data

	Acquiror 31-Dec-22	Target 31-Dec-22	Adjustments Zero Out	Adjustments Financing	Adjustments Fees	Adjustments Goodwill	Consolidated 31-Dec-22
Cash	63.6	38.8	(38.8)	(10.9)			52.7
Inventory	170.0	49.5					219.5
Accounts receivable	172.7	27.7					200.4
Other short term operating assets	58.2	2.5					60.7
PP&E	793.3	133.0				10.0	936.3
Goodwill	4.9	0.0	0.0			830.6	835.5
Other intangible assets	59.2	11.8				100.0	171.0
Other long term assets	23.7	12.9					36.6
Total assets	**1,345.7**	**276.1**					**2,512.8**
Short term debt	0.0	0.0	0.0				0.0
Accounts payable	145.0	18.6					163.6
Short term provisions	38.8	3.4					42.2
Other short term operating liabilitie	194.0	25.2					219.2
Long term debt	198.7	160.2	(160.2)	705.9			904.6
Convertible bond				0.0			0.0
Debt fees					(3.7)		(3.7)
Deferred taxes	3.9	0.0				33.0	36.9
Pension liabilities	68.8	0.0					68.8
Other long term liabilities	21.0	2.3					23.3
Noncontrolling interest	0.0	0.0					0.0
Shareholders' equity	675.5	66.4	(66.4)	389.6	(7.1)		1,058.0
Total liabilities and equity	**1,345.7**	**276.1**					**2,512.8**

Exhibit 3. Varta AG Income statement & Balance Sheet

Merger Model

Varta AG financials (EUR m except per share data)	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26
Income statement in EUR							
Sales	**869.5**	**902.9**	**960.8**	**1,052.9**	**1,167.9**	**1,299.2**	**1,448.9**
Own work capitalized	5.0	9.4	5.0	5.0	5.0	5.0	5.0
Inventory increase / decreas	(4.2)	11.3	4.0	4.0	4.0	4.0	4.0
Total output	**870.3**	**923.6**	**969.8**	**1,061.9**	**1,176.9**	**1,308.2**	**1,457.9**
COGS	(315.5)	(333.2)	(365.1)	(394.8)	(432.1)	(467.7)	(492.6)
Gross profit	**554.8**	**590.4**	**604.7**	**667.1**	**744.8**	**840.5**	**965.3**
Margin	63.8%	65.4%	62.9%	63.4%	63.8%	64.7%	66.6%
SG&A	(342.2)	(308.2)	(307.6)	(358.2)	(409.0)	(468.0)	(536.4)
EBITDA	**212.5**	**282.2**	**297.0**	**308.9**	**335.8**	**372.5**	**428.9**
Margin	24.4%	30.6%	30.6%	29.1%	28.5%	28.5%	29.4%
Growth	132.0%	32.8%	5.3%	4.0%	8.7%	10.9%	15.1%
Depreciation	(35.5)	(53.3)	(63.5)	(70.8)	(80.6)	(91.3)	(103.0)
Amortization	(5.9)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)	(7.1)
EBIT	**171.1**	**221.9**	**226.5**	**231.0**	**248.1**	**274.2**	**318.9**
Margin	19.7%	24.0%	23.4%	21.8%	21.1%	21.0%	21.9%
Interest expense	(5.3)	(6.5)	(9.8)	(8.4)	(8.4)	(8.4)	(8.4)
Interest income	0.3	1.5	0.1	0.1	0.1	0.2	0.3
Other financial (expense)/income	(7.9)	(4.5)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)
Profit before tax	**158.2**	**212.4**	**212.7**	**218.6**	**235.8**	**262.0**	**306.8**
Tax	(37.6)	(51.1)	(69.7)	(72.0)	(78.2)	(87.0)	(101.3)
Net income	**120.6**	**161.3**	**143.0**	**146.6**	**157.6**	**175.0**	**205.4**
Normalized net income to common shareholders	120.6	161.3	143.0	146.6	157.6	175.0	205.4
Diluted WASO	40.4	40.4	40.4	40.4	40.4	40.4	40.4
Diluted EPS	3.0	4.0	3.5	3.6	3.9	4.3	5.1
Dividends	0.0	102.3	0.0	0.0	0.0	0.0	0.0
Balance sheet in EUR							
Cash	121.9	73.1	63.6	108.1	187.8	280.4	396.8
Inventory	133.3	157.1	170.0	183.9	189.4	192.2	189.0
Accounts receivable	120.1	162.9	172.7	189.1	193.5	197.1	199.7
Other ST operating assets	60.5	50.7	58.2	63.7	70.6	78.5	87.5
PP&E	596.6	711.3	793.3	903.0	1,022.5	1,153.6	1,298.5
Goodwill	0.6	4.9	4.9	4.9	4.9	4.9	4.9
Other intangible assets	63.3	66.3	59.2	52.1	45.1	38.0	30.9
Other long term assets	26.4	23.7	23.7	23.7	23.7	23.7	23.7
Total assets	1,122.8	1,250.2	1,345.7	1,528.6	1,737.5	1,968.4	2,231.0
Short term debt	6.3	85.8	0	0	0	0	0
Accounts payable	137.4	132.1	145.0	156.9	177.6	198.6	216.0
Short term provisions	41.6	22.6	38.8	42.5	47.1	52.3	58.3
Other short term operating liabilities	192.5	187.2	194.0	212.4	235.4	261.6	291.6
Long term debt	114.9	198.7	198.7	198.7	198.7	198.7	198.7
Deferred taxes	4.2	2.4	3.9	4.2	4.7	5.2	5.8
Pension liabilities	77.1	68.8	68.8	68.8	68.8	68.8	68.8
Other long term liabilities	49.8	20.0	21.0	23.0	25.5	28.3	31.5
Noncontrolling interest	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity	498.8	532.5	675.5	822.1	979.7	1,154.8	1,360.2
Total liabilities and equity	1,122.8	1,250.2	1,345.7	1,528.6	1,737.5	1,968.4	2,231.0

Exhibit 4. Varta AG Cash Flow Statement and model assumptions

Varta AG financials (EUR m except per share data)	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26
Cash flow in EUR							
Net income			**143.0**	**146.6**	**157.6**	**175.0**	**205.4**
Depreciation			63.5	70.8	80.6	91.3	103.0
Amortization			7.1	7.1	7.1	7.1	7.1
Change in inventory			(12.9)	(13.9)	(5.5)	(2.8)	3.3
Change in accounts receivable			(9.8)	(16.4)	(4.3)	(3.7)	(2.6)
Change in other short term operating assets			(7.4)	(5.5)	(6.9)	(7.9)	(9.0)
Change in accounts payable			12.9	11.8	20.7	21.0	17.3
Change in short term provisions			16.2	3.7	4.6	5.3	6.0
Change in other short term operating liabilities			6.7	18.4	23.0	26.3	30.0
Change in other long term assets			0.0	0.0	0.0	0.0	0.0
Change in deferred taxes			1.5	0.4	0.5	0.5	0.6
Change in pension liabilities			0.0	0.0	0.0	0.0	0.0
Change in other long term liabilities			1.0	2.0	2.5	2.8	3.2
Operating cash flow			**221.7**	**225.0**	**279.8**	**314.9**	**364.3**
Capex			(145.5)	(180.5)	(200.1)	(222.4)	(247.8)
Investing cash flow			**(145.5)**	**(180.5)**	**(200.1)**	**(222.4)**	**(247.8)**
Change in long term debt			0.0	0.0	0.0	0.0	0.0
Dividends			0.0	0.0	0.0	0.0	0.0
Financing cash flow			**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net cash flow			**76.3**	**44.4**	**79.8**	**92.6**	**116.4**
Beginning cash/(short term debt)			(12.7)	63.6	108.1	187.8	280.4
Ending cash/(short term debt)		(12.678)	63.6	108.1	187.8	280.4	396.8
Balance sheet assumptions							
Inventory days	154.2	172.1	170.0	170.0	160.0	150.0	140.0
Accounts receivable days	50.4	64.4	65.0	65.0	60.0	55.0	50.0
Other short term operating assets/sales	7.0%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Capex/sales	34.7%	18.9%	15.0%	17.0%	17.0%	17.0%	17.0%
Depreciation/opening PP&E		8.9%	8.9%	8.9%	8.9%	8.9%	8.9%
Amortization	5.9	7.1	7.1	7.1	7.1	7.1	7.1
Other long term assets	26.4	23.7	23.7	23.7	23.7	23.7	23.7
Accounts payable days	158.9	144.8	145.0	145.0	150.0	155.0	160.0
Short term provisions/sales	4.8%	2.5%	4.0%	4.0%	4.0%	4.0%	4.0%
Other short term operating liabilities/sales	22.1%	20.3%	20.0%	20.0%	20.0%	20.0%	20.0%
Long term debt repayment			0.0	0.0	0.0	0.0	0.0
Deferred taxes/sales	0.5%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%
Pension liabilities	77.1	68.8	68.8	68.8	68.8	68.8	68.8
Other long term liabilities/sales	5.7%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Interest rate on long term debt			4.25%	4.25%	4.25%	4.25%	4.25%
Interest rate on short term debt			3.25%	3.25%	3.25%	3.25%	3.25%
Interest rate on cash			0.1%	0.1%	0.1%	0.1%	0.1%
Balance sheet side calculations							
PP&E - beginning balance			711.3	793.3	903.0	1,022.5	1,153.6
Capex	302.2	174.8	145.5	180.5	200.1	222.4	247.8
Depreciation	(35.5)	(53.3)	(63.5)	(70.8)	(80.6)	(91.3)	(103.0)
PP&E - ending balance		711.3	793.3	903.0	1,022.5	1,153.6	1,298.5
Income statement assumptions							
Sales growth	139.7%	3.8%	6%	10%	11%	11%	12%
COGS margin	36.3%	36.1%	38%	38%	37%	36%	34%
SG&A/sales	39.3%	33.4%	32%	34%	35%	36%	37%
Tax rate	23.8%	24.1%	30%	30%	30%	30%	30%
Other financial (expense)/income	(7.9)	(4.5)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)
Diluted WASO	40.4	40.4	40.4	40.4	40.4	40.4	40.4

Exhibit 5. Akasol AG Income Statement and Balance Sheet

Akasol AG (EUR m except per share data)	31-Dec-20	LTM Jun-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26
Income statement in EUR							
Sales	**68.3**	**100.8**	**161.3**	**254.8**	**395.0**	**592.5**	**859.1**
Own work capitalized	5.3	0.0	5.0	5.0	5.0	5.0	5.0
Inventory increase / decreas	0.3	0.0	2.0	2.0	2.0	2.0	2.0
Total output	**74.0**	**100.8**	**168.3**	**261.8**	**402.0**	**599.5**	**866.1**
COGS	(53.7)	(74.8)	(112.9)	(152.9)	(197.5)	(296.2)	(429.5)
Gross profit	20.2	26.0	55.4	108.9	204.5	303.2	436.5
Margin	29.6%	25.8%	34.3%	42.7%	51.8%	51.2%	50.8%
SG&A	(28.5)	(32.3)	(47.6)	(75.2)	(116.6)	(174.9)	(253.6)
EBITDA	**(8.3)**	**(6.3)**	**7.8**	**33.7**	**87.9**	**128.3**	**182.9**
Margin	(11.2%)	(6.3%)	4.6%	12.9%	21.9%	21.4%	21.1%
Growth	163.6%	23.7%	222.5%	333.9%	160.8%	46.0%	42.5%
Depreciation	(3.3)	(5.1)	(6.0)	(9.0)	(9.4)	(10.4)	(12.1)
Amortization	(0.5)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
EBIT	**(12.1)**	**(12.2)**	**1.1**	**24.0**	**77.7**	**117.2**	**170.0**
Margin	(16.4%)	(12.1%)	0.6%	9.2%	19.3%	19.5%	19.6%
Interest expense	(0.5)	(0.7)	(4.8)	(6.8)	(6.8)	(6.8)	(6.8)
Interest income	0.2	0.1	0.0	0.0	0.0	0.1	0.1
Other financial (expense)/income	0.0	(0.8)	0.0	0.0	0.0	0.0	0.0
Profit before tax	**(12.5)**	**(13.6)**	**(3.7)**	**17.2**	**71.0**	**110.4**	**163.3**
Tax	0.0	0.0	0.0	(4.0)	(18.1)	(27.1)	(39.2)
Net income	**(12.5)**	**(13.6)**	**(3.7)**	**13.2**	**52.9**	**83.4**	**124.1**
Reported net income to common shareholders	(12.5)	(13.6)	(3.7)	13.2	52.9	83.4	124.1
Diluted WASO	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Diluted EPS	(2.1)	(2.2)	(0.6)	2.2	8.7	13.8	20.5
Balance sheet in EUR							
Cash	13.2	1.5	38.8	32.4	56.9	86.5	132.4
Inventory	29.4	33.5	49.5	67.0	81.2	121.7	176.5
Accounts receivable	21.1	16.9	27.7	50.2	88.1	131.4	189.8
Other ST operating assets	0.7	1.9	2.5	3.9	6.0	9.0	13.0
PP&E	75.5	88.4	133.0	139.7	154.4	180.0	219.9
Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other intangible assets	11.5	12.5	11.8	11.0	10.3	9.6	8.8
Other long term assets	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Total assets	164.2	167.6	276.1	317.2	409.8	551.1	753.4
Short term debt	7.3	9.7	0.0	0.0	0.0	0.0	0.0
Accounts payable	16.1	10.4	18.6	29.3	43.3	64.9	94.1
Short term provisions	1.4	1.7	3.4	5.2	8.0	12.0	17.3
Other short term operating liabilities	12.1	14.0	25.2	39.3	60.3	89.9	129.9
Long term debt	43.0	60.2	160.2	160.2	160.2	160.2	160.2
Deferred taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pension liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long term liabilities	1.5	1.4	2.3	3.6	5.5	8.1	11.8
Noncontrolling interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shareholders' equity	82.8	70.2	66.4	79.6	132.5	215.9	340.0
Total liabilities and equity	164.2	167.6	276.1	317.2	409.8	551.1	753.4

Exhibit 6. Akasol AG Cash Flow Statement and model assumptions

Akasol AG (EUR m except per share data)	31-Dec-20	LTM Jun-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26
Cash flow in EUR							
Net income			**(3.7)**	**13.2**	**52.9**	**83.4**	**124.1**
Depreciation			6.0	9.0	9.4	10.4	12.1
Amortization			0.7	0.7	0.7	0.7	0.7
Change in inventory			(16.0)	(17.5)	(14.1)	(40.6)	(54.8)
Change in accounts receivable			(10.8)	(22.6)	(37.9)	(43.3)	(58.4)
Change in other short term operating assets			(0.6)	(1.4)	(2.1)	(3.0)	(4.0)
Change in accounts payable			8.1	10.8	14.0	21.6	29.2
Change in short term provisions			1.7	1.9	2.8	3.9	5.3
Change in other short term operating liabilities			11.3	14.0	21.0	29.6	40.0
Change in other long term assets			0.0	0.0	0.0	0.0	0.0
Change in deferred taxes			0.0	0.0	0.0	0.0	0.0
Change in pension liabilities			0.0	0.0	0.0	0.0	0.0
Change in other long term liabilities			0.9	1.3	1.9	2.7	3.6
Operating cash flow			**(2.5)**	**9.3**	**48.6**	**65.6**	**97.9**
Capex			(50.5)	(15.7)	(24.1)	(36.0)	(52.0)
Investing cash flow			**(50.5)**	**(15.7)**	**(24.1)**	**(36.0)**	**(52.0)**
Change in long term debt			100.0	0.0	0.0	0.0	0.0
Dividends			0.0	0.0	0.0	0.0	0.0
Financing cash flow			**100.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net cash flow			**47.0**	**(6.4)**	**24.5**	**29.6**	**46.0**
Beginning cash/(short term debt)			(8.2)	38.8	32.4	56.9	86.5
Ending cash/(short term debt)		(8.219)	38.8	32.4	56.9	86.5	132.4
Balance sheet assumptions							
Inventory days	199.9	163.3	160.0	160.0	150.0	150.0	150.0
Accounts receivable days	103.9	61.1	60.0	70.0	80.0	80.0	80.0
Other short term operating assets/sales	0.9%	1.9%	1.5%	1.5%	1.5%	1.5%	1.5%
Capex/sales	72.7%	43.4%	30.0%	6.0%	6.0%	6.0%	6.0%
Depreciation/opening PP&E		6.7%	6.7%	6.7%	6.7%	6.7%	6.7%
Amortization	0.5	0.7	0.7	0.7	0.7	0.7	0.7
Other long term assets	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Accounts payable days	109.0	51.0	60.0	70.0	80.0	80.0	80.0
Short term provisions/sales	2.0%	1.7%	2.0%	2.0%	2.0%	2.0%	2.0%
Other short term operating liabilities/sales	16.3%	13.9%	15.0%	15.0%	15.0%	15.0%	15.0%
Long term debt repayment/increase			(100.0)	0.0	0.0	0.0	0.0
Deferred taxes/sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pension liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other long term liabilities/sales	2.0%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%
Interest rate on long term debt			4.25%	4.25%	4.25%	4.25%	4.25%
Interest rate on short term debt			3.25%	3.25%	3.25%	3.25%	3.25%
Interest rate on cash			0.1%	0.1%	0.1%	0.1%	0.1%
Balance sheet side calculations							
PP&E - beginning balance			88.4	133.0	139.7	154.4	180.0
Capex	53.7	43.8	50.5	15.7	24.1	36.0	52.0
Depreciation	(3.3)	(5.1)	(6.0)	(9.0)	(9.4)	(10.4)	(12.1)
PP&E - ending balance		88.4	133.0	139.7	154.4	180.0	219.9
Income statement assumptions							
Sales growth	43.4%	47.5%	60%	58%	55%	50%	45%
COGS margin	(72.6%)	(74.2%)	70%	60%	50%	50%	50%
SG&A/sales	(38.6%)	(32.1%)	30%	30%	30%	30%	30%
Tax rate	23.8%	24.1%	30%	30%	30%	30%	30%
Other financial (expense)/income	0.0	(0.8)	0.0	0.0	0.0	0.0	0.0
Diluted WASO	6.1	6.1	6.1	6.1	6.1	6.1	6.1

Exhibit 7. Merged Company Income Statement

Combined Company Financials	2020A	2021A	2022F	2023F	2024F	2025F	2026F
Income statement							
Sales							
Varta AG	870.3	923.6	969.8	1,061.9	1,176.9	1,308.2	1,457.9
Akasol AG	74.0	100.8	168.3	261.8	402.0	599.5	866.1
Synergies	0.0	0.0		0.0	0.0	0.0	0.0
NewCo sales	**944.3**	**1,024.4**	**1,138.0**	**1,323.7**	**1,578.9**	**1,907.6**	**2,324.0**
Growth rate		8.5%	11.1%	16.3%	19.3%	20.8%	21.8%
COGS w/o synergies	(369.3)	(408.0)	(478.0)	(547.7)	(629.6)	(763.9)	(922.2)
Synergy creation				33.8	16.6	23.3	19.9
% sales	39%	40%		41.4%	39.9%	40.0%	39.7%
COGS incl. Synergies			(478.0)	(513.9)	(613.0)	(740.6)	(902.3)
% sales				39%	39%	39%	39%
Gross profit	**575.0**	**616.4**	**660.1**	**809.8**	**965.9**	**1,167.0**	**1,421.7**
Margin	0.6	60.2%	58.0%	61.2%	61.2%	61.2%	61.2%
SG&A	(370.8)	(340.6)	(355.2)	(433.4)	(525.6)	(642.9)	(790.0)
Operating costs related to restructuring	0.0	0.0	(5.0)	(10.0)	(10.0)	(10.0)	0.0
EBITDA	**204.2**	**275.9**	**299.8**	**366.4**	**430.3**	**514.1**	**631.7**
Margin	21.6%	26.9%	26.3%	27.7%	27.3%	27.0%	27.2%
Depreciation	(38.9)	(58.3)	(69.5)	(79.8)	(90.0)	(101.7)	(115.1)
Amortization	(6.4)	(7.8)	(7.8)	(7.8)	(7.8)	(7.8)	(7.8)
EBIT	**159.0**	**209.7**	**222.5**	**278.8**	**332.4**	**404.7**	**508.8**
Margin	16.8%	20.5%	19.6%	21.1%	21.1%	21.2%	21.9%
Net interest expense	(5.9)	(7.2)	(14.7)	(43.7)	(43.6)	(43.5)	(43.4)
Other financial (expense)/income	(7.9)	(5.3)	(4.0)	(4.0)	(4.0)	(4.0)	(4.0)
Amortization of debt fees	0.0	0.0	0.0	(0.7)	(0.7)	(0.7)	(0.7)
Profit before tax	**145.2**	**197.2**	**203.9**	**230.4**	**284.1**	**356.4**	**460.7**
Tax	(37.6)	(51.1)	(69.7)	(74.8)	(89.9)	(109.9)	(138.5)
Net income	**107.6**	**146.1**	**134.2**	**155.6**	**194.1**	**246.5**	**322.1**
Noncontrolling interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reported net income to common	107.6	146.1	134.2	155.6	194.1	246.5	322.1
Normalized net income to common	108.1	147.8	139.3	155.6	194.1	246.5	322.1
Diluted WASO	46.8	46.8	46.8	46.8	46.8	46.8	46.8
Diluted EPS	2.3	3.2	3.0	3.3	4.1	5.3	6.9
Dividends	0.0	102.3	0.0	0.0	0.0	0.0	0.0

Exhibit 8. Merged Company Balance Sheet & Cash Flow Statement

Combined Company Financials	2020A	2021A	2022F	2023F	2024F	2025F	2026F
Balance sheet							
Cash			52.7	59.3	152.9	268.9	429.6
Inventory			219.5	250.9	270.6	313.9	365.5
Accounts receivable			200.4	239.3	281.6	328.5	389.5
Other short term operating assets			60.7	67.6	76.6	87.5	100.5
PP&E			936.3	1,047.2	1,176.4	1,328.6	1,509.3
Goodwill			835.5	835.5	835.5	835.5	835.5
Other intangible assets			171.0	163.2	155.4	147.6	139.7
Other long term assets			36.6	36.6	36.6	36.6	36.6
Total assets			2,512.8	2,699.8	2,985.7	3,347.2	3,806.4
Short term debt			0.0	0.0	0.0	0.0	0.0
Accounts payable			163.6	186.2	220.9	263.5	310.1
Short term provisions			42.2	47.7	55.1	64.3	75.6
Other short term operating liabilities			219.2	251.7	295.7	351.6	421.5
Long term debt			904.6	904.6	904.6	904.6	904.6
Convertible bond			0.0	0.0	0.0	0.0	0.0
Debt fees			(3.7)	(3.0)	(2.2)	(1.5)	(0.7)
Deferred taxes			36.9	4.2	4.7	5.2	5.8
Pension liabilities			68.8	68.8	68.8	68.8	68.8
Other long term liabilities			23.3	26.5	30.9	36.4	43.3
Noncontrolling interest			0.0	0.0	0.0	0.0	0.0
Shareholders' equity			1,058.0	1,213.6	1,407.7	1,654.2	1,976.3
Total liabilities and equity			2,512.8	2,699.8	2,985.7	3,347.2	3,806.4
Cash flow							
Net income				**155.6**	**194.1**	**246.5**	**322.1**
Depreciation				79.8	90.0	101.7	115.1
Amortization				7.8	7.8	7.8	7.8
Amortization of debt fees				0.7	0.7	0.7	0.7
Change in inventory				(31.4)	(19.7)	(43.4)	(51.5)
Change in accounts receivable				(39.0)	(42.2)	(46.9)	(61.0)
Change in other short term operating assets				(6.9)	(9.0)	(10.8)	(13.0)
Change in accounts payable				22.6	34.7	42.7	46.6
Change in short term provisions				5.6	7.4	9.2	11.3
Change in other short term operating liabilities				32.5	44.0	55.9	69.9
Change in other long term assets				0.0	0.0	0.0	0.0
Change in deferred taxes				(32.6)	0.5	0.5	0.6
Change in pension liabilities				0.0	0.0	0.0	0.0
Change in other long term liabilities				3.3	4.4	5.5	6.9
Operating cash flow				197.8	312.8	369.4	455.5
Capex				(191.2)	(219.2)	(253.4)	(294.8)
Investing cash flow				**(191.2)**	**(219.2)**	**(253.4)**	**(294.8)**
Change in long term debt				0.0	0.0	0.0	0.0
Change in convertible bond				0.0	0.0	0.0	0.0
Dividends				0.0	0.0	0.0	0.0
Financing cash flow				**0.0**	**0.0**	**0.0**	**0.0**
Net cash flow				**6.6**	**93.6**	**116.0**	**160.7**
Beginning cash/(short term debt)				52.7	59.3	152.9	268.9
Ending cash/(short term debt)				59.3	152.9	268.9	429.6

Exhibit 9. Net Present Value of Synergies

Figures in EUR m except per share data		2022F	2023F	2024F	2025F	2026F
Synergy analysis						
Revenue synergies		0.0	0.0	0.0	0.0	0.0
Cost synergies		0.0	33.8	16.6	23.3	19.9
Capex synergies		0.0	5.0	5.0	5.0	5.0
Reduction in depreciation due to capex synergies		0.0	0.5	1.0	1.5	2.0
Restructuring costs		(10.0)	(10.0)	(10.0)	(10.0)	0.0
Total		(10.0)	29.3	12.6	19.8	26.9
Tax impact excluding capex synergies		3.0	(7.3)	(2.3)	(4.4)	(6.6)
Free cash flow impact						
Revenue synergies		0.0	0.0	0.0	0.0	0.0
Cost synergies		0.0	33.8	16.6	23.3	19.9
Capex synergies		0.0	5.0	5.0	5.0	5.0
Reduction in depreciation due to capex synergies		0.0	0.5	1.0	1.5	2.0
Restructuring costs		(10.0)	(10.0)	(10.0)	(10.0)	0.0
Tax		3.0	(7.3)	(2.3)	(4.4)	(6.6)
Delta in cash flow		(7.0)	22.0	10.3	15.4	20.3
Discount rate using merged company WACC		6.21%				
Long term growth rate		1.5%				
Terminal value						438.0
Net present value of synergies	48.7					
Net present value of TV	344.2					
Total NPV of synergies	392.9					

Exhibit 10. Akasol AG DFC

Figures in EUR m except per share data				2022F	2023F	2024F	2025F	2026F
Akasol AG standalone discounted cash flow excluding synergies								
EBIT					24.0	77.7	117.2	170.0
Tax on EBIT					(7.2)	(23.3)	(35.2)	(51.0)
NOPAT					16.8	54.4	82.0	119.0
Depreciation					9.0	9.4	10.4	12.1
Amortization					0.7	0.7	0.7	0.7
Capital expenditure					(15.7)	(24.1)	(36.0)	(52.0)
Change in working capital					(14.8)	(16.3)	(31.6)	(42.7)
Change in LT operating assets					0.0	0.0	0.0	0.0
Change in LT operating liabilities					1.3	1.9	2.7	3.6
Free cash flow					(2.8)	26.0	28.3	40.9
WACC	6.32%		Sensitivity	0.5%				
LT growth	1.5%		Sensitivity	0.5%				
Future value of terminal value								860.9
PV of free cash flow	75.9							
PV of terminal value	673.8							
Enterprise value	**749.7**							
Net debt	121.4							
Noncontrolling interest	0.0							
Equity value	**628.2**							
Diluted shares outstanding	6.1							
Implied value per share	**103.6**							
Standalone share price in EUR	123.6							
Premium/(discount) to standalone share price	**(16.2%)**							
Akasol AG discounted cash flow including synergies								
Equity value standalone based on DCF	628.2							
NPV of synergies	392.9							
Equity value including synergies	**1,021.1**							
Implied value per share including synergies in E	**168.4**							
Standalone share price in EUR	123.6							
Premium/(discount) to share price excl. synergi	**36.3%**							
Final premium incl. risk discount	**30.0%**							
Final implied purchase price	160.7							

		Growth rate				
	-16.2%	0.50%	1.00%	1.50%	2.00%	2.50%
WACC	7.32%	-45.8%	-40.6%	-34.6%	-27.5%	-18.9%
	6.82%	-39.6%	-33.5%	-26.3%	-17.5%	-6.8%
	6.32%	-32.3%	-25.0%	-16.2%	-5.2%	8.5%
	5.82%	-23.7%	-14.7%	-3.7%	10.3%	28.5%
	5.32%	-13.3%	-2.1%	12.1%	30.5%	55.5%

Exhibit 11. Merged company DCF

NewCo discounted cash flow analysis	2023F	2024F	2025F	2026F
EBIT	278.8	332.4	404.7	508.8
Tax on EBIT	(83.6)	(99.7)	(121.4)	(152.6)
NewCo combined tax rate	30%	30%	30%	30%
NOPAT	195.2	232.7	283.3	356.2
Depreciation	79.8	90.0	101.7	115.1
Amortization	7.8	7.8	7.8	7.8
Capital expenditure	(191.2)	(219.2)	(253.4)	(294.8)
Change in working capital	(16.7)	15.2	6.6	2.3
Change in LT operating assets	0.0	0.0	0.0	0.0
Change in LT operating liabilities	(29.4)	4.9	6.0	7.5
Free cash flow	45.5	131.4	152.0	194.0
WACC	6.21%	Sensitivity	0.5%	
LT growth	1.5%	Sensitivity	0.5%	
Future value of TV				**4,373.2**

PV of free cash flow	438.6
PV of terminal value	3,436.5
Enterprise value	**3,875.2**
NewCo net debt	851.8
Noncontrolling interest	0.0
Equity value	**3,023.3**
Diluted shares outstanding	46.8
Implied value per share	**64.6**
Varta AG standalone value per share	64.2
Premium / (discount) to standalone share price	**0.66%**

		Growth rate				
	0.66%	0.50%	1.00%	1.50%	2.00%	2.50%
WACC	7.21%	-36.1%	-29.8%	-22.4%	-13.6%	-2.9%
	6.71%	-28.4%	-20.9%	-12.0%	-1.1%	12.3%
	6.21%	-19.4%	-10.3%	0.7%	14.2%	31.5%
	5.71%	-8.6%	2.5%	16.3%	33.8%	56.7%
	5.21%	4.4%	18.3%	36.1%	59.3%	91.2%

Exhibit 12. EPS accretion & dilution analysis

EPS accretion & dilution analysis	2022F	2023F	2024F	2025F	2026F
Proforma NewCo normalized cash net income	140.0	156.3	194.8	247.2	322.8
NewCo weighted average shares outstanding	46.8	46.8	46.8	46.8	46.8
NewCo Fully diluted Cash EPS	3.0	3.3	4.2	5.3	6.9
Varta AG standalone EPS	3.5	3.6	3.9	4.3	5.1
Accretion/dilution	-15.5%	-7.9%	6.7%	22.0%	35.7%

Exhibit 13. WACC calculation

Figures in EUR m except per share data

Akasol AG WACC	Datapoint	Source
Ten year government bond (risk free)	1.63%	Bloomberg
Estimated equity risk premium	4.24%	NYU (Aswath Damodaran)
Beta	1.0	Thomson Reuters, own calculation
Cost of debt	4.75%	Company data, own analysis
Tax rate	30.0%	Company data
Percentage equity in target capital structure	70%	Company data
Percentage debt in target capital structure	30%	Company data
Cost of equity	**7.60%**	
Cost of debt after tax	**3.3%**	
WACC	**6.32%**	

Varta AG WACC	Datapoint	Source
Ten year government bond (risk free)	1.63%	Bloomberg
Estimated equity risk premium	4.24%	NYU (Aswath Damodaran)
Beta	0.98	Thomson Reuters (5y monthly)
Cost of debt	4.75%	Company data, own analysis
Tax rate	30.0%	
Percentage equity in target capital structure	70%	Company data
Percentage debt in target capital structure	30%	Company data, own analysis
Cost of equity	**7.38%**	
Cost of debt after tax	**3.33%**	
WACC	**6.17%**	

Merged company WACC	6.21%	weight based on FY26 EBITDA
Varta AG WACC	6.17%	70%
Akasol AG WACC	6.32%	30%
FY26 EBITDA Varta AG	428.9	
FY26 EBITDA Akasol AG	182.9	
FY26 Merged EBITDA	611.8	

Akasol AG peer group beta estimation

Company name	Beta	Debt %	Equity %	Tax rate	Unlevered beta
Romeo Power	1.35	11%	89%	27.0%	1.23
CATL	1.22	58%	42%	25.0%	0.60
Panasonic	1.21	32%	68%	30.0%	0.91
BYD	0.95	45%	55%	25.0%	0.59
Samsung SDI	0.89	24%	76%	25.0%	0.72
SK innovation	1.26	53%	47%	25.0%	0.68
Ultralife corporation	1.30	16%	84%	27.0%	1.15
Average industry beta					0.84

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