



# CFA Institute

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## CFA Institute Research Challenge

hosted by  
**CFA BENELUX**  
Team FM1

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## Recommendation

### BUY

Ticker	AALB
Stock Exchange	AEX
Headquarter	Utrecht
Sector	Industrial Machinery
Current Price	€39.26
Target Price	€46.55
Date	29-12-2023
Upside Potential	18.57%
52-Week High	€47.98
52-Week Low	€29.07
Market Value	€4.34B
Shares Outstanding	110.58M
Free Float	83.05M

## Investment Summary

The team issues a **BUY** recommendation for AALB forecasting a one-year target price of €46.55 representing an 18.57% upside from its closing price on the 29<sup>th</sup> of December 2023. This target price was derived from an ensemble approach using a weighting of discounted cash flow and relative valuation methods. Our recommendation was based on 1. Stabilising Market Conditions Facilitating New Strategy Implementation 2. Localised manufacturing footprint positions Aalberts to be a catalyst in the deglobalisation of the world economy 3. Tailwinds In Semiconductor Industry Underpins Sustainable Growth 4. Catalyzing Market Sentiment Shift: Future Strategy's Key to Success.

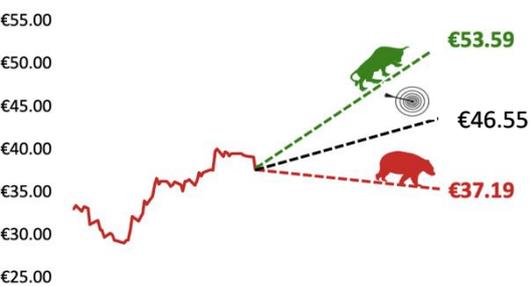
## Investment Drivers

**Stabilising Market Conditions Facilitating New Strategy Implementation** | In the recent few years Aalberts has shifted from a portfolio growth focus to a mission-critical focus – Aalberts endured several supply and demand shocks that provided volatile market conditions which Aalberts’ management struggled to effectively navigate, seeing company returns drop significantly during said period. Looking ahead – constraints on supply chains have eased, Inflation is expected to continue to normalise and interest rates are forecasted to decrease in 2024. This reduces the level of friction in the market which will provide Aalberts’ management with greater opportunity to maximise its yield from its increased innovation expenditure enabling it to achieve its strategically set organic growth levels. Improved growth coinciding with the successful implementation of Aalberts’ operational excellence strategy will see Aalberts’ profitability margins slightly exceed pre-2018 levels.

**Localised manufacturing footprint positions Aalberts to be a catalyst in the deglobalisation of the world economy** | As MNCs are currently dealing with the hangover of the global supply chain crisis whilst ongoing geopolitical instability continues to increase risk in several regions, many companies are now aware of the vulnerabilities that come with a global manufacturing presence. This shift in company psychology combined with steps taken by the European Commission to promote the development of European value chains will see more companies’ reshoring operations in the coming years. Aalberts is well positioned to capitalise on this trend due to its world-class manufacturing facilities in Europe and its growing presence in the United States. Aalberts’ disciplined allocation of capital moving forward will strengthen this position further.

**Tailwinds In Semiconductor Industry Underpins Sustainable Growth** | Thanks to the acquisition of key patents along with its strong relationships with major semiconductor OEMs, Aalberts’ has identified a truly unique position which puts it in an advantageous position in an industry that is poised for high levels of growth moving forward. The growth in the semiconductor industry can be attributed to market developments such as IoT and AI technology. Aalberts’ management has recognized this growth opportunity and has allocated capital accordingly by investing more into its Industrial Technologies segment relative to its building technology segment. The company has used these funds to bolster its manufacturing capabilities with a state-of-the-art production facility in ultra-high precision frames which will allow Aalberts to ramp up operations expanding its semiconductor business.

**Catalyzing Market Sentiment Shift: Future Strategy's Key to Success** | Aalberts’ multiples are trading significantly under its peer averages, which supports the idea the market has not adequately accounted for the company’s growth prospects. Potential strategy successes of Aalberts’ are poised to reshape the investors’ outlook, lifting valuation multiples from prolonged levels below indices and industry averages. Additionally, the undervaluation of stock price will incentivize investors to be more appetite for investment.



Valuation Approach	Target Price	Weight
DCF	€45.06	80%
EV/EBITDA TTM Multiples	€56.19	10%
Forward P/E Multiples	€48.83	10%
<b>Target Price</b>	<b>€46.55</b>	

Multiples	EBITDA LTM	P/E LTM	P/E NTM
Aalberts 2023	7.90x	13.71x	12.98x
Aalberts 9Y-Av. Industrial Mach.	11.08x	19.82x	-
Eurozone	12.40x	18.10x	16.20x
AEX	11.00x	16.30x	14.10x

## Multi-Industry Focus → Portfolio Growth Focus → Mission-Critical Focus

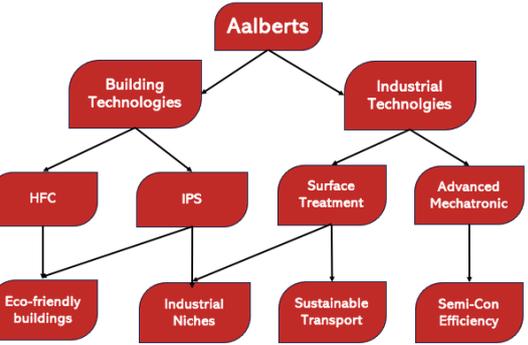


Figure 1: Geographic Revenue Breakdown



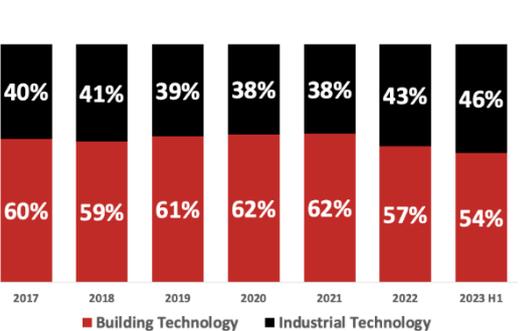
Source: Team Research

Figure 2: Operational Structure



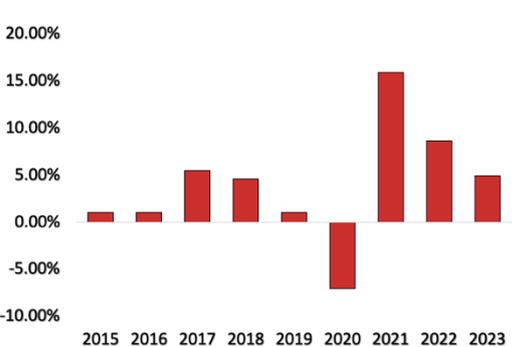
Source: Team Research

Figure 3: 2022 Revenue Mix Figure



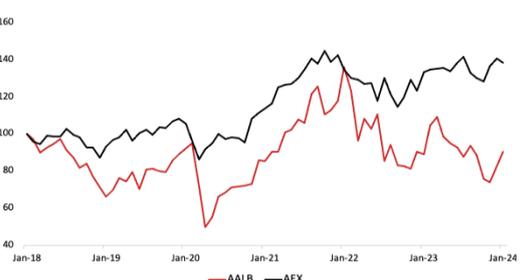
Source: Aalberts' financial reports

Figure 4: Organic Revenue Growth



Source: Aalberts' financial reports

Figure 5: Aalberts and AEX Returns



Source:Factset

## Business Description

Aalberts N.V. is a Dutch company headquartered in Utrecht and listed on Euronext Stock Exchange in Amsterdam. Founded in 1975 by Jan Aalberts, the company had its IPO in 1987 and has since grown into a global business with a market capitalisation of just over €4 Billion. The company has achieved this growth through a combination of organic growth and an M&A strategy with 159 subsidiaries across its four clusters having completed 94 acquisitions since 1998. Some of its more notable brands include Flamco, Comap & Henco. Although its primary market is Europe, the company has a global footprint employing over 14,597 individuals and operating in over 50 countries through 130 locations worldwide (Figure 1). The company is divided into two distinct segments which operate in different markets – Building Technologies and Industrial Technologies (Figure 2).

**Building Technology Clusters** | Hydronic Flow Control (HFC) and Integrated Piping Systems (IPS) – are very similar in nature and they both contribute to the development of eco-friendly buildings, growing revenues in Aalberts largest segment (Figure 3). The firm benefits from synergies between these clusters. Aalberts' HFC and IPS clusters provide technologies from 'source to emitter' which enables it to be a one-stop shop engineering company that is present throughout the whole building lifecycle. The **HFC cluster** works with its customers by providing a wide range of technologies and industry know-how to optimise energy-efficient hydronic systems which maximise sustainability. The **IPS cluster** provides solutions which enhance building's distribution capabilities of liquids and gases through piping technologies such as valves, fittings, fasteners, and connectors for different end markets. The Building Technologies segment's target end market is eco-friendly buildings for residential, commercial and industrial properties - 70% of their revenue is from remodelling and renovations of properties compared to 30% from new builds.

**Industrial Technology Clusters** | Advanced Mechatronics (AM) and Surface Technologies (ST) – are more unique in nature and supply to different end markets. Unlike Building Technologies, Aalbert's Industrial Technology segment does not make individual products, rather it focuses on co-development with its industrial end users through these two clusters. Through its world-class manufacturing equipment, the **AM cluster** – Aalbert's fastest growing cluster – provides solutions such as high precision frames, vibration isolation and high purity fluid handling systems used by semiconductor OEMs. Over 80% of this cluster's revenue is represented by five to six key accounts including ASML, Lam Research, and Applied Materials. The **ST cluster** – Aalbert's most profitable cluster – leverages its elusive industry know-how and economies of scale to work with manufacturers across many industries to provide surface and heat treatments which alter the surface characteristics of materials to satisfy its customers' preferences. The ST cluster serves two main end markets – sustainable transport (Automotive, Aerospace etc) and Industrial niches (General Industries).

## Company Strategy

Aalberts' strategy outlined for 2022-2026 focuses on: **1.** Accelerating unique positions which grant them pricing power in the market due to its niche market position. **2.** Creating sustainable profitable growth with high added value margins, EBITA margins and innovation rates. **3.** Driving operational excellence and portfolio optimisation by reducing its manufacturing footprint to become more efficient. **4.** Allocating capital in a disciplined way to strengthen unique positions. **5.** Realising sustainable entrepreneurship with clear impact and commitment. **6.** Ensuring an open, pragmatic and lean structure.

Aalbert's longstanding CEO Wim Pelsma was replaced by Stéphane Simonetta in September 2023. According to company management, this change in leadership will not impact the company's strategy in the strategic period 2022-2026. The company also initiated a divestment program in 2019 with the objective of becoming more focused whilst also maintaining its unique position, (Appendix - Recent Transactions).

## Key Strategy Actions

**Reducing Footprint** | As part of its portfolio optimisation strategy – Aalberts plans to reduce its business locations to 108 by 2026 from its 2019 figure of 156 business locations. It aims to reduce its manufacturing locations from 63 to 31 in the same period. [Strategic Objective 2 and 3]

**Unique Position** | Aalberts intends to strengthen its unique position in its industrial Technology Segment in order to support its high levels of pricing power. This will be underpinned by increased levels of CAPEX creating higher entry barriers to the industry and increasing the company's competitive advantage.

[Strategic Objective 1, 2, 4]

**Organic Growth Focus** | Aalberts will increase its innovation expenditure to over 5% of revenue whilst also giving more attention to recruitment moving forward in order to achieve high levels of organic growth in both segments of its business (Figure 4). [Strategic Objective 2, 5, 6]

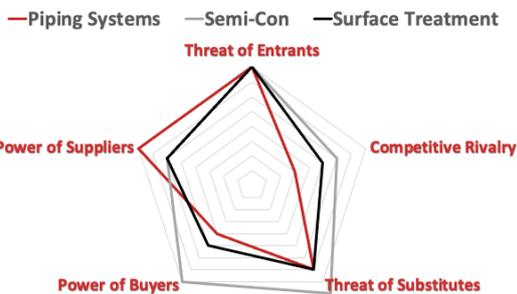
**Increase Sustainable Focus** | Aalberts will increase its SDG impact to 70% of revenue by 2026 as well as commit to net zero carbon by 2050. This will also strengthen Aalbert's unique positions capitalising on its sustainability focus. [Strategic Objective 1, 2, 5]

## Share Price History

Following the global financial crisis in 2008, Aalberts endured a period of significant growth where its share price rose from a low of €3.37 to a high of €44.62 in 2018. This was largely due to Aalbert's portfolio growth focus which saw the company expanding rapidly capitalising on a recovering market. However, since 2018 Aalberts' share price has failed to achieve similar growth while also experiencing much higher levels of volatility. Aalbert's share price is currently down 7.39% its January 2018 at €39.26 - having experienced a low of €21.64 and a high of €58.26 in the same period. Aalberts has underperformed relative to the AEX Index by 34.70% which raises concerns regarding the investment worthiness of the company (Figure 5).

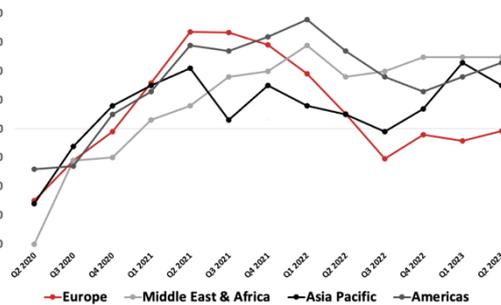
During this period, the occurrence of the Covid-19 pandemic, Interest rate hikes, global supply chain issues as well as high levels of inflation all contributed to a difficult business environment. Therefore, the team largely attributes this period of high volatility and insignificant growth to management's failure to navigate these harsh macro environments which saw the company's adjusted ROE drop during this period, (Figure 33).

Figure 6: Porter's Five Forces



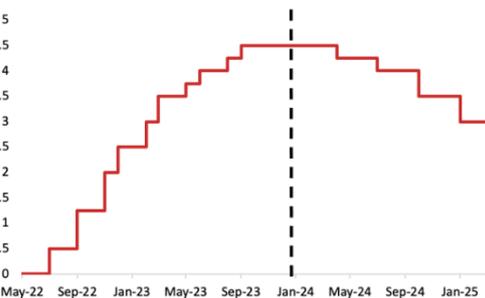
Source: Team Research

Figure 7: Construction Activity Per Region



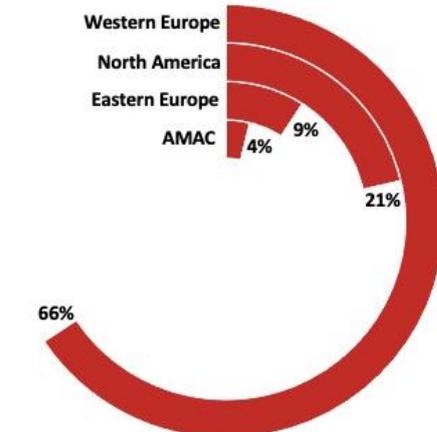
Source: OECD.stat

Figure 8: ECB Interest Rate Forecast



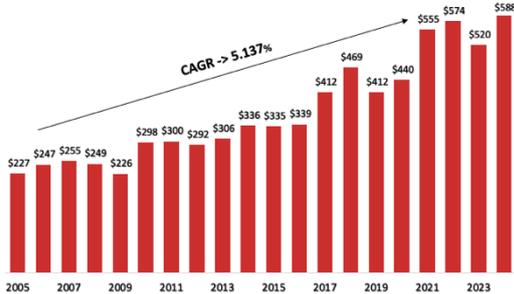
Source: ECB Data Warehouse

Figure 9: Geographical Location Breakdown



Source: Aalberts Reports

Figure 10: Global Semiconductor Revenue



Source: Statista

## Industry Overview

Aalberts mainly operates in three Industries – 1. Piping Systems, Distribution and Climate Technology, 2. Surface Treatment, 3. Semiconductor OEM equipment manufacturing, (Appendix - Peers).

**Piping Systems, Distribution and Climate Technology** | Aalberts' BT Segment (57%) provides solutions to building developers and end users as well as distributing to building material wholesalers. They provide solutions to residential, commercial and industrial construction for both new builds (30%) and renovations (70%). Despite high demand for more sustainable energy solutions and the Renovation Wave which will see the replacement of over 65 million boilers in Europe over the next ten years – demand in this industry has slowed due to the ECB hiking interest rates by 450 basis points since the beginning of 2022 which has raised the cost of capital and consequently hampered activity, particularly in Europe, (Figure 7), (Figure 8). The industry initially performed well during the aftermath of the Covid-19 pandemic which demonstrates the cyclicity of the industry. Looking forward the performance of this industry will likely depend on the direction of macro-factors.

**Semiconductor OEM Manufacturing Equipment** | Aalberts' AM cluster (12%) operates in a niche industry in which only a handful of companies in the world have the technological capabilities enabling them to achieve high levels of pricing power which is highly aligned with Aalberts' strategy objectives. The niche nature of this industry means that it is highly correlated to the demand for semiconductor chips across the world, particularly for Aalberts given its high levels of customer concentration in terms of revenue. The industry has performed very well in recent years due to the high demand for semiconductor chips and is poised to continue on this upward trajectory.

**Surface Treatment** | Aalberts' ST cluster (31%) operates in the surface treatment industry which provides services to businesses who want to alter the material of their items through chemical and heat treatment. Surface Treatment companies hold a unique position in which they have niche technological capabilities and industry know-how that their customers are not capable of emulating. Therefore, companies like Aalberts, acquire contracts to facilitate their customers' special requirements. This means that the surface treatment industry's performance is highly correlated to the activity in the wide range of industries it serves which explains why the surface treatment industry's revenue suffered during the Covid-19 pandemic. Aalberts is also largely focused on providing surface treatment services to e-mobility, aerospace and automotive which is anticipated to do well in the coming years due to the reshoring trend which sees European companies revert to conducting operations in domestic territories. However, it's industrial niche end market mainly provides to the European Machinery Industry which has suffered poor operating profit growth relative to its US counterparts due to slow productivity growth which has fallen behind wage and compensation growth. This has arisen from rising raw material costs and shifting customer demand towards niche products leading to greater product complexities where benefits of scale are less attainable and return on R&D is lower.

## Key Value Drivers

**Reshoring** | Unstable business environments since the beginning of 2020 due to supply chain issues and increase in geopolitical instability globally have triggered an influx of companies in Europe and North America that are moving away from eastern supply chains to source products closer to home and de-risk their supply chain. This has positive implications for Aalberts as the company is positioned to facilitate this push for more localised supply chains thanks to its strong manufacturing presence in Europe, (Figure 9).

**Semiconductor Demand** | The recent acceleration of the integration of IoT throughout all aspects of society has created an increased level of demand for semiconductor chips worldwide, leading major chipmakers including Intel and Samsung to significantly increase their fab CapEx. Aalberts is well positioned to benefit from this surge in demand due to its ownership of patents and intellectual property which is integral to the development of machinery used by key OEM's such as ASML and LAM Research. Aalberts has been allocating capital to this cluster in recent years to strengthen its position. The company has plans to open a new 40,000m<sup>2</sup> factory specialising in the manufacturing of high-precision frames, (Figure 10).

**Renovation Wave** | The EU Commission has set out an official plan which sees an additional €275 billion being spent on renovating buildings to strengthen its pursuit of climate neutrality. Considering new-build construction as well, a total of €672.5 billion will be spent to achieve the EU's 'Fit For 55' climate target which will see the reduction of emissions by 55% by 2030. This movement also coincides with a shift in consumer attitudes towards more efficient energy solutions due to the impact of the energy crisis which severely impacted consumer budgets in 2022 particularly. Aalberts is very well positioned well to take advantage of this demand for more sustainable options.

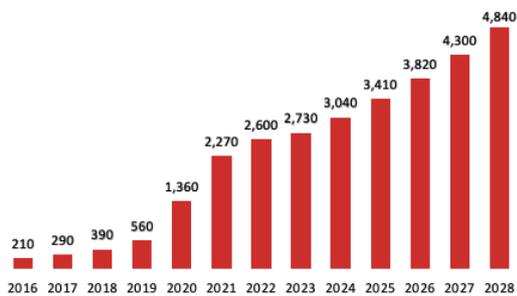
**Smart Homes** | As more advanced technology becomes more widely accessible, affordable and reliable – the integration of these technologies with buildings and homes is becoming more mainstream as customers harness the IoT to turn properties into a collection of integrated and networked devices. Aalberts provides technology which supports the increase in digitalisation of building's HVAC systems which enables users to operate systems with increased levels of comfort and efficiency.

**E-Vehicle Demand** | Due to a shift in consumer attitudes towards a more circular economy as well as governmental action to promote the de-carbonisation of their economies – the demand for e-vehicles is growing exponentially, (Figure 11). With Aalberts' expertise in heat treatment, Hot Isostatic pressing (HIP) and vacuum brazing they are well positioned to expand its business in sustainable transport as many of the manufacturers who operate in this sector have a strong focus on expanding the lifecycle of their products and sustainably increase the durability of their products.

## Industry Headwinds

**Labour Supply Shortage** | Official estimates determine the shortfall of engineers could rise to 300,000 by 2030, which threatens to stifle the resilient growth projected in the semiconductor industry. Additionally, in industrials and machinery, the percentage of employees with higher education has not changed in Germany and other major European manufacturers. The future threat of skilled labour shortage will be a

Figure 11: E-Vehicles Forecasted Units Sold



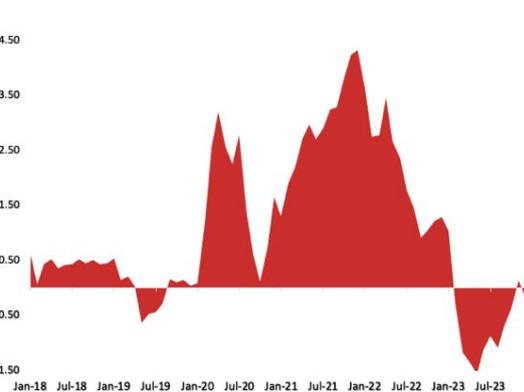
Source: Statista

Figure 12: Key Input Material 2023 Price Change

Material	2023 Price Increase
Electrical Conduit	12%
Steel	22%
Concrete	15%

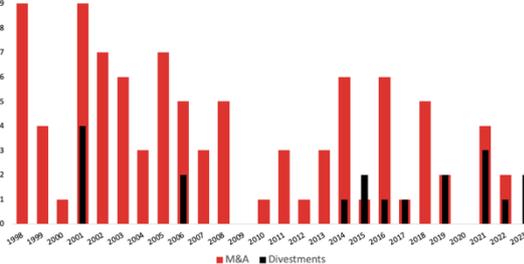
Source: Construction Dive

Figure 13: Global Supply Chain Index



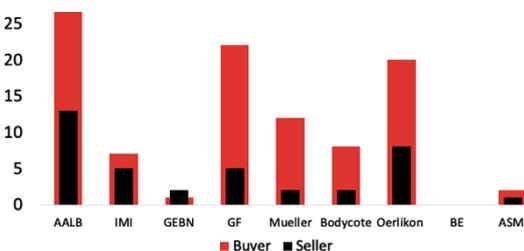
Source: New York Fed

Figure 14: Historical M&A Activity



Source: FactSet

Figure 15: 10-Year M&A Peer Comparison



Source: Team Analysis, FactSet

significant risk to Aalberts' innovation rate which will reduce the company's capacity to maintain its niche product offering and the pricing power that comes with it.

**Productivity Issues in Machinery and Construction** | Low productivity growth in the European machinery industry may dampen growth. The construction industry has the second lowest level of digitalisation, failure to adopt new technology may hamper forecasted growth but may give a competitive edge to first movers if Aalberts manages to build off their niche selling point and grow their technological presence and integration.

**High Cost of Materials** | Inflation levels in the EU reached as high as 9.2% in 2022 which heavily impacted input prices which has affected many industries (Figure 12). Aalberts mitigated cost risk by hedging €1.2mn of metals contracts in 2022 (€7.0mn 2021). The firm's unique position which grants pricing power caused this business segment to be more resilient and allow them to transfer a portion of price increases to customers. However, in its Building Technology segment where demand is more cyclical, Aalberts has increased exposure to this impact as overall construction activity for new builds is hampered due to the increased discrepancy between the affordability and returns. Input prices should continue to fall in 2024 but they still remain highly elevated compared to pre-pandemic.

**Inventory Reduction** | After the fallout of the global supply chain issues caused by the occurrence of a multitude of supply shocks, many industries are undergoing inventory reductions as circumstances begin to normalise (Figure 13). Many industries had previously increased their inventory levels as a contingency plan to navigate turbulent supply conditions. Although Aalberts is also undergoing inventory reductions which will positively impact cashflows, many of Aalberts' customers in eco-friendly buildings revenue stream are also undergoing inventory reductions which will negatively influence demand in the short term.

### Bolt-on Acquisitions

Aalberts has historically participated in an active M&A strategy across all of its business segments. Since 1998, Aalberts has acquired 94 businesses, allowing them to grow their business substantially and increase its operating efficiency. In the period 1998 to 2008 the company was very active in M&A as it intended to expand its portfolio having slowed down in recent years as the company aims to become more focused, (Figure 14). The most notable acquisition in recent times is the acquisition of UWS Technologie GMBH in 2022 and Sentinel Performance Solutions Group Ltd in 2021.

In comparison to peers, Aalberts exercised the most M&A by far in the last 10 years, (Figure 15). This past aggressive strategy raises valid concerns about Aalberts' organic growth and also gives rise to potential integration risks. The firm states their organic growth will be a higher priority in the coming strategic period of Aalberts.

As aforementioned, Aalberts employed a "focussed acceleration" strategy, divesting some of their businesses as part of their portfolio optimisation to maintain their unique position. The firm has stated they have finished their divestment program and will not make any more divestments throughout the strategic period of 2022 – 2026. Instead, they will employ a fluctuating M&A strategy in which they aim to acquire around 2 to 3 business per year valued between €20 - €50 million. Aalberts aims to acquire strong and healthy companies with this 'bolt-on' acquisition strategy which will reduce integration costs as well as mitigate some risks that may potentially arise with M&A.

### Critical Success Factors in the Business Landscape

**Strategic Positioning and Partnership Synergy** | Leading companies across Aalberts' key end markets in growth and profitability excel in reducing market rivalry through creating niche and integrated products for customers. Aalberts targets a 20% innovation rate (% of revenue from products launched in the last 48 months) and spend over 5% of revenue on R&D and innovation (over 50% of total CapEx). Their innovation rate grew from 15% to 17% in 2022 and strategic relationships with suppliers allows them to maintain hold on pricing power. Industry incumbents have reacted to developments in sustainable piping systems, HVAC systems, and transport in the Eco-Friendly Buildings and Sustainable Transport end markets by registering more patents on newer technologies and fostering close, synergistic relationships with customers.

**Operational Efficiency and Scale Optimisation** | Streamlining and scale advantages are key to maximizing profits in the capital-intensive industries in which Aalberts operates. Focus on the degree of operating leverage (DOL – how operating profit growth changes relative to revenue growth) and PP&E turnover have been key to industry profit growth. Aalberts has committed €200mn - €250mn in annual CapEx in their 2022 to 2026 strategic outline to improve organic growth and operational excellence through leverage.

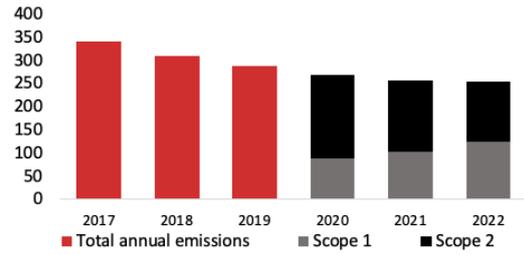
**Programmatic M&A** | Programmatic M&A strategies empower firms to achieve benefits of scale and integrate new technologies for a more complete product offering. Despite a temporary dip during the pandemic, M&A and divestitures in machinery and construction industries have rebounded, surpassing pre-covid levels. Firms have engaged in active M&A in the Eco-friendly and Surface Technologies end markets to protect against competitive pressures from industry fragmentation. Aalberts is using its M&A strategy to streamline manufacturing sites by 40% by 2026 but grow service locations on a local basis, fostering enhanced customer relationships.

**Cash Flow Management and Investment Efficiency** | Complexity of production, raw material requirements, and labour intensity in Aalberts' production processes puts strain on cash flow. Effective credit management and operational efficiencies are crucial to managing global challenges like bottlenecks, labour shortages, and resource scarcity. Construction and manufacturing industries have reduced inventories in 2023 after easing supply chain issues and lower demand. This has dampened sales activity and prompted building technologies and machinery manufacturers to follow suit. Aalberts manages credit efficiently (days payables exceed days receivables), but significant production complexity has led to inventory days twice as large as the nearest competitor.

### Key Megatrends

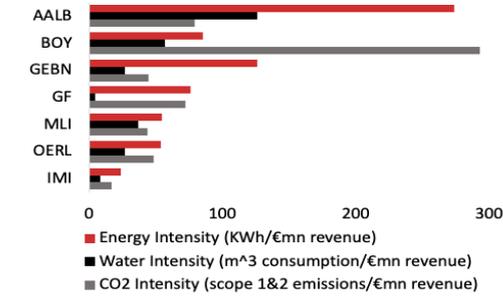
**IoT, AI, and High Tech Innovation** | IoT and AI technologies have boosted the market for more niche semiconductor offerings with greater memory and connectivity speed which is been driven by growing

Figure 16: Emission Levels by Scope



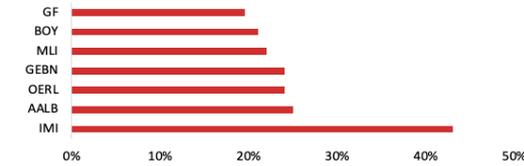
Source: Aalberts' Financial Reports

Figure 17: Peer Comparison on Environmental KPIs



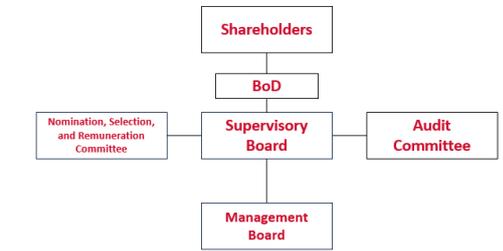
Source: Peers' Financial Reports

Figure 18: Workforce Diversity Ratio among Peers



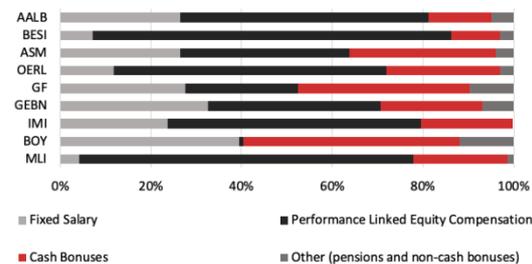
Source: Source: Factset

Figure 19: Corporate Governance Structure



Source: Aalberts Investors – Publications

Figure 20: CEO Compensation – Peer Comparison



Source: Peers' Financial Reports

demand in Smart Buildings, Building's Energy Efficiency, and Smart Manufacturing. Additionally, efficient and automated control of HVAC systems requires cutting-edge technology. Chipmakers TSMC and Intel have invested \$100bn and \$53bn respectively in capacity expansions to meet high future industry growth.

**Aalberts' Impact:** Aalberts' niche offerings in vibration isolation and high precision machinery positions them to capture the industry's 9% five-year CAGR. Key industry leaders of IoT chips – Intel and Texas Instruments – buy from Aalberts' customers, ASML and Applied Materials. Aalberts' programmatic M&A to bolt on complementary technologies and create greater product integration in the smart homes market will be a key focus if the company is to seize part of the 25% - 30% forecasted growth in the smart home market.

**Urbanisation |** The World Bank predicts the world's urban population to more than double by 2050, at which point 70% of the population will live – and 80% of global GDP will be created – in urban spaces. Some of the issues city planners are faced with in the development of these mega cities are the absence of space for efficient construction, insufficient means of sustainable transport leading to high levels of air pollution and increased human waste. Governments worldwide are bringing in further regulations on automobile emissions to promote more sustainable urban living and promote sustainable public transport schemes.

**Aalberts' Impact:** Aalberts' world-class design software Revit coupled with an integrated source-to-emitter product line positions them to offer comprehensive solutions to customers with limited obstruction to the surrounding environment during installation, saving customers time and money. Aalberts will also benefit from increased demand for sustainable transport options such as electric and renewable energy transport.

**Energy and Resource Scarcity |** Driven by a myriad of factors including geopolitical conflicts, supply chain issues, and pressures to reduce fossil fuel from Cop-28 goals, the price of Aalberts' two key inputs – metals and fuel – soared in 2021. The IMF metal prices index remains 25% higher than pre-2021 averages and oil benchmarks remain persistently high. Additionally, pressures on water scarcity have been driven by increasing drought occurrences globally and water intensive manufacturing processes.

**Aalberts' Impact:** The team see this problem as an opportunity for Aalberts' Eco-Friendly Buildings and Sustainable Transport end markets. Automotive and aerospace manufacturers in sustainable transport end markets are pushing for lighter machine parts (a 1% reduction in aircraft weight can reduce fuel costs by 0.75%) and more durable surface coatings that require less maintenance and replacement. Aalberts' focus on innovation rate is a key move to compete with increased patent issuance by incumbents in response to new product demand. According to competitors Georg Fischer, 20% to 50% of water in distribution infrastructures is lost through leakages, Aalberts' goal to combat this through SDG focus has strategically positioned them to grow IPS and HFC clusters.

## Environmental, Social and Governance

**ESG Scores |** Long-term sustainability is pushing customer and investor demand in new directions and subjecting firms to additional standards. All companies will become subject to the incoming CSRD, yet given the operations it will affect manufacturing industries to a larger extent. Aalberts underperforms peers on ESG metrics mainly due to high emissions, energy usage, and water consumption. Though the firm achieves Sustainable Development Goals (SDG) with 68% of revenue (ahead of the peer groups' 55%), they lag peers on environmental transparency. Additionally, poor leadership and communication with employees under the social pillar threatens to undermine execution of the strategic plan.

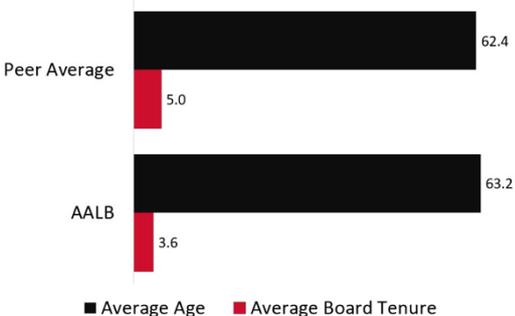
### Environmental

Platform	Environmental	Social	Governance	Controversy Score
LSEG	B+	B+	B-	A+
FactSet	-	-	-	Low (1)
MorningStar	8.4	9.7	5.1	41 <sup>st</sup> percentile
ISS ESG (1 is lowest 10 is highest risk)	-	-	2	-
Percentile ranking in Machinery, Tools, Heavy Vehicles, Trains, Ships	80 <sup>th</sup>	83 <sup>rd</sup>	45 <sup>th</sup>	99 <sup>th</sup>
<b>Adjusted Team Rating</b>	<b>B-</b>	<b>C+</b>	<b>B-</b>	<b>A-</b>

**Refocusing Commitment |** CO<sub>2</sub> emissions are one of four environmental KPIs for Aalberts and are key to mitigating CO<sub>2</sub> taxes and mitigating increasing climate risk. The firm has reduced annual scope 1 and 2 emissions by 30% since first measuring CO<sub>2</sub> emissions in 2017 and sets goals in line with the Paris Agreement (Figure 16). Compared to industry averages, the team advises Aalberts to prioritise core environmental focus towards energy intensity (where they lag peers significantly, (Figure 17), and subsequently reduce emissions. Aalberts targets CO<sub>2</sub> intensity at 78 by 2026, or 293 tCO<sub>2</sub> (based on our 2026 revenue forecast). SDG goals prioritise clean water and sanitation, sustainable cities and communities, and industry innovation and infrastructure. This has led to strategic focus on new product development such as innovative lead-free piping that helped them achieve green building rating qualifications LEED, DGNB and BREEAM, and complements strategic growth in the Eco-Friendly Buildings market. Focus on sustainable entrepreneurship has led to investment in water filtration, purification and softening technologies on production sites which has increased water returned to sources of extraction in similar or higher quality by 12% in 2022. Water consumption reduction by 8% helped Aalberts reduce total water withdrawal by 4%. This is vital for a firm where 20% of operational sites are located in 'high' or 'extremely high' water stressed regions.

**Transparency |** Aalberts has recorded scope 1 and scope 2 emissions separately since 2022. Despite falling total emissions, Aalberts relies on energy suppliers to reduce scope 2 emissions to outweigh increases of

**Figure 21: Supervisory Board Age and Tenure**



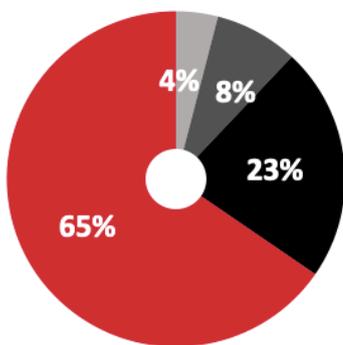
Source: Aalberts Investors - Publications

**Figure 22: Adherence to Dutch Governance Code**

Dutch Code Principle	Comply	...Or Explain
Board nominations can be repealed under absolute majority vote.	✗	Two-thirds vote required – promotes balanced control of concentrated shareholdings
Management board member appointed for maximum four-year period	✗	Term of current CEO appointment is unlimited
Supervisory board should be supported by company secretary	✗	Role filled by legal and governance function to promote lean organisational structure

Source: Aalberts Investor Relations

**Figure 23: Shareholders by Investor Type**



Legend: Private Companies (light grey), Individual Insiders (dark grey), General Public (black), Institutions (red)

Source: SimplyWallStreet

**Figure 24: Top Institutional Shareholders**

Top 10 Institutional Owners	Ownership	Activism
Fidelity Management & Research Co. LLC	10.00%	Very Low
Capital Research & Management Co.	5.70%	Very Low
Impax Asset Management Ltd.	5.29%	Very Low
The Vanguard Group, Inc.	3.00%	Very Low
Norges Bank Investment Management	2.94%	Medium
Pictet Asset Management SA	1.77%	Very Low
Invesco Advisers, Inc.	1.72%	Very Low
Dimensional Fund Advisors LP	1.57%	Very Low
Robeco Schweiz AG	1.45%	Very Low
Boston Partners Global Investors, Inc.	1.35%	Very Low

Source: SimplyWallStreet

**Figure 25: Equity Trades Made by Insiders**



scope 1 emissions. Remedial action on scope 1 emissions are a key focus to minimising future emission levels. These include medium-term solutions – LED lighting, usage of residual heat for heating and cooling buildings, and monitoring and reducing energy peaks to reduce emissions and energy costs – and long-term – investments in solar panels and pollution control in casting equipment for piping systems and machine parts. Comparatively low sustainability reporting levels to peers and current failure to report scope 3 emissions (a non-conformity to the incoming CSRD reporting standards) lead us to revise Aalberts’ environmental score to B-. Under EU Taxonomy, Aalberts surpasses peers on revenue, CapEx, and operating expenditure linked to “sustainable economic activities”, but failure to supply a complete internal due diligence process on human rights is inconsistent with EU Taxonomy.

**Driving Sustainable Action in End Markets** | Aalberts is a laggard in emissions, water and energy efficiency but strong presence in the Eco-Friendly Buildings and Sustainable Transport end markets will drive sustainable action to lower scope 3 emissions. Products, such as Aalberts’ LASOX-COAT patent, creates thinner and stronger surface technologies that can withstand higher engine temperatures (creating fuel efficiencies), last longer, and reduce material waste in the production process. Aalbert’s new high-tech propeller thrust sensors create fuel and CO<sub>2</sub> reductions of 15%. Recycling of raw materials by melting and re-using scrap metal and reducing use of hazardous materials – by substituting IVD coatings for chrome and cadmium coatings – aligns with Aalberts’ goals to create a circular waste flow and minimize landfill incineration. Energy efficiency improvement is vital to promote sustainable growth and lower energy costs, production energy usage qualifies for ISO 14001 and ISO 50001 certificate requirements, and 16.27% of energy is renewable (beating peer averages).

**Social**

**Employee retention, satisfaction, and promotion** | Aalberts offers several development programmes. In 2022, 556 people participated in these programmes to “enable them to learn the unique Aalberts culture and connect with colleagues from different Aalberts businesses”. These programmes resulted in the retention of 81% of these participants and the promotion of 21% of these participants. Reviews from Aalberts’ employees on GlassDoor grade the company an average 3.1 of 5. Employees are satisfied with the pay but dissatisfied with the leadership and communication. Considering the score provided by Aalberts’ employees, the team deems it appropriate to adjust Aalberts’ social score to a C+.

**Employee accidents** | Aalberts focusses on health, safety, and diversity. The firm have performed well on social KPIs over the past 3 years: employee initiatives helped Aalberts decrease Long Term Injury Frequency Rates (LTIFR) and average number of days lost from 8.7% to 7.3% and 18.9 to 17.7, respectively. In contrast, their absenteeism rate has increased – from 3.3% to 3.8% with Covid-19 excluded.

**Diversity** | Aalberts workforce comprises of 24% female workers and 25% on the Management Board (MB) (Figure 18). Diversity is ahead of peer averages, but the firm intends to drive this share towards 30% by 2026. Initially, this target seems unambitious, but due to ongoing labour supply constraints in the industry, the team deems this it appropriate.

**Legal disputes** | Aalberts found itself in a legal dispute regarding a potential “copper fitting cartel” in 2006. However, in 2011, the General Court in Luxembourg ruled in favour of Aalberts in the antitrust case and the fine of 100.8 million EUR was annulled. There have been no other legal disputes throughout the history of the company. In terms of wider social impact, Aalberts has not pulled operations from Russia, operations continued on a non-specified lower level and investment was postponed. Thus, the team revises their ESG controversy score from A+ to A-.

**Governance**

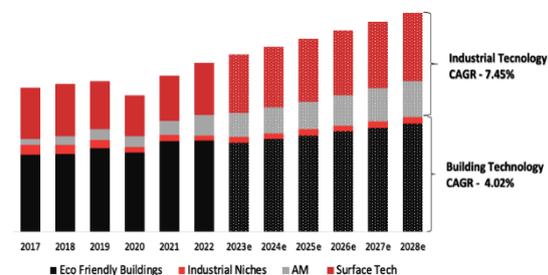
Aalberts lags peers on corporate governance, ranking B- on LSEG and by our own analysis. Lack of clarity and environmental action on CSR strategy, failure to comply with relevant principles on the Dutch Corporate Governance Code, and relatively low board member experience (by average tenure) has hurt governance ratings for Aalberts and diminishes prospects for a sustainable and healthy firm in the long term (Figure 21, Figure 22). Poor management score (48.08/100 Refinitiv) stems from dispersed strategic focus and low Supervisory Board and MB diversity. Internal governance controls create accountability and a positive work environment, they are enforced through the Code of Conduct and Aalberts’ SpeakUp! initiative.

**Executive Management** | Unlike common corporate governance structures, Aalberts’ structure solves agency problems and conflicts of interest by separating duties of the entirely independent Supervisory Board (SB) – who supervise policies, general affairs, and strategy development – and executive directors’ duties on the MB – responsible for day to day implementation of strategy (Figure 19). The separation of each board’s duties ensures stability in strategy but can slow the feedback mechanism between strategy implementation and firm performance. The appointment of Stéphane Simonetta in September 2023 as CEO will bring “continued execution of the current 2022-2026 strategic plan”, adding little clarity to his specific plans for the firm’s future.

**Remuneration** | At Aalberts’ 2022 AGM, shareholders agreed to raise the SB to the median level of AMX listed firms (€50,000 annual salary for general board member) to incentivise higher SB performance after low SB compensation threatened governance rankings. Short-Term Incentives (salary bonuses for MB determined by performance on EPS, FCF, revenue, and ESG objectives) and long-Term Incentives (equity compensation based on performance of core strategic objectives within the last five years) incentivise targeted “long-term stakeholder value creation” from the MB (Figure 20). Compared with peers, low relative pay ratio (average MB compensation decreased 17% in 2022 to 19.7x average employee compensation) promotes internal wage equality but can reduce MB and SB incentive to create firm value.

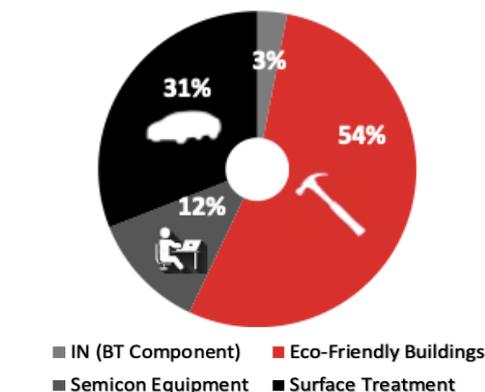
**Shareholders** | Aalberts ranks 81.92/100 Refinitiv ESG score on shareholders, positive factors include one vote per share and open policy on bilateral contracts with shareholders, although relatively low free float (AALB 75% of 110mn outstanding, MLI 97%, IMI 98%, BOY 98%, OERL 86%) can reduce trading efficiency. Alberts’ ISS quickscore of 2 and low shareholder activism both signify very low governance risk for institutional investors, leading to large institutional shareholdings – illustrating firm credibility but leaving Aalberts vulnerable to investors’ trading decisions (Figure 24). Authorisation for MB to issue further share capital or engage in share repurchases (up to 10% of existing shares outstanding) has not been acted upon

Figure 26: Aalberts Forecasted Revenue CAGR



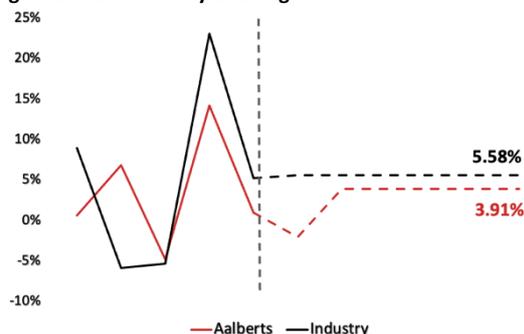
Source: Annual Reports, Team Analysis

Figure 27: 2022 Revenue Breakdown By End-Market



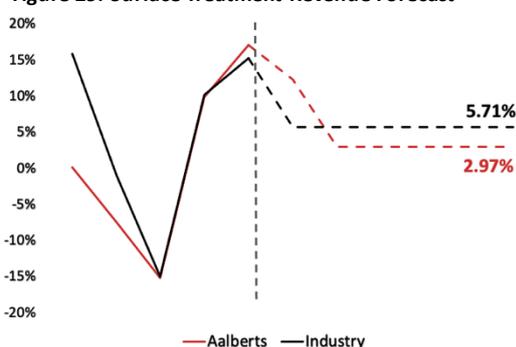
Source: Annual Reports

Figure 28: Eco-Friendly Buildings Revenue Forecast



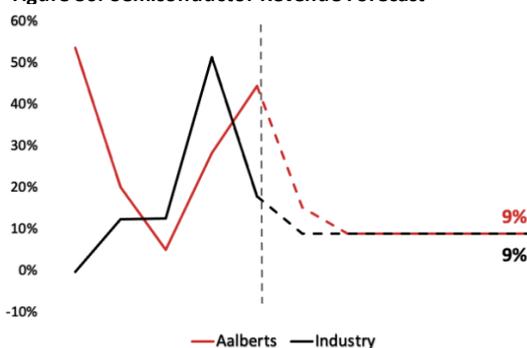
Source: Market Research, Team Analysis

Figure 29: Surface Treatment Revenue Forecast



Source: Market Research, Team Analysis

Figure 30: Semiconductor Revenue Forecast



Source: Market Research, Team Analysis

and shareholdings remain stable. Early 2023 insider share sales (mainly by outgoing CEO Wim Pelsma) may hint at low management sentiment (Figure 25).

## The Path Towards Best-In-Class ESG

Where Aalberts excels in avoiding controversy and set strategic environmental goals, they lack in Social and Governance pillars. Although ahead of industry average (79th percentile), Aalberts' ESG is a far cry from a perfect A+. The team believes Aalberts can make several short-term and long-term steps towards reaching this score including greater focus on scope 1 emission reduction and energy intensity, greater workforce and board diversity, greater integration in strategy development and strategy implementation between SB and MB, and less dispersed strategic corporate vision. Lastly, Aalberts may want to consider improving management communication with employees and fully divest their business in Russia. This could include setting up feedback programmes for employees to anonymously provide feedback or increasing employee satisfaction some other way. This would of course cost money and Aalberts' management should consider the financial factors when rebalancing their financial- and ESG priorities.

## Financial Analysis

### Revenue and Growth

Given Aalberts' business structure, revenues for each end market were forecasted separately and attributed to each relevant business segment (Appendix Mapping). The team found significant negative seasonality when regressing sales growth of H1 against H2 earnings. H2 2023 results were plotted with respective coefficients and amended based on qualitative research. The team identified key demand drivers for each end market (see industry analysis – urbanization, IoT, and resource scarcity driving market dynamics) and created end market CAGRs by weighting forecasted demand in these drivers by 2022 revenue exposure in geography and product demand (Figure 26, Figure 27). These were adjusted using quantitative measurements of Aalberts' performance in industry critical success factors to determine how the firm would match up to industry growth.

**Eco-Friendly Buildings** | Considering ongoing industry inventory reductions and seasonality, the team reduced Aalbert's revenue for H2 2023 by 5% to H1 earnings. Revenues for 2024 and onwards were forecasted using forecasts of four key end markets (ECO-FRIENDLY BREAKDOWN). The team forecasts Aalberts to underperform the industry by 30% and grow with a 3.95% five-year CAGR (Figure 28). Since 2017, this stream has experienced a 3.32% CAGR, underperforming its peer group in 4 out of the last 5 years in growth. The team expects this trend to continue due to underperformance on critical success factors. Specifically, inefficient cashflow management through industry lagging cash-conversion-cycle (CCC) may put pressure on CapEx and M&A strategies, and lower scale efficiencies (industry lagging PP&E turnover) may make profit generation a struggle. However, the firm is well positioned to capitalize on consumer attitudes shifting towards more energy-efficient options.

**Industrial Niches - BT Component** | Considering ongoing industry inventory reductions and seasonality, the team reduced Aalbert's revenue for H2 2023 by 5%. Key demand drivers for this business – industrial services – are forecasted to grow at a 3.78% five-year CAGR. Corporate investment in this business has been the factor behind poor revenue growth (-11% historic five-year CAGR) as the firm has reallocated resources towards core capabilities. The team forecasts these revenues to grow at a rate 60% lower than the industry.

**Semiconductor Equipment** | Due to high industry growth and busy orderbook, the team forecast H2 2023 earnings at the same growth rate as H1. Rapid technological innovation and new applications for IoT and AI are driving a high (9% five-year CAGR) forecasted demand for semiconductor production equipment (Figure 30). Considering Aalberts' historic success in growing their presence in this market and their intensive partnership synergies with customers the team forecast them to match industry growth.

**Surface Treatment** | The team sees Aalberts maintain the same elevated sales performance for 2023 H2 due to increased demand in e-mobility, lightweight materials, and specialized surface technologies. The ST industry has recovered well since the Covid-19 pandemic hit business, and operating margins continued to grow in 2022. Despite high forecasted industry growth, the team sees Aalberts capturing 50% of this growth (with a 2.86% five-year CAGR) due to historic inability to capture industry growth and failure to beat competitors on innovation in patents issued and R&D expenditure (Figure 29).

### Profitability

Aalberts recorded high gains on disposal and earnouts in 2021 and 2022 (€173.7 million and €39.6 million respectively). The team identified one-time gains from the last two years' calculations as a potential red flag and calculated profitability ratios for both circumstances to achieve accurate peer comparisons and reflect pure operational results (Figure 31). Additionally, the team forecasted no future gains on disposal gains due to management's indication on the cessation of its divestment program.

The 9-year average of the unadjusted ROE ratio has been realized as 13.60% (Adjusted %12.34, Figure 31). Although the ROE reached an all-time high at 17.77% and 14.65% respectively in previous years, the removal of gains created through divestment led to the revision of these ratios to 9% and 12.11% respectively. The consistent decline in ROE over the previous nine years has been driven by falling asset turnover (0.99 to 0.82) from acquisitions that have failed to create sufficient value (Figure 33, Appendix – Ratios). Unless substantial income is generated from M&A transactions, our ROE predictions remain below the levels of the previous period, as asset efficiency is expected to continue declining due to CAPEX and transactions (Figure 32).

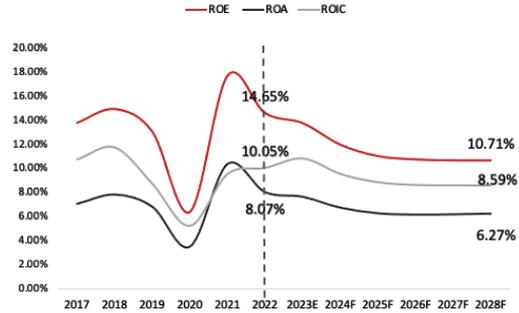
Operating margins had a strong post-Covid recovery partially due to high depreciation from high investment, reflecting the focus and innovation corporate strategy (18% average EBITDA Margin), (Appendix – Ratios). The team expects operational margins to remain stable in future periods. Although the Aalberts' financial health is very stable (as illustrated in the Piotroski F-score), the firm lags its peers in each revenue stream for this metric. This highlights Aalbert's recent struggles to navigate turbulent market conditions.

Figure 31: Financial Adjustments

	2021A	2022A
EBITDA (M)	706	604
Adjusted EBITDA (M)	529	579
ROE	17.8%	14.7%
Adjusted ROE	9.0%	12.1%
ROIC	9.5%	10.1%
Adjusted ROIC	7.7%	9.6%

Source: Team Analysis

Figure 32: Profitability Analysis



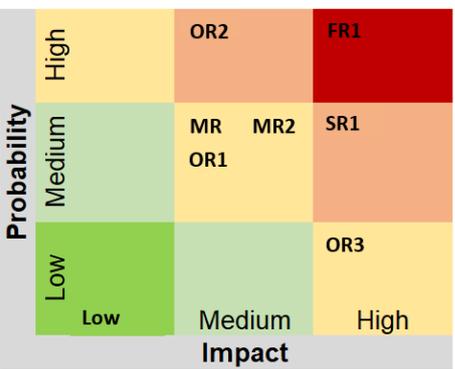
Source: Team Analysis

Figure 33: Dupont Analysis

	2021	2022
ROE	17.77%	14.65%
Adjusted ROE	8.99%	12.11%
ROA	10.42%	8.07%
Adjusted ROA	5.27%	6.67%
Profit Margin	12.08%	9.82%
Adjusted Profit Margin	6.13%	8.13%
Asset Turnover	0.99	0.95
Equity Multiplier	1.71	1.82

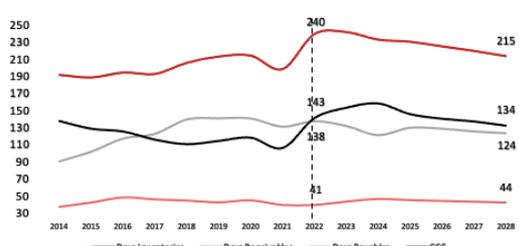
Source: Aalbert Reports

Figure 34: Investment Risks



Source: Team Analysis

Figure 35: Cash-Conversion-Cycle Peer Comparison



Source: Team Analysis

**Leverage and Liquidity Ratio**

**Leverage** | The team expects Aalberts' debt ratio to remain at 0.20 in future periods due to the firm's strategy to continuous M&A opportunity evaluation. Continued CAPEX has increased Aalberts' leverage ratio (net debt/EBITDA) to 1.3 in 2022 from 0.9 the previous year. The current strategic plan may increase leverage and the firm will need to maintain strong relationships with banks if they are to keep leverage below their target for the strategic period (2.5) and not break debt covenants (3.0) all while abstaining from financial market debt funding (see Fig. y). Aalberts' gearing ratio (net debt/equity) rose to 34% in 2022 from 22%, representing higher risk than peer group averages (BT – 20%, ST – 25%, IN – 27%) to the residual claim of shareholders. However, the team is not concerned about any adverse effect of leverage on free cash flow or dividend payments. Despite falling in 2022 and sustaining levels lower than peer groups, interest coverage (EBITDA/net interest) is x31.4 and well above the x3 threshold on bank loan covenants.

**Liquidity** | The company is expected to maintain an average cash ratio of 0.50 and quick ratio of 1.3 in the medium term and is considered sufficiently liquid to meet short term obligations for the operations of the business. Bank borrowings have been 99% hedged from floating to fixed interest rate which allowed the firm to obtain medium-term funding at low prevailing rates under recent years' loose monetary policy – 2.4% average effective rate (Appendix – Liability Maturities). The firm's previous and forecasted liquidity measures largely underperform the BT and IN peer groups and may provoke management to introduce short-term financial strategies to mitigate this. However, Aalberts' leading financial health (liquidity and solvency related) relative to ST competitors may give the company the edge in CAPEX and portfolio expansion to out-grow and innovate past peers.

**Investment Management**

Aalberts pursues unique positions, as a result, highly complex production processes have led the company to significantly lag its competitors in cash generation efficiency (cash-conversion-cycle). Despite tight credit management and peer matching days-payables and days-receivables, complex niche production practices have led to significantly longer inventory days (Figure 35). Problems with lower cash-generating efficiencies are exacerbated by a peer lagging PP&E turnover which strains production efficiencies (9.53 IT, 5.95 BT, 3.44 Aalberts). Smart investment into efficient production equipment will remain a key focus of Aalberts if the company is to achieve its goals on operational efficiency and speed up cash generation.

For future periods, the components of current assets and liabilities have been estimated for the net working capital calculations. The most recent figures, 2023 interim results, have been utilized for activity ratios, while for other items, e.g. other current assets, ratios within the average revenue of the last 3 years have been calculated, and the forecast estimates have been held constant throughout the years, (Appendix – NWC Schedule).

**Acquisitions**

Aalberts has underperformed its peer group in ROIC due to lower returns on acquisitions and higher premiums paid (9.44% Historically), (Figure 36). Aalberts' focus on operational excellence and reducing manufacturing footprint has been exemplified in its latest transactions which saw Aalberts' divest from three companies – each in the BT segment. The company has also adopted a more concentrated approach to transactions related to the IT segment.

However, due to the degree of uncertainty regarding the returns future investments may yield, the team has not incorporated any upside in ROIC into the financial model. Nevertheless, the team anticipates that if the company prioritizes vertical integration to achieve strategic objectives as opposed to financial objectives, Aalberts will improve its investment efficiency as it will strengthen its position to capitalize on the reshoring trend, (Figure 32).

To forecast the implications on Aalberts' balance sheet, the team utilized historical acquisitions data. The past transactions revealed the proportion of net assets acquired in total expenditure in M&A per year was 73% on average, 83% of which are intangible assets historically. Assuming an annual acquisition expense of €150 million, these assumptions have been allocated to tangible and intangible assets accordingly based on this historical breakdown, (Appendix – Balance Sheet).

**Distribution Policy**

Although the dividend policy is set at the general meeting at 30% percent of net profit before amortization and exceptionals, dividend distributed to shareholders has constantly increased since 2013, (DPS CAGR 12%). In future periods, the team believes there is room for a dividend ratio increase, and the team anticipates that the dividend payout ratio could exceed 40%, despite the ongoing active M&A strategy, (Figure 37, Figure 38). Overall, the team expects that Aalberts would opt for additional shareholder returns is and capable of initiating the approved share buy-back program from the 2022 AGM, a policy not extensively used in the past to avoid share price fluctuations and protect shareholders. More frequent 2% share price drawdowns relative to peers increases volatility risk to Aalberts shareholders (Figure 39).

**Capital Expenditure**

Aalberts operates in asset-heavy industries. To solidify its unique position in various sectors and create a high barrier to entry, it has a higher CAPEX/Sales ratio compared to its peers in both clusters, (Figure 40). To facilitate organic revenue growth and innovation plans, this ratio reached 6.70% in 2022. To maintain the existing competitive advantage and capture growth in the market, the team anticipates this high ratio to persist. On par with management's future plans, a marginally above-average CAPEX/Sales ratio is projected for both clusters in the upcoming years (5.6% BT, 7.9% IT).

**Valuation**

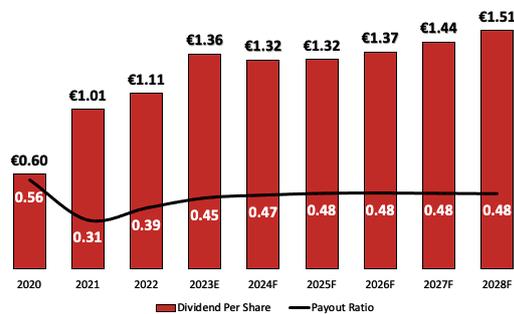
The valuation of Aalberts employed both DCF and relative valuation methods. As stated, Aalberts' mainly operates in three diverse end markets which creates limitations on the standard DCF valuation method in terms of the optimal WACC and the company's divergent trajectories. Therefore, to mitigate these limiting factors, the team utilized Aalberts' segmental reporting data from annual reports.

**Figure 36: Invested Capital Allocation**

FY 2022	
NWC 23%	ST Debt 8%
PP&E 31%	LT Debt 19%
Goodwill 30%	Equity 73%
Lease Assets 5%	
Oth. Fixed Assets 10%	

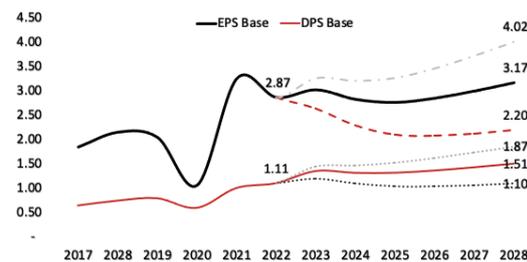
Source: Team Analysis

**Figure 37: Dividend Payout Forecast**



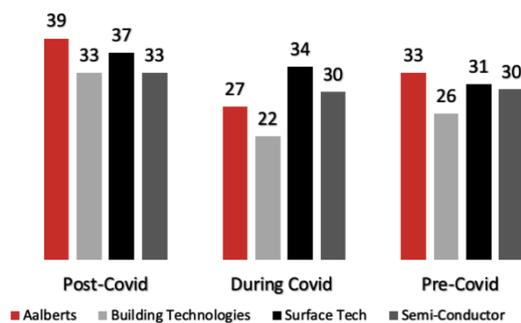
Source: Team Analysis, Financial Reports

**Figure 38: EPS and DPS Analysis**



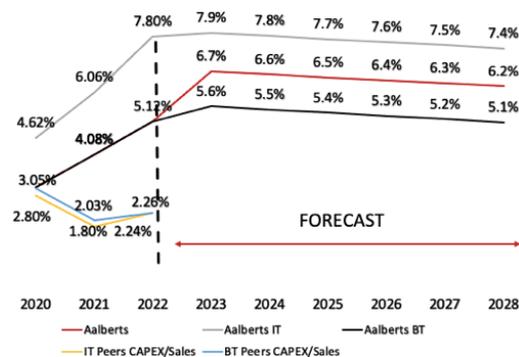
Source: Team Analysis

**Figure 39: Peer Drawdown Analysis**



Source: Team Analysis, FactSet

**Figure 40: Segmental CapEx Forecast**



Source: Annual Reports, Team Analysis

and the Sum of the Parts (SOTP) method was applied. This allowed for separate forecasts for each segment – Building Technologies and Industrial Technologies – enabling the calculation of two distinct FCFs (Free Cash Flow to Firm). These segment-specific FCFs were then discounted with segment-specific WACCs (Weighted Average Cost of Capital) and cumulated to calculate implied equity value. (Appendix – FCF BT, FCF IT, FCF Aalberts), (Figure 43).

### Unlevered Free Cash Flows

The valuation has been conducted by making prudent assumptions across the five-year forecast horizon with the object of accurately reflecting the current situation of Aalberts' base case. Since segments have different growth prospects, profitability margins, sales and capital requirements, the forecast has been carried out separately based on end-markets characteristics. 2023 year-end financial results have been estimated reflecting the most recent interim results disclosed by Aalberts. For the forecast of Depreciation and Amortization (D&A), a forecast matrix has been developed by incorporating our CAPEX forecasts using the D&A schedule based on 3 years useful life of assets, (Appendix – D&A Schedule).

### Weighted Average Cost of Capital (WACC)

To facilitate the SOTP DCF valuation, the team identified two separate WACCs designed to accurately represent the risk profiles of Aalberts' BT and IT segment which were calculated to be 7.11% and 8.48% respectively, (Figure 41).

Cost of equity was calculated using the CAPM approach. Using the 1-year average of the yield of a 10-year Dutch government bond as a proxy, the team calculated the risk-free rate to be 2.82% whilst also deriving a value of 5% for the Market Risk Premium for the Netherlands sourcing this value from data published by widely respected NYU professor Aswath Damodaran.

Due to the absence of segment-specific price data – to calculate the individual betas for each segment, the 3-year weekly beta of each of its competitors was identified before unlevering each beta of each company based on its respective debt/equity ratio and effective tax rate. The team then calculated the average beta for each segment – using a weighted average based on 2022 revenue for industrial technology - before relevering this figure using Aalberts' debt ratio to accurately reflect the company's risk profile.

Due to the absence of publicly traded debt the team used the Interest Expense method to calculate the cost of debt which was valued at 2.45% based on 2022 figures. The team then used target debt ratio of %20 for the WACC computation.

### Terminal Growth Rate

The team used the same long-term growth rate for both business segments as the stable period 1.67% long-term growth rate. The team believes markets will be saturated in the long run and we anticipate long-term growth in line with GDP growth rate expectations. The long-term country specific GDP growth expectations published by the IMF have been weighted by Aalberts' 5-year average geographic revenue split.

### Relative Valuation

To increase the robustness of our recommendation, the team performed a relative valuation. Identifying the EV/EBITDA multiple and the Forward Price-Earnings multiple as the most suitable relative valuation approaches considering the nature of Aalbert's business, (Appendix - Relative Valuation). To account for the diverse nature of Aalberts' three peer groups, the team used a weighted average based on the 2022 revenue split to calculate the relevant multiple values for Aalberts total peer group, (Appendix – Revenue Mapping). For the P/E multiple – the team calculated a mean value of 17.26x which provided an implied share price of €48.83 when applied to Aalberts' forecasted 2024 EPS figure. For EV/EBITDA Multiple calculations, the team used our revenue mapping to calculate separate EBITDA Multiples for its Building Technology and Industrial Technology segments with respective mean values of 10.76x and 11.30x. Using Aalberts' forecasted 2023 EBITDA figures for each segment, the team calculated segment-specific enterprise values before combining them to conclude the overall enterprise value of the company. The team then deducted net debt and minority interest to gain an implied share price of €56.19, (Appendix Relative).

### Sensitivity Analysis

Aalbert's estimated share price determined by DCF valuation has been computed for several terminal growth rates and WACCs for both segments. As shown by the analysis, the team attempted to use the most extreme ratios possible for the analysis. Nevertheless, the estimated price range is calculated with a 9% deviation, considering both the lowest and highest variations for two segments.

### Scenario Analysis

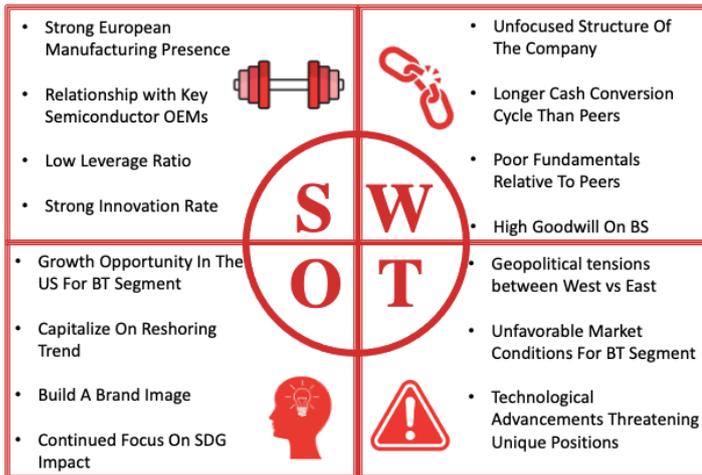
The team performed a Monte Carlo simulation with 100k iterations flexing the company's revenue growth, margins, WACC, and terminal growth rate. The output of this simulation dictated the share price would fall between €40.00 and €51.59 with a 95% confidence interval, (Appendix-Scenario Analysis). When determining scenario inputs, the base case was formulated in a concise manner to best reflect the industry and economy the company is in, considering the company's complex operational structure and susceptibility to various external factors. In the event of an inability to attain a unique position contrary to the targeted strategy, the earnings growth is estimated to fall below our expectations, reflecting increased operational expenses. As a result, the calculated per-share value based on bear scenario is €37.30 (5% downside). In the bull scenario, the company performs well in its strategy execution coinciding (5% downside). In the bull scenario, the company performs well in its strategy execution coinciding with favourable market conditions which means lower operating expenses and higher demand for company products and services. This results in Aalberts exceeding earnings expectations leading to per-share value of €53.82 (37% Upside).



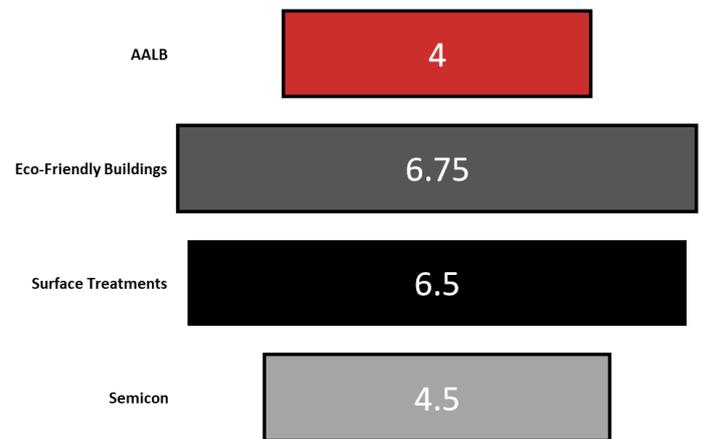
# APPENDIX MAP

- |                          |                                  |                          |
|--------------------------|----------------------------------|--------------------------|
| 1. SWOT                  | 8. Industry CAGRs                | 17. Cash Flow Statement  |
| 2. Piotroski F Score     | 9. Sensitivity Analysis          | 18. SOTP DCF Valuation   |
| 3. Porters' 5 Forces     | 10. D&A Schedule                 | 19. Football Field       |
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| 5. Competitive Advantage | 12. Recent Transactions/Strategy | 21. Ratios               |
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## 1. SWOT



## 2. Piotroski F-Score



## 3. Porters' 5 Forces

### Threat of New Entrants

- Piping Systems, Distribution & Climate Technology:** Established access to market via local relationships with installers which enhances Aalberts' brand name and recognition. High capital requirements in PP&E drive economies of scale. A new merger is the only possible threat.
- Surface Treatment:** Strategic partnership with buyers in automotive and aerospace industries secures distribution. Long history of expertise, R&D investment, and patent creation solidifies Aalberts' position in the market.
- Semiconductor OEM equipment manufacturing:** Intensive co-development with OEMs. Highest CapEx and assets of Aalberts' segments combined with proprietary intellectual property.

### Threat of substitutes

- Piping Systems, Distribution and Climate Technology:** Improving technology of portable climate control technologies (Dyson) may threaten integrated product offerings despite strong hold across majority of market offerings.
- Surface Treatment:** Substitute technologies may emerge from competitors due to high drive for innovation and patent development.
- Semiconductor OEM equipment manufacturing:** Lack of substitutes in this highly niche industry, buyers would face high switching costs.

### Competitive rivalry

- Piping Systems, Distribution and Climate Technology:** The market has a medium level of concentration, but each firm has high exit barriers and strong commitments to strategic plans.
- Surface Treatment:** Competitors emerge with new innovations to compete on an innovation basis, high R&D upfront financing puts pressure on profits but product differentiation mitigates much of this.
- Semiconductor OEM equipment manufacturing:** High upfront costs and R&D but a lower number of competitors and high industry growth rate promote profits.

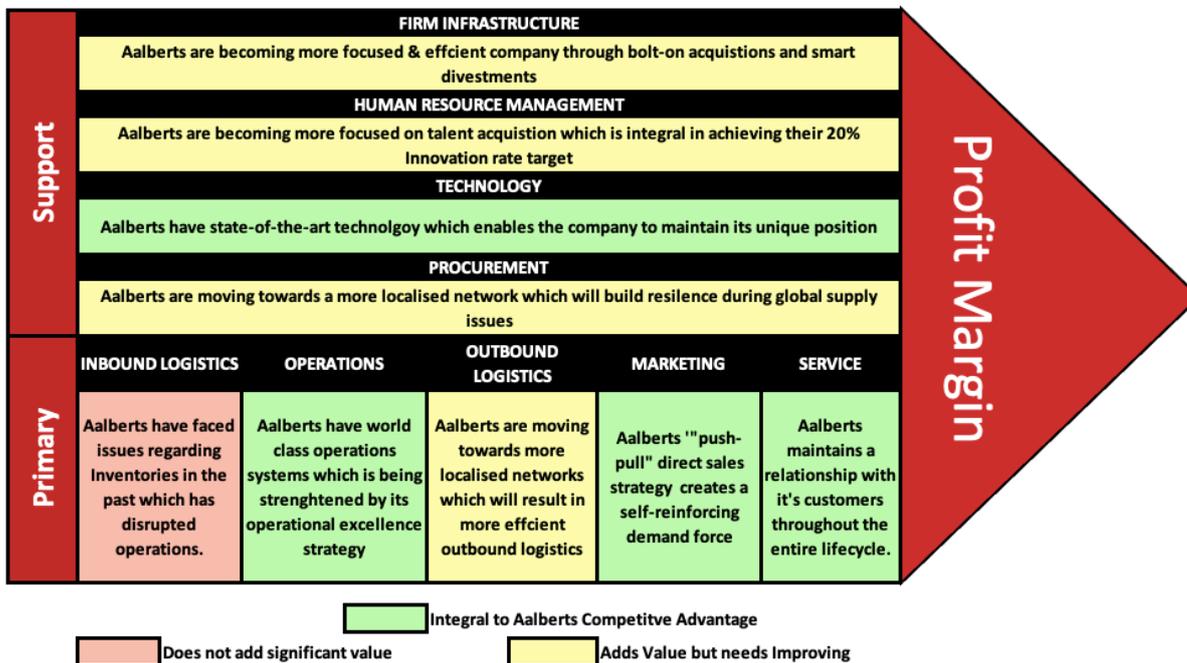
### Power of suppliers

- Piping Systems, Distribution and Climate Technology:** Aalberts is a price taker on the metals market and there are no feasible substitutes, but the metals market is highly price-competitive.
- Surface Treatment:** Similar market for raw materials but ST's more niche production capabilities require more specific supplies.
- Semiconductor OEM equipment manufacturing:** Same relationship to the raw materials market but high reliance on skilled labour which is falling in relative supply.

### Power of buyers

- Piping Systems, Distribution and Climate Technology:** High importance of piping products in the construction market and increasing importance of climate control due to climate change.
- Surface Treatment:** New demand drivers in automotive and aerospace industries require niche offerings not easily replaced (raising switching costs), but emerging alternatives from product innovation increases buyer power.
- Semiconductor OEM equipment manufacturing:** In this highly specialised industry buyers prioritise product quality and niche offerings cannot be commoditized.

#### 4. Value Chain



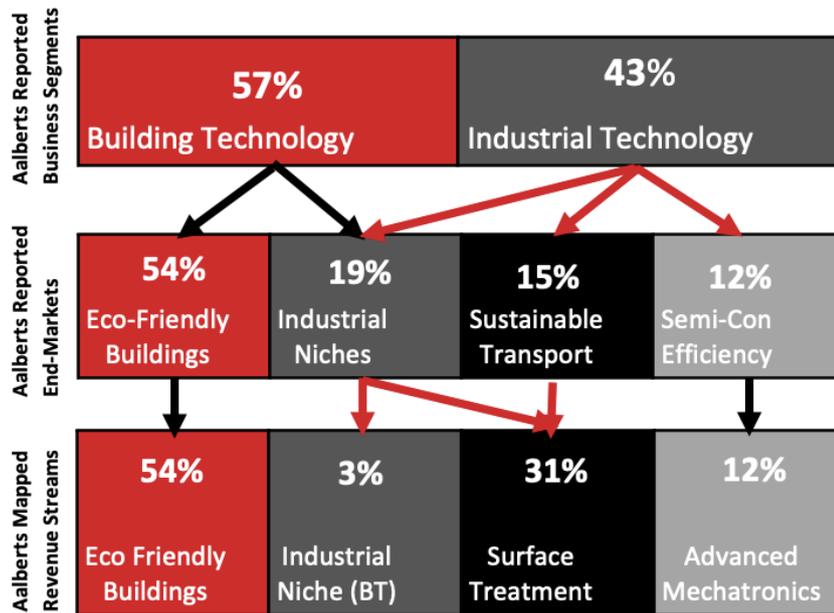
#### 5. Competitive Advantage

<b>Products</b>	<b>Hydronic Flow Control</b>	<b>Integrated Piping Systems</b>	<b>Advanced Mechatronics</b>	<b>Surface Treatments</b>
				
	<b>One-Stop Shop Capabilities</b>	<b>World-Class Revit Design Software Capabilities</b>	<b>Valuable IP &amp; Patent Ownership</b>	<b>Tailormade Solution Capabilities</b>
<b>Competitive Advantage</b>	<b>"Push/Pull" Direct Sales Approach</b>	<b>"Push/Pull" Direct Sales Approach</b>	<b>Existing Relationships with Key Accounts ie. ASML</b>	<b>Combined Offering of Highly Specialised Technologies</b>
	<b>Digitally Integrated Source-To-Emitter Technologies</b>	<b>World Class Manufacturing Sites</b>	<b>Unique Technology Portfolio</b>	<b>Strong Sustainable Processes</b>

#### 6. Peer Group

	Company Name	Ticker	Location	Market Cap	2022 Revenue	Employees
<b>Building Technologies</b>	Geberit AG	\$GEBN		CHF17.404B	CHF3,391.9M	11,514
	IMI PLC	\$IMI		£4.422B	£2,049M	10,991
	Georg-Fischer	\$GF		CHF4.872B	CHF3,998M	15,464
	Mueller Industries Inc.	\$MLI		\$5.201B	\$3,982.46M	5,137
<b>Surface Technologies</b>	OC Oerlikon Corporate AG	\$OERL		CHF1.214B	CHF2,909M	13,089
	Bodycote	\$BOY		£1.46B	£734.60M	4,933
<b>Advanced Mechatronics</b>	ASM International NV	\$ASM		€22.65B	€2,410.92M	4,258
	BE Semiconductor Industries	\$BESI		€10.223B	€722.87M	1,819

## 7. Revenue Mapping



## 8. Industry CAGRs

	Business Segment	Revenue Stream	Historical 5-Year CAGR	Geographical Market	Weighted Average CAGR	Adjusted Industry CAGR	Reasons For Adjustment
<b>Industry CAGR</b>	<b>Building Technology</b>	Eco-friendly Buildings	3.32%	EU - 77% US - 16% AMAC - 6%	3.56%	3.91%	High Growth Capacity in Green Buildings
		Industrial Niche (BT Component)	-11.21%	EU - 74% US - 23% AMAC - 3%	3.78%	1.50%	Aalberts Strategy of becoming more focused will slow growth
	<b>Industrial Technology</b>	Semiconductor Equipment	29.18%	Glob. - 100%	9.00%	9.00%	
		Surface Treatments	0.23%	EU - 74% US - 23% AMAC - 3%	5.71%	2.86%	Aalberts historical inability to capture market growth

## 9. Sensitivity Analysis

Share P.	WACC Building Technologies						
€ 45.06	6.81%	6.91%	7.01%	7.1%	7.41%	8.00%	9.00%
<b>1.00%</b>	42.40	42.38	42.36	42.34	42.28	42.17	41.99
<b>1.25%</b>	43.34	43.32	43.30	43.28	43.22	43.11	42.93
<b>1.57%</b>	44.67	44.65	44.63	44.61	44.55	44.44	44.26
<b>1.67%</b>	45.12	45.10	45.08	<b>45.06</b>	45.00	44.89	44.70
<b>1.77%</b>	45.58	45.56	45.54	45.52	45.46	45.35	45.17
<b>1.87%</b>	46.06	46.04	46.02	46.00	45.94	45.83	45.65
<b>2.00%</b>	46.71	46.69	46.67	46.65	46.59	46.48	46.30

Share P.	WACC Industrial Technologies						
€ 45.06	8.18%	8.28%	8.38%	8.48%	8.78%	9.08%	10.00%
<b>1.00%</b>	43.48	43.46	43.45	43.43	43.39	43.35	43.22
<b>1.25%</b>	44.05	44.03	44.02	44.00	43.96	43.92	43.79
<b>1.57%</b>	44.84	44.82	44.81	44.79	44.75	44.71	44.58
<b>1.67%</b>	45.10	45.09	45.07	<b>45.06</b>	45.01	44.97	44.84
<b>1.77%</b>	45.37	45.36	45.34	45.33	45.28	45.24	45.11
<b>1.87%</b>	45.65	45.63	45.62	45.60	45.56	45.52	45.39
<b>2.00%</b>	46.02	46.01	45.99	45.98	45.93	45.89	45.76

## 10. D&A Schedule

BUILDING TECHNOLOGIES									
D&A	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>CAPEX</b>	<b>50</b>	<b>76</b>	<b>94</b>	<b>104</b>	<b>106</b>	<b>108</b>	<b>110</b>	<b>112</b>	<b>114</b>
First Year D&A (Averaged)	8	13	16	17	18	18	18	19	19
Second Year D&A	20	17	25	31	35	35	36	37	37
Third Year D&A	16	20	17	25	31	35	35	36	37
Fourth Year D&A (Averaged)	8	8	10	8	13	16	17	18	18
<b>TOTAL D&amp;A</b>	<b>87</b>	<b>99</b>	<b>96</b>	<b>83</b>	<b>98</b>	<b>107</b>	<b>111</b>	<b>113</b>	<b>115</b>
INDUSTRIAL TECHNOLOGY									
D&A	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>CAPEX</b>	<b>46</b>	<b>68</b>	<b>108</b>	<b>133</b>	<b>137</b>	<b>142</b>	<b>147</b>	<b>152</b>	<b>158</b>
First Year D&A (Averaged)	8	11	18	22	23	24	24	25	26
Second Year D&A	29	15	23	36	44	46	47	49	51
Third Year D&A	28	29	15	23	36	44	46	47	49
Fourth Year D&A (Averaged)	11	14	15	8	11	18	22	23	24
<b>TOTAL D&amp;A</b>	<b>106</b>	<b>101</b>	<b>92</b>	<b>91</b>	<b>123</b>	<b>145</b>	<b>156</b>	<b>161</b>	<b>166</b>
<b>TOTAL AALBERTS D&amp;A</b>	<b>193</b>	<b>200</b>	<b>188</b>	<b>174</b>	<b>221</b>	<b>252</b>	<b>267</b>	<b>274</b>	<b>281</b>
<i>Total D&amp;A / Total Assets</i>	5.6%	6.1%	5.1%	4.1%	4.9%	5.3%	5.4%	5.2%	5.1%

## 11. NWC Schedule

NWC Schedule (m, EUR)	2020	2021	2022	2023E	2024F	2025F	2026F	2027F	2028F
Trade Receivables(+)	324	337	381	483	483	493	503	514	524
Inventories(+)	555	688	911	883	918	940	952	975	980
Trade Payables(-)	373	450	470	511	524	537	561	566	572
Other Current Assets (+)	49	55	97	79	82	86	89	93	97
Other Current Liabilities(-)	172	205	213	236	246	256	267	278	291
Provisions for Earn-out & Restructuring	22	13	11	-	-	-	-	-	-
Income tax receivables	9	17	11	14	15	16	16	17	18
Income Tax Payable	30	39	46	45	47	49	51	54	56
<b>NWC</b>	<b>340</b>	<b>390</b>	<b>660</b>	<b>667</b>	<b>682</b>	<b>692</b>	<b>682</b>	<b>701</b>	<b>701</b>
<b>Change in NWC</b>	<b>-</b>	<b>50</b>	<b>270</b>	<b>7</b>	<b>15</b>	<b>10</b>	<b>(10)</b>	<b>19</b>	<b>0</b>
<i>NWC/Revenue</i>	13.0%	13.1%	20.4%	18.9%	18.5%	18.1%	17.1%	16.8%	16.1%
Activity Ratios & Assumptions									
<b>DSO*</b>	46	40	41	50	48	47	46	45	44
<b>DSI**</b>	215	199	240	239	239	234	227	223	215
<b>DPO***</b>	142	132	138	138	136	134	134	130	126
<b>Cash Conversion Cycle</b>	120	108	143	151	150	147	139	139	134
<b>Other Current Asset ( % of Rev.)****</b>	1.9%	1.8%	3.0%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
<b>Other Current Liabilities ( % of Rev.)****</b>	6.58%	6.88%	6.58%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%
<b>Income tax receivables ( % of Rev.)****</b>	0.3%	0.6%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
<b>Income Tax Payable ( % of Rev.)****</b>	1.1%	1.3%	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
DSO*	Will be reached to averaged past 9-year actual ratios gradually.								
DSI**	Will be reached to past 3-year actual ratios as supply chain and stock reduction issues eases.								
DPO***	Will be reached to averaged past 9-year actual ratios gradually, relatively stable.								
Others****	The averaged last 3-year proportions are iterated across the years.								

## 12. Recent Transactions/Strategy

Date	Event	Strategy/Segment
Aug-23	Divestment of Distpek Group	Divestment Programme, IT
Jul-22	Acquisition KML GmbH	Complementary Offerings, Synergy, AM
Mar-22	Acquisition, UWS GmbH & Heat-Power 24 Gmb	Complementary Offerings, Synergy, BT
Jan-22	Acquisition, ISEL AG	Horizontal Merger, AM
Dec-21	Divestment of Standard Hidráulica Group (STH)	Divestment Programme, BT
Apr-21	Acquisition, Sentinel Group	Geographical Extension, BT
Jul-21	Divestment of Lasco and Adex	Divestment Programme, BT
Apr-21	Acquisition, Wilfer GMBH	Horizontal Merger, BT
Jul-21	Acquisition, Premier Thermal Solutions	Geographical Extension, ST

### 13. Scenario Analysis

#	Scenario	Bear	Base	Bull
1	<b>Main Assumptions</b>	The macroeconomic conditions adversely affected the company, market disruptions impacted market shares, and growth expectations are below industry growth	Market risk is manageable, After a few years of rapid growth rate in revenue following the post-COVID period, a return to a bit higher growth compared industry averages aligned to unique position strategy in exchange for high CAPEX. Stable but decreasing profitability margins due to market saturation, no market disruption.	A situation where all conditions are favorable in industries and commodity markets, and abnormal growth rates are occurred.
2	<b>Revenues</b>	<u>Per Segment:</u> Eco-friendly Building CAGR : +1.91% Industrial Niches CAGR: -0.49% Advanced Mechatronics CAGR: 4.5% Surface Treatment CAGR: 0.47%	<u>Per Segment:</u> Eco-friendly Building CAGR : 3.91% Industrial Niches CAGR: 1.51% Advanced Mechatronics CAGR: 9% Surface Treatment CAGR: 2.97%	<u>Per Segment:</u> Eco-friendly Building CAGR : 5.67% Industrial Niches CAGR: 3.9% Advanced Mechatronics CAGR: 13% Surface Treatment CAGR: 5.71%
3	<b>Staff Risk</b>	<u>Personnel Expenses:</u> Increased costs associated with employee retention were reflected. (1% inflation premium)	<u>Personnel Expenses:</u> Strongly correlated with past revenue, a 50% ratio within revenue and a 50% revenue growth rate were utilized.	<u>Personnel Expenses:</u> Reduction in salaries within revenue due to automation. (-%0.05)
4	<b>Price Risk</b>	<u>Raw Material/Sales</u> In the event of high raw material prices due to shortages and the inability to pass them on to prices, there would be an additional 1 basis point increase. Has not reached these levels since 2014. (39.2%)	<u>Raw Material/Sales</u> The proportion within historical revenue across 9 years will remain constant. (38.2%)	<u>Raw Material/Sales</u> Favourable market conditons that leads lower proportion The most recent year average across the future years (37.6%)
	<b>Target Price</b>	<b>€ 37.30</b>	<b>€ 46.55</b>	<b>€ 53.82</b>
	<b>% Change from Current Price</b>	<b>-5.0%</b>	<b>18.6%</b>	<b>37.1%</b>

### 14. Relative Valuation

Company Name	Enterprise Value(M)	Share Price	2023 EBITDA	Forward EPS	EV/EBITDA	P/E
Geberit AG	CHF 19,207.00	CHF 539.00	CHF 978.00	CHF 18.24	19.64x	29.55x
IMI PLC	£ 5,190.00	£ 16.84	£ 578.00	£ 1.45	8.98x	11.61x
Georg Fischer	CHF 5,020.00	CHF 61.10	CHF 521.00	CHF 3.62	9.64x	16.88x
Mueller Industries	\$ 4,390.00	\$ 47.15	\$ 920.88	\$ 3.15	4.77x	14.97x
BodyCote	£ 1,250.00	£ 5.95	£ 243.60	£ 0.61	5.13x	9.75x
Oerlikon	CHF 2,490.00	CHF 3.80	CHF 444.00	CHF 0.28	5.61x	13.57x
BE Semiconductor Industries	€ 10,790.00	€ 136.45	€ 229.00	€ 3.32	47.12x	41.10x
ASM International	€ 22,670.00	€ 469.95	€ 824.00	€ 13.49	27.51x	34.84x

Peer Group	2023 H1 Revenue	EV/EBITDA	P/E
Building Technology	54%	Mean 10.76x	18.25x
		Median 9.31x	15.92x
Surface Treatment	33%	Mean 5.37x	11.66x
		Median 5.37x	11.66x
Advanced Mechatronics	13%	Mean 26.36x	27.34x
		Median 37.32x	37.97x

#### EV/EBITDA

	EV/EBITDA	EV/EBITDA	2023 EBITDA	EV
Building Technology	Mean	10.76x	€343.11	€3,690.22
	Median	9.31x		€3,193.43
Industrial Technology	Mean	11.30x	€302.11	€3,414.62
	Median	14.40x		€4,349.69

#### P/E

	P/E	2024 EPS	Shares	Implied Share Price
Weighted Mean	17.26x	€2.83	110.58	€48.83
Average Median	17.38x			€49.18

#### Net Debt &

	Total	Minority Interest	Equity Value	Implied Share Price
Mean	€7,104.84	€842.60	€6,213.24	€56.19
Median	€7,543.11		€6,651.51	€60.15

## 15. Income Statement

in mil €	2019	2020	2021	2022	2023E	2024F	2025F	2026F	2027F	2028F
<b>Revenue</b>	<b>2,842</b>	<b>2,611</b>	<b>2,979</b>	<b>3,230</b>	<b>3,526</b>	<b>3,674</b>	<b>3,830</b>	<b>3,994</b>	<b>4,167</b>	<b>4,349</b>
Building Technology	-	-	1,838	1,842	1,852	1,922	1,994	2,069	2,147	2,228
Eco-Friendly Buildings	1,591	1,514	1,728	1,744	1,733	1,801	1,871	1,944	2,020	2,099
Industrial Niches (BT)				98	119	121	123	125	126	128
Industrial Technology	429	326	1,141	1,388.2	1,674	1,753	1,836	1,925	2,020	2,121
Advanced Mechatronics	199	209	268	387.6	480	524	571	622	678	739
Surface Treatment	917	778	855	1,000.6	1,194	1,229	1,266	1,303	1,342	1,382
Raw materials and work subcontracted	(1,057)	(1,001)	(1,139)	(1,214)	(1,348)	(1,405)	(1,464)	(1,527)	(1,593)	(1,663)
Personnel expenses	(856)	(809)	(837)	(907)	(964)	(1,014)	(1,061)	(1,109)	(1,158)	(1,208)
Other Operating Expense	(478)	(436)	(475)	(531)	(569)	(593)	(618)	(645)	(672)	(702)
<b>D&amp;A</b>	<b>(172)</b>	<b>(192)</b>	<b>(200)</b>	<b>(188)</b>	<b>(174)</b>	<b>(221)</b>	<b>(252)</b>	<b>(267)</b>	<b>(274)</b>	<b>(281)</b>
Depreciation	(131)	(148)	(152)	(133)	(174)	(221)	(252)	(267)	(274)	(281)
Amortization	(42)	(44)	(48)	(55)						
<b>Adjusted EBIT</b>	<b>278</b>	<b>173</b>	<b>328</b>	<b>391</b>	<b>471</b>	<b>442</b>	<b>434</b>	<b>447</b>	<b>470</b>	<b>495</b>
Other Operating Income	44	15	178	55	-	-	-	-	-	-
Impairment Loss	-	-	-	-	-	-	-	-	-	-
Interest Expense	(23)	(22)	(13)	(21)	(24)	(23)	(24)	(25)	(26)	(27)
<b>Adjusted EBT</b>	<b>298</b>	<b>166</b>	<b>493</b>	<b>425</b>	<b>447</b>	<b>419</b>	<b>410</b>	<b>422</b>	<b>444</b>	<b>469</b>
Income Taxes	(68)	(40)	(125)	(102)	(108)	(101)	(99)	(102)	(107)	(113)
Consolidated Net Income	230	126	368	322	340	318	311	320	337	356
Minority Interest	(4)	(8)	(8)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
<b>Net Income</b>	<b>226</b>	<b>118</b>	<b>360</b>	<b>317</b>	<b>335</b>	<b>313</b>	<b>306</b>	<b>315</b>	<b>332</b>	<b>351</b>

## 16. Balance Sheet

in mil €	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28
Cash and cash equivalents	59	56	72	79	90	76	67	95	107	156
Inventories	626	555	688	911	883	918	940	952	975	980
Trade receivables	339	324	337	381	483	483	493	503	514	524
Income tax receivables	6	9	17	11	14	15	16	16	17	18
Other current assets	54	49	55	97	79	82	86	89	93	97
Assets held for sale	-	-	27	-	-	-	-	-	-	-
<b>TOTAL CURRENT ASSETS</b>	<b>1,083</b>	<b>992</b>	<b>1,195</b>	<b>1,478</b>	<b>1,549</b>	<b>1,574</b>	<b>1,601</b>	<b>1,656</b>	<b>1,706</b>	<b>1,776</b>
Intangible assets	1,320	1,256	1,377	1,549	1,638	1,728	1,817	1,906	1,995	2,084
Goodwill	850	834	881	972	1,034	1,097	1,159	1,222	1,284	1,347
Other intangible fixed assets	441	395	468	548	574	601	627	654	681	707
Software	16	16	15	14	14	14	14	14	14	14
Assets Under Construction	12	10	13	16	16	16	16	16	16	16
Property, plant and equipment	874	829	881	995	1,129	1,253	1,368	1,476	1,578	1,675
Right-of-use assets	174	158	175	168	169	166	166	166	165	164
Non-current financial assets	-	-	7	6	5	5	5	5	5	5
Deferred income tax assets	15	21	19	14	12	16	16	16	16	16
<b>TOTAL NON-CURRENT ASSETS</b>	<b>2,383</b>	<b>2,263</b>	<b>2,460</b>	<b>2,732</b>	<b>2,954</b>	<b>3,169</b>	<b>3,373</b>	<b>3,570</b>	<b>3,759</b>	<b>3,945</b>
<b>TOTAL ASSETS</b>	<b>3,466</b>	<b>3,255</b>	<b>3,655</b>	<b>4,211</b>	<b>4,503</b>	<b>4,743</b>	<b>4,974</b>	<b>5,226</b>	<b>5,465</b>	<b>5,720</b>
ST Debt & Curr. Portion of LT Debt	231	265	201	222	186	251	305	378	413	480
Current Liase Liabilities	-	-	34	35	25	25	25	25	25	25
Accounts Payable	404	373	450	470	511	524	537	561	566	572
Income Tax Payable	32	30	39	46	45	47	49	51	54	56
Provisions for Earn-out & Restructuring	-	22	13	11	-	-	-	-	-	-
Other Current Liabilities	168	172	205	213	236	246	256	267	278	291
Liabilities related to assets held for sale	-	-	5	-	-	-	-	-	-	-
<b>TOTAL CURRENT LIABILITIES</b>	<b>835</b>	<b>861</b>	<b>946</b>	<b>996</b>	<b>1,004</b>	<b>1,093</b>	<b>1,173</b>	<b>1,283</b>	<b>1,336</b>	<b>1,423</b>
LT Debt	582	391	179	477	572	578	593	593	631	639
Liase Liabilities	-	-	150	139	117	95	72	49	25	-
Deferred income tax liabilities	122	113	134	176	172	172	172	172	172	172
Employee benefit plans	76	77	54	35	62	62	62	62	62	62
Other provisions and long-term liabilities	13	7	7	23	16	16	16	16	16	16
Non-current financial liabilities	-	-	2	2	9	9	9	9	9	9
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>793</b>	<b>588</b>	<b>525</b>	<b>852</b>	<b>948</b>	<b>932</b>	<b>924</b>	<b>901</b>	<b>914</b>	<b>898</b>
Shareholders' Equity	1,810	1,774	2,144	2,318	2,503	2,669	2,829	2,993	3,166	3,349
Common Stock Par/Carry Value	28	28	28	28	28	28	28	28	28	28
Additional Paid-In Capital/Capital Surplus	201	201	201	201	201	201	201	201	201	201
Retained Earnings	1,608	1,630	1,945	2,085	2,270	2,436	2,596	2,760	2,933	3,116
Cumulative Translation Adjustment/Unrea	(23)	(76)	(27)	(17)	(17)	(17)	(17)	(17)	(17)	(17)
Other Appropriated Reserves	(4)	(8)	(3)	22	22	22	22	22	22	22
Unappropriated Reserves	-	-	-	-	-	-	-	-	-	-
Accumulated Minority Interest	28	32	40	44	49	49	49	49	49	49
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>3,466</b>	<b>3,255</b>	<b>3,655</b>	<b>4,211</b>	<b>4,503</b>	<b>4,743</b>	<b>4,974</b>	<b>5,225</b>	<b>5,465</b>	<b>5,720</b>

## 17. Cash Flow Statement

Cash Flow Statement (in mil. €)	31-Dec-19	31-Dec-20	31-Dec-21	31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28
Operating Profit(EBIT)	321	187	506	445	471	442	434	447	470	495
Depreciation&Amortization	172	192	200	188	174	221	252	267	274	281
Depreciation	131	148	152	133	174	221	252	267	274	281
Amortization	42	44	48	55						
Provisions & other movements	(13)	13	(9)	(3)	39	24	24	25	27	28
Gain on disposal of subsidiaries	-	-	(174)	(34)	-	-	-	-	-	-
<b>Changes in working capital</b>	<b>(15)</b>	<b>62</b>	<b>(97)</b>	<b>(243)</b>	<b>(33)</b>	<b>(22)</b>	<b>(18)</b>	<b>1</b>	<b>(28)</b>	<b>(10)</b>
Changes in inventories	(4)	42	(156)	(199)	29	(35)	(22)	(12)	(23)	(6)
Changes in trade and other receivables	40	3	(64)	(45)	(102)	(0)	(10)	(10)	(10)	(10)
Changes in trade and other payables	(51)	17	123	0	41	13	13	23	5	6
<b>Cash Flow From Operations</b>	<b>465</b>	<b>454</b>	<b>426</b>	<b>352</b>	<b>651</b>	<b>664</b>	<b>692</b>	<b>739</b>	<b>743</b>	<b>794</b>
Net finance expenses paid	(20)	(22)	(15)	(16)	(19)	(21)	(22)	(22)	(24)	(24)
Income taxes paid	(67)	(54)	(120)	(89)	(108)	(101)	(99)	(102)	(107)	(113)
<b>Net cash generated by operating activities</b>	<b>378</b>	<b>378</b>	<b>292</b>	<b>247</b>	<b>524</b>	<b>542</b>	<b>572</b>	<b>616</b>	<b>612</b>	<b>657</b>
<b>Cash Flow From Investing Activities</b>										
Acquisition of Sub.	(127)	(20)	(191)	(183)	(150)	(150)	(150)	(150)	(150)	(150)
Disposal of Sub.	17	12	298	65	-	-	-	-	-	-
Purchase PP&E	(144)	(108)	(145)	(189)	(236)	(243)	(250)	(257)	(264)	(271)
Sale of equipments	5	3	2	8	-	-	-	-	-	-
Purchase of Intangible Assets	(14)	(10)	(12)	(13)	-	-	-	-	-	-
<b>Cash Flow From Investing Activities</b>	<b>(264)</b>	<b>(123)</b>	<b>(47)</b>	<b>(312)</b>	<b>(386)</b>	<b>(393)</b>	<b>(400)</b>	<b>(407)</b>	<b>(414)</b>	<b>(421)</b>
<b>Cash Flow From Financing Activities</b>										
Change in LT Debt.	(6)	(132)	(163)	251	24	(56)	(68)	(44)	(41)	61
Issuance of Long-Term Debt	122	-	-	351	169	139	197	249	315	347
Reduction in Long-Term Debt	(128)	(132)	(163)	(101)	(146)	(195)	(265)	(293)	(356)	(286)
Repayments of Operating Lease Liabilities	(35)	(38)	(36)	(37)	(21.85)	(39.02)	(45.28)	(46.37)	(47.48)	(48.62)
Change in Current Debt	-	-	-	-	(35.10)	64.22	54.02	73.62	34.37	66.78
Common Dividends	(83)	(89)	(66.40)	(183)	(123)	(150)	(146)	(146)	(152)	(159)
Stock Repurchasement	(0)	(4)	-	-	-	-	-	-	-	-
Other Funds	-	-	-	(9)	-	-	-	-	-	-
<b>Cash Flow From Financing Activities</b>	<b>(124)</b>	<b>(262)</b>	<b>(266)</b>	<b>23</b>	<b>(156)</b>	<b>(181)</b>	<b>(206)</b>	<b>(164)</b>	<b>(205)</b>	<b>(80)</b>
Net Inc./Dec. in Cash&Cash Borrowings	(10)	(7)	(22)	(42)	(18)	(32)	(33)	46	(7)	155
Currency Differences	2	-2	5	-9	-	-	-	-	-	-
<b>Net Change in Cash and Cash Borrowings</b>	<b>(8)</b>	<b>(9)</b>	<b>(17)</b>	<b>(50)</b>	<b>(18)</b>	<b>(32)</b>	<b>(33)</b>	<b>46</b>	<b>(7)</b>	<b>155</b>
<b>Free Cash Flow</b>	<b>220</b>	<b>260</b>	<b>135</b>	<b>45</b>	<b>288</b>	<b>299</b>	<b>322</b>	<b>359</b>	<b>348</b>	<b>385</b>

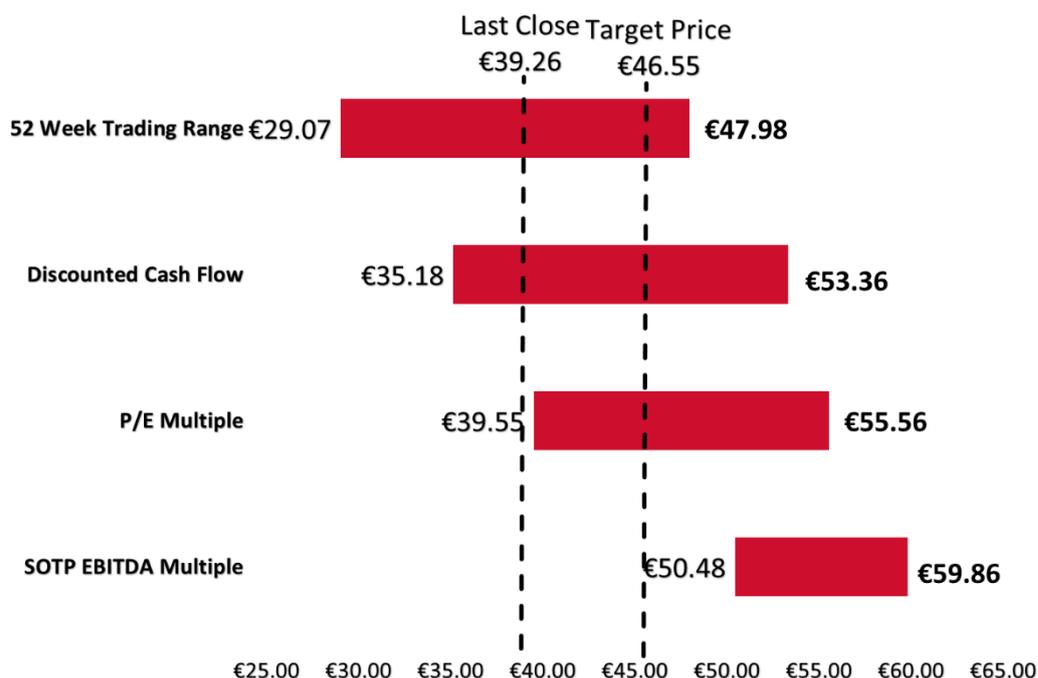
## 18. SOTP DCF

FCFF Building Technologies (mEUR)	2020	2021	2022	2023 E	2024F	2025F	2026F	2027F	2028F
<b>Revenue</b>	<b>1,624</b>	<b>1,856</b>	<b>1,842</b>	<b>1,852</b>	<b>1,922</b>	<b>1,994</b>	<b>2,069</b>	<b>2,147</b>	<b>2,228</b>
Growth Rate	-8%	14%	-1%	0.57%	3.75%	3.76%	3.76%	3.76%	3.77%
Operating Expenses	1,474	1,626	1,603	1,592	1,654	1,731	1,806	1,880	1,970
<b>EBIT</b>	<b>150</b>	<b>230</b>	<b>238</b>	<b>260</b>	<b>268</b>	<b>263</b>	<b>263</b>	<b>267</b>	<b>257</b>
EBIT Margin (%)	9.2%	12.4%	12.9%	14.05%	13.92%	13.17%	12.72%	12.42%	11.55%
Effective Tax Rate	24.09%	25.39%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%
<b>NOPAT</b>	<b>113</b>	<b>172</b>	<b>181</b>	<b>197</b>	<b>203</b>	<b>199</b>	<b>200</b>	<b>202</b>	<b>195</b>
Depreciation and Amortization	68	70	72	83	98	107	111	113	115
CAPEX	50	76	94	104	106	108	110	112	114
Change in NWC	(32)	51	124	4	7	5	(5)	9	0
<b>Free Cash Flow</b>	<b>164</b>	<b>115</b>	<b>35</b>	<b>173</b>	<b>188</b>	<b>193</b>	<b>206</b>	<b>194</b>	<b>196</b>

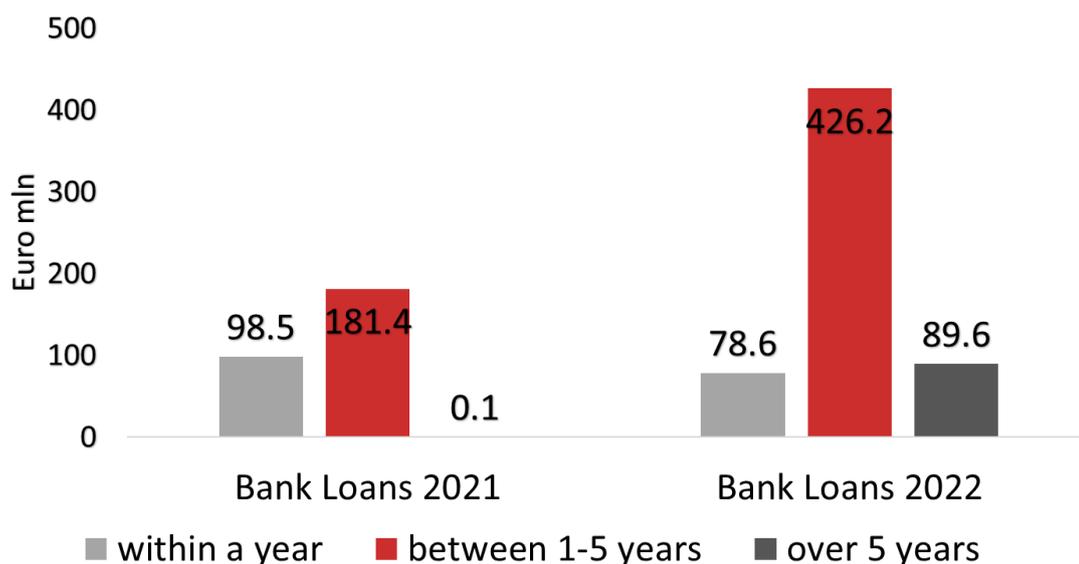
FCFF Industrial Technology (mEUR)	2020	2021	2022	2023E	2024F	2025F	2026F	2027F	2028F
<b>Revenue</b>	<b>987</b>	<b>1,123</b>	<b>1,388</b>	<b>1,674</b>	<b>1,753</b>	<b>1,836</b>	<b>1,925</b>	<b>2,020</b>	<b>2,121</b>
Growth Rate		14%	24%	20.58%	4.70%	4.77%	4.85%	4.92%	5.00%
Operating Expenses	964	1,039	1,236	1,463	1,578	1,665	1,742	1,817	1,883
<b>EBIT</b>	<b>23</b>	<b>84</b>	<b>152</b>	<b>211</b>	<b>174</b>	<b>172</b>	<b>184</b>	<b>203</b>	<b>238</b>
EBIT Margin (%)	2.3%	7.5%	11.0%	12.60%	9.94%	9.34%	9.54%	10.07%	11.22%
Effective Tax Rate	24.09%	25.39%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%
<b>NOPAT</b>	<b>17</b>	<b>63</b>	<b>116</b>	<b>160</b>	<b>132</b>	<b>130</b>	<b>139</b>	<b>154</b>	<b>181</b>
Depreciation and Amortization	76	72	80	91	123	145	156	161	166
CAPEX	46	68	108	133	137	142	147	152	158
Change in NWC	(30)	46	119	4	7	5	(5)	9	0
<b>Free Cash Flow</b>	<b>78</b>	<b>21</b>	<b>(32)</b>	<b>115</b>	<b>111</b>	<b>129</b>	<b>153</b>	<b>154</b>	<b>189</b>

FCFF Aalberts (mEUR)	2020	2021	2022	2023E	2024F	2025F	2026F	2027F	2028F
<b>Revenue</b>	<b>2,610</b>	<b>2,979</b>	<b>3,230</b>	<b>3,526</b>	<b>3,674</b>	<b>3,830</b>	<b>3,994</b>	<b>4,167</b>	<b>4,349</b>
<i>Growth Rate</i>	-8%	14%	8%	9.2%	4.2%	4.2%	4.3%	4.3%	4.4%
Building Technologies (BT)	1,624	1,856	1,842	1,852	1,922	1,994	2,069	2,147	2,228
Industrial Technology (IT)	987	1,123	1,388	1,674	1,753	1,836	1,925	2,020	2,121
<b>Operating Expenses</b>	<b>2,438</b>	<b>2,665</b>	<b>2,839</b>	<b>3,055</b>	<b>3,233</b>	<b>3,396</b>	<b>3,547</b>	<b>3,697</b>	<b>3,853</b>
Building Technologies (BT)	1,474	1,626	1,603	1,592	1,654	1,731	1,806	1,880	1,970
Industrial Technology (IT)	964	1,039	1,236	1,463	1,578	1,665	1,742	1,817	1,883
<b>EBIT</b>	<b>173</b>	<b>314</b>	<b>391</b>	<b>471</b>	<b>442</b>	<b>434</b>	<b>447</b>	<b>470</b>	<b>495</b>
<i>EBIT Margin (%)</i>	6.6%	10.5%	12.1%	13.4%	12.0%	11.3%	11.2%	11.3%	11.4%
<i>Effective Tax Rate</i>	24.09%	25.39%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%	24.09%
<b>NOPAT</b>	<b>131</b>	<b>234</b>	<b>297</b>	<b>358</b>	<b>335</b>	<b>330</b>	<b>339</b>	<b>357</b>	<b>376</b>
Depreciation and Amortization	144	142	152	174	221	252	267	274	281
<b>CAPEX</b>	<b>95</b>	<b>144</b>	<b>203</b>	<b>236</b>	<b>243</b>	<b>250</b>	<b>257</b>	<b>264</b>	<b>271</b>
Building Technologies (BT)	50	76	94	104	106	108	110	112	114
Industrial Technology (IT)	46	68	108	133	137	142	147	152	158
Change in NWC	(62)	97	243	7	15	10	(10)	19	0
<b>Free Cash Flow</b>	<b>242</b>	<b>135</b>	<b>45</b>	<b>288</b>	<b>299</b>	<b>322</b>	<b>359</b>	<b>348</b>	<b>385</b>
<b>Total FCF</b>									<b>1,713</b>
<i>FCF/Sales</i>	9.3%	4.5%	1.4%	8.2%	8.1%	8.4%	9.0%	8.4%	8.8%

## 19. Football Field



## 20. Liability Maturities



## 21. Ratios

Ratios (%)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Av. (14-22)
<b>ROE (DuPont)</b>	13.11%	6.44%	17.77%	14.65%	13.82%	12.03%	11.07%	10.80%	10.72%	10.71%	13.60%
<b>Adjusted ROE</b>			8.99%	12.11%							12.34%
<b>ROA</b>	6.85%	3.51%	10.42%	8.07%	7.68%	6.77%	6.30%	6.19%	6.21%	6.27%	7.04%
<b>Adjusted ROA</b>			5.27%	6.67%							6.31%
<b>Profit Margin</b>	7.97%	4.52%	12.08%	9.82%	9.49%	8.52%	7.99%	7.90%	7.97%	8.06%	7.92%
<b>Adjusted Profit Margin</b>			6.13%	8.13%							7.07%
<b>Asset Turnover</b>	0.86	0.78	0.86	0.82	0.81	0.79	0.79	0.78	0.78	0.78	0.89
<b>Adjusted Assets Turnover</b>			0.86	0.82							0.89
<b>Equity Multiplier</b>	1.91	1.83	1.71	1.82	1.80	1.78	1.76	1.75	1.73	1.71	1.95
<b>ROIC</b>	8.73%	5.21%	9.54%	10.05%	10.85%	9.55%	8.86%	8.63%	8.60%	8.59%	9.44%
<b>Adjusted ROIC</b>			7.72%	9.58%							9.19%
<b>NOPAT</b>	215	132	245	296	358	335	330	339	357	376	214
<b>Invested Capital(average)</b>	2,457	2,526	2,568	2,949	3,297	3,510	3,721	3,931	4,148	4,376	2,278
<b>Adjusted EBITDA Margin</b>	15.86%	13.99%	17.74%	17.92%	18.30%	18.04%	17.92%	17.87%	17.85%	17.84%	16%
<b>Adjusted EBIT Margin</b>	9.79%	6.64%	11.03%	12.09%	13.4%	12.0%	11.3%	11.2%	11.3%	11.4%	10%
<b>Adjusted NOPAT Margin</b>	7.55%	5.04%	8.23%	9.18%	10.1%	9.1%	8.6%	8.5%	8.6%	8.6%	8%
<b>Efficiency</b>											
<b>PP&amp;E Turnover</b>	3.36	3.07	3.49	3.44	3.32	3.09	2.92	2.81	2.73	2.67	3.38
<b>Operating Working Capital</b>	479	395	489	739	757	758	759	777	808	857	484
<b>OWC/Revenue</b>	0.17	0.15	0.16	0.23	0.21	0.21	0.20	0.19	0.19	0.20	0.18
<b>Inventory Turnover</b>	1.70	1.70	1.83	1.52	1.50	1.56	1.58	1.61	1.65	1.70	1.79
<b>Receivables Turnover</b>	8.34	7.89	9.02	9.01	8.17	7.61	7.85	8.02	8.19	8.38	8.35
<b>Payables Turnover</b>	2.57	2.58	2.77	2.64	2.75	2.99	2.79	2.82	2.89	2.94	2.97
<b>Days Inventories</b>	214	215	199	240	243	234	231	226	221	215	205
<b>Days Receivables</b>	44	46	40	41	45	48	47	46	45	44	44
<b>Days Payables</b>	142	142	132	138	133	122	131	130	126	124	126
<b>CCC</b>	116	120	108	143	155	160	147	142	139	134	124
<b>Leverage / Solvency</b>											
<b>Debt-to-Assets Ratio</b>	0.23	0.20	0.15	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.23
<b>Debt-to-Equity Ratio</b>	0.45	0.37	0.26	0.3765	0.36	0.36	0.35	0.35	0.35	0.34	0.45
<b>Liability-to-Equity ratio</b>	0.90	0.82	0.69	0.80	0.78	0.76	0.74	0.73	0.71	0.69	0.93
<b>Liquidity</b>											
<b>Current Ratio</b>	1.30	1.15	1.26	1.48	1.54	1.44	1.37	1.29	1.28	1.25	1.30
<b>Quick Ratio</b>	0.48	0.44	0.43	0.46	0.57	0.51	0.48	0.47	0.46	0.48	0.48
<b>Cash Ratio</b>	0.07	0.06	0.08	0.08	0.09	0.07	0.06	0.07	0.08	0.11	0.06

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