

# Commissioned Research

10 May 2024

# Initiating Coverage

Fair value range: EUR8.5-10.3

**Research analysts:** 

Jakob Söderblom

Johan Wettergren

Share price: EUR7.5 Finland

# Technology Hardware & Equipment

# Scanfil

# Manufacturing services from start to Fin(n)ish

# A contract manufacturing powerhouse around 50 years in the making

The contract manufacturing industry has seen strong growth in recent years, driven by tailwinds from nearshoring and a common desire among product companies to focus on core competencies. Looking forward, we believe Scanfil, which grew sales at a CAGR(14–23) of 17%, has the potential to continue reaping the rewards of these trends. While electronics manufacturing is at the heart of its offering, the company offers a wide range of services along the product life cycle. Serving a customer portfolio centred on demanding industrial clients, the company offers mechanics manufacturing that allows for vertical integration, which means it can produce value-adding complete products rather than singular components. Founded in 1976, Scanfil is one of the oldest and largest, in terms of sales, contract manufacturers in Northern Europe. In an industry continuously leveraging economies of scale, we believe such size is paramount for future success.

# The most concentrated play on energy & electrification within Nordic EMS

Boasting a customer portfolio where the energy & electrification and medtech niches account for more than 50% of sales, we believe Scanfil is attractively positioned towards structurally growing industries. According to the company, these end-markets should grow revenue at a CAGR(23–28) of 7–8%. Moreover, reliance on its largest customer has diminished significantly in recent years, down from 33% in 2010 to 13% in 2023.

# Following a weak 2024e, we expect a solid sales rebound in 2025-26e

As industrial demand improves in H2(24e) and into 2025e, we believe Scanfil is well positioned to capitalise on the trends of nearshoring and greater focus on core competencies, as well as the megatrends provided by its customer exposure. Although we expect organic sales to decline in 2024, we model Scanfil to grow organic sales at a 5% CAGR(24–26e) and earnings at a CAGR of 8%. Moreover, with net debt/EBITDA(24e) at 0.2x, we believe a return to M&A offers attractive upside to our estimates.

## Initiating coverage with a fair value range of EUR8.5-10.3 per share

We apply a medium-term valuation approach on our 2026 estimates and a 9.0-11.0x EV/EBIT(NTM) exit multiple, discounted to the present. Based on our estimates, we arrive at a fair value of EUR8.5-10.3, which corresponds to an EV/EBIT(25e) of 9.1-10.9x.

Changes in this report	: (EUR)		Key figures (EUR)	2023	2024e	2025e	2026e	Share price -5Y					
Fron	n To	Chg	Sales (m)	902	854	895	945						
EPS adj. 2024e	0.66	n.a.	EBITDA (m)	80	76	81	88	12.0				I	
EPS adj. 2025e	0.71	n.a.	EBIT (m)	61	58	62	68	11.0 -					
EPS adj. 2026e	0.78	n.a.	EPS	0.74	0.66	0.71	0.78	10.0 -					
Upcoming events		EPS adj.	0.74	0.66	0.71	0.78	9.0 - 8.0 -		1 Mar		41		
Q2 Report	06 Aug 2024		DPS	0.23	0.24	0.24	0.26	7.0 -		W "W	ha 1	PAL	
			Sales growth Y/Y	7%	-5%	5%	6%	6.0 -		Y T	אַןיי		
			EPS adj. growth Y/Y	39%	-11%	7%	10%	5.0 -	AMY	العهم	<b>V</b> 58 a. arti.		
			EBIT margin	6.8%	6.7%	6.9%	7.2%	4.0					
Key facts		P/E adj.	10.1	11.3	10.6	9.6	3.0 -	N.					
No. shares (m)		64.9	EV/EBIT	9.1	8.7	8.0	7.3	2.0 ∔ May	May	May M	lay Ma	y May	
Market cap. (USDm)		524	EV/EBITA	9.1	8.7	8.0	7.3	2019	2020	2021 2	022 202	3 2024	
Market cap. (EURm)		486	EV/EBITDA	7.0	6.5	6. I	5.6						
Net IB Debt. (EURm) 14		P/BV	1.8	1.7	١.5	1.3	Scanfil				n		
Adjustments (EURm) 0		Dividend yield	3.1%	3.1%	3.2%	3.5%		——— OMX Helsinki_PI (Rebased)					
EV (2024e) (EORM) Free float		36.0%	FCF yield	9.7%	12.2%	5.7%	4.9%	High/Lo	ow (12M)	)	EURI	1.5/7.2	
Avg. daily vol. ('000)		23	Equity/Total Assets	51.4%	54.9%	56.2%	57.4%	Perf.	3M	6M	12M	YTD	
Risk	Med	ium Risk	ROCE	24.5%	19.4%	18.4%	18.3%	Abs.	-1.8	-2.7	-15.0	-4.3	
Fiscal year end	D	ecember	ROE adj.	19.6%	15.4%	14.9%	14.7%	Rel.	-4.6	-9.1	-9.6	-4.5	
Share price as of (CET)	08 May 20	24 11:58	Net IB debt/EBITDA	0.6	0.2	0.1	0.1						

Source: Carnegie Research, FactSet, Millistream & company data

This report has been commissioned and sponsored by Scanfil. Commissioned research is considered to be marketing communication (i.e. not investment research under MiFID II). This material may be subject to restrictions on distribution in certain areas. For more information, see disclosures and disclaimers at the end of this report





Source: Carnegie Research & FactSet



# Contents

Investment case	4
Business model based on vertical integration, a global footprint, and size	4
Significant exposure to exciting end-markets with structural support as well as a strong presence in future manufacturing hotspots	4
Top tier capital efficiency enabling solid cash generation	4
With significant firepower, we believe M&A is back on the docket	5
Initiating coverage with a fair value range of EUR8.5–10.3 per share	5
Business overview	6
Manufacturing history dating back to 1976 Business model	6
Global factory footprint is divided into two categories	10
Recent M&A pace is below peers – but we believe a rebound is due	12
Customer portfolio	15
Customer segments	16
Understanding the importance of portfolio management	19
Market overview	21
Why do companies reshore?	21
The Nordic market for contract manufacturing	24
Central Europe: the perfect balance between cost and control? Inherently cyclical – structural exposure becomes key	25
Competitive landscape and positioning	31
Mapping the competition	31
Positioning Scanfil against its listed peers	35
European peers	38
Sustainability	<b>41</b>
Silver medal from EcoVadis – aiming for platinum by 2030	41
Financials and forecasts	43
Historical performance	43
Balance sheet and cash flow considerations	4/
Not a tier #1 asset-light business	53
with volatile cash conversion as a result Financial targets and guidance	55
Valuation	59
Financial benchmarking	59
Our valuation methodology takes a medium-term approach	63
DCF	60 67
Group management & Board of Directors	57
Group management	69
Board of directors	71
Disclosures and disclaimers	75



# Investment case

# Prime beneficiary of the regionalisation of value chains

As global supply chains are starting to rattle, in recent years companies have been increasingly focused on moving vital sections of their value chains closer to domestic markets. A more uncertain geopolitical environment, together with a shift in focus to total cost of ownership, has led brand owners to prioritise process control over finding the lowest price per unit.

At the same time, companies are choosing more and more to "focus on what makes their beer taste better" as Jeff Bezos once put it, and outsource those services which they deem not valueadding for their customers. For many companies, it is simply better for ROI to allocate resources to activities such as research & development, sales, and marketing, than capital-intensive and inflexible activities such as manufacturing. Instead, they search for partners that, by leveraging upon production economies of scale as well as extensive knowledge of industrialisation processes, have a comparative advantage in manufacturing. Scanfil is one of these partners.

# Business model based on vertical integration, a global footprint, and size

Operating nine factories in Europe, the US and China, Scanfil's core offering focuses on providing demanding industrial customers with a wide range of services across the product life cycle. While electronics manufacturing is at the company's core business, it also offers mechanics manufacturing, which together enable vertical integration and the possibility to take on more complex contracts. Moreover, we believe a key aspect of Scanfil is its size, as it is both the oldest and largest Nordic contract manufacturer in terms of sales. In an industry that is continuously leveraging economies of scale, we believe this is paramount.

## Significant exposure to exciting end-markets with structural support...

While we believe regionalisation and increasing outsourcing rates are the most important demand drivers for Scanfil over time, we argue that favourable customer exposure is the key success factor for contact manufacturers in the short term. At Scanfil, more than 50% of sales relate to manufacturing services towards structurally growing niches such as electrification, clean energy, and medtech. Case in point, we estimate that the company's Energy & Cleantech segment grew sales at a CAGR(20–23) of 33%. At the same time, the operational risk of becoming dependent on a small set of customers has come down significantly in recent years. In 2023, Scanfil's largest customer accounted for 13% of sales (vs. 33% in 2010), an encouraging trend that we expect to continue in 2024–26e.

## ... as well as a strong presence in future manufacturing hotspots

In addition, and as nearshoring activities continue, we believe the company's Central and Eastern European factories stand to benefit from a demand boom related to manufacturing services. Our analysis suggests that the region is able to combine proximity to European end markets with a low-cost labour option relative to production in other Western countries. As of Q1(24) Scanfil operates two facilities in Poland and has future plans to expand further in this region, and we therefore believe the company stands as a strong beneficiary of the nearshoring trend.

## Top tier capital efficiency enabling solid cash generation

For contract manufacturers, which ultimately operate businesses models where EBIT margins seldom surpass the high-single digits, high asset turnover is paramount to increasing ROCE. Over 2020–23, Scanfil reported the highest average asset turnover ratio among Nordic contract manufacturers at 1.72x (vs. the peer average was 1.51x), while also being significantly less volatile compared to peers. We believe this metric is often overlooked by the equity markets, who often tend to focus on the other half of the DuPont-equation, profitability. As such, Scanfil has been able to generate solid returns even on margins below the peer group average, reporting an average adj. ROCE(20–23) of 16%. As we expect Scanfil to continue to improve its margin profile in the coming years, we consider the support this gives to ROCE, and in the end cash generation, alluring. Moreover, Scanfil has been able to increase its dividend for eleven years straight, a trend we expect to continue throughout our forecasting period.



# With significant firepower, we believe M&A is back on the docket

Scanfil has a history of frequent M&A, but in recent years the company has primarily invested in organic initiatives, leaving many of its competitors have to focus on consolidating the Nordic and European markets. Still, we believe the contract manufacturing market remains highly fragmented, with Scanfil now enjoying one of the strongest capital positions among peers. We model a return to historical growth levels in 2024–26e, after having grown sales at a CAGR(20–23) of 15%. We believe Scanfil is in a strong position to pivot to a more active M&A agenda, boosting both sales and earnings development in the coming years. We forecast the company to reach a net debt/EBITDA ratio of 0.2x by 2024e, and believe the company can add up to 22% to our EPS(25e) through acquisitions without threatening its, in our view, conservative net debt/EBITDA target of 1.5x.

# Short-term headwinds, but attractive fundamentals remain

Since its listing in 2012, Scanfil has illustrated a strong ability to grow through both organic and inorganic activities. Reporting an impressive sales CAGR(14–23) of 17%, we conclude that the company has historically been successful in identifying attractive market niches. While we model negative organic growth in 2024e on the back of muted European industrial demand, we expect a solid recovery in 2025–26e, when we forecast organic growth of 5–6%. Scanfil's earnings have historically grown in tandem with sales, with adj. EBIT growing from EUR16.4m to EUR61.3m over 2014-23, leaving the adj. EBIT(23) margin at 6.8%. As industrial activity rebounds, and the difficulties sourcing components ease, we model Scanfil expanding margins to 7.2% in 2026e – in line with its target of 7–8%. Beyond our explicit forecasting period, we believe investments in automation will drive margins to the upper levels of the targeted range.

# Initiating coverage with a fair value range of EUR8.5-10.3 per share

In our valuation of Scanfil, we have chosen to apply a medium-term approach due to the cyclical nature of some of the company's end-markets – and to look beyond the weakness that we expect in 2024. In doing so, we believe we arrive at a fair valuation view not possible if solely looking at current peer multiples. Reflecting expectations of weak industrial demand in 2024, our Nordic peer group currently trades at a 24% discount to its 5yr average EV/EBIT(NTM). We have thus looked into our financial expectations for 2026e as the base for our valuation methodology and apply a 9.0–11.0x EV/EBIT exit multiple range – the mid-point of which is at the company's historical average. Our valuation suggests a fair value range of EUR8.5–10.3 per share, yielding trading multiples of 9.1–10.9x EV/EBIT(25e) and 12.0–14.5x P/E(25e). Moreover, our target range corresponds to FCF(25e) yield of 4.1–5.0%. We believe there is significant rerating potential if Scanfil manages to reach the upper levels of its EBIT margin target range, as margins have historically been an important driver of valuations in the contract manufacturing industry.



# **Business overview**

Scanfil is a leading player in contract manufacturing. Combining mechanical assembly with industrial electronics, Scanfil aims to be the preferred manufacturing partner for demanding industrial customers within the high mix, low-mid volume niche of manufacturing. This means that the company primarily serves customers with the manufacturing of smaller but more complex and demanding product lines. The company operates in nine countries across Europe, the US and China as of Q1(24). Having grown through a mixture of organic growth and acquisition, Scanfil's sales increased from EUR215m in 2014 to EUR902m in 2023 – equivalent to a sales CAGR(14–23) of 17%. In 2023, the company reported adj. EBIT of EUR61m and an adj. EBIT margin of 6.8%.

# Manufacturing history dating back to 1976

Founded in 1976, Scanfil is one of the oldest and largest companies in terms of sales in the Nordic contract manufacturing space. Initially focusing solely on the manufacture of products and components from sheet metal manufacturing, the company has grown through a combination of organic growth and acquisitions to today serve some of the largest European companies in the industrial, energy and medtech markets. Electronics manufacturing became an increasingly important part of the company's value proposition in the late 20<sup>th</sup> century, a period during which Scanfil continued to increase its exposure to the large telecommunications and industrial sectors. During the 2000s, the company continued to invest in international ventures in Europe and China. By 2010, industrial electronics accounted for 50% of the company's net sales, reaching 75% by 2012. During that year, Scanfil was listed on the NASDAQ OMX Helsinki.

M&A has been an important driver of sales growth throughout Scanfil's history. In 2015, the company doubled in size, in terms of both sales and factory footprint, through the acquisition of Swedish PartnerTech. However, since 2019 the company has focused primarily on growing through organic activities and increasing its exposure towards structurally growing niches. One such instance is its Energy & Cleantech segment, which as of 2023 accounted for about one-third of group net sales. Industrial electronics continues to be an important part of the company offering; we estimate it comprises ~75% of Scanfil's sales today. Christophe Sut joined as CEO in 2023, after most recently serving as President of Sandvik Manufacturing Solutions.



#### Scanfil: Company history

Between 2014 and 2023, Scanfil showcased an impressive ability to grow its top line. Net sales improved from EUR215m to EUR902m, indicative of a sales CAGR(14–23) of 17%. In 2023, the company also reported adjusted EBIT of EUR61m, equivalent to an adj. EBIT margin of 6.8%. The company now employs almost 3,700 individuals across its facilities in Europe, China, and the US.

Source: Carnegie Research, Company data





Source: Carnegie Research, Company data

# Business model

Today, Scanfil offers its customers a wide array of services across the product life cycle, carrying expertise in product design, industrialisation, manufacturing, maintenance, and end of life services. The latter is Scanfil's term for services at the latter parts of the life cycle, including spare part handling, material obsolescence, and last time buy (LTB) services, which relates to product lines that are being discontinued from production. A core characteristic of its business model is that it centres on close collaboration with customers early in the product life cycle. According to the company, up to 80% of the total cost of ownership of a product is determined by design. Thus, Scanfil's expertise within manufacturing services allows the design phase to incorporate cost drivers such as manufacturability and testability - thereby speeding up industrialisation and time-to-market.

While Scanfil offers a diverse set of services, manufacturing accounts for the lion's share of sales generation. For 2023, manufacturing services accounted for almost 95% of net sales in the company. The remaining 5% is made up of different types of services, such as prototype manufacturing, logistics, and repair services. A key focus area for Nordic contract manufacturers over the past decade has been expansion of the service offering. Still, we do not view service sales as a significant business driver on a standalone basis, but rather as a "must-have", an auxiliary required to win larger contracts and build entrenched relationships with customers. Thus, we do not believe the 95/5 split between manufacturing and auxiliary services at Scanfil diverges much from the industry average.



Illustrating Scanfil's service offering across the product life cycle

Source: Carnegie Research, Company data



#### Vertically integrated, with electronics at its heart

Within the Nordic contract manufacturing sector, there is a split between those companies that focus solely on electronics manufacturing, such as Note, Kitron and Incap, and the integrated companies that also offer their customers mechanics manufacturing. The latter group includes companies such as AQ Group, HANZA, Inission and Scanfil. Vertical integration enables this category of companies to deliver complete systems through a combination of manufacturing techniques, such as mechanics with electronics, or mechanics where plastics could be used as part of the device. As a result, it also reduces the number of counterparties involved in the manufacturing process, which we believe to be highly favoured by customers. As an illustrative example, both the outside sheet metal body and the internal electronics of a Tomra reverse vending machine can be produced by Scanfil, while a pure-play electronics manufacturer first must procure the sheet metal body from a mechanics manufacturer, like Scanfil.





Source: Carnegie Research, Company data

Electronics represents the heart of Scanfil's offering. While the company does not disclose the sales split between mechanics and electronics, we estimate that the latter accounts for around 75% of outgoing sales. As a comparison, we know that one of the company's closest peers, HANZA, following its acquisition of peer Orbit One, is slightly more tilted towards electronics. The other key peers offering integrated products, AQ Group and Inission, do not disclose the technology split. For Inission however, we estimate that electronics comprise the large majority of sales, while we expect AQ Group to have a balanced mix if we view its product suites in transformers, wiring systems, electrical cabinets and electromechanical products as electronics.

Since its foundation in 1976, Scanfil has, through a combination of organic and inorganic initiatives, become increasingly tilted towards electronics manufacturing, instead of just mechanics. Today the company offers a wide range of services applying this manufacturing technology, including PCBA assembly and testing. It offers industrial customers services along the manufacturing process chain, from prototype manufacturing to testing and packaging of finished products. As mentioned above, Scanfil also offers sheet metal fabrication. Its expertise in mechanics ranges from punching and forming, to surface treatment and assembly.

A major trend in the contract manufacturing industry is expansion of the service offering. The more manufacturing-related services a company like Scanfil can assist an OEM with, the higher the satisfaction and greater the stickiness of that partnership. This is also in line with the idea that product companies should only focus on their core competencies, which for the absolute majority of companies today are outside the scope of manufacturing and adjacent services. To our

While vertically integrated, we expect electronics to comprise 75% of Scanfil's business today



understanding, the overarching aim is not to increase the share of services in the revenue mix. Instead, the idea is that the more comprehensive services Scanfil can offer, the more entrenched the customer relation, and the larger volumes it will be awarded to manufacture. Still, we do not view service sales as a significant business driver on a standalone basis, but rather as a "must-have", an auxiliary required to win larger contracts and build entrenched relationships with customers.

The illustration below, which was presented during Scanfil's Capital Markets Day in 2024, illustrates this relationship. The different bars represent the manufacturing volumes from products where the company has previously contributed either design-driven manufacturing, cost optimisation, or testing services.



#### Illustration of the aim to grow value-add services

Note: DDM is short for Design-Driven Manufacturing

Scanfil divides its services into two categories spread across the product life cycle: 1) to-life and to-market, and 2) product maintenance. In the first category, the company offers services early in the product life cycle, such as assistance within prototyping and test development. In addition, its Design for Excellence service guides companies through the design phase. In this phase, Scanfil is able to leverage its expertise in manufacturing to support the customer in making a viable product that is easy to assemble, cost-effective and of high quality. One way of doing so is through smart material and part selection. As some components might be harder to get than others, we believe there is much value for customers in having knowledge regarding ease of availability from the beginning of the development. We believe this is a clear example of the ever-increasing movement towards a focus on total cost of ownership (TCO). According to Scanfil, up to 80% of product cost is determined by design.

As mentioned above, services only account for a small part of the group's sales, around 5% in 2023. Looking at the three customer segments – Industrial, Energy & Cleantech, and Medtech & Life Science – we see that share ranges from 2-8%, with the Industrial segment having the highest share of its sales stemming from service contracts. This is to a large extent driven by contracts with clients in the automation and processing industries, for whom Scanfil manufactures products for access control systems, automation systems, and network video solutions. Among this group, services accounted for 17% of recognised sales in 2023.

Source: Scanfil Capital Markets Day 2024





## Ability to ensure quality and deliverability are key factors for success

When a product company chooses to outsource the manufacturing of its products to a thirdparty, it is giving up some of the control it had over product quality, and also its delivery and distribution model. Thus, scoring high on factors such as these is very important for contract manufacturers such as Scanfil. The company measures the development of qualitative factors such as quality, delivery and distribution through an NPS score, which measures the probability of a customer recommending Scanfil as a partner.

In 2021–22, Scanfil saw its NPS score decrease significantly due to delivery issues. These were primarily driven by challenging material situations concerning longer-than-expected lead times and worsened component availability, while customer quality improved according to the company. The score showed a positive trend in 2023, as component availability and lead-times improved, which we consider as very encouraging for Scanfil.





Source: Carnegie Research, Company data

# Global factory footprint is divided into two categories

Scanfil operates a global factory network with nine factories across seven different countries, and like many Nordic contract manufacturing companies, the level of decentralisation is high within the network. Each factory is responsible for its own P&L, employs local sourcing professionals and remains self-governed, with group operations assisting with auxiliary services related to areas such as sales, sourcing, unified machinery, and financial resources. In our view, Scanfil succeeds in combining the agility of decentralisation with the scale advantages of centralisation. As of Q1(24), the company operates facilities in Sweden (2 sites), Poland (2), Finland, Estonia, Germany, China, and the US.

Factory model combining the agility of decentralisation with the scale advantages of centralisation We believe this footprint is a positive for Scanfil, as it allows the company to capitalise on the nearshoring trends across the globe. Just as European customers want to ensure supply chain stability by moving production closer to home, we have in our discussions with industry managers found that Asian companies are doing the same thing. Similar patterns can be seen in the US market too, as exemplified by President Biden's Made in America policy, which is designed to support domestic supply chains and moving production of American goods back to the States As such, we believe the company's Atlanta plant provides it with a strong base for further expansion. Scanfil has outlined the US and Asia outside of China as high-growth potential areas, and we expect the company to utilise its strong balance sheet for these expansions.





Source: Carnegie Research, Company data

At the same time as Scanfil has been showing impressive growth in recent years (we estimate an organic sales CAGR(20–23) of ~15%), the company has also invested in capacity expansions at existing sites. The company expanded capacity at its Wutha, Germany and Malmö, Sweden facilities by 50% in 2022–23, while almost doubling the capacity of its Atlanta, US factory in 2023. Finally, since Q3(23) Scanfil has been undertaking a major expansion at its Sieradz, Poland site, which it expects to double the plant in size. The company expects the new facilities to be finalised in H2(25), which in our view corresponds with the expected rebound of industrial demand in Europe.

## Illustrating completed and ongoing capacity expansions



Source: Carnegie Research, Company data

Manufacturers have in recent years increasingly emphasised automation and digitalisation in their investment programmes in order to boost production rates and improve agility as well as quality. Scanfil has systematically invested in introducing cobots (a robot intended to collaborate with humans), automated material flows, as well as smart wearables and sensors.

# Recent M&A pace is below peers - but we believe a rebound is due

Rich acquisition history, but no M&A since 2019

While M&A has been a core part of Scanfil's growth strategy since its inception in 1976, the frequency of acquisitions has decreased in recent years. At the same time, M&A activity in the rest of the sector has been hot, with HANZA and Note both completing four acquisitions over 2021–23 alone, versus Scanfil at zero. Instead, the company has focused on working with organic sales activities, as illustrated in the chart below to the right. Its most recent acquisition was announced in 2019, when the company acquired the German manufacturer HASEC. Since then, all incremental sales contribution has either come from organic activities or favourable currency effects. As such, the recent focus on organic initiatives stands in stark contrast to the sales growth split of the mid-2010s, when Scanfil added EUR230m in sales over 2014–16, as can be seen in the chart below to the right.



Source: Carnegie Research, Company data

Source: Carnegie Research, Company data

During the 2010s, diversification and expansion of its customer portfolio was a key strategic objective for Scanfil. Besides the management of its existing portfolio of companies, M&A was naturally pursued with the purpose of finding smaller players with attractive end-customer exposure offering above-average growth. Scanfil completed three acquisitions in 2010–19: Schaltex (2014), PartnerTech (2015) and HASEC (2019).





# Schaltex – assembly specialist for life science markets

In 2014, Scanfil signed an agreement to acquire the German contract manufacturer Schaltex Systems. The company, which like Scanfil was founded in 1976, focuses on the assembly of highmix, low-volume electronics for the life science and analytical instrumentation markets. More importantly, the acquisition strengthened the company's position in the German manufacturing market, in our view the most important market in Europe. At the time of sale, Schaltex reported annual sales of EUR21m.

# PartnerTech – largest acquisition to date

In 2015, Scanfil announced a cash offer to the shareholders of the Swedish manufacturing company PartnerTech, which at the time was listed on Nasdaq Stockholm. The combined entity created the leading electronics manufacturing services (EMS) company in the Nordics, doubling sales, personnel, and the number of production facilities. To our understanding, PartnerTech provided Scanfil with a more industrial customer portfolio, reducing the company's dependency on its telecommunications and connectivity customers.

Following the acquisition, Scanfil operated production plants in the Nordics, the UK, Central and Eastern Europe, China, and the US. Similar to Schaltex, PartnerTech also served customers in medtech and instrumentation, among other segments. At the time of sale, PartnerTech reported annual sales of EUR209m.





#### HASEC - strengthening CEE footprint

In 2019 Scanfil acquired the German manufacturer HASEC – a manufacturer and integrator of high-mix, low volume solutions operating in the German and Central European markets. A smaller contribution than PartnerTech, HASEC added sales of EUR37m.

When we have looked at all M&A transactions completed by listed Nordic contract manufactures over the last ten years, we find that the average EV/sales multiple has been 0.47x; for Scanfil the corresponding multiple is 0.30x, equivalent to a discount of almost 40%. While the disclosure related to the acquisitions is limited, we believe the discount is linked to the acquired units reporting lower margins than other targets in the sector. As an example, PartnerTech reported a loss on net income of SEK55m in 2014.

Year	Company	Country	Rationale	Sales*	Employees	EV/Sales	
2014 Scha	Scholtov Systems	Germany	Strengthening footprint on the German market,	21	80	0317	
	Schartex Systems		strong offering towards life science/medtech	21	80	0.517X	
2015	PartnarTach	Sweden	Expansion of factory network and diversification of	200	1279	0.215.	
2015	Farmerrech	Sweden	customer base	207	1377	0.313X	
2019	HASEC Elektronik	Germany	Increasing footprint on the Central and Eastern	27	200	0.277.	
			European market	37		0.277x	
			Average	89	553	0.30x	
			Median	37	200	0.32x	

\* EURm, at the time of sale

Source: Carnegie Research, Company data

Looking ahead, Scanfil has communicated more explicit characteristics of its M&A targets, which we believe is positive. It hopes to find companies in the high mix, low-mid volume niche of contract manufacturing, with annual revenue below EUR100m. Another aim is that a potential acquisition can assist the company in expanding its presence in either the customer segments of Energy & Cleantech or Medtech & Life Science, or in the Central European markets. We believe the company prefers to perform several smaller and systematic bolt-ons, over larger transformational acquisitions.

We note that earlier this year Scanfil recruited for a new position of Mergers & Acquisitions Director – in our view more evidence of the company's increasing focus on acquisitions. However, we are unaware as to whether the position has been filled.

## What are the M&A trends within the EMS landscape?

In our view, many of the companies in the Nordic contract manufacturing universe can be characterised as slow-moving serial acquirers. In general, the purpose of an acquisition in the sector is to acquire additional manufacturing technologies, access growing customer niches, or expand footprint into new geographical markets.

Another observation on M&A practices within the sector is that, perhaps counterintuitively given their larger base in terms of sales, the larger manufactures empirically seem to outgrow smaller companies, according to in4ma market research. Larger contract manufacturers generally tend to have a higher share of vertical integration within their production offering, which enables them to tender for large system deals rather than components. Additionally, size, and thus absolute manufacturing capacity, is an important factor in contract discussions with OEMs. This was highlighted by Swedish peer HANZA in conjunction with the company's acquisition of pure-play electronics manufacturer Orbit One. According to HANZA, the capabilities its gain in electronics manufacturing from Orbit One will enable the company to bid for significantly larger electronics contracts than before.

Looking ahead, we expect the sector to direct a lot of attention to M&A to expand its footprint in Central and Eastern Europe (CEE), in line with the communication from Scanfil that the region is a focus area for growth. Our view on European contract manufacturers is that they are beneficiaries of the nearshoring tailwind, and we believe Central and Eastern Europe as a region

With +2,000 active companies, the European EMS landscape invites consolidation has a good combination of proximity to customers and lower labour costs. In a 2024 survey, Capgemini Research found that 95% of European and US organisations plan to (or already have) invest in nearshoring/reshoring activities. OEMs are always looking to improve their balance between supply chain control and low prices – a dynamic that we see as highly beneficial for contract manufacturers in the CEE region.

According to 2022 data from in4ma, Germany, Czechia, Hungary and Poland together accounted for 54% of European EMS production. This is in stark contrast to the Nordic countries, which together accounted for just 6%. Other production hubs in the region are Slovakia (3.5%), Romania (3.4%) and Austria (2.5%). As a comparison, Sweden constitutes less than 2.5% of production output.



#### Four countries represent +50% of European EMS production

Just looking at electronics manufacturing services (EMS), In4ma research estimates that there are more than 1,900 companies active in this technology niche in Europe. Moreover, as a small share of companies accounts for most sales, there is a very long tail of smaller players in the region with niche applications and customer exposures. According to In4ma, 112 companies (6% of all EMS companies in the region) accounted for more than 75% of all the sector's sales in 2021. Intense M&A activity over the past decade has fuelled the consolidation process. In 2013, the 305 largest EMS companies in the region accounted for 79.1% of sales – in 2021 this number was 88.8%.



European EMS is consolidating

Source: Carnegie Research, In4ma

Carneqie

European contract manufacturing

remains highly fragmented

Source: Carnegie Research, in4ma



# Customer portfolio

In our research methodology for assessing contract manufacturers, we view customer portfolio management as one of the most important tasks for executives to focus on. On the one hand, structurally growing customers have the potential to serve as multi-year growth engines for your company. On the other hand, a contract manufacturer does not want said companies to outgrow the rest of its customer portfolio, thereby exposing it to customer concentration risk. As such, we believe portfolio management to be important to both financial development and valuation. In Scanfil's emphasis on industrial and medtech companies, and its recent work on balancing its customer portfolio, we believe we see such a focus.

# Illustrating the allure of portfolio balance

In our view, contract manufacturing presents an attractive business case for the product owner and for the manufacturer. It allows the former to focus on core competencies and reduce the necessary invested capital, and it also invites the contract manufacturer to become a vital part of its customers' value-chain – relationships that can last for decades. Thus, choosing the right client is vital, as is proactive management if the customer mix becomes imbalanced.

A key factor in successful customer management is the choice of trend exposure. Structural trends enable long-lasting growth opportunities that are usually less susceptible (although not immune) to the general economy. We argue that for contract manufacturers especially, exposure to structural trends offers both the prospect of solid, long-term organic growth, and downside protection in an economic downturn. Moreover, exposure to several structural trends softens the downside for the contract manufacturer, in the event of a slowdown in growth at any one company, as other customers offset the fall in demand from the afflicted business.

In the illustrative example below, we highlight how a deterioration of growth for "Company A" trickles down to its manufacturing partner. For simplicity's sake, we have assumed that the contract manufacturer has just four clients, all of which are equal in size. Furthermore, we have assumed that each of the customers is growing at 5% in a normal environment. Thus, this would also be the case for the contract manufacturer, however in our visualisation we have pencilled in that Company A's growth rate temporarily deteriorates in years 5–6.

In the graph below to the left, we can see how Company A's sales and sales growth develop in this hypothetical scenario, and to the right we can see the impact that this company has on the contract manufacturer's growth development. The contract manufacturer is also affected by its client's growth difficulties as the customer in the example contributes 25% of the contract manufacturer's revenue. However, growth can still be maintained thanks to its other clients, assuming they are supported by structural tailwinds.





Finally, the example can also serve to showcase the importance of customer fragmentation. The protective effect from structurally diverse exposure and customer balance can be seen in the chart above to the right, which is based on a scenario in which the largest customer(s) account for 25% of the business each. If we instead increase the largest customer's share of sales to 40%, the weaker growth trend at our Company A will hit even harder. On the flip side, if we instead apply the customer concentration seen at Scanfil – where the largest customer accounted for 13% of net sales in 2023 – the impact would be significantly reduced, highlighting the importance of customer diversification to eliminate company-specific risks.

## Exemplifying the importance of customer diversification



# Customer segments

Starting in 2024, Scanfil will report in three customer segments: Industrial, Energy & Cleantech, and Medtech & Life Science. The major change from the previous structure is that customers within the previous Advanced consumer products, Automation & Safety and Connectivity segments merge into one larger customer segment – Industrial. Energy & Cleantech and Medtech & Life Science, which management has outlined as customer niches with high-growth potential, remain as individual segments.





Source: Carnegie Research, Company data

As of Q4(23), the company serves approximately 160 active customers, of whom Scanfil estimates 85% to be established and larger companies to which it provides its core offering, namely volume manufacturing and value-added services. The remaining 15% are smaller customers, which Scanfil assists with to-life and to-market services. These are by nature riskier contracts, but also offer larger upside and growth potential. In general, we believe Scanfil's customer portfolio is well

From Q1(24) and forward, Scanfil will report three rather than five customer segments constructed with a balance in mind to withstand larger cyclical fluctuations in demand. Moreover, we like the focus on industrial and medtech clients, where there is an emphasis on high mix rather than high volume, and where product life cycles can be up to decades long.

Industrial customers represent the heart of Scanfil's manufacturing operations, accounting for almost half of group sales in 2023. However, the Energy & Cleantech segment has seen impressive sales growth in recent years, reporting a sales CAGR(2020–23e) of 33% driven by favourable trends around regulation, electrification, and the circular economy. As such, it has quickly grown as a share of the group and accounted for 36% of net sales in 2023. Throughout this section, segment financials for 2021–23 have been provided by Scanfil, whereas the 2020 segment financials are our estimate.



# Industrial - the heart of Scanfil

Within its Industrial segment, Scanfil serves customers that market products which are bought, installed, and operated by other, B2B companies. However, within the segment there are customers whose products are ultimately used by consumers. This could, for instance, refer to QleanAir, Kone, Gunnebo and Ankarsrum, whose products are all used by consumers on a day-to-day basis, in our view. The company also serves engineering companies such as ABB or Valmet.

Besides the companies mentioned above, the industrial segment also includes customers such as Valmet, Invisio and industrial automation company KEBA. Scanfil states that in its industrial segments it has client relationships that in some cases have lasted for several decades. The Industrial segment reported sales of EUR428m in 2023, having grown sales at a CAGR of 10% since 2020. While reported sales decreased by 2% in 2023, we believe this is mostly related to changes in spot market purchases, rather than effects from underlying market demand. As an illustration, while Scanfil as a group grew sales by 7% Y/Y in 2023, sales growth increases to 16% once excluding the impact from spot-market purchases.

In evaluating the segment's long-term growth opportunities, we view megatrends such as increasing urbanisation and smart housing as important drivers. For instance, Scanfil customer Kone estimates that an additional 1bn people will move into urban areas around the world by 2030. In addition, we view Industry 4.0 as an exciting growth driver for customer groups active within connectivity and automation. According to Scanfil, the industrial EMS market is poised to expand from EUR67bn in 2023 to EUR89bn in 2028 – corresponding to a CAGR of 6%.

Industrial customers represent 47% of Scanfil's portfolio – such as Valmet, Invisio and KEBA





# Energy & Cleantech – significant outperformance since 2020

Energy & Cleantech customers represent 36% of Scanfil's portfolio – such as ABB, Nibe and Danfoss

Scanfil also serves energy and cleantech companies, a set of customers that has showcased impressive growth in recent years on the back of strong regulatory and societal tailwinds. Scanfil has been highlighting this segment as a high-growth opportunity since 2021. To give a couple of examples, Scanfil box-builds indoor climate control units and reverse vending machines for Energy & Cleantech customers. It also manufactures transformers for wind farms for customers in this niche. The company boasts an impressive list of customers in this segment, such as ABB, Tomra, Danfoss, Hitachi, and NIBE. In 2023, the Energy & Cleantech segment reported sales of EUR320m, and before the creation of the Industrial segment was the largest in the group after having grown sales at an impressive CAGR of 33% in 2020–23. We believe the segment will continue to be an important growth driver for Scanfil, fuelled by electrification trends, regulatory tailwinds, and the transition to a circular society. Scanfil estimates that the global market will grow at a CAGR(23–28) of 7% to EUR22bn by 2028. However, we believe this estimate to be somewhat conservative, bearing in mind that the overall EMS market has grown at an average 4–7% historically, according to Scanfil.



## Medtech & Life Science – growth segment with defensive qualities

Like the Energy & Cleantech segment, since 2021 Scanfil has denominated Medtech & Life Science as a potential high-growth opportunity. With customers such as Thermo Fisher, Vaisala, Roche, and Getinge, Scanfil offers services throughout the life cycles of products such as analysers, mass spectrometers, dental treatment equipment, and various solutions aimed at environmental measuring. We find that the design and manufacturing of medical technologies are characterised by above-average lengths of life cycles, a high focus on product quality and reliability, and a defensive nature towards economic cycles. Moreover, production sites must be certified with ISO13485, which creates some barriers to entry for smaller players. At its Capital Markets Day in 2024, Scanfil announced that it has begun the process of receiving QSR certification for its sites in Sieradz, Poland and Suzhou, China, which is a requirement for the manufacture of US FDA-regulated products.

The Medtech & Life Science segment represented 17% of Scanfil's 2023 net sales – clients include names such as Getinge, Thermo Fisher, and Roche As of 2023, the segment accounted for 17% of Scanfil net sales, having grown at a CAGR(20–23) of 12%. Looking into the future, we view exposure towards the medtech and life sciences as favourable for contract manufacturers due to an ageing population and an overall increasing need for healthcare technology advancements in both developed and emerging markets. Scanfil has estimated the global market for Medtech & Life Science-related EMS at EUR84bn in 2028 – up from EUR57bn in 2023 and indicating a CAGR of 8%.



In the chart below, we have summarised key highlights for each customer segment.

Customer segment	% of group sales	Sales CAGR(2020-23)	Example customers	Growth drivers	Market size 2023*	Scanfil market share (2023)	Market growth*
Industrial	47%	10%	Kone, Valmet, Invisio	Urbanisation, Indutry 4.0, Automation	EUR67bn	1%	CAGR(2023-28): 6%
Energy & Cleantech	36%	33%	ABB, Tomra, Danfoss	Electriciation, Circular economy, Green regulation	EUR I 5bn	2%	CAGR(2023-28): 7%
Medtech & Life Science	17%	13%	Roche, Thermofisher, Vaisala	Ageing population, digitalisation, personalised care	EUR57bn	0%	CAGR(2023-28): 8%
*Company estimation						Source: Carnegie Re	search, Company data

Customer diversification has improved since 2010 – largest customer now 13% of net sales

# Understanding the importance of portfolio management

In terms of customer fragmentation, we believe that in recent years Scanfil has developed into a much more diversified company than previously. In 2010, its three largest customers accounted for 33%, 17%, and 16% of sales respectively. That customer-concentration risk has since declined significantly following several projects aimed at rebalancing the customer portfolio. Today, Scanfil's ten largest customers constitute 55% of group sales and the dependence on any single customer has decreased significantly, with the largest customer now only accounting for 13% of sales.





Source: Carnegie Research, Company data

Benchmarking Scanfil to the rest of the Nordic contract manufacturing universe, we see that it has a relatively high share of sales from its largest single customer. However, while Scanfil scores



the second highest – second only to Incap – we do not view 13% of sales being from one customer as particularly worrisome for the company. Moreover, we expect this number to decrease in 2024–26e due to the Energy & Cleantech segment continuing to outperform the other segments – including the Advanced Consumer products segment, which we believe works with the largest customer. As such, we view the customer diversification journey Scanfil has undergone since 2010 as very encouraging.



Customer concentration profiles at Nordic contract manufacturers

Source: Carnegie Research, Incap, HANZA, Kitron, Note, Inission, Company data



# Market overview

In recent years, the Nordic contract manufacturing industry has undergone significant expansion. Benchmarking the financial performance of the seven largest listed companies in the sector, we note that the median firm saw sales grow at an impressive 24% CAGR(18–23). Setting aside any inorganic initiatives, we attribute this development to three factors: 1) businesses choosing to outsource in order to concentrate on their core skills remains a significant growth engine; 2) nearshoring has strengthened as a trend amid an increasingly uncertain geopolitical environment as well as a focus on total cost; and 3) we think the Nordic companies have been successful in their positioning towards attractive growth segments. We expect these elements to persist over the coming years.

# The pros and cons of outsourcing

We see several reasons why companies choose to outsource some, or even all, of their production. Firstly, it provides an opportunity for the company to instead invest more time, money, and resources into essential functions that more closely relate to their core competencies. We like to refer to a 2008 keynote speech by Jeff Bezos, when he told startup founders to "focus on what makes your beer taste better"; we see no reason why the concept should not apply to other, larger enterprises as well. For example, by choosing early on to outsource manufacturing, Nike was able to allocate vital resources to design and branding. Apple chose a similar playbook too.

Secondly, just as the product owner specialises in its core competencies, so does the manufacturer. As contract manufacturers ultimately produce components and integrated products for a living, they transition along learning curves that allow them to optimise manufacturing in a better way than had been possible for product companies' in-house solutions.

Finally, we argue that outsourcing provides companies with the opportunity to capitalise during times of strong demand, without the risk of sitting on a large investment during a downturn.

Having said all this, we acknowledge that outsourcing is not without risk. For instance, it exposes product owners to loss of control, both of the manufacturing process itself and also of the quality of the product. By extension, it also leaves the company vulnerable to delivery delay and supply chain complexity. Boeing's Dreamliner project, which listed more than 379 "major" component suppliers is a good example of when outsourcing yields coordination complexity rather than increased efficiency. This led to bottlenecks in assembly, and ultimately to delivery delays to customers. The larger the distance between manufacturer and product company, the farther the transportation for quality checks and product delivery to customer markets.

## Illustrating the pros and cons of outsourcing



Source: Carnegie Research

Outsourcing driven by overarching trends around efficiency and focus on core competencies



ABB estimates that 74% of European companies plan to re-shore or nearshore parts of their value chain Finally, as we are currently seeing with the situation in the Red Sea, outsourcing and especially offshoring are subject to geopolitical risk. The globalisation of recent decades has resulted in a situation where the political decisions of one country can impact companies operating on the other side of the globe. Companies are now increasingly turning their attention to regional supply chains, with a 2022 survey by ABB showing that 74% of European companies planned to either re-shore or nearshore operations to reduce supply chain complexity. For Scanfil, with seven of its nine manufacturing facilities located in Europe, we believe nearshoring trends could serve as significant business drivers. Moreover, we see no indication as to why these winds should not apply to other regions in the world, which should be beneficial for Scanfil facilities in the US and China as well.

# Why do companies reshore?

Following decades of globalisation, China's entry into the World Trade Organization (WTO) in 2001 marked the beginning of a shift toward regionalisation. Extraordinary events such as US-China trade tensions, pandemic shutdowns, and regional wars have showcased the inherent vulnerabilities for companies with global and complex supply chain structures. As an example the IMF estimates that Suez Canal trade decreased by  $\sim$ 50% Y/Y during the first two months of 2024 following the attacks on maritime vessels in the Red Sea. To protect its operations and employees, shipping companies instead had to divert ships around the Cape of Good Hope – on average adding +10 days to delivery times. As such, companies have an incentive to regionalise supply chains closer to their end-markets in order to avoid costly late-delivery fees and falling customer satisfaction.

#### Significant changes to trade patterns YTD



Source: Carnegie Research, IMF Portwatch

In our analysis of the manufacturing industry, we view the decision to outsource as heavily influenced by the balance between control and cost. With globalisation picking up pace in the 1990s, companies began to reduce costs by relocating some or the entirety of their production to low-cost countries such as China, India, or other Asian countries. This led them to surrender control over their supply chains, leaving them exposed to geopolitical risks and extraordinary events like those highlighted above.

Supply chain disruptions have become a top three priority for CFOs, according to McKinsey's 2022 Global Survey on the role of CFOs. However, in our research we find that some industries and sectors seem to be more affected by supply chain disruptions than others. In a 2023 survey, Maersk and Reuters reported that every responder from the electronics and technology sectors admitted to having faced delays in their sourcing operations from the pandemic and subsequent trade disruptions. Of the respondents, 88% said they had initiated relocation of their sourcing stations. Note here that we estimate services related to electronics manufacturing comprise 75% of Scanfil's net sales.

Supply chain issues have risen to become a top priority for CFOs





"Have global supply chain disruptions changed your sourcing?"

However, as countries commonly referred to as low-cost have seen significant economic development in recent decades, legacy cost calculations no longer hold. For instance, Cushman & Wakefield estimates that Chinese labour rates are now relatively comparable to those of some European countries. Thus, there are a number of different factors that in recent years have led companies to move production back to their respective domestic markets (reshoring), or at least to markets closer to home (nearshoring). While a company reshoring production achieves tighter control of its supply chain, such a move might also involve higher costs of labour than nearshoring it to an adjacent country or region. In essence, there is thus a trade-off between control and cost, and the increasing focus on total cost of ownership (vs. a previous focus on unit costs) is leading to CFO and supply chain managers increasingly tilting towards retention of control.

Across the Atlantic, where Scanfil operates one facility in Atlanta, Kearney's Reshoring Index found in its 2023 CEO survey that 96% of respondents have: 1) evaluated reshoring; 2) have decided to reshore; or 3) have already reshored – up from 78% in 2022. Simply put, Kearney calculates its Reshoring Index as the Y/Y change in the ratio between imported manufactured goods from 14 Asian low cost-countries, and total US domestic gross manufacturing output. The ratio increased 39% in 2022, which we view as very strong considering the increase in Asian low-cost country exports of 11% Y/Y.



ABB estimates that almost three-quarters of European companies plan to either reshore or nearshore operations. As such, we eye Central and Eastern Europe (CEE) as likely locations given the need to balance control with cost. Scanfil operates one factory site in Estonia and two in Poland as of Q4(23), which together account for 54% of the company's employees. The company has also marked the CEE region as a high-growth opportunity.

Source: Carnegie Research, Maersk, Reuters



Nordic contract manufacturing market is tight – 1% of customers account for +50% of sales

# The Nordic market for contract manufacturing

Although it lacks for size, something we believe to be one of the most important factors for this sector's success, the Nordic contract manufacturing industry is as diverse as it is competitive. Still, the market is structured in a way where a small set of customers (many of which we will describe in more detail later in this report), account for a large share of sales in the sector. According to Inission, a Swedish competitor to Scanfil, the largest 1% of customers constitute more than half of the Nordic segment's annual sales volumes. This means that sales are distributed in a long tail, with the absolute majority of companies accounting for just over a fifth of sales. Thus, we argue that the market invites consolidation and for larger players such as Scanfil to acquire attractive niche players in targeted, high-growth areas.

#### Nordic contract manufacturing market composition



Source: Carnegie Research, Inission Annual Report 2022

Another important characteristic of the contract manufacturing industry is inter-company trust. Our analysis of the industry shows us that numerous customer agreements between companies and their manufacturers have been in place for many years, during which time the manufacturer has become more and more in tune with the demands and processes of the customer company. According to Scanfil, some customers have been with the company for several decades, during which time relationships have deepened and Scanfil has received more and more of their manufacturing business. In essence, a longer relationship allows companies to leverage on manufacturing experience curves. This raises the barriers to switching manufacturer, both for existing competitors and new entrants.

On a similar note, we believe that the more value-added services a particular manufacturer can provide along a product life cycle, the higher the barriers to switching. As we highlighted in the business model section, we do not believe the overarching aim is to increase the share of services in the revenue mix. Instead, the idea is that the more comprehensive services Scanfil can offer across the product life cycle, the more volumes it will be awarded to manufacture.

Looking at industry competition, and more precisely the threat of substitutes, we believe the largest threat comes from in-house manufacturing – companies that revert from having previously outsourced volumes to returning manufacturing in-house. However, we believe this is only attractive from a customer ROI standpoint when volumes reach certain thresholds. With the majority of Nordic contract manufacturing activities focused on the high-mix, low volumes niche, we believe this threat is not as acute as it is in other regions.

The higher the share of auxiliary services, the more entrenched the customer relationship



Central and Eastern Europe region designated beneficiary of reshoring flows

# Central Europe: the perfect balance between cost and control?

In a time of great change for electronics supply chains, CFOs and procurement managers are continuously searching for measures to increase resilience along their industry value chains. In our view, this will only be achieved through a combination of measures balancing control and cost efficiency. In a study presented by Maersk and Reuters, India and Vietnam were identified as the global winners of relocation flows among low-cost countries. However, the study also highlighted the need for the manufacturing industry to look beyond the desirability of low-cost unit production and aim for capacity expansions in more developed regions too – such as Central and Eastern Europe (CEE).

We find several attractive characteristics for manufacturing in Europe: low political risk, a large internal market and strong knowledge infrastructure. Moreover, the short distances to end-customers increases companies' control over quality and delivery. One country in Central Europe that has been the object of increasing interest following nearshoring winds is Poland, which has seen several large announcements of manufacturing investments in recent years. For instance, Daikin will establish a new heat pump factory in the country, and new industry entrant Aira has also established a production facility there. Another example is Intel, which in 2023 announced plans to build a semiconductor assembly and testing facility in Poland. The country also came out on top when Reuters asked European companies about their preferred sourcing and reshoring locations. In the chart below we highlight Poland, Germany, and the Czech Republic – all with attractive positions in Central Europe.



#### Popular reshoring and sourcing locations for European companies

Source: Carnegie Research, Reuters

Scanfil has since 2021 identified the Central Europe region as a high-growth potential area where the company expects to outgrow its average growth rate. This is to be achieved through a combination of organic and inorganic activities, such as the build-out of the Sieradz, Poland facility, which began in Q3(23). This investment, which is due to be completed in Q2(25), will nearly double the size of the factory. When finished, the site will be the hub of Scanfil's Central European manufacturing, giving it the ability to reach all of Europe within one to three days, and the US and China in three to seven, according to Scanfil. The decision to expand this facility supports our view of Poland as a key market, and we expect the Sieradz factory to see strong demand in the coming years.





## Scanfil Sieradz: Investing in a European logistics hub

Source: Company data

We believe there are some risks related to the quality of European electronics supply chains... While we believe reshoring and nearshoring present a significant opportunity for those companies already present on European manufacturing soil, there are also challenges. For one, there are currently few suppliers present below the primary tiers – unlike the supply chains of China and Asia, which have been developed for decades. Companies hoping to increase the resilience of their production chains might therefore find themselves in a position where sourcing practices remain dependent on Asian parties. However, this uncertainty presents an exciting opportunity for those organisations that in addition to manufacturing can also offer services related to supply chain management – companies like Scanfil. In our view, there is a premium available for those companies able to secure resilience across supplier tiers.

... as well as workforce availability Another aspect to consider is workforce availability. Infineon Technologies has said it has come across issues finding suitable workers even for its logistics operations, and has had similar problems when it comes to more advanced engineering positions with responsibilities relating to, for example, the service and programming of robots. We also note that in a 2022 report by the European Labour Authority (ELA) and the European Employment Services (EURES), the occupations 'metal working machine tool setters and operators' and 'sheet metal workers' both ranked as experiencing a severe staff shortage. Respectively, 18 and 16 European countries reported these occupations as suffering staff shortages, and 50% and 44% of these countries ranked the shortages as of a high magnitude.

#### Shortages by broader occupation groups



# reporting at least one occupation with such severity

Source: Carnegie Research, ELA, EURES

There are large internal differences within the CEE region that have an impact on the location of repositioned manufacturing facilities. According to data from Eurostat, the average hourly wage in Poland is only around 40% of the average for the European Union as a whole. In summary, we view presence in the CEE region as favourable to manufacturing companies expecting

tailwinds from near- and reshoring trends. Thus, we view Scanfil's current presence and expansion focus in Central Europe, through both capacity expansions and inorganic activities, as highly encouraging.

# Inherently cyclical – structural exposure becomes key

Given many contract manufacturers' long-time relationships with industrial companies, we believe it is no wonder that the industry can be considered inherently cyclical in nature. For instance, industrial customers accounted for around 50% of Scanfil sales in 2023. We believe one way of illustrating this characteristic is to map Scanfil's organic sales growth over EU27 GDP growth. Another visual exercise is to look at the correlation between Scanfil's organic growth and European business confidence. Applying a lag of three months to the organic growth dataset, these two return a correlation efficient of almost 0.75.



Together with fragmentation, we consider favourable customer exposure as a key factor for contract manufacturers

farneqie

Electrification and energy efficiency trends expected to deliver aboveaverage growth As such, we believe companies that can find and develop successful customer relationships in niches with structural growth trends will outperform peers in the long term. Besides overarching favourable trends such as nearshoring, a pivot to focusing on a total cost of ownership, and an extension of the value chain for contract manufacturers, we find several trends in Scanfil's end-markets that we expect to support its sales prospects in the mid-term. We estimate that around 55–60% of the business is directly supported by structural developments within energy & cleantech, medtech, urbanisation, and digitalisation. In the sections below, we dive deeper into the two customer segments Scanfil has outlined as areas with high growth potential.

#### Energy & Cleantech - set to capitalise on the green transition

Within its Energy & Cleantech segment, the company manufactures a broad range of products including reverse vending machines, climate control systems, energy systems, and sorting solutions. Segment customers include energy giant ABB, climate solutions companies such as Nibe and Danfoss, and recycling innovators such as Tomra. Fuelled by a number of favourable megatrends, the segment has enjoyed strong sales growth in recent years, having grown at a CAGR(20–23) of 33%.

One megatrend we expect to continue benefitting Scanfil's manufacturing volumes in this segment is the shift towards a more electrified society. We are currently starting to see significant upticks in electrification rates across several sectors, perhaps most notably in the passenger car industry. Another area of the economy that is expected to transition into more electrified practices is the industrial sector. According to McKinsey, currently only 20% of the total energy consumed by industrial companies is electric. However, on the back of increasingly clear environmental and financial benefits, the consultancy firm projects that about half of industrial fuel consumption could be replaced with electricity. Putting this shift into numbers, McKinsey calculates that the industry sector's global electricity demand will more than triple from 2020 to 2050, from roughly 83 terajoules (TJ) to more than 252 TJ.





Electricity demand expected to triple until 2050

We argue that the energy efficiency megatrend could serve as a favourable driver of business in the segment for Scanfil, particularly through its partnerships with ABB, Danfoss, and Nibe. Illustrating this, the IEA estimates the value of publicly mobilised investments in efficiencyrelated projects since the beginning of the decade, at close to one trillion US dollars. Considering all accumulated spending related to clean energy over that period, about two-thirds is estimated by the IEA to have been allocated to the area of energy efficiency.

Given the sheer magnitude of the increase in electric energy demand and related investments expected in the coming decades, manufacturing capacity constraints from OEMs could cause difficulties in meeting demand. We believe that contract manufactures will be an important partner for OEMs in offloading the manufacturing burden, especially for smaller electricity players where a proprietary manufacturing facility is not economically viable. However, we believe that even bigger players with their own manufacturing facilities gain advantages in outsourcing parts of their manufacturing processes to third parties. Spending momentum was maintained in 2022, with global energy efficiency-related spending increasing by 16% according to the IEA (to a large extent driven by continuous strong growth in electric vehicles). While this corresponds to an annual investment volume of USD564bn, the IEA expects the spending to increase another 50%, reaching average annual spending of USD838bn between 2026 and 2030. Yet even this number would have to double in order to reach the energy efficiency levels established in the Net Zero Scenario as outlined by the IEA, as illustrated in the figure below to the right.



We identify Scanfil's cleantech exposure as another market poised to experience structural growth support. One of the company's long-running partnerships is with Tomra, a leader in advanced collection and sorting systems, as well as food processing solutions. The relationship between Tomra and Scanfil dates back to 2005 and is a good example of a strategic partnership where

Source: Carnegie Research, McKinsey

Carnegie

Scanfil expects the medtech & life science end-market to grow by a CAGR(23–28) of 8% Scanfil provides both manufacturing and supply chain services. We consider partnerships with customers such as Tomra, where Scanfil becomes embedded in its customer's operations, as highly favourable for long-term organic growth prospects.

#### Medtech & Life Science - combining resilience with above-average growth prospects

Scanfil's offering towards the Medtech & Life Science industry includes manufacturing of a broad range of products with varying levels of complexity. Product examples include dental treatment equipment, mass spectrometers (instrument used to identify unknown compounds through molecular weight determination), and analysis instruments. Furthermore, the segment offers solutions for environmental measuring, with Scanfil for instance serving Vaisala with design collaboration and volume manufacturing of its atmospheric measurement device Lidar Ceilometer.

According to Norwegian peer Kitron, contract manufacturing for medical devices is usually characterised by relatively low production volumes, and instead a higher degree of customisation for each unique device. In general, each product has a longer life cycle compared to manufacturing within general industry or connectivity. For some personal communications devices, we believe cycles can be as short as 6-12 months.

However, the extended life cycles of medical devices implies that the OEMs can exert higher degrees of pricing power than short life-cycle products, which drives pressure on the margins for these types of manufacturing contracts. As such, the contract manufacturer's ability to work with re-designs or product iterations becomes an important lever to protect margins, while at the same time naturally extending the life cycle of the product. Lastly, due to the intended use of the manufactured products, maintaining the highest quality is critical, and failure to do so is associated with high costs.

#### Important divergences between different customer verticals



Source: Carnegie Research, Kitron

Focusing on the medical device niche of Scanfil's Medtech & Life Science segment, we believe changing global demographics overall – and an increasingly aging population in particular – will continue to support demand for the medical device industry in the long term. As people age, they are more likely to be afflicted by various conditions such as skeletal pain, diabetes, pulmonary disease, cardiovascular disease, and other chronic conditions. All else being equal, as the number of elderly increases, the prevalence of various chronic diseases will increase, which will propel the need for patient monitoring devices and other medical devices to survey and treat patients.

According to the World Health Organisation (WHO), one in six people will be aged 60 or above by the year 2030; 1.4bn individuals, an increase of 40% compared to the 1bn in 2020. By 2050, the WHO expects this figure to reach 2.1bn. This is a significant increase in the underlying volume of potential patients and will, all else being equal, spur an associated increase in the number of medical devices used to treat patients. Another driver of the medtech market is increasing healthcare spending in emerging economies. According to an article by Morgan Stanley published in 2023 titled 'Navigating Emerging Markets Healthcare Trends', 19% of US GDP is allocated towards healthcare expenditure, with Europe at 12%. However, in developing markets such as India and Southeast Asia, healthcare expenditure as a percentage of GDP amounts to a much more modest 3–5%. As prosperity and wealth in emerging countries rise, lifestyle habits usually associated with developed countries, such as an increase in fast-food consumption, and greater prevalence of ailments such as diabetes and cancer become more prominent, which will increase people's need for medical devices.



We believe that the contract manufacturer's role within the medtech & life science value chain is likely to grow over time, becoming an important organic growth driver for contract manufacturers such as Scanfil. Manufacturing organisations within the Biopharmaceutical sector have already embraced a shift of outsourcing parts of the operations to contract manufacturers, contract research organisations, and/or contract development, and we believe the medtech sector is poised to follow suit.

Outsourcing's historical role within medtech has primarily been low value-added activities such as material sourcing and components manufacturing. With time, more activities have been delegated away from the medtech OEMs and shifted towards third-party players. One indication of this shift is Scanfil's communicated desire to receive QSR certifications for its sites in Sieradz, Poland and Suzhou, China. A QSR would enable the company to manufacture FDA-regulated products that when finished are intended for commercial distribution.



Overview of the role of outsourcing in the medtech industry

Source: Carnegie Research, meddeviceonline





# Competitive landscape and positioning

As showcased in the section above, the Nordic space for contract manufacturing of electronics and mechanics is dominated by a group of large players. In order to shed some light on the similarities and differences between these companies, this section outlines their respective factory footprints, customer exposure, and financial performance. We also perform a financial benchmarking exercise. Finally, we explore a number of positioning matrices we have found valuable when analysing the space.

# Mapping the competition

According to Swedish manufacturer Inission, no more than 1% of companies in electronics and mechanics manufacturing account for 52% sales in the space. In our mapping of the competitive landscape for Scanfil, we focus on those companies that are primarily active in electronics or mechanics manufacturing. Thus, the companies we view as the best peers and competitors for Scanfil are the Swedish AQ Group, HANZA, Inission, and Note, the Finnish Incap, and the Norwegian Kitron.

# AQ Group

AQ Group: Superior financials and exciting industrial exposure

AQ Group is a manufacturer of components and systems for industrial customers. The company was founded in 1994 via the merger of Aros Kvalitetsplats and ABB's transformer division. AQ is listed on Nasdaq Stockholm. Today, AQ consists of two operating segments. System, which manufactures electrical cabinets and other electronics products; and Component, which is active in injection moulding, inductive components, wiring systems and sheet metal processing. In addition to manufacturing, AQ provides services related to the design of components or entire systems. After a design is completed and has passed the prototype phase, the company assists its customers by setting up an optimal production structure as close to the target market as possible.

AQ's customers are distributed over many different market niches, such as commercial vehicles, defence, off-road equipment, medical, and marine. In 2023, AQ disclosed that its two largest customers together accounted for around 20% of group sales, with the largest at ~13%. We believe that ABB and Volvo are among AQ Group's largest customers in terms of sales share. However, both of these companies operate in several different end markets, which reduces customer concentration risk for AQ Group. Sweden represents the largest individual market for the group at 34% of sales, followed by Finland at 11%. Over recent years AQ has shown an impressive ability to find interesting market niches, with sales growing at a CAGR of 14% over 2018–23, and EBIT at a CAGR of 31% during that time.



## HANZA

HANZA: Electronics and mechanics located together at manufacturing clusters Listed on Nasdaq Stockholm, HANZA is a manufacturing company specialised in electronics and mechanics. The company's operating model is based on six manufacturing clusters, at which HANZA has collected different technologies and manufacturing expertise that shorten lead times, reduce transport costs and emissions, and lower total costs. The company has in recent years invested in its extensive service offering, allowing it to cover the entire manufacturing life cycle - from product design, to manufacturing, to aftermarket. Moreover, HANZA increasingly serves companies with supply chain advisory services. As of 2023, the company operates factories in Sweden, Finland, Germany, the Baltics (Estonia), Central Europe and China. The Swedish market is the largest in size, accounting for around 38% of group sales according to our estimates, followed by Finland and Germany at around 17% each.

HANZA primarily serves industrial companies within the mining, energy, and engineering sectors, but also in agriculture, defence and medtech. The company states that no one customer accounts for more than 10% of group sales, which we believe is in line with the sector average. HANZA has grown impressively over the last decade, through a combination of organic and inorganic initiatives. Sales have grown at a CAGR(18-23) of 18% and EBIT(18-23) at 43%.



#### Incap

Incap: Impressive growth track record halted by destocking at largest customers

Carnegie

Incap is a Finnish company that provides product companies with electronic manufacturing services. The company is primarily active in Europe with facilities in the UK, Estonia, and Slovakia. Furthermore, Incap operates production facilities in India and one in the US. In terms of service offering, Incap is primarily active in the PCB and Box build assembly niches, while also providing customers with prototyping, testing, and engineering solutions.

Fuelled by the strong growth of its large solar power customer, Incap enjoyed strong growth in 2018–22. The company grew both sales and EBIT in this period at a CAGR of 35%, reporting industry-leading margins of around 15% in 2021–22. However, sales decreased 16% Y/Y in 2023 by following destocking at the largest customer – which we believe to be Dutch power and solar systems company Victron Energy – illustrating the risk of a too-concentrated customer portfolio. At YE(23), Incap's largest customer accounted for approximately 47% of group sales. In 2023, Incap's EBIT decreased by 28% Y/Y.





Business split in two verticals since acquisition of product company Enedo

#### Inission

Inission is a Swedish contract manufacturer of electronics and mechanics. The company was founded in 2010 after the consolidation of several companies and is listed on the Nasdaq First North in Stockholm. Inission consists of two segments: Inission (76% of 2023 sales), which is the contact manufacturing part; and Enedo (24%), active in electronic power supply solutions. The Inission segment provides product life cycle services that cover development, design, industrialisation, volume production, and aftermarket. Looking at its customer portfolio, we note that the company claims to have more than 140 "substantial" customers across several segments, including industry (42% of net sales), marine (16%), and communications and IoT (15%).

Inission has a long-standing partnership with listed Finnish technical consultancy firm Etteplan, for which the company provides electronic prototypes and circuit boards. Inission's largest geographical market in terms of sales is Sweden, which accounts for about 36% of sales for the contract manufacturing segment. Scandinavia as a whole accounted for 82% of 2023 segment sales.

In 2021 Inission participated in a directed share issue in Enedo Oyj, making it the biggest shareholder. Inission has since acquired all the shares in the company, which is now delisted from the Finnish stock exchange. Unlike Inission, Enedo develops, produces, and markets proprietary power electronics and systems. The customers are typically industrial players in Industry & Automation, LED displays, and Test & Instruments. Enedo's main markets are Europe and the US. Thus, the acquisition has diversified Inission group away from being a solely contract manufacturing company. Inission has reported impressive growth in recent years, growing sales at a CAGR(18–23) of 24% and EBIT at a CAGR(18–23) of 31%.



#### Kitron

Kitron: Nordic EMS player with toptier defence exposure

# Kitron is a Norwegian electronics manufacturing services (EMS) company that was founded in 1960. The company manufactures electronics that are embedded in customers' products, as well as box-build electronic products. Kitron has five operating segments: Connectivity, Electrification, Industry, Medical Devices, and Defence/Aerospace. Of the five, Electrification and Industry are the largest in terms of sales exposure, at 32% and 27% of 2023 sales respectively. In Electrification, the most important niches are power grid transmission, drive management, and battery management. As for the Industrial segment, automation, and control systems are important markets for Kitron. In addition to electronic manufacturing, Kitron offers its clients: 1) product developments services; 2) advisory in new product introduction; 3) sourcing &

Over the course of its history Kitron has expanded its operations through both organic and structural activities. Kitron currently operates as a group of production facilities, with presence in Northern Europe, China, India, and the US. The largest geography in terms of revenue is Sweden, which had a  $\sim$ 36% share of group sales in 2023. We believe Kitron boasts an impressive customer list, with ABB, Hitachi, Atlas Copco, Volvo and GE Healthcare as reference customers. Moreover, out of the Nordic contract manufacturing peer set, in our view Kitron is the one with

logistics related services; and 4) product life cycle management.

Carnegie

the greatest exposure to the structural trend of increasing defence spending. In 2023, defence and aerospace represented 14% of group sales, and the company serves a long list of blue-chip customers in the segment such as Lockheed, Northrop Grumman, Raytheon, and SAAB. In 2023, the largest customer comprised 8% of group sales, and the top three just over 18%. Kitron has showcased an impressive growth record in recent years, growing sales over 2018–23 at a CAGR of 28%, and EBIT at a CAGR(18–23) of 39%.



#### Note

Note: EMS pioneer within both industrial and consumer end-use

Note is an electronic manufacturing services (EMS) group listed on Nasdaq Stockholm Mid Cap. The company focuses on manufacturing printed circuit boards, sub-assemblies, and box builds. Note operates through four operating segments, Industrials, Communication, Medtech, and Greentech. Note also provides several auxiliary services for the products it manufactures.

During the product development phase, Note collaborates with the customer to optimise component selection and prep the product for serial production. Furthermore, the company helps customers with component sourcing & logistics to ease supply chain headaches for the client. Since its inception, Note has focused on expanding globally, and it currently has 13 manufacturing facilities in Sweden, Finland, the UK, Estonia, and China. The company is a specialist in PCB, sub-assemblies, and box-build for various applications. It holds a strong position in the high-mix PCB segment – products that require high technical ability and flexibility over the life cycle of the product.

Note is the chosen manufacturer for several well-known electronics companies in the Nordics. Smart lightning company Plejd has chosen Note to be a manufacturer for its light control systems, complementing its in-house manufacturing. Moreover, we believe US industrial technology enterprise Trimble is one of Note's largest customers, and it has been outsourcing PCBA manufacturing to Note since 2002. Financially, the company reports its sales in two regions, Western Europe (Sweden, Finland, and the UK) and Rest of the World (Estonia, Bulgaria and China). In 2022, Western Europe accounted for ~73% of sales and the RoW segment the remaining ~29%. The company has an impressive financial track record, growing sales at a CAGR(18–23) of 25% and EBIT at a CAGR(18–23) of 39%.





In conclusion, the Nordics EMS and contract manufacturing space has experienced significant growth in both sales and earnings over recent years, especially during 2021–22 when consumers and companies returned to investing and spending following the pandemic shutdowns. Demand for Scanfil's and its peers' services during this period was also affected by uncertain supply chains and a subsequent component shortage. This led customers to abandon the principle of just-intime and place orders in a much more cautious fashion than historically. Among the Nordic peers, Incap reported the highest sales growth in 2018–23 at a CAGR of 31%, while HANZA managed to outgrow its peers in terms of earnings at a CAGR(18-23) of 43%. However, Scanfil outscores the peer group when it comes to asset turnover ratios. Thus, while the profitability profile of the company is lower than peers, Scanfil's capital-efficient operating model still allows for solid returns on invested capital, and as such, a strong generation of free cash flow.

#### Financial benchmarking across the Nordic EMS and contract manufacturing landscape

	Scanfil	AQ Group	Incap	Inission	HANZA	Kitron	NOTE
Sales 2023 (LCY)	EUR902m	SEK8.9bn	EUR222m	SEK2.2bn	SEK4.1bn	NOK8.9bn	SEK4.2bn
Sales CAGR(2018-23)	9.9%	14.0%	30.7%	24.3%	18.0%	27.6%	25.2%
EBIT CAGR(2018-23)	10.1%	30.6%	26.8%	31.1%	43.3%	39.0%	38.7%
Avg. EBIT margin (2020-23)	6.4%	8.1%	13.7%	4.3%	5.0%	7.7%	9.2%
Customer concentration (#1 customer share of group sales in 2023)	13%	13%	47%	5%	<10%	8%	5%
Avg. Asset turnover (2020-23)	1.72x	1.36x	1.65x	1.59x	1.51x	1.41x	1.55x
Avg. ROIC (2020-23)	14.8%	12.9%	31.5%	8.0%	8.6%	16.0%	22.1%

Source: Carnegie Research, Factset, Company data

# Positioning Scanfil against its listed peers

In our view, the contract manufacturing sector is considered by investors one of the most homogenous sectors on the stock exchange, while it is also one of the most under-analysed. As discussed in the segment above, our Nordic contract manufacturing group comprises four Swedish companies (AQ Group, HANZA, Inission, and Note), two Finnish (Incap and Scanfil), and one Norwegian (Kitron). We argue that a better understanding of the positioning of Scanfil and its sector peers would give investors more insight into what news is relevant for which specific set of companies.



In the graph below we plot companies' factory footprint and their technological offering. HANZA, for instance, focuses on the European markets (its facility in China accounts for a very small share of the business), while offering both electronic and mechanics manufacturing services. Kitron, on the other hand, has chosen to focus on electronics, but with a manufacturing footprint ranging from Malaysia to the US. We want to highlight that the positioning represents our internal view of the sector. For the sake of this exercise, we have included electric products such as wiring systems, cable harnesses, transformers, and electrical cabinets as electronics.





Source: Carnegie Research

Another way to position the peer group is based on their customer portfolio. We believe one way to go about this is to focus on customer concentration and end-market exposure. Regarding customer concentration, we believe Note, Inission and Kitron score the highest on diversification, while Incap, AQ Group, and Scanfil have the highest exposure to single customers. We have mapped the companies depending on their exposure towards consumers vs. industrial products. For instance, HANZA, AQ Group and Scanfil primarily work with the latter category. On the other hand, Note and Incap have more exposure to consumer products, in our view. Incap, for example, considers consumer electronics one of its core markets; while Note serves Charge Amps (EV charging) and Plejd (Smart lighting) – two companies clearly exposed to consumer markets and sentiment.




Nordic contract manufacturers: Customer concentration vs. fragmentation



## European peers

Due to Scanfil's position as one of the largest contract manufacturers in the Nordics, we believe it warranted to compare the company to a number of its peers on the European continent.

#### Cicor

Headquartered in Switzerland, Cicor provides a wide range of services related to electronics manufacturing. The company employs around 2,500 people across 15 facility sites, at which they serve clients with services across the product life cycle, from R&D assistance to manufacturing and supply chain management. Cicor operates globally, with production sites in Europe, Africa, and Asia. In addition, it also has five sales offices in North America. The company's primary customers are active within the industrial (39% of 2023 net sales), medical (29%) and aerospace/defense (16%) sectors. The company has been active on M&A markets during Q1(24), disclosing an acquisition in the UK and another in Romania. It is listed on the SIX Swiss Exchange.



Source: Carnegie Research, Cicor

#### Volex

Volex operates 19 manufacturing locations across the globe, serving not only OEMs but also other contract manufacturing peers. The company focuses on cables, higher-level assemblies, connectivity solutions, and consumer electricals power products. Volex employs more than 8,000 people across factories and warehouses in North America, the CEE region, India, and South East Asia. Volex's focus markets are electric vehicles (Volex manufactures products for public charging), consumer electricals, medical, and complex industrial technology, and the company has also cemented a strong footprint as supplier of products to data centers. Volex is listed on the London Stock Exchange.



Source: Carnegie Research, Cicor



#### **TT Electronics**

TT Electronics provides customers with design and manufacturing solutions. It operates through three divisions: Power & Connectivity, Sensors & Specialist Components, and Global Manufacturing Solutions. Power & Connectivity assists companies with the design and manufacture of products for power efficiency and connectivity, while the Sensors & Specialist Components division works with both customised and standardised sensor and power management devices. Global Manufacturing Solutions provides manufacturing and engineering solutions to the other product divisions and customer alike, focusing on the high-mix low-volume niche. TT Electronics primarily serves the healthcare (25% of 2022 net sales), aerospace & defense (18%), and automation & electrification (39%) sectors. TT Electronics is listed on the London Stock Exchange.



#### source. Curriegie Research, TT Ei

#### Lacroix

Lacroix designs and manufactures a wide set of products for industrial IoT and electronic applications. Among its customers, we find large enterprises in the automotive, industry, home automation, aeronautics, and healthcare sectors. Lacroix has divided its operations into three activity segments. In Electronics, the company offers industrial IoT solutions; the City segment provides smart road systems and street lighting equipment; and Environment delivers sustainable solutions for water, heating, and electricity networks. Of the three segments, Electronics accounts for the lion's share of sales at  $\sim$ 75%. France is the largest individual market for Lacroix, accounting for just short of 30% of the business. The company is listed on Euronext.



Source: Carnegie Research, Lacroix

#### Source: Carnegie Research, Lacroix

#### Katek

Headquartered in Munich, Katek is a technology company primarily active in the electronics and green tech niches of manufacturing services. It offers a wide range of solutions across the product life cycle, ranging from prototyping to serial production and after-sales services. Katek operates facilities in Europe, North America, and Asia, serving more than 1,500 customers, including the likes of Porsche, Bosch and Viessman. Looking at its service offering, the company produces intelligent charging solutions for the automotive industry, storage systems for the solar industry,

and complex products in low-to-medium volumes for the air & defense industries. In 2022, we believe Katek had two customers that each accounted for more than 10% of group sales.

In January 2024, Kontron Group became the majority shareholder of Katek, with ownership just below 60%, and in April, Kontron published a mandatory delisting tender offer to the remaining shareholders of Katek. Kontron is a technology company focusing on design and manufacturing for IoT solutions. Both companies are listed on the Frankfurt Stock Exchange XETRA.



Source: Carnegie Research, Katek

In the graphs below, we have compared Scanfil's historical financials towards those of its selected European peers.



European peers: Sales CAGR(2018-23) European peers: EBIT CAGR(2018-23) 25.0% 40.0% 36.3% 21.7% 35.0% 20.0% 30.0% ·50 25.0% 15.0% 13.2% E 20.0% 10.2% 9.9% 14.9% **H** 15.0% 10.0% 7.6% 10.2% 10.0% 5.0% 3.5% 2.9% 5.0% n.a n.a. 0.0% 0.0% Volex Cicor Lacroix Scanfil TT Electronics KATEK Volex Cicor Scanfil TT Electronics KATEK Lacroix Source: Carnegie Research, Factset Source: Carnegie Research, Factset



# Sustainability

## Expertise in logistics management reduces clients' environmental footprint

While they may not be apparent at first sight, we believe there are several aspects of Scanfil's business model through which sustainability-related trends could serve as a business driver. Firstly, Scanfil has a long history of logistics management, by which the company assists customers to improve the coordination of material flows between sites, find transportation arrangements, and select manufacturing locations optimally cantered between customers and suppliers. By minimising the distance required for transportation between supply chain points, Scanfil works to reduce the environmental footprint made by its customers – while also delivering on serviceability and rapid response. The company is also an expert in material handling and product design. By working with the client from early on during the development phase, Scanfil can assist in optimising material management, thus reducing potential waste.

## Silver medal from EcoVadis – aiming for platinum by 2030

As a member of the United Nations Global Compact initiative, Scanfil has committed to the principles of human rights, the eradication of corruption, high labour standards, and a sustainable environment. The company has chosen to specify a number of action items within each area of its sustainability work.

## Governance

As part of its initiatives within the governance segment of sustainability, Scanfil has singled out the areas of customer satisfaction, quality and delivery reliability, supply chain compliance, and the prevention of corruption and bribery. In addition, it also aims to support development in the communities where it is active. In 2023, the company reported that 100% of its new suppliers had signed the outlined Supplier Code of Conduct, and that this goal will remain going forward.

#### Environment

Scanfil has defined the use of raw materials, control and reduction of energy and water consumption, the management and reduction of waste, recycling, and the reduction of carbon footprints as key focus points. For instance, Scanfil aims to reduce CO2 emissions to 8,500 tCO2e by 2030 – a goal that it already reached in 2023. For comparison, that number was 16,853 tCO2e in 2020. In addition, Scanfil aims to increase the share of fossil-free energy it uses to above 60% by 2030, reaching 52% in 2023.





## Energy consumption kWh / value add

Source: Company data



#### Social

Scanfil focuses on occupational health and safety, equal treatment, skill development, and motivation and work satisfaction among its employees. By 2026, Scanfil aims to increase the share of women in senior management to 35%. In 2023, that number was 20%, with CCO Christina Wiklund the only woman at the C-suite level. However, we note that Scanfil is in line with the EU's 2026 target of at least 33% of all director posts occupied by the under-represented sex. As a manufacturing company, we view occupational safety as one of the most important sustainability issues for Scanfil. In 2023, there were 33 occupational accidents reported, down from 48 in 2022 and from 43 in 2021.





Source: Carnegie Research, Company data

EcoVadis, a sustainability rating platform, gives Scanfil a silver rating based on its sustainability management system. According to EcoVadis definitions, this means that the company scores in the 85<sup>th</sup> percentile amongst companies ranked. For 2030, the company aims for a platinum ranking, which would be equivalent to scoring in the 99<sup>th</sup> percentile. The board of directors and the executive team are responsible for sustainability management at Scanfil.

#### Sustainability-related risks and past incidents

While we have not identified any major sustainability-related incidents in Scanfil's past, we acknowledge that there are some sustainability risks in the company's business model. First and foremost, there is an inherent risk in Scanfil's operations that employees could suffer from health and safety issues stemming from their daily operations at the company – for example from operating one of the many machines the company has installed at its sites. To counter instances like this Scanfil has a Safety Council, which monitors safety, decides on corrective actions and shares best practices.

Moreover, there is a risk that parties within Scanfil's supply chain act in a way that is not compliant with current laws, or generally unethical. The company's supply chain is spread across different regions with varying levels of risk. If any of Scanfil's suppliers or sub-suppliers were to engage in actions that are questionable from a sustainability-perspective, it could damage the company's reputation.





# Financials and forecasts

Since its foundation, Scanfil has illustrated a strong ability to grow through both organic and inorganic activities. Reporting a sales CAGR(14–23) of 17%, we believe the company has been successful in identifying attractive market niches and argue that of its peers it enjoys the largest exposure towards the green transition. Adjusted EBIT has grown from EUR16.4m in 2014 to EUR61.3m in 2023, corresponding to an adjusted EBIT(23) margin of 6.8%. Looking forward, we expect 2024 to a be a sluggish year for Scanfil and model an organic sales decline of 5% on the back of muted industrial demand, particularly on the European markets. Thus, we also expect factory utilisation rates to take a hit, forecasting a minor earnings loss that corresponds to an adjusted EBIT(24e) margin of 6.7%. We expect demand and earnings to recover in 2025–26e. After deleveraging in 2023, we forecast net debt/EBITDA(24e) of 0.2x, well below the targeted 1.5x, as the company prepares to increase its activity on the European M&A markets.

## Historical performance

Note that for all figures in this section, Scanfil is the source for historical numbers and Carnegie Research the source for estimates, unless otherwise stated.

Scanfil has showcased impressive sales development in recent years. Between 2014 and 2023, the company grew sales from EUR215m to EUR902m, corresponding to a CAGR of 17%. In line with sector peers, Scanfil impressively capitalised on increased demand from customers during the pandemic and the subsequent supply chain issues, as reduced visibility led to customers increasingly pre-ordering to ensure product availability. Sales grew at an impressive CAGR of 15% over 2020–23, despite no M&A being carried out since 2019.





Source: Carnegie Research, Company data

Sales growth adversely impacted in 2023 by spot-market component purchases in 2021—22

Impressive sales growth track record

with 17% sales CAGR(14-23)

Adjusting for re-invoicing of spot-market purchases, growth rates remain impressive at a sales CAGR(20–23) of 14%. From a reporting standpoint, we argue that Scanfil deserves credit for providing the market with clear numbers in this aspect, both when it favoured the underlying numbers, and when it did not. The divergences between the underlying and reported sales growth can be seen in the figure down to the right, with the largest difference observed during 2023. While reported sales grew by 7% during the year, underlying sales growth was actually more than twice as high at 16%, when adjusting for spot-market purchases of materials and energy made in 2022–23.





While Scanfil does not disclose the mix between inorganic and organic growth initiatives in its reporting disclosure, we have estimated the split based on the closing of performed M&A deals, as well as our estimate of the company's currency exposure. Historically, Scanfil has grown through a mix of acquisitions and organic activities. However, the frequency of M&A has slowed down since the 2015 acquisition of the at the time listed company PartnerTech, which when fully integrated close to doubled Scanfil in terms of net sales.

Following slower activity in 2019, when many of the company's larger customers saw weakening demand, organic growth reaccelerated and comprised the absolute lion's share of sales growth contribution in recent years. Over 2015–23 we estimate Scanfil's average organic growth rate at around 10%.



Energy & Cleantech segment clear growth driver in 2021–23 We point to the Energy & Cleantech segment as one of the primary drivers behind Scanfil's impressive track record of organic growth in 2021–23. During that time the segment not only increased sales from EUR136m in 2020 to EUR320m in 2023, but also from 24% to 36% as a share of group sales. The development follows strong demand for recycling, industrial electrification, and energy efficiency solutions. The Industrial and Medtech & Life Science segments have over the same period grown at a CAGR(20–23) of 10–13%.





Source: Carnegie Research, Company data

Looking at seasonality effects over the financial year, since its transformative acquisition of PartnerTech in 2015 Scanfil has showed a well-balanced distribution of sales. For the sector overall, Q3 is generally the smallest in terms of sales due to summer vacations in July and August. Still, over 2016-23 Q3 accounted for 24% of Scanfil's annual sales. On the other hand, the contract manufacturing sector tends to see high demand in Q4, as customers aim to enter the new year with a healthy inventory set-up. For Scanfil however, Q4 only represents 26%, presenting an attractive balance in sales across the year.



Source: Carnegie Research, Company data

Source: Carnegie Research, Combany data

Significant adverse margin-impact from spot-market purchases in 2021-22

#### Earnings development

Since 2014, Scanfil has grown adjusted EBIT at an impressive CAGR(14-23) of 16%. This was driven by increasing sales volumes, as the margin compared to 2014 has actually dropped by 80bps. The supply material shortages in 2021-22 weighed on margin development in two ways. Firstly, productivity was impacted by delays and stoppages at factories. Secondly, Scanfil had to shift its procurement strategy to increase the share of spot-market purchases, which often meant higher than budgeted-for prices. While customers were invoiced for the additional costs stemming from this, it was rarely done with any significant margin, thereby weighing on the company's margin. The effects of these adverse factors diminished sequentially in 2023, which led to the margin reaching a nine-year high of 6.8%.





Scanfil: Earnings development 2014-23

In 2014, Scanfil reported an adj. EBIT margin of 7.6%. However, following the acquisition of PartnerTech in 2015, subsequent restructuring activities, and the profitability-adverse impacts of the pandemic, Scanfil has not managed to return to that level. Looking at the company's cost structure, materials and supplies take up the absolute majority of expenses. Other operating expenses (which include costs related to hired labour, maintenance, and subcontracting among other things) and personnel accounted for 8% and 13% of 2023 net sales respectively.



Scanfil: Operating profit bridge (2023)

Source: Carnegie Research, Company data

In terms of seasonality of earnings, Scanfil has on average reported significantly higher margins in Q3 compared to the other quarters. For instance, the delta in adj. EBIT margin between Q1 and Q3 has historically been more than 100bps.

Source: Carnegie Research, Company data





Source: Carnegie Research, Company data

Source: Carnegie Research, Company data

Underlying sales down -8% in Q1, as efficiency programs boosted protected margins

#### QI(24) report

Scanfil reported Q1(24) sales of EUR198.9m, corresponding to a sales decline of 11.5% Y/Y. The decline was primarily driven by weak development in the Industrial and Medtech & Life Science segments, which both saw sales drop by ~15% Y/Y. Energy & Cleantech performed somewhat better, as sales adjusted for the weak energy saving solutions subsegment (which includes NIBE, for instance), grew 11.3% in the quarter. We believe energy saving solutions account for about 20–25% of segment sales. Taking the subsegment into consideration, sales decreased 3.3% Y/Y. Scanfil is still seeing some impact from material availability challenges, although significantly less than 2021–22. Re-invoicing of spot-purchases accounted for EUR1.5m of sales in Q1, indicative of underlying sales growth of -8% adjusted for the impact of spot-purchases.

Moreover, the group reported EBIT of EUR12.7m in Q1, as lower sales volumes adversely impacted earnings. Compared to the corresponding period last year, earnings are down 16%. However, demand-driven adjustments to the workforce started to have a financial impact in the quarter, which supported margins. Adjusted for lay-offs, as well as some negative impact from adverse FX rate changes, the EBIT margin was 6.8%, which is an improvement by 10bps Y/Y. During the conference call, management's view of a weak first half to 2024e, and subsequent improvement, was reiterated.

#### Scanfil: Financial development up to QI(24)



Source: Carnegie Research, Company data

## Our forecasts for sales and earnings

In our view, there are several aspects favouring the financial development of the Nordic contract manufacturing industry in the medium term. A continued focus on core competencies among product companies, an increasing emphasis on total cost of ownership (TCO) over finding the

Carnegie

lowest unit cost, and the trend to regionalise supply chains are, in our view, all factors supporting sales growth in the coming years.

However, in the short term we expect continued muted demand in the European industrial markets to weigh on customer activity and sales growth. While we believe the destocking issues seen in 2023 are reaching their trough in H1(24), we expect Scanfil to return to quarterly sales growth in Q4(24). We model a rebound in activity during 2025-26e and model a net sales CAGR(23–26e). of 2% Following a slowdown in 2024, we expect Scanfil to organically grow in line with the historical average rate for electronics manufacturing, which has been 3–6% per year according to the company.



Source: Carnegie Research, Company data

Source: Carnegie Research, Company data

In conjunction with its Capital Markets Day in 2024, Scanfil announced that over a business cycle it aims to grow net sales, on average, by 10% annually. It is our understanding that this is to be achieved through a combination of organic and inorganic activities, of which we estimate the split at roughly 50/50. While our current estimates do not imply a growth rate in line with Scanfil's target – on an average level, because of our expectations of a weaker 2024e – we believe there is upside potential to our estimates if Scanfil can continue to grow its exposure to the fast-growing industrial and medtech markets. For instance, the company estimates growth rates for the two market segments relevant for its Energy & Cleantech and Medtech & Life Sciences customers at a CAGR(23–28e) of 7–8%. While we believe these expected growth rates to be somewhat backloaded given the weaker market sentiment in 2024, we expect these segments to support growth in Scanfil for many years to come.

For 2024, Scanfil has guided for sales in the range of EUR820m–900m; our estimates are just below the mid-point at EUR854m. In order to sanity-check our estimates, we have mapped Scanfil's 2017–23 sales growth over the average growth rate for 24 European companies within the industrial and medtech sectors. In putting together the group, we have attempted to recreate a customer split that is similar to Scanfil's. This means that of the 24 companies, 18 are active in the industrial and energy niches, while six are medtech & life sciences companies. Within the industrial group, we have also included Ericsson and Nokia as we believe Scanfil served these within its old connectivity business, which is now part of the industrial customer segment.

#### Composition of the proxy customer group

Industrial & Energy	Atlas Copco Ericsson Sandvik	ABB Husqvarna Schneider	Alstom Kone Siemens Energy	Electolux Metso TOMRA	Envipco NIBE Valmet	Epiroc Nokia Volvo
Medtech	Draegerwerk	Demant	Elekta	Siemens Healthineers	Vaisala	
					<u> </u>	

Source: Carnegie Research

Applying the average of each company's estimated sales growth for 2024–26e (Factset consensus), the regression returns an implied sales CAGR(23–26e) for Scanfil of 3%, slightly above our current modelling assumption. In the regression below, the red circles represent actual

We are slightly above company midpoint guidance for net 2024 sales



Validity of sales forecasts (2024-26e)

from sanity-check against customer

sales growth estimates

sales growth rates for 2017–23, while the positioning of the pink ones corresponds to the implied growth rate for Scanfil in that particular year, based on our forecasts



Growth comparison: Scanfil vs. European industrial and medtech (I)

We have also performed the same exercise on a shorter period, namely 2020–23. Under the same conditions, the regression returns an implied sales CAGR(23–26e) of 2%. Similar to the above, the red circles represent actual sales growth rates between 2020–23, whereas the positioning of the pink ones corresponds to the implied growth rate for Scanfil in that particular year.



Growth comparison: Scanfil vs. European industrial and medtech (II)

While not a perfect tool, we believe the exercise serves its purpose. Considering the business model of contract manufacturers as, simply put, a derivative of the demand of their customers' products, we believe the results returned by the regression serve as a good sanity check of our modelled sales estimates.

#### We expect Scanfil's EBIT margin to approach the target range of 7-8% in 2025e

Scanfil's profitability recovered in 2023 following a weaker 2022 when margins were dampened by delays in production, higher input costs, and challenges with availability of materials. In 2024, we expect the elimination of these factors to support margins, together with efficiency measures announced in conjunction with the Q4(23) report. Scanfil has estimated that when fully implemented (which we expect around the end of 2024), these measures will generate EUR1.7m in annual savings. On the other hand, we believe that a weakened industrial outlook for 2024,

Source: Carnegie Research, Company data, Factset

Source: Carnegie Research, Company data, Factset

and especially H1(24), will hurt factory utilisation and in turn margin development during the year. While expecting a sequential improvement over the quarters, we forecast a slight margin reduction Y/Y, modelling an adj. EBIT(24e) margin of 6.7%. Under the belief that European industrial demand will return in 2025-26e, and that the full effect of the efficiency improvements will be visible we forecast the margin approaching Scanfil's long-term margin target of 7-8% by 2025.



Source: Carnegie Research, Company data

We are 6% below midpoint guidance for adj. EBIT(24) due to our cautious stance on factory utilisation rates

Carneqie

For 2024e, Scanfil has guided for adjusted operating profit in the range of EUR57-65m; versus our estimate of EUR57.6m, 6% below the midpoint. As such, we are also below the midpoint guidance of an adj. EBIT margin of 7.1%. In the long term, we see no reasons why Scanfil should not be able to approach its target of margins in the range of 7-8%, with the help of: 1) industrial outlook improving lifting utilisation rates; 2) favourable exposure to structurally supported endmarkets supporting volumes; and 3) ongoing investments into automation. That being said, we remain cautious about predicting any margin improvement in 2024e.



#### Carnegie estimates vs. company guidance and targets

Source: Carnegie Research, Company data

#### Summary of P&L forecasts

In the tables below, we have summarised our forecasts for Scanfil's P&L until 2026. We have also included our quarterly estimates for 2024e, for which we model a sequential improvement in sales and the adj. EBIT margin reaching 7.1% in Q3(24).



#### Scanfil

P&L (EURm)	QI(24)	Q2(24e)	Q3(24e)	Q4(24e)	2021	2022	2023	2024e	2025e	2026e
Net sales	199	227	203	225	695.7	843.7	901.6	854	895.4	944.6
Other operating income	0.1	0.2	0.2	0.2	1.2	0.9	0.9	0.7	0.9	0.9
Change of inventories in production,	0.2	0.4	0.4	0.0	2.0	0.2	0.2	0.4	0.4	0.5
finished goods, and work in progress	0.2	-0.4	-0.4	0.0	3.0	0.3	-0.3	-0.6	0.4	0.5
Manufacturing for own use	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Expenses	-181.5	-206.6	-184.2	-205.7	-644.9	-782.0	-821.7	-778.1	-815.2	-857.7
Depreciation and amortisation	-5.0	-5.0	-4.5	-4.3	-15.4	-17.5	-19.1	-18.8	-19.7	-20.8
Adj. EBIT	12.7	15.0	14.4	15.5	42.0	45.3	61.3	57.6	61.8	67.5
EO	0.0	0.0	0.0	0.0	-2.4	0.0	0.0	0.0	0.0	0.0
EBIT	12.7	15.0	14.4	15.5	39.6	45.3	61.3	57.6	61.8	67.5
Net financials	0.2	-0.8	-0.8	-0.8	-1.9	-3.7	0.3	-2.1	-2.8	-2.8
РТР	12.9	14.3	13.6	14.7	37.7	41.7	61.6	55.5	59.0	64.7
Tax	-3.1	-3.1	-3.0	-3.2	-7.9	-6.7	-13.4	-12.5	-13.0	-14.2
Net profit	9.8	11.1	10.6	11.5	29.8	35.0	48.2	43.0	46.0	50.5

Source: Carnegie Research for forecasts, company data for historical numbers

Below, we present our preliminary sales and margin assumptions until 2026e.

Growth	Q1(24)	Q2(24e)	Q3(24e)	Q4(24e)	2021	2022	2023	2024e	2025e	2026e
Sales growth	-11%	-7%	-4%	2%	17%	21%	7%	-5%	5%	5%
- o/w organic	-10%	-7%	-5%	2%	16%	19%	9%	-5%	5%	6%
- o/w structural	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
- o/w FX	-1%	0%	1%	0%	0%	3%	-3%	0%	0%	0%
Adj. EBIT growth	-15%	-14%	-5%	15%	3%	13%	35%	-6%	7%	9%
PTP growth	-11%	-22%	-7%	4%	-10%	11%	48%	-10%	6%	10%
					Source: Carnegie Re	search for fo	recasts, con	npany data	for historical	numbers
Margins	Q1(24)	Q2(24e)	Q3(24e)	Q4(24e)	2021	2022	2023	2024e	2025e	2026e
EBITDA margin	8.9%	8.8%	9.3%	8.8%	7.9%	7.4%	8.9%	8.9%	9.1%	9.4%
Adj. EBIT margin	6.4%	6.6%	7.1%	6.9%	6.0%	5.4%	6.8%	6.7%	6.9%	7.2%
EBIT margin	6.4%	6.6%	7.1%	6.9%	5.7%	5.4%	6.8%	6.7%	6.9%	7.2%
PTP margin	6.5%	6.3%	6.7%	6.5%	5.4%	4.9%	6.8%	6.5%	6.6%	6.9%
					Source: Carnegie Re	search for fo	recasts, con	npany data	for historical	numbers

## Balance sheet and cash flow considerations

As it operates a capital-intensive business model, non-current assets like PPE, RoU, and any intangible items comprise only  $\sim$ 22% of Scanfil's asset base. Among the intangible assets, Scanfil recognises EUR8m of goodwill, of which the majority relates to the acquisitions of PartnerTech and HASEC-Elektronik in 2015 and 2019. Instead, working capital requirements force the company to keep a large inventory, which we forecast will comprise 34% of Scanfil's balance sheet by 2024e (down from 40% in 2023). Later on in this report we dive deeper into why working capital items such as this weigh so heavily on Scanfil's balance sheet.

As of 2023, Scanfil leases five of its nine production plants. During 2023, the company's gross investments in tangible and intangible assets reached EUR22m – 2.5% of net sales. Much of this was invested into new electronics manufacturing capacity at the sites in Atlanta, US and Sieradz, Poland. At its 2024 Capital Markets Day, Scanfil reiterated the targeted long-term investment rate of 2–3% of sales announced at its 2021 CMD. Scanfil has guided for EUR6m in annual investments in digitalisation and automation alone in 2024–28. To put that number into perspective, it is equal to or higher than the total net investments in 2014–16, albeit lower as a percentage of net sales.





We forecast a net debt/EBITDA(24e) ratio of 0.2x – leaving plenty of firepower for M&A In terms of debt, we believe Scanfil operates a well-capitalised business where net debt/EBITDA decreased significantly in 2023 thanks to a combination of repayments and EBITDA expansion. We expect the company to continue to reduce its net debt during our explicit forecasting period, although at much more slowly than historically. For 2024e, we model a net debt/EBITDA ratio of 0.2x, well below the company's target of 1.5x. Thus, we expect Scanfil to utilise this headroom for M&A. If Scanfil were to increase leverage to 1.0–1.5x EBITDA(25e), while assuming it can acquire companies at 0.4x EV/Sales – above its historical average of 0.3x but below the sector's 0.5x – we see potential for EPS(25e) uplifts in the vicinity of 14–22%.

In 2024, the company has due dates on two EUR30m loans from Nordea. In Q3(24), the last instalment of EUR3m will be paid on one of the loans, and in Q4(24) a larger EUR30m will be repaid. Whereas we expect Scanfil to utilise its cash position to pay the first amortisation, we model the latter being refinanced in Q4. Scanfil also has a EUR80m overdraft facility and a CNY137m working capital facility with the Finnish bank's Shanghai branch.





Source: Carnegie Research, Company data

In the chart below we list the main assumptions on which our balance sheet forecasts are based.



Scanfil						
Balance sheet ratios	2021	2022	2023	2024e	2025e	2026e
Net IB debt, EURm	60	86	52	14	8	7
Net debt/adj. EBITDA	1.0x	I.4x	0.6x	0.2x	0.1x	0.1x
Net debt/equity	28.9%	37.7%	19.5%	4.7%	2.5%	2.0%
Equity ratio, %	43.8%	43.1%	51.4%	54.9%	56.2%	57.4%
Working capital, EURm	171	213	217	186	190	200
Working capital/sales	24.6%	25.2%	24.0%	21.8%	21.2%	21.2%

Source: Carnegie Research for forecasts, company data for historical numbers

### Not a tier #I asset-light business...

Working capital management is vital for contract manufacturers

There is an inherent working capital requirement within the business model of contract manufacturers. As illustrated by high growth rates in 2021–23, Scanfil and its peers generally enjoy market conditions with longer time horizons within which OEMs can place orders. However, we believe such market conditions also create few incentives for these customers to not exaggerate the demand picture as: 1) not being able to deliver products to the end-customer is not an option; and 2) any excess inventory tends to stay in the contract manufacturer's warehouse rather than being shipped to the OEM. Scanfil and its peers all showcased strong sales and earnings growth in 2021–22, however the working capital position was inversely impacted – and as a result so was cash generation.

Scanfil: Working capital developments



Source: Carnegie Research, Company data

From Q4(20) to Q2(22), Scanfil tied a lot of working capital into its inventory. During these quarters, the company's inventory grew from EUR103m to EUR230m, following a general slowdown in inventory turnover from challenges related to material availability. For contract manufacturers, which operate businesses models with operating margins seldom surpassing the high-single digits, high asset turnover is paramount to support ROIC. In 2020–23 Scanfil's inventory turnover ratio decreased from 4.0x to 2.9x. Due to the capital-intensive nature of contract manufacturing services we argue that inventory turnover is the key factor in improving cash generation. We believe this is easily observed when looking at commentary from global contract manufacturers, which often focuses on low-mix, high volume manufacturing, which in our view have relatively weak pricing power and so instead emphasise asset turnover over profitability to increase returns.

Please note that in the graph below to the left we have excluded the incremental impact from the consolidation of PartnerTech in Q3(15) for comparison purposes.

Large impact on ROIC and cash flow generation in 2021-22 from inventory build-up





Source: Carnegie Research, Company data

Source: Carnegie Research, Company data

Another important aspect to consider related to cash generation is the payment terms vis-à-vis customers and suppliers. In our view, the flip side of having a strong set of blue-chip companies in the customer portfolio is that these organisations often have a favourable position in the negotiating process of payment terms. As such, positive organic growth generally leads to increases in account receivables. This was illustrated in 2021–22, when, on average, Scanfil grew sales by 18% per year, while days sales outstanding (DSO) increased to 86 in Q2(22). As demand weakened in 2023 DSO improved, as can be seen in the figures below. Similar to above, we have excluded the incremental impact from the consolidation of PartnerTech in Q3(15) to simplify comparisons.



Overall, Scanfil's cash generation improved significantly in 2023 through a combination of improved earnings and positive working capital developments. In Q4(23), the company generated free cash flow in line with net income for the first time since Q1(21). In 2024e, we model working capital to continue to decrease as demand struggles and problems sourcing components ease.



## ... with volatile cash conversion as a result

In the figure below we present our cash flow forecasts for 2024–26e.

Scantil						
Cash flow (EURm)	2021	2022	2023	2024e	2025e	2026e
Net profit	30	35	48	43	46	50
Non-cash adjustments	23	25	36	19	20	21
Paid interest	-1	-2	-4	-2	-3	-3
Received interest	0	0	0	0	0	0
Paid income tax	-11	-4	-9	-12	-13	-14
Operating CF before WC	40	53	72	47	50	54
NWC change	-53	-43	-3	30	-4	-10
Operating cash flow	-13	10	69	78	46	44
Net investments in intangibles and tangibles	-13	-19	-22	-18	-19	-20
Cash flow from investing activities	-13	-19	-22	-18	-19	-20
Free cash flow	-25	-8	47	59	28	24
Share issue	0	0	0	0	0	0
Other financial items	35	16	-33	-10	-4	-5
Dividend paid	-11	-12	-14	-15	-15	-15
Cash flow from financing activities	24	4	-46	-25	-20	-20
Acquisition of subsidiaries	0	0	0	0	0	0
Net cash flow	-1	-4	I	34	8	4

Source: Carnegie Research for forecasts, company data for historical numbers

Expecting strong operating cash flow in 2024e, driven by working capital reversals

Cash conversion has been volatile at Scanfil in recent years. Strong organic sales growth in combination with component availability challenges has led to increasing requirements for working capital held. As sales growth slowed in 2023 Scanfil was able to improve cash conversion significantly. For 2024e, we expect the company to report negative sales growth of 5%, but also continue to reduce its working capital position during the year, primarily driven by inventory reductions. As we forecast industrial demand to recover in 2025–26e, we once again model an increase in working capital and thus also a normalisation of cash conversion to around 65–75% of EBIT converted into operating cash flow.





Note: Cash conversion defined as Operating Cash Flow/EBIT

Source: Carnegie Research, Company data

Finally, Scanfil has been successful in returning capital to its shareholders, with dividends increasing for eleven years in a row to total EUR80m in capital paid out in that time. In our modelling for Scanfil's net cash flow, we have based our assumptions on the company's long-term policy to distribute one-third of net profit as dividends. In 2024-26e, we expect Scanfil to

Carnegie

Aims to grow 10% per year across a

business cycle

distribute a total EUR45m to its shareholders, or 9% of its current market capitalisation. As we expect EPS(24e) to decrease Y/Y, we model Scanfil exceeding its dividend policy and returning 36% of earnings as dividends to shareholders – aiming for a twelfth year in a row of increasing dividends.





## Financial targets and guidance

While we believe 2024 will be something of a meagre year for Scanfil growth-wise, we find several attractive aspects of Scanfil's equity story and expect the company to benefit from a number of structural trends supporting sales growth over the medium-term. Moreover, the company has been successful in deleveraging the business, and now enjoys a financial position that allows for both organic and inorganic growth initiatives, as well as continued capital returns to its shareholders. We argue that Scanfil's financial targets illustrate these characteristics.

#### Scanfil financial targets

	Current	Target	Our forecast
Sales	Sales growth 2023: 7%	Sales growth: 10% p.a. over a business cycle (o/w 5% organic growth)	Sales CAGR(2023-26e): 2%
Profitability	EBIT margin 2023:	EBIT margin:	Avg. EBIT margin 2024-26e:
	6.8%	7-8% over a business cycle	6.9%
Financial leverage	Net debt/adj. EBITDA 2023:	Net debt/adj. EBITDA:	Net debt/adj. EBITDA 2024:
	0.6x	<i.5x< td=""><td>0.2x</td></i.5x<>	0.2x
Dividend policy	Pay-out ratio 2023:	Pay-out ratio:	Pay-out ratio 2024-26e:
	31%	1/3 of EPS	34% (avg.)

Source: Carnegie Research, Company data

#### Sales

Across a business cycle, Scanfil targets growing 10% per year on average. Historically, sales grew at a CAGR of 17% over 2014–23 through a mix of organic and inorganic initiatives. Sales growth has halted over the last two quarters, and the company now guides for an organic decrease Y/Y

Source: Carnegie Research, Company data



in 2024. We expect Scanfil to report organic growth of -5% in 2024, and to grow at a CAGR(24–26e) of 2%. Note that our estimates do not include any contribution from potential M&A.

#### Profitability

Over a business cycle, Scanfil aims to achieve an EBIT margin of 7–8%. As a comparison, it generated an adj. EBIT margin of 6.8% in 2023. For 2024e, we expect margins to decrease marginally on the back of lower factory utilisation due to weaker industrial demand from customers, particularly in Europe. Thus, we model an adj. EBIT(24e) margin of 6.7%, before rising to approach the company's target in 2025–26e, for which we forecast margins of 6.9% and 7.2% respectively.

#### Financial leverage

Scanfil targets a financial position where net debt/adj. EBITDA does not surpass 1.5x. The company was highly successfully in terms of deleveraging in 2023, when net debt/ad. EBITDA fell from 1.4x to 0.6x over the year on the back of earnings improvement and debt repayments. For 2024–26e, we model for leverage to remain low, although we do not expect the pace of deleveraging seen in 2023 to continue. For 2024e, we forecast net debt/adj. EBITDA of 0.2x. If Scanfil were to increase leverage to 1.0-1.5x, and assuming it can acquire companies at 0.4x EV/Sales – in line with the industry average for the past ten years – we see the potential for EPS(25e) uplifts in the vicinity of 14-22%.

#### Dividend policy and guidance accuracy

As part of its capital allocation policy, Scanfil aims to pay out one-third of the net income generated by the business. The company grew DPS at a CAGR(14–23) of 14%. For our explicit forecast period, we model Scanfil being able to continue increasing dividends and meet its payout-policy. For 2024-26e, we forecast Scanfil distributing ~EUR45m in dividends.

Our guidance analysis shows good historical track record of overperformance To better understand the visibility of the contract manufacturing business, we have looked at the deviation between the midpoint of quarterly guidance updates and corresponding annual outcomes between 2016–23. In the charts below, a positive value implies that on average Scanfil reported sales and/or EBIT above the midpoint of the guidance range provided.



Unsurprisingly, the guidance given in conjunction with Q4 returns the largest deviation to reported sales and EBIT numbers – as it is guidance for the following year. As can be seen in the charts, guidance provided in conjunction with the release of the Q3 reports has been impressively in line with the numbers for the full year. Looking at the guidance given at the Q4 reporting date in the year prior, Scanfil has on average surpassed the indicated ranges on both sales and earnings over 2017–23. Moreover, the company has, according to our analysis, only come up short on guidance once during this period. We believe this clearly illustrates the attractive stability and visibility of Scanfil's customer portfolio.



Outcome vs. guidance													
2017	2018	2019	2020	2021	2022	2023							
Above	In-line	In-line	In-line	Above	Above	Above							
Above	Above	Below	In-line	In-line	In-line	Above							
-	<b>2017</b> Above Above	20172018AboveIn-lineAboveAbove	201720182019AboveIn-lineIn-lineAboveAboveBelow	2017201820192020AboveIn-lineIn-lineIn-lineAboveAboveBelowIn-line	20172018201920202021AboveIn-lineIn-lineIn-lineAboveAboveAboveBelowIn-lineIn-line	201720182019202020212022AboveIn-lineIn-lineIn-lineAboveAboveAboveAboveBelowIn-lineIn-lineIn-line							

Source: Carnegie Research, Company data



## Valuation

In our valuation of Scanfil, we have chosen to apply a medium-term approach due to the cyclical nature of some of the company's end-markets – and to look beyond the weakness we expect in 2024. In doing so, we believe we arrive at a fair valuation assessment that would not be possible if we look solely at current peer multiples. Our financial expectations for 2026e form the basis of our valuation methodology and we apply a 9.0–11.0x EV/EBIT exit multiple, the midpoint of which is the company's historical average. Our valuation suggests a fair value range of EUR8.5–10.3 per share, yielding trading multiples at an EV/EBIT(25e) of 9.1–10.9x, P/E(25e) of 12.0–14.5x, and FCF(25e) yield of 4.1–5.0%. Moreover, we believe there is significant rerating potential if Scanfil manages to reach the upper levels of its EBIT margin target range, as margins historically have been an important driver of valuations in the contract manufacturing industry.

Our valuation framework of Scanfil is based on the forecasts presented below. Note that our estimates exclude any potential from unannounced M&A, which we believe could add 14–22% to our EPS(25e). Similar to the Financials and Forecasts section, Scanfil is the source for historical numbers and Carnegie Research the source for estimates, unless stated otherwise.

Key valuation inputs	2021	2022	2023	2024e	2025e	2026e
Net sales	696	844	902	854	895	945
EBITDA	55	63	80	76	81	88
EBITA	24	28	42	58	62	68
EBIT	40	45	61	58	62	68
Net profit	30	35	48	43	46	50
EO	-2	0	0	0	0	0
Free cash flow	-25	-8	47	59	28	24
Total dividends	-11	-12	-14	-15	-15	-15
Sales growth	17%	21%	7%	-5%	5%	5%
EBITA growth	-14%	15%	51%	36%	7%	<b>9</b> %
EBITA margin	3.5%	3.3%	4.7%	6.7%	6.9%	7.2%
EBIT growth	-11%	15%	35%	-6%	7%	9%
EBIT margin	5.7%	5.4%	6.8%	6.7%	6.9%	7.2%
Net debt	60	86	52	14	8	7
Net debt/adj. EBITDA	1.0x	I.4x	.6x	.2x	.lx	.Ix
Note: Key figures in EURm	Source: Carnegie Re	esearch for fo	orecasts, cor	npany data	for historica	l numbers

#### Scanfil

## Financial benchmarking

As part of our valuation approach, Carnegie often performs benchmarking exercises to position a company within a relevant set of peers. For Scanfil, this set would in our view naturally include other Nordic EMS companies, together with two chosen European peers. The Nordic peers are HANZA, Kitron, Incap and Inission, and the European set comprise TT Electronics (UK), and Cicor Technologies (Switzerland). We have excluded Swedish peers AQ Group and Note, as there are currently no analyst estimates provided by FactSet.

Scanfil grew sales at what we consider to be an impressive CAGR of 15% in 2020–23, a period during which the company focused solely on organic activities. Looking forward, our belief is that the company and its sector peers will return to growth rates more in line with the historical average of 4-7% annual organic growth. While we forecast an organic decline of 5% in 2024e, we expect sales to recover in line with industrial demand in 2025–26e. For 2023–26e, we expect sales to grow by a CAGR of 2%, which is among the lowest in the sector, based on FactSet consensus data. However, we note that the growth numbers for HANZA, Cicor and Inission are boosted by M&A contribution.





European Contract manufacturing: Sales CAGR(2023-26e)

Source: Carnegie Research, Factset, Company data

Scanfil aims for an EBIT margin of 7–8% over a business cycle. In 2023, the company reported an EBIT margin of 6.8%, as material sourcing issues eased, allowing for increased productivity in the factories. While we expect margins to decrease slightly in 2024 following weaker customer demand and utilisation rates, we forecast profitability to rebound in 2025–26e and model a margin of 7.2% in 2026e.



#### European Contract manufacturing: Avg. EBIT margin (2023-26e)

Source: Carnegie Research, Factset, Company data

Besides profitability, we have in several passages throughout this analysis highlighted the other leg of the DuPont-relationship illustrating drivers of returns, namely asset turnover. While profitability levels at Scanfil is towards the lower end of the peer group range, the company scores number one in terms of asset turnover ratios. We note that, in contrast to Scanfil, UK-based TT Electronics ranks very high in terms of profitability, but among the lowest in terms of asset turnover. In this sense, we believe Scanfil's operations are more similar to those of global contract manufacturers, where identifying measures to more quickly turn over assets is the focus rather than increasing profitability.





European Contract manufacturing: Avg. Asset turnover (2020-23)



With a return to lower organic growth rates, we expect Scanfil to increasingly eye inorganic growth opportunities, both on the European continent and in designated growth areas in the US and Asia. We expect the company to continue to deleverage its operations in 2024, for which we model a net debt/adj. EBITDA multiple of 0.2x – well below the company's outlined target of 1.5x. Scanfil has a strong cash conversion profile compared to its peers, allowing for a combination of organic and inorganic activities, together with sustainable capital returns to shareholders across our explicit forecast period.



Source: Carnegie Research, Factset, Company data

Source: Carnegie Research, Factset, Company data

As such, we find that Scanfil screens well against its peers based on factors such as capital efficiency, cash generation and financial headroom. However, our sales CAGR(23–26e) of 2% and average EBIT(23–26e) margin of 6.9% for the company are at the lower end of the peer group range, and also below the historical averages for the excluded peers AQ Group and Note.

Consequently, in a market that puts a premium on these companies being able to deliver aboveaverage margins, Scanfil receives a discount to its valuation multiple. However, we believe this offers rerating potential for the stock if the company is able to increase margins by, for example, 1) increasing automation of its factories, 2) improving utilisation rates, or 3) utilising M&A as a tool to acquire smaller entities in high-margin niches. In the regression below, we have also included the European manufacturers KATEK, Volex, and Lacroix. All three were excluded from the financial benchmarking exercise due to the absence of 2026 estimates on FactSet. We believe the determination coefficient can be considered as very impressive, and the underlying correlation between the two sets of data is as high as 0.95.







Source: Carnegie Research, Factset, Company data

As the table below shows, valuation divergence within the peer set is quite limited. On average, the peer group trades on a 2025e EV/S of 0.7x, EV/EBIT of 8.8x, and P/E of 11.2x. The respective median values are 0.6x, 8.2x, and 10.7x. The exclusion of Swedish peers AQ Group and Note, following the lack of available analyst estimates, dampens the multiples somewhat – as these companies historically have traded at a premium versus peers.

Кеу	Мсар		P/E		EV/EBIT			EV/Sales		S	ales grow	th	EBIT margin			Net debt/EBITDA			
peers	EURm	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e	2024e	2025e	2026e
Scanfil*	488										-5%	5%	6%	7%	7%	7%	0.2x	0.1x	0.1 x
HANZA	207	10.7x	8.0x	6.4x	8.6x	6.9x	5.5x	0.6x	0.5x	0.5x	29%	10%	9%	7%	8%	9%	1.3x	l.lx	0.7x
Inission	67	10.5x	9.3×	8.2x	9.6x	8.3×	7.0x	0.6x	0.6x	0.5x	8%	6%	5%	7%	7%	7%	2.0×	1.5x	I.Ix
Incap	281	18.9×	14.2x	12.6x	11.8x	8.9×	7.5×	I.4x	l.lx	0.0x	-4%	21%	11%	12%	13%	13%	-0.8×	-1.0x	-1.2x
Kitron	501	12.7x	10.8x	9.3x	10.4x	8.5×	7.4x	0.9x	0.7x	0.7x	-7%	12%	10%	8%	9%	9%	1.2x	0.8×	0.6x
Cicor	178	13.9x	11.3x	9.5x	8.1×	6.1x	5.0×	0.5×	0.4x	0.4x	21%	9%	7%	6%	7%	7%	I.4x	0.9x	0.5×
TT Electronics	351	8.7x	7.9x	6.9x	7.5x	6.7x	5.7x	0.7x	0.7x	0.6x	-8%	-1%	4%	9%	10%	11%	1.3x	I.0x	0.7x
Volex	703	11.6x	10.6x		9.0x	8.1×		0.9x	0.8x		13%	8%		10%	10%		l.lx	0.9x	
KATEK	217		12.0x		35.1x	10.3×		0.4x	0.4x		8%	7%		1%	4%		3.7x	2.2x	
Lacroix	121	12.0x	8.2x	5.4x	10.7x	8.0×	5.3×	0.3×	0.3x	0.3×	-5%	2%	2%	3%	4%	5%	2.5x	1.9x	I.2x
Average (ex. Scanfil)		13.5x	11.2x	9.4x	12.9x	8.8x	7.2x	0.8x	0.7x	0.5x	6%	8%	7%	8%	<b>9</b> %	10%	1.5x	1.0x	0.5x
Median (ex. Scanfil)		12.0x	10.7x	8.7x	10.0x	8.2x	6.4x	0.7x	0.6x	0.5x	6%	7%	7%	8%	8%	<b>9</b> %	1.3x	1.0x	0.6x
*Carpegie Estimates														Source: Co	rnegie Rese	arch Factset	Source: Car	anie Resea	rch Factset

Note: Estimates collected from Factset as per 08/05/2024, 13:00 GMT

#### Historical valuation

In terms of historical valuation, the overall European contract manufacturing sector peaked around EV/S 1.1x in 2021, but this has now dropped to 0.7x (2025e), in our view reflecting weakening investor sentiment around industrial demand and manufacturing activity going into 2024. The chart below illustrated the average and median NTM EV/sales multiple of our group of peers.





The figure below instead illustrates the historical valuation trend for the sector in terms of NTM EV/EBIT. A similar valuation peak is visible in 2021, when the average NTM EV/EBIT multiple reached above 20x. Both average and median multiples have since returned to pre-pandemic



levels of around 10x.



Source: Factset

## Our valuation methodology takes a medium-term approach

In our valuation of Scanfil, we have chosen to apply a medium-term approach due to the cyclical nature of some of the company's end-markets – and to look beyond the weakness we expect in 2024. In doing so, we believe we arrive at a fair valuation view not possible if solely looking at current peer multiples. We have looked into our financial expectations for 2026e as the base for our valuation methodology and apply a 10x EV/EBIT exit multiple in line with the company's historical average of 10.3x.

Euroepan contract manufacturing: Historical valuation







For 2026e, we model sales of EUR945m, sales growth of 5.5% and an adj. EBIT margin of 7.2%. Applying an exit multiple of 10.0x EV/EBIT, discounted to the present using a WACC of 8.3%, yields a value of EUR9.4/share, as illustrated below.

Scanfil - target price metho	dology									
Exit year	2026									
Exit multiple	10.0x									
Exit EV (EURm)	675									
Net debt (EURm)	7	CARe	2019	2020	2021	2022	2023	2024e	2025e	2026e
Market cap (EURm)	668	Net sales	579	595	696	844	902	854	895	945
Acc. dividends (EURm)	30	Adj. EBIT	39	39	40	45	61	58	62	68
Fair share price 2026	10.8	Adj. EBIT margin	6.8%	6.6%	5.8%	5.4%	6.8%	6.7%	6.9%	7.2%
Discounted share price	9.4									~/
Discount time factor	0.9									

Source. Carnegie Research, Company data

Scanfil has historically traded at a 10% discount to its Nordic and European peers, which we think is reasonable considering the lower margin profile and historically above-average customer concentration. While the customer concentration risk in Scanfil has diminished significantly in recent years, we believe the discount is likely to remain until Scanfil is able to show margins in the upper end of its 7–8% EBIT margin target range. Depending on order momentum and earnings trends, we believe there are likely re-rating scenarios for the Scanfil share. Thus, we value Scanfil using a set of different exit multiples of 9.0–11.0x, yielding a fair value range of EUR8.3–10.5/share. At our target range, Scanfil would trade at an EV/EBIT(25e) of 9.1–10.9x, P/E(25e) of 12.0-14.5x, and an FCF(25e) yield of 4.1–5.0%.





Scanfil: Implied valuation at different EV/EBIT exit multiples

Source: Carnegie Research

## DCF

While the basis for our fair value range is the benchmarking exercise and peer group analysis performed above, we have also done a DCF valuation. In our DCF framework, we model long-term average annual sales growth of 3% following our explicit forecast period which ends at 2026e. Beyond our explicit forecasts, we model an average EBIT margin of 7.3%, in line with Scanfil's long-term financial target of 7–8%. We apply a WACC of 8.3%, corresponding to an equity beta of 1.1. We have in the terminal period applied a 2% growth rate and EBIT margins at 7.5%.



Average year						Terminal		
DCF assumptions - Summary	2024e	2025e	2026e	4-5	6-10	11-15	16-20	period
Total sales growth	-5.2%	4.8%	5.5%	4.0%	3.8%	2.6%	2.0%	2.0%
EBITDA margin	8.9%	9.1%	9.4%	9.4%	9.4%	9.5%	9.6%	9.7%
Depreciation % of sales	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%	-2.2%
EBITA margin	6.7%	6.9%	7.2%	7.2%	7.2%	7.3%	7.4%	7.5%
Amortisations % of sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBIT margin	6.7%	6.9%	7.2%	7.2%	7.2%	7.3%	7.4%	7.5%
Capex % of sales	-2.8%	-2.8%	-2.8%	-2.7%	-2.6%	-2.4%	-2.3%	-2.2%
Paid tax rate	21.7%	21.7%	21.7%	-22.0%	-22.0%	-22.0%	-22.0%	-22.0%
NWC to sales	21.8%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%
Sales	854	895	945	1,002	1,149	1,338	1,486	1,576
EBITDA	76	81	88	94	108	127	142	153
Capex	-24	-25	-26	-28	-30	-33	-34	-35
Taxes	-12	-13	-14	-16	-18	-22	-24	26
Other	30	-4	-10	-8	-9	-7	-6	1,141
Free cash flow	70	40	37	42	51	66	78	1,285
Discounted FCF	67	35	31	31	28	24	19	271
Share of total discounted FCF	8%	4%	4%	7%	17%	15%	12%	33%
Valuation	(curr.)m	Per share		v		notions		
FV (discounted FCF)	825	12.7		• Ri	isk free intere	est rate		4 0%
- Net debt (2023)	-52	-0.8		D	ebt risk prem	ium		0.5%
+ Associates	0	0.0		E	uity risk prei	mium		4.0%
- Minority interest	0	0.0		Ed	uity beta			1.14
- Outstanding warrants	0	0.0		c	ost of Equit	y		8.6%
Other debt adjustments	0	0.0		Т	ax rate			22.0%
ESG penalty	0	0.0		А	fter tax cost o	of debt		3.5%
Equity value at YE (23)	773	11.9		Ed	uity weight			95%
Time adjustment	21	0.3		v	VACC			8.3%
Dividend	0	0.0						
Current equity value	794	12.2						

Source: Carnegie Research

Ultimately our DCF approach arrives at a fair value of EUR12.2 per share. We know from our coverage of other companies in the capital goods and hardware equipment space that equity values based on DCF methodologies often are somewhat higher than current market caps. Thus, we treat the value per share derived through this approach as more of a blue-sky scenario, and as such not part of our fair value range for Scanfil. At EUR12.2 per share, Scanfil would trade on EV/EBIT(25e) of 12.9x and a P/E(25e) of 17.2x.

#### DCF sensitivity

The DCF valuation is highly sensitive to the applied WACC and terminal growth and margin assumptions, as reflected below.

				WACC									WACC			
	7.7%	<b>7.9%</b>	8.1%	8.3%	8.5%	8.7%	<b>8.9</b> %			7.7%	<b>7.9</b> %	8.1%	8.3%	8.5%	8.7%	8.9%
3.5%	14.9	14.2	13.6	13.1	12.6	12.1	11.7	%	11.2%	15.5	14.9	14.3	13.8	13.3	12.9	12.4
3.0%	14.4	13.8	13.3	12.8	12.3	11.8	11.4	Ă,	10.7%	14.9	14.3	13.8	13.3	12.8	12.4	12.0
2.5%	14.0	13.5	12.9	12.5	12.0	11.6	11.2	Ë	10.2%	14.3	13.7	13.2	12.8	12.3	11.9	11.5
2.0%	13.7	13.2	12.7	12.2	11.8	11.4	11.1	8	9.7%	13.7	13.2	12.7	12.2	11.8	11.4	11.1
1.5%	13.4	12.9	12.5	12.0	11.7	11.3	10.9	ina	9.2%	13.0	12.6	12.1	11.7	11.3	11.0	10.6
1.0%	13.1	12.7	12.3	11.9	11.5	11.1	10.8	Ę	8.7%	12.4	12.0	11.6	11.2	10.8	10.5	10.2
0.5%	12.9	12.5	12.1	11.7	11.4	11.0	10.7	Ĕ	8.2%	11.8	11.4	11.0	10.7	10.3	10.0	9.7
	3.5% 3.0% 2.5% 2.0% 1.5% 1.0% 0.5%	7.7%   3.5% 14.9   3.0% 14.4   2.5% 14.0   2.0% 13.7   1.5% 13.4   1.0% 13.1   0.5% 12.9	7.7% 7.9%   3.5% 14.9 14.2   3.0% 14.4 13.8   2.5% 14.0 13.5   2.0% 13.7 13.2   1.5% 13.4 12.9   1.0% 13.1 12.7   0.5% 12.9 12.5	7.7% 7.9% 8.1%   3.5% 14.9 14.2 13.6   3.0% 14.4 13.8 13.3   2.5% 14.0 13.5 12.9   2.0% 13.7 13.2 12.7   1.5% 13.4 12.9 12.5   1.0% 13.1 12.7 12.3   0.5% 12.9 12.5 12.1	XACC   7.7% 7.9% 8.1% 8.3%   3.5% 14.9 14.2 13.6 13.1   3.0% 14.4 13.8 13.3 12.8   2.5% 14.0 13.5 12.9 12.5   2.0% 13.7 13.2 12.7 12.2   1.5% 13.4 12.9 12.5 12.0   1.0% 13.1 12.7 12.3 11.9   0.5% 12.9 12.5 12.1 11.7	N.7% 7.9% 8.1% 8.3% 8.5%   3.5% 14.9 14.2 13.6 13.1 12.6   3.0% 14.4 13.8 13.3 12.8 12.3   2.5% 14.0 13.5 12.9 12.5 12.0   2.0% 13.7 13.2 12.7 12.2 11.8   1.5% 13.4 12.9 12.5 12.0 11.7   1.0% 13.1 12.7 12.3 11.9 11.5   0.5% 12.9 12.5 12.1 11.7 11.4	7.7% 7.9% 8.1% 8.3% 8.5% 8.7%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1   3.0% 14.4 13.8 13.3 12.8 12.3 11.8   2.5% 14.0 13.5 12.9 12.5 12.0 11.6   2.0% 13.7 13.2 12.7 12.2 11.8 11.4   1.5% 13.4 12.9 12.5 12.0 11.7 11.3   1.0% 13.1 12.7 12.3 11.9 11.5 11.1   0.5% 12.9 12.5 12.1 11.7 11.4 11.0	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2   2.0% 13.7 13.2 12.7 12.2 11.8 11.4 11.1   1.5% 13.4 12.9 12.5 12.0 11.7 11.3 10.9   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8   0.5% 12.9 12.5 12.1 11.7 11.4 11.0 10.7	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2   2.0% 13.7 13.2 12.7 12.2 11.8 11.4 11.1   1.5% 13.4 12.9 12.5 12.0 11.7 11.3 10.9   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8   0.5% 12.9 12.5 12.1 11.7 11.4 11.0 10.7	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2   2.0% 13.7 13.2 12.7 12.2 11.8 11.4 11.1   1.5% 13.4 12.9 12.5 12.0 11.7 11.3 10.9 12   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8 9.2%   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8 8.7%   0.5% 12.9 12.5 12.1 11.7 11.4 11.0 10.7	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2   1.6% 13.7 13.2 12.7 12.2 11.8 11.4 11.1   1.5% 13.4 12.9 12.5 12.0 11.7 11.3 10.9 12.9 13.0   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8 14.9   0.5% 12.9 12.5 12.1 11.7 11.4 11.0 10.7 12.4	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7 8 11.2% 15.5 14.9   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4 9.7% 14.9 14.3   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.2% 14.3 13.7   2.0% 13.7 13.2 12.7 12.2 11.8 11.4 11.1 9.7% 13.7 13.2   1.5% 13.4 12.9 12.5 12.0 11.7 11.3 10.9 9.2% 13.0 12.6   1.0% 13.1 12.7 12.3 11.9 11.5 11.1 10.8 8.7% 12.4 12.0   0.5% 12.9 12.5 12.1 11.7 11.4 10.0 10.7 </th <th>WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9% 8.1%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.8   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.8   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.7 13.2 12.7 13.2 12.7 13.2 12.7 13.3 10.9 9.7% 13.7 13.2 12.1 11.6 10.8 8.7% 12.4 12.0 11.6   1.0% 13.1 12.7 12.3 11.9&lt;</th> <th>NACC NACC <th< th=""><th>NACC NACC NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 13.8 11.4 11.4 11.4 11.4 10.7% 14.9 14.3 13.8 13.3 12.8 12.8 12.4 11.7 11.4 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.4 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.9 12.5 12.0 11.7 11.3 10.9 11.9 13.8 13.9 13.8 13.9 13.9 13.8 13.9 1</th><th>NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 12.4 11.6 11.2 16.0 14.3 13.8 13.3 12.8 12.4 11.9 10.0 14.3 13.7 13.2 12.8 12.3 11.9 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.3 11.9 11.3 10.9 11.7 13.2 12.7 12.2 11.8 11.4 11.0 10.7 13.3 12.6 12.1 11.7 11.3 10.9</th></th<></th>	WACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9% 8.1%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7   3.0% 14.4 13.8 13.3 12.8 12.3 11.8 11.4   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.8   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.8   2.5% 14.0 13.5 12.9 12.5 12.0 11.6 11.2 10.7% 14.9 14.3 13.7 13.2 12.7 13.2 12.7 13.2 12.7 13.3 10.9 9.7% 13.7 13.2 12.1 11.6 10.8 8.7% 12.4 12.0 11.6   1.0% 13.1 12.7 12.3 11.9<	NACC <th< th=""><th>NACC NACC NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 13.8 11.4 11.4 11.4 11.4 10.7% 14.9 14.3 13.8 13.3 12.8 12.8 12.4 11.7 11.4 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.4 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.9 12.5 12.0 11.7 11.3 10.9 11.9 13.8 13.9 13.8 13.9 13.9 13.8 13.9 1</th><th>NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 12.4 11.6 11.2 16.0 14.3 13.8 13.3 12.8 12.4 11.9 10.0 14.3 13.7 13.2 12.8 12.3 11.9 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.3 11.9 11.3 10.9 11.7 13.2 12.7 12.2 11.8 11.4 11.0 10.7 13.3 12.6 12.1 11.7 11.3 10.9</th></th<>	NACC NACC NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9%   3.5% 14.9 14.2 13.6 13.1 12.6 12.1 11.7 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 13.8 11.4 11.4 11.4 11.4 10.7% 14.9 14.3 13.8 13.3 12.8 12.8 12.4 11.7 11.4 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.4 10.2% 14.3 13.7 13.2 12.8 12.8 12.8 12.8 12.8 12.8 12.8 12.9 12.5 12.0 11.7 11.3 10.9 11.9 13.8 13.9 13.8 13.9 13.9 13.8 13.9 1	NACC NACC NACC NACC NACC   7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 7.7% 7.9% 8.1% 8.3% 8.5% 8.7% 8.9% 11.2% 15.5 14.9 14.3 13.8 13.3 12.8 12.4 11.6 11.2 16.0 14.3 13.8 13.3 12.8 12.4 11.9 10.0 14.3 13.7 13.2 12.8 12.3 11.9 11.4 11.1 10.2% 14.3 13.7 13.2 12.8 12.3 11.9 11.3 10.9 11.7 13.2 12.7 12.2 11.8 11.4 11.0 10.7 13.3 12.6 12.1 11.7 11.3 10.9

Source: Carnegie Research

Source: Carnegie Research



## **Risks**

In the section below, we highlight some of the risks we see to our investment case for Scanfil and its business model. This list is not intended to be comprehensive list, but rather includes those risks that we consider the most relevant. The list is no presented in any particular order.

### Customer concentration

In all businesses, there is an inherent risk that one or more customers outgrow other accounts to the extent that the customer portfolio becomes imbalanced. Thus, there is a risk that if one or more of Scanfil's larger customers were to reduce their order levels, it could have an adverse effect on the group's sales and earnings. In 2023, Scanfil's largest customer accounted for 13% of group sales, and the top ten cumulatively comprised 55% of sales. While we note that diversification has increased since the beginning of the 2010s, there is still a risk that a downturn in the largest customers' end markets could have an adverse effect on Scanfil's bottom line.

#### Inherent industrial cyclicality

In our view, while Scanfil enjoys favourable exposure to structurally growing markets such as industrial electrification and medical technology, contract manufacturing remains a cyclical business niche to some extent. As such, weakening industrial demand and demand for investment goods might have a negative impact on Scanfil's operations. This could in turn lead to overcapacity among the company's production sites, weighing on utilisation rates and ultimately on earnings.

#### Intense competition

Scanfil may boast decade-long relationships with some of its customers, but competition within the contract manufacturing industry is still intense. If Scanfil were to become unable to meet its customers' demands in factors such as quality, reliability, and pricing, this could impact demand for its services.

## Quality issues

As highlighted above, we believe quality is one of the key factors considered by Scanfil's customers. The company measures quality as defective parts per million, and states that the metric improved significantly in 2023. If concerns were to arise regarding the quality of the services offered by Scanfil, this could not only damage the company's financial development, but also its brand as a trusted manufacturing partner.

#### Dependence on suppliers/subcontractors

The large majority of Scanfil's components and other materials are purchased from external parties. As such, Scanfil is dependent on suppliers for its manufacturing inputs. Were its suppliers to be unable to deliver, Scanfil in turn would not be able to fulfil orders from customers.

In addition, Scanfil utilises sub-contractors for cases when it does not have the necessary capacity or capability in-house. These parties are generally local companies in close geographical proximity to the company's own factories. If these sub-contractors were to fail to reach the necessary standards in quality or delivery punctuality demanded by Scanfil and customers, this could have an adverse effect on the company's operations and earnings profile.

#### Inventory obsolescence

Scanfil's policy is that responsibility for materials is agreed on a contract-by-contract basis. If procured components or materials were to become obsolete, it could create a financial risk for the group on a par with the book value of the products created with said materials.



#### Technical malfunctions

As an integrated manufacturer, Scanfil's process chain consists of several different production phases, all of which are at risk of technical malfunction or events like fires, IT issues, larger machine malfunctions, or even *force majeure* events that lead to production shutdowns. Scanfil failing to manufacture enough product to meet customer demands would affect operations and earnings adversely.

#### Safety issues and risks related to employee health

There is an inherent risk in Scanfil's operations that employees could suffer from health and safety issues stemming from their daily operations at the company – for example from operating one of the many machines the company has installed at its sites.

#### Cybersecurity risk

Cybersecurity is becoming an increasingly important aspect of manufacturing processes. Firstly, there is a growing need to protect all the digitised machinery that Scanfil uses in its process chain. Moreover, the company is in possession of intellectual property rights that originally belong to its customers. In line with our arguments on the importance of quality, even a whiff of cybersecurity issues could have a negative impact on Scanfil's brand as a trusted manufacturing partner.





# Group management & Board of Directors

### Group management Christophe Sut, CEO since 2023

**Previous assignments**: Mr Sut's previous experience includes serving as President of Sandvik Manufacturing Solutions, as well as the role of EVP at Assa Abloy Global Solutions. Before that, he held several roles within business development and marketing at Assa Abloy and Niscayah Group.

**Education**: Master of Science in Marketing and Sales, in addition to a Bachelor of Science in Languages and Mathematics.

Shares in Scanfil: 5,000 shares.



## Riku Hynninen, Chief Development Officer

**Previous assignments**: Mr Hynninen's previous experience includes managerial roles at Nokia, where he oversaw the development of production technology for mobile network business and the creation of new product delivery capability, among other responsibilities.

Education: Master of Science in Engineering.

Shares in Scanfil: 56,150 shares.



#### Markku Kosunen, Chief Procurement Officer

Previous assignments: Mr Kosunen's previous experience includes managerial roles at Mecanova, Flextronics, and Ojala-yhtymä.

Education: Mechanical Engineering undergraduate.

Shares in Scanfil: 37,763



**Timo Sonninen, Chief Operating Officer Previous assignments**: Mr Sonninen's previous experience includes managerial roles at Efore Oyj and Incap Oyj.

Education: Bachelor of Science in Engineering.

Shares in Scanfil: 133,500



Kai Valo, Chief Financial Officer Previous assignments: Mr Valo's previous experience includes managerial roles at Lite-On Mobile, Perlos, and Norpe Group, where he was CFO.

Education: Master of Science in Economics.

Shares in Scanfil: 20,000





### Christina Wiklund, Chief Commercial Officer

**Previous assignments**: Ms Wiklund's previous experience includes the position as Head of Sales EMEA at GE Additive, a part of General Electric Company. She has also worked for Flex, Solectron, and Ericsson.

Education: Bachelor of Science in Social Science.

Shares in Scanfil: 2,000







## Board of directors

Harri Takanen, Chairman of the Board, member since 2013

**Other current assignments**: Currently serves as Chairman of the Nomination and Compensation Committee. Other assignments include Chairman of the Board of WellO2 Oy. Mr Takanen also serves as the CEO of Jussi Capital Oy.

**Previous assignments**: Previous experience includes several managerial roles within the Scanfil group, which he has served since 1994. Held positions including CEO, Director of operations in China, and Technology Director. He also served as CEO for Sievi Capital, from which Scanfil demerged before its initial public offering in 2012.

**Education**: Master of Science in Engineering.

Shares in Scanfil: 9,913,146 shares.

Mr Takanen is not independent of the company or its major shareholders.



## Dr Thomas Dekorsy, member of the board since 2023

**Other current assignments**: Currently serves as Interim Global Head of the Automotive business unit of Amann & Sähne GmbH & Co.

**Previous assignments**: Previous experience includes a number of leadership roles at Prettl Management Services GmbH, Lakesight Technologies Holding GmbH, and Escatec Sdn. Bdh.

Education: Ph.D. in Engineering.

Shares in Scanfil: 0 shares.

Dr Dekorsy is independent of the company and its major shareholders.



#### Bengt Engström, member of the board since 2015

**Other current assignments**: Currently serves as a member of the Nomination and Compensation Committee. Other assignments include the position of Chairman of the Board at Nordic Flanges, QleanAir AB, Qlosr AB, BEngström AB, and BEngström Förvaltning AB. In addition, Mr Engström serves on the board of directors of KTH Executive School, Real Fastigheter AB and Scandinavian Chemotech AB.

**Previous assignments**: Previous experience includes a number of executive positions at, for instance, Whirlpool, Bofors AB, Duni and Fujitsu.

Education: Master of Science in Mechanical Engineering.

Shares in Scanfil: 12,929 shares.

Mr Engström is independent of the company and its major shareholders.



#### Christina Lindstedt, member of the board since 2016

**Other current assignments**: Currently serves as a member of the Audit Committee. Other assignments include the role as Senior advisor at QleanAir, and the position as member of the board of directors at Xplorebiz AB.

**Previous assignments**: Previous experience includes executive positions at Electrolux, Sony Ericsson, and Sony. Moreover, she held the position of CEO at QleanAir during 2020–22.

Education: Master of Science in Business Administration and Commercial law.

Shares in Scanfil: 7,312 shares.

Ms Lindstedt is independent of the company and its major shareholders.





#### Juha Räisänen, member of the board since 2020

**Other current assignments**: Currently serves as Chairman of the Audit Committee. Other assignments include the position as member of the board at Bluefors Oy and Valuenode GmbH, at which Mr. Räisänen also serves as Managing Partner.

**Previous assignments**: Previous experience includes a number of executive positions at ICL - Fujitsu, Nokia, SanDisk, Kone and Aliaxis.

Education: Master of Science in Industrial Engineering and Management.

Shares in Scanfil: 0

Mr Räisänen is independent of the company and its major shareholders.



#### Minna Yrjönmäki, member of the board since 2023 Other current assignments: Currently serves as a member of the Audit Committee. Other assignments include the position as Interim CFO of Raute Corporation.

**Previous assignments**: Previous experience includes a number of executive positions at Uponor, where she served as CFO, Outokumpu, Ahlstrom, and Huhtamaki.

Education: Master of Science in Economics.

Shares in Scanfil: 0

Ms Yrjönmäki is independent of the company and its major shareholders.




# **Financial statements**

Sales   530   530   579   595   666   844   992   854   895     COCGS   -368   -383   -390   -410   -491   -401   -510   -413   -116   -116   -116   -116   -116   -116   -116   -116   -116   -116   -116   -116   -116   -112   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -112   -112   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -12   -111   -13   -22   -13   -111   -14   -13   -22   -14   -13   -22   -13   -112   -14   -112   -112   <	it & loss (EURm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
COGS   -368   -380   -390   -410   -401 <th< td=""><td></td><td>530</td><td>563</td><td>579</td><td>595</td><td>696</td><td>844</td><td>902</td><td>854</td><td>895</td><td>945</td></th<>		530	563	579	595	696	844	902	854	895	945
Gross profit   162   180   190   185   204   233   273   273   273   273   273   173 <t< td=""><td>ŝ</td><td>-368</td><td>-383</td><td>-390</td><td>-410</td><td>-491</td><td>-610</td><td>-632</td><td>-615</td><td>-645</td><td>-680</td></t<>	ŝ	-368	-383	-390	-410	-491	-610	-632	-615	-645	-680
Other income & costs   -122   -133   -137   -125   -149   -171   -170   -180   -163     EBIT TOA   40   47   53   60   55   63   80   76   81     Depreciation less asset   00   0	ss profit	162	180	190	185	204	233	270	239	251	264
Share in ast. operations and JY   0 <t< td=""><td>r income &amp; costs</td><td>-122</td><td>-133</td><td>-137</td><td>-125</td><td>-149</td><td>-171</td><td>-190</td><td>-163</td><td>-169</td><td>-176</td></t<>	r income & costs	-122	-133	-137	-125	-149	-171	-190	-163	-169	-176
EBITOA   40   47   53   60   55   63   80   76   81     Depreciation leas asses   0   0   4	e in ass. operations and JV	0	0	0	0	0	0	0	0	0	0
Depreciation PPE   -7   -8   -8   -9   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -12   -11   -14   -14   -14   -14   -14   -14   -14   -14   -14   -14   -13   -13   -13   -11   -14   -11   -11   -12   -11   -12   -11   -13   -12   -11   -14   -11   -11   -14   -11   -14   -11   -14   -11   -11   -12   -11   -13   -12   -11   -14   -13   -12   -11   -14   -13   -11   -14   -13   -11   -14   -13   -11   -14   -13   -13   -12   -13   -13 <t< td=""><td>(DA</td><td>40</td><td>47</td><td>53</td><td>60</td><td>55</td><td>63</td><td>80</td><td>76</td><td>81</td><td>88</td></t<>	(DA	40	47	53	60	55	63	80	76	81	88
Depretation lease assess   0   0   4 <td>eciation PPE</td> <td>-7</td> <td>-8</td> <td>-8</td> <td>-9</td> <td>-9</td> <td>-11</td> <td>-12</td> <td>-11</td> <td>-12</td> <td>-12</td>	eciation PPE	-7	-8	-8	-9	-9	-11	-12	-11	-12	-12
Amortization development costs   0 <th< td=""><td>eciation lease assets</td><td>0</td><td>0</td><td>-4</td><td>-4</td><td>-4</td><td>-4</td><td>-5</td><td>-4</td><td>-4</td><td>-5</td></th<>	eciation lease assets	0	0	-4	-4	-4	-4	-5	-4	-4	-5
Amortisation other intangibles   -2   -2   -2   -3   Case   -1	rtisation development costs	0	0	0	0	0	0	0	0	0	0
Impairments / writedowns   0 <td>rtisation other intangibles</td> <td>-2</td> <td>-2</td> <td>-2</td> <td>-3</td> <td>-3</td> <td>-3</td> <td>-3</td> <td>-3</td> <td>-4</td> <td>-4</td>	rtisation other intangibles	-2	-2	-2	-3	-3	-3	-3	-3	-4	-4
EBITA   31   38   39   44   40   40   40   58   61   58   62     Amortzation acquisition related   0<	irments / writedowns	0	0	0	0	0	0	0	0	0	0
Amortization acquisition related   0   <	ΓA	31	38	39	44	40	45	61	58	62	68
Impairment acquisition related   0   0   0   0   0   0   0   0   0   0   0     Share in ass. operations and JY   0	rtization acquisition related	0	0	-4	0	0	0	0	0	0	0
EBIT   31   38   35   44   40   45   61   58   62     Share in ass. operations and JV   0 <td>irment acquisition related</td> <td>0</td>	irment acquisition related	0	0	0	0	0	0	0	0	0	0
Share in ass. operations and JY 0	Γ	31	38	35	44	40	45	61	58	62	68
Net financial items I -2 -1 -3 -2 -4 0 -2 -3   of which interest inconvexpenses -11 -14 -18 -13 -12 -3 -2 -3 5 -5 -7 -13 -12 -13 -12 -13 -12 -13 -12 -13 -12 -13 -13 -12 -13 -13 -12 -13 -12 -13 -13 -13 -12 -13 -13 -12 -13 -12 -13 -12 -13 -12 -13 -12 -13 -14 -16 5 6 64 5 54	e in ass. operations and JV	0	0	0	0	0	0	0	0	0	0
of which interest incomelexpenses 1-11 -14 -18 -20 -21 -13 -12   of which other items 5 -11 -6 5 -8 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -18 -17 -7 -6 -5 -8 -7 -7 -13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 -12 13 34 42 30 35 48 43 46 -13 -14 -14 -13 13 38 39 39 40 45 61 58 62 4djusted EBIT A 31 38 43 39 40 45 61 58 62 4djusted EBIT A 3	inancial items	I	-2	-1	-3	-2	-4	0	-2	-3	-3
of which interest on lease liabilities 0 <td>which interest income/expenses</td> <td>-11</td> <td>-14</td> <td>-18</td> <td>-18</td> <td>-20</td> <td>-32</td> <td>-21</td> <td>-13</td> <td>-12</td> <td>-12</td>	which interest income/expenses	-11	-14	-18	-18	-20	-32	-21	-13	-12	-12
of which other items-5-11-6-5-8-18-18-18-18-18-18-18-1818Taxes.7.7.6.5.8.7.13.12.13Post-tax minorities interest000000000Discontinued operations000000000Net profit262928373035484346Adjusted EBITDA40475755566.3807681Adjusted EBIT313843394045615862Adjusted EBIT262936323035484346Sales growth YY4.3%6.3%2.9%2.7%16.9%21.3%6.9% $-5.2%$ 4.8%EBITDA growth YY12.03%18.0%12.1%14.0%8.9%14.0%25.1% $-6.1%$ 7.3%EBITA growth YY332.3%20.8% $-6.4%$ 25.5% $-10.8%$ 14.6%35.1% $-6.1%$ 7.3%EBITA margin5.9% $6.7%$ $6.7\%$ $7.5\%$ $5.7\%$ $5.4\%$ $6.8\%$ $6.7\%$ $6.7\%$ EBITA margin5.9% $6.7\%$ $6.7\%$ $7.5\%$ $5.7\%$ $5.4\%$ $6.8\%$ $6.7\%$ $6.9\%$ EBITA margin5.9% $6.7\%$ $6.7\%$ $7.5\%$ $5.7\%$ $5.4\%$ <td< td=""><td>which interest on lease liabilities</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></td<>	which interest on lease liabilities	0	0	0	0	0	0	0	0	0	0
Pre-tax profit 33 36 34 42 38 42 62 56 59   Taxes -7 -7 -6 -5 -8 -7 -13 -12 -13   Discontinued operations 0	which other items	-5	-11	-6	-5	-8	-18	-18	-18	-18	-18
Taxes77777655887711312113Post-tax minorities interest000000000Discontinued operations000000000Net profit262928373035484346Adjusted EBITA313843394045615862Adjusted EBITA313839394045615862Adjusted EBITA313839394045615862Adjusted EBITA313839394045615862Adjusted PRI120.3%18.0%12.1%14.0%-8.9%14.0%27.9%-4.8%6.7%EBITDA growth YY120.3%18.0%12.1%14.0%-8.9%14.6%35.1%-6.1%7.3%EBITA margin5.9%6.7%6.7%7.5%5.7%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%<	tax profit	33	36	34	42	38	42	62	56	59	65
Post-tax minorities interest   0	S	-7	-7	-6	-5	-8	-7	-13	-12	-13	-14
Discontinued operations000000000Net profit262928373035484346Adjusted EBITDA404757555663807681Adjusted EBITA313843394045615862Adjusted EBIT313839394045615862Adjusted EBIT262936323035484346Sales growth Y/Y43%6.3%2.9%2.7%1.6.9%21.3%6.9%-5.2%4.8%EBITA growth Y/Y120.3%18.0%12.1%14.0%-8.9%14.0%27.9%-4.4%6.7%EBITA growth Y/Y332.3%20.8%-6.4%25.5%-10.8%14.6%35.1%-6.1%7.3%EBITDA margin7.6%8.4%9.1%10.1%7.9%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%Tax rate-20.8%-19.8%-17.5%-11.7%-21.0%-16.0%-21.7%-22.5%-22.0%Discontinued operations0000000000Discontinued operations0000000000 <trr>Discontinued operations0</trr>	tax minorities interest	0	0	0	0	0	0	0	0	0	0
Net profit262928373035484346Adjusted EBITDA404757555663807681Adjusted EBITA313843394045615862Adjusted EBIT313839394045615862Adjusted net profit262936323035484346Sales growth Y/Y4.3%6.3%2.9%2.7%16.9%21.3%6.9%-5.2%4.8%EBITDA growth Y/Y332.3%20.8%3.1%13.9%-10.8%14.6%35.1%-6.1%7.3%EBITA growth Y/Y332.3%20.8%3.1%10.1%7.9%7.4%8.9%9.1%6.9%5.2%-6.1%7.3%EBITDA margin7.6%8.4%9.1%10.1%7.9%7.4%8.9%8.9%9.1%EBITDA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBITDA rate-20.8%-17.5%-11.7%-21.0%-16.0%-21.7%-22.5%-22.0%Cash flow (EURm)20172018201920202021202220232024e2025eEBITDA rate-20.8%-17.5%-11-4-9-1-11Paid taxes-8-7-11-49-12-13-11719 <td>ontinued operations</td> <td>0</td>	ontinued operations	0	0	0	0	0	0	0	0	0	0
Adjusted EBITDA404757555663807681Adjusted EBITA313843394045615862Adjusted EBIT313839394045615862Adjusted net profit262936323035484346Sales growth YIY4.3%6.3%2.9%2.7%16.9%21.3%6.9%5.2%4.8%EBITDA growth YIY120.3%18.0%12.1%14.0%8.9%14.0%27.9%4.8%6.7%EBIT growth YIY332.3%20.8%6.4%2.5%-10.8%14.6%35.1%6.1%7.3%EBIT growth YIY332.3%20.8%6.4%6.7%5.7%5.7%5.4%6.8%6.7%6.9%EBIT Amargin5.9%6.7%6.7%7.5%5.7%5.4%6.8%6.7%6.9%EBITA margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBITOA404753605563807681Paid taxes-8-7-11.7%-21.0%-12-13Change in NWC-6-10-8-8-53-43-330-4Non cash adjustments5211045-11719Discontinued operations00000<	profit	26	29	28	37	30	35	48	43	46	50
Adjusted EBITA 31 38 43 39 40 45 61 58 62   Adjusted EBIT 31 38 39 39 40 45 61 58 62   Adjusted net profit 26 29 36 32 30 35 48 43 46   Sales growth Y/Y 4.3% 6.3% 2.9% 2.7% 16.9% 21.3% 6.9% -5.2% 4.8%   EBITDA growth Y/Y 120.3% 18.0% 12.1% 14.10% -8.9% 14.0% 35.1% -6.1% 7.3%   EBITDA growth Y/Y 332.3% 20.8% 3.1% 13.9% -10.8% 14.6% 35.1% -6.1% 7.3%   EBITA margin 7.6% 8.4% 9.1% 10.1% 7.9% 7.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% 1.17% -21.0% -16.0% -21.7% -22.5% -22.0% </td <td>sted EBITDA</td> <td>40</td> <td>47</td> <td>57</td> <td>55</td> <td>56</td> <td>63</td> <td>80</td> <td>76</td> <td>81</td> <td>88</td>	sted EBITDA	40	47	57	55	56	63	80	76	81	88
Adjusted EBIT 31 38 39 39 40 45 61 58 62   Adjusted net profit 26 29 36 32 30 35 48 43 46   Sales growth Y/Y 4.3% 6.3% 2.9% 2.7% 16.9% 21.3% 6.9% -5.2% 4.8%   EBITA growth Y/Y 120.3% 18.0% 12.1% 14.0% -8.9% 14.0% 25.9% -6.1% 7.3%   EBITA growth Y/Y 332.3% 20.8% -6.4% 25.5% -10.8% 14.6% 35.1% -6.1% 7.3%   EBITA margin 5.9% 6.7% 6.7% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% -11.7% -21.0% -16.0% -21.7% -22.5% -22.0%   EBITDA in argin 20.17 20.18 2019 2020 2021 2022 2023 2024e 2025e   EBITDA 40 47 53 60 55 63 80 76 81 <td>sted EBITA</td> <td>31</td> <td>38</td> <td>43</td> <td>39</td> <td>40</td> <td>45</td> <td>61</td> <td>58</td> <td>62</td> <td>68</td>	sted EBITA	31	38	43	39	40	45	61	58	62	68
Adjusted net profit 26 29 36 32 30 35 48 43 46   Sales growth Y/Y 4.3% 6.3% 2.9% 2.7% 16.9% 21.3% 6.9% -5.2% 4.8%   EBITDA growth Y/Y 120.3% 18.0% 12.1% 14.0% -8.9% 14.6% 35.1% -6.1% 7.3%   EBIT growth Y/Y 332.3% 20.8% 3.1% 13.9% -10.8% 14.6% 35.1% -6.1% 7.3%   EBIT growth Y/Y 332.3% 20.8% -6.4% 25.5% -10.8% 14.6% 35.1% -6.1% 7.3%   EBIT growth Y/Y 332.3% 20.8% 6.7% 6.7% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% -11.7% -21.0% -16.0% -21.7% -22.5% -22.0%   EBITDA 40 47 53 60 55 63	sted EBIT	31	38	39	39	40	45	61	58	62	68
Sales growth Y/Y4.3%6.3%2.9%2.7%16.9%21.3%6.9% $\cdot 5.2%$ 4.8%EBITDA growth Y/Y120.3%18.0%12.1%14.0% $-8.9\%$ 14.0% $27.9\%$ $-4.8\%$ 6.7%EBITA growth Y/Y332.3%20.8%3.1%13.9% $-10.8\%$ 14.6%35.1% $-6.1\%$ 7.3%EBIT growth Y/Y332.3%20.8% $-6.4\%$ 25.5% $-10.8\%$ 14.6%35.1% $-6.1\%$ 7.3%EBITDA margin7.6%8.4%9.1%10.1%7.9%7.4%8.9%8.9%9.1%EBIT margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%EBIT margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%Tax rate $-20.8\%$ $-19.8\%$ $-17.5\%$ $-11.7\%$ $-21.0\%$ $-16.0\%$ $-21.7\%$ $-22.5\%$ $-22.0\%$ EBITDA404753605563807681Paid taxes $-8$ $-7$ $-8$ $-7$ $-11$ $-4$ $-9$ $-12$ $-13$ Change in NWC $-6$ $-10$ $-8$ $-8$ $-53$ $-43$ $-3$ $-3$ $-3$ $-3$ $-3$ $-3$ $-3$ $-3$ $-4$ Non cash adjustments5211045 $-1$ $17$ $19$ $-17$ $-18$ Capex tangible assets $-11$ $-9$ $-10$ $-5$ $-12$	sted net profit	26	29	36	32	30	35	48	43	46	50
BITDA growth Y/Y 120.3% 18.0% 12.1% 14.0% 14.0% 27.9% 4.8% 6.7%   EBITA growth Y/Y 332.3% 20.8% 3.1% 13.9% -10.8% 14.6% 35.1% -6.1% 7.3%   EBIT growth Y/Y 332.3% 20.8% 3.1% 13.9% -10.8% 14.6% 35.1% -6.1% 7.3%   EBIT growth Y/Y 332.3% 20.8% -6.4% 25.5% -10.8% 14.6% 35.1% -6.1% 7.3%   EBIT A margin 7.6% 8.4% 9.1% 10.1% 7.9% 7.4% 8.9% 8.9% 9.1%   EBIT margin 5.9% 6.7% 6.7% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% -11.7% -21.0% -16.0% -21.7% -22.5% -22.0%   EBIT DA 40 47 53 60 55 63 80 76 81   Paid taxes -8 -7 -8 -7 -11 4 9 -12 -13	growth Y/Y	4 3%	6.3%	2.9%	2.7%	16.9%	21.3%	6.9%	-5.2%	4 8%	5 5%
Lein La growth YIY12.0.310.0.811.1.811.0.3<	DA growth Y/Y	120.3%	18.0%	12.1%	14.0%	_8.9%	14.0%	27.9%	-4.8%	6.7%	8.4%
Left rig own 1/1332.3%20.0%-1.1%-1.1%-1.00%1.10%3.1%-6.1%7.3%EBIT growth 1/Y332.3%20.8%-6.4%25.5%-10.8%14.6%35.1%-6.1%7.3%EBITDA margin5.9%6.7%6.7%7.5%5.7%5.4%6.8%6.7%6.9%EBIT margin5.9%6.7%6.1%7.5%5.7%5.4%6.8%6.7%6.9%Tax rate-20.8%-19.8%-17.5%-11.7%-21.0%-16.0%-21.7%-22.5%-22.0%Cash flow (EURm)20172018201920202021202220232024e2025eEBITDA404753605563807681Paid taxes-8-7-8-7-11-4-9-12-13Change in NWC-6-10-8-8-53-43-330-4Non cash adjustments5211045-11719Discontinued operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capex tangible assets00-70-10-2-1-1Capex tangible assets00-70-10-2-1-1Capex t	A growth Y/Y	332.3%	20.8%	3.1%	13.9%	-10.9%	14.6%	27.7%	-6.1%	7 3%	9.3%
End of gowith interpretation Job of the second of the	growth Y/Y	337.3%	20.0%	-6.4%	75.5%	-10.8%	14.6%	35.1%	-6.1%	7 3%	9.3%
EBITDA margin 7.6% 8.4% 9.1% 10.1% 7.9% 7.4% 8.9% 8.9% 9.1%   EBITA margin 5.9% 6.7% 6.7% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% -11.7% -21.0% -21.7% -22.5% -22.0%   EBITDA 40 47 53 60 55 63 80 76 81   Paid taxes -8 -7 -11 -9 -12 -13 30 -4   Non cash adjustments 5 2 1 10 4 5 -1 17 19   Discontinued operations 0 <td< td=""><td></td><td>332.370</td><td>20.070</td><td>0.1/0</td><td>20.070</td><td>T 0.0/0</td><td></td><td>55.176</td><td>0.170</td><td>7.570</td><td>7.570</td></td<>		332.370	20.070	0.1/0	20.070	T 0.0/0		55.176	0.170	7.570	7.570
EBI1A margin 5.9% 6.7% 6.7% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   EBIT margin 5.9% 6.7% 6.1% 7.5% 5.7% 5.4% 6.8% 6.7% 6.9%   Tax rate -20.8% -19.8% -17.5% -11.7% -21.0% -16.0% -21.7% -22.5% -22.0%   Cash flow (EURm) 2017 2018 2019 2020 2021 2022 2023 2024e 2025e   EBITDA 40 47 53 60 55 63 80 76 81   Paid taxes -8 -7 -8 -7 -11 -4 -9 -12 -13   Change in NWC -6 -10 -8 -8 -53 -43 -3 30 -4   Non cash adjustments 5 2 1 10 4 5 -1 17 19   Discontinued operations 0 0 0 0 0 0 0 0 0 0 0 0 0	DA margin	7.6%	8.4%	9.1%	10.1%	7.9%	7.4%	8.9%	8.9%	9.1%	9.4%
EBI margin $5.9\%$ $6.7\%$ $6.1\%$ $7.5\%$ $5.7\%$ $5.4\%$ $6.8\%$ $6.7\%$ $6.9\%$ Tax rate $-20.8\%$ $-19.8\%$ $-17.5\%$ $-11.7\%$ $-21.0\%$ $-16.0\%$ $-21.7\%$ $-22.5\%$ $-22.0\%$ Cash flow (EURm)20172018201920202021202220232024e2025eEBITDA404753605563807681Paid taxes $-8$ $-7$ $-8$ $-7$ $-11$ $-4$ $-9$ $-12$ $-13$ Change in NWC $-6$ $-10$ $-8$ $-8$ $-53$ $-43$ $-3$ $30$ $-4$ Non cash adjustments5211045 $-1$ 1719Discontinued operations00000000Discontinued operations00000000Capitalised development costs00000000Capitalised development costs00 $-77$ 0 $-11$ 0 $-22$ $-11$ $-1$ Acquisitions/divestments $-11$ $-9$ $-10$ $-5$ $-12$ $-17$ $-19$ $-17$ $-18$ Capitalised development costs00 $-7$ $0$ $-1$ $0$ $-22$ $-1$ $-1$ Acquisitions/divestments $-1$ $-1$ $7$ $-4$ $1$ $-2$ $-1$ $-1$ <td>A margin</td> <td>5.9%</td> <td>6.7%</td> <td>6.7%</td> <td>7.5%</td> <td>5.7%</td> <td>5.4%</td> <td>6.8%</td> <td>6.7%</td> <td>6.9%</td> <td>7.2%</td>	A margin	5.9%	6.7%	6.7%	7.5%	5.7%	5.4%	6.8%	6.7%	6.9%	7.2%
Tax Pate -20.8% -17.8% -17.7% -21.0% -16.0% -21.7% -22.5% -22.0%   Cash flow (EURm) 2017 2018 2019 2020 2021 2022 2023 2024e 2025e   EBITDA 40 47 53 60 55 63 80 76 81   Paid taxes -8 -7 -8 -7 -11 -4 -9 -12 -13   Change in NWC -6 -10 -8 -8 -53 -43 -3 30 -4   Non cash adjustments 5 2 1 10 4 5 -1 17 19   Discontinued operations 0	margin	5.9%	6.7%	6.1%	7.5%	5.7%	5.4%	6.8%	6.7%	6.9%	7.2%
Cash flow (EURm)20172018201920202021202220232024e2025eEBITDA404753605563807681Paid taxes-8-7-8-7-11-4-9-12-13Change in NWC-6-10-8-8-53-43-330-4Non cash adjustments5211045-11719Discontinued operations000000000Total operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capitalised development costs000000000Capex - other intangible assets-1-17-41-2-1-10Other non-cash adjustments-1-17-41-2-1-100Other non-cash adjustments-1-10-184-13-19-22-18-19Net financial items1-2-1-3-2-40-2-3Lease payments000-4-4-4-4-4-4	ate	-20.8%	-19.8%	-17.5%	-11.7%	-21.0%	-16.0%	-21.7%	-22.5%	-22.0%	-22.0%
EBITDA 40 47 53 60 55 63 80 76 81   Paid taxes -8 -7 -8 -7 -11 -4 -9 -12 -13   Change in NWC -6 -10 -8 -8 -53 -43 -3 30 -4   Non cash adjustments 5 2 1 10 4 5 -1 17 19   Discontinued operations 0 <td< th=""><th>າ flow (EURm)</th><th>2017</th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th><th>2023</th><th>2024e</th><th>2025e</th><th>2026e</th></td<>	າ flow (EURm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Paid taxes $-8$ $-7$ $-8$ $-7$ $-11$ $-4$ $-9$ $-12$ $-13$ Change in NWC $-6$ $-10$ $-8$ $-8$ $-53$ $-43$ $-3$ $30$ $-4$ Non cash adjustments $5$ $2$ $1$ $10$ $4$ $5$ $-1$ $17$ $19$ Discontinued operations $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ Total operating activities $21$ $29$ $36$ $35$ $-13$ $10$ $69$ $78$ $46$ Capex tangible assets $-11$ $-9$ $-10$ $-5$ $-12$ $-17$ $-19$ $-17$ $-18$ Capitalised development costs $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ Capex - other intangible assets $0$ $0$ $-7$ $0$ $-1$ $0$ $-2$ $-1$ $-1$ Acquisitions/divestments $0$ $0$ $-8$ $13$ $0$ $0$ $0$ $0$ $0$ Other non-cash adjustments $-1$ $-1$ $7$ $-4$ $1$ $-2$ $-1$ $-1$ $0$ Total investing activities $-11$ $-10$ $-18$ $4$ $-13$ $-19$ $-22$ $-18$ $-19$ Net financial items $1$ $-2$ $-1$ $-3$ $-2$ $-4$ $0$ $-2$ $-3$ Lease payments $0$ $0$ $0$ $0$ $-4$ $-4$ $-4$ $-4$ $-4$	DA	40	47	53	60	55	63	80	76	81	88
Change in NWC-6-10-8-8-8-53-43-330-4Non cash adjustments5211045-11719Discontinued operations000000000Total operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capitalised development costs000000000Capex - other intangible assets00-70-10-2-1-1Acquisitions/divestments00-81300000Other non-cash adjustments-1-17-41-2-1-10Total investing activities1-2-1-3-2-40-2-3Lease payments0000-4-4-4-4-4Distributed developments000-4-4-4-4-4	taxes	-8	-7	-8	-7	-11	-4	-9	-12	-13	-14
Non cash adjustments5211045-11719Discontinued operations0000000000Total operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capitalised development costs000000000Capex - other intangible assets00-70-10-2-1-1Acquisitions/divestments00-81300000Other non-cash adjustments-1-17-41-2-1-10Total investing activities1-2-1-3-2-40-2-3Net financial items1-2-1-3-2-40-2-3Distribution in the in the lene in th	ige in NWC	-6	-10	-8	-8	-53	-43	-3	30	-4	-10
Discontinued operations000000000Total operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capitalised development costs0000000000Capex - other intangible assets00-770-110-2-1-1Acquisitions/divestments00-8813000000Other non-cash adjustments-1-1177-41-2-1-10Total investing activities1-2-1-10-184-13-19-22-18-19Net financial items1-2-1-3-2-40-2-3Lease payments000-1-3-2-40-2-3Divide to the lease is of the total of the total of tota	cash adjustments	5	2	I	10	4	5	-1	17	19	20
Total operating activities21293635-1310697846Capex tangible assets-11-9-10-5-12-17-19-17-18Capitalised development costs000000000Capex - other intangible assets00-70-10-2-1-1Acquisitions/divestments00-81300000Other non-cash adjustments-1-17-41-2-1-10Total investing activities-11-10-184-13-19-22-18-19Net financial items1-2-1-3-2-40-2-3Lease payments000-4-4-4-4-4Distributed basis1-20-1-14-14-4	ontinued operations	0	0	0	0	0	0	0	0	0	0
Capex targible assets $-11$ $-9$ $-10$ $-5$ $-12$ $-17$ $-19$ $-17$ $-18$ Capitalised development costs000000000Capex - other intangible assets00 $-7$ 0 $-1$ 0 $-2$ $-1$ $-1$ Acquisitions/divestments00 $-8$ $13$ 00000Other non-cash adjustments $-1$ $-1$ $7$ $-4$ $1$ $-2$ $-1$ $-1$ 0Total investing activities $-11$ $-10$ $-18$ $4$ $-13$ $-19$ $-22$ $-18$ $-19$ Net financial items $1$ $-2$ $-1$ $-3$ $-2$ $-4$ $0$ $-2$ $-3$ Lease payments000 $-4$ $-4$ $-4$ $-4$ $-4$ $-4$	al operating activities	21	29	36	35	-13	10	69	78	46	44
Capitalised development costs 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <t< td=""><td>av tangible assets</td><td>-11</td><td>_9</td><td>-10</td><td>-5</td><td>-12</td><td>-17</td><td>-19</td><td>-17</td><td>-18</td><td>_19</td></t<>	av tangible assets	-11	_9	-10	-5	-12	-17	-19	-17	-18	_19
Capex - other intagible assets 0 0 -7 0 -1 0 -2 -1 -1   Acquisitions/divestments 0 0 -8 13 0 0 0 0 0   Other non-cash adjustments -1 -1 7 -4 1 -2 -1 -1 0   Total investing activities -11 -10 -18 4 -13 -19 -22 -18 -19   Net financial items 1 -2 -1 -3 -2 -4 0 -2 -3   Lease payments 0 0 0 -4 -4 -4 -4 -4	ralised development costs	-11	-,	-10	-5	-12	-17	-17	-17	-10	-17
Acquisitions/divestments 0 0 -8 13 0 0 0 0 0   Other non-cash adjustments -1 -1 7 -4 1 -2 -1 -1 0   Total investing activities -11 -10 -18 4 -13 -19 -22 -18 -19   Net financial items 1 -2 -1 -3 -2 -4 0 -2 -3   Lease payments 0 0 0 -0 -1 -14 -14 -4	ansed development costs	0	0	-7	0	-1	0	-7	-1	-1	-
Other non-cash adjustments -1 -1 7 -4 1 -2 -1 -1 0   Total investing activities -11 -10 -18 4 -13 -19 -22 -18 -19   Net financial items 1 -2 -1 -3 -2 -4 0 -2 -3   Lease payments 0 0 0 -4 -4 -4 -4 -4 -4 -4	isitions/divestments	0	Ő	-8	13	0	0	0	0	0	0
Total investing activities   -11   -10   -18   4   -13   -19   -22   -18   -19     Net financial items   1   -2   -1   -3   -2   -4   0   -2   -3     Lease payments   0   0   0   -4   -4   -4   -4   -4   -4	er non-cash adjustments	-1	-1	7	-4	ĩ	-2	-1	-1	0	0
Net financial items   I   -2   -1   -3   -2   -4   0   -2   -3     Lease payments   0   0   0   -4			-10	-18	4	-13	_19	_22	-18	_19	-20
Net financial items   I   -2   -1   -3   -2   -4   0   -2   -3     Lease payments   0   0   0   -4											
Lease payments 0 0 0 -4 -4 -4 -4 -4 -4 -4	inancial items	1	-2	-1	-3	-2	-4	0	-2	-3	-3
	2 payments	0	0	0	-4	-4	-4	-4	-4	-4	-5
Dividend paid and received -6 -7 -8 -10 -11 -12 -14 -15 -15	end paid and received	-6	-/	-8	-10	-11	-12	-14	-15	-15	-15
Share issues & buybacks 0 0 0 0 1 0 0 0 0 0 0	issues & buybacks	0	0	0	1	0	0	0	0	0	0
Change in bank debt -4 -14 -8 -20 38 20 -30 -6 0	ge in bank debt	-4	-14	-8	-20	38	20	-30	-6	0	0
Other cash flow items 0 0 0 0 1 0 1 0 0	r cash flow items	0	0	0	0		0		0	0	0
Total financing activities -11 -22 -18 -34 23 2 -50 -27 -23	al financing activities	-11	-22	-18	-34	23	2	-50	-27	-23	-23
Operating cash flow 21 29 36 35 -13 10 69 78 46	ating cash flow	21	29	36	35	-13	10	69	78	46	44
Free cash flow 11 19 26 26 -25 -8 47 59 28	cash flow	11	19	26	26	-25	-8	47	59	28	24
Net cash flow 2 -1 1 6 -1 -4 1 34 8	cash flow	2	-1	I	6	-1	-4	I	34	8	4
Change in net IB debt   3   I   I7   28   -38   -25   35   41   10	ige in net IB debt	3	11	17	28	-38	-25	35	41	10	6
Capex / Sales 2.0% 1.6% 1.7% 0.8% 1.8% 2.0% 2.1% 2.0% 2.0%	ex / Sales	2.0%	1.6%	1.7%	0.8%	1.8%	2.0%	2.1%	2.0%	2.0%	2.0%
NWC / Sales 17.2% 17.6% 19.2% 19.8% 20.7% 22.8% 23.8% 23.6% 21.0%	C / Sales	17.2%	17.6%	19.2%	19.8%	20.7%	22.8%	23.8%	23.6%	21.0%	20.7%

Source: Carnegie Research & company data



# Financial statements, cont.

Balance sheet (EURm)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Acquired intangible assets	10	10	8	8	8	8	8	8	8	8
Other fixed intangible assets	15	12	17	14	13	11	10	8	5	3
Capitalised development	0	0	0	0	0	0	0	0	0	0
Tangible assets	48	49	72	65	72	80	85	93	102	111
Lease assets	0	0	21	18	22	24	23	24	27	29
Other IB assets (1)	0	0	0	7	0	0	0	0	0	0
Cther non-IB assets	4	4	102	05	7	0	0	7	124	120
Fixed assets	101	00	103	102	102	220	209	107	124	130
Receivables (2)	101	108	102	103	175	165	174	162	104	173
Prepaid exp. & other NWC items (7)	100	0	112	115	(F)	7	1/4	100	170	107
IB current assets (1)	0	0	0	0	0	0	0	0	0	
Other current assets	ĩ	2	2	2	3	2	2	15	30	47
Cash & cash equivalents (1)	21	19	20	26	25	21	21	55	63	67
Current assets	230	228	237	245	372	419	406	418	454	497
Total assets	307	304	340	339	474	526	518	536	578	627
Shareholdorr' equity	125	145	147	103	207	227	244	294	325	340
Minorities	125	0	107	105	207	0	200	2/4	525	000
Other equity	0	0	0	0	0	0	0	0	0	0
Total equity	125	145	167	183	207	227	266	294	325	360
Deferred tax	5	6	7	6					7	7
LT IB debt (1)	27	17	25	18	42	36	0	30	30	30
Other IB provisions (1)	_,	0	0	0	0	0	0	0	0	0
Lease libilities	0	0	19	16	20	20	19	19	22	24
Other non-IB liabilities	0	0	0	1				1		
LT liabilities	33	23	51	40	68	62	25	57	59	62
ST IB debt (1)	34	31	23	10	23	50	54	19	20	20
Pavables (2)	113	104	96	100	172	184	167	162	171	182
Accrued exp. & other NWC items (2)	0	0	0	0	0	0	0	0	0	0
Other ST non-IB liabilities	2	2	3	6	3	4	5	3	3	3
Liabilities - assets held for sale	0	0	0	0	0	0	0	0	0	0
Current liabilities	149	136	122	116	198	237	227	184	194	205
Total equity and liabilities	307	304	340	339	474	526	518	536	578	627
Net IB debt (=1)	41	28	46	18	60	86	52	14	8	7
Net working capital (NWC) (=2)	95	104	118	117	171	213	217	186	190	200
Capital employed (CE)	191	198	237	229	295	334	342	366	399	436
Capital invested (CI)	166	173	213	201	267	312	318	308	333	367
	419/	40%	40%	F 49/	4 4 9/	429/	F 19/	F F 9/	F / 9/	F 70/
Equity / Total assets	41%	40%	47%	03	44%	43%	51%	55% 0.2	01	57%
	1.0	0.0	0.7	0.5	1.1	1.7	0.0	0.2	0.1	0.1
Per share data (EUR)	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
Adj. no. of shares in issue YE (m)	63.76	63.95	64.30	64.39	64.70	64.83	64.86	64.86	64.86	64.86
Diluted no. of Shares YE (m)	64.47	64.48	65.13	65.19	65.33	65.74	64.86	64.86	64.86	64.86
EPS	0.40	0.45	0.43	0.57	0.46	0.53	0.74	0.66	0.71	0.78
EPS adj.	0.40	0.45	0.49	0.48	0.49	0.53	0.74	0.66	0.71	0.78
CEPS	0.54	0.60	0.71	0.75	0.63	0.74	0.97	0.89	0.94	1.03
DPS	0.11	0.13	0.15	0.17	0.19	0.21	0.23	0.24	0.24	0.26
BVF3	1.70	2.26	2.57	2.84	3.21	3.50	4.10	4.55	5.01	5.55
Performance measures	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
ROE	22.2%	21.4%	18.0%	21.1%	15.2%	16.1%	19.6%	15.4%	14.9%	14.7%
Adj. ROCE pre-tax	16.4%	19.0%	16.6%	17.0%	13.6%	13.6%	17.9%	15.7%	15.5%	15.5%
Adj. ROIC after-tax	14.8%	17.7%	15.7%	17.0%	12.1%	12.4%	15.1%	14.6%	14.7%	14.5%
Valuation	2017	2018	2019	2020	2021	2022	2023	2024e	2025e	2026e
FCF yield	2.2%	4.0%	5.3%	5.4%	-5.2%	-1.7%	9.7%	12.2%	5.7%	4.9%
Dividend yield YE	na	na	3.1%	2.6%	2.5%	3.1%	2.9%	3.1%	3.2%	3.5%
Dividend payout ratio	27.4%	29.0%	34.6%	30.2%	41.7%	38.8%	31.0%	35.5%	33.3%	33.3%
Dividend + buy backs yield YE	na	na	3.0%	2.6%	2.5%	3.1%	2.9%	3.1%	3.2%	0.0%
EV/Sales YE	na	na	0.63	0.74	0.79	0.61	0.62	0.58	0.55	0.52
EV/EBITDA YE	na	na	6.9	7.3	10.0	8.3	7.0	6.5	6.1	5.6
EV/EBITA YE	na	na	9.4	10.0	13.8	11.4	9.1	8.7	8.0	7.3
EV/EBITA adj. YE	na	na	8.5	11.4	13.6	11.5	9.2	8.7	8.0	7.3
EV/EBIT YE	na	na	10.3	10.0	13.8	11.4	9.1	8.7	8.0	7.3
			11.2	115	14 4	י רו	10 5	11.5	10.4	<u>a</u> /
P/Eadi YE	na	na	11.3	11.5	יסו. וגסו	12.3	10.5	11.3	10.6	7.6 Q 4
P/BV YE	11d	11d	10.0	ני סג כ	777	1 2.3	10.5	11.5	10.0	7.0
	IId	IId	1.07	2.30	2.33	1.00		05	1.50	1.35
Share price YE (EUR)			4.89	6.52	7.46	6.58	7.83	7.49		

Source: Carnegie Research & company data



# Disclosures and disclaimers

#### Carnegie Investment Bank AB

Carnegie Investment Bank AB (publ.) is a leading investment bank with a Nordic focus. The Carnegie group of companies, together "Carnegie", generates added value for institutions, companies and private clients in the areas of trade in securities, investment banking and private banking. Carnegie has approximately 600 employees, located in offices in six countries.

### Valuation, methodology, and assumptions

Commissioned research reports include the analyst's assessment of a fair value range over the coming six to 12 months based on various fundamental valuation methods. A commonly used method is DCF valuation, where future cash flows are discounted to today. Analysts may also use different valuation multiples, e.g. P/E ratio and EV/EBIT multiples, relative to industry peers to obtain a target price. For companies where it is appropriate, a fair value range can also be based on the analyst's assessment of a fair ratio relative to the net asset value of the company. Fair value ranges represent the assessment of the analyst(s) at the time of writing

#### Frequency of update

Carnegie's research analysis consists of case-based analyses, which implies that the frequency of the analytical report may vary over time. Unless otherwise expressly stated in the report, the analysis is updated when considered necessary by the research department, for example in the event of significant changes in market conditions or events related to the issuer/the financial instrument.

### Analyst certification

The research analyst or analysts responsible for the content of this commissioned research report certify that, notwithstanding the existence of any potential conflicts of interests referred to herein, the views expressed in this commissioned research report accurately reflect the research analyst's personal views about the companies and securities covered. It is further certified that the research analyst has not been, nor is or will be, receiving direct or indirect compensation related to the specific ratings or views contained in this commissioned research report.

#### Potential conflicts of interest

Carnegie, or its subsidiaries, may from time to time perform investment banking or other services for, or solicit investment banking or other business from, any company mentioned in this report. Any such publicly announced business activity, during the past 12 months, will be referred to in this commissioned research report. A set of rules handling conflicts of interest is implemented in the Carnegie Group. Investment Banking and other business departments in Carnegie are surrounded by information barriers to restrict the flows of sensitive information. Persons outside such barriers may gain access to sensitive information only after having observed applicable procedures. The remuneration of persons involved in preparing this commissioned research report is not tied to investment banking transactions performed by Carnegie or a legal person within the same group.

Confidential and non-public information regarding Carnegie and its clients, business activities and other circumstances that could affect the market value of a security ("sensitive information") is kept strictly confidential and may never be used in an undue manner.

Internal guidelines are implemented in order to ensure the integrity and independence of research analysts. In accordance with the guidelines the research department is separated from the Investment Banking department and there are no reporting lines between the research department and Investment Banking. The guidelines also include rules regarding, but not limited to, the following issues; contacts with covered companies, prohibition against offering favourable recommendations, personal involvement in covered companies, participation in investment banking activities, supervision and review of research reports, analyst reporting lines and analyst remuneration.

#### Other material conflicts of interest

This report was commissioned and sponsored by the issuer (issuer-paid research).

#### Distribution restrictions

This commissioned research report is intended only for distribution to professional investors. Such investors are expected to make their own investment decisions without undue reliance on this commissioned research report. This commissioned research report does not have regard to the specific investment objectives, financial situation or particular needs of any specific person who may receive it. Investors should seek financial advice regarding the appropriateness of investing in any securities discussed in this commissioned research report and should understand that statements regarding future prospects may not be realized. Past performance is not necessarily a guide to future performance. Carnegie and its subsidiaries accept no liability whatsoever for any direct or consequential loss, including, without limitation, any loss of profits arising from the use of this commissioned research report or its contents. This commissioned research report may not be reproduced, distributed or published by any recipient for any purpose. The document may not be distributed to persons that are citizens of or domiciled in any country in which such distribution is prohibited according to applicable laws or other regulations.

This commissioned research report is distributed in Sweden by Carnegie Investment Bank AB. Carnegie Investment Bank AB is a bank incorporated in Sweden with limited liability which is authorised and regulated by the Swedish Financial Supervisory Authority (Finansinspektionen). In Finland this commissioned research report is issued by Carnegie Investment Bank AB, Finland Branch. The Finland branch is authorised by the Swedish Financial Supervisory Authority and subject to limited regulation by the Finnish Financial Supervisory Authority ( Finanssivalvonta). In Norway this commissioned research report is issued by Carnegie Investment Bank AB. Carnegie AS is regulated by the Financial Supervisory Authority of Norway (Finanssitignet). In Denmark this commissioned research report is issued by Carnegie Investment Bank AB. Carnegie AS is regulated by the Financial Supervisory Authority of Norway (Finanstilsynet). In Denmark this commissioned research report is issued by Carnegie Investment Bank AB. Denmark Branch. The Denmark branch is authorised by the Swedish Financial Supervisory Authority and subject to limited regulation by the Danish Financial Supervisory Authority (Finanstilsynet).

This commissioned research report is distributed in the US by Carnegie, Inc., a US-registered broker-dealer and a member of FINRA and SIPC. Carnegie's research analysts located outside of the US are employed by non-US affiliates of Carnegie Inc. ("non-US affiliates") that are not subject to FINRA regulations. Generally. Carnegie research analysts are not registered with or qualified as research analysts with FINRA, and therefore are not subject to FINRA rule 2241 restrictions intended to prevent conflicts of interest by, among other things, prohibiting certain compensation practices, restricting trading by analysts and restricting communications with the companies that are the subject of the research report. Research reports distributed in the U.S. are intended solely for major US institutional investors and US institutional investors as defined under Rule 15a-6 of the Securities Exchange Act of 1934. This commissioned research report is provided for informational purposes only and under no circumstances is it to be used or considered as an offer to sell, or a solicitation of any offer to buy any securities. Reports regarding equity products are prepared by non-US affiliates of and distributed in the United States by Carnegie Inc. under Rule 15a-6(a)(3). When distributed by Carnegie Inc, Carnegie Inc, takes responsibility for the commissioned research report. Any US person who wishes to effect transactions based on this commissioned research report should contact Carnegie Inc. Investors in the US should be aware that investing in non-US securities entails certain risks. The securities of non-US Securities and Exchange Commission.

This commissioned research report has been issued in the UK by Carnegie UK which is the UK Branch of Carnegie Investment Bank AB. Carnegie UK is authorised and regulated by the Financial Conduct Authority (FCA).

#### Research Disclaimer

This commissioned research report is provided solely for information. It does not constitute or form part of, and shall under no circumstances be considered as an offer to sell or a solicitation of an offer to purchase or sell any relevant financial instrument.

This commissioned research report has been requested and paid for by the issuer and should therefore be considered a marketing communication (i.e. not investment research). Payment for the report has been agreed in advance on a non-recourse basis. As commissioned research, this material can be considered an acceptable minor non-monetary benefit under MiFID II. It has not been prepared in accordance with the legal requirements designed to promote the independence of investment research. However, it is still subject to a prohibition on dealing ahead of the dissemination of the report.

Carnegie Investment Bank AB is responsible for the preparation of this commissioned research report in Sweden, Finland, Denmark, and the UK. Carnegie AS is responsible for the preparation of this commissioned research report in Norway. Carnegie Inc. is responsible for this research report in the US.

The information in this commissioned research report was obtained from various sources. While all reasonable care has been taken to ensure that the information is true and not misleading. Carnegie gives no representation or warranty, express or implied, about its accuracy or completeness. Carnegie, its subsidiaries and any of their officers or directors may have a position, or otherwise be interested in, transactions in securities that are directly or indirectly the subject of this commissioned research report. Any significant financial interests held by the analyst, Carnegie or a legal person in the same group in relation to the issuer will be referred to in the company-specific disclosures.

### Company specific disclosures

The following disclosures relate to relationships between Carnegie Investment Bank AB (with its subsidiaries, "Carnegie") and the subject company.

Within the past 12 months Carnegie (refer to definition in disclaimer text) has received compensation for investment banking services regarding BerGenBio, Byggfakta Group, Clas Ohlson, Duell Corporation, Embracer Group, Envipco, F-Secure, Irras, Karnov, Kongsberg Gruppen, Musti Group, Navamedic, NEL, Nobia, Norconsult, Norsk Titanium, Permascand, Prosafe, Sats, Schibsted, Tobii, Vår Energi and Zealand Pharma.

Within the past 12 months Carnegie (refer to definition in disclaimer text) has managed or co-managed a public offering of securities of Bonava, Camurus, Catena, DOF, Dustin, Emilshus, Ferroamp, John Mattson, K-Fastigheter, Midsummer, Nobia, Oncopeptides, OssDaign, Q-linea, Rusta, Sdiptech, Storskogen, Tobii, Trianon, Viaplay Group, Vicore Pharma, Vimian and Xvivo.

Please see Carnegie AS' website for a full list of shares owned by employees of Carnegie AS in relation to potential conflicts of interest: www.carnegie.no (General business terms and more / Employees holdings). Carnegie AS may also own shares in connection with trading. This disclosure is made to meet Norwegian best practice.

A Board member of Carnegie Investment Bank AB (who is not an analyst) is a member of the Board of Directors of Kinnevik . Carnegie Investment Bank AB acts as a market maker in the Vimian share. Carnegie Investment Bank AB acts as a market maker in the Sagax share. Carnegie Investment Bank AB acts as a market maker in the Kindred share. Carnegie Investment Bank AB acts as a market maker in the Kindred share. Carnegie Investment Bank AB acts as a market maker in the Solar share. Carnegie Investment Bank AB acts as a market maker in the TF Bank share. Carnegie Investment Bank AB acts as a market maker in the Devyser share. Carnegie Investment Bank AB acts as a market maker in the RugVista share.

Parts of this commissioned research report may have been submitted to the issuer prior to its publication.

Copyright © 2024 Carnegie



# Commissioned Research sponsored by Scanfil

10 May 2024

### Carnegie Investment Bank AB

Regeringsgatan 56 SE-103 38 Stockholm Tel +46 8 5886 88 00 Fax +46 8 5886 88 95 A member of the Stockholm Stock Exchange

### Carnegie AS

Fjordalleen 16, 5th Floor PO Box 684, Sentrum NO-0106 Oslo Tel +47 22 00 93 00 Fax +47 22 00 94 00 A member of the Oslo Stock Exchange

### Carnegie Investment Bank, Denmark Branch

Overgaden neden Vandet 9B PO Box 1935 DK-1414 Copenhagen K Tel +45 32 88 02 00 Fax +45 32 96 10 22 A member of the Copenhagen Stock Exchange

### Carnegie, Inc.

20 West 55th St. , New York N.Y. 10019 Tel +1 212 262 5800 Fax +1 212 265 3946 Member FINRA / SIPC

## Carnegie Investment Bank AB, Finland Branch

Eteläesplanadi 2 PO Box 36 FI-00131 Helsinki Tel +358 9 618 71 230 Fax +358 9 618 71 720 A member of the Helsinki Stock Exchange

### Carnegie Investment Bank AB, UK Branch

Finwell House, 26 Finsbury Square London EC2A IDS Tel +44 20 7216 4000 Fax +44 20 7417 9426 Regulated by the FCA in the conduct of Designated Investment Business in the UK