Acuvi

Acuvi – Initial take

2024-11-28

We are initiating the coverage of Acuvi, an engineering group that develops, manufactures and sells advanced micromotors and precision systems based on piezoelectric materials. The technology allows for extreme precision and miniaturisation, which is in demand in an increasing number of end products and sectors operating within automation. Acuvi has approximately 500 customers in over 70 countries, and much of the Group's sales are on a recurring basis. The largest sectors include medical technology and the semiconductor industry.

Expansion

Acuvi is entering an expansive phase, with a specific focus on consolidating its presence in the German and US markets, where its technology has great potential, but the company's market share remains low. In June 2024, Acuvi signed a collaboration agreement with Nanos Instruments, which immediately boosted the company's business. Acuvi also carried out two share issues in July 2024, and expanded its shareholder base with the investment firm, ShapeQ, which will support the company's German and global expansion plans.

Growth with profitability

We expect Acuvi to show high growth in net sales during the forecast period, driven by higher order volumes, geographical expansion, cooperation with Nanos, a high customer inflow and new product launches. We estimate that OEM standard products will be the fastest growing segment in percentage terms. In light of this growth and the segment's higher gross margin, we expect Acuvi's profitability to improve and account for a higher proportion of total net sales.

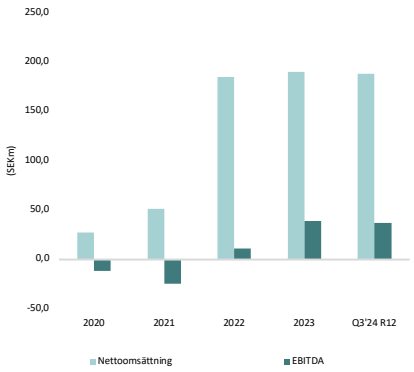
Outlook

We take a positive view of Acuvi's focus on growth, and believe the company is in a good position to scale up the business with increased margins. Our forecasts are chiefly based on successful expansion within OEM standard products, but also cover growth across all customer segments. Our defensible value per share for 2026E amounts to SEK 25.7, which corresponds to an upside of 64.7 percent.

Facts

CEO	Olof Stranding
Stock exchange	First North
Ticker	ACUVI
Share price (SEK)	15.6
Number of shares (million)	29.5
Market cap (SEKm)	459.9
Net debt (SEKm)	29.7
EV (SEKm)	489.6
Insider ownership	31.0%
Next report	25 Feb 2025

Annual performance



Analyst

Pontus Fredriksson

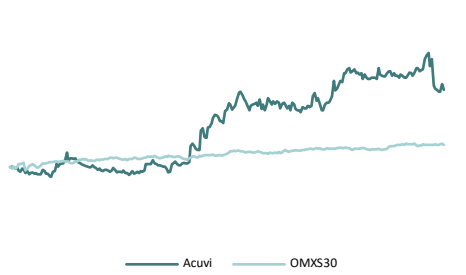
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(SEKm)	**2022**	**2023***	**2024E**	**2025E**	**2026E**
Net sales	**185.1**	**190.8**	**191.0**	**215.7**	**248.7**
Growth y-o-y	*259.8%*	*3.1%*	*0.1%*	*12.9%*	*15.3%*
Total revenue	**192.4**	**209.6**	**196.7**	**220.7**	**252.7**
EV/S	*2.7*	*2.6*	*2.6*	*2.3*	*2.0*
Gross profit	**116.6**	**103.5**	**116.2**	**131.5**	**152.8**
Gross margin	*63.0%*	*54.2%*	*60.8%*	*61.0%*	*61.4%*
Operating expenses	**-142.5**	**-83.1**	**-82.8**	**-88.5**	**-93.6**
Growth y-o-y	*100.3%*	*-41.6%*	*-0.4%*	*6.9%*	*8.7%*
Depreciation, amortisation and impairment	-97.3	-21.2	-11.4	-10.4	-10.0
EBIT	**-115.9**	**18.0**	**27.7**	**37.5**	**50.5**
EBIT margin	*-62.6%*	*9.4%*	*14.5%*	*17.4%*	*20.3%*
Growth y-o-y	*n/a*	*n/a*	*53.9%*	*35.5%*	*34.5%*
EV/EBIT	*n/a*	*27.2*	*17.7*	*13.0*	*9.7*

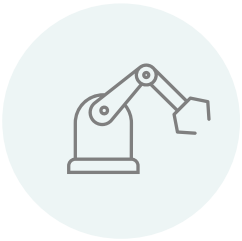
**Adjusted for IFRS*

Share price trend, 12 months



Share price trend, %	**1 m**	**3 m**	**12 m**
Acuvi	-6.6%	-4.9%	114.5%

Key Insights



Global market trends

Automation and miniaturisation are two global megatrends that are fuelling the need for greater precision within automation. Acuvi is responding to this need by offering advanced micromotors and precision systems based on piezoelectric materials. Acuvi's customers manufacture products such as surgical robots, equipment for the semiconductor industry and diagnostic systems.



Good growth prospects

Acuvi has good opportunities for growing alongside existing and new customers. Additional growth drivers include the collaboration with Nanos Instruments, new product launches and an expanded geographical presence mainly in Germany and the US.



Margin expansion in brief

Acuvi has a scalable business model that allows revenue to increase at a faster pace than operating expenses, which has contributed to greater profitability. OEM standard products is the customer segment that is experiencing the most rapid growth in percentage terms, and has the highest gross margin, which creates additional scope for boosting profitability.

"I am confident when I say that Acuvi has some very good years ahead, which will benefit our customers, employees and shareholders."

- Olof Stranding, CEO, Acuvi

Investment case

- Backed by global market trends
- Profitable company
- High-value products
- Good growth prospects
- High proportion of recurring revenue
- Diversified revenue
- Scalable business model
- OEM standard products experiencing fastest growth
- Strong financial position
- Transparent ownership

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The company in brief

Acuvi is a Swedish engineering group that develops, manufactures and sells advanced micromotors and precision systems based on piezoelectric materials. The products are used as components to automate electrical designs, and Acuvi is often a key supplier for the finished product. Piezo technology enables the components to be made smaller and movements at nanometre level (one millionth of a millimetre) to be carried out with greater precision, which are properties that are in demand in a growing number of end products and industries.

Acuvi has approximately 500 customers in over 70 countries, with the US being its largest market. Sales are largely recurring and are mainly conducted via the company's own sales organisation, but also via distributors and partners. Acuvi is growing alongside existing and new customers, and through geographical expansion, product launches and synergies between the various product platforms. The largest sectors include medical technology and the semiconductor industry, and there is potential for expansion into more industries. Acuvi is headquartered in Uppsala and the company has been listed on Nasdaq First North Growth Market since 2016.

History

Acuvi (formerly PiezoMotor) was founded in 1998 with the aim of developing and commercialising products based on research into piezo technology conducted at Uppsala University. The Group, in its current form, was established following PiezoMotor's acquisition of the companies Sensapex and TPA Motion in 2021[1-2]. PiezoMotor then evolved from a niche supplier of advanced piezo-based micromotors, into a provider of comprehensive system solutions for high-precision positioning.

Significant company events

1998	• PiezoMotor is established	**2021**	• More orders announced • Acquisition of Sensapex • Private placements totalling SEK 100.0 million • Acquisition of TPA Motion • Private placement valued at SEK 160.0 million • Exclusive licence agreement signed
1998–2002	• R&D of product platforms Piezo LEGS and Piezo WAVE		
2002	• Project-led development and sales with customers including Ericsson and Nokia		
2008	• First formal production line built		
2008–2013	• Sales increased significantly from previously low levels	**2022**	• The Group changed its name to Acuvi • Projects secured, valued at SEK 10.0 million annually • Several orders exceeding SEK 10.0 million • Olof Stranding joins as CEO
2015	• 90% of sales occurring outside Sweden		
2016	• Stock exchange listing and private placement valued at SEK 50.0 million • Order received from manufacturer of surgical robots		
2017	• Collaboration with world-leading company regarding Piezo LEGS • R&D of product platform Piezo LINK (mass volume product) jointly with world-leading engineering and electronics company	**2023**	• Private placement of SEK 9.0 million • Order valued at SEK 5.0 million related to cancer diagnostics • Order valued at SEK 18.0 million • Distribution agreement with Nikon • Profitable and positive free cash flows • collaboration in the field of IVF
2018	• Collaboration with three global telecom companies • Private placement valued at SEK 53.0 million • Multiple orders from semiconductor industry • Expansion of production capacity • Private placement of SEK 21.8 million		

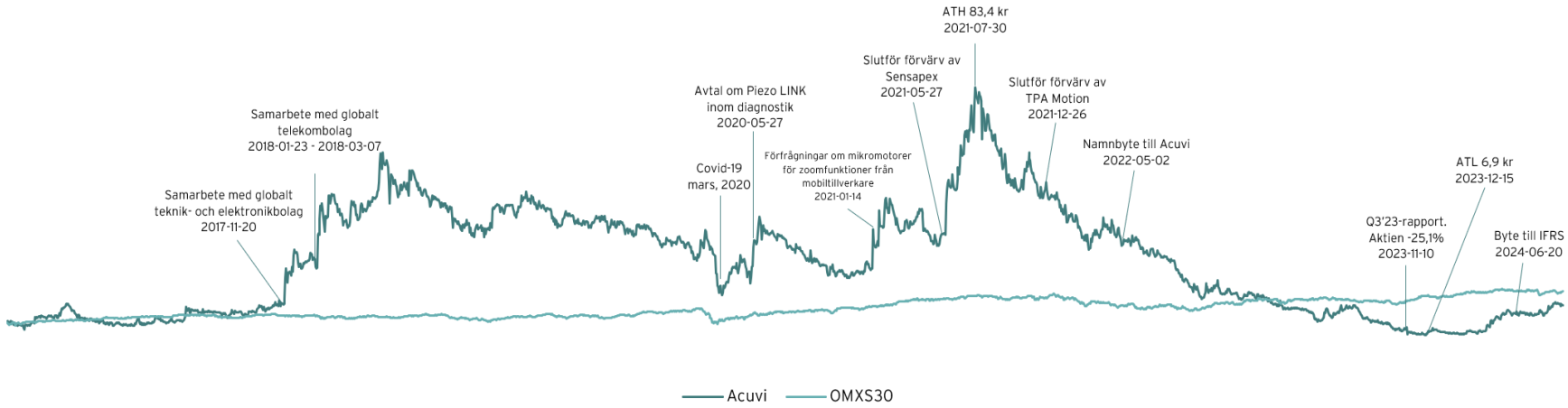
Share price

The stock exchange listing took place in June 2016 on Nasdaq First North Growth at an introductory price of SEK 12.5 per share[3]. Historically, the share has been volatile, peaking at approximately SEK 83.4 in mid-2021, and amounting to SEK 6.9 at its lowest in 2023. Since the listing, the share has risen by roughly 40.0 percent up until the date of this analysis.

The chart below illustrates two clear peaks in the share price. The first came about as a result of expectations following the initiation of three partnerships with global telecom companies to integrate PiezoMotor's micromotors into high-volume applications. The second revaluation occurred in connection with the acquisition of Sensapex. Following these upswings, the share entered an extended downward trend, which was also the case for many other small companies. Our assessment is that the multiple contraction was mainly attributable to a slowdown in communication and progress with telecommunications companies, combined with an initially high valuation of the company. Furthermore, heightened geopolitical uncertainties, rising interest rates and other global factors have impacted valuations of smaller companies, including Acuvi. Despite this, underlying business has developed positively, and Acuvi is now trading at an attractive valuation, which we believe creates interesting opportunities for long-term investors.

Below is a share price trend chart detailing significant business-related news and global events.

Share price trend and significant events



Financial history

Acuvi has a history of high organic net sales growth, driven by a strong position in its niche area of advanced micromotors. However, the company has previously incurred significant losses. The business expanded via two profitable acquisitions in 2021, which not only contributed additional technology but also crucial business volumes that created better conditions for rationalising operating expenses. The inflection point was achieved in 2023, and since then Acuvi has been profitable at an EBITDA level and achieved positive free cash flows. Acquisition-related expenses impacted profitability in 2022, but adjusted for these costs, the Group was also profitable at the EBITDA level.

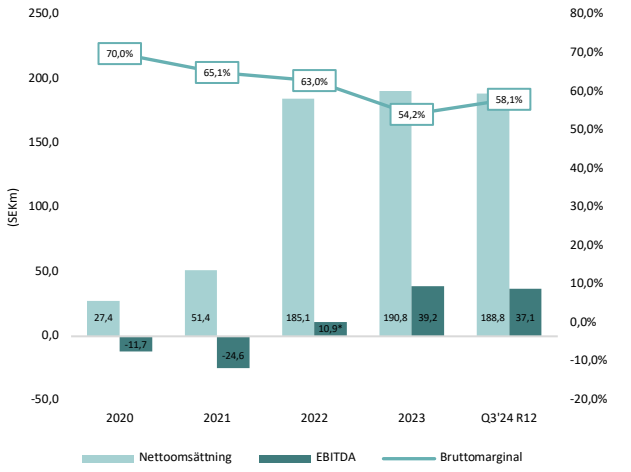
Net sales growth was negative during the January to September 2024 period, which was attributable to a decline in sales within sections of the business that mainly focus on customised products in the US. This customer segment accounts for a large portion of total net sales, which meant that other parts of the business that achieved growth were unable to fully compensate for the decline. On the positive side, the gross margin increased significantly, while operating expenses fell slightly, which contributed to continued healthy profitability at the EBITDA level.

Acuvi has previously adopted K3 recognition accounting and amortised goodwill from acquisitions continually over five years, which is a technical accounting item that affects EBIT but not cash flow. Goodwill amortisation totalled SEK 88.6 million in 2023 and SEK 47.8 million in H1'24. Furthermore, EBITA has only been recognised continually since Q4'23. We have, therefore, chosen to focus on EBITDA as the relevant measure of profitability in this segment (rather than EBITA or EBIT).

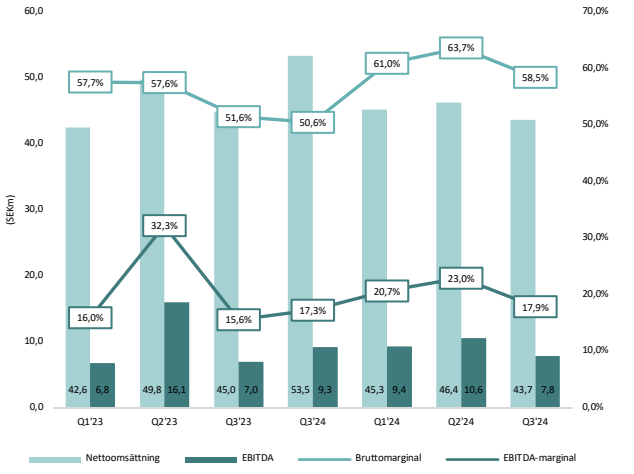
However, the Group switched to International Financial Reporting Standards (IFRS) in Q3'24, which made EBIT a more representative profitability measure for the business and simplified comparisons of Acuvi with other companies[5]. We believe these technical accounting changes better highlight Acuvi as a profitable growth company, which should encourage interest among investors.

The major change from switching to IFRS is that goodwill from acquisitions is no longer amortised continually, but is instead measured annually. Licence-based revenue has also been transferred from net sales to other operating income, which means that net sales and the gross margin appear lower than previously. In addition, leasing costs for rent have been moved from operating expenses to financial expenses. Another change is that capitalised work on own account, which was previously recognised as an income item, now reduces operating expenses. We have made adjustments for these changes for 2023 and 2024 in the charts below in order to clarify the current position.

Financial history, full year



Financial history, by quarter

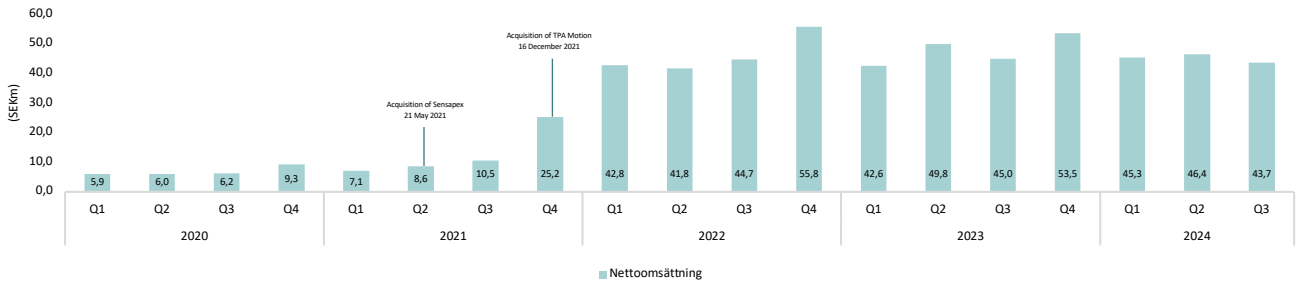


**EBITDA adjusted for acquisition-related costs*

Net sales

Net sales mainly comprise the sale of goods, but also include project-related services. During the 2020–2023 period, net sales grew at a CAGR of 91.0 percent, driven by both organic growth and acquisitions. Currency fluctuations have also made a positive contribution, as sales are mainly conducted in USD and EUR. Acuvi has a high proportion of recurring sales every year, which gives stability to net sales. However, quarterly fluctuations can occur as sales to certain customers are intermittent.

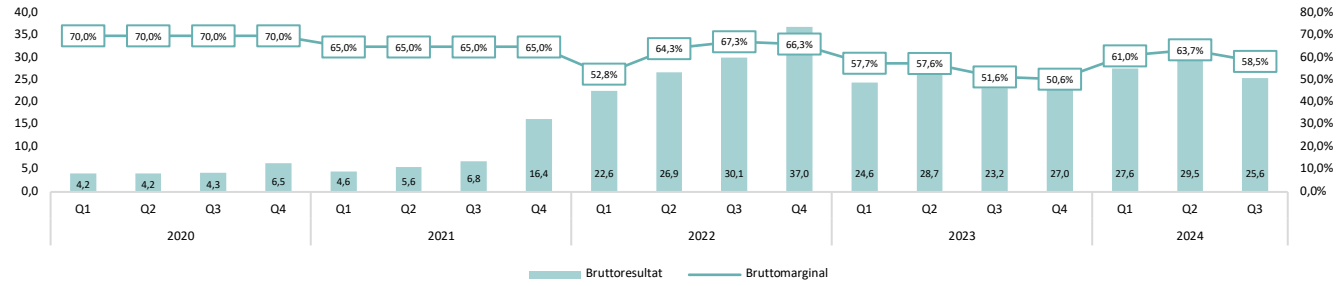
Net sales, quarterly history



Gross margin

The gross margin has varied between 50.6 and 70.0 percent during the same time period, impacted by factors such as the cost of materials, and customer and product mix. OEM standard products is the customer segment that is growing the fastest in terms of percentage, and has the highest gross margin, which entails a positive impact on profitability when the segment accounts for a higher share of net sales.

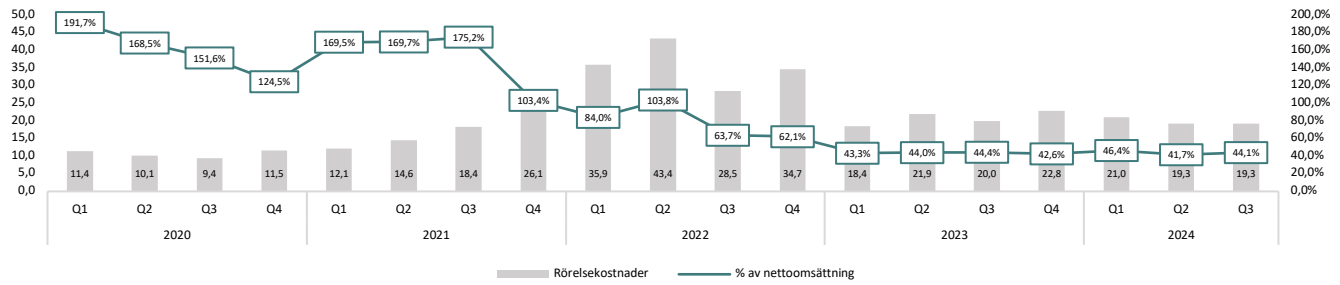
Gross margin, quarterly history



Operating expenses

The largest cost items for Acuvi are personnel costs and other external expenses. Acuvi has implemented measures to streamline the organisation, which has improved the EBITDA margin.

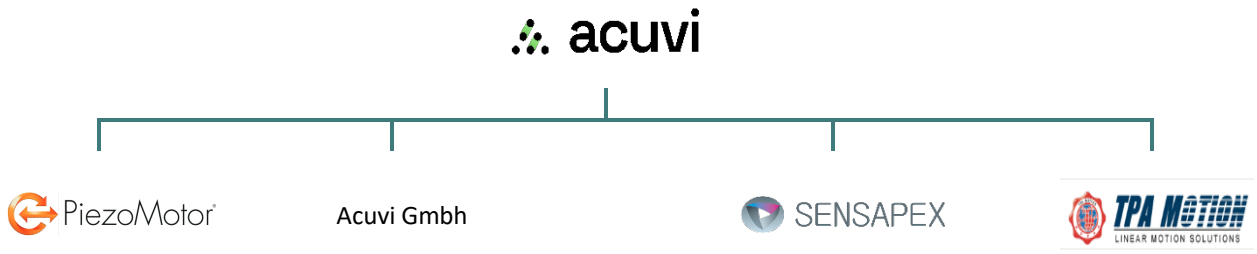
Proportion of net sales



The business

Acuvi is made up of five subsidiaries, with the products offered being largely similar between PiezoMotor Uppsala AB, Sensapex Oy and TPA Motion LLC. All three companies offer various technological solutions that are crucial to automating advanced processes. In addition, the Group includes the sales companies Sensapex Inc in Delaware (US) and Acuvi Inc in Zug (Switzerland).

Organisation



Automation in a robot or machine is based on three basic functions and components, which are detailed below. Each technological component can be compared with building blocks in a LEGO system, that together create a complete system to integrate into the customer's end products.

Motion	**Control and adjustment**	**Monitoring/registering**	**System**
A motor to generate power and motion	Electronics that control and adjust this motion	Sensors that monitor and register position and changes during the process	A complete system to control an automated process

PiezoMotor develops and supplies micromotors based on piezoelectric materials that create movement in automated systems. Individual motors are equipped with sensors, which can be regarded as subsystems. TPA Motion and Sensapex provide complete precision systems that also include electronics and control systems. The Acuvi Group's combined offer includes almost all the components and solutions required to control automated processes with high precision. Acuvi is now working proactively to integrate the Group's various solutions to create a standardised portfolio and joint product platforms, which is expected to boost sales and improve synergies. Meanwhile, production will have a central base in Uppsala in order to harness economies of scale.

On 13 June 2024, Acuvi signed a partnership and royalties agreement with the German company Nanos Instruments, which will mainly expand Acuvi's operations within subsystems[6]. Nanos Instruments is a system integrator specialising in advanced positioning systems based on PiezoMotor's micromotors and built-in control. Their sales are primarily directed at German-speaking countries in Europe.

Acuvi will manufacture, market and sell Nanos' products under the remit of the partnership. Production will be relocated from Germany to Acuvi's plant in Uppsala without the need for additional recruitment, creating operational leverage. At the same time, sales and marketing will be integrated into Acuvi's existing networks in Europe and the US, paving the way for a smoother expansion. The partnership has had an immediate positive impact on Acuvi's sales and profitability, which we will revisit later in this analysis.

Customers

Acuvi has two primary customer segments: industrial customers (OEM) and Life Science Instrumentation. Below is a more detailed description of these customer segments.

Industrial customers (OEM)

Industrial customers integrate Acuvi's products into their OEM systems, or use them as a subcomponent of a larger solution in an end product. Acuvi is often a key supplier of the finished product, and supplies both hardware and software. These customers buy both standard and customised products from Acuvi.

Typically, customers evaluate Acuvi's solutions in conjunction with the development of new products. The development phase varies, but generally, customers reach the commercial phase and regular production within two to three years of initial testing with a starter kit. Once the commercial phase is established, the product life cycle often lasts between 8 and 12 years, generating stable, recurring cash flows. However, the development phase can also generate significant sales, as evidenced by the framework order of approximately SEK 31.0 million over two years that Acuvi won from an Asian customer in the semiconductor industry[7].

	2–3 years	8–12 years
Prototype	Development phase	Commercial phase

A greater proportion of OEM customers results in a more stable order intake, which creates better conditions for Acuvi to plan production and increase profitability. The advantage of standard products is that growth over time is smoother, and gross margins are higher due to economies of scale. Customised products grow incrementally as new projects are designed and begin to be utilised in customers' end products. Note that customised products also include distribution products.

OEM sales are largely driven by customers selling more end products, which represents potential for boosting revenue, but also by the fact that Acuvi is reliant on its customers' success. According to Acuvi, no single customer accounts for more than 8.0 percent of total net sales, meaning that the loss of an individual customer has minimal financial impact[8]. Approximately 80.0 percent of sales are recurring, while the remaining portion is related to the development phase.

Life Science Instrumentation

Life Science Instrumentation (LSI) customers primarily consist of universities, research institutes and advanced laboratories. Although many of these customers are recurring customers, they usually account for intermittent sales that rarely recur on an annual basis. This is because Acuvi sells directly to end customers, the field of application is far more niched and the microscope is often funded via research grants. There are many demands on the sales organisation and to respond to this need, Acuvi has chosen to combine its direct sales with a network of distributors. This strategy allows the company to reach a broader customer base, while satisfying specific needs in this segment.



Product offering

Piezo technology enables movement with just a few components, allowing the motors to be more compact and lighter than traditional alternatives. This makes them simpler to integrate into end products that cannot easily implement standard motors. Another advantage is that piezo motors can cope with movements with precision at the nanometre level, which is often in demand for advanced and exclusive products. To put the level of precision and technology into context, a strand of hair grows by around ten nanometres per second.

Micromotors

The micromotor product portfolio mainly comprises the product platforms Piezo LEGS and Piezo WAVE, along with Nanos' additional product offerings. These product platforms mainly differ in size, power and drive principle. Each platform is available in various strengths and can also be adapted to specific customer requirements to satisfy unique needs.

Product selection: micromotors*



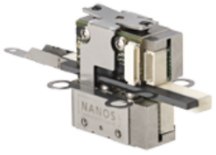
Piezo LEGS

LEGS was the first product platform that Acuvi developed, and is a high-quality solution based on the 'walking principle'. It offers high power and exceptional precision, making it ideal for applications that require considerable accuracy. LEGS accounts for a significant portion of micromotor sales, and has established a strong position within advanced and exclusive applications.



Piezo LEGS

WAVE was the second product platform to be developed, and is a cost-effective, quieter and less powerful motor based on the ultrasonic drive principle. It has also been called LINK and ULTRA in the past. With its high precision, WAVE is specifically adapted for low-power applications and situations where cost-effectiveness is crucial. The platform is currently undergoing a relaunch featuring more powerful motors, which may contribute to future growth.



Encoders (Nanos Instruments)

Nanos Instruments' positioning systems are an extension of the LEGS platform. The positioning systems comprise LEGS motors and integrated encoders. This is a quality product that also has built-in control. Taking over Nanos' product offering had an immediate positive impact on sales of micromotors.

**The product offering is much more wide ranging than what is shown above*

Acuvi's micromotors are chiefly aimed at OEM customers, i.e. industrial companies that integrate the motors into their systems or use them, along with other components, in the manufacture of end products. Most of the company's customers choose standard products but, if needed, Acuvi also offers customised solutions if there is demand and the potential for future volume orders. Advantages of standard products include smoother growth over time, and a gross margin for micromotors that exceeds 70.0 percent.

The significant growth within standard products for micromotors has been a key driver behind overall growth for the OEM standard products customer segment, which has contributed to profitability improvements in Acuvi. We expect this growth to continue increasing the fastest in percentage terms, fuelled by the collaboration with Nanos Instruments, higher order volumes per customer, a high inflow of new customers, an expanded geographical presence in existing markets and synergies between various product platforms.

The relaunch of the WAVE product platform creates an opportunity for the micromotors to be integrated into more cost-sensitive projects and solutions, paving the way for expansion into new fields of application and industries. Acuvi currently manufactures WAVE for tests with selected customers and according to Acuvi, the product has been positively received. If the test results are successful, this could become an additional growth driver.

Starter Kit sales – an indicator of future customer inflows

Acuvi also offers starter kits to potential customers keen to test Piezo LEGS in their system solutions. The starter kit offering has recently been expanded to include Piezo WAVE. In the past, approximately 70.0 percent of customers who evaluated the

components using starter kits chose to implement the solutions in production with Acuvi's products. We are, therefore, of the opinion that sales of starter kits are a strong indicator of future customer inflows and growth in sales.

Starter kits

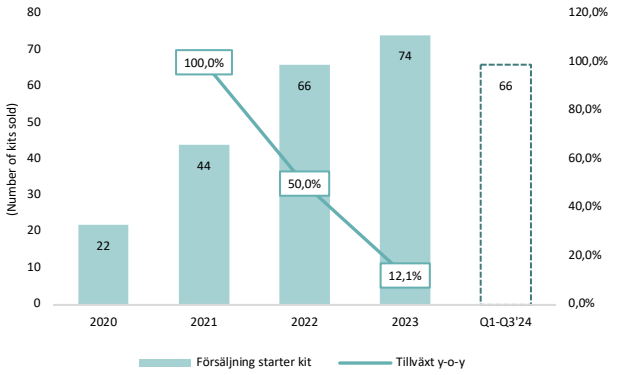


Starter kits cost between SEK 7,000 and 8,000 and contain all the necessary components to enable customers to evaluate the technology. The kit consists of a micromotor, a control unit, a lead cable and power supply. Sales volumes of starter kits show that an increasing number of customers are opting to test Acuvi's solutions, which is a strong indicator of future sales opportunities. In the past, approximately 70.0 percent of customers who evaluated the technology chose to implement the components in their production.

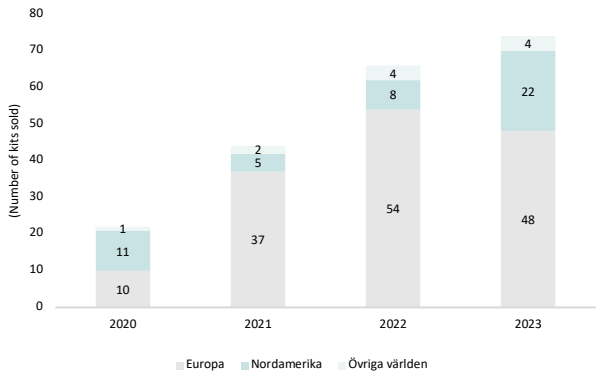
It usually takes around 2–3 years for customers to progress from ordering the starter kit to the commercial phase and regular production. However, the development and evaluation phase can vary, taking less or more time depending on the complexity of the project. Sales of starter kits have increased significantly, which bolsters our conviction that Acuvi is well positioned to continue delivering high sales growth within standardised micromotors.

According to Acuvi, sales of LEGS in Europe currently far outstrip sales figures for the US. It is interesting to note that the US is beginning to catch up with Europe in terms of the number of starter kits sold, which implies that the sales gap may lessen over time. We believe that this further highlights growth opportunities for micromotors.

Sales of LEGS starter kits



Geographical breakdown



System solutions

The micromotors offer a cost-effective solution for customers that have the in-house expertise to integrate components into an OEM system. In the semiconductor industry, where precision is crucial, most customers choose to manage the integration process themselves. However, many customers lack the capability to integrate components effectively, resulting in demand for complete systems. This creates an opportunity for Acuvi to provide end-to-end solutions, while bringing significant added value to customers.

The product portfolio for complete systems mainly comprises the Acuvi SPS and Acuvi LPS product platforms, along with Nanos' additional offering. All product platforms include associated electronics and control systems. These product platforms mainly differ in terms of size, power and drive principle. The products are available in several different sizes and are usually adapted to customers' specific needs.

Product selection: complete systems*



Acuvi SPS series

The SPS series is a system solution based on the ZERO DRIFT piezo technology, which enables extremely accurate movement control and is specifically designed to be integrated into microscopes. Acuvi supplies all additional components for microscopes, with the exception of optics and image processing units. The products in the SPS series can also be purchased separately for standalone installations and upgrades. SPS accounts for a significant portion of sales within Life Science Instrumentation, and an expansion of the offering to the OEM market is under way to further boost growth.



Acuvi LPS series

The LPS series is a system solution based on Piezo LEGS technology that delivers exceptionally high power and precision, making it ideal for advanced precision applications. The series accounts for a significant portion of sales of system solutions within OEM, and is mainly used in medical technology, diagnostics and robotics, for example surgical robots. Furthermore, there is potential to broaden the use of the LPS series within robotics, automation and other high-performance applications.



Acuvi LPS (Nanos Instruments)

Nanos Instruments' system solution is based on an extension of the Piezo LEGS technology and features exceptionally high power and precision, making it ideal for advanced precision applications. Taking over Nanos' product range had an immediate positive impact on sales of system solutions.

**The product offering is much more wide ranging than what is shown above*

Acuvi's high-precision systems are used in combination with microscopes, enabling extremely accurate control of small instruments such as pipettes and needles for taking samples. These systems are mainly used within Life Science applications, where accurate movements are crucial. Acuvi is also working on expanding the field of application by means of minor modifications, making the system adaptable for instruments that are used in IVF, for example. The adaptations expand the company's customer base and increase sales potential.

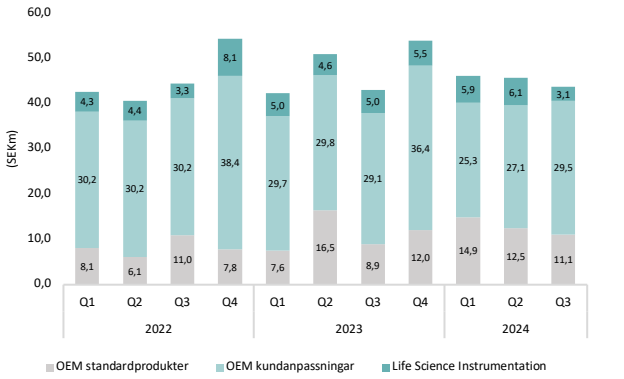
Other high-precision systems are aimed at OEM customers. The majority of customers choose customised products, resulting in extended sales cycles compared with standard products. On the other hand, customised products increase entry barriers, as a change of system is associated with costs and lost time for customers. The addition of Nanos Instruments' product range is expected to boost sales of standard products, which may help speed up the growth rate for system solutions.

System solutions generate significantly higher sales value per unit compared with micromotors, and have good profitability, with a gross margin of roughly 50.0–55.0 percent. The business segment also has a longer history of profitability, which increases stability for Acuvi. However, the gross margin for system solutions will likely fail to achieve the same levels as micromotors, as electronic components account for a larger proportion of the purchasing costs. Given the historical development and future prospects, we believe that growth within system solutions will continue, albeit at a slower pace compared with micromotors.

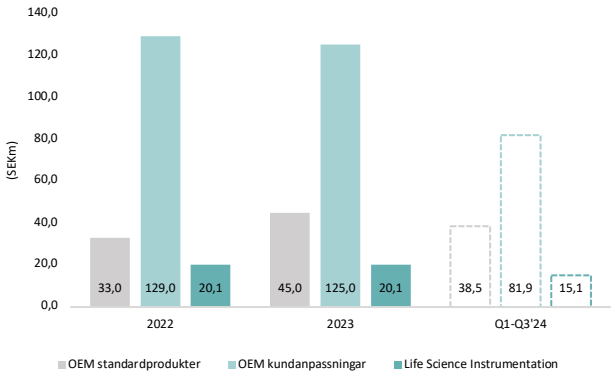
Development customer segment

Acuvi's net sales are distributed between OEM standard products, OEM customised products and LSI. Other revenues are derived from a patent and collaboration agreement with the German company, Physik Instrumente, which was signed in 2017. The agreement expires in Q1'25.

Net sales per revenue stream, quarterly



Net sales per revenue stream, full year

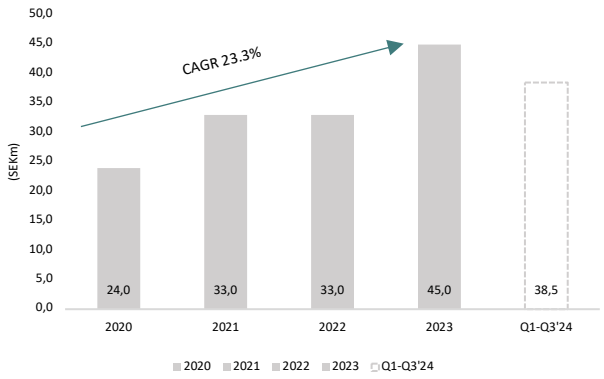


OEM standard products is the revenue stream that has experienced the highest growth, followed by LSI and OEM customised products. We believe that this trend will continue, as we see several growth drivers ahead within OEM standard products, including the partnership with Nanos Instruments, increased order volumes per customer, a high inflow of new customers, expanded geographical presence primarily in Germany and the US, and new product launches.

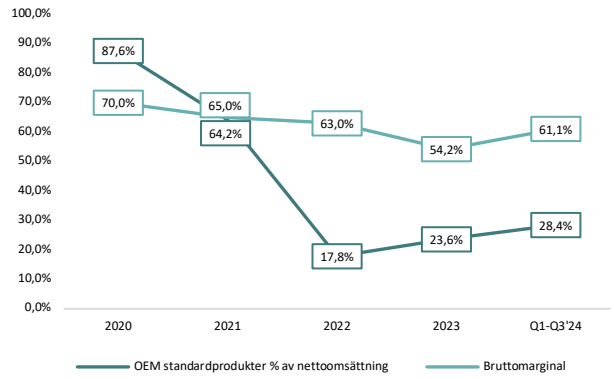
Sales within LSI saw a significant decline during the Covid-19 pandemic, and have since struggled to re-establish their previous annual growth rate of roughly 15.0 percent. This is mainly due to the tough market situation making it difficult for customers to acquire capital. However, new distribution agreements, product launches and fields of application are boosting sales potential in the longer term. Sales within OEM customised products fell in 2023 and so far in 2024, but according to Acuvi, activity in the area has begun to recover.

In light of the higher growth rate and gross margin within OEM standard products, we expect Acuvi's profitability to gradually improve as this customer segment accounts for a higher proportion of total net sales. In the past, the gross margin has risen in line with OEM standard products accounting for a greater proportion of revenue, which is clearly illustrated in the chart below on the right. The gross margin was higher in 2020 and 2021, as sales only comprised the LEGS platform, which has a higher gross margin.

OEM standard products



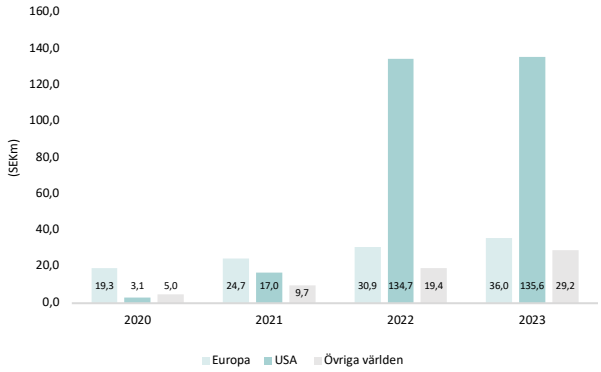
% of net sales and gross margin



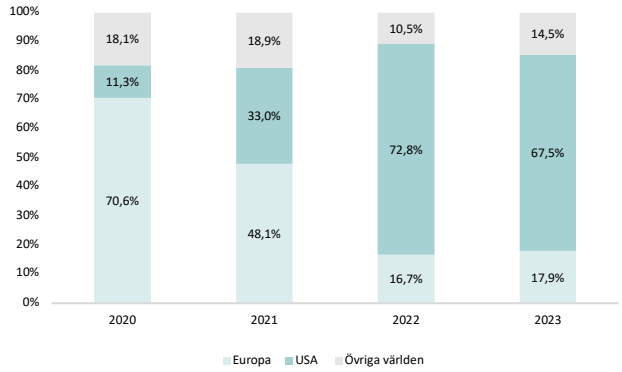
Geographical breakdown of revenue

Acuvi's net sales are also distributed between Europe, the US and the rest of the world. The company's products are sold in over 70 countries, generating globally diversified revenue. The US is the largest market, followed by Europe and the rest of the world. The acquisition of TPA Motion boosted exposure to customised products in the US, which meant that in 2022 the US overtook Europe as the largest market. All markets grew in 2023, demonstrating that there is broad demand for Acuvi's products.

Net sales by geographical area, full year



% of net sales



Expanded presence in Germany and the US

Acuvi is entering an expansive phase, with a specific focus on consolidating its presence in the DACH region (Germany, Austria and Switzerland), and in the US. Another market of interest is Asia, where Acuvi has achieved an increase in sales and order volumes. Acuvi's market share remains relatively low overall, indicating that there are good opportunities for continued growth in these major geographical markets.

Sales of Acuvi's micromotors in the US are currently limited, despite it being the largest market. As mentioned previously, the US is in the process of catching up with Europe in terms of the number of starter kits sold, suggesting that there is potential for closing the sales gap in the long term. Acuvi estimates that were the markets to equalise, it could generate approximately SEK 30.0 million in increased sales revenue from current levels, which highlights the growth potential in existing markets.

In order to harness growth opportunities that exist and respond to the competition, Acuvi intends to further strengthen the sales organisation and step up marketing initiatives in the DACH region and the US. In Q3'24, Acuvi expanded the sales organisation in the US market and added a resource to integrate the Group's solutions under a single portfolio, as well as shared product platforms on the website[9]. Looking ahead, Acuvi also plans to bring in additional engineers to the US market to establish a closer relationship with customers and drive sales.

The partnership with Nanos Instruments was an initial step towards boosting sales in the DACH region. It is easier for Acuvi employees to travel to Germany compared with the US, which initially entails less of a need to recruit additional resources. In the long term, Acuvi plans to recruit local engineers for the German market as well, which may help serve customers to a greater extent.

Partnership with Nanos Instruments

On 13 June 2024, Acuvi entered into a partnership and royalty agreement with the German company Nanos Instruments. Nanos is a system integrator specialising in advanced positioning systems, with annual sales of approximately SEK 25.0 million. Acuvi will manufacture, market and sell Nanos' products under the remit of the partnership.

It was anticipated that taking over Nanos' product range would increase Acuvi's net sales by around SEK 12.0 million and EBIT by roughly SEK 6.0 million in 2024. Furthermore, the partnership was expected to boost net sales by around SEK 25.0 million and EBIT by roughly SEK 12.0 million in 2025. In the long term, the transaction is expected to contribute additional growth through marketing and sales via Acuvi's established presence in Europe and the US. The collaboration was established with the aim of significantly expanding Nanos Instruments' operations.

Joint forecasts with Nanos Instruments

(SEKm)	**2024**	**2025**
Net sales	12.0	25.0
EBIT	6.0	12.0

Since the takeover, the partnership with Nanos Instruments has added roughly SEK 4.0 million to net sales in Q2'24 and Q3'24, including SEK 3.3 million from Nanos Instruments' products and SEK 0.7 million in add-on sales from Acuvi's previous portfolio. This means that there is still around SEK 8.7 million in expected sales to be generated in Q4'24 if the forecast for the year is to be achieved. However, according to CEO Olof Stranding, order placements from Nanos Instruments' customers have been slower than expected, suggesting that the assessment made by Acuvi will not be achieved for 2024[9]. We have, therefore, lowered our expectations for what the partnership will generate for the full year.

Meanwhile, Mr Stranding was keen to emphasise that Nanos Instruments has not lost any sales from its customers since the partnership was launched. However, several customers have expressed a desire to meet with Acuvi before proceeding with their orders. Nanos Instruments has four main customers who together account for roughly 75.0–80.0 percent of total net sales. Acuvi has so far met with two of these customers and plans to meet the remaining two before year-end. This indicates that sales of Nanos Instruments' products will increase in 2025, although it is currently difficult to estimate the extent.

Large orders strengthen company's growth prospects

Acuvi won a number of significant orders from industrial customers in 2024. These orders are expected to have a positive impact on the company's sales, and demonstrate rising demand from existing customers. The agreements also strengthen our theory that the size of the orders may well increase per customer over time. Overall, the orders highlight the fact that Acuvi is well positioned for growth over the coming period.

In November 2022, Acuvi secured a framework order from an Asian customer operating within the semiconductor industry, with a total value of approximately SEK 24.0 million (based on the exchange rate at the time)[10]. The order included three deliveries, the first two of which were implemented between December 2022 and December 2023, and the third of which was delivered in 2024. In August 2024, Acuvi announced a supplementary order within the existing framework order valued at an additional SEK 7.0 million in Q4'24, thereby consolidating the relationship with the Asian customer[5]. The framework order will thereby generate approximately SEK 31.0 million in income over two years.

OEM standard products

Date	Customer	Industry	Delivery	Order value
7 August 2024	Asian customer	Semiconductor industry	Q4'24	SEK 7.0 million

In April 2024, Acuvi secured an order with a total value of about SEK 12.0 million from a US customer operating in the Advanced Industrial[11] sector. The order is expected to be fully delivered in 2024. Follow-up orders of SEK 7.0 million ensued from Acuvi's largest customer, Intuitive Surgical, with delivery scheduled for Q1'25[12]. The order was later expanded to include Q2'25, and according to the current USD exchange rate the value amounted to roughly SEK 20.0 million[13]. The collaboration with Intuitive Surgical is expected to contribute revenue of approximately SEK 27.0 million in 2024, which will further increase to SEK 40.0 million in 2025. This means that the orders from the Group's largest customer are expected to increase by 48.1 percent.

OEM customisations

Date	Customer	Industry	Delivery	Order value
16 April 2024	US customer	Advanced industrial	2024	SEK 12.0 million
13 Aug 2024	Intuitive Surgical	Medical technology	Q1'25	SEK 7.0 million
25 November 2024	Intuitive Surgical	Medical technology	Q2'25	SEK 13.0 million

Strategic collaboration agreement

In addition to the above-mentioned orders and OEM collaboration agreements, in 2024 Acuvi also concluded a collaboration agreement with Thorlabs Inc. for the distribution of the company's product offering within Life Science Instrumentation[14]. Thorlabs Inc. is a leading designer and manufacturer of photonics equipment for biomedical applications. It is particularly interesting that the company has an e-commerce platform for engineers, with a strong presence in the US, Europe and China.

The collaboration agreement supplements the existing collaboration and distribution agreement with Nikon in the US, and is expected to improve conditions for reaching a broader, global customer base. The distribution agreement with Thorlabs Inc. is part of Acuvi's strategic initiative to partner with significant and leading players in selected markets.

Life Science Instrumentation

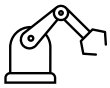
Date	Partner	Type	Binding	Markets
2 April 2024	Thorlabs Inc.	Distribution	Non-exclusive	Global

Sectors

Acuvi's products are generally used in industries where their technology's precision, compact size and reliability offer substantial advantages. Acuvi's largest customer segments in terms of sectors are medical technology and the semiconductor industry, which together account for roughly 70–80 percent of net sales. Other industries include industrial automation, research and optics. It is our understanding that Acuvi is a reliable supplier, which should increase the likelihood of becoming an integral part of existing customers' new projects. In the long term, Acuvi should also be able to expand into new sectors.

Medical technology

Reliable products and high precision are often crucial in medical technology. Acuvi's products are used in a number of different applications in medical technology, including medical equipment, surgical instruments and surgical robots, diagnostic systems, pharmaceuticals and drug delivery, and in rehabilitation and medical aids.



Semiconductor industry

In the semiconductor industry, there are requirements for powerful and precise systems in areas such as lithography, wafer/flatness inspection and control of radiation. Acuvi's products are integrated into machines that are used in the production of semiconductors.



Industrial automation

More stringent movement requirements in manufacturing processes have driven developments in industrial automation. Acuvi's products are used to help customers introduce a higher degree of automation in their production.



Life Science Instrumentation

In Life Science and research, there is demand for extremely high precision positioning. Acuvi's products are used to help customers with analysis and cell processing. Applications extend across several fields, including cell and tissue analysis, materials science and in vitro fertilisation (IVF).



Optics

In optics, there is a need for higher precision to ensure the correct focus and image quality in optical systems. Acuvi's products are used to analyse patient samples in digital image processing systems. The technology also has the potential to be used in standard consumer products, such as mobile cameras.



Telecommunication infrastructure/5G

Motor control within 5G is used to adjust filters in base stations, making them flexible for several frequencies and standards. Small motors allow for frequencies to be adjusted remotely, which cuts costs and makes it faster and easier to implement network upgrades.

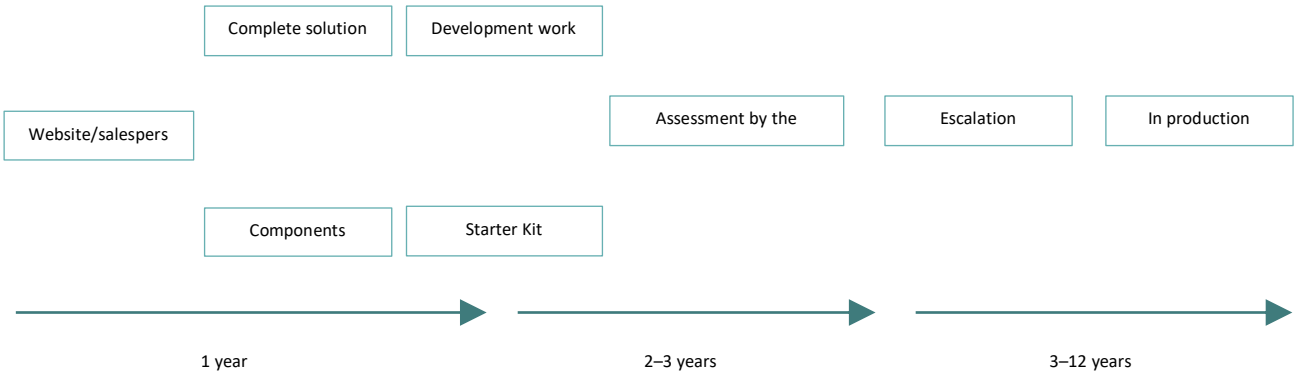


Sales process

Acuvi's sales process is extensive and comprises a number of stages. Initially, customers often come into contact with Acuvi via the Group's own sales representatives or website. Following initial contact, customers either choose to explore individual components or an end-to-end solution, depending on their needs. The sales process differs depending on whether Acuvi is providing customised solutions or if customers buy components and construct the solution autonomously or with other partners.

If a customer is interested in specific components, the evaluation often starts with them buying a starter kit. If a customised solution is selected, Acuvi begins development work based on customers' specific needs and requirements. Once customers have received their starter kit or the customised solution, this is followed by an evaluation phase that usually lasts between two and three years. During this period, customers assess whether Acuvi's products satisfy their requirements for integration into future products.

In the past, approximately 70.0 percent of customers who evaluated the components in starter kits chose to scale up the solutions in production with Acuvi's products, generating stable, recurring cash flows for Acuvi. However, volumes vary in size depending on the scale of the projects.



Introduction to motors

Motors transform energy into movement and come in many forms depending on how they are driven and the type of movement they create. They are therefore usually categorised based on the drive principle, type of movement and mechanical properties.

Drive principle

The most common drive principles in motors are based on different physical phenomena that transform energy into mechanical movement. The use of electronics is the most common drive principle, including electromagnetic motors (the most common type), piezoelectric motors and electrostatic motors. Electromagnetic motors include AC-motors and DC-motors. Below is an overview of the most common drive principles.

Electromagnetic motor	Uses electrical energy to produce motion
Piezoelectric motor	Uses electrical current and piezoceramic materials to produce motion
Electrostatic motor	Uses attraction and repulsion between electrically charged surfaces to produce motion
Ultrasonic motor	Uses ultrasonic vibrations to produce motion
Hydraulic motor	Uses fluid pressure to produce motion
Pneumatic motor	Uses compressed air to produce motion

There are a number of different factors that determine the choice of drive principle. The drive principles best suited to various applications are detailed below.

Electromagnetic motor	Versatile, with a broad range of applications
Piezoelectric motor	For high precision and small movements
Electrostatic motor	For micromechanical systems and experimental applications
Ultrasonic motor	For quiet and precise movements
Hydraulic motor	For heavy industrial use
Pneumatic motor	For safety-sensitive and/or industrial tools

Type of movement

The motors can also be categorised based on the type of movement. The most common type of movement for motors is rotating movement, as it is efficient, versatile and can easily be transformed into mechanical movement. Below is an overview of the various movement types and how they work.

Rotary motors	Generates a circular movement
Linear motors	Generates direct, linear movement instead of rotation
Stepper motors	Rotates in precise, small steps

Rotary motors, linear motors and stepper motors are used in different areas of application depending on the type of movement and level of precision required. Below are some examples of areas of use.

Rotary motors	Used in applications requiring rapid, continual rotation
Common areas of application	Automotive industry, domestic appliances, machine tools, industrial machines
Linear motors	Used in applications requiring linear motion
Common areas of application	Robotics, manufacturing processes, medical equipment, production lines, trains and transport
Stepper motors	Used in applications requiring precise and small movements

Common areas of application	Surgical instruments, cameras, CNC machines, 3D printers

Introduction to piezo technology

As previously mentioned, automation in a robot or machine requires movement, control and regulation of motion, as well as monitoring and registration to determine the exact position of the motion. The most common source of power for producing motion in an automation process is electromagnetic motors, a type of electric motor. Traditional electromagnetic motors have been around for several centuries and are tried and proven in many fields of application. However, depending on the need for precision, space, movement path and the environment, other types of technologies may be required, such as piezo technology.

Piezoelectric motors

Piezoelectric motors consist of piezoceramics in several layers, a stator, rotor, as well as electronics. These motors transform electricity into motion by the piezoelectric material changing form as electric current passes through it. Small vibrations are generated as the material rapidly expands and contracts, causing the rotor to create either linear or rotary motion.

Piezoelectric motor based on the walking drive principle



The first pair of legs maintains contact with the rod and moves to the right. The second pair retracts, while their tips bend to the left.



The second pair now extends and repositions on the rod, moving their tips to the right. The first pair retracts and their tips bend to the left.



The second pair of legs moves to the right, while the first pair begins to extend and move up towards the rod.

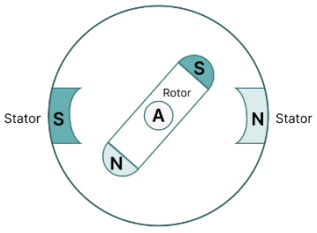


All four legs are electrically activated.

Introduction to electromagnetic motors

Electromagnetic motors are the most common type of motor and include both alternating current (AC) and direct current (DC) motors. These motors often comprise a static magnet, a stator, rotor and an electromagnetic coil. Electromagnetic motors transform electricity into motion using electromagnetic fields. When an electric current flows through the coil it forms a circular magnetic field around it. This magnetic field then interacts with another magnetic field, causing the rotor to rotate and produce motion.

Electromagnetic motors



Electromagnetic motors often comprise a static magnet, a stator and rotor and an electromagnetic coil. Electricity is transformed into motion using electromagnetic fields. When an electric current flows through the coil it forms a circular magnetic field around it. This magnetic field then interacts with another magnetic field, causing the rotor to rotate and produce motion.

Pros and cons of these technologies

Piezoelectric motors have several advantages compared with electromagnetic motors in terms of their precision and compact design. The ability to create extremely small and precise movements makes these motors ideal for applications that require extreme accuracy. Piezo technology can produce movement on a micrometre or nanometre scale, which electromagnetic motors have difficulty achieving without complex systems. For example, Acuvi's piezoelectric linear motors have a resolution of almost 0.6 nanometres, and customers have achieved accuracy levels of 5 nanometres[15]. Piezoelectric motors can also start and stop almost immediately, which is significant for products where control of movements is essential.

Furthermore, piezo technology eliminates the need for additional components, allowing for a more compact and lightweight design. Piezoelectric motors can be integrated into small spaces, enabling the miniaturisation of technology. They also operate without any moving magnetic parts, making them suitable for environments with strong magnetic fields, thereby creating opportunities for the automation of processes that previously could only be carried out manually.

However, piezoelectric motors have certain disadvantages compared with electromagnetic motors in terms of power and speed over long periods. For instance, they cannot generate the same amount of power as electromagnetic motors, which makes them less suitable for applications requiring heavy loads. Furthermore, the range of movement is smaller, which limits their use in applications involving large movements or continual rotation. Piezoelectric motors are also often more expensive to manufacture, as the technology requires specialised materials, making electromagnetic motors more cost-effective in volume applications.

Overall, piezoelectric motors are preferable for applications where precision and compactness are crucial. However, they are less powerful, have a smaller range of movement and can be more expensive to manufacture than electromagnetic motors. This limitation often confines them to niche applications in medical technology, robotics, optics, measuring instruments, telecommunications and defence. Conversely, electromagnetic motors are most suitable for the automotive industry, industrial automation, consumer electronics, energy production, transport and logistics and building and design.

	Piezoelectric motors	Electromagnetic motors
Precision down to nanometre level	✓	✗
Eliminates the need for additional components	✓	✗
Can be made compact and light	✓	✗
Works alongside magnetic fields	✓	✗
Motion can be directly linear	✓	✗
No complexity in vacuums	✓	✗
Highest power	✗	✓
Greatest range of movement	✗	✓
Not affected by temperature changes	✗	✓
Lowest manufacturing cost	✗	✓
Longest lifespan	✗	✓

Market

Electric motors

The global market for electric motors is vast, particularly considering their broad use in society. Electric motors are available in almost all types of applications and sectors, making demand consistently high. The global market for electric motors is estimated at around USD 157.5 billion and is expected to rise at a CAGR of roughly 7.2–7.3 percent. The market includes both large and small electric motors, irrespective of drive principle, type of movement, mechanical properties and area of application.

Global market for electric motors[16-21]

	Time period	CAGR
GlobeNewswire	2022–2030	6.5%
Grand View Research	2024–2030	8.5%
Future Market Insights	2024–2034	6.6%
Fortune Business Insights	2024–2032	7.6%
Custom Market Insights	2022–2030	7.0%
Polaris Market Insights	2024–2032	7.3%
Average		**7.3%**
Median		**7.2%**

Micromotors

The market for electric motors includes the market for micromotors. The global market for micromotors is estimated at around USD 45.2 billion and is expected to rise at a CAGR of roughly 6.4–6.6 percent. The AC segment comprised around 70 percent of the market in 2023, illustrating the broad use of electromagnetic motors.

The combined Asia and the Pacific Rim region is expected to be the fastest growing region, followed by the geographical markets of the US, Canada and Germany. Growth factors include interest in miniaturisation, heightened demand in medical technology, progress within the automotive industry, the introduction of automation and robotics and rising demand for electric vehicles. It is interesting to note that piezoelectric motors are being highlighted as an opportunity to increase market value for micromotors, owing to the technology being used to overcome barriers.

Global market for micromotors[22-27]

	Time period	CAGR
Market and Markets	2023–2028	8.8%
Grand View Research	2023–2030	6.2%
Precedence Research	2024–2033	6.7%
Custom Market Insights	2024–2033	5.2%
Data Bridge Market Research	2024–2031	6.2%
Market Maven Insights	2024–2031	6.7%
Average		**6.6%**
Median		**6.4%**

Piezoelectric motors

The market for micromotors includes the market for piezoelectric motors. The global market for piezoelectric micromotors is estimated at around USD 2.5 billion and is expected to rise at a CAGR of roughly 6.5–6.6 percent. North America, Asia and the Pacific Rim together account for roughly 60.0 percent of the global market, and demand is expected to exceed the global average. This indicates that Acuvi's market share is low and that there are good opportunities for continued growth in these major geographical markets.

Global market for piezoelectric micromotors[28-30]

	Time period	CAGR
Fact MR	2020–2030	4.0%
Industry Growth Insights	2022–2030	6.5%
The Insight Partners	2021–2028	7.9%
Market Research	2024–2031	8.1%
Average		**6.6%**
Median		**6.5%**

Piezoelectric sensors

The global market for piezoelectric sensors (motors, transducers, actuators, generators) is estimated at around USD 6.1 billion and is expected to rise at a CAGR of roughly 6.6 percent. North America, Asia and the Pacific Rim are expected to account for a significant future share of revenue here too.

Global market for piezoelectric sensors[31-32]

	Time period	CAGR
Research Nester	2024–2036	7.0%
Allied Market Research	2021–2030	6.2%
Average		**6.6%**
Median		**6.6%**

Piezoelectric devices

The market sources above are somewhat dated and few in number. We have therefore opted to supplement them with the total market for piezoelectric devices in order to offer a broader insight into the market. The global market for piezoelectric devices is estimated at around USD 31.7 billion and is expected to rise at a CAGR of roughly 6.9–7.1 percent. Piezoelectric motors are expected to increase at a high, single-digit CAGR during the forecast period. Asia and the Pacific Rim are expected to experience the fastest growth in percentage terms.

Global market for piezoelectric devices[33-38]

	Time period	CAGR
Market and Markets	2023–2028	7.0%
GlobeNewswire	2023–2033	7.2%
Street Insider	2024–2031	6.9%
Polaris Market Insights	2022–2030	5.7%
KBV Research	2022–2028	7.1%
Fortune Business Insights	2023–2030	7.4%
Average		**6.9%**
Median		**7.1%**

Market trends for piezo technology

Growth drivers

The underlying market for piezoelectric alternatives is fuelled by automation and miniaturisation, which are facilitated by technical advances. Automation means that a machine or technology carries out the work. It can also be defined as the introduction of stages in a process that allows it to run largely on its own.Numerous products and processes include elements of automation, such as home electronics, machines, manufacturing processes, medical equipment and vehicles. Automation has a considerable impact on the way people work and live their lives. It also helps companies manage workflows and business processes, enabling them to allocate resources more efficiently.

Automation is continually being developed, with one of the biggest drivers being the miniaturisation of devices. Miniaturisation allows components to be made smaller without affecting their power, enabling more components and functions to be integrated into smaller spaces. This, in turn, overcomes design limitations and increases opportunities for automation in applications where small dimensions are key. Miniaturisation thus allows new fields of application and designs that were previously inconceivable due to weight and size. Both automation and miniaturisation are global megatrends expected to fuel the need for piezoelectric products.

Technological advances	Automation	Miniaturisation

Limitations

The market for piezoelectric products also faces limitations that can hinder its growth. These challenges mainly include the high cost of materials, the emergence of alternative materials and a shortage of qualified personnel. For instance, piezoelectric materials are often more expensive, making it harder for manufacturers to compete, particularly in cost-sensitive products and sectors. High initial costs and a lack of awareness of the benefits can impede market growth.

Furthermore, the emergence of alternative materials can pose a threat to piezoelectric products, particularly if their performance properties—such as higher temperature resilience—are superior. If the alternative materials are also more cost effective and readily available, this can divert investments away from piezoelectric products, thereby impacting growth for existing companies in the market.

However, the lack of qualified personnel in the field is expected to be the biggest challenge capable of holding back market growth for piezoelectric products. A growing need for piezoelectric materials creates a corresponding demand for more engineers, researchers and developers with specialised expertise. If this need for expertise cannot be satisfied, it could lead to delays in research, development and manufacturing processes, which may limit market share for piezoelectric devices.

High cost of materials	Emergence of alternative materials	Lack of expertise

Competition

Acuvi faces competition from manufacturers of traditional electromagnetic micromotors, as well as from other companies developing and producing micromotors and precision systems based on piezoelectric materials.

Electromagnetic competitors

Electromagnetic products are best suited for applications requiring high power and speed, a substantial range of movement, heavy load capacity, continual rotation, cost-effectiveness and a long lifespan. These properties make them particularly competitive in the automotive industry, industrial automation, consumer electronics, energy production, transport and logistics and building and design. We believe that Acuvi may currently have difficulty competing in these specific areas of use. However, the successful launch of Piezo WAVE may strengthen Acuvi's position and create opportunities to increase market share in this segment.

At the same time, electromagnetic products have limitations when it comes to performing extremely small and precise movements. They are also less suitable for use in tight spaces and in environments with magnetic fields or vacuums. Therefore, we conclude that electromagnetic products do not pose a significant threat to fields of application where precision and compactness are crucial. In these sectors, the primary competition instead comes from other manufacturers of piezoelectric products.

The market for electromagnetic products is fragmented and includes both local and global manufacturers. The following is an overview of electromagnetic manufacturers, both privately owned and listed companies.

Privately owned competitors

Our summary below states that Anaheim Automation, Arc Systems Inc, Bühler Motor, Faulhauber Group, Globe Motors and Mclennan Servo Supplies are active within similar geographical markets and sectors to Acuvi. We are of the opinion that these manufacturers of electromagnetic products may compete with Acuvi to some extent in its focus markets and sectors. However, we consider this competition to be manageable.

Privately owned competitors

	Country	Comments
ABShot Tecnics	Spain	Manufacturer of micromotors for projection equipment
Anaheim Automation	USA	Manufacturer of electric stepper motors and drive systems
Arc Systems Inc	USA	Manufacturer of high-performance electric motors for military and industrial applications
Arun Microelectronics	UK	Developer of precision systems, mainly within industry
Asmo	Japan	Manufacturer of electromagnetic micromotors for the automotive industry
Bühler Motor	Germany	Specialises in customised motor solutions for medical technology and the automotive industry
Citizen Micro	Japan	Developer of electromagnetic micromotors for consumer electronics
COMSOL	USA	Developer of software for simulation of electromagnetic systems and motors
Constar Micromotor	China	Manufacturer of electromagnetic micromotors for various industrial applications
Crouzet Automatismes	France	Manufacturer of automation and control equipment including micromotors
Faulhauber Group	Germany	Manufacturer of electromagnetic micromotors and drive systems for medical and robot applications
Globe Motors	USA	Manufacturer of electromagnetic micromotors and fans for military and commercial markets
Kin Yat Holdings	China	Manufacturer of electromagnetic products, including small motors and devices
Lunar Motors	China	Manufacturer of electromagnetic micromotors and precision systems in consumer electronics
Maxon Motor	Switzerland	Manufacturer of electromagnetic micromotors for precision applications such as aviation and medical equipment
Mclennan Servo Supplies	UK	Manufacturer of electric stepper motors and servo motor solutions within medical technology, instrumentation and laboratory equipment
MITSUBA Corporation	Japan	Manufacturer of electromagnetic motors and systems for the automotive industry
Oriental Motor	Japan	Manufacturer of electromagnetic micromotors and stepper motors for industrial applications
Risun Expanse	China	Manufacturer of electromagnetic motors for various industries, including the automotive and household sector
Robert Bosch	Germany	Manufacturer of vehicle components and technologies, including electric motors
Telco Sensors	India	Manufacturer of electromechanical systems and small motors for industrial automation
TMEIC	Japan	Manufacturer of electric motors and drive systems for industrial automation
Wellings Holdings	China	Manufacturer of small motors for consumer electronics and domestic appliances
Zhengke Electromotor	China	Manufacturer of electromagnetic motors for the consumer and industrial markets.

Listed competitors

Allient, formerly Allied Motion Technologies, manufactures electromagnetic motors, drive systems and automation solutions for the aviation and defence industries, industrial applications, medical technology and the automotive industry. AMETEK is a global operator that develops automation solutions for aviation and defence, industrial automation, medicine and healthcare and energy production. Denso Corporation is one of the world's largest manufacturers of products for the automotive industry, including systems for motor control, climate control, electric powertrains and sensors for self-driving vehicles.

Johnson Electric Holdings is a global manufacturer of electromagnetic motors used in the automotive industry, medical technology, consumer electronics, construction engineering and industrial applications. Mabuchi Motor specialises in micromotors for consumer electronics, vehicle components, industrial applications and domestic appliances. Their motors are found in everything from cameras and mobile phones to domestic equipment and vehicle components, such as electric windows.

Maxon Motor makes electromagnetic high-precision motors and drive systems that are used in medical technology, aerospace and robotics. Minebea Mitsumi produces micromotors, sensors, electronic devices and mechanical components for the automotive industry, IT and consumer electronics, aerospace and medical technology. Finally, Nidec Corporation is a global manufacturer of electromagnetic micromotors for various industrial applications such as hard disks, ventilation systems, automotive and robotics.

These manufacturers may represent a degree of competition for Acuvi within certain focus areas and sectors, particularly Allient, AMETEK, Johnson Electric Holdings, Minebea Mitsumi and Nidec Corporation. These operators are global leaders with strong brands and broad product portfolios. However, it is important to emphasise that their primary focus is on electromagnetic motors, while Acuvi retains its competitive advantages within precision applications where requirements for compactness and accuracy are key.

Listed competitors

	Country	Marketplace	Comments
Allient	USA	Nasdaq	Manufacturer of electromagnetic motors within several different sectors
AMETEK	USA	New York	Manufacturer of electromagnetic and piezoelectric motors within several different sectors
Denso Corporation	Japan	Tokyo	Manufacturer of electromagnetic motors and components for the automotive industry
Johnson Electric Holdings	China	Hong Kong	Manufacturer of motion subsystems and motors for various industrial applications
Mabushi Motor	Japan	Tokyo	Manufacturer of electromagnetic motors, often for consumer products
Minebea Mitsumi	Japan	Tokyo	Manufacturer of electromagnetic components for industrial applications
Nidec Corporation	Japan	Tokyo	Manufacturer of electromagnetic motors for various industrial applications

Piezoelectric competitors

Acuvi's main competitors include other manufacturers of piezoelectric products. The market for piezoelectric products is fragmented and includes both local operators and global manufacturers.

Privately owned competitors

Our understanding is that APC International, Nanomotion Ltd, Omega Piezo Technologies, Physik Instrumente, Piezo Solutions, Piezo Technologies, Piezomekaniker Dr Lutz Pickelmann, and Piezosystem Jena focus primarily on the development, manufacture and sale of piezoelectric products. Their products are used in sectors similar to Acuvi's customers, including industrial processes, medical technology, optics, research and other areas of application. Our assessment is, therefore, that these operators constitute the most significant competition for Acuvi. However, Acuvi has a licence agreement with Physik Instrumente, which underlines Acuvi's technical expertise and position in the market.

Other operators have piezoelectric components in their product range, but do not specialise in them exclusively. We are of the opinion that these companies are less significant competitors for Acuvi.

Privately owned competitors

	Country	Comments
Aerotech Inc	USA	Manufacturer of piezoelectric motors and systems for the semiconductor industry, medical technology, optics and research
APC International	USA	Manufacturer of piezoelectric motors and solutions for industrial processes, aerospace, optics and defence
Cedrat Technologies	France	Manufacturer of piezoelectric motors and systems for aviation and defence, medical technology and industry
CeramTec	Germany	Manufacturer of advanced ceramic products; does not sell piezoelectric products specifically, but has related products
Dytran Instruments	USA	Manufacturer of piezoelectric sensors for aviation, vehicles and defence
Kistler Group	Switzerland	Manufacturer of piezoelectric sensors for testing, monitoring and process control in the automotive and manufacturing industries
Mad City Labs	USA	Manufacturer of piezoelectric motors for precision optics and micropositioning systems
Nanomotion Ltd	Israel	Supplier of piezoelectric motors and systems for precision applications
Omega Piezo Technologies	USA	Manufacturer of piezoelectric sensors and motors for industries, consumer products, medical technology, aviation and defence
Physik Instrumente	Germany	Manufacturer of piezoelectric motors and systems for optics, medical technology, microelectronics and research
Piezo Solutions	Germany	Manufacturer of piezoelectric motors and sensors for medical technology, industrial systems and research
Piezo Technologies	Germany	Manufacturer of piezoelectric transducers and actuators for medical technology, automation and research
Piezomekaniker Dr Lutz Pickelmann	Germany	Manufacturer of piezoelectric solutions for industrial applications
Piezosystem Jena	Germany	Manufacturer of piezoelectric motors and systems for measuring and testing equipment, optics and medical technology
US EuroTek	USA	Manufacturer of piezoelectric motors and systems within manufacturing, automation and environmental monitoring

Listed competitors

There are also a number of listed companies that make piezoelectric products. These global operators have extensive product portfolios covering numerous technologies and sectors, with piezoelectric products accounting for a small portion of their operations.

Companies that have a modest proportion of piezoelectric products as part of a broader product range are unlikely to be able to offer the same level of specialisation and expertise as Acuvi in this niche field. This gives Acuvi a competitive advantage, particularly when it comes to innovation, a high degree of customisation and customer support. Acuvi's focused strategy also enables a swift response to changes in the market. This clear focus bolsters our conviction that Acuvi can continue to harness its expertise in customised, specialist solutions for piezoelectric technology, even in a competitive market.

Listed competitors

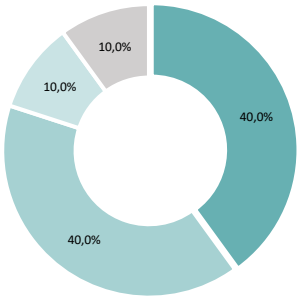
	Country	Marketplace	Comments
Alps Electric	Japan	Tokyo	Manufacturer of piezoelectric motors and sensors for consumer electronics and medical technology
CTS Corporation	USA	New York	Manufacturer of piezoelectric products for aviation and defence, industry, medical technology and transport
Honeywell International	USA	Nasdaq	Manufacturer of piezoelectric sensors and motors for the automotive industry, aerospace, medical technology and industry
Kyocera	Japan	Tokyo	Manufacturer of piezoelectric ceramics within electronics, medical technology and manufacturing in various industries
Morgan Advanced Materials	UK	London	Manufacturer of piezoelectric ceramics within electronics, medical technology and industrial applications
Murata Manufacturing	Japan	Tokyo	Manufacturer of piezoelectric sensors and motors for sound and vibration analysis, and for use within medical technology
NGK Insulators	Japan	Tokyo	Manufacturer of piezoelectric sensors and motors for various industrial and technical applications
Parker Hannifin	USA	New York	Manufacturer of piezoelectric motors and sensors for various industrial and technical applications
TDK Corporation	Japan	Tokyo	Manufacturer of piezoelectric sensors and motors for measurement technology, audio products and medical technology
TE Connectivity	USA	New York	Manufacturer of piezoelectric sensors and motors for industry, medical technology and the automotive industry

Summary of new share issues

In May 2024, Acuvi implemented a rights issue of SEK 27.8 million and a private placement of SEK 22.3 million to the German investment company ShapeQ[39]. The subscription price was SEK 13.0 per share, and both issues were fully subscribed with no discount to the closing price or underwriter compensation. These issues generated a total of SEK 50.1 million before issue expenses of roughly SEK 1.7 million for Acuvi, and offset a liability of SEK 5.0 million to Acuvi's chairman Adam Dahlberg. In total, approximately SEK 43.4 million was raised for ACUVI after issue expenses and offsetting of the liability.

The issues revealed strong support from both existing and new shareholders. It was particularly positive to note that management and the Board of Directors participated in the rights issue, subscribing to shares for a total of around SEK 5.1 million, indicating strong confidence in the future.

Breakdown of net proceeds



The capital from the issues is to be used primarily for expanding marketing and sales activities, but also for operating activities and product development.

Change in number of shares

	Number of shares
Average number of shares before issues	25,630,411
Private placement	1,715,385
Rights issue	2,135,867
Total number of shares	**29,481,663**
Dilution*	13.1%
Percentage increase in shares	15.0%

**(number of new shares/total number of shares after the issues)*

Financial position

Acuvi has total assets of SEK 547.8 million, including SEK 386.7 million in intangible assets, SEK 32.9 million in property, plant and equipment, SEK 0.6 million in financial assets and SEK 127.6 million in current assets. The assets are partly financed by SEK 412.0 million in equity, which corresponds to an equity/assets ratio of 75.2 percent. The remaining assets are financed via SEK 74.4 million in interest-bearing liabilities and SEK 59.9 million in non-interest-bearing financing. Excluding lease liabilities, interest-bearing liabilities totalled SEK 43.1 million.

Current assets include cash of SEK 13.4 million, inventories of SEK 54.4 million and trade receivables of SEK 45.9 million. Available liquid funds combined with other current assets and the positive free cash flows indicate that we do not see a need for additional external financing for Acuvi. The balance sheet has been strengthened by the proceeds of the issues, positioning Acuvi for future growth and development.

Intangible assets	Property, plant and equipment	Current assets
70.6% (SEK 386.7 million)	6.0% (SEK 32.9 million)	23.3% (SEK 127.6 million)
Cash and bank balances	**Interest-bearing liabilities**	**Net debt**
2.5% (SEK 13.4 million)	7.9% (SEK 43.1 million)*	5.4% (SEK 29.7 million)*

**Excluding lease liabilities*

Financial targets

Acuvi has the express ambition of being a fast-growing, profitable group with positive free cash flows. Acuvi released a profitability forecast[40] in November 2024. Acuvi forecasts that for the full year 2024, EBITDA will align with that of 2023. EBITDA is expected to amount to a minimum of SEK 50.0 million for the 2025 financial year. Acuvi has not published any specific forecasts for 2026 and 2027, but the EBITDA target is detailed below:

Financial targets				
Net sales	To demonstrate net sales growth			
Cash flow	Positive free cash flows			
(SEKm)	**2024**	**2025**	**2026**	**2027**
EBITDA	39.2	>50.0	>65.0	>85.0

Risks

Market risks

Acuvi's sales opportunities are related to market trends and the transition rate to new technology within several different sectors. More specifically, sales trends for piezoelectric products compared with traditional electromagnetic products have a significant impact on Acuvi's opportunities to drive sales. A slower transition rate to piezoelectric materials may adversely impact Acuvi's sales opportunities. High material costs, the emergence of alternative materials and lack of expertise are other limiting factors that may hinder this growth.



Low

Competition

Acuvi faces competition from manufacturers of traditional electromagnetic products, but also from other companies developing and producing micromotors and precision systems based on piezoelectric materials. We believe that Acuvi may currently have difficulty competing in applications where electromagnetic products are more suitable. We are of the opinion that within the realm of piezoelectric products, Acuvi can continue to capitalise on its focus on customised, highly specialised solutions.



Medium

Reliance on customers' success

OEM standard products is the customer segment that is experiencing the most rapid growth in percentage terms, and has the highest gross margin. OEM sales are largely driven by customers selling more end products, which is an indicator of potential for boosting revenue, as well as the fact that Acuvi is reliant on its customers' success. We believe that the loss of an individual customer would have minimal financial impact, as no single customer accounts for more than 8.0 percent of total net sales. Furthermore, according to Acuvi, roughly 80.0 percent of sales are recurring, while the remaining portion is related to the development phase.



Medium

Expansion

Acuvi is in an expansive phase, focusing specifically on increasing its presence in the German and US markets, where its technology has great potential but the company's market share remains low. As an initial step, a collaboration agreement was concluded with the German company Nanos Instruments, which had an immediate positive impact on Acuvi's business. There is a risk that Acuvi has misjudged the conditions for expansion, that existing partnerships may cease or that they fail to achieve the desired results.



Medium

Currency

Just over 90.0% of Acuvi's sales are in USD or EUR. The strong USD and EUR have had a marginal positive impact on Acuvi's historical net sales growth. There is a risk of the SEK strengthening against the USD and EUR, which could adversely impact Acuvi's sales. On the other hand, roughly 95.0% of purchases are in currencies other than SEK. A stronger SEK positively impacts Acuvi's purchasing costs, functioning as a hedge against the currency risk. Acuvi makes every effort to match revenue to costs so that any substantial revenue in a particular currency is covered by purchases in the same currency.



Medium

Access to materials

Acuvi has in-house production and works with several different suppliers with regard to critical components. There is a risk that it could become more difficult to find certain types of materials due to global supply chain disruptions. At present, Acuvi has no supply problems regarding materials but, as a precaution, stocks of certain critical components have been slightly increased. This applies mainly to the purchase of electronics. Acuvi has noted greater cost pressure from suppliers due to increased costs worldwide. In general, Acuvi has succeeded in offsetting these price rises by raising prices to the end customer, primarily for micromotors for which there is often a shortage of effective alternatives.



Medium

Continuing finance

In the past, Acuvi has acquired external capital on several occasions since its stock exchange listing. The available liquid funds and other current assets combined with the positive free cash flows mean that there should not be any need for additional external financing for Acuvi. We believe that the company is in a good financial position following the proceeds from the most recent share issues, and that Acuvi is well positioned and financed for the future.



Low

Board of Directors



Adam Dahlberg, Chairman of the Board (since 1998)

Education: Master of Science in Economics from the Stockholm School of Economics
Other roles: Chairman of the Board of Corline Biomedical and Vice Chairman of Senzime. Also invests in technology, life science, medical technology and software.

Shareholdings: 3,532,136 shares

Not independent of major shareholders



Ping Faulhaber, Board Member (since 2019)

Education: Master's degree in Mechanical Engineering from Ohio State University and Master's degree in Business Administration.
Other roles: CEO of Suncoast Science Center and investor in privately owned Faulhaber Drive Systems.

Shareholdings: 2,287,168 shares through Gaudium IVST LCC

Independent of management and the company



Dr Henrik Nittmar, Board Member (since 1998)

Education: MSc in Industrial Engineering and Management from Chalmers University of Technology, and PhD in Innovation Management from the Stockholm School of Economics.
Other roles: Chief Executive Officer of Corline Biomedical AB

Shareholdings: 72,601 shares

Not independent of major shareholders



Joakim Stenberg, Board Member (since 2017)

Education: Master of Science from Stockholm University.
Other roles: Founding Partner Nordic Cross Asset Management AB. Member of the Board of Acrinova.

Shareholdings: 24,714 options

Independent of management and the company



Dennis Barnes, Board Member (since 2022)

Education: BSc and MSc in Mechanical Engineering.
Experience: Founder of TPA Motion, which was acquired by Acuvi in December 2021.

Shareholdings: 1,581,397 shares

Independent of management and the company



Jenny Edfast, Board Member (since 2024)

Education: MSc Industrial Engineering and Management from Luleå University of Technology.
Other roles: CEO, Rejlers Sweden.

Shareholdings: 10,000 shares
Independent of management and the company

Management



Olof Stranding, CEO

Education: MSc in Business and Economics from Uppsala University.
Other roles: None
Experience: Employed by Acuvi since 2013. Previous experience from KPMG (auditing), as well as senior commercial positions at Q-med and Johnson & Johnson, among others.

Shareholdings: 171,974 shares and 150,000 options



Barry Bruhns, Vice President Acuvi General Manager North America

Education: BSc in Mechanical Engineering & MSc in Financial Economics.
Experience: Employed since 2021. CEO of TPA Motion for many years and on date of acquisition. Many years' of experience in the manufacturing industry, with a particular focus on implementing change management, efficiency and profitable growth.

Shareholdings: 4,500 shares



Tor Wirsén, CMO

Experience: Employed by Acuvi since 2023. Formerly Senior Project Manager at Phoswork Digital Industries.

Shareholdings: 10,500 shares and 70,000 options



Mikko Vähäsöyrinki, Business Unit Manager LSI

Education: PhD in Biophysics.
Experience: Employed by Acuvi since 2021; consultant since 2023. Founder of several tech companies, most recently Sensapex Oy.

Shareholdings: 719,826 shares



Rolf Kohler, CSO

Education: Electromechanical Engineering, Business Management Sales & Marketing.
Experience: Employed since 2020. Previously Sales Manager at Maxon Group.

Shareholdings: 0 shares and 70,000 options



Malik Kayous, CXO

Education: MSc Mechanical Engineering
Experience: Employed by Acuvi since 2022. Previously Sales Manager within robotics at ALSTROM.

Shareholdings: 0 shares and 70,000 options

Shareholder information

Shares outstanding	Share price	Market cap
29,481,663	SEK 15.6	SEK 459.9 million
Number of shareholders	**Insider ownership**	**Free float**
3,215	31.0% of the capital	69.0%

Acuvi's largest shareholders are Chairman Adam Dahlberg, Avanza Pension (group pension schemes at Avanza), and Ping Faulhaber, via the company Gadium IVST, LCC. The fourth largest shareholder is Handelsbanken Funds and the fifth is investment firm ShapeQ, which also owns shares in Swedish Stille, Redsense Medical, Kontigo Care and Envirologic. Other than that, there are several insiders among the shareholders, including Henrik Didner (previously a fund manager at Didner & Gerge) and group pension schemes at Nordnet and Futur.

Shareholder	Number of shares	Value (SEKm)	Capital	Votes
1. Adam Dahlberg	3,532,136	56.9	12.9%	12.9%
2. Avanza Pension	2,439,903	39.3	9.5%	9.5%
3. Gaudium IVST, LCC	2,287,168	36.8	8.4%	8.4%
4. Handelsbanken Fonder	1,950,000	31.4	6.6%	6.6%
5. ShapeQ GmbH	1,715,385	27.6	6.3%	6.3%
6. Dennis Barnes	1,581,397	25.5	6.2%	6.2%
7. Henrik Didner	1,105,000	17.8	4.4%	4.4%
8. Mikko Vähäsöyrinki	719,826	11.6	2.8%	2.8%
9. Nordnet Pensionsförsäkring	561,883	9.1	2.1%	2.1%
10. Futur Pension	464,523	7.5	1.7%	1.7%

Insider ownership

Insider ownership amounts to roughly 31.0 percent, which sends a positive message that there are excellent opportunities and that confidence in Acuvi is high among insiders. Adam Dahlberg, Ping Faulhaber, Dennis Barnes, Mikko Vähäsöyrinki, Olof Stranding, Henrik Nittmar, Joakim Stenberg, Jenny Edfast and CFO Mikael Falck all own shares in Acuvi. In addition, Tor Wirsén owns shares in Acuvi, although he is not included as an insider.

Outstanding employee share option plan

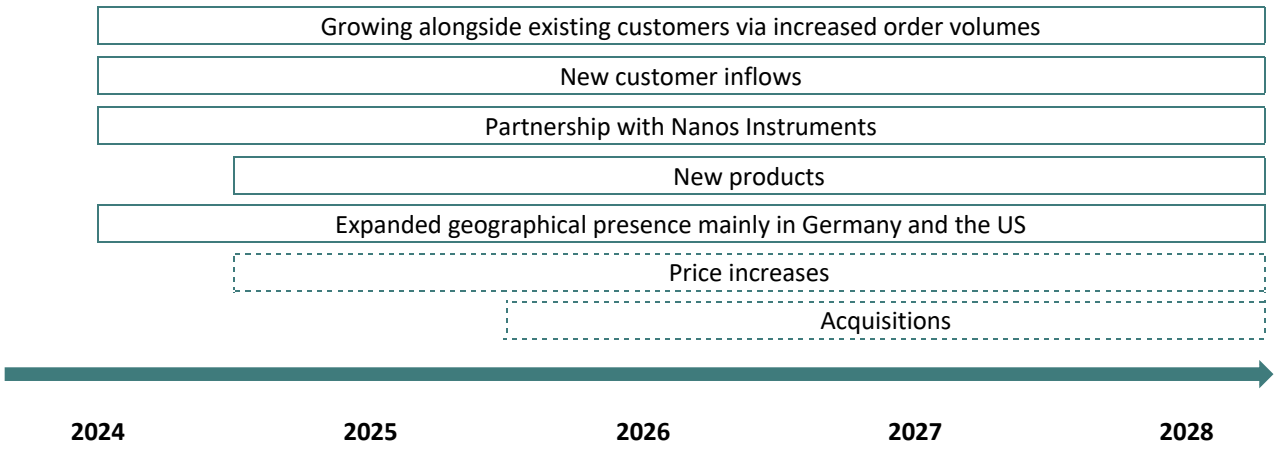
Acuvi has outstanding warrants for certain employees of the company and its subsidiaries, which were r adopted by the company's General Meeting of 15 September 2023. The incentive programme includes a total of 625,000 warrants. Each warrant entitles the holder to subscribe to one (1) new share in Acuvi between 4 January 2027 and 5 February 2027 at a subscription price of SEK 40.0 per share. The share option plan gives a dilutive effect of around 2.1 percent.

Current situation and outlook

Growth drivers

Our assessment is that the clearest growth driver for Acuvi in the short term is growing alongside existing and new customers. Additional growth drivers include the collaboration with Nanos Instruments, an expanded geographical presence mainly in Germany and the US, and new product launches. There is also potential to expand into new customer applications and sectors. Acquisitions and price increases are more opportunistic, long-term growth drivers. Note that the timeline is based on assumptions and estimates.

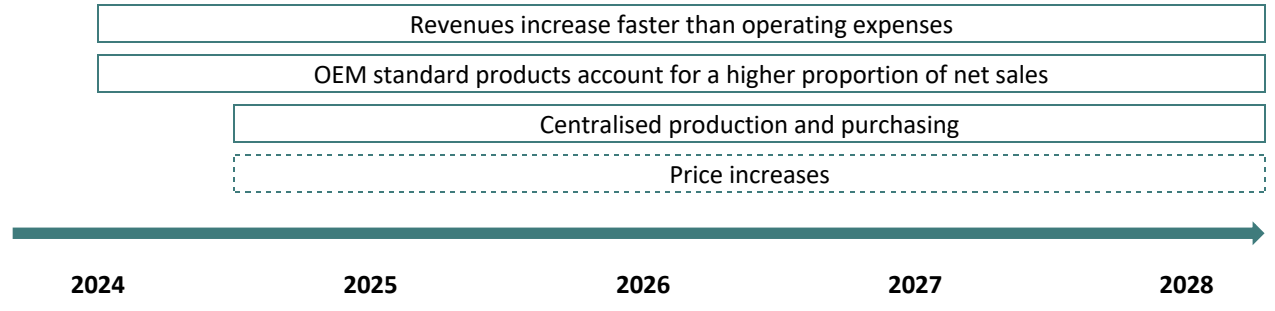
Growth drivers in Acuvi



Margin drivers

Acuvi has a scalable business model that allows revenue to increase at a faster pace than operating expenses, which has contributed to greater profitability. External consultants have been replaced by in-house personnel, which has improved the cost structure and streamlined the organisation. The customer segment, OEM standard products, is the fastest growing segment with the highest gross margin, expanding the scope for boosting profitability. Ongoing initiatives include centralising all production in Uppsala to enable economies of scale, which may be an additional driver.

Margin drivers in Acuvi



Valuation

Key stats

Number of shares	29,481,663	**Market cap (SEKm)**	459.9
Share price (SEK)	15.6	**Net debt* (SEKm)**	29.7
		Enterprise value (SEKm)	489.6

**Excluding lease liabilities*

Rolling 12 months

Net sales	SEK 193.5 million	**EV/S**	2.8
EBITDA	SEK 31.2 million	**EV/EBITDA**	17.2
EBIT	SEK -68.3 million	**EV/EBIT**	n/a
FCF	SEK 21.4 million	**EV/FCF**	25.1

Source: Stock exchange data

Historical average

	EV/S	EV/EBITDA	EV/EBITDA	EV/FCF
Average, 3 years	2.2	n/a	n/a	9.3
Average, 5 years	9.7	n/a	n/a	n/a

Source: Stock exchange data

Key performance indicators

Gross margin	EBITDA margin	EBIT margin	Profit margin
49.6%	16.1%	n/a	n/a
OPCF margin	**FCF margin**	**ROE**	**ROIC**
15.4%	11.1%	37.2%	15.7%

Source: Stock exchange data

Peers

In our relative valuation of Acuvi, we have analysed the valuations of comparable listed companies within the sector. The table includes companies that provide piezoelectric or electromagnetic micromotors and precision systems, or a combination of both.

(USD mil.)				EBIT R12		EBITDA R12		Profitability R12		
Company	**Listing**	**Market cap**	**EV**	**EBIT**	**EV/EBIT**	**EBITDA**	**EV/EBITDA**	**BM**	**EBIT, %**	**EBITDA, %**
Allient	Nasdaq	299.0	527.0	35.9	14.7	61.2	8.6	31.6%	6.3%	10.8%
AMETEK	New York	39,633.0	41,888.0	1,748.0	24.0	2,107.0	19.9	35.6%	25.6%	30.9%
CTS Corporation	New York	1,498.0	1,429.0	73.9	19.3	100.4	14.2	34.9%	14.3%	19.5%
Denso Corporation	Tokyo	40,580.0	39,970.0	2,530.0	15.8	4,870.0	8.2	15.5%	5.7%	10.9%
Honeywell Int.	Nasdaq	142,615.0	160,740.0	7,839.0	20.5	9,405.0	17.1	37.6%	21.0%	25.2%
Johnson Electric	Hong Kong	1,290.0	1,140.0	281.5	4.0	527.9	2.2	22.3%	7.4%	13.8%
Kyocera	Tokyo	16,210.0	15,420.0	548.0	28.1	1,370.0	11.3	27.8%	4.4%	10.9%
Mabushi Motor	Tokyo	282,390.0	156,840.0	20,380	7.7	34,040.0	4.6	26.1%	10.6%	17.7%
Minebea Mitsumi	Tokyo	7,730.0	9,540.0	539.0	17.7	913.5	10.4	17.1%	5.9%	10.0%
Morgan Adv. Materials	London	982.0	1,380.0	175.8	7.8	216.0	6.4	12.5%	12.3%	15.1%
Murata Manufact.	Tokyo	35,200.0	32,310.0	1,750.0	18.5	2,840.0	11.4	39.1%	16.6%	27.0%
NGK Insulators	Tokyo	563,620.0	580,760.0	64,710.0	9.0	122,290.0	4.7	26.7%	11.0%	20.7%
Nidec Corporation	Tokyo	22,960.0	25,930.0	1,010.0	25.7	1,860.0	13.9	20.7%	6.7%	12.3%
Parker Hannifin	New York	82,698.0	92,836.0	3,813.0	24.3	5,028.0	18.5	35.8%	19.1%	25.2%
TDK Corporation	Tokyo	24,020.0	24,200.0	1,270.0	19.1	2,450.0	9.9	30.4%	9.7%	18.6%
TE Connectivity	New York	45,828.0	48,561.0	2,927.0	16.6	3,642.0	13.3	33.9%	18.5%	23.0%
Average		**81,722.1**	**77,091.9**	**6,851.9**	**17.0**	**11,982.6**	**10.9**	**28.0%**	**12.2%**	**18.2%**
Median		**29,610.0**	**29,120.0**	**1,509.0**	**18.1**	**2,278.5**	**10.8**	**29.1%**	**10.8%**	**18.2%**
Acuvi	Stockholm				31.9		13.4	58.1%	8.2%	19.6%

The comparison table shows that companies are on average valued at 17.0x EV/EBIT[41-42]. Generally speaking, Acuvi is growing faster than the other companies in the list and has a higher gross margin. However, it should be noted that other companies are significantly much bigger in absolute figures and extent of operations, and that they are more established geographically, which means relatively lower risk. We therefore believe that the companies on the list should be valued higher than Acuvi at present. We have opted to value Acuvi based on a multiple of 15x EBIT. However, we expect the difference in multiples between Acuvi and comparable companies to decrease over time as Acuvi consolidates its presence on existing markets, expands into new markets and improves its margins. It is therefore crucial for Acuvi to be able to continue its rapid growth in order to justify a higher valuation.

In the tables below we have broken down the companies on the list based on where they are listed. The tables indicate that the valuations are generally higher in the US than in other regions. This may be attributable to greater market attractiveness in the US, with companies there tending to have a higher profitability profile.

(USD mil.)				EBIT R12		EBITDA R12		Profitability R12		
Company	**Listing**	**Market cap**	**EV**	**EBIT**	**EV/EBIT**	**EBITDA**	**EV/EBITDA**	**BM**	**EBIT, %**	**EBITDA, %**
Allient	Nasdaq	299.0	527.0	35.9	14.7	61.2	8.6	31.6%	6.3%	10.8%
AMETEK	New York	39,633.0	41,888.0	1,748.0	24.0	2,107.0	19.9	35.6%	25.6%	30.9%
CTS Corporation	New York	1,498.0	1,429.0	73.9	19.3	100.4	14.2	34.9%	14.3%	19.5%
Honeywell Int.	Nasdaq	142,615.0	160,740.0	7,839.0	20.5	9,405.0	17.1	37.6%	21.0%	25.2%
Parker Hannifin	New York	82,698.0	92,836.0	3,813.0	24.3	5,028.0	18.5	35.8%	19.1%	25.2%
TE Connectivity	New York	45,828.0	48,561.0	2,927.0	16.6	3,642.0	13.3	33.9%	18.5%	23.0%
Average		**52,095.2**	**57,663.5**	**2,739.5**	**19.9**	**3,390.6**	**15.3**	**34.9%**	**17.5%**	**22.4%**
Median		**42,730.5**	**45,224.5**	**2,337.5**	**19.9**	**2,874.5**	**15.7**	**35.3%**	**18.8%**	**24.1%**

(USD mil.)				EBIT R12		EBITDA R12		Profitability R12		
Company	**Listing**	**Market cap**	**EV**	**EBIT**	**EV/EBIT**	**EBITDA**	**EV/EBITDA**	**BM**	**EBIT, %**	**EBITDA, %**
Denso Corporation	Tokyo	40,580.0	39,970.0	2,530.0	15.8	4,870.0	8.2	15.5%	5.7%	10.9%
Johnson Electric	Hong Kong	1,290.0	1,140.0	281.5	4.0	527.9	2.2	22.3%	7.4%	13.8%
Kyocera	Tokyo	16,210.0	15,420.0	548.0	28.1	1,370.0	11.3	27.8%	4.4%	10.9%
Mabushi Motor	Tokyo	282,390.0	156,840.0	20,380	7.7	34,040.0	4.6	26.1%	10.6%	17.7%
Minebea Mitsumi	Tokyo	7,730.0	9,540.0	539.0	17.7	913.5	10.4	17.1%	5.9%	10.0%
Morgan Adv. Materials	London	982.0	1,380.0	175.8	7.8	216.0	6.4	12.5%	12.3%	15.1%
Murata Manufact.	Tokyo	35,200.0	32,310.0	1,750.0	18.5	2,840.0	11.4	39.1%	16.6%	27.0%
NGK Insulators	Tokyo	563,620.0	580,760.0	64,710.0	9.0	122,290.0	4.7	26.7%	11.0%	20.7%
Nidec Corporation	Tokyo	22,960.0	25,930.0	1,010.0	25.7	1,860.0	13.9	20.7%	6.7%	12.3%
TDK Corporation	Tokyo	24,020.0	24,200.0	1,270.0	19.1	2,450.0	9.9	30.4%	9.7%	18.6%
Average		**99,498.2**	**88,749.0**	**9,319.4**	**15.3**	**17,137.7**	**8.3**	**23.8%**	**9.0%**	**15.7%**
Median		**23,490.0**	**25,065.0**	**1,140.0**	**16.7**	**2,155.0**	**9.0**	**24.2%**	**8.5%**	**14.5%**

Quarter estimate for 2024

We expect Acuvi to show an increase in net sales in Q4, driven by OEM standard products. We anticipate a decline in sales within OEM customised products, although there will be a slight sequential improvement. Meanwhile, our assessment is that sales within Life Science Instrumentation will remain relatively unchanged.

We also expect a higher gross margin, owing to an improved product mix in which OEM standard products comprise a higher proportion of total net sales. We expect operating expenses to remain at roughly the same level, which will contribute to a clear improvement in profitability. Adjusted for other operating income in the comparative quarter, this will mean a marked improvement in profitability.

	Estimate for 2024				
(SEKm)	**Q1***	**Q2***	**Q3**	**Q4E**	**2024E**
Net sales	**45.3**	**46.4**	**43.7**	**55.6**	**191.0**
% y-o-y	*6.4%*	*-7.0%*	*-2.8%*	*4.0%*	*0.1%*
Other operating income	2.8	0.4	1.5	1.0	5.7
Total revenue	**48.1**	**46.8**	**45.2**	**56.6**	**196.7**
Gross profit	**27.6**	**29.5**	**25.5**	**33.5**	**116.2**
Gross margin	*61.0%*	*63.7%*	*58.4%*	*60.2%*	*60.8%*
% y-o-y	*12.5%*	*2.9%*	*10.1%*	*23.8%*	*12.3%*
Operating expenses	**-21.0**	**-19.3**	**-19.3**	**-23.2**	**-82.8**
% y-o-y	*14.0%*	*-12.0%*	*-3.6%*	*1.8%*	*-0.4%*
EBITDA	**9.4**	**10.6**	**7.8**	**11.3**	**39.1**
EBITDA margin	*20.7%*	*23.0%*	*17.8%*	*20.3%*	*20.5%*
% y-o-y	*38.0%*	*-33.8%*	*10.7%*	*21.7%*	*-0.2%*
Depreciation, amortisation and impairment	-3.1	-3.1	-2.5	-2.7	-11.4
EBIT	**6.3**	**7.5**	**5.2**	**8.6**	**27.7**
EBIT margin	*14.0%*	*16.3%*	*12.0%*	*15.4%*	*14.5%*
% y-o-y	*56.6%*	*-43.3*	*23.9*	*n/a*	*53.9%*

**Adjusted for IFRS*

Estimate up until 2026

Estimate up until 2026

(SEKm)	**2022**	**2023***	**2024E**	**2025E**	**2026E**
Net sales	**185.1**	**190.8**	**191.0**	**215.7**	**248.7**
% y-o-y	*259.8%*	*3.1%*	*0.1%*	*12.9%*	*15.3%*
Capitalised work on own account	3.9	-	-	-	-
Other operating income	3.5	18.8	5.7	5.0	4.0
Total revenue	**192.4**	**209.6**	**196.7**	**220.7**	**252.7**
EV/S	*2.6*	*2.6*	*2.6*	*2.3*	*2.0*
Gross profit	**116.6**	**103.5**	**116.2**	**131.5**	**152.8**
Gross margin	*63.0%*	*54.2%*	*60.8%*	*61.0%*	*61.4%*
% y-o-y	*248.6%*	*-11.2%*	*12.3%*	*13.2%*	*16.2%*
Operating expenses	**-142.5**	**-83.1**	**-82.8**	**-88.5**	**-96.3**
% y-o-y	*100.3%*	*-41.6%*	*-0.4%*	*6.9%*	*8.7%*
EBITDA	**-18.5**	**39.2**	**39.1**	**47.9**	**60.5**
EBITDA margin	*-10.0%*	*20.5%*	*20.5%*	*22.2%*	*24.3%*
% y-o-y	*n/a*	*n/a*	*-0.2%*	*22.7%*	*26.2%*
EV/EBITDA	*Neg.*	*12.5*	*12.5*	*10.2*	*8.1*
Depreciation, amortisation and impairment	-7.0	-21.2	-11.4	-10.4	-10.0
EBITA	**-25.5**	**18.0**	**27.7**	**37.5**	**50.5**
EBITA margin	*-13.8%*	*9.4%*	*14.5%*	*17.4%*	*20.3%*
% y-o-y	*n/a*	*n/a*	*53.9%*	*35.5%*	*34.5%*
EV/EBITA	*Neg.*	*27.2*	*17.7*	*13.0*	*9.7*
Goodwill	-90.3	-	-	-	-
EBIT	**-115.9**	**18.0**	**27.7**	**37.5**	**50.5**
EBIT margin	*-62.6%*	*9.4%*	*14.5%*	*17.4%*	*20.3%*
% y-o-y	*n/a*	*n/a*	*53.9%*	*35.5%*	*34.5%*
EV/EBIT	*n/a*	*27.2*	*17.7*	*13.0*	*9.7*

**Adjusted for IFRS*

We have opted to value Acuvi based on a multiple of 15x EBIT for full year 2026E. We believe this is a reasonable multiple based on peers, growth prospects, the scalable business model, and the proportion of recurring and diversified revenue. This, in turn, gives a market cap and a defensible share price calculated for 2026E. We have also chosen to show the valuation after applying a safety margin of 30.0 percent to our estimates.

Valuation

	Multiple	EBIT 26E	Market cap (SEKm)	Share price (SEK)
2026E	15	50.5	757.5	25.7
Margin of safety (30%)	*15*	*35.3*	*530.2*	*18.0*

Below is the potential return for 2026E if Acuvi performs in line with our estimates in the base case and with an applied margin of safety.

Potential return

	Base case			Margin of safety (30%)		
	Factor	Percent	CAGR	Factor	Percent	CAGR
2026E	1.65	64.7%	28.3%	1.15	15.3%	7.4%

Below is a sensitivity analysis illustrating how the potential return may develop given various applied multiples.

Sensitivity analysis

	Base case 2026E			Margin of safety (30%)		
EBITx	Market cap (SEKm)	Share price (SEK)	Change, %	Market cap (SEKm)	Share price (SEK)	Change, %
10	505.0	17.1	9.8%	353.5	12.0	-23.1%
11	555.5	18.8	20.8%	388.8	13.2	-15.5%
12	606.0	20.6	31.8%	424.2	14.4	-7.8%
13	656.5	22.3	42.7%	459.5	15.6	-0.1%
14	707.0	24.0	53.7%	494.9	16.8	7.6%
15	**757.5**	**25.7**	**64.7%**	**530.2**	**18.0**	**15.3%**
16	808.0	27.4	75.7%	565.6	19.2	23.0%
17	858.5	29.1	86.7%	600.9	20.4	30.7%
18	909.0	30.8	97.6%	636.3	21.6	38.4%
19	959.5	32.5	108.6%	671.6	22.8	46.0%
20	1,010.0	34.3	119.6%	707.0	24.0	53.7%

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