

Innovative cleantech company positioned to ramp up production and go international.

Ferroamp Elektronik is an electronics company providing both hardware and software solutions to every form of property owner, reducing their customers energy costs and provides a larger control of the real estate's production/consumption.

During the last year, some key partnerships and deals made by the company has signalled that they are starting to enter their growth phase. Some of this has showed in their recent quarterly reports, but we believe that they have not yet reached their potential growth rate. The internal financial goal for the company is set at a SEK 400M Revenue run-rate and a 40% gross margin in Q4 2022. This can be compared to the revenue in 2020 of around SEK 78M, and displays the tremendous growth it's expecting.

As an example of the addressable market for the company we can look at micro-grids. Research and Markets expect this to grow with a CAGR of 11,4% until the year 2026. Driven by the desire to reduce carbon emissions, increasing demand for uninterrupted power supply, rural electrification and protection against cyberattacks.

We believe that Ferroamp is well positioned to capture a significant part of the rapidly growing sustainable energy market with its unique technology and great value proposition for the customer. It is our belief this will be reflected on the company's valuation and thereby makes the share today trade below our fair value.

Using the discounted cashflow analysis, we get to a fair value per share of around SEK 97,66. From todays price, we can calculate a potential upside of about 38%. The range from our most bearish to bullish case is SEK 75,51 to SEK 128,25.

Fair Value Range		
Bear	Base	Bull
75,51	97,66	128,25

Key Data (SEK)	
Sector	Cleantech
Ticker	FERRO
Market	Nasdaq First North
Price	70,9
Market Cap	M 960M
Net Debt	M (25.4)
EV	M 935
Shares fully dil.	M 13.5



Financials (MSEK)	2019	2020	2021E	2022E	2023E
Net Revenue	45,9	77	122	295	510
Adj. EBIT	(24,5)	(33)	(38)	2	31
Adj. EBITDA	(23)	(28)	(38)	13	51
EPS	(2,7)	(3,1)	(2,8)	0,1	2,0
DPS	0	0	0	0	0
Revenue growth %	190,1	67,5	58,9	141,8	72,9

Investment Thesis

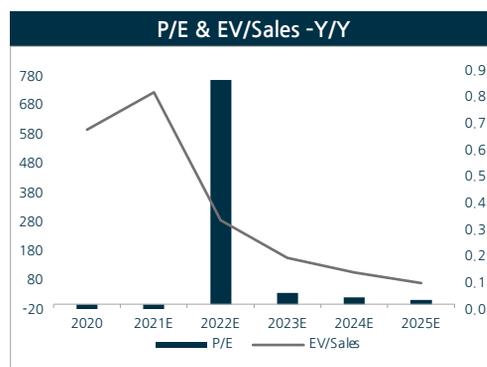
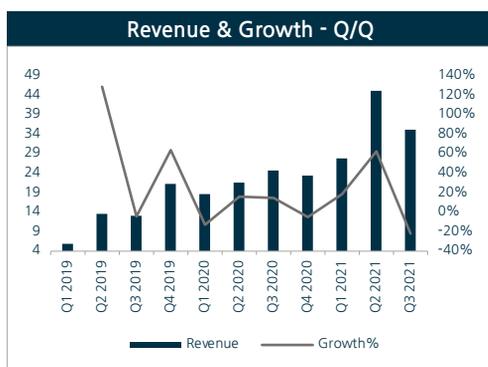
Since 2019, cleantech and renewable energy companies have performed extremely well, looking at MSCI Alternative Energy Index the last three years it has had an almost double annualized return compared to the MSCI World Index. So needless to say, cleantech and renewables have gotten some attention lately. But we can also see that generally the renewable index is priced at an average P/E of 46 whilst world index is at an average of almost 24. So people also tend to pay a premium for companies in this sector. We believe that this is a tailwind for the stock of Ferroamp. That when the company starts to focus more on margins and the volume reaches its high potential, the valuation will increase drastically.

An important note is that the company has both communicated and showed through partnerships that it has entered the industrialisation of its core products. Having spent a large amount of capital developing the 2.0 versions of their hardware - which the CEO explained as not only improved technically but fitted for large scale production. We believe the coming quarters will show large revenue growth to reach the Q4' 2022 target which is more than twice the size of the current run rate.

We have also recently seen both Sweden and the Netherlands open up their legislation for micro-grids. This directly enables Ferroamp technology to be used at a larger market-scale. When it was announced that Sweden would allow this, the stock rallied around ten percent the very same day. We expect more governments to enable/announce this to incentivise the green energy initiative, this is a potential trigger for the stock in the short term.

Looking at their goals set for Q4 they also aim to be well established in several leading European markets. This according to us has large potential for the company, since currently they don't have a significant presence in the European countries with the most solar power generation. Such as Germany, Spain, Italy and France. We expect this to change in the future as Ferroamp is able to deliver its products in a larger scale and with the recent recruitment of Niklas Cassel who is tasked with this responsibility.

If we use their goal run rate for the end of next year, we can see that their current EV/Sales is at around 6,9. And on our 2023 estimates an EV/Sales of less than 2. Their average multiple the last three years has been 8,2. If we assume that they will be priced lower in the future with a multiple of 3 we get to a price per share of 113kr.



Strategy and Operations Analysis

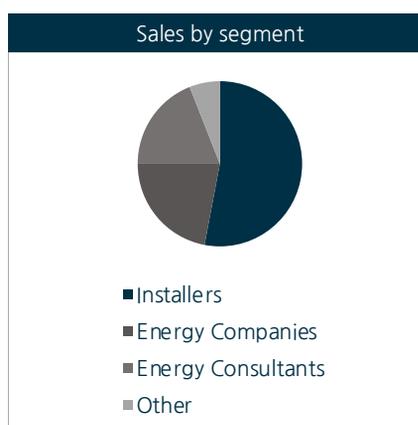
Ferroamp Elektronik is primarily a hardware technology company. Their business model builds on good relationships with solar panel installers, wholesalers and energy consultants. So, when for example a real-estate owner wants to generate some renewable energy and reduce costs with solar panels, the installer might recommend also going with the Energy Hub and the Solar String Optimizer to get the extra benefits and long-term savings of the modular system. This is a positive aspect when entering new markets in Europe, since the company can tap into the already existing networks of the partnering companies.

Their main products are the Energy Hub, Solar String Optimizer, Storage Module and EnergyCloud. Together these products combined with some solar panels and an electric vehicle charger create a stand-alone micro grid able to sustain itself, creating a much more optimized and stable local power grid. The company has previously gotten positive feedback for how modular its system is. For example, when their SSO got the Intersolar Award in 2021 one of the comments where how it was so compatible with a wide range of configurations.

Ferroamp's unique patent is phase balancing, which was originally the reason the company was founded. The technology allows the energy hub system to automatically distribute the load on a property's three phases, thereby enable the customer to lower its stress on the main fuse and get a lower network fee.

A majority of the revenue comes from the larger installations. Previous customers are such as Wallenstam and Hufvudstaden. This is also where the majority of the revenue derives from (see graph below), large scale installations. Ferroamp has stated that their revenue split is 53% large real estate (via Installers), 22% Energy service providers, 19% Energy consultants generating sales through analysis. The company delivered some good news in October 2021 that Wallenstam, as a previous customer, had invested in Ferroamp through issuance of new shares. Their stake in the company including the new shares is 7,4% which makes them the fourth largest shareholder. This added SEK 78M before transaction costs to their cash balance, this is to be spent on sales and marketing, product development and continued industrialisation.

In total Ferroamp has only provided/installed approximately 2,700 systems since the company's creation. This might look small but 20% of this is number was only in the first three quarters of 2021.



Management & Ownership

Björn Jernström, is the founder and current CTO. He is the inventor of their patented technology and has a B. Sc. In electrical engineering. He is currently the largest shareholder and holds around eleven percent of the company's stock.



Krister Werner, is originally and engineer in mechanical engineering. But he has worked with management within SAAB and CAB Group, and consulting at Milso. He currently holds 1000 shares of Ferroamp with 6000 in options.



Ylwa Karlgren, is the chairman of the board. She has a vast background in finance and management, having worked for SEB for over 20 years and currently has positions on multiple board of directors. Such as Plejd and Acrinova.



Lars-Åke Bokenberger, recently became a part of the nomination committee on behalf of Wallenstam where he currently is the chairman. He has previously sat on several boards as a director and also as a portfolio manager at AMF Pension



Ownership Structure (Q3' 21)

Owner	Shares %	Votes %
Björn Jernström	11,14	11,14
Första AP-fonden	9,4	9,4
Nordea Fonder	9,35	9,35
Nordic Cross	7,16	7,16
KIC InnoEnergy SE	4,67	4,67
Åke Rehnman	4,04	4,04
Mats Karlström	3,10	3,10
Avanza Pension	2,89	2,89
Andra AP-fonden	2,84	2,84
Total	57,51	54,85
Other	42,49	45,15

Peer analysis & Competition

The cleantech market is a rapidly growing market and with that new companies get founded at a high rate. This is one of the potential risks with Ferroamp, since there is so much value to capture, many companies are going to want a piece of the cake. But we believe that there currently isn't a competitor that has the same product offering as Ferroamp.

The companies that provide a similar solution for the customers are Solar Edge, Enphase and SMA Solar. Although it's hard to make a direct comparison since these companies provide some of Ferroamp's solutions like a solar optimizer, it's only a part of their focus.

These companies are also substantially larger, which is why we included two Swedish cleantech companies for reference on valuation. These are QleanAir, who provides modular systems for clean indoor air. And Ecoclime, which for example provides solutions for recycling of energy from wastewater through their Evertherm-products.

Comparing the growth from 2020 to 2022E we can see that out of our selected companies for comparison, Ferroamp has the highest revenue growth by a large margin. Adding to this the company is valued at a 2022E price to sales ratio of 3.4, 20% lower than the mean. This we believe this gap in valuation to be an opportunity in the coming years.

A counter argument to this would be that Solar Edge, Enphase and SMA Solar has positive earnings, while Ferroamp still has a negative profit margin. Although we do believe Ferroamp will generate a profit in 22/23, which should have an effect on reducing this lower valuation. And looking at Solar edge and Enphase they both trade at high P/E ratios above 90. If we look at our estimate for 2023 the company currently trades at EV/EBIT of 32, which in comparison seems like an attractive multiple given the high growth potential.

Comparison (MSEK)	Market Cap	Rev. 2020A	Rev. 2022E	Rev. Growth (%)	P/S 2022E
Ferroamp Elektronik	1 000	77	295	283	3,4
Solar Edge	143 000	12 574	22 515	79	6,35
Enphase	172 000	6 656	16 323	145	10,5
SMA Solar	12 000	10 219	11 215	9,75	1,07
QleanAir	918	496	532	7,26	1,73
Ecoclime	688	155	240	55	2,87
Median	803	155	295	67	3,14
Mean	803	243	356	97	4,32

Valuation

The valuation model is based on market estimates until 2023 gathered from a commissioned research from *Analysguiden*. After this period, we use a decreasing growth rate until reaching a perpetual growth rate of 2% in 2030. This is a conservative estimate with the company being in the earliest stages of its growth story. Ferroamp has not announced any internal goals beyond Q4' 2022 run rate of three times the estimated revenue of 2021 and a gross margin about 30% than today.

We use an unchanged EBIT-margin of six percent until 2025 and a growth of shares outstanding by 60%. Having this margin of error we believe to be a smart move since this segment is so lucrative that competition is bound to increase and that they would issue shares to fuel growth or provide shares for an investment like the one they did for Wallenstam. We keep EBIT-margin constant to account for higher costs with production and competition pressing prices.

Using these numbers our model tells us the fair value of Ferroamp stock is 97,66 SEK, 38% above last closing price.

DCF (MSEK)	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue	122	295	510	714	985	1340	1796	2370	3081	3944
EBIT	(33)	2	31	44	60	94	126	166	216	276
Non Cash Adjustments	6	15	26	36	49	67	90	119	154	197
Change net working Capital	24	4	3	(1)	3	3	3	3	2	2
CapEx	11	12	13	15	16	18	19	21	24	26
Tax	(7)	0	7	9	13	20	27	36	46	59
Free cash Flow	(55)	0	34	56	77	120	166	224	298	386
DCF	(55)	0	27	41	50	70	87	106	127	147
<i>Revenue growth %</i>	<i>58,9</i>	<i>141,8</i>	<i>72,9</i>	<i>40,0</i>	<i>38,0</i>	<i>36,0</i>	<i>34,0</i>	<i>32,0</i>	<i>30,0</i>	<i>28,0</i>
<i>EBIT margin %</i>	<i>(27,0)</i>	<i>0,7</i>	<i>6,1</i>	<i>6,1</i>	<i>6,1</i>	<i>7,0</i>	<i>7,0</i>	<i>7,0</i>	<i>7,0</i>	<i>7,0</i>
<i>Non-cash adjustments % of revenue</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>	<i>5,0</i>
<i>CapEx % revenue</i>	<i>9,0</i>	<i>4,1</i>	<i>2,6</i>	<i>2,1</i>	<i>1,6</i>	<i>1,3</i>	<i>1,1</i>	<i>0,9</i>	<i>0,8</i>	<i>0,7</i>
<i>Tax % EBIT</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>	<i>21,4</i>

DCF assumptions

NPV of FCF	601
NPV of TV	1522
Enterprise Value	960
Net Debt	(25)
Shares Growth	60%
DCF Value of Equity	2123
DCF Value per Share	97,66
WACC	11,3%

Case Summary

Ferroamp is a cleantech company well positioned to scale and expand internationally. They have a good moat with their patented technology and award-winning design of their products. They have made some important partnerships with outsourcing of production to meet the high demand. As the CEO himself said they are in the transition from a startup company to a growth company, which Forbes recognized, ranking the company 50th fastest growing company in Europe and 2nd in the Nordic region.

We have a positive view on Ferroamp's potential to expand into other markets in Europe where demand already exists to a large extent. The company is innovative which we would presume to generate new products and revenue streams. An example can be their cloud solution for customers to monitor, control their systems and analyze its data, getting a bigger portion of the revenue.

The stock is currently trading at a level about 30% below all-time high and has had a negative trend in a one-year period, returning -26,4%. Most likely because of a Q3 with a decline in revenue.

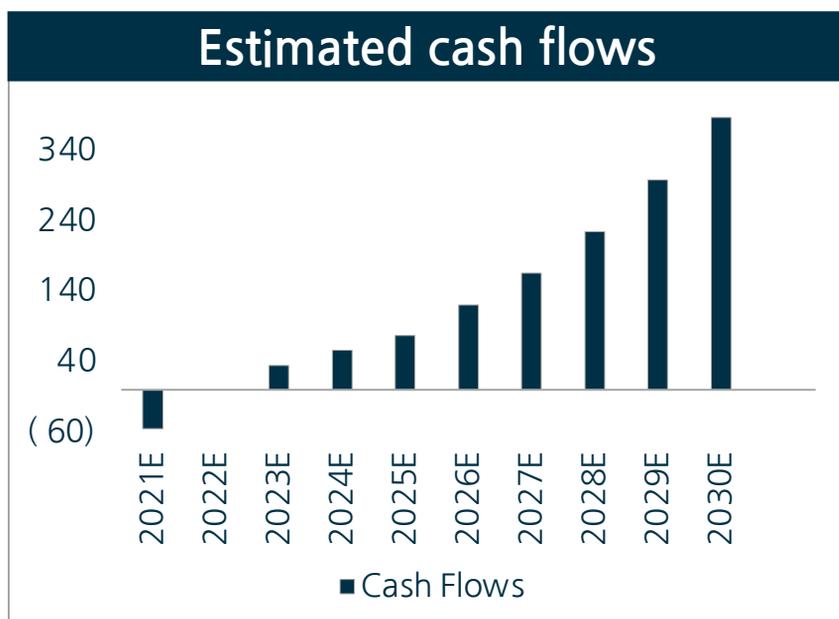
There are some risks associated with the company, mainly concerning production and scaling it. We assume in our model that Ferroamp will successfully scale its production, as shown in the last report there might be misses on these targets. Also, the company is relatively small and early in its endeavor and currently does not make a profit. This leads to risks with not being able to fund operations if they don't achieve a positive profit margin. They currently have not expressed any specific goal regarding this metric.

Competition is a large part of the risk in this case, since their competition mainly comes from more mature companies way larger than themselves. If Ferroamp simply can't propose a favorable value proposition for the customer, they could lose large parts of its demand.

In conclusion we still think that Ferroamp Elektronik presents a good case and trades below its intrinsic value, estimated to be SEK 97,66. The company's growth trades at a discount compared to its competitors leading to us believing it's a good time to purchase the stock as an addition to the Asset Management Groups portfolio.

Appendix

		Sensitivity table							Sensitivity table				
		Terminal growth (%)							EBITDA exit multiple				
WACC (%)		1,0	1,5	2,0	2,5	3,0	WACC (%)		6x	7x	8x	9x	10x
		13,3	78,66	79,41	80,23	81,12			82,10	13,3	75,51	77,87	80,23
12,3	86,29	87,25	88,30	89,46	90,75	12,3	83,19	85,75	88,30	90,86	93,41		
11,3	95,04	96,28	97,66	99,20	100,92	11,3	92,13	94,89	97,66	100,43	103,20		
10,3	105,18	106,83	108,68	110,77	113,15	10,3	102,68	105,68	108,68	111,69	114,69		
9,3	117,13	119,38	121,93	124,86	128,25	9,3	115,41	118,67	121,93	125,19	128,45		



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Asset Management Group, A part of the Finance Society of Föreningen Ekonomerna

Föreningen Ekonomerna, the Business Association at Stockholm University
finance@foreningenekonomerna.se