

Zwipe

Sector: Biometrics

The Year When It Shall Happen

Redeye argues that the take-off for biometric payment cards will come slightly later than our earlier expectations. We bring down our financial estimates a little and think Zwipe is still well positioned with a strong balance sheet. We lower our valuation and believe larger commercial orders will be a catalyst for the share price.

Reduced near term estimates but higher margins

We have been somewhat surprised by the low number of commercial orders in the sector and as Zwipe has not yet received certification by Visa and Mastercard we think the mass-market takeoff will be a bit delayed. We therefore reduce our sales estimates for the years ahead. At lower volumes we believe the average selling price per card is higher and we therefore raise our gross margin estimates.

Stable financial situation

Zwipe has around SEK 150m in cash on its balance sheet. With the current burn rate that is enough for just short of two years of low volumes. As we expect a profitable 2022 we don't foresee any financial issues ahead. A further delay in mass-market takeoff would make us reconsider. We will monitor this closely throughout the year.

Still confident in the long-term story

We think there is a very high probability that Zwipe Pay will receive the necessary certifications within the next months, which is a trigger for commercial orders. We should also start to see results from pilots, where positive results should lead to firm orders. We lower our base case fair value from NOK 34 to NOK 30 and our bull case fair value from NOK 48 to NOK 43 due to our lower financial estimates. Zwipe currently trades at an EV/EBIT multiple of 4.5 in 2024 based on our estimates.

Key Financials (NOKm)	2020	2021	2022E	2023E	2024E
Revenues	2	3	39	338	724
Revenue growth		38%	1447%	759%	114%
EBITDA	-96	-75	-76	12	94
EBIT	-96	-83	-77	12	93
EBIT Margin (%)	-5226%	-3266%	-196%	3%	13%
Net Income	-96	-83	-73	12	93
EV/Revenue	31,5	26,7	13,3	1,5	0,6
EV/EBITDA	neg	neg	neg	41,8	4,5
EV/EBIT	neg	neg	neg	44,3	4,5

Research Update

9 March 2022

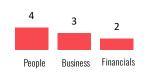
FAIR VALUE RANGE

BEAR	BASE	BULL
6	30	43

ZWIPE VERSUS OMXSPI







KEY STATS

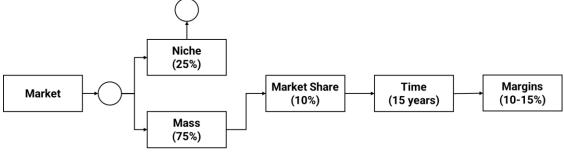
Ticker	ZWIPE
Market	Merkur Mkt
Share Price (NOK)	16
Market Cap (NOKm)	598
Net Debt (NOKm)	-152
Free Float (%)	75%
Avg. daily volume ('000)	25

The Year When It Shall Happen

Let's start with an update to our investment thesis of Zwipe. As outlined in our last longer updates, we base our valuation on our expectations on the four pillars below that primarily focus on payment cards.

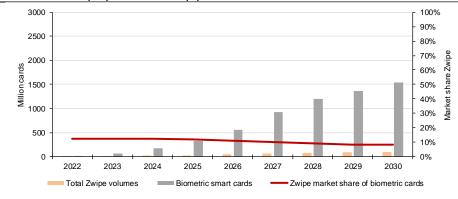
- Mass-market adoption
 - Probability for mass-market adoption versus a niche market
 - Size of the market
- Market share
 - Technology leadership
 - Go-to-market execution
 - Competition
 - Time to end of life
 - For how many years do we think the market for biometric cards to exist
- Margins
 - Operating margins at scale

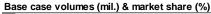
Our long-term estimates are summarized in the model below, and this is what drives our valuation:



Source: Redeye Research

We presented our investment case of Zwipe during December, which the CEO of Zwipe commented on in a webcast on 1 December 2021. The pillars where the company sees more substantial potential than us is market share (30% against our estimate of 10%) and EBIT margins (25-30% against our estimate of 10-15%). At the core of the investment case is the market development, and our research shows that the total volume of payment cards with EMV chips in 2021 is around 4.3 billion and we expect unit growth of 3-5% over time as cards continue to replace cash and where mobile payments still only make up a small part of the total share. We expect a total addressable market (TAM) of around 4 million biometric payment cards in 2022, making up 0.1% of the total number; the banks will sell these cards as part of their premium offering. We then expect a quick ramp-up in 2023 to just short of 70 million cards or 1.4% of total card sales driven by a mix of customer demand, that banks see this as an income opportunity and lower average selling price for the cards. We have summarized our assumptions below:





Source: Redeye Research

Assumptions for Zwipe payment card sales										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Zwipe's share of total market (%)	4%	13%	13%	13%	12%	11%	10%	9%	8%	8%
Zwipe cards (mil)	0,04	0,4	6,3	16,8	28,4	45,7	70,0	83,2	86,2	97,3
ASP (USD)	9,1	9,1	5,9	4,6	3,8	3,2	3,1	2,7	2,2	1,9
Zwipe payment card sales (NOKm)	3	29	317	661	905	1244	1860	1931	1631	1535
Source: Redeye Research										

Q4: Delay expected

There was no significant news in the Q4 report nor the annual report, released on the same day. As Zwipe press releases all important news on the day of the event, that is something investors in Zwipe are used to. We have been somewhat surprised by the low number of commercial orders in the sector. As Zwipe has not yet received certification by Visa and Mastercard, combined with the worrying situation in the world at the beginning of 2022, we think the takeoff will come later than previously assumed. We, therefore, reduce our sales estimates. At lower volumes, we believe the average selling price is higher (as evident with the 50% gross margin at today's sales levels), and we, therefore, raise our near-term gross margin estimates. All in all, the lower near-term sales and higher near-term margins lead to a fair value decline.

Market development

The number of ongoing pilots in the biometric payment space is increasing, and we have also seen both the first commercial orders and launches. We believe this pattern will only strengthen with a gradual increase in orders. As the first step, we think the order volumes will be small as banks are testing the demand for the product. Step 1 is pilots; step 2 is smaller launches to premium customers; step 3 is mass-market launches. We believe 2022 will be a year for step 1 and 2 while the third will begin in 2023.

Zwipe has announced multiple partnerships with customers in the Middle East and Asia and fewer deals in the U.S. and Europe that have been earlier to embrace new technologies in prior cycles. We asked the CEO of Zwipe about this, and he thought that the U.S. and Europe might well be first out this time around also. Zwipe is opportunistic and wants to secure as many contracts as possible globally. This includes go-to-market partners like processors and other payment service providers, where Zwipe aims for a so-called megaphone effect to reach a broader- and denser network of potential customers.

Market surveys

The Smart Payment Association issued a paper on biometric payments in December 2021 and mentions that 20 pilots are currently underway globally. Supported by the market firm ABI Research, it says that biometric payment cards could "reach critical mass in 2022", which is supported by the number of pilots as well as BNP Paribas commercial deployment. "Ongoing pilots and commercial launches are all providing excellent results and positive feedback, and SPA is confident that many other commercial deployments will continue in 2022." We think the figure issued by the Smart Payment Association is on the low side as Zwipe initiated 14 pilots in 2021. A sidenote we found a bit amusing is that the paper highlights "a recent survey made by Visa" on U.S. customers that found that 86% were interested in using biometrics to verify payments. The problem is it's a study that is more than four years old (which also puts a question mark behind the conclusions in the reports)... Another problem with using the Smart Payment Association as a source is that the barber whether you need a haircut". It could be, however, that consumers would be more inclined to establish a new bank relationship to get the card, but without leaving their existing bank. Unfortunately, there are no verified independent surveys targeting the willingness to switch to biometric cards, hence we must be a bit critical of the results.

A more <u>recent survey backed by Fingerprint Cards</u> mentioned that 48% prefer a biometric payment card, where 63% would consider switching bank to get hold of one, and that 42% are willing to pay more than USD 10 extra a year to have one. The actual figure of people switching banks is 4-8% per year despite banks having dismal customer ratings. We question whether this figure would change dramatically because banks offer a biometric card. In June

2021, Zwipe and IDEX Biometrics studied the payment habits, concerns on COVID-19 and desire for safer and more secure payments of over 1,000 consumers across the U.S. and Canada. The study showed strong demand for biometric payment cards in the U.S., with 77% (81% in Canada) of the respondents wanting their next payment card to be biometric. In addition, 61% in the U.S. (63% in Canada) said they would be willing to pay a monthly fee to obtain such a card.

Announcements during the quarter from Zwipe

We are used to steady news flow from Zwipe, and the fourth quarter didn't disappoint. We have compiled a list of all press releases in the quarter for investors to get a clear view on the activity.

19 Oct - Collaboration with IC Payment to offer payment cards to banks in Latin America.

21 Oct - Pilot announced together with Credit Libanais, one of the largest banks in Lebanon.

2 Nov – Claus Hansen is appointed as head of APAC. Yet again Zwipe manages to hire a highly experienced executive to the team with experience from NXP Semiconductors and Gemalto etc.

3 Nov – Idemia's VISA and Mastercard certifications fully validate the core components of Zwipe Pay One

17 Nov - Pilot announce together with areeba in Lebanon and Iraq.

22 Nov – New partnership with NetPS, a leading provider of payment cards across Africa and Middle East with 30 clients across 15 countries.

25 Nov – Announced solution for access control (which we commented on earlier).

29 Nov – Announced partnership with another card manufacturer in GEPCOM, with printing facilities in the Arab world. We have not found any figures around number of cards produced but believe the company is not on the top 50 list of card manufacturers.

15 Dec – Pilot announced with an Egyptian Bank together with Masria Digital Payments.

- 15 Dec Agreement with an "Industry Leading Payment Services Company" for North America.
- 22 Dec Pilot announced together with INC in Iraq.

23 Dec – Commercial order worth NOK 0.6m for Zwipe Pay One.

27 Dec – Pilot announced with Easy Pay and KL HI-TECH in India. "Aiming for commercial launches of biometric payment cards during the summer of 2022".

27 Dec - A new pilot announced together with a reeba with a medium sized bank in the Levant.

31 Dec – Announced yet another partnership with a card manufacturer, this time Forzabank in Mexico which is part of Forzaform Group, which delivers 25 million payment cards per year.

Announcements after the quarter

The number of announcements has slowed down in 2022 but seems to have picked up the pace again from mid-February. Zwipe is continuing to partner with bank partners to get the necessary connections to banks and direct contact with banks and card manufacturers.

19 Jan – Partnership announced with K2, a personalization bureau focused on the Middle East, Africa and France. 16 Feb – Modularsoft is a certified smart card provider for Malaysian banks and is now a partner of Zwipe to bring its cards to the region.

21 Feb - sKarn RoboticS is an Indian based technology company started in 2019. The company will launch pilots for both Zwipe's access card and payment card solutions.

28 Feb – Partnership announced with Qatar FinTech Hub.

2 Mar – Announced a partnership with the leading card manufacturer in Australia, Placard, with a total of 100 million cards of which a part is payment cards and access control cards. Placard is owned by Zwipe's partner within Access Control, HID Global.

8 Mar – Pilot announced with Mediterrean Bank in Libya. The pilot will be launched in the second quarter of 2022.

4

News from the biometric cards ecosystem

IDEX announced a strategic partnership with a global tier-one smart card manufacturer for IDEX Trusted Bio on the 2nd of December. The agreement does not solely cover the sensor (IDEX sells to Idemia and Zwipe etc.), but the complete solution includes biometric software, applets, inlay, and a security element from Infineon. IDEX have long mentioned that its solution is highly competitive, and this is a strong sign of intent.

On the 28th of February, the Swedish bank challenger Rocker became the first in Sweden to offer its Rocker Touch biometric card. The card is based on IDEMIA F.CODE. The card is part of Rocker's premium offering and costs SEK 99 per month. The price is SEK 29 per month for the regular card without biometrics. If the price per card (ASP) is around USD 10 or NOK 100, it means Rocker gets back the cost in less than two months (there are also some other benefits in the premium offering that increase Rocker's cost). As a comparison, BNP Paribas charges EUR 24 extra per year for its biometric card. Rocker has 200 000 customers in total, and it doesn't publish the number of premium subscribers. We believe other neo-banks such as Revolut and Klarna are also likely to launch a biometric payment card shortly and we will follow news on this closely going forward.

About BNP Paribas, we have seen that it is marketing its biometric card on TV and physical locations aroun d France. It's been challenging to follow the demand, but we think the marketing campaign shows that BNP Paribas is doing what it can to promote the card and stand out from the crowd. We couldn't find any mention of the card in the Q4 report from BNP Paribas.

Technical readiness and certification

As stated before, we think the Zwipe Pay product is sufficient both from a technical and cost perspective to achieve mass-market status. The manufacturers of the cards have performed trials for lamination and implanting, and six payment manufacturers have already presented demo cards with Zwipe Pay components. Zwipe is currently undergoing testing through Visa and Mastercard, which are needed for the Zwipe Pay to become certified. The final certifications from Mastercard and Visa is issued to the manufacturers, and all card manufacturers need to apply for certification. We don't see a risk that the certification will fail; it's only a matter of time.

Zwipe mentions in the annual report that it has secured the necessary quantities for 2022 (the numbers are unknown at this stage as Zwipe does not disclose the information). We asked Zwipe's CEO how quickly the company could deliver an order. He answered that its about twelve to twenty weeks depending on the size of the order (Zwipe will carry inventory to cater for smaller volumes). Zwipe is encouraging customers to order in advance to secure the deliveries as the current shortage in semiconductors continues to cause havoc in glo bal supply chains.

Updates on the people side

Danielle Glenn was appointed as the new CFO and head of IR from the 1st of May 2022. Lars Kristian Solheim, the current CFO, is pursuing other opportunities outside of Zwipe. Glenn has previous experience in the role as CFO, and head of IR from Arctic Bioscience AS, which is listed on Euronext Growth Market in Oslo. Zwipe highlighted her experience from international capital markets in the press release: *"Zwipe is continually expanding the commercial and strategic opportunities for its unique biometric technology. Danielle's background as a CFO operating at the intersection of finance, commercial operations, technology and investor relations in fast-growing companies as well as her deep experience from international capital markets will provide us with the financial skill set we need to increase long-term stakeholder value in the coming years".*

The CEO of Zwipe continues to show how much he believes in the company by exercising 384 000 options on the 20th of January at a strike price of NOK 10. Through his company Energetic AS, he is now the fourth largest owner of Zwipe with 3.5% of the capital.

Financial estimates

We have continuously been too optimistic in our near-term sales estimates, and we have decided to bring our estimates down slightly as we expect slow sales in the first half of the year. Zwipe already has a few orders in the book, with the largest being that of Beautiful Card Corporation, worth roughly NOK 20 million. We expect at least part of this order to turn into sales in 2022. We also expect around SEK 10m sales from access cards in 2022. In total, we now expect NOK 39m in sales in 2022 and NOK 338m in sales in 2023, a year when we expect Zwipe to become profitable. We estimate a negative EBIT of NOK 68m this year, where we expect the cash burn to be similar. As we expect a positive net profit already in 2023, we think the cash position of NOK 152m is healthy.

Forecast adjustments				
(NOKm)		2022E	2023E	2024E
Sales	Old	59	356	745
	New	39	338	724
% change		-33%	-5%	-3%
EBIT	Old	-49	40	132
	New	-68	12	92
% change		40%	-71%	-30%
Profit before tax	Old	-49	40	132
	New	-68	12	92
% change		40%	-71%	-30%
Earnings per share (NOK)	Old	-1,32	1,07	3,57
	New	-1,85	0,32	2,48
% change		40%	-70%	-31%

Source: Redeye Research

Our long-term estimates, including both smart payment cards and access control cards follows:

Earnings estimates (NOKm)										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total sales (NOKm)	3	39	338	724	1011	1363	2013	2118	1797	1726
whereof payment cards	100%	73%	94%	91%	89%	91%	92%	91%	91%	89%
Gross margin	50%	38%	30%	27%	23%	22%	20%	19%	19%	19%
OPEX	-83	-83	-90	-100	-110	-125	-150	-160	-170	-180
Operating profit/loss	-82	-68	12	92	118	172	253	252	174	150
Tax	0%	0%	0%	0%	0%	20%	20%	20%	20%	20%
EPS (NOK)	-2,21	-1,85	0,32	2,48	3,18	4,65	6,84	6,82	4,70	4,06

Source: Redeye Research

Investment Case

Opportunistic with great value proposition

In 2019 Zwipe partnered with the world's second largest card manufacturer, Idemia – a clear indication of its competitiveness. This improves the ability to manufacture biometric smart cards ("BSCs") cost-efficiently, in turn, imperative to the success of BSCs. Zwipe has consistently built on its position by partnering up with many actors in the payments ecosystem while larger actors (such as the larger card manufacturers) have moved slowly. Zwipe has nothing to protect while large card manufacturers have their cash cows in the existing EMV payment cards and are ripe for disruption.

Strong IP and a market moving in the right direction

Through the partnership with Idemia, Zwipe targets a reduction of card costs by over 50%, implying potential cost leadership. We view Idemia and Zwipe's IP as strong cards up Zwipe's sleeve. Zwipe has been granted wide patent protection for how terminals identify a biometric card, a prerequisite for processing biometric contactless payments. In an emerging market, technology in and of itself is not sufficient. We see continuous signs for a market take-off. We believe, however, the cheaper card stemming from the Idemia/Zwipe solution can facilitate commercial volumes from 2022. Contactless BSCs combine state-of-the-art security and the highest convenience, i.e. there is no need for a cap (using PIN codes), meaning faster retail checkout. This should render more transactions and revenue for the issuing banks. Thus, BSCs are simply too good not to happen.

Roadblocks on the way

One of the challenges for Zwipe and the market as a whole is further delay in take-off. There are other solutions than cards, such as mobile phones with strong authentication solutions through biometrics or face recognition. A larger share of the younger population is using their mobile phones as the primary way to pay. Another challenge is around the actual user-friendliness of biometric cards. With the current technology, it takes up to a second to finish a transaction which is not much. However, the authentication using a biometric card may not always be smooth. There is risk for the shoppers having to re-authenticate several times before finishing a transaction, thereby increasing friction. This leads to our view of a 75% probability for mass-market adoption.

Commercial orders to drive the stock

Commercial orders can drive the stock towards our base case of NOK 30. Our bear case is based on failed market traction and a fire sale of the IP at NOK 6 per share. In our bull case, we see a significant upside to NOK 43 based on higher BSC penetration. The wide fair value range illustrates the uncertainty of Zwipe's market.

Valuation

In our bear case we see the market scaling at a very slow pace - too slow for Zwipe to cover its costs. In this scenario, we believe larger players like NXP can survive as they have more economic muscles behind them and can wait for the market to really take-off. Zwipe does not have strong institutional ownership and another rights issue could prove hard, especially if the stock market in general is experiencing a significant downturn. Also, it is yet uncertain how the large change in the organization and new collaboration with Idemia will pan out. We, therefore, assume that Zwipe will not be able to continue in its current shape and instead tries to monetize its strong IP portfolio, especially its wait time extension patent, and possibly also in postplacement, outside Europe. As Zwipe has spent around NOK 300m this far, we believe a reasonable value of the IP is half of these investments. This corresponds to NOK ~150m that Zwipe could possibly receive in a fire sale of its strong IP portfolio. Moreover, we assume there is value of at least NOK 50m in e.g. the expertise and knowhow, meaning a bear case of NOK 6 per share.

Base Case 30 NOK

Our valuation scenarios are based on years 2022-2036 and the payment cards. All scenarios use a required rate of return of 12% and a terminal growth of 2%. We expect the market share for biometric payment cards will reach 10% of total cards in 2026 equaling around 560 million cards growing to 1.5 billion in 2030. We handicap this by setting our probability for mass market adoption to 75%. We handicap this by setting our probability for mass market adoption to 75%. As for Zwipe's market share, we expect it to begin at 13%, average 10% during the period and drop to 9% by 2030. All in all, this implies volumes for Zwipe reaching ~100 million in 2030, following a ~85% CAGR between 2022 and 2030. We expect the ASP to start at about USD 9 (including sensors), dropping to ASP 2, averaging USD 3 over the whole period, since the higher volumes are delivered in the end of the period, when ASP is lower. Our ASP and volume assumptions above means a sales CAGR of ~55% and payment BSC sales reaching about NOK 1.5bn in 2030. We expect the gross margin to start at slightly above 30% (incl lower margins for sensors) and then we assume it will come down to ~20% due to competitive dynamics. We assume the average gross margin over the whole period will be 21%. We expect OPEX to grow by CAGR 7%, averaging about 8% of sales from 2026. The following leads to EBIT margins of on average 12% over the period. We assume a long-term EBIT margin of 10%.

Bull Case 43 NOK

The differing parameter in our optimistic scenario, compared to base case, is that we increase the probability for mass market adoption from 75% to 100% and adjust Zwipe's volumes accordingly. With a BSC market penetration of 15% of all payment cards sold globally in 2026, instead of 10% as in the base case, we derive a fair value of NOK 43. The discrepancy from our base case shows the innate potential for Zwipe if biometric cards can gain a larger market share. We assume similar cost levels as in base case. Consequently, we assume average EBIT margins of 12%. Our long-term EBIT margin is 10%

Catalysts

Commercial orders

The most important catalyst during the next 6 months, in our view, is commercial orders, from existing and new partnerships. The company already announced a pilot with a Global Tier-1 Bank at the beginning of September and we expect further news. There were a total of 14 pilots initiated for Zwipe Pay in 2021 and we think successful results are triggers for commercial orders. This is also a risk for the case where unsuccessful pilots would be concerning.

	IMPACT						
Downsi	ide	Up:	Time Frame				
Significance	Likelihood	Significance	Likelihood				
Minor	Unlikely	Major	Highly likely	Mid			

Proven breakthrough in production costs

The costs are expected to come down with scale in production. The goal is to get the total card costs down to USD 5 per card, which we think will likely happen in the next couple of years driven by high volumes.

IMPACT						
Downs	ide	Upsi	de	Time Frame		
Significance	Likelihood	Significance	Likelihood			
Major	Unlikely	Major	Possible	Long		

Summary Redeye Rating

The rating consists of three valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 1 points. The maximum score for a valuation key is 5 points.

No rating changes in the report

People: 4

We arrive at an average people rating (4/5) where the most positive aspect is the skill set and experience in the management team and board, following recent additions. A large part of the management team has now been in place for a period of 3+ years and they have shown their capabilities in attracting several key employees with long experiences in the sector. While the CEO has increased his ownership considerably we would like to see an even higher ownership stake. Regarding capital allocation skills it's too early to judge as partnerships have not turned into sales at this stage and more time is needed to know if the capital has been employed in the best possible way. We think the company could be even more upfront on communicating near-term challenges.

Business: 3

Biometric payment cards have been considered around the comer for several years, yet the market does not exist today. However, we expect it to quickly emerge as soon as costs come down to adequate levels, given the strong advantages of biometric payment cards. Considering the 4 billion payment cards that are shipped each year, even a moderate penetration implies significant growth opportunities. Zwipe's business model is scalable when volumes ramp. The expertise of Zwipe is also valida ted by partnerships with large players like e.g., Idemia, which compensates for its tiny size (pre-revenue etc.). The payment industry is slow moving, which creates a barrier to entry, but it is hard to identify how sustainable the competitive advantages are at this early point in time. However, competition is positive in this stage, as it will help starting the market.

Financials: 2

Following raising NOK 104m in a recent directed share issue, Zwipe has a strong financial position. Zwipe is, however, still essentially pre-revenue and therefore unprofitable, which weighs on the financials rating, but the scalable business model means Zwipe can quickly scale when sales ramp up and consequently reach break-even.

	2021	2022E	2023E	2024E
IN COME STATEMENT Revenues	3	39	338	724
Cost of Revenues	1	32	236	531
Gross Profit	2	7	102	194
Operating Expenses	76	83	90	100
EBITDA	-75	-76	12	94
Depreciation & Amortization	8	1	1	0
EBIT	-83	-77	12	93
Net Financial Items FBT	0	4	0	0
LDI Income Tax Expenses	-83 0	-73 0	12 0	93 0
Non-Controlling Interest	0	0	0	0
Net Income	-83	-73	12	93
BALANCE SHEET Assets				
Assets Current assets				
Cash & Equivalents	152	74	86	179
Inventories	2	0	0	0
Accounts Receivable	5	0	0	0
Other Current Assets	0	0	0	0
Total Current Assets	160	74	86	179
Non-current assets				
Property, Plant & Equipment, Net	3	2	2	1
Goodwill	0	0	0	, 0
Intangible Assets	0	0	0	0
Right-of-Use Assets	0	0	0	0
Shares in Associates	0	0	0	0
Other Long-Term Assets	0	0	0	0
Total Non-Current Assets	4	3	2	2
Total Assets	163	76	88	181
L ia b ilitie s				
Current liabilities				
Short-Term Debt	0	0	0	0
Short-Term Lease Liabilities	0	0	0	0
Accounts Payable	0	0	0	0
Other Current Liabilities Total Current Liabilities	14	0	0	0
TUTALOULLENT LIADIILUES	14	0	0	0
Non-current liabilities				
Long-Term Debt	0	0	0	0
Long-Term Lease Liabilities	0	0	0	0
Other Long-Term Liabilities	0	0	0	0
Total Non-current Liabilities	0	0	0	0
Non-Controlling Interest	0	0	0	0
Shareholder's Equity	149	75	87	180
Total Liabilities & Equity	163	75	87	180
CASH FLOW Nopat	-83	-77	12	93
Change in Working Capital	-83 -5	-// -7	12	93 0
Operating Cash Flow	-77	-79	12	94
-	.,			
Capital Expenditures	0	0	0	0
Investment in Intangible Assets	-2	0	0	0
Investing Cash Flow	-2	0	0	0
Financing Cash Flow	105	0	0	0
Free Cash Flow	-78	-79	12	94

Initial Period (2022–2024)			Sum FCF	(N O K m) 22
Momentum Period (2025–2030)				469
Stable Period (2031–)				476
Firm Value				967
Net Debt				-152
Equity Value				1119
Fair Value per Share				29,91
	2021	2022E	2023E	20248
CAPITAL STRUCTURE				
Equity Ratio Debt to equity	0,9	1,0	1,0	1,0
Net Debt	0,0 -152	0,0 -74	0,0 -86	0,0 -179
Capital Employed	-132	-74 76	-80	181
Working Capital Turnover	-0,4	70	00	101
0 D 0 W T U				
G R O W T H Revenue Growth	38%	1447%	759%	114%
Basic EPS Growth			-116%	706%
Adjusted Basic EPS Growth	19%	-13%	-116%	706%
PR O FIT ABILITY				
ROE	-61%	-65%	14%	70%
ROCE	-56%	-101%	13%	51%
ROIC	-518%	-1240%	582%	6701%
EBITDA Margin (%)	-2936%	-193%	4%	13%
EBIT Margin (%) Net Income Margin (%)	-3266%	-196%	3%	13%
	-3274%	-186%	3%	13%
VAL U AT 10 N				
Basic EPS	0,0	-2,0	0,3	2,5
Adjusted Basic EPS	-2,2	-2,0	0,3	2,5
P/E	neg	neg	51,7	6,4
EV/Revenue EV/EBITDA	26,7	13,3	1,5	0,0
EV/EBIT	neg	neg neg	41,8 44,3	4,5 4,5
P/B	neg	neg	,0	7,0
SHAREHOLDER STRUCT		C 4	PITAL %V	0 T E C 0/
Vasastaden Holding AB	UNL	0.1	16,9%	
			16,9% 10,8%	16,9%
Vasastaden Holding AB	IURL			16,9% 10,8%
Vasastaden Holding AB Erik Selin			10,8%	16,9% 10,8% 4,5%
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS			10,8% 4,5%	16,9% 10,8% 4,5% 3,5%
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FOR MATION			10,8% 4,5% 3,5% 3,3%	16,9% 10,8% 4,5% 3,5% 3,3%
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FOR MATION Reuters code			10,8% 4,5% 3,5% 3,3% Z	16,9% 10,8% 4,5% 3,5% 3,3% WIPE:SS
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE INFORMATION Reuters code List			10,8% 4,5% 3,5% 3,3%	16,9% 10,8% 4,5% 3,5% 3,3% WIPE:SS
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE INFORMATION Reuters code List Share price			10,8% 4,5% 3,5% 3,3% Z	16,9% 10,8% 4,5% 3,5% 3,3% WIPE:SS rst North
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE INFORMATION Reuters code List			10,8% 4,5% 3,5% 3,3% Z	16,99 10,89 4,59 3,59 3,39 7WIPE:SS rst North
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE INFORMATION Reuters code List Share price			10,8% 4,5% 3,5% 3,3% Z	16,99 10,89 4,59 3,59 3,39 7WIPE:SS rst North
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FORMATION Reuters code List Share price Total shares, million			10,8% 4,5% 3,5% 3,3% Z kur Mkt, Fi	16,9% 10,8% 4,5% 3,5% 3,3% WIPE:SS
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FORMATION Reuters code List Share price Total shares, million MAN AG E ME NT & BO AR D CEO CFO		Mer	10,8% 4,5% 3,5% 3,3% Z kur Mkt, Fi	16,9% 10,8% 4,5% 3,5% 3,3% CWIPE:SS rst North 10 37,3662
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE INFORMATION Reuters code List Share price Total shares, million MAN AGEMENT & BOARD CEO		Mer	10,8% 4,5% 3,5% 3,3% Z kur Mkt, Fi André L rs Kristian	16,9% 10,8% 4,5% 3,5% 3,5% 3,3% CWIPE:SS rst North 10 37,3665 øvestarr Solheim
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FOR MATION Reuters code List Share price Total shares, million MAN AG E ME N T & BO AR D CEO CFO Chairman		Mer	10,8% 4,5% 3,5% 3,3% Z kur Mkt, Fi André L rs Kristian	16,9% 10,8% 4,5% 3,5% 3,3% CWIPE:SS rst North 10 37,3667
Vasastaden Holding AB Erik Selin Lars Windfeldt Energetic AS Avanza Pension SHARE IN FORMATION Reuters code List Share price Total shares, million MAN AG E ME NT & BO AR D CEO CFO		Mer. La	10,8% 4,5% 3,5% 3,3% Z kur Mkt, Fi André L rs Kristian	16,9% 10,8% 4,5% 3,5% 3,5% 3,5% 3,5% 3,5% 3,5% 3,5% 2WIPE:SS rst North 10 37,3665 37,3665 Øvestarr Solheim en Lantto Redeye Al

Redeye Rating and Background Definitions

Company Quality

Company Quality is based on a set of quality checks across three categories; PEOPLE, BUSINESS, FINANCE. These are the building blocks that enable a company to deliver sustained operational outperformance and attractive long-term earnings growth.

Each category is grouped into multiple sub-categories assessed by five checks. These are based on widely accepted and tested investment criteria and used by demonstrably successful investors and investment firms. Each sub-category may also include a complementary check that provides additional information to assist with investment decision-making.

If a check is successful, it is assigned a score of one point; the total successful checks are added to give a score for each sub-category. The overall score for a category is the average of all sub-category scores, based on a scale that ranges from 0 to 5 rounded up to the nearest whole number. The overall score for each category is then used to generate the size of the bar in the Company Quality graphic.

People

At the end of the day, people drive profits. Not numbers. Understanding the motivations of people behind a business is a significant part of understanding the long-term drive of the Company. It all comes down to doing business with people you trust, or at least avoiding dealing with people of questionable character.

The People rating is based on quantitative scores in seven categories:

• Passion, Execution, Capital Allocation, Communication, Compensation, Ownership, and Board.

Business

If you don't understand the competitive environment and don't have a clear sense of how the business will engage customers, create value and consistently deliver that value at a profit, you won't succeed as an investor. Knowing the business model inside out will provide you some level of certainty and reduce the risk when you buy a stock. The Business rating is based on quantitative scores grouped into five sub-categories:

• Business Scalability, Market Structure, Value Proposition, Economic Moat, and Operational Risks.

Financials

Investing is part art, part science. Financial ratios make up most of the science. Ratios are used to evaluate the financial soundness of a business. Also, these ratios are key factors that will impact a company's financial performance and valuation. However, you only need a few to determine whether a company is financially strong or weak.

The Financial rating is based on quantitative scores that are grouped into five separate categories:

• Earnings Power, Profit Margin, Growth Rate, Financial Health, and Earnings Quality.

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Disclaimer

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Redeye AB ("Redeye" or "the Company") is a specialist financial advisory boutique that focuses on small and mid-cap growth companies in the Nordic region. We focus on the technology and life science sectors. We provide services within Corporate Broking, Corporate Finance, equity research and investor relations. Our strengths are our award-winning research department, experienced advisers, a unique investor network, and the powerful distribution channel redeye.se. Redeye was founded in 1999 and since 2007 has been subject to the supervision of the Swedish Financial Supervisory Authority.

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Redeye Rating (2022-03-10)

Rating	People	Business	Financials
5р	33	15	4
3p - 4p	137	123	43
0p - 2p	5	37	128
Company N	175	175	175

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CONFLICT OF INTERESTS

Niklas Sävås owns shares in the company : No

Redeye performs/have performed services for the Company and receives/have received compensation from the Company in connection with this.