

REDEYE

16 May 2019

Heliospectra

Sector: Industrial Goods & Services

Gearing up for growth

Better than expected sales and costs in Q1

We expected weaker sales in Q1'19 based on the order intake in H2'18. Heliospectra, however, proved us wrong by reporting sales of SEK 9.7m (vs. estimate SEK 6.5m) while also showing much better than expected gross margin improvements. OPEX was also somewhat lower than expected, which altogether resulted in better than expected EBIT (SEK -9.5m vs. estimate SEK -12m). The order intake of SEK 12.3m (2% y/y growth) also points to a decent start of 2019. We are, in particular, upbeat about the gross margin improvements shown during the quarter, which we believe to be explained by the change of contract manufacturer.

Fueled up and positioned for an eventful year

In Q2'19, Heliospectra completed the rights issue which will bring much-needed SEK 49m to its cash balance. The cash addition will allow for an increased presence in North America, where Heliospectra currently is expanding into Canada, and an increased focus on the helioCORE offering. We find the initiatives sound given the enormous growth opportunities following legalization in Canada and the potential of building a base of recurring revenue through sales of the control system.

Revised forecast for 2019, but long-term case and fair value range intact

While expecting 2019 to be an eventful year following the expansion in Canada and increased focus on new products and services, we believe that there currently is uncertainty to the 2019 outlook. Although sales in Q1 came in above forecast, it has not maintained the high pace in order intake growth shown in 2018 and not yet announced the orders needed to reach our previous Q2 and Q3 forecast. We are expecting Heliospectra to attract a number of sizeable orders during the year, but it is possible that such orders will be delivered towards the end of the year or in 2020. Therefore, we have lowered our shortterm sales forecast.

We are at the same time upbeat about its recent initiatives, which are expected to bring high growth over the coming years. The expansion in Canada will likely not have an immediate impact on sales but we expect it to bring substantial orders leading to high growth in 2020 and beyond. Hence we leave our long-term assumptions unchanged. The modifications have limited effect on our fair value range, which remains unchanged with a fair value at SEK 6 per share in base case.

KEY FINANCIALS (SEKm)	2017	2018	2019E	2020E	2021E	2022E
Net sales	36	45	46	76	114	153
EBITDA	-29	-31	-33	-23	-10	8
EBIT	-33	-33	-36	-27	-13	5
EPS (adj.)	-0.9	-0.9	-0.8	-0.6	-0.3	0.1
EV/Sales	3.0	5.2	4.8	3.2	2.3	1.7
EV/EBITDA	-3.8	-7.7	-6.7	-10.6	-26.6	30.1
EV/EBIT	-3.3	-7.1	-6.1	-9.3	-19.9	50.4
P/E	-4.4	-7.4	-6.7	-8.9	-17.9	53.0

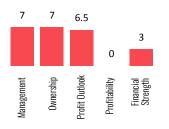
FAIR VALUE RANGE

BEAR	BASE	BULL
1.5	6.0	10.0

VERSUS OMXS30



REDEYE RATING



KEY STATS

Ticker	HELIO
Market	First North
Share Price (SEK)	5.0
Market Cap (MSEK)	234
Net Debt 19E (MSEK)	-22
Free Float	56 %
Avg. daily volume ('000)	50

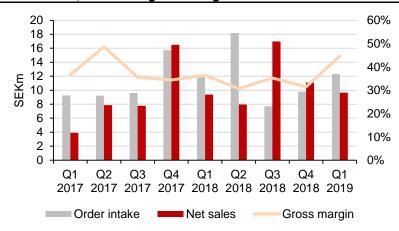
ANAI VCTC

ANALISIS	
Dennis Berggren	
dennis.berggren@redeye.se	
Henrik Alveskog	
henrik.alveskog@redeye.se	

01'19: Better than expected

Heliospectra reported sales of SEK 9.7m in Q1'19, which thereby exceeded our estimate of SEK 6.5m by far. We expected a weaker quarter based on the order intake in H2'18, which was hampered by the change of contract manufacturer. We argue that the change of manufacturer is a very important move as Heliospectra struggled with a decreasing gross margin in 2018. It reported a gross margin of 44.6% in Q1 (up from 31.4% in Q4), which indicates that the change of contract manufacturer has had a significant positive effect. It, however, only regards one quarter and it could possibly also be explained by smaller and more profitable projects. It should further be mentioned that the CoGS in Q4'18 was affected by one-offs related to the change of manufacturer.





Source: Redeye Research

Both external costs and personnel expenses were lower than expected and the other OPEX of SEK 12.8m came thereby in below our estimate SEK 14m. Altogether, it resulted in better than expected EBIT. The deviation to Q1'18 (-39%) is fully explained by increased OPEX due to the expansion investments. It reflects that there still is much work left to do before reaching break-even. With current costs and maintained gross margin, Heliospectra would need quarterly sales around SEK 28.5m to reach break-even at EBITDA-level.

Heliospectra: Actual vs Estimates							
(SEKm)	Q1'18	Q1'19E	Q1'19A	Diff. (%)			
Net sales	9.4	6.5	9.7	49%			
Gross margin (%)	36%	39%	45%				
EBITDA	-6.1	-11.3	-8.5	25%			
EBIT	-6.8	-12.0	-9.4	21%			

Source: Redeye Research

The operating cash flow amounted to SEK -12.2m, whereof SEK -3.7m explained by working capital changes. After investment activities of SEK 0.7m and financing activities of SEK 9.7m (bridge financing), the total cash flow in Q1 amounted to SEK -3.2m. It reflects a high burn rate, which has to be improved over the coming years. By the end of Q1'19, Heliospectra held SEK 8m in cash and interest-bearing debt of SEK 11m. The proceeds from the rights issue should bring about SEK 49m to its cash position in Q2.

Altogether, both sales and costs were better than forecast in Q1 and we are, in particular, upbeat about the substantial gross margin improvements. However, our belief is that Heliospectra likely delivered a large part of its backlog in Q1 and that it must secure significant orders within a short period to reach or previous FY19 sales forecast (SEK 57). We currently find it somewhat too optimistic to expect such large orders in a short period of time and have, therefore, revised our estimates.

Rights issue completed

Investors subscribed for 76% of the shares offered in the issue whereas the remaining 24% will be allocated to its principal owners Weland group and Midroc according to their guarantee commitments. As mentioned, the issue will bring much-needed capital (net proceeds of SEK 49m) and thereby secure its financial needs for at least the upcoming 1.5 years. It will also allow for an increased presence in North America as well as an increased focus on the helioCORE and helioCARE offerings, and thereby bolster its growth opportunities.

Opening up business in Canada

Heliospectra has recently announced that it will open up a business in Toronto, Canada. Its focus on the North American market is nothing new, and Heliospectra stated that it would open an office in Canada already in its 2017 annual report. We regard the move to be sound, especially given the opportunities that have emerged following the legalization of cannabis in North America. It mentions that it also will focus on commercial producers of food as well as strengthening its distribution network in the region.

SEK 5.7m order from Ljusgårda

In the beginning of April, Heliospectra announced that it had received an order of ELEXIA lights and helioCORE valued at SEK 5.7m from Ljusgårda AB, which is a modern indoor growing facility (7000m2) in Tibro, Sweden. Ljusgårda mentioned that "few farmers are able to control the wavelength and the amount of lights the plant receives", illustrating the value Heliospectra's solutions bring. As an example, by consulting the customer in lighting strategies, Ljusgårda was able to reduce the production time of arugula by 19%. The order value reflects the recent trend of increasing order sizes. It will, however, be delivered over five quarters (Q2'19 to Q3'20).

Launching MITRA series

The 8th of May, Heliospectra announced the launch of its new MITRA series. MITRA is a modular LED lighting solution aimed for greenhouse, vertical and indoor crops. The series give growers the ability to customize setups according to their own needs, and comes in three different spectrum options: vegetative, flowering and broad.

MITRA features integration with helioCORE and should thus be regarded a full solution giving growers lighting, automation and control abilities. The advantages for growers are improved plant quality, shortened production cycles while also keeping its OPEX low through electrical efficiency. Heliospectra states that MITRA will be commercially available at the end of Q3'19.

SEK 2.8m order from Macedonian company SOG DOO

Heliospectra has also announced an order worth SEK 2.8m from SOG DOO, which is building a "state-of-the-art" medicinal production facility in Macedonia. The order consist of ELIXIA and helioCORE and the company also stated that it has purchased helioCARE services. Hence, it is fully in line with and reflects the company's increased focus on its new revenue streams.

Estimates

Heliospectra showed very positive development in 2018 and managed to increase the order intake by 10% even though the intake was negatively affected by the change of manufacturer in H2. The order intake of SEK 12.3m is solid, but we believe that it has delivered a large part of its backlog in Q1 and the order from Ljusgårda (SEK 5.7m) will be delivered over five quarters. Therefore, we find it reasonable to expect somewhat lower sales in O2.

We still expect Heliospectra to secure significantly larger orders, and argue that it should be able to attract orders exceeding SEK 10m going forward. The Canadian cannabis market offers significant potential, and we expect Heliospectra to secure several large orders within this market, which should spur growth in 2020 and beyond. While we are expecting substantially larger orders during the year, it is possible that such orders will be delivered during late 2019 or in 2020. As of now, it has not yet announced the orders necessary to reach our previous full-year forecast. Therefore, we have also lowered our FY19 estimate to SEK 46m (previously SEK 57m).

Heliospectra: Base	case estimate	S							
(SEKm)	2017	2018	Q1'19	Q2'19E	Q3'19E	Q4'19E	2019E	2020E	2021E
Net sales	36.0	45.4	9.7	8.3	12.2	15.8	46.0	75.9	113.9
CoGS	-22.3	-30.1	-5.4	-5.0	-7.2	-9.6	-27.1	-44.0	-64.9
Gross margin (%)	40%	34%	45%	40%	41%	39%	41%	42%	43%
OPEX	-43.2	-46.3	-12.8	-13.5	-10.7	-14.5	-51.5	-56.1	-60.8
EBITDA	-28.8	-30.5	-8.5	-10.2	-5.7	-8.3	-32.1	-23.3	-9.8
EBIT	-33.1	-33.3	-9.4	-11.0	-6.5	-9.1	-35.5	-26.6	-13.1
Growth (%)	56%	26%	3%	5%	-28%	43%	1%	65%	50%
EBIT margin (%)	-90%	-72%	-98%	-131%	-53%	-58%	-76%	-35%	-11%

Source: Redeye Research

The company reported an impressive gross margin in Q1, which we believe to be explained by the change of contract manufacturer as well as a number of smaller projects. CEO Ahmadian has earlier stated that the change of manufacturer should bring a gross margin around 40%. In the short-term, we believe that it is likely that the gross margin will vary around 40% depending on sales mix. As an example, sales of ELEXIA and EOS should bring greater margins while its SIERA lightbars are more aggressively priced, which should have a negative effect on the gross margin.

In the long-term, we expect the gross margin to expand following increased sales of helioCORE. We further expect that future larger deals will lead to volume discounts, having an adverse effect on the gross margin. Therefore, we keep our gross margin forecast around 41-43% for 2019-2021E. Regarding OPEX, we still expect to see somewhat higher levels in Q2'19 following the opening of an office in Canada.

Concerning helioCORE, it seems like the solution is gaining traction as it has been included in a majority of the orders announced since the commercial launch. We, however, believe that Heliospectra must increase the base of installed systems substantially for it to have a material impact on sales. We expect that helioCORE will account for greater revenues going forward, but not expecting any larger revenues (as part of sales) until 2021 and beyond.

As earlier stated, we believe that the recent rights issue has secured its financial needs for at least the upcoming 1.5 years. It should be able to reach break-even in 2022 without needing to raise additional equity, but it requires the company to show substantial growth over the coming years while keeping costs under control.

Valuation

We use a discounted cash flow model (DCF) for valuation purposes. The applied discount rate (WACC) is 13.2%, which is based on a number of parameters that together form Redeye's rating model. We further apply a tax rate of 22%.

By the end of Q1'19, Heliospectra held SEK 8m in cash and interest-bearing debt of SEK 11m. The valuation is adjusted according to the rights issue (net proceeds of SEK 49m and 46.8m shares in total), which should result in a net cash position about SEK 46m.

Base case

The valuation is based on the estimates and assumptions presented in the previous section. We expect Heliospectra to deliver substantial growth over the coming years by continuing to increase the average order size through significantly larger orders during 2019-2020. We are, in particular, expecting it to benefit from the cannabis market in North America in the short-term while also securing larger orders from large scale growers of food.

We have earlier stated that we expect Heliospectra to improve its gross margin over time. In Q1, it showed the first effects of the change of external manufacturer which was significant. Although expecting it to vary around 40% in 2019, we expect an improved margin over time following increased sales of helioCORE and helioCARE. High sales growth and improved margins should enable Heliospectra to achieve an average operating margin of 18.5% in the long-term, we argue. We further apply a terminal EBIT-margin of 18% for valuation purposes.

Heliospectra: Base-case assumptions							
Assumptions:	2019-2021	2022-	DCF-value				
CAGR Sales	35.9%	16.3%	WACC	13.2%			
EBIT margin (avg)	-42%	18.5%	PV of FCF	92			
			PV of Terminal Value	139			
Terminal			Sum PV	231			
Terminal growth of FCF		2.0%	Net cash	46			
EBIT-margin (terminal)		18.0%	DCF-value	277			
- , , ,			Fair value per share	6.0			
			Shareprice today	5.0			
			Potential/Risk	20%			

Source: Redeye Research

Our key long-term assumptions remain unchanged and our fair value in **base case** stands at SEK 6 per share, indicating a potential upside about 20% from current levels.

Bear Case 1.5 SFK

Lower sales growth in all segments delays break-even.

We further incorporate lower return of the recently introduced products and solutions (HelioCORE and HelioCARE).

Based on the assumption of sales growth (CAGR) of 27% between 2019 and 2021 as well as a lower long-term growth (14.6% beyond 2021).

Heliospectra fails to mitigate price pressure on hardware by achieving economies of scale, thus resulting in lower gross margins. In our negative bear case, we assume a long-term gross margin of about 38%.

The above assumptions of lower sales growth and gross margin ultimately result in lower expected operating margin (long-term EBIT-margin averaging about 12%).

Base Case 6.0 SEK

Over the next two years, Heliospectra wins several orders in the greenhouse cultivation segment, mainly in Europe, and the medical plants segment following the legalization in the Americas.

We assume the average order size to increase furtherly. We expect Heliospectra to win several orders within the greenhouse cultivation segment where we believe that the order size could be substantially larger.

We expect the company to improve its gross margin during the coming years following a successful introduction of helioCORE and increased operational efficiency.

In our base case, we assume a long-term gross margin up towards 50%. Increased revenues and improved gross margins will lead to an average operating margin of around 19% in the long-term. In our terminal period, we assume an average EBIT-margin of 18%.

Bull Case 10.0 SFK

Higher sales growth in all segments from the rapid adoption of LED lighting in the greenhouse cultivation segment and higher market shares in the medical plants segment. We also assume a greater increase in average order size following significantly larger orders.

Based on the scenario where Heliospectra keeps its position as the leading supplier of intelligent LED growing lights. In our bull case, we estimate an average annual sales growth (CAGR) of 18.5% beyond 2021.

We assume higher gross margins thanks to a successful introduction of HelioCORE and, eventually, the patented complete biofeedback system. This will, however, be slightly offset by lower gross margins in orders of significant sizes.

Based on an average gross margin of 48% beyond 2021. Greater revenues and margins ultimately result in a higher operating margin. In bull case, we estimate a long-term average operating margin around 22%.

Investment Case

Approaching an inflection point as sales start taking off. Heliospectra has transitioned from being a research company with little focus on sales to become a leading global player in the growing market for intelligent lighting solutions. With its strong research background and several important contracts and partnerships, Heliospectra is on the verge of its big market breakthrough. The company has managed to grow its order intake substantially during the previous 18 months and has recently shown its ability to secure orders exceeding SEK 10m (through Griffin Greenhouse). We expect the average order size to continue to increase following an inflow of substantially larger orders from large commercial growers of food and cannabis.

Rapid market growth driven by global trends. The use of LED grow lights address global issues of environmental impact from agriculture and fresh food supply for the urban population. There is a growing interest in control and automation for agriculture to raise productivity. LED grow lights are more energy efficient than traditional HID/HPS lamps traditionally used in greenhouses and growers increasingly replace traditional lighting solutions in commercial greenhouse operations. The LED grow light market is expected to grow at a CAGR of 27% and through its leading grow light systems that provide growers benefits of increased automation, higher crop quality and shortened grow cycles, Heliospectra should be able to grow faster than the market, we argue.

Heliospectra has established itself as a well-renowned player in the legal marijuana segment and will also benefit from the ongoing worldwide legalization movement. The market is still in its infancy and rapid growth is expected as the legalization continues. LED grow lights provide short payback times on investment for growers who can increase productivity and quality of its plants while also reducing operational costs.

Proprietary technology strengthens the case. Heliospectra has a strong product portfolio, which positions the company as a leading supplier of intelligent LED grow light solutions. The company's strong offering is further illustrated by the recent launch of the control system HelioCORE, allowing customers to forecast the yield of the crops. HelioCORE now seems to be gaining traction, and we expect the company's installed base to grow at a rapid pace over the coming three years bringing recurring revenues and improved margins.

Bear points (counter-thesis)

Failure to scale up operations and improve margins. One of Heliospectra's greatest challenges is to improve its gross margin as it requires significant sales to reach break-even with current cost structure. The company is currently undertaking efforts in increasing its operational efficiency but there is a risk of delayed break-even if the company fails in scaling up its operations.

Failure to grow sales in a competitive market Although Heliospectra is regarded as one of the leading companies in the market for LED grow lighting solutions, it must continue improving its offering to remain competitive. The company also has to succeed in convincing growers that its solutions truly add greater value than alternative solutions. There is also a risk that larger competitors could try to bleed out smaller actors by dropping prices.

Catalysts

Major order of SEK 10 million+

We believe additional follow up orders from existing customers could be several times the size of the initial orders. We see good potential for further follow-up orders from the undisclosed AgTech players and from the marijuana growers who have previously placed large orders, for example The Grove. We also see a great potential of large orders from the commercial greenhouse segment, where an order of SEK 10 million+ would make us, as well as the market, more confident in Heliospectra's ability to generate high long-term sales growth.

Summary Redeye Rating

The rating consists of five valuation keys, each constituting an overall assessment of several factors that are rated on a scale of 0 to 2 points. The maximum score for a valuation key is 10 points.

Rating changes in the report

No rating changes.

Management: 7.0

CEO Ahmadian seems to have the commercial and international focus that Heliospectra currently needs. To mandate a higher rating Heliospectra's leadership we would like to see an increased transparency regarding the financial goals of the company as well as an increased average tenure among the management team.

Ownership: 7.0

Heliospectra has a list of shareholders many small technology companies can only dream of. Heliospectra's largest shareholder is Gösta Welandson who has shown great commitment and engagement in supporting Heliospectra. The board hold a decent amount of shares, however, we would like to see top management as well as the board showing more commitment in Heliospectra through increased shareholdings in the company. With a stronger commitment from senior management and the board a higher ownership rating would be given.

Profit Outlook: 6.5

Heliospectra is active in a fast-growing market and has secured important partnerships in all of its market segments. With a strong position in the research, AgTech and marijuana segments and a positive trend in the greenhouse cultivation segment, Heliospectra is well positioned for high growth. Competitive advantages are secured by proprietary technology and first mover advantages. We would like to see Heliospectra cement its position as a leader in the LED grow light industry through increased sales for a prolonged time period before increasing our rating.

Profitability: 0.0

Heliospectra is currently losing money and even though we envisage Heliospectra showing profits in the future we want to see money in the bank before we give any credit. An upgrade to our profitability rating would require the company to at least show positive EBIT on a rolling twelve months basis.

Financial Strength: 3.0

In order to raise Heliospectra's rating we want to see a situation where Heliospectra is no longer dependent on additional funding from its shareholders in order to fund its continued expansion. Heliospectra, however, has main shareholders who multiple times have shown a willingness to support the company financially through both debt and equity financing. The company recently conducted a rights issue bringing SEK 53m, thereby accommodating its needs for 2019 and 2020.

REDEYE Equity Research

INCOME STATEMENT	2017	2018	2019E	2020E	2021
Net sales	36	45	46	76	114
Total operating costs	-65	-76	-79	-99	-124
EBITDA	-29	-31	-33	-23	-10
Depreciation	-1	0	0	0	(
Amortization	-4	-2	-3	-3	-5
Impairment charges	0	0	0	0	
EBIT	-33	-33	-36	-27	-10
Share in profits	0	0	0	0	(
Net financial items	0	0	0	0	(
Exchange rate dif.	0	0	0	0	(
Pre-tax profit	-33	-33	-36	-27	-1
Tax	0	0	0	0	-
Net earnings	-33	-33	-36	-27	-1
BALANCE SHEET	2017	2018	2019E	2020E	20211
Assets	2017	2010	20131	20201	20211
Current assets					
Cash in banks	41	11	23	3	(
Receivables	10	7	8	12	1
Inventories	8	6	7	11	10
Other current assets	0	0	0	0	
Current assets	58	24	38	24	3
Fixed assets					
Tangible assets	1	1	1	1	
Associated comp.	0	0	0	0	
nvestments	0	0	0	0	,
Goodwill	0	0	0	0	
Cap. exp. for dev.	0	0	0	0	
Dap. exp. 101 dev. D intangible rights	15	15	15	15	1:
O intangible rights O non-current assets	0	0	0	15 0	- 13
D non-current assets Total fixed assets	U 16	17	U 17	U 16	1
Deferred tax assets	0	0	0	0	(
Total (assets)	74	40	55	41	50
Liabilities					
Current liabilities		-			
Short-term debt	0	1	1	4	
Accounts payable	15	15	16	24	3:
O current liabilities	0	0	0	0	
Current liabilities	16	15	17	28	3
Long-term debt	2	1	1	2	1
O long-term liabilities	9	9	9	10	10
Convertibles	0	0	0	0	(
Total Liabilities	26	25	27	40	6:
Deferred tax liab	0	0	0	0	(
Provisions	0	0	0	0	- (
Shareholders' equity	48	15	28	1	-1:
Minority interest (BS)	0	0	0	0	- (
Minority & equity	48	15	28	1	-1:
Total liab & SE	74	40	55	41	50
FREE CASH FLOW	2017	2018	2019E	2020E	2021
Net sales	36	2018 45	2019E 46	2020E 76	2021
Total operating costs	-65	-76	-79	-99	-12
Depreciations total	-4	-3	-3	-3	-
EBIT	-33	-33	-36	-27	-1
Taxes on EBIT	0	0	0	0	
NOPLAT	-33	-33	-36	-27	-1
Depreciation	4	3	3	3	
Gross cash flow	-29	-31	-33	-23	-1
Change in WC	-1	4	-1	-1	
Gross CAPEX	-2	-3	-3	-3	-
Free cash flow	-32	-29	-37	-27	-1
CAPITAL STRUCTURE Equity ratio	2017 65%	2018 38%	2019E 51%	2020E 3%	2021 1
Equity ratio Debt/equity ratio	5%	38% 9%	5%	493%	-25%
Net debt	-38	-10	-22	493%	-1007
	-38 10	-10 5	-22	7	Z
Capital employed					
L'anital turnquar rata	0.5	1.1	8.0	1.9	2.
Capital turnover rate					
	2017	2018	2019E	2020E	2021
Capital turnover rate GROWTH Sales growth	2017 56%	2018 26%	2019E 1%	2020E 65%	2021 6

Heliospectra 16 May 2019

W, MSEK		
8-2020)		
1-2027)		
8-)		
assets		57
ng debt mate MSEK		279
nate MSEK		279
or share SEV		6
er share, SEK		
EK		5.0
l8 2019E	2020E	2021E
i% -167%	-184%	0%
1% -156%	-145%	-176%
6% -662%	-403%	-189%
r% -71%	-31%	-9%
3% -78%	-35%	-11%
3% -78%	-36%	-12%
8 2019E	2020E	2021E
05 -0.77	-0.58	-0.29
95 -0.77	-0.58	-0.29
0.00	0.00	0.00
.0.46	0.12	0.43
11 46.82	46.82	46.82
8 2019E	2020E	2021E
3.7 218.6	245.9	260.4
7.4 -6.7	-8.9	-17.9
7.4 -6.7	-8.9	-17.9
5.4 5.2	3.2	2.1
5.2 4.8	3.2	2.3
7.7 -6.7	-10.6	-26.6
7.1 -6.1	-9.3	-19.9
i.2 8.5	206.4	-19.5
OWTH/YEAR		16/18E
sales		13.0 %
rating profit adj		4.3 %
i, just		-9.7 %
ity		-23.7 %
CAPITAL		VOTES
34.4 %		34.4 %
10.1 %		10.1 %
8.0 %	-	8.0 %
4.9 %	-	4.9 %
4.0 %		4.0 %
1.1 %		1.1 %
1.0 %		1.0 %
1.0 %		1.0 %
0.7 %		0.7 %
0.7 %	Ó	0.7 %
		HELIO.ST
	Nasd	aq First North
		5.0
		46.8
		234
	_	
		Ali Ahmadian
		Hans Naess
		Ali Ahmadian
	Andrea	ıs Gunnarsson
	Aug	gust 23, 2019
	Octo	ber 25, 2019
		Redeve AB
	Mäster Samuelsg	
	111	57 Stockholm

Redeye Rating and Background Definitions

The aim of a Redeye Rating is to help investors identify high-quality companies with attractive valuation.

Company Qualities

The aim of Company Qualities is to provide a well-structured and clear profile of a company's qualities (or operating risk) – its chances of surviving and its potential for achieving long-term stable profit growth.

We categorize a company's qualities on a ten-point scale based on five valuation keys; 1 – Management, 2 – Ownership, 3 – Profit Outlook, 4 – Profitability and 5 – Financial Strength.

Each valuation key is assessed based a number of quantitative and qualitative key factors that are weighted differently according to how important they are deemed to be. Each key factor is allocated a number of points based on its rating. The assessment of each valuation key is based on the total number of points for these individual factors. The rating scale ranges from 0 to +10 points.

The overall rating for each valuation key is indicated by the size of the bar shown in the chart. The relative size of the bars therefore reflects the rating distribution between the different valuation keys.

Management

Our Management rating represents an assessment of the ability of the board of directors and management to manage the company in the best interests of the shareholders. A good board and management can make a mediocre business concept profitable, while a poor board and management can even lead a strong company into crisis. The factors used to assess a company's management are: 1 – Execution, 2 – Capital allocation, 3 – Communication, 4 – Experience, 5 – Leadership and 6 – Integrity.

Ownership

Our Ownership rating represents an assessment of the ownership exercised for longer-term value creation. Owner commitment and expertise are key to a company's stability and the board's ability to take action. Companies with a dispersed ownership structure without a clear controlling shareholder have historically performed worse than the market index over time. The factors used to assess Ownership are: 1 – Ownership structure, 2 – Owner commitment, 3 – Institutional ownership, 4 – Abuse of power, 5 – Reputation, and 6 – Financial sustainability.

Profit Outlook

Our Profit Outlook rating represents an assessment of a company's potential to achieve long-term stable profit growth. Over the long-term, the share price roughly mirrors the company's earnings trend. A company that does not grow may be a good short-term investment, but is usually unwise in the long term. The factors used to assess Profit Outlook are: 1 – Business model, 2 – Sale potential, 3 – Market growth, 4 – Market position, and 5 – Competitiveness.

Profitability

Our Profitability rating represents an assessment of how effective a company has historically utilised its capital to generate profit. Companies cannot survive if they are not profitable. The assessment of how profitable a company has been is based on a number of key ratios and criteria over a period of up to the past five years: 1 – Return on total assets (ROA), 2 – Return on equity (ROE), 3 – Net profit margin, 4 – Free cash flow, and 5 – Operating profit margin or EBIT.

Financial Strength

Our Financial Strength rating represents an assessment of a company's ability to pay in the short and long term. The core of a company's financial strength is its balance sheet and cash flow. Even the greatest potential is of no benefit unless the balance sheet can cope with funding growth. The assessment of a company's financial strength is based on a number of key ratios and criteria: 1 – Times-interest-coverage ratio, 2 – Debt-to-equity ratio, 3 – Quick ratio, 4 – Current ratio, 5 – Sales turnover, 6 – Capital needs, 7 – Cyclicality, and 8 – Forthcoming binary events.

Redeye Equity Research team

Management

Björn Fahlén

bjorn.fahlen@redeye.se

Håkan Östling

hakan.ostling@redeye.se

Technology Team

Jonas Amnesten

jonas.amnesten@redeye.se

Henrik Alveskog

henrik.alveskog@redeye.se

Dennis Berggren

dennis.berggren@redeye.se

Havan Hanna

havan.hanna@redeye.se

Kristoffer Lindström

krist of fer. lindstrom@redeye.se

Fredrik Nilsson

fredrik.nilsson@redeye.se

Tomas Otterbeck

tomas.otterbeck@redeye.se

Eddie Palmgren

eddie.palmgren@redeye.se

Oskar Vilhelmsson

oskar.vilhelmsson@redeye.se

Viktor Westman

viktor.westman@redeye.se

Linus Sigurdsson (Trainee)

linus.sigurdsson@redeye.se

Editorial

Jim Andersson

jim.andersson@redeye.se

Eddie Palmgren

eddie.palmgren@redeye.se

Mark Sjöstedt

mark.sjostedt@redeye.se

Johan Kårestedt (Trainee)

johan.karestedt@redeye.se

Life Science Team

Anders Hedlund

anders.hedlund@redeye.se

Arvid Necander

arvid.necander@redeye.se

Erik Nordström

erik.nordstrom@redeye.se

Klas Palin

klas.palin@redeye.se

Jakob Svensson

jakob.svensson@redeye.se

Ludvig Svensson

ludvig.svensson@redeye.se

Oscar Bergman (Trainee)

oscar.bergman@redeye.se

Alexander Ribrant (Trainee)

alexander.ribrant@redeye.se

Disclaimer

Important information

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

Redeye is licensed to; receive and transmit orders in financial instruments, provide investment advice to clients regarding financial instruments, prepare and disseminate financial analyses/recommendations for trading in financial instruments, execute orders in financial instruments on behalf of clients, place financial instruments without position taking, provide corporate advice and services within mergers and acquisition, provide services in conjunction with the provision of guarantees regarding financial instruments and to operate as a Certified Advisory business (ancillary authorization).

Limitation of liability

This document was prepared for information purposes for general distribution and is not intended to be advisory. The information contained in this analysis is based on sources deemed reliable by Redeye. However, Redeye cannot guarantee the accuracy of the information. The forward-looking information in the analysis is based on subjective assessments about the future, which constitutes a factor of uncertainty. Redeye cannot guarantee that forecasts and forward-looking statements will materialize. Investors shall conduct all investment decisions independently. This analysis is intended to be one of a number of tools that can be used in making an investment decision. All investors are therefore encouraged to supplement this information with additional relevant data and to consult a financial advisor prior to an investment decision. Accordingly, Redeye accepts no liability for any loss or damage resulting from the use of this analysis.

Potential conflict of interest

Redeye's research department is regulated by operational and administrative rules established to avoid conflicts of interest and to ensure the objectivity and independence of its analysts. The following applies:

- For companies that are the subject of Redeye's research analysis, the applicable rules include those established by the Swedish Financial Supervisory Authority pertaining to investment recommendations and the handling of conflicts of interest. Furthermore, Redeye employees are not allowed to trade in financial instruments of the company in question, effective from 30 days before its covered company comes with financial reports, such as quarterly reports, year-end reports, or the like, to the date Redeye publishes its analysis plus two trading days after this date
- An analyst may not engage in corporate finance transactions without the express approval of management, and may not receive any
 remuneration directly linked to such transactions.
- Redeye may carry out an analysis upon commission or in exchange for payment from the company that is the subject of the analysis, or
 from an underwriting institution in conjunction with a merger and acquisition (M&A) deal, new share issue or a public listing. Readers of
 these reports should assume that Redeye may have received or will receive remuneration from the company/companies cited in the report
 for the performance of financial advisory services. Such remuneration is of a predetermined amount and is not dependent on the content of
 the analysis.

Redeye's research coverage

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

Recommendation structure

Redeye does not issue any investment recommendations for fundamental analysis. However, Redeye has developed a proprietary analysis and rating model, Redeye Rating, in which each company is analyzed and evaluated. This analysis aims to provide an independent assessment of the company in question, its opportunities, risks, etc. The purpose is to provide an objective and professional set of data for owners and investors to use in their decision-making.

Redeye Rating (2019-05-16)

Rating	Management	Ownership	Profit outlook	Profitability	Financial Strength
7,5p - 10,0p	51	50	20	12	22
3,5p - 7,0p	94	88	125	42	58
0,0p - 3,0p	15	22	15	106	80
Company N	160	160	160	160	160

Duplication and distribution

This document may not be duplicated, reproduced or copied for purposes other than personal use. The document may not be distributed to physical or legal entities that are citizens of or domiciled in any country in which such distribution is prohibited according to applicable laws or other regulations.

Copyright Redeye AB

CONFLICT OF INTERESTS

Dennis Berggren owns shares in the company : No $\,$

Henrik Alveskog 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.