

# Heliospectra

Sector: Industrial Goods &amp; Services

## Green light in Canada

### Record-high sales, but not there yet

Heliospectra reported high sales growth in Q3 (118% y/y) following delivery of the large orders announced in Q2. Net sales amounted to SEK 17m, which, however, was lower than our estimate (SEK 21m). The deviation is explained by our assumption of additional deliveries in Q3. Costs were in line with our estimates, resulting in an operating loss of SEK -4.6m. This illustrates that the company must continue to increase the average order size while also successfully undertaking necessary measures to improve its gross margin to ultimately reach break-even. We remain confident that the company will succeed in securing larger orders, and especially value the increased opportunities following the legalization of cannabis in Canada.

### Order intake and capital needs

As expected, Heliospectra reported a healthy order intake for the period Jan-Sept, amounting to SEK 38m (35% y/y growth). The company has, however, not maintained the same pace in order announcements during H2 as shown in H1. Furthermore, the report highlights its forthcoming need of raising new capital, reflected by the cash balance of SEK 18.2m by the end of Q3.

### Estimates and valuation

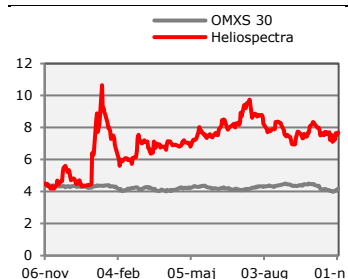
We have updated our estimates based on its reported order intake and recently announced orders. While keeping our positive view of the company's ability to generate large orders, the company has yet not announced the orders necessary to reach our previous FY18 estimate. We have lowered our Q4'18 estimate and also made slight revisions to our sales and gross margin estimates for 2019 and 2020, whereas our long-term forecasts remain unchanged. The adjustments lead to an updated fair value of SEK 7 per share in base case (earlier SEK 7.4 per share). Our bear case remains unchanged, whereas our updated estimates also result in a new fair value of SEK 13 per share (earlier SEK 13.4) in our bull case.

KEY FINANCIALS (SEKm)	2016	2017	2018E	2019E	2020E	2021E
Net sales	23	36	46	75	107	147
EBITDA	-38	-29	-26	-16	-4	12
EBIT	-43	-33	-29	-20	-8	8
EPS (adj.)	-1.3	-0.9	-0.8	-0.6	-0.2	0.2
EV/Sales	9.0	3.0	5.4	3.7	2.7	2.0
EV/EBITDA	-5.4	-3.8	-9.6	-17.0	-65.2	24.8
EV/EBIT	-4.9	-3.3	-8.7	-14.0	-36.3	35.4
P/E	-5.9	-4.4	-9.0	-13.2	-32.0	35.3

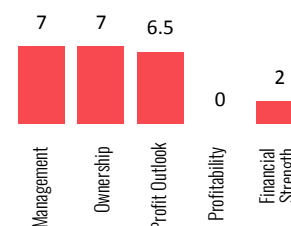
### FAIR VALUE RANGE

BEAR	BASE	BULL
2.0	7.0	13.0

### VERSUS OMXS30



### REDEYE RATING



### KEY STATS

Ticker	HELIO.ST
Market	First North
Share Price (SEK)	7.4
Market Cap (MSEK)	258
Net Cash 18E (MSEK)	11
Free Float	56 %
Avg. daily volume ('000)	100

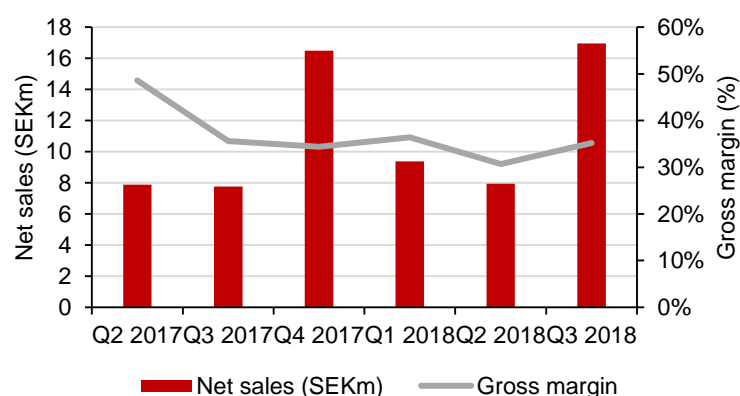
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## Sales driven by large Griffin orders

Heliospectra's net sales during Jan-Sep amounted to SEK 34.3m (75% y/y growth), implying quarterly sales of SEK 17m in Q3 (118% y/y growth). This reflects that delivery of individual orders still leads to high variation in sales across the quarters. As expected, the company reported record-high sales following delivery of the orders generated through Griffin Greenhouse, worth a total of SEK 16.2m. However, our interpretation was that the company had more orders for delivery in Q3, reflected by our sales estimate of SEK 21m.

### Heliospectra: Sales and gross margin



Source: Redeye Research

As visible in the table above, the company has not managed to improve its gross margin during the recent year. We find it likely that the larger orders have brought volume discounts while the company has not been able to offset this by achieving increased production efficiency. In his CEO-letter, CEO Ahmadian mentions that the company now has decided to work with a new contract manufacturer (of "Tier-1" size), which should be able to produce larger volumes more efficiently according to the company. We believe that this, together with improving its "top light"-platform and the launch of HelioCORE, are vital measures needed to increase its gross margin.

Taking actions to improve gross margins

### Heliospectra: Actual vs Estimates

(SEKm)	Q3'17	Q3'18E	Q3'18A	Diff. (%)
Net sales	7.8	21.0	17.0	-19%
Gross margin (%)	36%	32%	35%	3%
EBITDA	-5.8	-2.0	-3.9	-97%
EBIT	-6.8	-3.0	-4.6	-54%

Source: Redeye Research

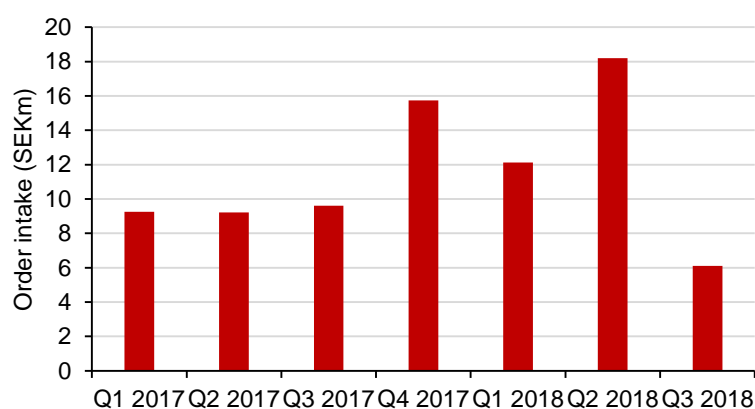
Given that the company had several large orders for delivery in Q3, we expected a gross margin in line with the previous quarter (32%). The company reported a somewhat higher gross margin (35%) while OPEX (excl. CoGS) amounted to SEK -9.9m, which was in line with our estimate SEK -9.5m. This resulted in EBITDA of -3.9m, where the difference to our estimate of SEK -2m is explained by sales lower than expected. D&A was in line with forecasts (SEK 0.7m), ultimately resulting in an operating loss of SEK -4.6m. We believe that this highlights the company's two primary challenges. The company must continue to secure larger orders and further improve its gross margin to reach break-even.

The cash flow from operating activities (Jan-Sep) was SEK -20.8m. After investments of SEK -1.2m, and SEK -0.5m from financing activities, total cash flow amounted to SEK -22.4m. This reflects that the quarterly cash flow averages to around SEK -7.5m. The company held SEK 18.2m in cash by the end of Q3, implying that it is likely that the company will have to raise new capital during the upcoming six months. Even if Heliospectra manages to secure significantly larger orders, we believe that it would incur working capital needs that the company's current cash balance would not support. We, therefore, find it plausible to expect that the company will need to raise new capital.

### Order intake

As expected, the company reported a healthy order intake for the period Jan-Sep, amounting to SEK 38m (35% y/y growth). However, the company has not maintained the pace of order announcements that was shown during H1'18. We believe that the order from 5 Letters Doo worth SEK 1.6m should also be subtracted from the order intake given that it now has been annulled. Thus, the order intake during Q3 amounted to SEK 6.1m, which is the lowest figure shown in the latest 7 quarters. It is yet important to highlight that individual orders still leads to considerable variation among the quarters.

### Heliospectra: Quarterly order intake



Source: Redeye Research

Apart from mentioning that the company has chosen to use a new contract manufacturer, CEO Ahmadian states that HeliocORE has been well received among its customers. He further highlights the company's increased holistic focus, where it together with ABB can provide fully integrated solutions for its customers. CEO Ahmadian also mentions that the new lightbar series, named SIERA, is a result of its partnership with ABB. An interesting statement is that its integrated system solution reduces water consumption by 98% compared to conventional vertical farming systems, clearly a critical economic selling point.

All in all, Q3 has been less eventful than previous quarters. As expected, the company reported high sales growth following delivery of the large orders announced in Q2. We regard its recent product launches and partnership with ABB very positive while at the same time noticing that the company has not maintained its strong order news flow shown during H1. We believe that management is focused on delivering solutions with high value-added for its customers while also implementing an approach that should result in larger orders, such as targeting larger growers, and partnering up with ABB to become a full system solution provider.

## Cannabis now legal in Canada

The 17th of October, Cannabis became legalized for recreational use in Canada. It should come as no surprise that this is positive news for Heliospectra given its position as a supplier of LED grow lights to growers of cannabis. The legalization movement is important as it leads to larger, and an increased number of, production facilities. Although we want to highlight that we believe the food industry should be at least as promising in the long-run, especially in terms generating larger orders, the CB-market has yet been an important market for the company during the recent years. 12/16 of the company's announced orders YTD are from customers within the segment, accounting for approximately 91% of the total order values.

We believe that the Canadian market offers an excellent opportunity for Heliospectra. Although several deals have been possible to sign on beforehand, the legalization should spur incorporation of new ventures and production facilities.

According to an industry report by EY<sup>1</sup>, market leading cannabis producers expect that the market will be affected by consolidation and the companies will face a challenge to meet the high demand of cannabis. This is highlighted by Bruce Linton, founder of Canopy Growth Corp., stating *"In this business you need a 125,000 to 150,000 sq. ft. production facility at minimum"*. The companies are further pointing to that one of the largest investment areas is to increase grow and yield, explaining why it is an interesting market for Heliospectra, not only in terms of market size, but primarily relevance. Heliospectra's is positioned as one of the strongest actors within intelligent LED grow lights, where increasing crop quality and yield are two of its strongest value propositions.

*Increasing productivity and yield crucial challenge for cannabis producers*

### Largest cannabis producers in Canada

Region	Name	Current total Sq. Ft.	Future Total Sq. Ft.
Canada	The Green Organic Dutchman	620,000	970,000
Canada	Canopy Growth Corporation	598,000	1,268,000
Canada	Supreme	304,920	304,920
Canada	MedReleaf	265,000	265,000
Canada	Village Farms International	250,000	1,100,000

*Source: growersnetwork, "Largest cannabis producers in North America"*

The table above shows that several of the leading actors are planning to increase the size of their production facilities during 2018-2019 ("Future total sq. ft."). It does not, however, capture recent expansions – implying that the figures most likely has increased. The Canadian producer Aurora has, for example, announced plans of building a 1.2m sq ft facility in Alberta. It is further important to note that the most listed production facilities are a mix of indoor, outdoor and greenhouse operations, implying that the need and setup of lights will differ among the facilities.

Apart from facility type, the specific need of lights also differs depending on growth method, type of strain, plant stage, how tight the plants are grown, the height of the fixture (distance between crops and lights) and the lights energy output among other things. It is, therefore, difficult to estimate the potential sales volumes for a specific facility size, but it is clear that the increased number of large production facilities impose great opportunities for Heliospectra. It is further important to mention that the potential is not constrained to new facilities but also already existing facilities where HPS lights are being used.

<sup>1</sup> EY, "How do you define your future in an undefined market?"

Our interpretation is that many of the largest facilities are using conventional HPS grow lights. According to CEO Ahmadian, this is most often explained by that growers are used to the conventional lights and their choice of HPS is based on the reasoning that they know what they will get. Thus, it highlights the crucial challenge of educating its customers about the advantages of using its LED lights and control system, in which its Technical Services should play an important part. We believe that there are clear economic incentives to switch from HPS to LED, given the potential improvements of crop quality and yield while also resulting in lower electricity bills.

In an article posted in Financial Post<sup>2</sup>, it was mentioned that Canada had about 150 000 medical cannabis patients in 2016, which at the time complained about product shortages. It further declares that the number of patients is expected to reach about 500 000 by 2021, implying a forecasted demand of about 150 000 kg of cannabis. In 2016, it was estimated that about 31 000 kg of marijuana was grown, clearly identifying the need of operating larger production facilities with increased yield efficiency.

To get a hint of the numbers, research firm CIBC predicts that the legal recreational cannabis market will generate retail sales about \$6.5bn by 2020 and that the private sector will generate EBITDA about \$1bn (around 85% coming from production)<sup>3</sup>, which would imply that retail sales of cannabis would exceed the domestic sales of spirits.

## The U.S.

Recreational marijuana is currently legalized in nine states plus Washington DC whereas medical marijuana is legal in about 30 states. A problem for American actors is that cannabis is prohibited at a federal level, which for example impose financing problems for cannabis producers.

As always, there is divergence among industry analyst forecasts, but it is clear that the U.S. market brings even greater opportunities. As an example, the state of California alone has a larger population than Canada. According to a report by Arcview Market Research and BDS<sup>4</sup>, the legal cannabis market was worth \$8.5bn in 2017 (31% y/y growth compared to 2016). Thus, illustrating that the market already is large even though it is illegal at a federal level.

It is possible that the legalization of cannabis in Canada will have an effect on US legislation. It is clearly an emerging market that will offer great business opportunities, and its prohibition at a federal level implies that America could face a risk of missing out on the opportunities.

### Largest cannabis producers in the U.S.

Region	Name	Current total Sq. Ft.	Future Total Sq. Ft.
Western US	Los Suenos Farms	1,428,000	1,428,000
Western US	Copperstate Farms	348,000	1,700,000
Western US	Harvest Inc.	208,800	208,800
Eastern US	GrowHealthy	200,000	200,000
Western US	Glass House Farms	200,000	200,000

Source: growersnetwork, "Largest cannabis producers in North America"

Our interpretation is that the Canadian producers, especially the largest, are somewhat more aggressive in expanding their production facilities than their American competitors. It is further important to highlight that not all cannabis producers are prospective customers. Los Suenos Farms is such an example, which is the world's largest outdoor growing farm. Another interesting note is that Copperstate Farms are using LED lights from Heliospectra's competitor Lumigrow.

<sup>2</sup> Financial Post, "Happy Cannabis Day? Marijuana industry scrambles in countdown to 2018 recreational opening". June 30, 2017.

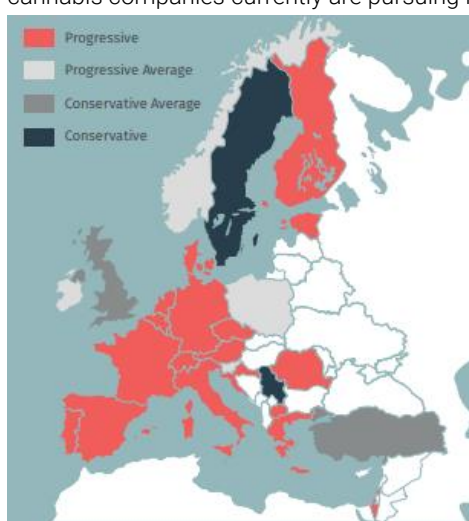
<sup>3</sup> BNN Bloomberg, "Canadian legal pot sales could reach \$6.5bn by 2020", May 9, 2018.

<sup>4</sup> Arcview Market Research and BDS Analytics, *The State of Legal Marijuana Markets, Sixth Edition*

## Europe

According to a report on the European cannabis market by Prohibition Partners<sup>5</sup>, the European market is expected to be the world's largest Cannabis market ten years from now. In the short-term, medical cannabis will constitute for the lion's share of the market as recreational cannabis still is illegal in most European countries. There has, however, been a shift in attitudes during recent years, where several countries have legalized marijuana for medical purposes. For example, medical cannabis is legal in countries such as Australia, Germany, Greece, Italy, the Netherlands, Poland, Switzerland and the UK.

Thus, the European market will be interesting to follow as it will result in a vast market if the trend towards a more cannabis-friendly approach persists. An interesting note is that two of the world's largest cannabis corporations, Aurora and Canopy, has partnered up with local actors in Denmark to take part of its medical cannabis market, picturing how the largest cannabis companies currently are pursuing international expansion.



Source: Prohibition Partners, The European Cannabis Report, 3<sup>rd</sup> ed., July 18

The point of this brief review is to picture the vast opportunities arising from the legalization of cannabis. The state of legislation still differs much between regions, where the retail segment is flourishing in Canada and several states in the U.S. whereas the medical marijuana segment is expected to account for a majority of the revenues in Europe. Common for most reports is that the recreational market is predicted to account for a majority of the total market in about a decade from now.

It is not only the vast potential market sizes that imply opportunities for Heliospectra, but also the expected market dynamics. Industry leaders indicate the need for running large-scale production facilities with improved efficiency while the limited license handling imposes a barrier to entry. It is likely that the market will be affected by increased M&A activity, where large players are aiming to achieve scale efficiencies.

Heliospectra has secured plenty of orders from the segment and is a renowned actor within the field. It also has one of the strongest offerings, both concerning its LED grow lights and the recently introduced control system HelioCORE. Apart from offering grow light systems bringing great value to its customers, it also possesses strong growing expertise after having performed extensive grow light strategy research in-house. We believe that the latter is one important factor distinguishing Heliospectra from most of its competitors.

<sup>5</sup> Prohibition Partners, *The European Cannabis Report – July 2018*, 3rd ed.

## Estimates

The order intake YTD amounts to SEK 38m while reported revenues amounted to SEK 34.3m. However, the company has announced that the order from 5 Leters DOO (SEK 1.6m) has been annulled due to that delivery conditions have not been met. CEO Ahmadian has stated that it regards a one-off event, and we believe that it could regard problems at the customer side. If our info is correct, the Canadian order worth SEK 5.5m announced beginning of January 2018 is not included in the reported intake, implying that Heliospectra should have a backlog of about SEK 7.6m (after subtracting the annulled order from 5 Leters Doo).

On top of that, Heliospectra has announced two orders together worth SEK 2.4m for delivery in Q4 (to previous "Fortune 500"-AgTech customer and the Spanish grower of medical plants). Thus, we find it reasonable to expect revenues around SEK 12m in Q4. This implies that we believe that Heliospectra has not secured the orders needed to reach our earlier full-year estimate (SEK 56m). It is still possible that the company will announce several orders during the two coming months, but we do not expect any larger orders substantially boosting the revenues in Q4 based on the reasoning that larger orders most likely will be delivered during Q1'19 as the company recently has changed contract manufacturer.

Heliospectra has shown its ability to secure larger orders (Griffin Greenhouse) and we expect this pattern to continue during 2019 and forward. In the short-term, we expect a continued strong momentum within the cannabis segment and believe that this will continue to account for a majority of the company's revenues during the two coming years. However, the company's focus on large commercial food growers remains, which we see as the greatest driver of long-term growth. We believe that its recent partnership with ABB also should lead to an increased number of orders during 2019 and 2020. However, we have made some revisions to our sales estimates for 2019 (earlier: SEK 84m) and 2020 (earlier: SEK 120m), which we find somewhat too aggressive in view of that Heliospectra has not managed to maintain the strong order intake growth shown during the beginning of the year.

<b>Heliospectra: Base case estimates</b>									
<b>(SEKm)</b>	<b>2016</b>	<b>2017</b>	<b>Q1'18</b>	<b>Q2'18</b>	<b>Q3'18</b>	<b>Q4'18E</b>	<b>2018E</b>	<b>2019E</b>	<b>2020E</b>
Net sales	23.1	36.0	9.4	8.0	17.0	12.0	46.3	75.0	106.5
CoGS	-15.8	-22.3	-6.0	-5.5	-11.0	-7.6	-30.1	-45.8	-62.3
Gross margin (%)	32%	40%	36%	31%	35%	36%	35%	39%	42%
EBITDA	-38.4	-28.8	-6.1	-9.2	-3.9	-7.0	-26.2	-17.0	-4.4
EBIT	-42.8	-33.1	-6.8	-9.8	-4.6	-7.8	-29.0	-19.7	-7.8
Growth (%)	68%	56%	-43%	-15%	113%	-29%	28%	62%	42%
EBIT margin (%)	-163%	-90%	-67%	-127%	-27%	-62%	-61%	-26%	-7%

Source: Redeye Research

The company has not been able to maintain its gross margin around 40% when delivering larger orders. Our interpretation is that this is explained by its previous contract manufacturer not being able to achieve efficiency in higher volumes. Heliospectra has now announced that it has changed manufacturer, which should be able to produce larger volumes more efficiently. Although believing that it is too early to expect improvements in Q4, we should see an increased gross margin during 2019 on the back of increased production efficiency and an improved "top light"-platform.

Furthermore, the company's launch of HelioCORE should also have a positive effect on the company's margins going forward. However, we believe that our earlier gross margin assumptions for 2019 and 2020 have been too aggressive. We have therefore updated our estimates, expecting average gross margins of 39% in 2019 and 42% in 2020 based on the reasoning that the efficiency improvements will be somewhat offset by volume discounts.



Regarding other OPEX, the company has earlier stated that it intends to open a new sales office in Canada. Heliospectra has not communicated its specific intentions and the magnitude of such an expansion. We, however, believe that it is reasonable to expect increased OPEX during the coming years following primarily increased sales efforts.

With its current costs and gross margin around 35%, Heliospectra needs revenues around SEK 125m to reach break-even on EBITDA-level. Although expecting a continued increase in order size and continued gross margin improvements on the back of increased production efficiency, standardization of its product platform and new products, we do not expect the company to deliver positive earnings until 2021 where sales around SEK 150m is expected.

## Valuation

We use a discounted cash flow model (DCF) for valuation purposes. The applied discount rate (WACC) is 13.8%, which is based on a number of parameters that together form Redeye's rating model.

### Base case

We have made some minor revisions to our short-term estimates while keeping our long-term forecasts unchanged. Our belief is that the partnership with ABB, launch of new innovative solutions and increasing order sizes points to a solid development. We believe that there is great potential for larger orders within both the cannabis and food segment, which we expect to see during the coming year.

Our base case valuation is founded upon the estimates presented in our earlier section. In short, we assume high sales growth and slight gross margin improvements during the two coming years. The company has its organization in place and although we expect somewhat increased costs following established presence in new regions (such as Canada), it should be able to grow its sales at a much higher pace than its costs. We believe that it will manage to achieve higher long-term margins following the launches of new products, where HelioCORE should be particularly important.

<b>Heliospectra: Base-case assumptions</b>			
<b>Assumptions:</b>	<b>2018-2020</b>	<b>2021-</b>	<b>DCF-value</b>
CAGR Sales	43.5%	18.7%	WACC 13.8%
EBIT margin (avg)	-32%	19.6%	PV of FCF 93
			PV of Terminal Value 113
<b>Terminal</b>			
Terminal growth of FCF		2.0%	Sum PV 205
EBIT-margin (terminal)		18.0%	Net cash* 38
			<b>DCF-value 244</b>
			<b>Fair value per share 7</b>
			Shareprice today 7.4
			<b>Potential/Risk -6%</b>

\*As per 2017-12-31

*Fair value of SEK 7 per share in base case*

Our valuation is based on an average EBIT-margin of around 20% beyond 2021 and a terminal EBIT-margin of 18%. Our revised sales and gross margin estimates for 2018-2020 results in an updated fair value of SEK 7 per share (earlier SEK 7.4 per share).

Thus, we believe that there is great potential, but the company must show its ability to secure larger orders during the coming year. Apart from following up on this this, we will put great emphasis on its sales of HelioCORE as we find it to be an important factor driving its long-term sales and margins. We also look forward to following up on how the work with the new contract manufacturer will affect its gross margin.



## Bear Case 2 SEK

Lower sales growth in all segments delays break-even (2022). We further incorporate lower return of the recently introduced products and solutions (HelioCORE and Technical Services).

Based on the assumption of sales growth (CAGR) of 27% between 2018 and 2020 as well as a lower long-term growth (14.6% beyond 2021).

The case incorporates less successful introduction of HelioCORE and that Heliospectra fails to mitigate price pressure on hardware by achieving economies of scale, thus resulting in lower gross margins.

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 7 SEK

Over the next year Heliospectra wins several orders from both large food and cannabis producers. We especially expect the average order size to increase, primarily from the greenhouse cultivation segment where orders could be of substantial size.

Incorporates successful introduction of recently launched products and services. HelioCORE will boost sales, lead to an increased base of recurring revenues and improved margins.

The company should be able to improve its gross margin during coming years following the launch of new products and increased operational efficiency. In base case, we assume a long-term gross margin up towards 50%.

Increased revenues and improved gross margin will lead to an average operating margin of around 20%. In our terminal period, we assume an average EBIT-margin of 18%.

## Bull Case 13 SEK

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 assume a greater increase in average order size following significantly larger orders. Based on a scenario where Heliospectra keeps its position as the leading supplier of intelligent LED growing lights, assuming 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 biofeedbacksystem. This will, however, be slightly offset by lower gross margins in orders of significant sizes. Based on an average gross margin of 52% beyond 2020.

Greater revenues and margins ultimately result in a higher operating margin. In bull case, we estimate a long-term average operating margin about 22%.

We have also made slight revisions to our upbeat bull case, where we have adjusted our sales and gross margin forecasts for 2018-2020, resulting in an updated fair value of SEK 13 per share (earlier SEK 13.4 per share). Thus, our fair value range is from SEK 2 per share in our bear case to SEK 13 per share in our bull case.

## 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. 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 and a need for improvements in how we grow everything from vegetables to tobacco. 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. Heliospectra's intelligent grow light systems also provide growers benefits of increased automation, higher crop quality and shortened grow cycles, thus strengthening the incentives to switch from HID/HPS.

Heliospectra has also established itself as a well-renowned player in the legal marijuana segment and will 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. Heliospectra has strong intellectual property rights in the complete biofeedback system allowing for full autonomous plant growth. It is, however, yet unsure when we will see an introduction of the complete biofeedback system.

### Bear points (counter-thesis)

**Risk of needing additional funding.** Heliospectra currently has about SEK 18m in cash while its quarterly cash flow averages to around SEK -7.5m. Thus, there is a clear risk that the company will need to raise additional capital before reaching break-even. However, the company has major shareholders which previously has shown a willingness to support Heliospectra financially.

**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. 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 marijuana growers who have previously placed large orders. We also see a great potential of large orders from the commercial greenhouse segment, where an individual 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.

Downside			IMPACT		Time Frame
Significance	Likelihood		Upside	Likelihood	
Minor	Possible		Moderate	Highly likely	Mid

### Successful introduction of HelioCORE

A successful introduction of the recently launched control system HelioCORE has potential to generate sales growth by attracting new clients and increasing revenues from existing clients. Our interpretation is that the introduction of Cortex should be seen as a first step towards commercialization of the biofeedback system.

Downside			IMPACT		Time Frame
Significance	Likelihood		Upside	Likelihood	
Negligible	Unlikely		Moderate	Possible	Mid

### Commercialisation of biofeedback system

A successful commercialization with a break-through order on the much anticipated biofeedback system incorporating sensors, software and LED grow lights would highlight the uniqueness of Heliospectra's solutions and help the market assign a value to the company's IP.

Downside			IMPACT		Time Frame
Significance	Likelihood		Upside	Likelihood	
Minor	Unlikely		Moderate	Highly likely	Long

## 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 major shareholders provide support as well as capital and have a good reputation in the financial markets. 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 strong growth. Competitive advantages are secured by proprietary technology and first mover advantages. To raise the rating we would like to see a successful introduction of sensors and an ability to charge customers for software. We would also like to see Heliospectra cement its position as a leader in the LED grow light industry through increased sales for a prolonged time period.

#### **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: 2.0**

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.

INCOME STATEMENT	2016	2017	2018E	2019E	2020E
Net sales	23	36	46	75	107
Total operating costs	-61	-65	-73	-91	-111
EBITDA	-38	-29	-26	-16	-4
Depreciation	0	0	0	0	0
Amortization	-4	-4	-2	-3	-3
Impairment charges	0	0	0	0	0
EBIT	-43	-33	-29	-20	-8
Share in profits	0	0	0	0	0
Net financial items	-3	0	0	0	0
Exchange rate dif.	0	0	0	0	0
Pre-tax profit	-46	-33	-29	-20	-8
Tax	0	0	0	0	0
Net earnings	-46	-33	-29	-20	-8

BALANCE SHEET	2016	2017	2018E	2019E	2020E
<b>Assets</b>					
<i>Current assets</i>					
Cash in banks	73	41	13	0	0
Receivables	6	10	9	14	19
Inventories	8	8	7	11	14
Other current assets	0	0	0	0	0
Current assets	87	58	30	25	33
<i>Fixed assets</i>					
Tangible assets	2	1	1	1	1
Associated comp.	0	0	0	0	0
Investments	0	0	0	0	0
Goodwill	0	0	0	0	0
Cap. exp. for dev.	0	0	0	0	0
0 intangible rights	17	15	16	16	16
0 non-current assets	0	0	0	0	0
Total fixed assets	18	16	16	17	17
Deferred tax assets	0	0	0	0	0
Total (assets)	105	74	46	42	50
<b>Liabilities</b>					
<i>Current liabilities</i>					
Short-term debt	0	0	0	0	16
Accounts payable	13	15	16	23	30
0 current liabilities	0	0	0	0	0
Current liabilities	13	16	16	23	46
Long-term debt	11	2	2	12	5
0 long-term liabilities	0	9	9	9	9
Convertibles	0	0	0	0	0
Total Liabilities	24	26	27	43	59
Deferred tax liab	0	0	0	0	0
Provisions	0	0	0	0	0
Shareholders' equity	82	48	19	-1	-9
Minority interest (BS)	0	0	0	0	0
Minority & equity	82	48	19	-1	-9
Total liab & SE	105	74	46	42	50

FREE CASH FLOW	2016	2017	2018E	2019E	2020E
Net sales	23	36	46	75	107
Total operating costs	-61	-65	-73	-91	-111
Depreciations total	-4	-4	-3	-4	-3
EBIT	-43	-33	-29	-20	-8
Taxes on EBIT	0	0	0	0	0
NOPLAT	-43	-33	-29	-20	-8
Depreciation	4	4	3	4	3
Gross cash flow	-38	-29	-26	-16	-4
Change in WC	12	-1	2	-2	-1
Gross CAPEX	-5	-2	-3	-5	-4
Free cash flow	-31	-32	-27	-23	-9

CAPITAL STRUCTURE	2016	2017	2018E	2019E	2020E
Equity ratio	77%	65%	42%	-2%	-18%
Debt/equity ratio	13%	5%	10%	-	-234%
Net debt	-62	-38	-11	12	21
Capital employed	19	10	8	11	12
Capital turnover rate	0.2	0.5	1.0	1.8	2.1

GROWTH	2016	2017	2018E	2019E	2020E
Sales growth	68%	56%	28%	62%	42%
EPS growth (adj)	-29%	-28%	-12%	-31%	-59%

DCF VALUATION		CASH FLOW, MSEK	
WACC (%)	13.8 %	NPV FCF (2018-2020)	-53
		NPV FCF (2021-2027)	132
		NPV FCF (2028-)	126
		Non-operating assets	41
		Interest-bearing debt	-2
		Fair value estimate MSEK	244
Assumptions 2017-2023 (%)			
Average sales growth	35.5 %	Fair value e. per share, SEK	7.0
EBIT margin	-4.9 %	Share price, SEK	7.4

PROFITABILITY	2016	2017	2018E	2019E	2020E
ROE	-83%	-51%	-86%	0%	0%
ROCE	-60%	-46%	-81%	-122%	-68%
ROIC	-138%	-170%	-293%	-252%	-71%
EBITDA margin	-167%	-80%	-57%	-22%	-4%
EBIT margin	-185%	-92%	-63%	-26%	-7%
Net margin	-199%	-92%	-63%	-27%	-8%

DATA PER SHARE	2016	2017	2018E	2019E	2020E
EPS	-1.30	-0.94	-0.83	-0.57	-0.23
EPS adj	-1.30	-0.94	-0.83	-0.57	-0.23
Dividend	0.00	0.00	0.00	0.00	0.00
Net debt	-1.77	-1.09	-0.32	0.34	0.60
Total shares	35.11	35.11	35.11	35.11	35.11

VALUATION	2016	2017	2018E	2019E	2020E
EV	208.3	109.0	252.0	275.2	284.5
P/E	-5.9	-4.4	-9.0	-13.2	-32.0
P/E diluted	-5.9	-4.4	-9.0	-13.2	-32.0
P/Sales	11.7	4.1	5.7	3.5	2.5
EV/Sales	9.0	3.0	5.4	3.7	2.7
EV/EBITDA	-5.4	-3.8	-9.6	-17.0	-65.2
EV/EBIT	-4.9	-3.3	-8.7	-14.0	-36.3
P/BV	3.3	3.1	13.7	-331.3	-29.2

SHARE PERFORMANCE		GROWTH/YEAR	16/18E
1 month	-7.9 %	Net sales	41.7 %
3 month	-4.8 %	Operating profit adj	-17.7 %
12 month	66.7 %	EPS, just	-20.2 %
Since start of the year	71.2 %	Equity	-51.5 %

SHAREHOLDER STRUCTURE %	CAPITAL	VOTES
Gösta Welandson med bolag	34.4 %	34.4 %
Mohammed Al Amoudi	10.1 %	10.1 %
Avanza Pension	5.7 %	5.7 %
Andreas Arnwid	1.1 %	1.1 %
Piba AB	1.1 %	1.1 %
Nordnet Pensionsförsäkring	1.0 %	1.0 %
Magowmy Invest AB	1.0 %	1.0 %
Rolf Johansson	0.7 %	0.7 %
Chrilotte AB	0.7 %	0.7 %
Kent Gustafson	0.7 %	0.7 %

SHARE INFORMATION	
Reuters code	HELIQ.ST
List	Nasdaq First North
Share price	7.4
Total shares, million	35.1
Market Cap, MSEK	258.4

MANAGEMENT & BOARD	
CEO	Ali Ahmadian
CFO	Magnus Svensson
IR	Ali Ahmadian
Chairman	Andreas Gunnarsson

FINANCIAL INFORMATION	
FY 2018 Report	22 February, 2019

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## 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 – Cyclicity, and 8 – Forthcoming binary events.

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## 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.

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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 (2018-11-06)

Rating	Management	Ownership	Profit outlook	Profitability	Financial Strength
7,5p - 10,0p	44	45	17	10	21
3,5p - 7,0p	87	79	115	35	48
0,0p - 3,0p	14	21	13	100	76
Company N	145	145	145	145	145

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### 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.