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***>> By identifying our customers' needs, challenges and the focus of pain related to lighting and energy, and by building smart solutions and focusing on the customer experience, Heliospectra aims to assert its position as the leader in Smart Lighting.***

***Bonny Hereen, CEO***



## The year in brief

Sales in 2021 did not live up to our expectations, and earnings were burdened by extraordinary costs in the form of warranty provisions and impairment charges in e.g. intangible assets.

In December, we presented a new strategic direction for Heliospectra whereby we will reposition ourselves; from having been an LED lighting supplier to becoming a system supplier for smart farming in which LED lighting, sensors and software in combination will make a difference for growers. Because we have a strong smart lighting brand that enjoys great trust in the research market, there are excellent opportunities to take a strong position when this trend makes its entry into commercial greenhouse cultivation. We will base our success on putting the customer at the centre of everything we do.

**>> We are passionate about transforming the horticulture market and finding new sustainable solutions to feed and heal the world.**



## Significant events

**In December**, we announced a new strategic direction that will focus on sustainable, data-driven growing and the European greenhouse market. At the same time, we announced that CEO Ali Ahmadian will be leaving the company on his own request and that Board member Bonny Heeren will take over as pro tem CEO.

**In the interim report** for the third quarter, a provision of SEK 5.4 million was made to cover warranty and reconstruction costs for a fault at the component level that was discovered in a MITRA production series.

**New dealers** in the US, Australia and Japan were announced during the year.

**In April**, the major order from Nectar Farms from 2019 was annulled after the Australian company failed to secure financing.

**In April**, Heliospectra was awarded a grant from Vinnova for continued development of a biosensor.

## Key financial ratios

(SEK thousand unless otherwise indicated)	2021	2020	2019	2,018	2,017
Orders	-37,786	20,356	119,848	47,806	43,814
Net sales	35,221	38,634	25,530	45,370	36,039
EBITDA	-38,944	-36,103	-47,712	-30,526	-28,770
Operating loss	-59,975	-40,241	-51,545	-33,251	-33,089
Cash flow	-44,734	1,215	43,078	-29,468	-32,307
Cash and bank	10,723	55,458	54,243	11,165	40,633
Equity	8,033	67,891	60,687	15,207	48,303
Equity/assets ratio	14	69	65	38	65
Quick ratio	59	309	255	119	324
Number of shares, thousands	77,277	77,245	56,178	35,112	35,112



# >> Redefining Nature's Potential

## Our offer

**GROW LIGHTS**  
Made in Sweden

MITRA



ELIXIA



DYNA



**CONTROL SYSTEMS**  
helioCORE™

Production planning



Energy optimisation



Maximising growth



**SERVICES**  
helioCARE™

Light planning



System support



Tests



Training courses





## Four reasons to invest in Heliospectra

### 1. EXPOSURE TO STRONG MACRO TRENDS

The driving forces behind data-driven cultivation in controlled environments are a growing global population, climate change and environmental impact. We need new solutions to alleviate the pressure exerted by agriculture on biodiversity and land use, while also securing the supply of food. Together with the ongoing technology shift from HPS to LED technology, it will lead to strong end-user markets for Heliospectra.

### 2. THE TEAM

Heliospectra's team consists of experienced plant experts, sales engineers, technical managers and an operational team that has been building confidence for a long time. This means we can guide growers through the entire process from light planning and strategy to achieving goals and performance. Also, we have an experienced and skilled management team and board of directors.

### 3. FULLY WIRELESS AUTOMATED LIGHTING SOLUTION

Today, Heliospectra offers a unique complete solution consisting of market-leading smart LED lighting and the helioCORE lighting control system, providing growers with precision control and fully automated lighting in greenhouses and growing rooms. By optimising light, growers not only achieve greater yields but also better quality and major energy savings.

### 4. UNIQUE MARKET POSITION AND EXCITING DEVELOPMENT POTENTIAL

Heliospectra's background in botany and research into cultivation means the company has uniquely high credibility in helping growers to implement new technology to achieve the right results. The same expertise enables the company to develop advanced control and sensor systems for growing in controlled environments.



### History

Heliospectra was founded in 2006 by plant scientists and biologists with the vision of streamlining food cultivation by developing intelligent grow lights with a focus on flexibility and control with the support of biofeedback systems. The first LED luminaire was developed in 2013, and the company made its commercial breakthrough the following year and was listed on the stock exchange. The development work continued, and in 2018 the helioCORE control system was launched, which was followed by the helioCARE service offer and the MITRA product series the year after.



## Dear Shareholder,

I became CEO, having previously been a member of Heliospectra's Board since May 2021. This allowed me to become well acquainted with the company at the strategic level, and since I became CEO on 1 January, I have devoted my time to getting to know the details at the operational level.

Our new strategic focus, which we presented in December, is to reposition the company from having been principally a LED lighting supplier to becoming a supplier in smart lighting and one that focuses on wireless control systems based on data and lighting. Based on what I have seen thus far, and my experience from the agricultural industry, Heliospectra is very well positioned to exploit our strengths and take a strong market position in that segment. But before I expound on that, let's review 2021 and our current position.

### 2021 – A DISAPPOINTMENT

Our sales fell somewhat from 2020, coming in at SEK 35 million. This is lower than we had hoped, and despite the great efforts of our sales force, the company and the industry were clearly affected by the pandemic. The economic uncertainty that is mainly attributable to higher energy prices and problems in the supply chain has dampened any eagerness to invest in new lighting systems. Naturally, the annulment of the Nectar Farms order in Australia was a great disappointment for us.

Because we had increased our cost base in order to handle the higher volumes that did not materialise, we must now reduce the organisation to bring it in line with our revenues. This work began in the third quarter and led to our accepting major non-recurring expenses including impairment charges for components and intangible assets of almost SEK 17 million in the fourth quarter. We also set aside an additional SEK 4 million to cover any warranty commitments related to a defective component in the MITRA product series. As expected, earnings for the full year were negative, indeed even more negative than anticipated due to the non-recurring expenses.





**>> Putting customers at the centre of everything we do and making sure they get to try our products much earlier means we will become more interactive and achieve much better returns on our R&D investments.**

### STRONG POSITION

Heliospectra has enjoyed a strong position in smart lighting ever since 2014 when the fully adjustable ELIXIA was launched. Our brand enjoys great trust when it comes to the way light affects plants. We are regarded as a reliable partner with a sound, profitable business in the agtech and research sectors that place such great demands on equipment precision and flexibility.

Our new strategic focus is to concentrate on the European greenhouse market with solutions in smart farming and smart lighting. We will make use of our credibility and know-how in the way light affects plants to establish close collaborations with growers to improve their performance.

### MULTIPLE TRENDS

There are several trends that support our new focus. If we begin by zooming out we can see that the world's population is growing, which means more mouths to feed and increased pressure on global food production. At the same time, the threat from climate change means that agriculture in its capacity as a major GHG emitter must change.

This will lead to an increase in cultivation in controlled environments such as greenhouses, where harvests are much bigger in relation to the input materials than with conventional methods. For example, growing 100 kg of tomatoes in a greenhouse in the Netherlands with the latest technology and control systems only needs a surface area of one square metre and 4 litres of water.

Higher earnings are another trend. When incomes rise, people tend to increase the proportion of protein and vegetables on the plate. This is in direct support of the market our new focus will concentrate on.

The trend in the greenhouse industry has always been toward increasing control. After all, controlling and fine-tuning environmental factors has enabled growers to achieve the fantastic yields they enjoy today. And now the trend is toward controlling and fine-tuning smaller and smaller

surface areas. What used to be a couple of hectares will soon be a single square metre. We have the software and IoT connected luminaires to achieve that level of control, and also the knowledge about how to apply it.

### GETTING CLOSER TO THE CUSTOMER

In operational terms, we will go from being a product-oriented company to one that is customer-oriented. This will be very important. Heliospectra has always had good products, but because we've not been close enough to our customers, our products have tended to come to market a little too late and lacking the essential final touch they need to be a perfect fit.

Putting customers at the centre of everything we do and making sure they get to try our products much earlier means we will become more iterative and achieve much better returns on our R&D investments. We will be much more disciplined in financial matters and only invest in projects where we're confident we will enjoy good returns. Here, being close to our customers will help us as we can then better assess risks and the yield profiles of different projects.

To achieve this, we will be making certain organisational changes. We've created a new helioCARE team led by our Marketing Director, while sales and innovation will report directly to me. We will be even more meticulous in the segmentation of our customers and focus on building business cases. Growers want to make profits, and our solutions are only interesting if they can help growers do that.

### PEOPLE NEED TO LEARN ABOUT LEDS

It's important to understand that LED lighting is still relatively new in the greenhouse industry. They have many obvious advantages, but to get the most from an investment in LEDs, growers need to learn how to make the best of them. By combining data from a number of different sensors with individually adjusted luminaires and powerful AI software in helioCORE, it's possible to achieve substantial energy savings. Growers are

looking for partners who can help them learn. With our excellent credibility, strong smart lighting brand and continued strong support from our principal owners, we are well positioned to succeed in this market.

### YEAR OF TRANSITION

We will make 2022 our year of transition where we focus on concluding projects and building business cases around them. They include updating our current product lines such as a new version of helioCORE, a new generation MITRA and Adelphi, a wireless connection specially designed for the tough greenhouse environment, and which integrates MITRA with helioCORE. We will also focus on building partnerships with others in the industry to support our new data-driven, wireless offer.

We received a Vinnova grant for our patented biosensor in April 2021, and we will begin field tests with it in 2022. We will use the feedback we collect to fine-tune its functionality and the plan for taking it to market.

### EXCITING TIMES AHEAD

To summarise, we have a strong brand in the agtech and research markets and excellent credibility when it comes to grow lights. This is an excellent starting point as we shift our strategic attention toward becoming a system supplier in smart farming with a focus on the European greenhouse market. But to succeed, we must be more customer-oriented and get our products to market faster.

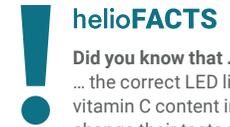
With the support of our shareholders, this is a transition that the Heliospectra team is more than capable of achieving. I'm convinced that Heliospectra has exciting times ahead.

Bonny Heeren  
CEO



# Results-driven value-creation

Redefining Nature's Potential. This is Heliospectra's mission and the basis for the company's value-creation.



### helioFACTS

**Did you know that ...**  
... the correct LED light can raise the vitamin C content in plants and also change their taste profile?

#### Driven by ...

##### OUR VISION

>> *To feed and heal the world through our unrivalled passion for sustainable cultivation and the implacable pursuit of innovation.*

##### AND OUR MISSION

>> *To redefine nature's potential through innovation, technology and collaboration, and by providing our growers with operational excellence.*

#### ... and influenced by ...

##### DRIVING FORCES IN INDUSTRY AND THE WORLD AT LARGE

There is a great need for new solutions if we are to manage our environmental and climate goals and the food supply for a growing population.

##### THE NEEDS OF OUR GROWERS

Growers seek to improve cultivation economy through better crop performance and reduced operating costs.

##### AND WITH OUR STAKEHOLDERS IN MIND

#### ... and guided by ...



##### OUR LONG-TERM GOALS

- Building long-term growth and profitability for the company and its stakeholders
- Capitalising on our technological leadership to deliver holistic, market-leading solutions
- Earnings / capital efficiency

##### STRONG CORPORATE GOVERNANCE STRUCTURE, AN EXPERIENCED BOARD AND COMPANY MANAGEMENT

>> *Sustainable, profitable growth from a long-term perspective.*





... we offer solutions ...

KNOWLEDGE-BASED SOLUTIONS THAT IMPROVE CULTIVATION ECONOMY

Control systems



Services



LED lighting

- MITRA
- ELIXIA
- DYNA

INTERNATIONAL MARKET PRESENCE

We have our own sales team that focuses on North America and Europe, and local connections through dealer networks in certain markets.

CUSTOMER-ORIENTED DEVELOPMENT PROJECTS

We were founded by plant scientists with a unique understanding of the grower's needs. We develop our products together with an external engineering team.

... that creates value for the world at large.

FOR OUR GROWERS

BETTER CROP PERFORMANCE



Bigger harvests

Under properly controlled lighting, returns per square metre increase.



Faster harvests

With the right lighting strategy, growing time, i.e. the time between sowing and harvest, can be reduced.



Better quality

The right light leads to higher quality and less wastage.



Greater control

With the right control system, the grower can control light precisely and improve his control over harvesting time, quality and quantity.

LOWER OPERATING COSTS

Direct savings

Lower energy costs

LEDs use less power than HPSs, and intelligent control optimises consumption.

Lower installation and maintenance costs

LEDs last longer, which minimises costs for replacing defective luminaires.

Indirect savings

Lower climate and dehumidification costs

LEDs generate less heat, which reduces climate control costs.

Lower personnel costs

Automation and smart control reduces the need for personnel.

FOR OUR STAKEHOLDERS



Sustainable, more resource-efficient food production



Unique market position and exciting growth potential



Healthy, more nutritious food for consumers



# Optimising crop performance

To optimise performance, the grower must first optimise a number of different parameters. One of the most important is light, which not only provides plants with energy through photosynthesis, but also affects their appearance and taste. Carefully monitoring and controlling all parameters is often referred to as precision farming or smart farming.

Light is electromagnetic radiation that can be perceived by the human eye. It is sorted into wavelengths from violet and blue (short) to red (long). Plants use roughly the same wavelengths for photosynthesis as those visible to the human eye. In English, this is known as PAR, Photosynthetically Active Radiation. Plants also make use of light that falls outside these wavelengths. This is known as PBAR, Photo-Biologically Active Radiation, and lies between 280–800 nm.

The colours in the spectrum affect plants in different ways. Blue light is associated with root development, compact plants and colour. Red light is most effective for photosynthesis and strongly associated with the growth of biomass. Even green light, which falls between red and blue, affects plants, and making light whiter is important for a good work

environment in the greenhouse. The purple light from just blue and red causes plants to appear black to personnel, which makes it difficult to draw conclusions as to their health.

Lighting is not only used in farming to completely replace natural sunlight in indoor cultivation, but also to complement the sun in greenhouses, which is absolutely necessary for much of the year at many latitudes. The grower must control three things in light: intensity (light quantity), the spectrum (light quality) and the photoperiod (light x hours). The way these three parameters are combined affects biomass growth, appearance and flowering.

Spectacular results can be achieved by also controlling other parameters such as nutrition, irrigation, humidity and carbon dioxide. For exam-

ple, scientists have shown it to be theoretically possible to increase the annual yield per hectare of wheat by a factor of up to 600 in controlled indoor cultivations. In these simulations, the photoperiod was extended up to 24 hours per day.

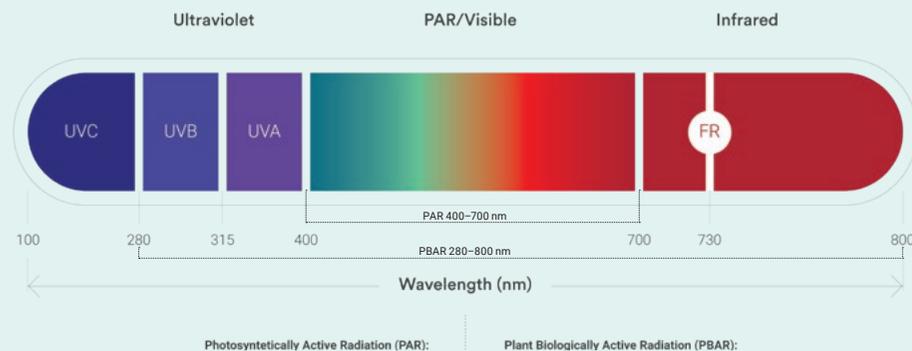
The challenge for growers is to measure, monitor and control all of these possible parameters to achieve the right outcome. For the sake of simplicity, the challenge can be split in two: 1) measuring, monitoring and controlling the various environmental parameters, and 2) assessing the health of the plants and how they are affected by these parameters. Heliospectra is unique in the market by being able to offer solutions through its helioCORE control system and its imminent, unique patented biosensor.

## ! helioFACTS

**Did you know that ...**  
... the red pigment in red leaf lettuce acts as a type of sunscreen, which can inhibit growth and extend the plant's development phase. Energy is conserved by applying a lighting strategy that keeps the lettuce green longer during the growth phase.

### Light therapy

At the end of the production cycle, the plants can be treated with light e.g. to provide them with longer life, a different taste profile or a different appearance. Keep your eyes peeled for our helioFACTS for examples.





## Energy and the environment

# Optimising the lighting environment for sustainable growing

LED technology and smart lighting solutions allow the achievement of specific growing and business targets. By using the right light in the right place at the right time, the grower can cut energy costs and production wastage.

LED lamps are more efficient than conventional high-pressure sodium (HPS) and metal halide (MH) lamps. They produce the same or greater amounts of light for a lower wattage. Installing Heliospectra's LED lamps provides immediate savings of 35%. And by adding the wireless helioCORE™, growers can use the right amount of light when it is needed, which provides a further 15% energy-saving. Because LED lighting on average accounts for almost 38% of the production facility's total power consumption, there are significant savings to be made for growers, especially at today's energy prices.

This high power consumption is a major contributor to increased CO<sub>2</sub> emissions from the greenhouse industry. LEDs are extremely efficient when it comes to converting electricity into light. They also give off very little heat, which can lead to significant secondary savings through lower ventilation costs. The combination allows the design of new, efficient and sustainable production systems with low carbon emissions.



## Together for a sustainable future

Heliospectra can be linked to 6 of the UN's 17 sustainable development goals (SDG) as an urgent exhortation to take measures under the 2030 Agenda for Sustainable Development.



**2 ZERO HUNGER**  
**Stopping hunger, achieving food security, improved nourishment and promoting sustainable farming.**

Heliospectra's system provides growers with control and enables them to produce more crops of better quality year round, thereby reducing wastage in production. At the same time, it allows controlled environment agriculture (CEA) in the most difficult weather conditions and in city areas, which can improve national food security.



**3 GOOD HEALTH AND WELL-BEING**  
**Ensuring healthy lives and promoting well-being for everyone of every age.**

Heliospectra's system ensures production of high quality crops with excellent nutritional status using fewer chemicals. In this way, consumers are supplied with healthy food all year round.



**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**  
**Building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation.**

Heliospectra develops efficient, innovative cultivation technology for growers all over the world. At the same time, we work with leading universities and agricultural organisations to increase knowledge, accelerate innovation and promote sustainable food production.



**11 SUSTAINABLE CITIES AND COMMUNITIES**  
**Making cities and human settlements inclusive, safe, resilient and sustainable.**

Heliospectra's data-driven solutions optimise resources and enable local and urban food production all year round, independent of weather conditions.



**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**  
**Ensuring sustainable consumption and production patterns.**

Controlled growing and data-driven cultivation solutions make efficient use of natural resources while minimising the use of chemicals and reducing wastage. Local production also reduces transportation times and total carbon emissions.



**13 CLIMATE ACTION**  
**Taking urgent action to combat climate change and its impacts.**

Heliospectra LED lighting solutions reduce energy consumption by up to 53 per cent when used together with helioCORE™. This, and the low level of heat given off by LEDs, provides the industry with production systems with low carbon emissions.



## Trends

# New technology meets society's challenges

As the world's population grows and its climate changes, there is a greater need for sustainable cultivation that achieves better results using fewer resources.

## Social trends

### The unsustainable environmental impact of agriculture

The global food supply system contributes to climate change, less biodiversity, freshwater shortages and eutrophication. According to scientists<sup>1)</sup>, because of the growing global population and changes in eating habits that usually follow rising income levels, the system's environmental impact is at risk of exceeding sustainable planetary limits unless measures are taken.

### Urbanisation, locally grown food and secure food supply

In 2050, more than two thirds of the world's population will live in cities according to the UN. Cities are sensitive to disruptions in the food supply, but it is often agricultural land that is used for construction when cities grow. When consumer demand for locally produced food increases at the same time, it contributes to more farming in controlled environments such as greenhouses close to consumers.

### Legalisation of cannabis

With the exception of alcohol and tobacco, cannabis is by far the world's most widely used drug, according to the UN. Since the beginning of the 21st century, a long line of countries have legalised the medical use of cannabis, while a handful of countries, including Canada and some States in the USA, have also legalised its use for recreational purposes. For quality reasons, cannabis is often grown in controlled environments.

1) Options for keeping the food system within environmental limits, Springmann et al, 2018

## Market and technology trends

### New technology, greater precision

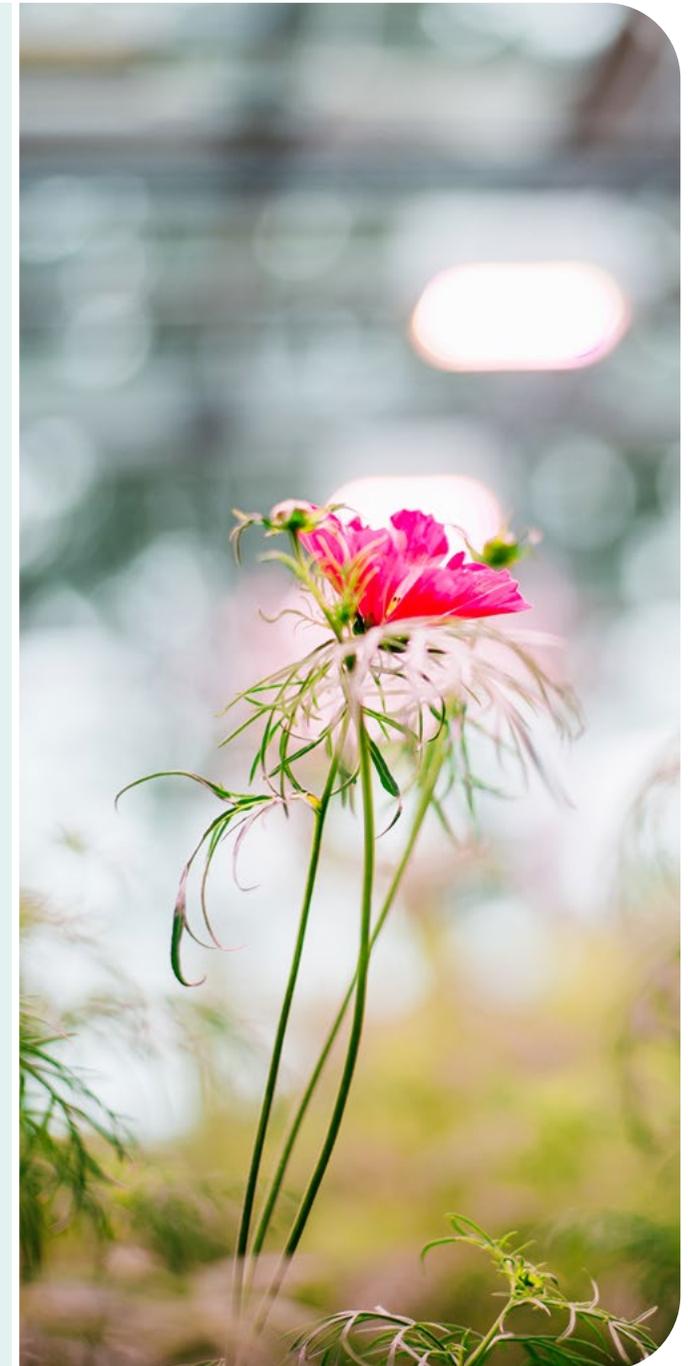
If we are to reduce the environmental impact of farming, we must not only make farming more efficient by growing more food per input material, but also reduce waste. Up to one third of all food grown is discarded, either at the production stage or by consumers. New technology that improves precision can make farming more efficient and reduce waste.

### Lower energy and operating costs

Energy for lighting and heating is the biggest cost for growing in controlled environments such as greenhouses or indoors. LED technology lowers energy consumption compared to conventional HPS lighting while also providing greater precision lighting control capabilities. The longer life enjoyed by LEDs also reduces maintenance costs.

### Growing in controlled environments

Growing in controlled environments, either indoors or in greenhouses, enables significant reductions in the use of resources such as water and fertilizers, and allows the complete elimination of pesticides while also achieving better results.





## Market segments

# Three segments that share the same needs

A number of strong trends are driving developments, and the market for smart farming and cultivation in controlled environments such as greenhouses is growing. There is a demand for new technologies that make it possible to reduce energy costs, control cultivation with greater precision and achieve better performance.

### GREENHOUSES

Conventional greenhouse farming is a large and growing market where factors such as increased control and reduced sensitivity to extreme weather are driving expansion. Greenhouses with advanced technology and high investment costs are more usual in northerly latitudes, in Europe primarily in the continent's central and northern parts. On these latitudes, sunlight must be complemented with lighting to achieve the best results.

Traditionally, factors such as temperature, humidity and nutrient additives have been carefully checked and controlled, while lighting has been neglected. Only a small proportion of greenhouses are thought to have transitioned from conventional HPS lamps to more flexible, energy efficient LED luminaires. Better luminaires that not only reduce energy costs but also enable the light pattern to be fine-tuned, allow growers to focus more keenly on monitoring and controlling their lighting. This market will be prioritised by Heliospectra moving forward.

### INDOORS

Indoor growing makes it possible to monitor and control plant micro-climate to 100 per cent. Vertical cultivation, where crops are stacked each other with the aim of maximising the cultivation area per available floor space, is a popular growing method for food. Japanese farmers in particular have come a long way in this development. For quality reasons, even crops such as cannabis that are not stacked, are grown indoors.

### RESEARCH

The research market comprises both academia and global agrotechnology companies looking for the ability to fine-tune the quality of light and achieve a uniform light pattern. Heliospectra enjoys a strong position in this market and has been selected as a supplier for prestigious projects led by the German aerospace agency DLR and NASA.



### helioFACTS

#### Did you know that ...

... Heliospectra's products are installed in Antarctica as part of the EDEN ISS research project run by the German aerospace agency to develop cultivation technologies for space.



### Offering & strategies

## Customer focus delivers clear benefits

Heliospectra offers smart lighting solutions that improve the crop performance and cultivation economy of customers.

### ! helioFACTS

**Did you know that ...**  
... On average, LED lighting accounts for almost 38% of a cultivation facility's total electricity consumption. On the other hand, LED can reduce direct electricity consumption by up to 35% compared to HPS lamps.



#### BETTER CROP PERFORMANCE

Heliospectra offers advanced lighting control systems through helioCORE, and qualified services through helioCARE together with market-leading LED luminaires. With helioCORE and LED luminaires from Heliospectra, growers can make data-driven decisions, fine-tune lighting to ensure plants get the right light, at the right time and in the right amount, thus optimising their performance. With helioCARE, growers get help finding the optimum lighting strategy for their own conditions and needs.

With its background as a research company, Heliospectra has great credibility in the marketplace when it comes to delivering better crop performance.

#### LOWER OPERATING COSTS

Heliospectra grow lights are based on LED technology, which has several advantages over the older, dominant HPS technology. One of the biggest is significantly lower energy consumption, as the lamps emit substantially less heat for the same amount of light, and are also dimmable. Lower heat generation also means lower ventilation costs. Also, the helioCORE control system provides growers with the ability to adapt the use of their lighting to periods during the day when electricity is cheapest. And lastly, LED lighting lasts longer, which means lower maintenance costs for replacing defective lamps.

#### CUSTOMER FOCUS

As part of the new strategic direction, Heliospectra will switch from being a product-oriented to a customer-oriented organisation. This means putting the customer at the centre, and putting the product in their hands at an earlier stage during its development. Getting closer to the market will allow us to better identify customer needs and challenges and to improve return on product development investments.



## R&D and future products

# Wireless, data-driven total solution

Heliospectra is actively engaged in development work and has many product launches in the pipeline that will strengthen the company's offering as a supplier of total lighting solutions for the data-driven grower.

For Heliospectra, 2022 will be a transitional year during which updates of existing product offerings will be brought to conclusion and new products will be launched aimed at boosting the company's new data-driven, wireless product offering. These will include an updated version of the company's helioCORE™ control system, a new generation MITRA LED lighting and Adelphi, a connector that will enable wireless MITRA integration with helioCORE™ and sensors. Together, they will create promising opportunities for the company in 2022 and beyond.

### BIOSENSORS

When light strikes a plant, most of it is reflected without being absorbed, while in simple terms, three things happen to the light that is absorbed: some is used for photosynthesis, some is converted to heat and some is retransmitted on a wavelength different to that of the original light. Biosensors function by measuring the retransmitted light – fluorescence – and interpreting the signals.

In April 2021, Heliospectra was awarded a research grant of SEK 1.75 million from Vinnova, Sweden's innovation agency, to continue development of the patented biofeedback system. The project continued during 2021 and there are plans to initiate field tests in 2022. Using feedback from the field tests and our customers, we will fine-tune the functionality of the sensor and conclude our action plan for taking this unique solution to market.

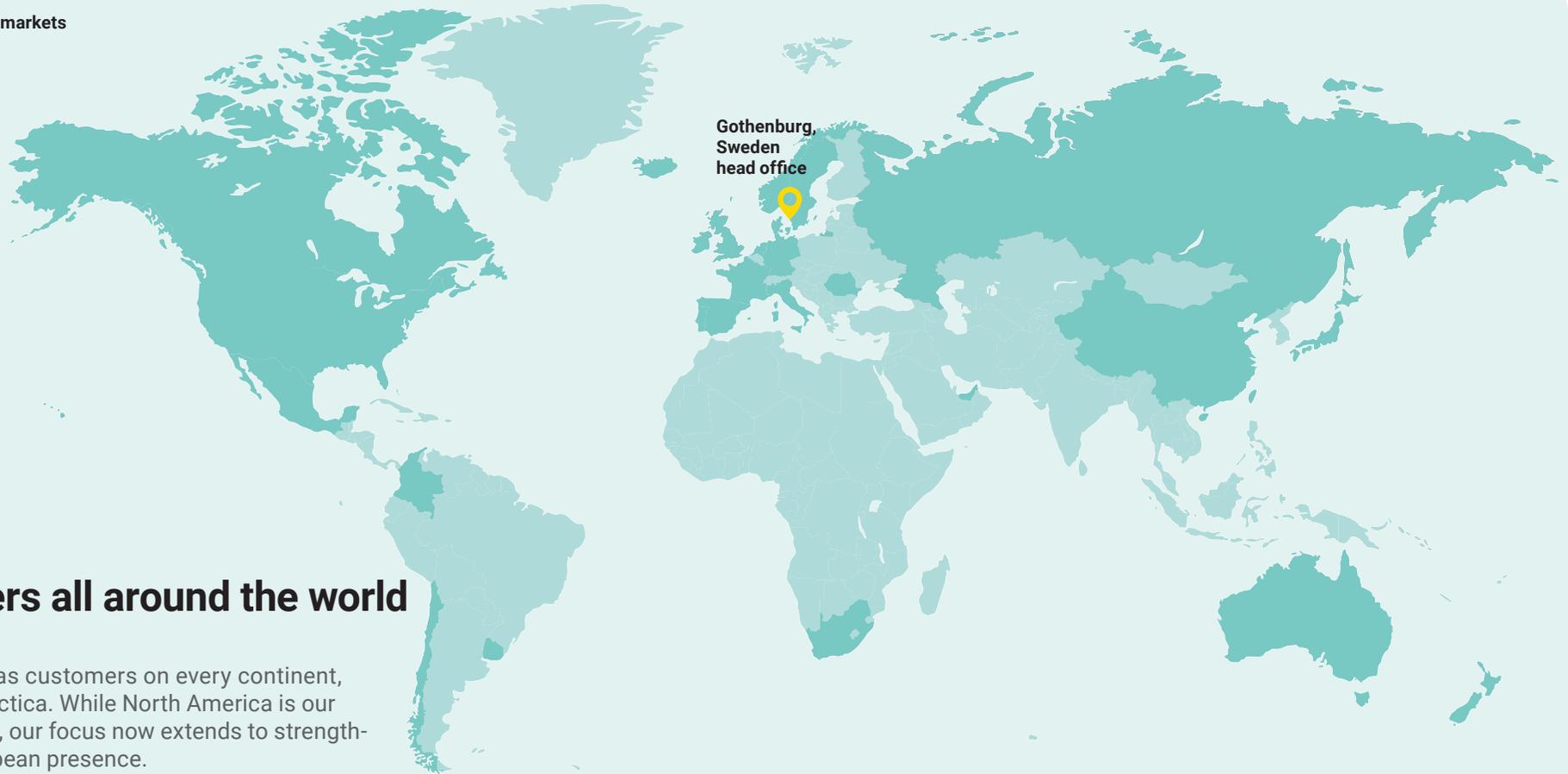


### helioFACTS

Did you know that ...  
... 95% of the energy in LED lamps is converted into light and only 5% is dissipated as heat. This can be compared with a fluorescent tube that converts 95 % of the energy to heat and only 5% to light.



■ Heliospectra's markets



Presence

# Customers all around the world

Heliospectra has customers on every continent, including Antarctica. While North America is our primary market, our focus now extends to strengthening our European presence.

**DEALERS**

Moving forward, it will continue to be important for Heliospectra to strengthen its dealer network. Over the years, the company has established a presence in North America, and its focus moving forward will be to strengthen its presence in Europe, which has a large, technologically advanced greenhouse market.

Dealers sometimes specialise in grow lights or have a wider range of items needed for cultivation such as pots, soil, nutrients and so forth. They sometimes also act as full-service suppliers or consultants for the construction of greenhouses. The most important thing for Heliospectra is that dealers have strong local connections and market knowledge.

**THE SALES FORCE**

Heliospectra has its own sales force that is evenly distributed between North America and Europe. The sales force works with dealers to drive growth in their regions by marketing directly to larger customers.

**MARKETING**

Heliospectra positions itself in the market as an expert in cultivation and lighting. Its background as a research company means its position enjoys great credibility. The company is actively engaged in spreading knowledge about the important role light plays for

crop performance by organising webinars and publishing e-books, infographics and articles on its website.

Sales work is proactive and carried out on a long-term basis through continuous talks with major greenhouse growers. Because most have a constant need to develop their operations, Heliospectra invests time in building relationships.



# An organisation for driving innovation

Because Heliospectra's biggest asset is its employees, we endeavour to create a workplace that makes best use of their passion for plants and technology. Our culture is characterised by diversity, straight communication and an openness to ideas and contributions from all employees.

### OUR VALUES

Our values define our culture and serve as a compass that guides our decisions and our behaviour.

### INNOVATION AND QUALITY

Our goal is to drive innovation and transform the cultivation market. We do this without compromising on quality while expanding and improving our product portfolio.

### SUSTAINABILITY AND DIVERSITY

We believe in a green, sustainable and inclusive future for everyone. We advance by making best use of the creativity and knowledge inherent in a work environment characterised by diversity.

### COLLABORATION AND CREATING OPPORTUNITIES

We work close to our customers to recognise and understand their needs and challenges. We provide growers with the ability to reach their full potential by sharing our knowledge, experience and solutions.

### PASSION AND INTEGRITY

Our passion for plants and technology fuels our innovations and creates value for our customers. We show integrity through hard work, straight talking, honesty and standing by what we say.

### HELIOSPECTRA AS AN EMPLOYER

Its expertise on data-driven growing and the way light and lighting impact plants makes Heliospectra stand out from the crowd. It allows the company to develop and implement solutions that give the grower the best possible performance.

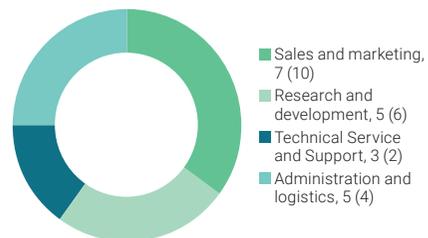
Accordingly, all employees are constantly encouraged to learn more about their passion and to share their know-how e.g. by regularly participating in different industry gatherings such as conferences and exhibitions.



# 9

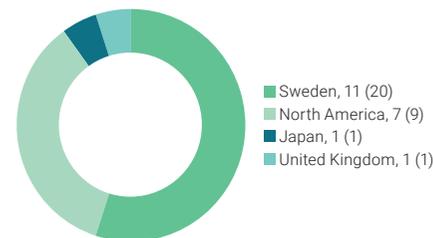
nationalities represented in the company

### NUMBER OF EMPLOYEES BY MARKET AREA

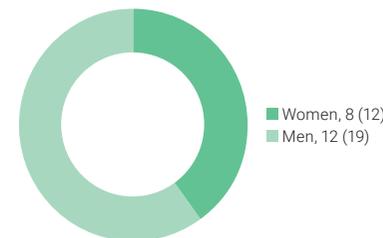


Average number of employees.

### NUMBER OF EMPLOYEES BY COUNTRY



### NUMBER OF EMPLOYEES IN THE GROUP BY GENDER





## Share & ownership structure

Heliospectra's share was listed on Nasdaq First North Stockholm on 18 June 2014. As of 31 December 2021, Heliospectra's share capital totalled SEK 7,727,651, split between 77,276,514 shares at a quota value of SEK 0.10. Each share carries one vote and all shares provide an equal right to participate in the company's assets and financial performance.

### SHARE-RELATED INCENTIVE PROGRAMMES

At the end of the reporting period, Heliospectra had one outstanding incentive programme: P03. It is aimed at senior executives and key personnel and was adopted by the 2020 AGM. It consists of 1 million stock options that confer the right to subscribe for new shares at SEK 3.19 per share during the period 1 March to 30 April 2022. If fully exercised, this corresponds to a dilution of around 1.3 per cent. A total of 930,000 P03 options were transferred for SEK 0.20 per option. The remaining 70,000 options were retained by the company and may be offered to senior executives and key employees.

### DIVIDEND POLICY

The Board does not intend to propose payment of any dividend for the next few years. Any future profits will be reinvested in the business.

### OUR LARGEST OWNERS

#### Weland Group

Weland became a Heliospectra shareholder back in 2008 and is represented on the Board by member Staffan Gunnarsson and deputy Jens Helgesson. Weland is a family-owned group whose companies are mainly located in southern Sverige.

#### Agartha AB

Agartha AB (former Adma Förvaltnings AB) is a family-owned investment company located in Malmö who base their ownership role around active, long-term commitment. Agartha came in as a major owner in 2018 and is represented on the Board by Ljubo Mrnjavac.

#### Corespring New Technology

Corespring New Technology (formerly Midroc) is a group engaged in contract services, property development and investing. They came in as owners in 2011 and are represented on the Board by Chairman Andreas Gunnarsson and deputy Göran Linder.

### SHARE PRICE TREND DURING 2020

(THE SHARE, LISTED ON NASDAQ FIRST NORTH STOCKHOLM)



### OWNERSHIP LIST EXCLUDING PAID SUBSCRIBED SHARES (BTA)

The biggest shareholders 30/12/2021	Holding	Votes, %
Weland Värdepapper AB	17,344,657	22.45
Weland Stål AB	14,397,533	18.63
Agartha AB	12,000,000	15.53
Corespring New Technology AB	8,850,336	11.45
The Avanza Pension insurance company	2,361,301	3.06
The Bank of New York Mellon	861,888	1.12
Försäkringsbolaget Skandia	838,690	1.09
Nordnet Pensionsförsäkring AB	696,221	0.90
Magowny Invest AB	545,102	0.71
Swedbank Försäkring AB	486,833	0.63
Other shareholders	18,893,953	24.45
<b>Total</b>	<b>77,276,514</b>	<b>100.00</b>

### BREAKDOWN OF SHAREHOLDINGS

Holding	Number of shareholders
1–500	2,721
501–1,000	701
1,001–5,000	1,366
5,001–10,000	316
10,001–15,000	107
15,001–20,000	63
20,001–	153

### HelioFacts

#### Did you know that ...

... our in-house research shows we can assess the status of a plant using parameters such as light tolerance and stress, by remotely analysing chlorophyll fluorescence, i.e. the light emitted by the plant.



## The Board



**Left to right from top:** Andreas Gunnarsson, Bonny Hereen, Anders Ludvigson, Staffan Gunnarsson, Ljubo Mrnjavac, Göran Linder, Jens Helgesson.

### ANDREAS GUNNARSSON

Chairman of the Board since 2011

Born 1974

Andreas studied at Jönköping International Business School and has significant experience in the start-up and operation of growth companies in the technology sector. He is Portfolio Director in Corespring New Technology AB and a member of several boards in Corespring's portfolio companies.

Holding: 50,527 shares and 13,770 stock options

### BONNY HEREEEN

Board member since 2021, CEO since 2022

Born 1970

Bonny has extensive experience from the greenhouse industry from several executive positions in the Saint-Gobain Group, and subsequently from his position as an investor in the agtech industry. He has a degree in economics from Erasmus University in Rotterdam and has completed a management course at Harvard University.

Holding: 0 shares

### ANDERS LUDVIGSON

Member since 2007

Born 1970

Anders has an MSc in engineering and industry experience as a partner and Deputy CEO of Ludvig Svensson AB, one of the world's biggest manufacturers of climate screens for greenhouses.

Holding: 0 shares

### STAFFAN GUNNARSSON

Member since 2017

Born 1947

Staffan has significant experience of establishing and running leading companies. He holds several executive positions in the Weland Group, including CEO and board member of Weland Stål and Weland Fastigheter.

Holding: 43,996 shares and 11,997 stock options

### LJUBO MRNJAVAC

Member since 2021

Born 1963

Ljubo has extensive experience in developing major international operations. He is currently Head of Investments at Agartha AB and has an Executive MBA from the University of Lund.

Holding: 146,984 shares

### GÖRAN LINDER

Deputy since 2011

Born 1962

Göran has an MSc in engineering and extensive experience in commerce and business development. Granitor Growth Management, Corespring New Technology, Corespring Invest and Corespring Finance.

Holding: 0 shares

### JENS HELGESSON

Deputy since 2018

Born 1966

Since 1989, Jens has held leading positions in the Weland Group. He is currently purchasing and property manager at Weland Stål.

Holding: 0 shares



# Management



**Left to right from top:** Bonny Hereen CEO, Hans Naess, Yasuhiro Suzuki, Hanna Rüdél, Rebecca Nordin.

### **BONNY HEREEN**

Board member since 2021,  
CEO since 2022

Born 1970

Bonny has extensive experience from the greenhouse industry from several executive positions in the Saint-Gobain Group, and subsequently from his position as an investor in the agtech industry. He has a degree in economics from Erasmus University in Rotterdam and has completed a management course at Harvard University.

Holding: 0 shares

### **HANS NAESS**

CFO since 2019

Born 1963

Hans has a degree in economics and extensive experience as an auditor, CFO and finance manager. He lives in Gothenburg and joined us from Volvo Buses where he was Finance Director, City Mobility.

Holding: 41,250 shares and 112,500 stock options'

### **YASUHIRO SUZUKI**

Director Supply Chain & Product Management since 2019

Born 1957

Yasuhiro holds a degree in sociology and has extensive experience from senior positions. Before joining us he held several positions in waste management projects in China and was previously at Tetra Pak, where his positions included Senior Director Marketing and Product Management.

Holding: 0 shares and 112,500 stock options

### **HANNA RÜDEL**

Head of Development Services since 2018

Born 1976

Hanna has an MSc in engineering and 18 years' experience in B2B business development in the international food industry. She joins us from a senior executive position with Micvac. Hanna lives in Gothenburg.

Holding: 0 shares and 112,500 stock options

### **REBECCA NORDIN**

Global Marketing Director & Head of IR since 2018

Born: 1986

Rebecca is responsible for the company's strategic marketing, the helioCARE service offering and investor relations. She has a background with a focus on brand building and communication in the white goods industry and LED lighting for indoor settings. Rebecca has a Master of Science in Marketing and Consumption from the Gothenburg School of Business, Economics and Law.

Holding: 0 shares and 30,000 stock options



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# Director's report

## Operations

Heliospectra AB (publ) is the global leader in intelligent lighting technology, light control systems and related services for greenhouse and controlled plant growth environments. With the vision to make commercial crop production more connected and resource-efficient, Heliospectra integrates customised LED lighting strategies with real-time response and artificial intelligence to create predictable, reliable business forecasts and harvest results. Heliospectra was founded in 2006, and is committed to helping growers and commercial producers across six continents consistently increase yields and produce crops that look good, have high nutritional value, standardised medicinal quality and longer shelf life, harvest after harvest. Heliospectra has received much recognition and many international awards.

## THE SHARE AND OWNERSHIP STRUCTURE

The Heliospectra share has been listed on the NASDAQ First North Stockholm since 18 June 2014. In October 2014, trading in the Heliospectra share also began in the United States through an ADR programme. This program was concluded in 2021. The main owners of the company are the Weland Group, Agartha AB and Corespring New Technology AB. As of 31 December 2021, Heliospectra's share capital totalled SEK 7,727,651, split between 77,276,514 shares at a quota value of SEK 0.10.

## SIGNIFICANT EVENTS DURING THE YEAR

### JANUARY–DECEMBER

- Heliospectra received an order from Environmental Growth Chambers in Chagrin Falls, OH, USA. The order was for the company's fully adjustable ELIXIA LED lighting solution for a total value of USD 281,720.
- Heliospectra announced a new order from Texas Tech University in Lubbock, Texas, USA. The order was for the company's fully adjustable ELIXIA LED lighting solution for a total order value of USD 287,250.
- Heliospectra announced a new order from G&M Family Farm in Freshwater, NL, Canada. The order was for Heliospectra's MITRA ED lighting solution and the order value totalled CAD 301,000, equivalent to approximately SEK 2.1 million.
- Heliospectra announced the nomination of two new Board members, Ljubo Mrnjavac and Bonny Heeren as replacements for Board members Staffan Hillberg and Martin Skoglund. The nomination committee presented their official nominations at the AGM on 20 May 2021.

- Heliospectra announced that the order for lighting from Nectar Farms had been annulled as the company had entered voluntary liquidation due to insufficient funds. The total order value was SEK 72 million.
- Heliospectra received an order from San Juan Strains Inc. in Colorado, USA. The order was for the company's MITRA LED lighting solution for a total value of USD 319,000, equivalent to approx SEK 2.65 million.
- Heliospectra announced that it will replace MITRA model lamps following a fuse fault that can be attributed to a defect at the component level. The defect can be traced to a limited production series and the company has already replaced a quarter of the lamps produced. However, on 31/12/2021 the company resolved to set aside an additional SEK 4 million to cover any future warranty and rebuilding expenses.
- On his own request, Heliospectra's CEO Ali Ahmadian stepped down from his post as CEO for Heliospectra AB. The Board has begun the recruitment process in search of a replacement. Heliospectra Board member Bonny Heeren will take over as pro tem CEO during the transition period.

## SIGNIFICANT NEWS DURING THE YEAR

### JANUARY–DECEMBER

- Through its wholly-owned subsidiary Heliospectra Personal AB, Heliospectra carried out a transfer of 930,000 stock options in the P03 series in Heliospectra to senior executive and key personnel in the Group. The market value was set at SEK 0.20 per option. The issue price for the stock options was set at SEK 3.19 per share, which was calculated in accordance with the principles of the issue resolution. The subsidiary continues to hold the remaining 70,000 stock options, which may be offered to senior executives and key personnel in the future.
- Heliospectra announced a new collaboration with Carleton College, a private college in Northfield, Minnesota, USA, for upgrades to the college greenhouse and research installation. Carleton College has installed ELIXIA, Heliospectra's solution with an adaptable light spectrum and the helioCORE™ light control system to expand the college's capacity in plant research with a focus on vegetables, herbs and the propagation of domestic plants.
- Heliospectra announced the launch of the new helioCORE 2.0. This innovative lighting control system has been upgraded and is currently undergoing trials with leading commercial growers and research insti-

tutes around the world. A full launch was scheduled for the third quarter of 2021. This has now been adjusted to the beginning of 2022.

- Heliospectra announced that the company has been awarded a research grant by Vinnova, Sweden's innovation agency, in the amount of SEK 1,750,000 for the innovation project entitled 'Production control and light optimisation in greenhouses'. The research project forms part of Heliospectra's development of new biosensor technology.
- Heliospectra's MITRA LED lighting solution gained DLC certification. The new certification means that MITRA customers can now meet the requirements for various incentives and grants provided by power companies in North America.
- Heliospectra announced new dealer partnerships with Harahara Inc. and MineARC-Systems. Harahara Inc. supplies controlled growing environments and the PFALs market in Japan. MineARC-Systems is a leader in lighting control for controlled growing environments in Australia.
- Heliospectra, a proud member of the LEDs Make it Resilient research group, is starting a new project to study how light quality affects the growth of crops and their resistance with respect to the interaction with bumblebees and bio control agents. As lighting partner and industry expert, Heliospectra supplies the project with the ELIXIA fully controllable LED lighting solution and associated expertise.
- Heliospectra announced a new strategic direction for the company with a focus on sustainable, data-driven growing known as Smart Farming, with an emphasis on flexibility and control. It also announced plans to expand into the European greenhouse market.

## Financial trends

### SALES AND FINANCIAL PERFORMANCE

Net sales totalled SEK 35,221 thousand (38,634), while the operating loss totalled SEK -59,975 thousand (-40,241), i.e. a negative operating margin (neg). The loss after tax was SEK -59,976 thousand (-40,233) In addition to regular impairments, the operating loss for the period October–December includes impairment charges for assets in the amount of SEK 16,743 thousand, of which SEK 5,049 thousand was in respect of impairments of intangible assets, SEK 2,928 thousand for inventory, and SEK 8,766 thousand for other expenses in conjunction with the change in product strategy.



## FINANCIAL POSITION

Operating cash flow was SEK –33,069 (3,260) thousand. Total cash flow was SEK –44,734 (1,214) thousand. Cash and cash equivalents at the end of the period totalled SEK 10,723 thousand. To strengthen liquidity, the company raised a short-term loan totalling SEK thousand 17,025 from principal owners Weland Stål AB, Agartha AB and Corespring New Technology AB. SEK 5,000 thousand was disbursed in December, with the remaining SEK 12,025 thousand added during Q1 2022. As of 31 December 2021, the equity assets ratio was 14 per cent (69).

## INVESTMENTS

Investments during the year totalled SEK 11,666 thousand (2,896). The investments can be divided into SEK 11,609 thousand (2,482) for intangible assets and SEK 57 thousand (414) for tangible assets. The investments in intangible assets refer to balanced R&D expenses and patents. The investments in materials concern office equipment.

## EMPLOYEES

At year-end, the number of employees totalled 21 (31).

## SIGNIFICANT EVENTS SINCE YEAR-END

- Heliospectra AB (publ) has raised a short-term loan totalling SEK 17,025,000 from principal owners Weland Stål AB, Agartha AB and Corespring New Technology AB. The loan has since been converted to a shareholder contribution to a value of SEK 3,865,000 and an off-set issue as described below.
- In February, the Board resolved to issue targeted offset shares issue totalling approximately SEK 13.1 million to three of the company's principal owners, namely Weland Stål AB, Agartha AB and Corespring New Technology AB. The issue price was approx SEK 1.53 per share. Share proceeds were settled by offsetting outstanding receivables totalling approx SEK 13.1 million held by the principal owners as a liability against the company.
- Heliospectra enters into an agreement on a credit facility with the main owners Weland Stål AB, Agartha AB (former Adma Förvaltnings AB) and Corespring New Technology AB. The purpose of the credit facility is to secure the Company's possible liquidity needs during the period up to and including the date of publication of the company's year-end report for the financial year 2022, when both the credit facility and any loans raised under it fall due.

## THE PANDEMIC

Covid 19 continued to affect Heliospectra during 2021. The Nectar Farms order in Australia was stopped after the customer entered voluntary liquidation and financial uncertainty primarily related to rising energy prices and disruptions in the worldwide supply chain had a negative impact on the level of investments in lighting systems in the agricultural industry. Heliospectra and the industry as a whole is also wrestling with a lack of components. This has resulted in increased production costs and extended lead times, which has had a negative impact on both sales and margins.

As of the third quarter, Heliospectra has parried reduced sales and depressed margins by working pro-actively on adjusting and reducing operating expenses. The process of structurally reducing operating expenses and production costs entailed significant non-recurring expenses for the company during the fourth quarter. This included impairment charges for components and intangible assets and other costs associated with changes in the product offering and the company's overarching strategy to an overall value of SEK 16.7 million. Personnel numbers also decreased during the year, thus reducing personnel costs by 13 per cent.

The company has held its stock with an external party since earlier. Due to visitor restrictions, the closing day stock-take was carried out in certain cases entirely by the external party's staff, without the involvement of Heliospectra. Otherwise the stock-take was carried out using the same procedures and was analysed by Heliospectra personnel, whose conclusion verifies the stock's existence and valuation.

To meet customer needs following the pandemic, the company has invested in development. As a result, the company will have many exciting product launches in 2022.

## CONDITIONS FOR CONTINUED OPERATION

In January 2022, a so-called soft short-term loan was raised from principal owners Weland Stål AB, Agartha AB and Corespring New Technology AB.

The purpose of the loan was to boost the company's liquidity and thus its working capital.

In February 2022, shares were issued offsetting the remaining receivables totalling approx. SEK 13.1 million held by the principal owners as a liability against the company, thus also strengthening the company's equity.

To meet the company's liquidity requirement for the remainder of the current financial year, Heliospectra also concluded an agreement for a credit facility in April 2022, where the company is guaranteed loans from the above-mentioned principal owners allocated pro rata based on equity interest for the time up until the year-end report for 2022 is published.

On each occasion, liquidity call-offs will be conducted to the extent necessary to secure Heliospectra's liquidity requirements based on operations planned in line with the new strategic direction.

Meanwhile, the Board is busy working on securing the company's liquidity and capital requirements in the longer term and various available alternatives are evaluated on an ongoing basis.

In the light of the credit facility described above, the Board considers that the company's access to liquidity is assured for the current financial year and that conditions for continued operation are secured.

## Risks

### COMPONENTS, COMPONENT PRICES AND SUPPLIER DEPENDENCY

The company is especially dependent on certain components for the production of its products. Thus the company's production and position can be affected by limited supply and price fluctuations for such components. If rising component prices cannot be covered by higher prices for the company's products, or if limited supply delays deliveries, the company's operations, financial position and earnings may be affected negatively. The company currently has only one single main supplier. The supplier is replaceable, but should it suffer capacity restrictions, delivery delays, industrial action or other factors that affect its operation, there is a great risk that Heliospectra's operations, financial position and earnings would also be affected negatively.

*The company assesses the level of the above-mentioned risk as:* High in the short term, and Intermediate in the long term.

*Extent:* The market is currently experiencing a lack of certain components, including certain LEDs. Because this has a direct impact on the company, the short-term risk is High. However, in the long term the company assesses the risk as Intermediate as the design allows certain components to be replaced by other products. Heliospectra's expenses for the components it is especially dependent on amounted to approx SEK 22 million for the period 1 January 2021–31 December 2021. Should the price of such components rise by 5 per cent, and given similar circumstances in general, it would entail increased costs of SEK 1.1. million.



## TECHNICAL DEVELOPMENT

Heliospectra carries out research and development into how plants are affected by light and into the types of decipherable signals emitted by plants. The findings from such investigations and development efforts can be unpredictable and undesirable, and therefore the company's forecast expenses and revenues related to such investigations and development efforts are associated with great uncertainty. Unforeseen outcomes may also lead to the reassessment of concepts and development, which means supplementary investigations and development efforts may be necessary at significant expense or that the investigations and development efforts cease completely. This can in turn cause delays to market launches or their complete failure to take place, which can occur if e.g. regulators or other decision-makers consider that the company's products do not meet set standards.

*The company assesses the level of the above-mentioned risk as:* Intermediate.

*Extent:* Should the company's technical investigations and the development of its products not turn out as anticipated, (i) the company's revenues may completely fail to appear due to failed commercialisation, or (ii) the company's product development expenditures increase significantly for the purpose of developing a fully commercialised product.

## REGULATORY DECISIONS AND COMPLEX, CHANGEABLE REGULATORY REQUIREMENTS

The marketing of products based on the company's technology may require the company, its collaborative partners and/or suppliers, to obtain relevant permits from regulators. There is a risk that such permits are not obtained, or that the permit does not have that the scope the company anticipated. The permit application process can also be intensive in terms of time and capital, which may delay the market launch of products based on the company's technology. Concerning the permit application process, there is a risk of changes to legislation or other regulations in markets where the company's technology is used, such as regulations and legislation regarding the cultivation of medical cannabis and certain types of tobacco in parts of the USA. The demand for Heliospectra's products, and thus the security of its future revenues, is therefore largely dependent on the development of various regulatory requirements.

*The company assesses the level of the above-mentioned risk as:* Low.

*Extent:* Currently, the company's revenues attributable to operations that pursue the cultivation of cannabis in the USA constitute around 24 per cent of the company's total revenues. A change in regulations could mean that revenues from this market drop to zero.

## HELIOSPECTRA'S INTELLECTUAL PROPERTY RIGHTS, KNOW-HOW AND CONFIDENTIALITY

Heliospectra's future success will to some extent be dependent on its ability to protect its intellectual property rights, chiefly patent protection for the company's inventions and products in the USA, Canada, the EU, Asia and other countries. The conditions for patenting inventions within the field of light technology and intelligent lighting systems is generally difficult to assess and involves complex judicial and scientific issues. There is a risk that Heliospectra cannot obtain patents for its technology. Moreover, patents have a limited lifetime. Also, the scope of protection each patent enjoys may differ from country to country. There is a risk that existing and any future patent portfolios and other intellectual property rights held by the company will not constitute adequate commercial protection. The technologies Heliospectra uses in its research or includes in the products it develops and intends to commercialise, may infringe patents owned or controlled by others. Third parties may also infringe patents that are owned or controlled by Heliospectra. Furthermore, third parties may have applied for patents that include the same field (lighting technology and intelligent lighting systems) or the technology Heliospectra uses. If Heliospectra is forced to take civil action related to its patents or technology, the time and expense involved for such action can be significant, and the company may lose such actions, which could mean that the protection for the company's technology ceases to apply or that the technology is considered to infringe upon the rights of others. Actions lost by Heliospectra may also involve its having to pay significant damages. Heliospectra is also dependent on its proprietary software, know-how and trade secrets. The company seeks to protect these values, inter alia through confidentiality agreements with employees, consultants and collaborative partners. However, it is impossible to completely protect the company against the unauthorised dissemination of information, which entails a risk that competitors may become informed of and exploit software, know-how and trade secrets developed by Heliospectra. Fur-

thermore, the dissemination of trade secrets may affect the company's ability to be granted patents for its inventions or even exclude the possibility of being granted a patent.

*The company assesses the level of the above-mentioned risk as:* Intermediate.

*Extent:* Because Heliospectra's operations are to a significant extent based on the company's intellectual property rights, the incorporation of the above risks could entail extensive loss of revenue as well as cost increases.

## ADDITIONAL FINANCING NEEDS

Heliospectra has reported operating losses since the business was started and cash flow is expected to remain negative until a revenue surplus is generated. In January 2022, Heliospectra's principal owners paid a short-term loan to the company (converted to equity in February).

In April 2022, the principal owners granted the company a credit facility that covers the period until the end of February 2023. On each occasion, liquidity call-offs will be conducted to the extent necessary to secure Heliospectra's liquidity requirements based on operations planned in line with the new strategic direction.

Thus, the company's short-term access to liquidity is assured.

The agreement gives the lenders the right, but not the liability, to settle the loan by means of possible future share issues. If possible, the lenders intend to settle the loan through offsetting on market terms, which is why the supply of liquidity is also expected to meet the need for equity.

*The company assesses the risk that the loan disbursed would not be provided with equity to:* Intermediate

However, it cannot be ruled out that a need for equity could arise in the short term for reasons other than continued negative cash flow, i.e., before liquidity can be called up.

*The company assesses the above risk to:* Intermediate

In the long term, there will probably be a need for additional liquidity as well as equity.

*The company assesses the above risk to:* Intermediate

*Extent:* If a need for capital arises in the long term, it is not certain that capital can be obtained and there is a risk that the conditions will be unfavourable.



## INTERNATIONAL BUSINESS AND EXCHANGE RATE CHANGES

Heliospectra is a Swedish public limited company whose earnings and financial position are reported in Swedish kronor. The company's purchases mostly take place in Swedish kronor, euros, the US dollar and the Canadian dollar and are thus exposed to fluctuations in these currencies. A major part of the future market is located abroad and the majority of potential sales may take place in other currencies. Such sales could expose the company to currency fluctuations.

*The company assesses the level of the above-mentioned risk as:* Intermediate.

*Extent:* If the company sells products worth USD 5 million, its revenues will be reduced by approximately SEK 5 million if the Swedish krona weakens by 10 per cent against the US dollar (in terms of the current exchange rate).

## Corporate governance

Heliospectra AB is a Swedish public company listed on NASDAQ First North Growth Market, Stockholm since 18 June 2014. The company is a public limited company and is regulated by Swedish law, mainly by the Swedish Companies Act and the Swedish Annual Accounts Act. Additional rules and recommendations regarding corporate governance are found principally in the Stock Exchange's regulations, the Swedish Corporate Governance Code (the Code) as well as in the statements of the Swedish Securities Council. In addition to legislation and the rules and recommendations, the articles of association form the basis for the governance of the company's operations. At present, the Code need not be applied by companies whose shares are listed on First North Growth Market. While it is not mandatory for Heliospectra, the company is committed to complying with the Code's principles.

## Annual General Meeting

The Annual General Meeting (AGM) must be held no later than six months from the end of the financial year. Shareholders who are registered in the shares ledger and who have notified their participation in time have the right to take part in the meeting. Heliospectra's 2021 AGM took place virtually on 20 May. Due to the spread of the virus that causes Covid 19, the Board resolved that the 2021 AGM should only be held by postal voting under the Act (2020:198) on Temporary Exemptions to Facilitate the Execution of General Meetings. The purpose was to ensure the safety of the shareholders. Instead, participation in the AGM took place via early voting and an online postal voting form. The AGM

passed resolutions on the approval of financial statements, the election of Board members and auditors, remunerations to Board members and auditors, guidelines for remunerations to the company's senior executives and guidelines for appointing the nomination committee.

## Nomination committee

The nomination committee is tasked with preparing proposals for the following matters for submission to the AGM for resolution: Proposals for Chairman of the meeting; for Board members and Board Chairman, remunerations for Board members for committee work; proposals to auditors, fees for the company's auditors and proposals for the composition of the nomination committee. The 2021 AGM passed a resolution on guidelines for the establishment of a nomination committee. Each of the company's three biggest shareholders in terms of voting rights as of 30 August 2021 is entitled to appoint one member of the committee. None of the three people appointed may be a member of the Board. Furthermore, the nomination committee must comprise one Board member appointed by the Board. This person must be the convener. Should one of the two members of the nomination committee appointed by the two largest shareholders in terms of votes resign the assignment prematurely, the shareholder who appointed the resigning member has the right to appoint a new member. Should one of the two largest shareholders in terms of votes sell all, as opposed to only part of, its shares in the company before the nomination committee has completed its assignment, then in place of this shareholder, the third largest shareholder in terms of votes must appoint a new member. The nomination committee's mandate runs until a new nomination committee is appointed. No compensation will be paid to nomination committee members, but they have the right to reimbursement for reasonable and necessary expenses incurred for nomination committee work. The three biggest shareholders resolved to appoint Staffan Gunnarsson to the nomination committee, despite this being contrary to the Swedish Corporate Governance Code, as Staffan possesses knowledge and skills considered crucial to the work of the nomination committee.

## THE NOMINATION COMMITTEE FOR THE 2020 AGM CONSISTS OF:

- Staffan Gunnarsson, appointed by the Weland Group (nomination committee chairman).
- Greg Dingizian, appointed by Agartha AB.
- Göran Linder, appointed by Coespring New Technology AB.
- Andreas Gunnarsson, convener, appointed by Heliospectra AB.

## Auditor

The company's auditor is Mikael Glimstedt, practising at Frejs Revisorer AB in Gothenburg, authorised public accountant and member of FAR.

## The Board

### BOARD COMPOSITION

According to the articles of association, the Board of Heliospectra AB must comprise no fewer than three and no more than nine members, with a maximum of five deputies. Board members are appointed for a maximum of one year at a time. In 2021, Heliospectra's Board comprised five members and two deputies. Andreas Gunnarsson was Chairman. Of the regular Board members, five are independent of the company and company management and two are independent of the company's major shareholders.

### THE WORK OF THE BOARD

The Board oversees the work of the CEO and is responsible for ensuring that the organisation, management and guidelines for the company are properly set up. The Board is also responsible for ensuring the company's compliance with laws, regulations and internal guidelines. Furthermore, the Board is responsible for developing and monitoring the company's strategies and major investments, and for approving the budget and annual accounts. In 2021, the Board held 8 ordinary meetings and 3 extraordinary meetings. The work of the Board follows the rules of procedure adopted at the statutory meeting. Each ordinary Board meeting discusses the minutes from the previous meeting, business developments since the previous meeting and the company's financial position and its financial performance.

The Board receives written information on an ongoing basis concerning the business and external issues that are important for the company. In 2021, the Board paid particular attention to the following issues: financing, strategy, the organisation and dealing with the Covid-19 pandemic.

### RULES OF PROCEDURE

In accordance with the Swedish Companies Act, the Board has adopted written rules of procedure for its work and written instructions on reporting to the Board. The rules of procedure and reporting instructions are evaluated, updated where necessary and approved annually. Any allocation of responsibilities among Board members must be described in the rules of procedure. The Board holds ordinary meetings that follow a programme established by the rules of procedure that includes fixed decision points as well as other items as necessary. When necessary, the Board



also holds extraordinary meetings on request by a Board member or the CEO. The reporting instructions make clear when and how information that is necessary for the Board's ongoing assessment of the company's and the Group's financial situation must be collected and reported to the Board. Reporting instructions provide the Board with data for the follow-up of plans, budgets etc. According to the current rules of procedure, the Board must, after the statutory Board meeting following the AGM, meet on at least six scheduled occasions during the fiscal year.

#### PROCESSES FOR EVALUATING BOARD PERFORMANCE

The Chairman is responsible for the evaluation of the work of the Board. The evaluation is performed annually. Among the items examined are the Board's working methods, the number of meetings and their effectiveness, the time for preparation, available specific expertise and opportunities for individual Board members to influence the work of the Board. The findings are taken into account in the nomination process for the subsequent year's AGM.

#### CEO and management

Heliospectra's company management consists of the CEO, CFO, Marketing Director, Director Supply Chain & Product Management and Head of Development. The CEO is responsible for day-to-day operations, preparing and implementing strategies, addressing organisational issues and following financial developments. Measures that are of an unusual nature or of great importance with regard to the scope and nature of the company's business, fall outside of day-to-day management and must therefore be prepared and presented to the Board for resolution. The work and role of the CEO and the division of responsibilities between the Board and the CEO are described in more detail in a written instruction

approved by the Board (known as the CEO Instructions). Together with the Board Chairman, the CEO draws up a notice to attend and a proposal for the agenda, prepares necessary decision data and participates in Board meetings. As of 01/01/2022, the CEO position is filled on a consultancy basis pending a permanent solution, and as of 17/05/2022 the CFO position is also filled on a consultancy basis.

#### REMUNERATIONS TO SENIOR EXECUTIVES

The Board as a whole has chosen to take responsibility for remuneration issues in the company.

#### SALARY AND OTHER BENEFITS

Remunerations to senior executives must comprise a fixed salary and a pension. The fixed salary is usually reviewed once per calendar year. No variable salaries are paid. In addition, senior executives have the right to customary non-monetary benefits such as occupational health services. Other benefits may be offered in individual cases.

#### PENSION

Senior executives should be offered pension terms that include a defined contributions scheme with premiums based on the full basic salary. Pension provisions are individual and must be in relation to basic salary.

#### SEVERANCE BENEFITS

The period of notice may not exceed one year if the termination takes place on the part of the company, or no more than six months if the termination takes place on the part of the senior executive. In case of termination on the part of the company, severance pay may also be paid in an amount equal to no more than six months' salary. The Board has the

right to deviate from the guidelines if there are particular reasons for this in individual cases. Salaries and remunerations to the CEO and other senior executives in 2021 are described in Note 6 on page 32.

#### REMUNERATIONS TO THE BOARD

In 2021, it was resolved that the fee to the Board total SEK 499,779. The 2021 AGM resolved that the remuneration to the Board Chairman will be paid as 4 × price base amounts equivalent to SEK 193,200 per year, and to the other Board members as 2 × price base amounts, equivalent to SEK 96,600 per Board member per year.

#### AUDITORS' FEES

Compensation for Heliospectra's auditors is paid at approved hourly rates. In 2021, fees paid to Frey's Revisorer AB were in the amount of SEK 209,000.

#### INTERNAL CONTROLS

The Board must make sure the company has good internal control and formalised procedures ensuring that the policies established for financial reporting and internal control are complied with and that the company's financial reporting is set up in accordance with the law, applicable accounting standards and other requirements resulting from the company's status as listed. The company's internal control structure is based on controlling the allocation of responsibilities between the Board and the CEO. The CEO must, through the good offices of the CFO, ensure that the members of the Board are provided with special financial reports on a monthly basis along with any other information necessary for tracking the company's financial situation.



## Change in equity

Amounts in SEK thousands	Share capital	Other capital contributed	Other equity incl. profit for the year	
<b>THE GROUP</b>				
Opening balance <b>01/01/2021</b>	7,725	380,314	-320,148	
Loss for the year			-59,976	
Translation difference			47	
New share issue	3	68		
<b>Total equity 31/12/2021</b>	<b>7,728</b>	<b>380,382</b>	<b>-380,077</b>	
	Share capital	Fund for dev. expenditures	Share premium reserve	Accumulated profit or loss
<b>PARENT COMPANY</b>				
Opening balance <b>01/01/2021</b>	7,725	7,213	45,757	5,733
Loss for the year				-60,157
Change for the year		4,793	-45,757	40,964
New share issue	3		68	
<b>Total equity 31/12/2021</b>	<b>7,728</b>	<b>12,006</b>	<b>68</b>	<b>-13,460</b>

## Proposed appropriation of earnings for the year

The Board and CEO propose that non-restricted equity

Accumulated profit or loss	46,696,897
Share premium reserve	67,772
Loss for the year	-60,157,018
<b>Total</b>	<b>-13,392,412</b>
be appropriated as follows	
Carried forward	-13,392,412
<b>Total</b>	<b>-13,392,412</b>

With regard to the company's financial position and performance in other respects, refer to the following income statement and balance sheet, as well as the accompanying notes.

## Consolidated income statement

Amounts in SEK thousands	Note	2021	2020
<b>Operating income</b>			
	1, 2		
Net turnover		35,221	38,634
Capitalised work for own account		11,609	2,482
Other operating income		1,191	1,422
<b>Total operating income</b>		<b>48,021</b>	<b>42,538</b>
<b>Operating expenses</b>			
	2		
Commodities		-22,359	-25,093
Other external costs	3-4	-34,902	-22,932
Staffing costs	5-6	-25,061	-28,849
Depreciations of tangible and amortisation of intangible assets	7	-4,288	-4,138
Impairment of assets in addition to regular impairments		-16,743	0
Other operating expenses		-4,643	-1,767
<b>Operating loss</b>		<b>-59,975</b>	<b>-40,241</b>
<b>Loss from financial items</b>			
Interest income and similar items		28	32
Interest expenses and similar profit/loss items	8	-29	-24
<b>Loss before tax</b>		<b>-59,976</b>	<b>-40,233</b>
Tax		0	0
<b>Loss for the year</b>		<b>-59,976</b>	<b>-40,233</b>
Of which attributable to:			
Parent company's shareholders		-59,976	-40,233
Minority interest		0	0



## Consolidated balance sheet

Amounts in SEK thousands	Note	31/12/2021	31/12/2020
<b>ASSETS</b>	1		
<i>Fixed assets</i>			
<b>Intangible assets</b>			
Capitalised expenditures for development and similar work brought forward	9	15,793	12,945
<b>Total intangible assets</b>		<b>15,793</b>	<b>12,945</b>
<b>Tangible assets</b>			
Equipment, tools, fixtures and fittings	10	1,298	1,819
<b>Total tangible assets</b>		<b>1,298</b>	<b>1,819</b>
<b>TOTAL ASSETS</b>		<b>17,091</b>	<b>14,764</b>
<i>Current assets</i>			
<b>Stock held</b>			
Finished products and goods for sale		16,363	18,261
<b>Total inventories</b>		<b>16,363</b>	<b>18,261</b>
<b>Current receivables</b>			
Accounts receivable		2,934	2,024
Current tax assets		641	262
Other receivables		5,760	6,645
Prepaid expenses and accrued income	12	2,851	1,068
<b>Total current receivables</b>		<b>12,186</b>	<b>9,999</b>
Cash and bank		10,723	55,458
<b>TOTAL CURRENT ASSETS</b>		<b>39,272</b>	<b>83,718</b>
<b>TOTAL ASSETS</b>		<b>56,363</b>	<b>98,482</b>

Amounts in SEK thousands	Note	31/12/2021	31/12/2020
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
Share capital	13	7,728	7,725
Other capital contributed		380,382	380,314
Total equity		-320,101	-279,915
Loss for the year		-59,976	-40,233
<b>Equity attributable to parent company shareholders</b>		<b>8,033</b>	<b>67,891</b>
Minority interest		0	0
<b>Total equity</b>		<b>8,033</b>	<b>67,891</b>
<b>Provisions</b>			
Other provisions		12,766	0
<b>Total provisions</b>		<b>12,766</b>	<b>0</b>
<b>Long-term liabilities</b>	15, 17		
Other liabilities		9,424	9,384
<b>Total non-current liabilities</b>		<b>9,424</b>	<b>9,384</b>
<b>Current liabilities</b>			
Advance payments from customers		1,657	4,796
Trade accounts payable		8,386	9,276
Other liabilities	16	9,055	2,513
Accrued expenses and deferred income	17	7,042	4,622
<b>Total current liabilities</b>		<b>26,140</b>	<b>21,207</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>56,363</b>	<b>98,482</b>



## Parent company income statement

Amounts in SEK thousands	Note	2021	2020
<b>Operating income</b>	1, 2		
Net turnover		35,221	38,634
Capitalised work for own account		11,609	2,482
Other operating income		1,050	1,377
<b>Total operating income</b>		<b>47,880</b>	<b>42,493</b>
<b>Operating expenses</b>	2		
Commodities		-22,359	-25,093
Other external costs	3-4	-42,566	-34,690
Staffing costs	5-6	-17,578	-17,751
Depreciations of tangible and amortisation of intangible assets	7	-4,288	-4,138
Impairment of assets in addition to regular impairments		-16,743	
Other operating expenses		-4,643	-1,768
<b>Operating loss</b>		<b>-60,297</b>	<b>-40,947</b>
<b>Loss from financial items</b>			
Interest income and similar items		28	32
Interest expenses and similar profit/loss items	8	-29	-24
<b>Earnings after financial items</b>		<b>-60,298</b>	<b>-40,939</b>
<b>Appropriations</b>			
Group contributions		141	45
<b>Loss before tax</b>		<b>-60,157</b>	<b>-40,894</b>
Tax		0	0
<b>Loss for the year</b>		<b>-60,157</b>	<b>-40,894</b>



## Parent company balance sheet

Amounts in SEK thousands	Note	31/12/2021	31/12/2020
<b>ASSETS</b>	1		
<b>Fixed assets</b>			
<b>Intangible assets</b>			
Balanced expenditures for development and similar work brought forward	9	15,793	12,945
<b>Total intangible assets</b>		<b>15,793</b>	<b>12,945</b>
<b>Tangible assets</b>			
Equipment, tools, fixtures and fittings	10	1,298	1,817
<b>Total tangible assets</b>		<b>1,298</b>	<b>1,817</b>
<b>Financial assets</b>			
Participations in Group companies	11	127	127
<b>Total financial assets</b>		<b>127</b>	<b>127</b>
<b>TOTAL ASSETS</b>		<b>17,218</b>	<b>14,889</b>
<b>Current assets</b>			
<b>Stock held</b>			
Finished products and goods for sale		16,363	18,261
<b>Total inventories</b>		<b>16,363</b>	<b>18,261</b>
<b>Current receivables</b>			
Accounts receivable		2,934	2,024
Receivables from Group companies		141	45
Other receivables		6,165	6,564
Prepaid expenses and accrued income	12	2,851	1,042
<b>Total current receivables</b>		<b>12,091</b>	<b>9,675</b>
<b>Cash and bank</b>		<b>8,743</b>	<b>54,533</b>
<b>TOTAL CURRENT ASSETS</b>		<b>37,197</b>	<b>82,469</b>
<b>TOTAL ASSETS</b>		<b>54,415</b>	<b>97,358</b>

Amounts in SEK thousands	Note	31/12/2021	31/12/2020
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>			
<b>Restricted equity</b>			
Share capital	13	7,728	7,725
Fund for development expenditures		12,006	7,213
<b>Total restricted equity</b>		<b>19,734</b>	<b>14,938</b>
<b>Non-restricted equity</b>	14		
Accumulated profit or loss		46,697	46,627
Share premium reserve		68	45,757
Loss for the year		-60,157	-40,894
<b>Total non-restricted equity</b>		<b>-13,392</b>	<b>51,490</b>
<b>TOTAL EQUITY</b>		<b>6,342</b>	<b>66,428</b>
<b>Provisions</b>			
Other provisions		12,766	0
<b>Total provisions</b>		<b>12,766</b>	<b>0</b>
<b>Long-term liabilities</b>	15, 16		
Other liabilities		9,000	9,000
<b>Total non-current liabilities</b>		<b>9,000</b>	<b>9,000</b>
<b>Current liabilities</b>			
Advance payments from customers		1,657	4,796
Trade accounts payable		8,525	7,955
Liabilities to Group companies		764	1,334
Other liabilities	16	8,567	3,520
Accrued expenses and deferred income	17	6,794	4,325
<b>Total current liabilities</b>		<b>26,307</b>	<b>21,930</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>54,415</b>	<b>97,358</b>



## Statement of cash flows

Amounts in SEK thousands	The Group		Parent company	
	2021	2020	2021	2020
<b>OPERATING ACTIVITIES</b>				
Earnings after financial items	-59,976	-40,233	-60,298	-40,939
Adjustment for items not included in cash flow				
Depreciations and impairment charges re assets	21,034	4,138	9,338	4,138
Other items not included in cash flow	46	-427	141	45
Shareholder contributions	71	47,864	71	47,864
<b>Cash flow from operating activities before changes in working capital</b>	<b>-38,825</b>	<b>11,342</b>	<b>-50,748</b>	<b>11,108</b>
<b>Cash flow from changes in working capital</b>				
Changes in inventory	-1,030	-2,330	1,898	-2,330
Change in operating receivables	-2,187	-2,849	-2,416	-1,069
Change in operating liabilities	8,973	-2,903	17,142	-3,149
<b>Cash flow from operating activities</b>	<b>-33,069</b>	<b>3,260</b>	<b>-34,124</b>	<b>4,560</b>
<b>INVESTING ACTIVITIES</b>				
Activation of capitalised expenditures	-11,609	-2,482	-11,609	-2,482
Acquisition of equipment, tools, fixtures and fittings	-57	-414	-57	-331
Disposals of equipment, tools, fixtures and fittings	0	667	0	580
<b>Cash flow from investing activities</b>	<b>-11,666</b>	<b>-2,229</b>	<b>-11,666</b>	<b>-2,233</b>
<b>FINANCING ACTIVITIES</b>				
Change in non-current liabilities	0	184	0	-200
<b>Cash flow from financing activities</b>	<b>0</b>	<b>184</b>	<b>0</b>	<b>-200</b>
<b>Cash flow for the year (cash and bank)</b>	<b>44,735</b>	<b>1,215</b>	<b>-45,790</b>	<b>2,127</b>
<b>Cash and cash equivalents at beginning of year</b>	<b>-55,458</b>	<b>54,243</b>	<b>54,533</b>	<b>52,406</b>
<b>CASH AND CASH EQUIVALENTS AT YEAR-END</b>	<b>10,723</b>	<b>55,458</b>	<b>8,743</b>	<b>54,533</b>



# Notes

## Note 1 Accounting policies

This annual report has been prepared in accordance with the Swedish Annual Accounts Act and the Swedish Accounting Standards Board's General Recommendations BFAR 2012:1 Annual Accounts and Consolidated Accounts (K3).

Accounting principles remain unchanged from the previous year.

Assets, provisions and liabilities have been appraised at cost unless otherwise specified below.

### Consolidated accounts Subsidiaries

Subsidiaries are companies in which the parent company directly or indirectly holds more than 50 per cent of the voting rights or in some other way has a controlling influence. Control exists when the parent company has a right to affect the financial and operating policies of a company in order to gain benefits from its activities. Business combinations are accounted for based on the unit principle. This means the acquisition analysis is prepared at the time the acquirer gains a controlling influence. From this date on, the acquirer and the acquired unit are regarded as a single accounting unit. Application of the unit principle also means that all assets (including goodwill) and liabilities, income and expenditures are included in their entirety even in the case of partially owned subsidiaries. The cost of the subsidiary is calculated as the sum, on the acquisition date, of fair value for the assets purchased plus liabilities acquired and incurred, equity instruments issued, expenditures directly related to the business combination and any supplementary purchase sum. Fair value is determined in the acquisition analysis, with some exceptions, at the time when the identifiable assets, liabilities and minority interest are acquired. Minority interest is measured at fair value at the acquisition date. The acquired company's income and expenditure, identifiable assets and liabilities, and any goodwill or negative goodwill, are included in the consolidated financial statements as of the date of acquisition.

### Elimination of transactions between group companies and associated companies

Intra-group receivables and liabilities, income and expenses, and unrealised gains or losses arising from transactions between group companies are eliminated in their entirety.

### Intangible and tangible assets

Intangible and tangible assets are reported at cost less accumulated depreciations and impairments. In addition to the purchase price, cost also includes expenditures that are directly attributable to the acquisition.

### Balanced expenditures for development and similar work brought forward

Development costs calculated as the average cost in operations are balanced and accounted for per project (new products/projects). When sales of an object begins, depreciation of capitalised expenditure also begins. Depreciations continue throughout the object's sales period, however max 5 years. In the case of any shutdown or closure of the object, an impairment for the entire remaining balance for the object is carried out at the same time, and the expenses are reversed to the income statement.

### Additional expenditures

Additional expenditures that meet the asset criterion are included in the asset's carrying amount. Expenditures for day-to-day maintenance and repairs are reported as expenses as they arise.

### Depreciations

Depreciations take place on a straight-line basis over the asset's estimated useful life as it reflects the expected pattern of consumption of the asset's future economic benefits. The depreciation is reported as an expense in the income statement. The estimated residual value determined on the acquisition date at the then prevailing price level has been taken into account.

### Useful life

Balanced expenditures for development and similar work brought forward	5 years
Equipment, tools, fixtures and fittings	5 years

### Impairments – property, plant and equipment; intangible assets and participations in Group companies

On each balance sheet day, calculations are made to find any indications that an asset's value is lower than its carrying amount. Given such an indication, the asset's recoverable value is calculated.

Recoverable value is the higher of fair value less selling expenses and value-in-use. When calculating value-in-use, the present value of future

cash flows the asset is expected to give rise to in operating activities is calculated, as well as when it is divested or retired. The discount rate used is pretax and reflects the market-related assessment of the time value of money and the risks associated with the asset. Any former impairment loss is only reversed if the reasons forming the basis for the calculation of the recoverable value of the previous impairment have changed.

### Foreign currency

Monetary items denominated in foreign currencies are translated at the closing rate. Non-monetary items are not restated but presented at the price at the time of acquisition.

Exchange rate differences that arise when settling or translating monetary items are reported in the income statement as they arise.

### Stock held

Inventory is taken up at the lower of cost or net realisable value, thus taking into account the risk of obsolescence. Cost is calculated according to the first-in, first-out principal. In addition to expenditures for the purchase, cost also includes expenditures for bringing the goods to their current place and condition.

### Financial assets and liabilities

Financial assets and liabilities are reported according to Chapter 11 (financial instruments measured at cost) in BFAR 2012:1.

### Reporting and removal from the balance sheet

A financial asset or financial liability is taken up in the balance sheet when the company becomes part of the instrument's contractual conditions. A financial asset is derecognised in the balance sheet when the contractual right to the cash flow from the asset has ceased or been settled. The same applies when the bulk of the risks and benefits associated with the holding are transferred to another party and the company no longer exerts control over the financial asset. A financial liability is removed from the balance sheet when the contractual obligation is fulfilled or has ceased.

### Valuation of financial assets

Financial assets are measured at cost on initial recognition, including any transaction expenses directly attributable to the acquisition of the asset. Accounts receivable and other receivables that constitute current assets are measured individually to the amounts that are anticipated to flow in. Financial assets are measured at initial recognition at cost less any impairment charges and with additions for any revaluations.



continued note 1

### Valuation of financial liabilities

Non-current financial liabilities at amortised cost. Expenditures that are directly attributable to the raising of loans have corrected the loan's cost. Current liabilities are reported at cost. Employee benefits Employee post-employment benefits.

### Classification

Post-employment benefit plans are classified as defined contribution plans. In defined contribution plans, fixed fees are paid to another company, usually an insurance company, and the payee no longer has any obligation to the employee once the fee is paid. The size of the employee's post-employment benefits is dependent on the fees paid to the plan and the return on capital generated by the contributions.

### Defined contribution plans

The charges for defined contribution plans are expensed. Unpaid fees are reported as liabilities.

### Provisions

A provision is recognised in the balance sheet when the company has a legal or informal obligation resulting from a previous event and it is likely that an outflow of resources is required to settle the obligation and a reliable estimate of the amount can be made. At initial recognition, provisions are measured at the best estimate of the amount required to settle the obligation on closing day. Provisions are reviewed on each closing day. A provision is measured at the present value of the future payments necessary to settle the commitment.

### Revenue

The inflow of economic benefits that the company has received or will receive for its own account is recognised as revenue. Revenue is recognised at the fair value of the consideration received or which will be received, less any discounts.

### Sale of goods

When goods are sold, revenue is recognised when the following criteria are met:

- It is probable that the economic benefits associated with the transaction will flow to the company,
- The revenue can be calculated in a reliable way,
- The company has transferred the significant risks and benefits associated with ownership of the goods to the purchaser,
- The company no longer has a level of involvement in day-to-day management usually associated with ownership and nor does it exercise any real control over the goods sold, and
- The expenditures incurred or which can be anticipated to occur as a result of the transaction can be measured reliably.

## Note 2 Group disclosures

### Purchasing and sales within the Group

Of the parent company's total purchases and sales measured in SEK, 12.9 % (17.8 %) of the purchases and 0 % (0 %) of sales concern other companies within the entire grouping to which the company belongs.

## Note 3 Auditor's fees and compensation

	The Group		Parent company	
	2021	2020	2021	2020
Audit assignment	181	141	181	141
Audit activities in addition to the audit assignment	0	22	0	22
Tax advice	25	24	25	24
Other services	3	10	3	10
<b>Total</b>	<b>209</b>	<b>197</b>	<b>209</b>	<b>197</b>

## Note 4 Operational leasing

	The Group		Parent company	
	31/12/2021	31/12/2020	31/12/2021	31/12/2020
<b>Leases where the company is the lessee</b>				
<b>Future minimum lease charges in respect of non-cancellable operating leases</b>				
Within 1 year	1,920	1,951	1,920	1,951
Between 1 and 5 years	4,104	4,404	4,104	4,404
Longer than 5 years	0	0	0	0
<b>Total</b>	<b>6,024</b>	<b>6,355</b>	<b>6,024</b>	<b>6,355</b>
The financial year's expensed leasing fees incl. rent	1,919	2,012	1,919	2,012

The company's most significant leases consist of rental agreements for premises.

## Note 5 Employees and company management

	The Group		Parent company	
	2021	2020	2021	2020
<b>Average number of employees, total</b>	<b>21</b>	31	<b>14</b>	21
<b>Gender balance in senior management</b>				
Board members			5	5
Of which men			5	5
CEO and company management	5	7	4	4
Of which men	3	5	3	3

## Note 6 Salaries, other remunerations and social costs, including pension costs

	The Group		Parent company	
	2021	2020	2021	2020
<b>Salaries and other remunerations</b>				
Members of the Board and CEO	2,075	2,121	2,075	2,121
Other employees	16,914	21,358	10,530	11,915
<b>Total salaries and benefits</b>	<b>18,989</b>	<b>23,479</b>	<b>12,605</b>	<b>14,036</b>
Pension costs in respect of members of the Board and CEO	551	566	551	566
Pension costs relating to other	1,047	1,350	725	1,019
Other social costs	2,902	3,210	2,679	2,926
<b>Total social costs</b>	<b>4,500</b>	<b>5,126</b>	<b>3,955</b>	<b>4,511</b>
Obligations for pensions and similar benefits to Board members and the CEO	0	0	0	0



### Note 7 Depreciation of tangible and amortisation of intangible assets

	The Group		Parent company	
	2021	2020	2021	2020
Expenditures for development and similar work brought forward	3,711	3,505	3,711	3,505
Equipment, tools, fixtures and fittings	577	633	577	633
<b>Total</b>	<b>4,288</b>	<b>4,138</b>	<b>4,288</b>	<b>4,138</b>

### Note 8 Interest expenses and similar profit/loss items

	The Group		Parent company	
	2021	2020	2021	2020
Interest expenses, other	-29	-24	-29	-24
<b>Total</b>	<b>-29</b>	<b>-24</b>	<b>-29</b>	<b>-24</b>

### Note 9 Balanced expenditures for development and similar work brought forward

	The Group		Parent company	
	31/12/2021	31/12/2020	31/12/2021	31/12/2020
Opening balance acquisition value	19,760	35,310	19,760	35,310
Acquisitions	11,609	2,482	11,609	2,482
Disposals/retirement	-7,785	-18,032	-7,785	-18,032
<b>Closing accumulated acquisition values</b>	<b>23,584</b>	<b>19,760</b>	<b>23,584</b>	<b>19,760</b>
Opening depreciations	-6,815	-20,762	-6,815	-20,762
Disposals/retirement	2,735	17,452	2,735	17,452
Depreciations for the year	-3,711	-3,505	-3,711	-3,505
<b>Closing accumulated depreciations</b>	<b>-7,791</b>	<b>-6,815</b>	<b>-7,791</b>	<b>-6,815</b>
<b>Closing carrying amount</b>	<b>15,793</b>	<b>12,945</b>	<b>15,793</b>	<b>12,945</b>

### Note 10 Equipment, tools, fixtures and fittings

	The Group		Parent company	
	31/12/2021	31/12/2020	31/12/2021	31/12/2020
Opening balance acquisition value	4,602	4,482	4,589	4,552
Acquisitions	57	414	57	331
Disposal/retirements	-13	-294	0	-294
<b>Closing accumulated acquisition values</b>	<b>4,646</b>	<b>4,602</b>	<b>4,646</b>	<b>4,589</b>
Opening depreciations	-2,783	-2,357	-2,772	-2,433
Disposal/retirements	11	207	0	294
Depreciations for the year	-576	-633	-576	-633
<b>Closing accumulated depreciations</b>	<b>-3,348</b>	<b>-2,783</b>	<b>-3,348</b>	<b>-2,772</b>
<b>Closing carrying amount</b>	<b>1,298</b>	<b>1,819</b>	<b>1,298</b>	<b>1,817</b>

### Note 11 Shares and participations in Group companies

	Parent company	
	31/12/2021	31/12/2020
Opening balance acquisition value	127	127
Acquisitions	0	0
<b>Closing accumulated cost</b>	<b>127</b>	<b>127</b>
<b>Closing carrying amount</b>	<b>127</b>	<b>127</b>

The company registration numbers and registered offices of subsidiaries are set out below.

Company, Company Registration Number, Head office	Number of shares	Particip., %	Carrying amount
Heliospectra Personal AB, 556904-7243, Gothenburg	1,000	100	50
Heliospectra Inc, 5290422, USA	5,000,000	100	32
Heliospectra Canada inc., 003197932, Ontario	10	100	0
Heliospectra Japan Co., Ltd, Tokyo	1,000	100	45

Refers to the equity interest of capital, which also corresponds to the percentage of votes of the total number of shares.

### Note 12 Prepaid expenses and accrued income

	The Group		Parent company	
	31/12/2021	31/12/2020	31/12/2021	31/12/2020
Prepaid rent	458	439	458	439
Other items	2,393	629	2,393	603
<b>Total</b>	<b>2,851</b>	<b>1,068</b>	<b>2,851</b>	<b>1,042</b>

### Note 13 Share capital

	Parent Company	
	31/12/2021	31/12/2020
Number of shares	77,276,514	77,245,465
Quota value	SEK 0.10	SEK 0.10

### Note 14 Proposal for the allocation of the company's profit or loss

The Board and CEO propose that non-restricted equity in the amount of SEK -13,392 be handled as follows:

	Parent Company	
	31/12/2021	
Carried forward		-13,392
<b>Total</b>		<b>-13,392</b>

**Note 15 Non-current liabilities**

	The Group		Parent company	
	31/12/ 2021	31/12/ 2020	31/12/ 2021	31/12/ 2020
With maturities longer than five years from closing date	9,424	9,384	9,000	9,000
<b>Total</b>	<b>9,424</b>	<b>9,384</b>	<b>9,000</b>	<b>9,000</b>

**Note 16 Pledged assets**

	The Group		Parent company	
	31/12/ 2021	31/12/ 2020	31/12/ 2021	31/12/ 2020
Other pledged assets	6,050	6,050	6,050	6,050
<b>Total pledged assets</b>	<b>6,050</b>	<b>6,050</b>	<b>6,050</b>	<b>6,050</b>

**Note 17 Accrued expenses and deferred income**

	The Group		Parent company	
	31/12/ 2021	31/12/ 2020	31/12/ 2021	31/12/ 2020
Salaries and holiday pay	3,915	1,991	3,667	1,694
Accrued social contributions	1,313	860	1,313	860
Other items	1,814	1,771	1,814	1,771
<b>Total</b>	<b>7,042</b>	<b>4,622</b>	<b>6,794</b>	<b>4,325</b>



Gothenburg April 2022

**Andreas Gunnarsson**  
*Chair*

**Bonny Heeren**  
*Chief Executive Officer*  
*Board member*

**Ljubo Mrnjavac**  
*Board member*

**Anders Ludvigson**  
*Board member*

**Staffan Gunnarsson**  
*Board member*

Our audit report was issued April 2022

**Frejs Revisorer AB**

**Mikael Glimstedt**  
*Authorised Public Accountant*



# Auditors' Report

To the Annual General Meeting of Heliospectra AB (publ) Corporate ID 556695-2205

## Report on the annual accounts and consolidated financial statements

### OPINION

We have audited the annual accounts and consolidated financial statements of Heliospectra AB (publ) for the financial year 2021.

The company's annual accounts and consolidated financial statements are included in the printed version of this document on pages 21–34.

In our opinion the annual accounts and consolidated financial statements have been prepared in accordance with the Swedish Annual Accounts Act and present fairly, in all material respects, the parent company's and Group's financial position as of 12/31/2021 and their financial performance and cash flows for the year in accordance with the Swedish Annual Accounts Act. The director's report is consistent with the other sections of the annual accounts and the consolidated accounts.

We therefore recommend that the AGM adopt the income statement and balance sheet for the parent company and the Group.

### BASIS FOR OUR OPINION

We have conducted the audit in accordance with International Standards on Auditing (ISA) and auditing standards generally accepted in Sweden. Our responsibility according to these standards is described in more detail in the section entitled Auditor's responsibility. We are independent of the parent company and the Group in accordance with professional ethics in Sweden and we have otherwise fulfilled our professional ethical responsibilities under these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate as a basis for our opinions.

### INFORMATION OTHER THAN FINANCIAL STATEMENTS AND CONSOLIDATED FINANCIAL STATEMENTS

This document also contains information other than financial statements on pages 1–20. The Board and the CEO are responsible for such other information.

Our opinion in respect of the annual accounts and consolidated financial statements does not cover this information, and we make no substantiating statement concerning this other information.

In the context of our audit of the annual accounts and consolidated financial statements, it is our responsibility to read the information identified above and consider whether the information is materially inconsistent with the annual consolidated financial statements. In this review, we also take into account the knowledge we otherwise obtained during the audit as well as assesses whether the information otherwise seems to contain material misstatements.

If, based on the work that has been done with regard to this information, we conclude that the other information contains a material misstatement, we are obliged to report it. We have nothing to report in this regard.

### RESPONSIBILITIES OF THE BOARD AND THE CHIEF EXECUTIVE OFFICER

The Board and the CEO are responsible for ensuring the annual accounts and the consolidated financial statements are prepared and that they give a true and fair view in accordance with the Swedish Annual Accounts Act. The Board and the CEO are also responsible for the internal control they deem necessary for the preparation of annual accounts and consolidated financial statements that do not contain material misstatement due to fraud or error.

In preparing the financial statements, the Board and the CEO are responsible for assessing the ability of the company and the Group to continue operations. They inform, as appropriate, on the conditions that may affect the ability to continue operations and to make a going concern assumption. However, the going concern assumption does not apply if the Board and CEO intend to liquidate the company, cease operations or have no realistic alternative but to do so.

### AUDITOR'S RESPONSIBILITY

Our goal is to achieve a reasonable degree of certainty as to whether the annual accounts and consolidated financial statements as a whole do not contain any material misstatement, whether due to fraud or error,

and to submit an audit report that contains our opinions. Reasonable assurance is a high degree of certainty, but there is no guarantee that an audit performed in accordance with ISA and other generally accepted auditing standards in Sweden will always detect a material misstatement, should such be present. Misstatements may occur due to fraud or error, and are considered to be material if they severally or jointly can be reasonably expected to affect the economic decisions that users make on the basis of the annual accounts and the consolidated financial statements.

As part of an audit under ISA, we use professional judgement and maintain a professionally sceptical attitude throughout the audit. We also:

- identify and assess the risks of material misstatement in the annual accounts and consolidated financial statements, whether due to fraud or error; draw up and carry out audit procedures, inter alia on the basis of these risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of failing to detect a material misstatement due to fraud is greater than for a material misstatement due to error, because the fraud may include conduct in collusion, falsification, deliberate omissions, incorrect information or waived internal controls.
- gain an understanding of the part of the company's internal controls that is relevant to our audit in order to draw up audit measures that are appropriate with regard to the circumstances, but not in order to express an opinion on the effectiveness of the internal controls.
- evaluate the suitability of the accounting policies used and the reasonableness of the Board and CEO's estimations in the annual accounts and their related disclosures.
- draw a conclusion concerning the suitability of the Board and CEO's use of the going concern assumption when preparing the annual accounts and the consolidated financial statements. We also draw a conclusion based on the audit evidence obtained, as to whether there is any material uncertainty factor relating to events or conditions that may cast significant doubt on the company's and the Group's ability to continue operations. If we conclude that there is a significant uncertainty factor, we must use the audit report to draw attention to the information in the annual accounts and consolidated financial statements



about the significant uncertainty factor or, if such information is insufficient, modify our opinion on the annual accounts and the consolidated financial statements. Our conclusions are based on the audit evidence obtained up to the date of the audit report. However, future events or circumstances may mean that a company and a group can no longer continue operations.

- evaluate the overall presentation, structure and content of annual accounts and consolidated financial statements, including the disclosures, and whether the annual accounts and consolidated financial statements reflect the underlying transactions and events in a way that gives a true and fair view.
- obtain sufficient and appropriate audit evidence with respect to the financial information for the units or business activities within the group in order to provide an opinion with regard to the consolidated financial statements. We are responsible for the control, supervision and execution of the Group audit. We are solely responsible for our opinion.

We have to inform the Board about, inter alia, the date, planned scope and direction of the audit. We must also inform about significant observations made during the audit, including any significant weaknesses in internal control that we may identify.

## Report on other legal and regulatory requirements

### OPINION

In addition to our audit of the annual accounts and the consolidated financial statements, we have also audited the Board and CEO's management of Heliospectra AB (publ.) for the financial year 2021 and also the proposed appropriation of the profit or loss.

We recommend to the AGM that the profit be allocated in accordance with the proposal in the director's report and that the members of the Board and the Chief Executive Officer be discharged from liability for the financial year.

### BASIS FOR OUR OPINION

We have conducted the audit in accordance with auditing standards generally accepted in Sweden. Our responsibility in this regard is described in detail in the section entitled Auditor's responsibility. We are independent of the parent company and the Group in accordance with professional ethics in Sweden and we have otherwise fulfilled our professional ethical responsibilities under these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate as a basis for our opinions.

### RESPONSIBILITIES OF THE BOARD AND THE CHIEF EXECUTIVE OFFICER

The Board is responsible for the proposal for the appropriation of the company's profit or loss. Among the things considered in the proposal are an assessment of whether the dividends are justified with regard to the requirements that the company's and Group's business nature, scope and risks place on the size of the parent company's and the Group's equity, the need for consolidation, liquidity and general position.

The Board is responsible for the company's organisation and the administration of its affairs. This includes ongoing assessment of the company's and the Group's financial situation and ensuring that the company's organisation is structured such that bookkeeping, asset management and the company's financial affairs are otherwise monitored in a reliable way. The CEO takes care of day-to-day administration under the Board's guidelines and instructions and must, among other things, take measures necessary for ensuring that the company's accounting is completed in compliance with legislation and that assets are managed in a satisfactory manner.

### AUDITOR'S RESPONSIBILITY

Our goal with regard to the management audit, and therefore our opinion concerning discharge from liability, is to obtain audit evidence that with a reasonable degree of certainty enables us to determine whether any member of the Board or the CEO in any material respect:

- has carried out any act or been guilty of any omission that could give rise to liability for damages against the company, or

- has in some other way acted in contravention of the Swedish Companies Act, the Swedish Annual Accounts Act or the articles of association.

Our goal in regard to the proposal for the allocation of the company's profit or loss, and thus our opinion on this, is to assess with a reasonable degree of certainty whether the proposal is in compliance with the Swedish Companies Act.

Reasonable assurance is a high degree of certainty, but no guarantee that an audit performed in accordance with generally accepted auditing standards in Sweden will always detect the actions or omissions that may give rise to liability for damages against the company, or to a proposal for allocation of the company's profit or loss that is not in accordance with the Swedish Companies Act.

As part of an audit under accepted auditing standards in Sweden, we use professional judgement and maintain a professionally sceptical attitude throughout the audit. The management review and the proposed appropriations of the company's profit or loss are based mainly on the audit of the accounts. Any additional procedures are performed according to our professional judgement based on risk and materiality. This means we focus our examination on such measures, areas and conditions as are essential for the operation and where deviations and non-compliance would have special significance for the company's situation. We review and examine decisions, decision support data, actions taken and other conditions that are relevant for our opinion concerning discharge from liability. As the basis for our opinion on the Board of Directors' proposed appropriations of the company's profit or loss, we assessed whether the proposal is in accordance with the Swedish Companies Act.

Gothenburg, April, 2022

Frejs Revisorer AB

Mikael Glimstedt  
Authorised Public Accountant

## Financial Calendar

19 May 2022 Annual General Meeting  
19 August 2022 Half year report Jan–June 2022  
21 October 2022 Interim report Jan–September 2022  
24 February 2023 Year-end report

All reports are available on our website from the above date;  
[https://www.heliospectra.com/investor-relations/  
reports-documents-archive](https://www.heliospectra.com/investor-relations/reports-documents-archive)

