



heliospectra

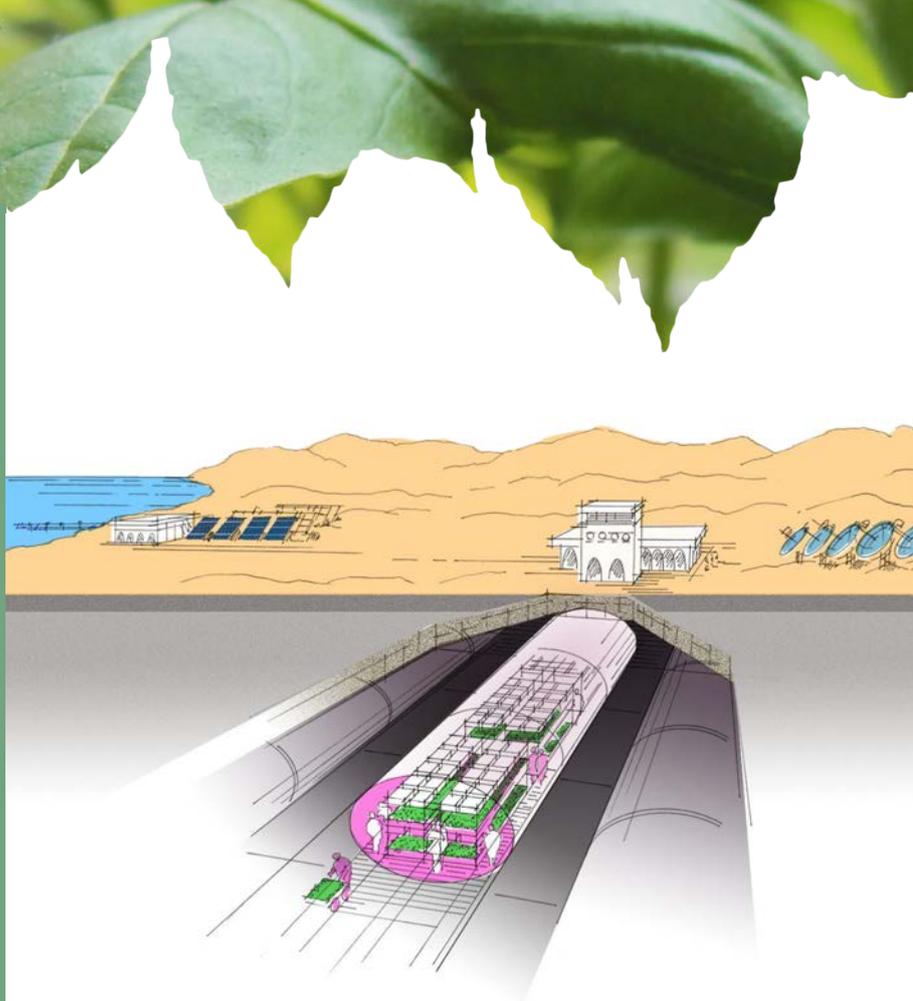
*intelligent light for efficient growth*



# 2015 ANNUAL REPORT

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### **The development of opportunities for energy and water efficient horticulture in extreme environments such as the Middle East.**

Heliospectra is a driving force in projects where the aim is to develop efficient cultivations using minimal light and water resources. The need to develop more energy efficient and above all, water efficient cultivation of plants, is enormous in the Middle East. Many countries in the region currently have hardly any food production of their own and almost all food is brought in by air which is not sustainable in the long-term. It is possible to cultivate to a limited extent using greenhouses but in the summer months, temperatures can reach above 50°C (113°F) which means that any growing is impossible. Heliospectra's intelligent lighting system for greenhouse growing can handle extreme environments and compared with conventional solutions, it uses less energy and water. There is also less waste and the yield is higher - plus the crops taste better.

Due to global warming, these needs are increasing around the rest of the world. Countries with a strong population growth and toxins in both the water and soils become new potential applications. China, for example, has 20 percent of the world's population but just 10 percent of the world's arable land and 6 percent of water resources. Heliospectra is developing a cultivation module alongside the German space agency (DLR). In 2017, this will be tested at the research station at the South Pole with the aim of being used in space. Heliospectra could also implement solutions from this project for commercial customers.

# THIS IS HELIOSPECTRA

*Heliospectra specializes in intelligent lighting technology for plant research and horticulture cultivation and develops complete lighting systems for the greenhouse market using the latest LED technology. Heliospectra's advanced fixtures save a great deal of energy compared with conventional fixtures and are also able to sense how the plants are growing and can adjust the light accordingly. Heliospectra's products are based on in-depth knowledge of plant physiology and photosynthesis together with a unique method of assimilating modern LED technology. Heliospectra has also received numerous awards for its forward-thinking technology.*



## A company based on sustainability

**The whole purpose of Heliospectra's operations is increased sustainability, both in micro and macro-terms. The use of Heliospectra's products allow for a number of environmental benefits:**



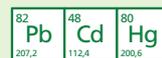
**Reduced energy needs** - LED lights only require 50–60 percent of the energy needed by HPS lights. This is mainly because HPS lights produce a lot of heat while LED lights are heat neutral. This results in energy savings, both in terms of operational costs the light and in terms of the absence of cooling needs due to the heat created by the lights.



**Possibilities for local cultivation** - Growing locally reduces the need for transportation and the emission of carbon dioxide. By using Heliospectra's products, the cultivations are no longer dependent on location, weather, season or supply of sunlight. It is possible to grow anywhere where a greenhouse can be erected.



**Reduced need for water** – the lack of water is an ever-growing global problem. Being able to grow in a way which uses water efficiently is becoming more and more important. For example, Heliospectra is in discussions with companies in sun-intense and water-poor countries in the Middle East about starting cultivations underground.



**Fewer heavy metals** - the composition of an HPS light is very similar to that of a light bulb and contains traces of heavy metals. LED lights do not contain any hazardous heavy metals such as mercury. They are also very durable and do not need to be replaced as often.

# DEVELOPMENT 2015

## First Quarter

- \* Heliospectra received an order valued at approx. SEK 1 million from an existing customer for the cultivation of medicinal plants.
- \* Loan financing to compensate for the negative cash-flow was put in place.
- \* The results for the new product LX60 in the Gothenburg botanical gardens were exceptional.
- \* At an extraordinary general meeting, the board received the approval for a new issue of shares and/or subscription rights.

## Second quarter

- \* Cooperation established with Dixie Brands and American Cannabis, two of the largest brands in medical cannabis.
- \* A study from the American University of Akron Research Foundation shows that lettuce grown using Heliospectra's system is significantly better than with traditional HPS lights and competing LED lights.
- \* A unique cooperation with Qatar for the construction of a demonstration facility in Qatar showing the Gulf states how to grow with reduced water consumption in hot countries.
- \* The first patent application is approved in Canada. This has already been approved in the US, Japan, China, Hong Kong and Russia.
- \* Dr. Sue Sisley is made head of cooperation within medical cannabis where they primarily use CBD which does not have any drug-related effects.

## Third quarter

- \* The largest order ever received, equal to USD 672 000 (SEK 5.7 million) from a grower in Las Vegas in cooperation with American Cannabis. The installation is to take place in the fourth quarter.
- \* A directed share issue is carried out providing the company with SEK 25 million.
- \* The leading analytical firm MarketsandMarkets includes Heliospectra as one of the market actors in two new reports on the greenhouse market and LED plant lighting.
- \* The product portfolio is extended with two new LED grow lights.
- \* Patent application also approved in Europe
- \* The major shareholders Weland and Midroc exercise their options and subscribe to shares.

## Fourth quarter

- \* The exercising of options adds approx. SEK 22.5 million when 90 percent of the options have been used.
- \* Heliospectra is elected to OTCQB Index by the OTC Market group.
- \* A European greenhouse grower signs an order for the new Lightbar product for vertical farming worth approx. SEK 1.8 million.
- \* Heliospectra was awarded research grants of SEK 450 thousands for innovative studies around the stimulation of flavoring and nutrients in plants using light.

### FINANCIAL KEY RATIOS

SEK thousands	2015	2014
Net turnover	13 686	3 110
EBITDA	-28 473	-29 284
Earnings before interest and taxes	-32 360	-32 901
Cash flow	12 721	2 596
Cash and bank	18 848	6 127
Equity	28 147	16 099
Solidity, %	56	51
Liquidity, %	277	177
Number of shares, thousands	18 622	13 791

# A WORD FROM THE CEO

*2015 was the year when Heliospectra's products achieved a break-through in the market. We received our single largest order with a value of SEK 5.7 million (672 thousand USD) and our turnover increased by 340 percent from SEK 3.1 million (371 thousand USD) to SEK 13.7 million (1.6 million USD).*

The greenhouse industry is in the middle of change. The traditional greenhouse growers are starting local and vertical farming operations. At the same time, the US cannabis market gained momentum given the legalization of cannabis for medicinal use in several states. Our LED-technology is often a prerequisite for success in these new methods of cultivation. There are, in addition, 55 million lamps used in existing cultivations which gradually must be replaced with more modern alternatives. According to independent market analyzes, all the markets Heliospectra operates in are growing rapidly. The traditional greenhouse market is still the largest in terms of volume but at the same time, the markets for vertical and indoor farming are expanding quicker and, put together, will be as large as the greenhouse market.

Our strategy is to build a base of satisfied users and more reference installations with a particular focus on the US cannabis market. In terms of cannabis cultivations, we are referring to legal growers of medical cannabis. Medical cannabis, as opposed to conventional cannabis, is primarily based on the chemical substance CBD which does not produce any intoxicating effect but only has a medicinal effect. Medical cannabis is used to treat anything from MS and epilepsy to post-traumatic stress in war veterans.

Our most important marketing channel are satisfied customers who then provide references and spread knowledge and awareness of our products. We are primarily focused on larger industrial volume customers and it is important that we also have direct contact with them alongside the distribution and sales channels we are establishing.

During the end of 2014, we launched the LX60 and the RX30 series based on the same technical platform. LX60 is primarily sold to traditional growers of vegetables and flowers, as well as growers of medical cannabis. LX60 has also represented the largest share of the turnover in 2015. RX30 is more focused on research-intensive customers such as universities, institutions and large, international companies selling seeds, nutrients and pesticides – so-called agtech companies. We are now sufficiently established and known on the market that researchers are starting to specify Heliospectra equipment in their applications for research grants.

During the third quarter, we launched the E60 series which is a simplified version of the LX60 series and is based on the same technical platform. E60 is primarily intended for greenhouse growers. At the same time, a lightbar was launched which is an elongated light fitting aimed at the fast-growing market for vertical growing in a con-



trolled indoor environment. Just like LX60 and RX30, the E60 and the lightbar have been developed in close co-operation with international customers. One result of this is that the company quickly received an order for lightbars worth SEK 1.8 million from an international greenhouse grower.

Going forward, our work will continue to focus primarily on sales and all associated activities which drive the sales process. In parallel, we continue our innovative product development. Heliospectra's competence is primarily within product development and software development. We have market-leading products and it is important to develop these further. Strongly growing markets combined with Heliospectra having very competent staff and world-leading products ensure continued success. We feel that we have the wind in our backs going into 2016 and we have started the year with a number of new, large orders.

**Staffan Hillberg, CEO**

# BUSINESS MODEL AND STRATEGY

## Business model

Heliospectra's business model is to develop and sell efficient lighting systems which provide growers with the ability to control the quality and growth of plants. The products are sold as systems in which the lights are a component. Additional sales of software then take place for new functionality as well as new units such as fixtures and sensors.

## Strategies

### MARKET

Heliospectra focuses on market segments with the greatest potential, both in terms of sales and customer use. Through the initial step of mainly selling growlights and thus obtaining established customer relationships and an installed base of products, Heliospectra can then take this further and sell sensors and entire systems to established customers. This way, Heliospectra can sell both on current and future benefits. In the future, Heliospectra plans to establish a business model with recurring revenue from software updates, light instructions and, in some cases, financing of the hardware. The focus lies primarily on the geographical markets in North America, the UK, the Netherlands, Germany, Poland and Scandinavia.

### MARKETING

By cooperating with and developing products alongside research institutes and well-known ag-tech companies, Heliospectra gains the ability to use prominent customers to assess the products, build the brand and communicate the benefits to a broader audience. Heliospectra also participates in high-profile research projects which puts the spotlight on us. The market for medicinal plants covers a fairly limited number of growers. Heliospectra directs efforts on that group by participating in specific events and in interest groups which concern themselves with the growing of medicinal plants and co-operation with suppliers within other parts of the value chain. It is important to be able to refer to installations with growers in the industry.

### SALES AND DISTRIBUTION

Heliospectra sells both directly and through partners. The company has dedicated sales staff in important markets such as greenhouse cultivations in Europe and medicinal plants in North America. We have also signed cooperation agreements with a number of retailers. Because Heliospectra wants to have control over where the products end up and how they are used, the number of distributors and partners are kept low. The reason for this is to be able to guarantee that the installations are successful and for customers to be able to understand how to use the products in the best way. Reference customers form an important part of our sales strategy. There are also online sales to hobby growers and small-scale growers.

### RESEARCH AND DEVELOPMENT

Heliospectra has an advanced facility for plant research in Gothenburg. In addition, Heliospectra participates in a number of research programs and cooperates both with research institutes and ag-tech companies. Heliospectra develops the software for controlling the light systems in-house, but both customers and partners participate in this process. Thanks to these joint research projects, Heliospectra has a large share of its research paid for by third parties. In the cooperation projects with, for example, universities and research institutes, Heliospectra owns the rights to the results.

A large share of Heliospectra's products concerns as well as software fitted to the lights external software used to control the lights and communicate with external sensors. Heliospectra has a team of software engineers who deal with all the software development.

## History

### 2006 - 2011

Heliospectra was founded in 2006 by plant researchers in cooperation with Inkubatorn in Borås and a number of investors aimed at developing cultivation lights based on bio feedback systems. The strategy was always to develop a comprehensive light system for the large-scale greenhouse market for vegetables, fresh herbs and ornamental plants. The development work has been carried out in close cooperation with Chalmers University of Technology. A test series was produced for internal use.

### 2012

Continued product development of a flexible light system for plants. Considerable development of lighting recipes adjusted for different plants. An initial series production of the L4A-S10 product was started and the development of more product versions commenced. The development of advanced sensors for the analysis of plants. Sales and delivery to international customers in Australia, Netherlands, the UK and Sweden. Two new patent applications were made in addition to the patent which had already been granted in a number of countries.



## MANUFACTURING

Heliospectra is active in the design and development of the lights. The construction of the hardware has been outsourced to external manufacturers. LEDs are manufactured by Philips and Osram and most of the other components are standard components. Most of the mechanics, plastics and several components are manufactured in China. The final assembly is carried out by manufacturers with facilities in Sweden and the US. Currently, manufacturing is primarily done to order. One partner keeps a small stock for minor orders on the US market. As sales grow, the company starts to manufacture based on predicted sales.

## IP STRATEGY

The most advanced functions in Heliospectra's light systems are patented. The first patent has been followed up by so-called improvement patents. These are often more detailed and specific than the original patent and therefore provide an extended protection. Heliospectra tries to protect the products and processes which are not advanced or original enough to patent, in other ways. This can be done using trade mark protection or by protecting the design. If there is no other way to protect it, it can be kept secret from customers and partners. This applies to, for example, the lighting instructions. These are implemented directly from Heliospectra's database without disclosing to the customer. This is also the case for codes and algorithms for controlling the software and feedback from the systems.



## 2013

The development of a volume product for plant cultivation was initiated in partnership with subcontractors. The fixtures were equipped with light emitting diodes, LED, with different light frequencies (color). The development of sensors takes place in cooperation with Chalmers University of Technology and with contributions from Mistra and a business development loan from the Swedish Energy Agency. Sales for the year amounted to SEK 0.5 million and were made up entirely of the sale of the research lamp. Delivery to customers in Australia, the UK, France, the US, Denmark, Japan, Ireland and Germany and more. A subsidiary has been set up in the US to work on the US market.

## 2014

Different versions of the LX60 were developed and a new generation of intelligent light systems was launched. Swedponic, European leader in growing of fresh potted herbs in Europe, fitted the new system in some of their installations. A large order of 20 LX60 units was received from the US. The company's share was listed on Nasdaq First North and trade started in the US. Participation in the project "The warm and clean city 2" with the aim of developing a solution for cleaning waste water, recycling nutrients and energy and in a European space project for the development of bio-safe crops on space stations. The patent, which was previously approved in Russia, China and Hong Kong, was also approved in the US.

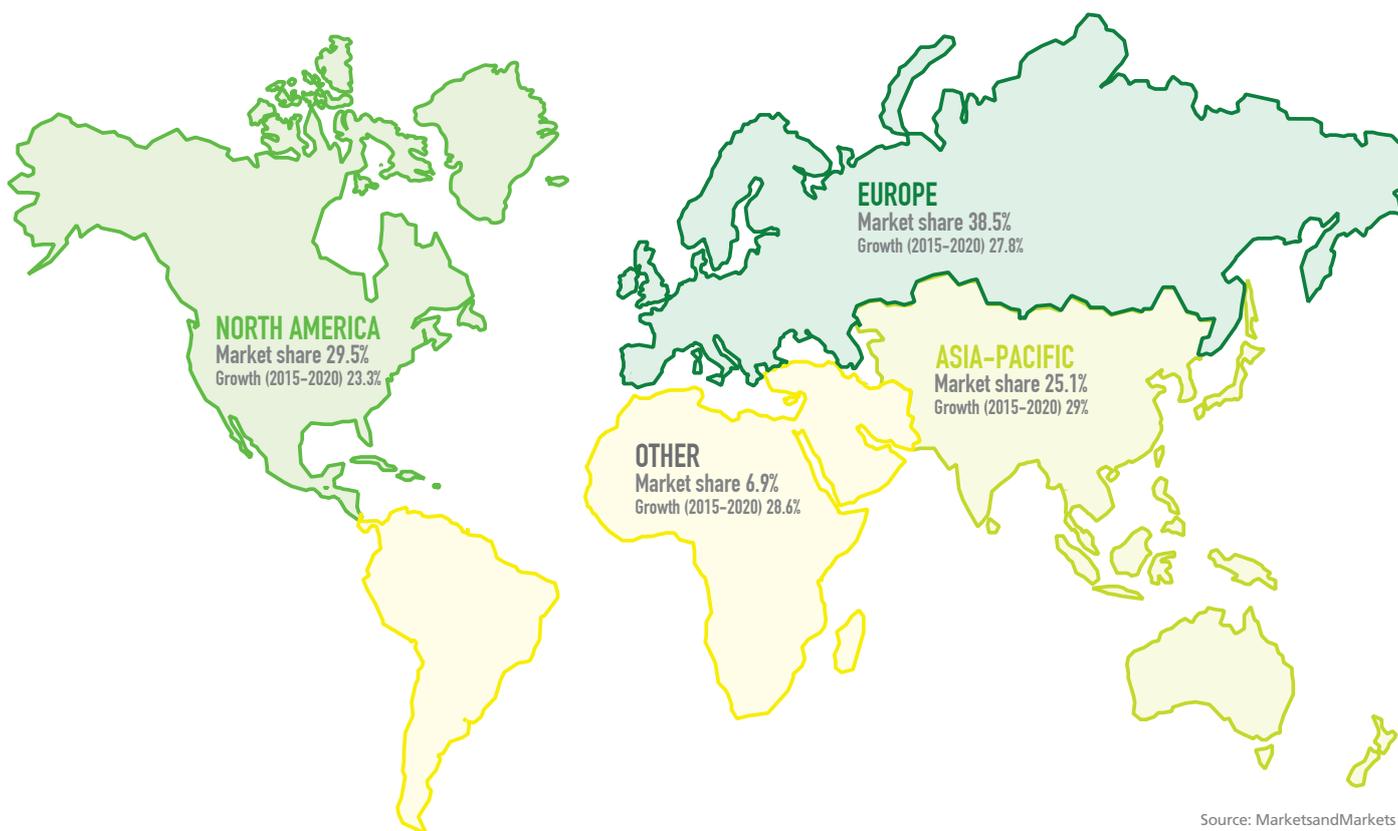
# FORCES DRIVING THE MARKET

*The global population continues to grow while the arable land and natural resources are limited. The UN's agricultural and food organization makes the assessment that food production must increase by 70 percent in order to feed the world's population over the next forty years. This means that the agricultural sector and food producers face a range of new challenges.*

## Legislation and state aid

Governments and authorities around the world wish to reduce energy consumption and are encouraging a transfer to LED lights through grants and regulations. This could be research grants, subsidies for making investments into the technology profitable, as well as legislation. This applies in particular to the EU, the US and China. For example, the EU is planning to use regulation to phase out halogen lights in favor of LED lights in all member states.

### MARKET SHARE LED GROWLIGHTS PER REGION, 2014



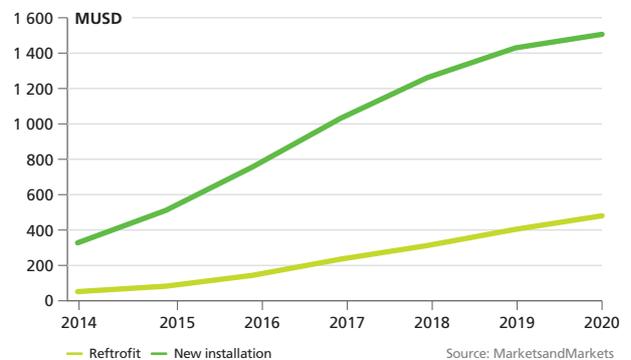


## New installations and replacement lights

In Europe, greenhouse cultivations are one of the largest energy consumers. The majority of greenhouses use HPS lights to supplement the sunlight in their cultivations. By replacing HPS lights with LED lights in existing systems, growers can save a lot of energy, in addition to the other positive effects that LED lights offer. The price of LED lights is decreasing in line with the increase in volumes and this will have a positive impact on the sales of LED systems.

However, the largest market growth is from new installations. New installations are driven by the growth in new methods of cultivation. The reducing availability of arable land and urbanization means that, in particular, indoor cultivation is growing.

LED grow light market size, by type of installation, 2014-2020, MUSD

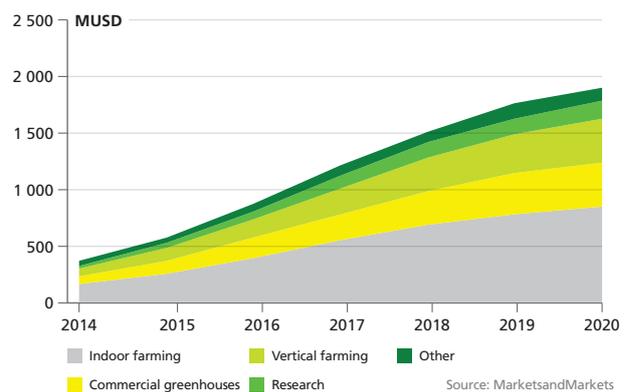


## Urban cultivation

According to the UN, by 2050, 80 percent of the world's population will live in cities. People continuously move into cities in order to get access to training, service, jobs, culture and entertainment and all the other things cities' offer. This means that the demand for food is increasing in these areas at the same time as the availability of arable land around cities is very limited. This is why new initiatives such as, for example, roof-top growing are appearing. In the Netherlands, empty office space is converted into indoor growing areas. By using these new methods of urban growing, city-dwellers can obtain fresh and locally grown fruit and vegetables. Urban cultivation also reduces the environmental impact by reducing transports. All the new initiatives for urban cultivation require a controlled environment, artificial lights and automated solutions and this drives the demand for LED lights and smart growing systems.

Traditional, commercial greenhouse cultivation will continue to be the largest market for LED growing lights but the urbanization drives the growth in indoor growing and vertical growing where markets are expected to develop fast over the next few years.

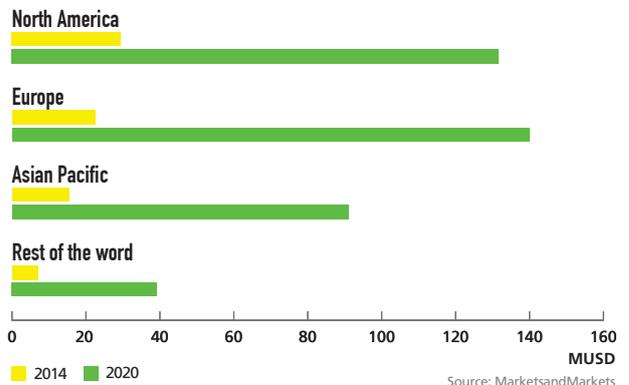
LED grow light market size by application, 2014-2020, MUSD



## Indoor cultivation

Indoor cultivations are cultivations in greenhouses where plants are grown with artificial light rather than sunlight. This allows for planting in areas where it is not necessary to consider environmental factors such as the growing climate, extreme weather, pests and disease. Indoor cultivation is often used where the sunlight is not sufficient for growing. High energy consumption and associated high costs have previously, when HPS lights were the dominating alternative, been a limiting factor for indoor cultivation. The low energy consumption of LED lights, allows growers to cultivate indoors at a much lower cost compared to traditional HPS lights. Indoor cultivation is expected to grow as urban populations expand. Indoor cultivation also reduces the need for toxic substances to control pests. The research company MarketsandMarkets expects a general annual increase of 28 percent until 2020.

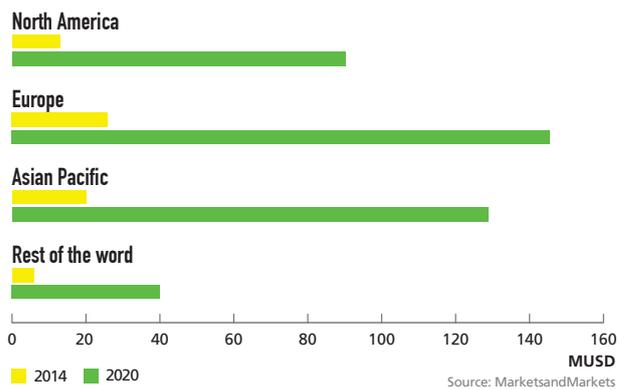
Market size indoor cultivation 2014–2020



## Vertical farming

The introduction of vertical farming in urban environments is a new trend in the agricultural industry. Limited access to arable land in urban environments is the driving force behind new methods for maximizing the use of the surfaces. Vertical farming operations are indoor where the plants are grown on top of each other vertically. The only source of light for plants in these cultivations is artificial light. Vertical farming operations are designed to maximize the cultivation capacity in limited areas and to use control systems in order to optimize the conditions. Cost-efficiency and energy consumption are important for these cultivations as in the life-span of lights and equipment and optimal lighting in order to stimulate photosynthesis are focused upon. MarketsandMarkets estimates that over the period to 2020, vertical cultivations will grow by approx. 30 percent.

Market size vertical farming 2014–2020



## Company focused on systems

Heliospectra is specialized in advanced greenhouse products which stimulate plant growth and improve quality. The company was established by biologists. This means that focus is always on the plant's perspective and light is then constructed around this. Heliospectra's light has an adjustable spectrum and software and sensors are added to the system. The core competence is not in the production of the lights but in the integration and design of the software, hardware and sensors. The systems are made up of an advanced controllable light which, in the next step, is provided with sensors and software in order to make the light as beneficial as possible for the plants. The grower can purchase parts of the system and then add accessories and software to this. Therefore, the revenue model also includes additional services and support.

### HARDWARE

\* **The light:** Lamp with a completely variable frequency spectrum.

\* **Sensors:** The sensors can be divided into two types. The most advanced sensors are at the same height as the lights and are aimed down towards the plants in order to catch signals from them. These signals are then used in the comprehensive bio feedback system. Then there are sensors mounted at the plant level which sense the intensity and the spectral distribution.

### SOFTWARE

\* **Web-based user interface:** Web-based interface for controlling the lights. Receives updates/light regimes from the database and implements these in the LED systems.

\* **Data centers and control systems:** Data centers for collection, analysis and implementation of light regimes and recipes for different types of plants.

\* **Light regimes:** Every crop has an individual preference for light and Heliospectra offers light regimes for a range of plants (a manual for which characteristics a plant develops at different spectra). The advantage for the grower is the choice within areas such as the plant's growing time, flavor, size, weight and hardiness.

### PRODUCTS WHICH CREATE THE PERFECT LIGHT

Heliospectra offers one of the most advanced products on the market for stimulating the growth and quality of plants. It is based on LED technology (Light Emitting Diode) which makes it possible to adjust wavelength and intensity based on light recipes developed by research on light for growing. Heliospectra products are based on an in-depth knowledge of plant physiology and photosynthesis together with a unique method of assimilating modern LED technology. Heliospectra has developed an advanced system where every light fixture uses light diodes (LED – Light Emitting Diodes) with up to nine different wavelengths. Every wavelength can be individually controlled and can therefore create the perfect light for different plants which have different demands, depending on the type of plant and its stage of development and the characteristics being sought. In addition to the basic wavelengths for operating the photosynthesis, certain wavelengths are used to send signals to plants. For example, this might be to bring out the flavor in basil or to start off flowering.

Heliospectra's fixtures save a great deal of energy compared with conventional fixtures and are also able to sense how the lit plants are growing and can adjust the light accordingly. The light fixtures have built-in intelligence and communicate using a central control system. The patent also includes a further development with sensors which can sense the reflected light and the fluorescent light from the plants, which means that the system can sense how the plants are feeling and how they use the light.

The system can be adapted to all sorts of plants and also offers benefits through an increase in automation and greater quality plants. The ambition is to sell to large, industrial growers. They want to grow plants all year round at the same quality and their demands on the system in terms of stability, reliability and quality are considerable. Every individual light is quality-checked and has third-party certifications testing under EU and US standards. Heliospectra's system also provides benefits by way of increased automation and an improved quality plant.



## Four product families

Heliospectra's product portfolio contains four different product families. The first three share the same mechanical platform in order to take advantage of volumes and to increase margins, but they are adapted to the areas of use of different customers.

### LX60

LX60 is aimed at the market for commercial greenhouse growing. LX60 has been developed for long operating times in tough environments. The light has a completely variable spectrum and newly developed optics in order to optimize the light pattern on different surfaces and different areas of applications. LX60 is primarily sold to traditional growers of vegetables and flowers, as well as growers or medical cannabis. LX60 accounted for the largest share of turnover in 2015 and the company has increased production to meet the demand. The first order of the year was received in January and concerned 100 LX60 light systems units at a value of approx. SEK 1 million to a grower of medical plants.



LX60

In 2015, Heliospectra introduced the LX601 and 602 versions. LX601 is designed to sit closer the plant, at a distance of around 0.5 meters. LX602 is to be fitted further away from the plant at a distance of approx. 2.0 meters and is to complement natural sunlight but still achieve the desired results by varying the spectrum. The largest single order so far was worth SEK 5.7 million and was for a grower of medical cannabis in Las Vegas. Two additional orders were received in March 2016. One at a value of SEK 2.2 million from a grower of medicinal plants in Washington state and the other one from a grower in Canada at a value of SEK 0.65 million.



RX30

### RX30

RX30 is a product primarily aimed at the research market. Customers are research-intensive customers such as universities, institutions and large, international companies selling seeds, nutrients and pesticides – so-called tech companies. Heliospectra's products have reached a sufficiently established position on the research market that researchers have started to specify equipment from Heliospectra when applying for research grants.



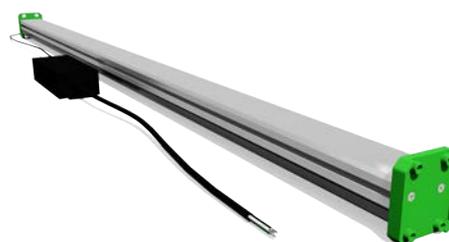
E60

### E60

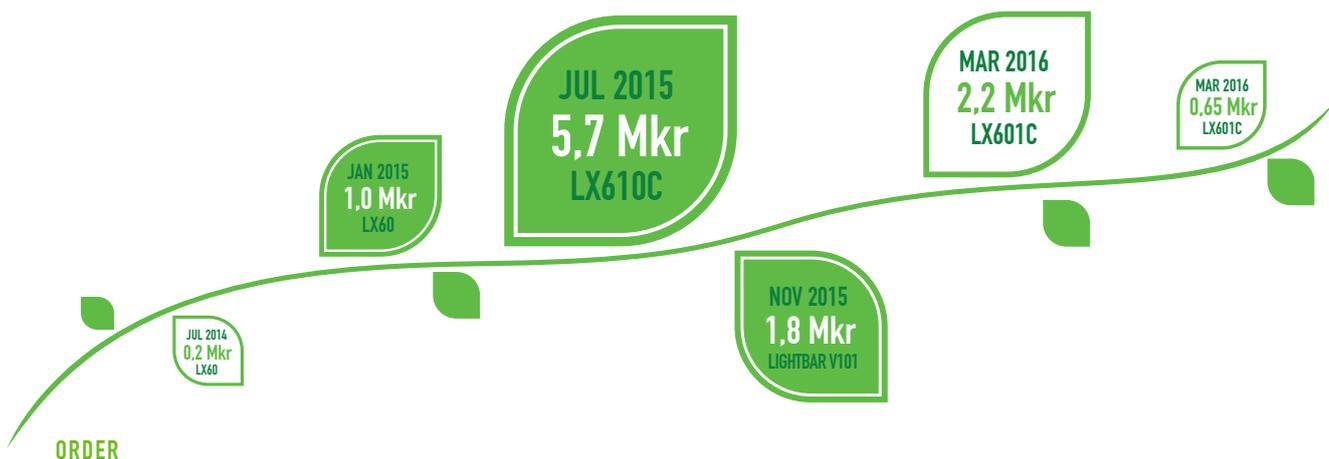
Heliospectra launched a new product in the third quarter, the E60. E60 is a simplified version of the LX60 and is primarily aimed at commercial greenhouse growers. Compared with LX60, E60 uses a fixed spectrum which means that it is not suitable for blooming plants such as cannabis which have a longer growing period and requires different spectra during different growth stages.

### LIGHTBAR

At the same time as the E60, a so-called lightbar was launched which is an oblong light fitting aimed at the fast-growing market for vertical growing in a controlled indoor environment. This is a high-intensity fixed-spectrum LED light with an optimized spectrum for cultivation. It is available in two lengths and enables both water-cooling and air-cooling. The E60 and the Lightbar have been developed in close co-operation with international customers. One result of this is that the company quickly received an order for lightbars worth SEK 1.8 million from a European greenhouse grower.



LIGHTBAR



## Competitors

Heliospectra competes both with broad-based, traditional light manufacturers who have entered the LED market and more niche companies focusing directly on products for the greenhouse market. The market is fragmented with a large number of smaller manufacturers. Our competitors have all chosen somewhat different paths. Some invest in simpler LED solutions to complement the HPS light. Such solutions are relatively cheap but also limited in their functionality. Others, like Heliospectra, invest in products with the aim of completely replacing the HPS light. This segment contains a greater spread in terms of technical level, height and functionality of the products which means somewhat higher prices. The simplest

products have a static light spectrum on or off. More advanced products allow dimming of the various wave lengths in order to be able to completely control the light mixture.

The largest operators on the market today are Philips (the Netherlands), Orbitech (the US), Fionia (Denmark) and Valoya (Finland). Osram, Philips, GE Lightning, Eye Iwasaki and a number of other operators are also competitors in the traditional lighting sector. Heliospectra's competitive edge is that the company offers a complete system with software and sensors in order to optimize cultivations.

NAME	DESCRIPTION OF ACTIVITIES	MARKET SEGMENT/ PRODUCT CATEGORY
<b>USHIO</b>	Specialist in industrial lighting sources. Primarily focused on discharge and halogen light technology	HPS lights
<b>EYE IWASAKI</b>	Global supplier of light products and industrial systems	HPS lights
<b>VALOYA</b>	Supplies light for installations in cultivation chambers and cultivation rooms, multi-layer growing, conveyor belt applications with movable lights and high-intensity greenhouse lighting.	LED lights
<b>PHILIPS LUMILEDS</b>	Offers energy-efficient lighting solutions and new lighting applications	LED lights
<b>LUMIGROW</b>	Supplier of smart lighting solutions for market gardens	Variable LED lights
<b>ILLUMITEX</b>	Manufacturers precision LED lights and LED lighting	Variable LED lights
<b>FIONA LIGHTING</b>	Supplier of LED lighting for market gardens	Variable LED lights
<b>ORBITECH</b>	Offers solutions for biological research, plant cultivation and supplementary greenhouse lighting.	Intelligent variable LED lights

# CUSTOMERS IN THREE DIFFERENT SEGMENTS

*Heliospectra's customers can be split into three different segments. All segments are growing rapidly according to independent analyzes. The traditional greenhouse growers are still, in terms of volume, the largest customer group but vertical and indoor cultivation are growing faster. Medical cannabis growers are mainly found in North America but is one of the fastest growing customer groups there.*

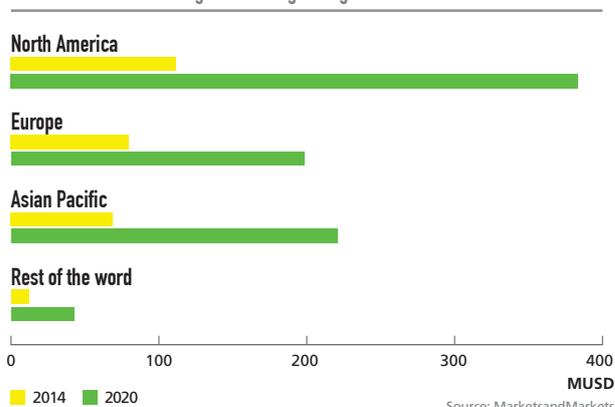
*Traditionally, vegetables and flowers have been grown in greenhouses but the market is changing. Growers who are interested in development are starting to adopt new cultivation technologies using so-called Controlled Environment Agriculture (CEA) which means cultivation indoors without any sunlight as well as vertically to make maximum use of space. At the same time, cannabis growers have traditionally been cultivating indoors without any sun but are now moving towards greenhouses. This means that in countries where the growing of cannabis is legal, the two industries meet and learn from each other.*

## Traditional greenhouse cultivations

Climate change has caused a deterioration in farming conditions in many places around the world with storms, flooding and extreme weather and temperature conditions. Greenhouse growing provides a safer and more stable cultivation. Cultivations in greenhouses also reduce the need for toxic substances to prevent pests, disease and weed in cultivations. Herbal plants such as basil, parsley, dill, chives and mint are suitable for the light from Heliospectra's technology. Flowers are also often grown using external lights. The majority of this market is in the northern hemisphere where the winters are cold, relatively long and dark. The greenhouse market is changing, with a need for an increase in automation and qualitative productivity at the same time as production is moving closer to, and into, cities. According to the analyst company MarketsandMarkets, the traditional greenhouse market will grow annually by 27 percent between 2015 and 2020.

HPS lights remain the largest competitor of LED plant lights in traditional greenhouse cultivations. Competitors offering LED lights are primarily General Electric, Philips and Osram. There are also a number of smaller actors such as Fionia, Valoya, Ilumitex and Lumigrow. For large, commercial greenhouse cultivations, product quality is more important than price.

Market size commercial greenhouse growing 2014-2020



**We have been very happy with the increased crop and light quality after the initial LX602G system was installed. For our new vertical installation, we needed high-quality light as well as an option that could help us reuse the heat emitted by the lights. Heliospectra's water-cooled LightBar allowed us to do just that, and grow crops more environmentally friendly.**

**- ULF JÖNSSON, FOUNDER OF SPISA**

## SPISA AB

Founded in 1995, Spisa is today Europe's largest supplier of ecological potted herbs with operations in seven European markets. In addition to growing herbs, Spisa is also a large provider of different salad greens. The environment and quality have always been a key focus with high standards of food safety, environmental protection and regular quality controls, and therefore Spisa has always continuously sought out new technologies and improvements.

As Sweden's northern weather did not supply the daily amount of light needed for healthy and good-looking plants, Spisa needed high-quality, energy-efficient supplemental lighting for long winter months, and was looking to replace wasteful HPS lamps.

Heliospectra calculated the need for PAR for their crops and provided lights with a spectrum specially designed for them. Today Spisa is using Heliospectra LED lights, including both the LX602G and E60, in three locations in Sweden. Additionally, in the autumn of 2015, Spisa bought another 1,400+ Heliospectra LightBars for their propagation facility.

Results compared to their former HPS lighting solutions includes:

- \* 46 percent decrease in energy consumption
- \* Improved plant vigor
- \* Improved taste
- \* Improved shelf-life
- \* Improved plant quality
- \* The survival rate of younger plants has increased and waste has been reduced



## Medicinal plants

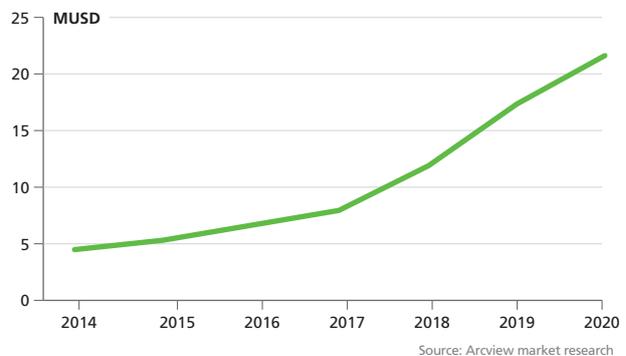
Medicinal plants is a growing market in North America.

The growing and sale of medical cannabis has been approved in 23 states and this development will grow further due to upcoming judicial decisions in additional states. Globally, there has been legalization in Israel, Uruguay and parts of Australia and discussions are ongoing in many other countries. There are also pharmaceutical companies in Europe that are manufacturing plant-based medicines, which are available at pharmacies in Sweden and the rest of Europe. One example is GW Pharma in the UK which has large cultivations of medicinal plants in greenhouses, which are then processed and sold to MS patients in Sweden and the rest of Europe under the trademark Sativex. They are also developing other products for, for example, diabetes and pain in cancer patients.

Growers of medicinal plants are at the cutting edge in terms of investing in new technology, lighting and growing methods in order to ensure high quality and high profitability. The legalization of cannabis cultivations in the US has caused price reductions which force market changes. In addition to this making it necessary to streamline costs, taste and quality have become important in terms of competition. Heliospectra's products offer direct energy savings and make it possible to control the cultivation so as to reduce the growing time and improve quality.

Energy consumption is a large part of the cultivation cost of the cannabis plant. By using Heliospectra's LED lights, the energy consumption can be reduced by up to 50 percent. Because the lights do not generate any heat, there is also no need for any cooling systems thus eliminating the increase in cost of first heating something and then cooling it down. This means that the payback time for replacing the HPS lights with LED lights is short. The indoor cultivation also ensure increased efficiency as it enables more harvests per year. Cannabis is a short-day plant. This means that it

Legal marijuana sales US 2014-2020



blooms and spreads its seeds when the days get shorter. By growing indoors, it is possible to control light and repeat the growing cycle three or four times per year.

The market for medicinal plants is primarily found in North America. There are at least 20 suppliers of LED greenhouse lights focusing on growers of medicinal plants. Some of them are pure low-cost producers who are mainly aimed at smaller growers and who are not among Heliospectra's competitors. The greatest competition is from HPS-lights, with suppliers such as Gavita.

**We strive to honor all-natural growing principles with every plant we grow, carefully cultivating sativa, indica and hybrid strains that create the most effective medicinal marijuana. We use Heliospectra LED lamps to simulate the spectrum of natural sunlight to increase quality and growth. But there are also other significant benefits. The use of LED lighting cuts our power usage by up to 40 percent and lowers our A/C consumption by half.**

**- KEVIN BIERNACKI,  
MASTER GROVER, THE GROVE**

### THE GROVE

The Grove is a 44,000 square foot medical marijuana facility located in Las Vegas, Nevada. From clones to flower, The Grove is an organic grow operation dedicated to producing all-natural medicines, including marijuana concentrates and edibles.

The new cutting-edge, eco-friendly indoor grow and production facility features over 600 Heliospectra LX601C LEDs, illuminating four double-tiered, vertical flowering rooms and a triple-tiered, vertical vegetative room. Heliospectra helped the Grove set up lighting conditions to mimic the natural cycles of day and night during harvest season, thereby maximizing growth and minimizing energy consumption.

#### Results:

- \* 40 percent direct energy savings compared to HPS lighting
- \* Capital outlay for HVAC reduced by 50 percent
- \* Decreased carbon footprint

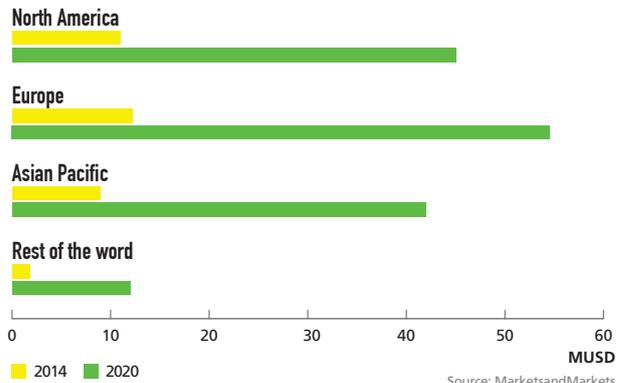


## Research

The research market consists of plant researchers who study plants at universities, institutes and large ag-tech companies. It's typical for these customers to use controlled environment agriculture. Examples of large companies that are developing crops, fertilizers etc. are Monsanto, Syngenta, Bayer, Dupont and BASF. All these companies have large research installations which include greenhouses. In addition to these companies, there are a large number of universities which focus on research and development of agriculture. Research cultivation is a smaller market in terms of volume, but it is very important for other reasons. The relationships with these companies and institutions drive innovation and development and mean that Heliospectra is part of developing the technologies and markets of the future. Heliospectra is, for example, part of a joint venture with DLR (the German space agency) regarding growing in space, NASA uses Heliospectra's equipment when simulating a Mars expedition and Google as well as MIT (Massachusetts Institute of Technology) in the US use Heliospectra's lights in a research project. In addition to these markets, there is further potential for Heliospectra's products for lighting of forest plants, in botanical gardens and for algae growing for water purification, biofuels and nutrients. The market for research cultivation is estimated to grow by 23 percent between 2014 and 2020 (MarketsandMarkets).

The market for research is the most challenging in terms of the functionality of the product. There are only a few suppliers who can offer products that are sufficiently sophisticated for this group. Lumigrow, Illumitex and Orbitech are companies focusing on the research market.

Market size Research 2014–2020



Throughout different life stages, plants require different light spectra. During germination, nursery stages, prior to flowering and during flowering, during all of these different stages plants require different light spectra. We really like the functionality of the (Heliospectra) lights. We can control light intensity. We can combine light spectra. We can program the lights by computer.

—YOUYOUN MOON,  
W. VA. ASSISTANT PROFESSOR

### WEST VIRGINIA UNIVERSITY

An increasing number of growers and researchers are looking at the potential of urban farming. Two of these researchers are West Virginia University Assistant Professors Youyoun Moon and Nicole Waterland at the Division of Plant and Soil Sciences. They are doing research to determine how LED lights can be used to meet the increased demand for locally grown urban food.

In 2013 when Moon and Waterland made the decision to study the production of food crops under LED lights, they were looking for a flexible and programmable light. The clear choice was the Heliospectra LED solution, thanks to its advanced control system and multitude of light wavelengths.

Beyond studying the morphological changes caused by different light spectra, the researchers will also look at the chemical changes within the plants.

Advantages of Heliospectra LED lights for West Virginia University:

- \* The adjustable and programmable LEDs deliver the optimum light spectra and intensity to meet a crop's light requirements during different production stages.
- \* Heliospectra LEDs are energy efficient and easily deliver the higher light intensities required by plants grown in indoor controlled environments.
- \* Uniform light distribution improves research results.
- \* Heliospectra LEDs light fixtures are waterproof, long-lasting and very dependable.





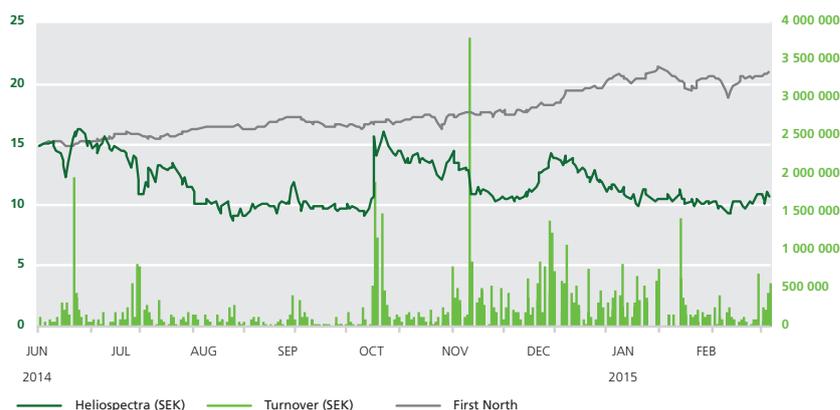
**Heliospectra's patented light system has solutions which improve the quality of specific crops. The products improve the taste and appearance of the plant, extend its shelf-life, increase yield and reduce energy consumption.**

# SHARES

*Heliospectra's share has been listed on Nasdaq First North Stockholm since June 18, 2014. The registered share capital as of December 31, 2015 was SEK 1,862,220 distributed over 18,622,196 shares with a par value of SEK 0.10. All shares in Heliospectra correspond to one vote per share. All issued shares are ordinary shares and hold the same rights to Heliospectra's assets and profit.*

## Share statistics 2015

On the first trading day of 2015, the Heliospectra share closed at SEK 15. The last closing price for 2015 was SEK 10.50 which corresponds to a market value of SEK 196 million. The highest closing price for 2015 was SEK 17.40 and was noted on January 20 and the lowest was SEK 8.25 on July 7. Over the year, Heliospectra shares were sold and bought for approx. SEK 62 million. The average trade in the share was around SEK 247 thousand per day and the turnover speed was 35 percent.



## The growth of the share capital

Since the beginning of 2005 until December 31, 2015, the share capital in the parent company has grown as per the table below:

	REGISTRATION DATE	SHARE CAPITAL	ACCRUED SHARE CAPITAL	NUMBER OF SHARES	ACCUMULATED NUMBER OF SHARES	PAR VALUE
Company start date	12-27-2005	SEK 100,000	SEK 100,000	1 000	1 000	SEK 100
New share issue	01-10-2007	SEK 36,000	SEK 136,000	360	1 360	SEK 100
New share issue	03-12-2009	SEK 82,500	SEK 218,500	825	2 185	SEK 100
New share issue	03-23-2011	SEK 47,100	SEK 265,600	471	2 656	SEK 100
New share issue	09-29-2011	SEK 180,500	SEK 446,100	1 805	4 461	SEK 100
New share issue	08-20-2012	SEK 105,900	SEK 552,000	1 059	5 520	SEK 100
New share issue	05-13-2013	SEK 61,000	SEK 613,000	610	6 130	SEK 100
New share issue	08-06-2013	SEK 61,000	SEK 674,000	610	6 740	SEK 100
New share issue	10-08-2013	SEK 59,100	SEK 733,100	591	7 331	SEK 100
New share issue	12-09-2013	SEK 47,300	SEK 780,400	473	7 804	SEK 100
New share issue	01-30-2014	SEK 15,600	SEK 796,000	156	7 960	SEK 100
New share issue	02-28-2014	SEK 72,000	SEK 868,000	720	8 680	SEK 100
Share split	04-07-2014		SEK 868,000		8 680 000	SEK 0.10
New share issue	06-16-2014	SEK 511,120	SEK 1,379,120	5 111 195	13 791 195	SEK 0.10
New share issue	08-22-2015	SEK 100,000	SEK 1,479,120	1 000 000	14 791 195	SEK 0.10
New share issue	09-10-2015	SEK 150,000	SEK 1,629,120	1 500 000	16 291 195	SEK 0.10
New share issue	09-10-2015	SEK 8,000	SEK 1,637,120	80 000	16 371 195	SEK 0.10
New share issue	09-30-2015	SEK 225,100	SEK 1,862,220	2 251 001	18 622 196	SEK 0.10

## Ownership structure

The number of shareholders on December 31, 2015 was 1,646. The 20 largest shareholders in Heliospectra as of December 31, 2015 is stated in the table below.

SHAREHOLDERS	NUMBER OF SHARES	SHARE-HOLDING
Weland Värdepapper AB	3,973,052	21.34%
Weland Stål AB	2,922,750	15.69%
The Industrifonden foundation	2,034,000	10.92%
Midroc New Technology AB	2,027,250	10.89%
Insurance Company Avanza Pension	802,108	4.31%
Nordnet Pensionsförsäkring AB	424,775	2.28%
Magowny Invest AB	340,691	1.83%
Piba AB	311,000	1.67%
Belmondo AB	260,800	1.40%
Chrilotte AB	260,800	1.40%
LR Johansson Aktier AB	260,800	1.40%
Invus Invest AB	240,743	1.29%
Kristian Wiman	232,101	1.25%
LMK Forward AB	187,000	1.00%
CBNY Charles Schwab FBO Customer	174,644	0.94%
Bank of New York	166,447	0.89%
Henry Dunkers	147,543	0.79%
Jan Tufvesson	126,500	0.68%
Lastklippan Förvaltnings AB	92,909	0.50%
Wood & Hill SPV 7	91,000	0.49%
Other shareholders	3,545,283	19.04%
<b>Total</b>	<b>18,622,196</b>	<b>100.00%</b>

## Distribution of share holdings

Distribution of share holdings in Heliospectra as of December 31, 2015 is stated in the table below.

HOLDINGS	NUMBER OF SHAREHOLDERS
1 – 500	749
501 – 1,000	340
1,001 – 5,000	410
5,001 – 10,000	61
10,001 – 15,000	26
15,001 – 20,000	14
20,001 –	46
<b>Total</b>	<b>1,646</b>

## Share-based bonus programs, subscription rights and convertibles.

In conjunction with the issues in 2014, 5,111,195 warrants were issued. Two (2) subscription rights entitled the holder during the period of September 1 to September 30, 2015, to subscribe for one additional new share at SEK 10 each. The subscription rights contributed SEK 22,5 million before issue costs and was executed with a take-up ratio of approx. 90 percent.

A directed share issue of SEK 2,500,000 shares at the issue rate of SEK 10 per share was carried out in August. The directed share issue contributed SEK 25 million to the company before issue costs. The share issue was directed at some 20 qualified investors. Weland Värdepapper AB, a sister company of Heliospectra's largest owner, Weland Stål AB, subscribed to shares corresponding to SEK 10 million and LMK Ventures AB subscribed to shares corresponding to SEK 3 million. The subscription price of SEK 10 per share includes a discount of approx. 15 percent based on an average share price over the last 50 trading days preceding the share issue.

A resolution was made at the AGM on April 7, 2014 for a subscription rights program for senior management and employees. It is made up of 770,000 options where each option entitles the holder to subscribe to one new share at a subscription price of SEK 12 per share during the period from March 7 to May 7, 2016. The dilution from this will be approximately 6%.

A resolution was made at the AGM in 2015 for an additional subscription rights program for senior management and employees. It is made up of 400,000 options where each option entitles the holder to subscribe to one new share at a price of SEK 20 per share during the period from January 1, 2018 to June 30, 2018. The dilution effect in the event of a full subscription may amount to approx. 2.8 percent.

The extraordinary AGM on March 30, 2015 resolved to issue no more than 137,912 subscription rights. The subscription rights for the warrants shall, deviating from the preferential rights of shareholders, fall to Viridian Capital & Research, LLC. Each option entitles the holder to subscribe to one new share at a price of SEK 17.88 per share during the period from February 27, 2015 to February 27, 2020. The dilution effect in the event of a full subscription may amount to approx. 0.7 percent.

# COMPANY REPORT

HELIOSPECTRA AB (PUBL) ORG. NO. 556695-2205

*The Board and the Chief Executive Officer of Heliospectra AB, domiciled in Gothenburg, hereby submit the annual accounts for the financial year 2015.*

## Activities

Heliospectra develops, manufactures, produces and sells light systems for the growing of plants in greenhouses and indoor environments. The lights are equipped with light emitting diodes, LED, with different light frequencies (color). The different light frequencies can be wirelessly adjusted individually from a central system and can therefore create different light spectra. With the help of different light recipes, the growers can produce plants of greater quality, better flavor, longer durability, fewer rejections and also save energy.

## The share and ownership relationships

Heliospectra's share has been listed on Nasdaq First North Stockholm since June 18, 2014. In October 2014, trade in the Heliospectra share started in the US via a so-called ADR program. The main owners of the company are Weland Stål AB, Industrifonden and Midroc New Technology. Heliospectra's share capital as of December 31, 2015 was SEK 1,862,220 and is made up of 18,622,196 shares with a par value of SEK 0.1.

## Significant events during the financial year

During 2015, the sales work has borne fruit. The year started with an order of SEK 1 million from a customer based in Seattle who grows medicinal plants. The order was a follow-up of a previous order. Heliospectra's largest order to date was received in the second quarter with a value of approx. SEK 5.7 million. The order was made by growers in Las Vegas in co-operation with American Cannabis. American Cannabis is a very well-known consultancy firm within medical cannabis. The system was installed in the fourth quarter. At the end of the year, an order was received for the new product Lightbar, intended for vertical cultivation, from a large European greenhouse growers and with a value of approx. SEK 1.8 million.

Heliospectra's first patent application was also approved in Europe and in Canada. The application has previously been approved in the US, Japan, China, Hong Kong and Russia.

The product portfolio was extended with two new LED growing lamps. E60 is a full-spectrum LED growing lamp designed for commercial growers. E60 is based on the LX60 platform and offers the same technology without the programming option which is why it is cheaper. The LightBar product is a linear version of E60.

A study from the American University of Akron Research Foundation showed that lettuce grown using Heliospectra's system is significantly better than with traditional HPS lights and competing LED lights. In Gothenburg, the Botanical Gardens used the LX60 product when growing high altitude plants and both the quality and the survival of the cuttings reached record levels after the HPS lights were replaced by LX60. The leading analyst firm MarketsandMarkets included Heliospectra in new greenhouse and LED growing lamps report.

Heliospectra was awarded research grants of SEK 450 thousand from Vinnova for innovative studies on the simulation of flavoring and nutrients in plants using light. A unique collaboration with the state of Qatar to construct a demonstration facility in Qatar showing the Gulf states how to grow with reduced water consumption in hot countries. In addition, Heliospectra was awarded a grant of SEK 500 thousand from the Swedish Energy Agency to analyze and develop the possibilities of operating energy and water efficient cultivation in the Middle East.

A directed share issue was carried out providing the company with SEK 25 million. The share issue was directed at about twenty qualified investors including Weland Värdepapper AB, a sister company of Heliospectra's largest owner Weland Stål AB, and LMK Ventures AB.

## Financial growth

### TURNOVER AND PROFIT/LOSS

Net turnover was KSEK 13,686 (3,110). Operating profit/loss was KSEK -32,360 (-32,901), involving a negative operating margin (neg). Profit/loss after tax was KSEK -33,954 (-33,670) or SEK -2 (-2) per share.

### FINANCIAL POSITION

At the end of the period, the company's cash assets were KSEK 18,848 (6,127). The cash flow from operating activities was negative for the whole year and was KSEK -31,979 (-32,498). On December 31, 2015, the solidity was 56 percent (51).

### INVESTMENTS

During the year, investments amounted to KSEK 4,136 (5,934). The investments can be split into intangible KSEK 4,107 (5,088) and tangible KSEK 29 (846). The intangible investments are made up of capitalized R&D costs and patents. The tangible investments relate to inventories.

## Research and development

Ongoing product development is the basis for Heliospectra being able to maintain its unique position on the market. Development takes place internally and in cooperation with customers and other partners. The patented sensor technology was developed alongside researchers from Chalmers University of Technology within the project iLight which in part is financed by the Mistra Innovation foundation where Heliospectra owns all the rights to the project results. In addition, there is continuous development of both the hardware and software for lights and associated systems. Heliospectra has access to its own plant laboratory where the company grows different types of plants under different conditions in order to examine the effect of different types of light.

## Staff

The number of employees was 21 (19) at the end of the financial year.

## Future prospects

Heliospectra is focusing its resources on sales and marketing. It has secured a supply capacity that can meet substantial volumes, negotiation was done directly with large strategic customers and the company is building up an international distributor and retail network. The priority markets that Heliospectra is working with are Europe and North America and a very strong growth in particular in North America is easily seen. There is also intention to expand cooperation with a number of strategic partners that will provide company with greater market presence and more routes to market. Overall, Heliospectra is well positioned to begin to capitalize on the market potential that its products have.

## Significant events after the end of the financial year

In January 2016, a customer in the state of Washington in the US signed an order of SEK 2.2 million. The order was for the new product series LX601C, an LED-system that maximizes the revenue per square meter and reduces operating costs. The customer is a grower with a license for growing medical cannabis.

Caroline Nordahl Wells was appointed to the position of Vice President of Sales and Marketing for Heliospectra's North American operations. Caroline is the founder and previous manager of LumiGrow.

## Proposal for profit allocation

The board proposes that unallocated profits including share premium reserve, SEK 26,608,875, of which this year's loss, -33,802,183, are carried over.

## Risks

### COMPETITION/ALTERNATIVE TECHNOLOGIES

Heliospectra may be exposed to competition from a number of other companies making investments in the corresponding segment. Several of these companies may have greater financial resources than Heliospectra. General research and development within the areas in which the company intends to operate may have a negative impact on the company's ability to sell its products as other methods and technologies may turn out to be more beneficial to the company's customers.

### STAFF AND KEY PEOPLE

Heliospectra's operations are dependent on the ability to recruit, develop and keep qualified employees. If key people leave the company that may, at least in the short term, have a negative impact on the operations.

### PRODUCT DEVELOPMENT/LACK OF COMPETENCE

Heliospectra develops products using its own resources and has partnerships with other companies in terms of product development. The main focus is currently on starting volume sales of the light systems that the company has developed. Should the company's growth activities not achieve acceptable results, Heliospectra may not be able to successfully develop or commercialize its products.

### AUTHORITY DECISIONS

In order to be permitted to market products based on Heliospectra's technology, it may be necessary for the company, its partners and/or suppliers to obtain the relevant permits from the authorities. There is no guarantee that these will be granted, not delayed or that the permits are as extensive as expected.

### PATENTS AND INTELLECTUAL PROPERTY RIGHTS

Heliospectra's competitive force is, among other things, dependent on the company's ability to obtain, maintain and defend patents and intellectual property rights in order to protect its products. There is no guarantee that patent applications result in approved patents, that approved patents can be maintained or that the patents, the

trademarks or other intellectual property rights provide a sufficiently comprehensive protection to have commercial significance. Even if the company obtains a satisfactory patent protection, the costs for maintaining this protection can be considerable, as can the costs for defending the patent in the event of any infringement by third parties. Other companies within the industry may also hold intellectual property rights which in theory could be claimed as infringing on Heliospectra's intellectual property rights.

### PRODUCT LIABILITY

The sale of products is always associated with the risk that the product is deficient or that customers in other ways are dissatisfied with the result of the use of the product. It cannot be ruled out that customers make demands based on product warranties to a greater extent than what has been included in the forecasts made by Heliospectra.

### COMPETITORS

It cannot be ruled out that the competition within the areas where Heliospectra is operating turns out to be harder than currently expected. Future competition can come from well-established global operators with considerably greater ability to reach the market quickly.

### THIRD PARTY RISKS

Once an order has been received, there is a risk that there is no financing available for these products. Procurements are often done with financing from public funds, insurance companies and, to some extent, private funds and it may be sometimes difficult to access these. The aim of the company is to enter into financing agreements with potential larger partners but it cannot be guaranteed that these agreements are fulfilled as agreed.

### JOINT VENTURES

Heliospectra currently has a few joint ventures and might sign future such joint ventures. There is a risk in all partnerships that one party fails to fulfill its obligations.

### EARNING POTENTIAL AND CAPITAL REQUIREMENTS

It cannot be ruled out that it will take longer than expected for Heliospectra to reach the margins and cash flows that the company is aiming for. In all likelihood, Heliospectra will require further capital in addition to the current fully guaranteed initial issue in the offering before a positive cash flow can be achieved. It can also not be ruled out that in the future Heliospectra will need to find more external capital. There are no guarantees that, at this point, it will be possible to obtain this at conditions beneficial to shareholders. A failure to generate profit to a sufficient extent can impact the company's market value. Future capital raising measures may cause a dilution of the ownership of the company for those shareholders who choose not to participate in any future new share issues.

### FOREIGN CURRENCY RISKS

Heliospectra operates on a global market with large shares of its sales and purchases in currencies other than SEK. Sales and raw material purchases is mainly done in USD and EUR but also in other currencies. The group's purchases of services is in part done in SEK but also in other currencies.

### CREDIT RISK

Heliospectra has established policies to ensure that sales are only made to customers with satisfactory payment histories and/or who are deemed to be sufficiently solvent. However, it can never be ruled out that the company will suffer credit losses.

## Corporate governance

Heliospectra AB is a Swedish public limited company listed on Nasdaq First North Stockholm since June 18, 2014. The company is a public limited company and is subject to Swedish law, in particular by the provisions of the Companies Act and the Annual Accounts Act. There are further rules and recommendations in terms of corporate governance in the stock exchange rules, Swedish Code for Corporate Governance and in statements by the Stock Market Committee. In addition to legislation, rules and recommendations, the Articles of Association form the base for the governance of the company's operations. The Code is not currently mandatory for companies listed on First North. It is thus not mandatory for Heliospectra but the company is still striving to adhere to the basic principles of the Code.

### SHAREHOLDERS

The share capital in Heliospectra amounts to SEK 1,862,220 distributed as 18,622,196 shares with a par value of SEK 0.10. All shares correspond to one vote per share. The largest shareholders in Heliospectra were the Weland Group, Industrifonden and Midroc New Technology AB. The number of shareholders on December 31, 2015 was 1,646.

### ANNUAL GENERAL MEETING

The Annual General Meeting shall be held six months from the end of the financial year. The shareholders who are registered in the share register and who have registered their attendance in time have the right to participate at the general meeting. Heliospectra's annual general meeting 2015 took place on June 22 in Gothenburg. The meeting adopted the accounts, elected the board and auditors, adopted guidelines for fees for the board and auditors, guidelines for remuneration for the company's senior managers and guidelines for the election of a nomination committee and it also authorized the board to decide on a share issue of a maximum for 12,000,000 new shares. It was also decided to introduce an incentives program, including subscription rights, aimed at the management and other key staff.

### NOMINATION COMMITTEE

New guidelines for the establishing of a nomination committee were adopted at the annual general meeting in 2015. The nomination committee must consist of four people. Each of the three largest shareholders by votes as of September 30, 2015 shall have the right to appoint one member of the nomination committee. None of the three people thus appointed may be a member of the company board. In addition, the nomination committee shall consist of a board member appointed by the board and they shall act as the convenor. In the event that any of the three members of the nomination committee resigns their position, the shareholder must appoint a new representative. If a shareholder

sells all, but not just some, of its shares in the company before the nomination committee has completed its work, then the fourth largest shareholder by vote shall instead appoint a new member.

The period of election of the nomination committee runs until a new nomination committee has been appointed. The members of the nomination committee are not paid any compensation but they are entitled to be reimbursed for reasonable expenses necessary for the work of the nomination committee.

The nomination committee shall draft proposals for the following issues to be presented to the annual meeting for resolution: Proposal for a chair of the annual meeting, proposal for a board and chair of the board, fees for the board's compensation for committee work, proposal for auditor and fees to the company's auditors and a proposal for the composition of the nomination committee.

#### The nomination for the 2016 annual meeting was:

Staffan Gunnarsson, Weland Stål AB.

Åsa Knutsson, The Industrifonden foundation.

Oscar Ahlgren, the Midroc group.

Jan Tufvesson, convenor, chair of Heliospectra AB.

## THE BOARD AND ITS WORK

### The composition of the board

According to the Articles of Association, the board in Heliospectra shall consist of no fewer than three and no more than nine board members and no more than five substitutes.

The board members are appointed for no more than one year at a time. In 2015, Heliospectra's board consisted of five ordinary board members and two substitutes. The substitute Kennert Thulin left the board in December 2015 at his own request and since then, the board has only had one substitute. Jan Tufveson has been the chairman of the board. Five board members are independent in relation to the company and the company management and four board members are independent from the largest shareholders of the company.

### Rules of procedure

In accordance with the Companies Act, the board has adopted written rules of procedure for its work and written instructions on the reporting to the board. Both the rules of procedure and the reporting instructions are assessed, updated as needed and adopted annually.

Any allocation of work between the board members shall be stated in the rules of procedure. The board holds regular meetings in accordance with a schedule stipulated in the rules of procedure which include fixed agenda items and items as needed. Furthermore, the board holds extraordinary board meetings as needed and at the request of a board member or the Chief Executive Officer.

The reporting instruction states when and how to collect and report such information needed for the board's ongoing assessment of the board and the group's financial position to the board. The reporting instruction provides the board with information for the following up of plans, budgets etc.

The current rules of procedure stipulate that the board shall hold at least six planned board meetings during the financial year in addition to the constituent board meeting after the annual general meeting.

### The board's work during 2015

During 2015, the board held six ordinary board meetings and eight extraordinary board meetings. The board complies with rules of procedure adopted annually at the first board meeting. At every ordinary board meeting, the minutes of the previous meeting, the growth of the operations since the previous meeting and the company's financial position and profit growth are discussed. The board is continuously informed in writing of the business operations and external issues of importance to the company.

In 2015, the company has in particular considered the following issues: The completion of products, market exposure and measures to improve margins.

### Assessment of the board's work

The chairman of the board is responsible for the assessment of the board's work. This assessment is done annually. The assessment focuses on the board's working methods, the number of meetings and how effective they were, the availability of specific competence, the ability of individual board members to influence the board's work and more. The result is considered when making nominations for the following annual general meeting.

### Attendance of board members

In addition to the ordinary board members, there is also one substitute on the board, Göran Linder (0 shares). The substitute has attended some of the ordinary board meetings.

NAME	INDEPENDENT OF THE COMPANY	INDEPENDENT OF LARGER SHAREHOLDERS	BOARD MEETINGS	REMUNERATION, SEK	HOLDINGS, NUMBER OF SHARES AND SUBSCRIPTION RIGHTS
Jan Tufvesson	Yes	Yes	14	178,000	126,500 shares
Andreas Gunnarsson	Yes	No	14	89,000	13,125 shares
Anders Ludvigson	Yes	Yes	14	89,000	-
Martin Skoglund	Yes	Yes	14	89,000	47,437 shares
Göran Larsson	Yes	Yes	9	-	-

## AUDITORS

The company's auditor is Mikael Glimstedt who works at Frejs Revisorer AB in Gothenburg. He is a chartered accountant and a member of FAR.

## CHIEF EXECUTIVE OFFICER AND MANAGEMENT

The group management of Heliospectra is made up of the CEO and the CFO. Other key staff are the operations manager, technical manager, the US regional manager and the manager for medicinal plant research.

The CEO is in charge of the ongoing drafting and implementation of strategies, organizational issues and of the financial position.

Measures that are of an exceptional character or size, given the scope and the nature of the company's operations, fall outside the day-to-day operations and must therefore be presented to the board and are for the board to decide. The work and role of the CEO as well as the division of work between the board and the CEO is specified in further detail in a written instruction established by the board (a so-called CEO instruction).

Together with the chairman of the board, the CEO prepares a notification of the meeting and a proposal for an agenda, puts together necessary documentation for decisions and participates in board meetings.

## COMPENSATION TO BOARD AND SENIOR MANAGEMENT

The compensation to senior management may consist of a fixed salary, variable salary, pension benefits and other benefits and redundancy pay. Salaries and other employment benefits to senior management are considered to be in line with market conditions and are based on the importance of the work task, the required competence, experience and performance.

### Fixed salary

The basic salary shall be based on the market conditions, be competitive and consider the scope and the responsibility associated with the post, as well as the skills, experience and performance of any individual senior manager.

### Variable salary

From 2014, the company does not pay any variable salaries. A resolution was made at the AGMs in 2014 and 2015 for a subscription rights program for senior management and employees.

### Pension conditions

The pension conditions include a defined plan for provisions of premiums based on the entire basic pay. The pension provisions are individual and shall be made in relation to the basic pay.

## Redundancy pay

The notice period and redundancy pay are individual and regulated in employment contracts.

## Compensation to the CEO Staffan Hillberg

Basic salary, KSEK	947
Pension costs	112
<b>Total 2015</b>	<b>1,059</b>
<b>Total 2014</b>	<b>1,128</b>

## Compensation to the board during 2015

The agreed compensation for the board for 2015 was a total of SEK 445,000, distributed within the board in accordance with that stated in the table on page 22. The annual general meeting decided in 2015 that the compensation for the chairman of the board is payable at SEK 178,000 per annum and to other board members at SEK 89,000 per board member and annum.

## Compensation to auditors

Heliospectra's auditors are compensated based on approved accounts. For 2015, the compensation paid to Frejs Revisorer AB was SEK 197,000.

## INTERNAL CONTROLS

The board shall ensure that the company has good internal controls and formalized procedures which ensure that established principles for financial reporting and internal controls are complied with and that the company's financial reporting has been prepared in compliance with the law, generally accepted accounting standards and other requirements which follow from the company shares being listed.

The company's internal control structure is based on the division of work between the board and the CEO. The CEO shall, through the agency of the CFO, ensure that the board members are provided with individual financial reports on a monthly basis, and in general are provided with the information needed in order to monitor the company's financial situation.

## Board



From the left: Göran Linder, Göran Larsson, Martin Skoglund, Andreas Gunnarsson, Anders Ludvigsson. (Not in the picture: Jan Tufvesson)

### *Jan Tufvesson*

#### CHAIRMAN OF THE BOARD

**Born:** 1938. **Elected:** 2011. **Education:** MSc from the Royal Technical College in Stockholm, Business IMD. **Other posts:** Chairman of the Board at Optisting Technologies AB, HeatCore AB, Ekoproffsen i Norrort AB. **Shareholding:** 126,500 shares.

### *Martin Skoglund*

#### BOARD MEMBER

**Born:** 1966. **Elected:** 2006. **Education:** MBA School of Business, Economics and Law in Gothenburg. **Other posts:** Chairman of the Board at Stallet Fastighets AB, board member at Smart Energy AB, Haga Hem Holding AB, AB Blåbergsholmen, Wood & Hill Investment AB and Oakridge AB. **Shareholding:** 47,437 shares

### *Anders Ludvigsson*

#### BOARD MEMBER

**Born:** 1970. **Elected:** 2007. **Education:** MSc Production Management and Investment Analysis from LiTH. **Other posts:** Board member at Ludvigson Holding AB. **Shareholding:** -

### *Göran Larsson*

#### BOARD MEMBER

**Born:** 1944. **Elected:** 2015. **Education:** MA Political Science. **Other posts:** Chairman of the Board at Kungsleden AB, Hestra-Handsken AB, Studentlitteratur AB, Hestraviken AB and Mappa Invest AB. Board member at Bratt International AB. **Shareholding:** -

### *Andreas Gunnarsson*

#### BOARD MEMBER

**Born:** 1974. **Elected:** 2011. **Education:** Studies at Jönköping International Business School. **Other posts:** Board member at Solarwave AB, Lamera AB, (Heliospectra Personal AB), chairman at Air to Air Sweden AB, Crossborder Technologies AB, Pergamum AB, Powercell AB (publ), Minesto AB, Jensen Devices AB. **Shareholding:** 13,125 shares.

### *Göran Linder*

#### SUBSTITUTE

**Born:** 1962. **Elected:** 2011. **Education:** MSc Electrical engineering, KTH in Stockholm. **Other posts:** Board member at Midroc Invest AB, Airgrinder AB, Nilsson Special Vehicles AB, Minesto AB, Powercell Sweden AB, Pergamum AB, Lipopeptide AB, Crossborder Technologies AB, Jensen Devices AB, M&J by Malin & Johanna AB. **Shareholding:** -

## Management



*Staffan Hillberg*  
**CHIEF EXECUTIVE OFFICER**

**Born:** 1964. **Education:** Studies at Chalmers University of Technology, MBA from Insead. **Employed:** 2010 **Shareholding:** 2,000 shares, 306,000 subscription rights.



*Håkan Bengtsson*  
**CHIEF FINANCIAL OFFICER**

**Born:** 1963 **Education:** MSc School of Business, Law and Economics in Gothenburg. **Employed:** 2014. **Shareholding:** -



*Christopher Steele*  
**OPERATIONS MANAGER**

**Born:** 1982. **Education:** MSc Gothenburg University and BSB Indiana University. **Employed:** 2012. **Shareholding:** 1,800 shares, 50,000 subscription rights



*Anthony Gilley*  
**TECHNICAL MANAGER**

**Born:** 1971. **Education:** MSc at Chalmers University of Technology and studies at Gothenburg University. **Employed:** 2010. **Shareholding:** 11,700 shares, 50,000 subscription rights



*Chris Walker*  
**US REGIONAL MANAGER**

**Born:** 1972. **Education:** BoA, University of Arizona. **Employed:** 2011 **Shareholding:** 80,000 subscription rights

# ACCOUNTS

## Consolidated profit and loss account

AMOUNTS IN SEK THOUSANDS	NOTE:	2015	2014
<b>Operating income</b>	2		
Net turnover		13,686	3,110
Other operating income		2,244	1,217
<b>Total operating income</b>		<b>15,930</b>	<b>4,327</b>
<b>Operating expenses</b>	2		
Commodities		-12,109	-2,484
Other external costs	3-4	-19,668	-20,030
Staffing costs	5-6	-12,438	-11,097
Depreciation of tangible and intangible assets	7	-3,887	-3,617
Other operating costs		-188	
<b>Earnings before interest and taxes</b>		<b>-32,360</b>	<b>-32,901</b>
<b>Income from financial items</b>			
Interest income and similar items	9	188	16
Interest expenses and similar items	10	-1,782	-785
<b>Profit/loss before tax</b>		<b>-33,954</b>	<b>-33,670</b>
Tax		0	0
<b>Net profit/loss</b>		<b>-33,954</b>	<b>-33,670</b>
<i>Of which relates to</i>			
The shareholders of the parent company		-33,954	-33,670
Minority interests		0	0

## Consolidated balance sheet

AMOUNTS IN SEK THOUSANDS	NOTE:	12-31-2015	12-31-2014
<b>ASSETS</b>	1		
<b>Fixed assets</b>			
<b>Intangible assets</b>			
Capitalized costs for development and similar work	11	16,083	15,116
<b>Total intangible assets</b>		<b>16,083</b>	<b>15,116</b>
<b>Tangible assets</b>			
Inventories, tools and installations	12	1,239	1,990
<b>Total tangible assets</b>		<b>1,239</b>	<b>1,990</b>
<b>Total fixed assets</b>		<b>17,322</b>	<b>17,106</b>
<b>Current assets</b>			
<b>Stock held</b>			
Finished goods and commodities		6,846	4,249
<b>Total stock held</b>		<b>6,846</b>	<b>4,249</b>
<b>Current receivables</b>			
Accounts receivable		5,663	479
Current tax debt		128	78
Other receivables		560	2,929
Prepayments and accrued income	14	579	615
<b>Total current receivables</b>		<b>6,930</b>	<b>4,101</b>
<b>Cash and bank</b>		<b>18,848</b>	<b>6,127</b>
<b>Total current assets</b>		<b>-32,624</b>	<b>14,477</b>
<b>TOTAL ASSETS</b>		<b>49,946</b>	<b>31,583</b>

## Consolidated balance sheet

AMOUNTS IN SEK THOUSANDS	NOTE:	12-31-2015	12-31-2014
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>	15		
Share capital (18,622,196 shares)		1,862	1,379
Other contributed capital		142,134	94,307
Other equity		-81,895	-45,917
Net profit/loss		-33,954	-33,670
<b>Equity relating to the shareholders of the parent company</b>		<b>28,147</b>	<b>16,099</b>
Minority interests		0	0
<b>Total equity</b>		<b>28,147</b>	<b>16,099</b>
<b>Long-term liabilities</b>	16		
Other liabilities		11,400	9,704
<b>Total long-term liabilities</b>		<b>11,400</b>	<b>9,704</b>
<b>Short-term liabilities</b>			
Customer advances		2,577	0
Accounts payable		3,292	3,690
Other liabilities		1,279	240
Prepayments and accrued income	17	3,251	1,850
<b>Total short-term liabilities</b>		<b>10,399</b>	<b>5,780</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>49,946</b>	<b>31,583</b>
Pledged assets	18	6,050	50
Contingent liabilities		None	None

## Cash flow analysis

AMOUNTS IN SEK THOUSANDS	GROUP		PARENT COMPANY	
OPERATING ACTIVITIES	2015	2014	2015	2014
Profit/loss after financial items	-33,954	-33,670	-33,802	-33,586
Adjustments for items outside the cash flow analysis				
Depreciations and amortizations of assets	3,887	3,617	3,887	3,617
Tax				
<b>Cash flow from daily operations before changes to operating capital</b>	<b>-30,067</b>	<b>-30,053</b>	<b>-29,915</b>	<b>-29,969</b>
Cash flow from changes in operating capital				
Changes in stocks held	-2,597	-2,259	-2,597	-2,259
Changes to operating receivables	-2,829	-2,878	-3,802	-2,832
Changes to operating liabilities	4,617	2,692	4,711	2,500
<b>Cash flow from operating activities</b>	<b>-30,876</b>	<b>-32,498</b>	<b>-31,603</b>	<b>-32,560</b>
<b>INVESTMENT ACTIVITIES</b>				
Activation of capitalized expenses	-4,107	-5,088	-4,107	-5,088
Acquisition of inventories, tools and installations	-29	-846	-29	-846
Sale inventories, tools and installations	33	29	33	29
Sale financial assets	0	2	0	6
<b>Cash flow from investment activities</b>	<b>-4,103</b>	<b>-5,903</b>	<b>-4,103</b>	<b>-5,899</b>
<b>FINANCING ACTIVITIES</b>				
New share issue	46,004	40,962	46,004	40,962
Subscription rights	0	83	0	83
Changes to long-term liabilities	1,696	-48	1,696	-48
<b>Cash flow from financing activities</b>	<b>47,700</b>	<b>40,997</b>	<b>47,700</b>	<b>40,997</b>
<b>Net cash flow (Cash and bank)</b>	<b>12,721</b>	<b>2,596</b>	<b>11,994</b>	<b>2,538</b>
<b>Liquid assets carried over</b>	<b>6,127</b>	<b>3,531</b>	<b>6,069</b>	<b>3,531</b>
<b>Liquid assets carried forward</b>	<b>18,848</b>	<b>6,127</b>	<b>18,063</b>	<b>6,069</b>

## Parent Company Profit and Loss Statement

AMOUNTS IN SEK THOUSANDS	NOTE:	2015	2014
<b>Operating income</b>	2		
Net turnover		14,449	3,307
Other operating income		1,543	1,113
<b>Total operating income</b>		<b>15,992</b>	<b>4,420</b>
<b>Operating expenses</b>	2		
Commodities		-12,110	-2,484
Other external costs	3-4	-20,782	-20,039
Staffing costs	5-6	-11,060	-11,097
Depreciation and amortization of tangible and intangible assets	7	-3,887	-3,617
Other operating costs		-187	0
<b>Earnings before interest and taxes</b>		<b>-32,034</b>	<b>-32,817</b>
<b>Income from financial items</b>			
Income from shares in group companies	8	0	-122
Interest income and similar items	9	14	16
Interest expenses and similar items	10	-1,782	-663
<b>Profit/loss before tax</b>		<b>-33,802</b>	<b>-33,586</b>
Tax		0	0
<b>Net profit/loss</b>		<b>-33,802</b>	<b>-33,586</b>

## Parent Company Balance Sheet

AMOUNTS IN SEK THOUSANDS	NOTE:	12-31-2015	12-31-2014
<b>ASSETS</b>	1		
<b>Fixed assets</b>			
<b>Intangible assets</b>			
Capitalized costs for development and similar work	11	16,083	15,116
<b>Total intangible assets</b>		<b>16,083</b>	<b>15,116</b>
<b>Tangible assets</b>			
Inventories, tools and installations	12	1,239	1,990
<b>Total tangible assets</b>		<b>1,239</b>	<b>1,990</b>
<b>Financial assets</b>			
Shares in group companies	13	82	82
<b>Total financial assets</b>		<b>82</b>	<b>82</b>
<b>Total fixed assets</b>		<b>17,404</b>	<b>17,188</b>
<b>Current assets</b>			
<b>Stock held</b>			
Finished goods and commodities		6,846	4,249
<b>Total stock held</b>		<b>6,846</b>	<b>4,249</b>
<b>Current receivables</b>			
Accounts receivable		5,663	479
Receivables from group companies		1,119	146
Current tax debt		0	78
Other receivables		688	2,929
Prepayments and accrued income	14	579	615
<b>Total current receivables</b>		<b>8,049</b>	<b>4,247</b>
<b>Cash and bank</b>		<b>18,063</b>	<b>6,069</b>
<b>Total current assets</b>		<b>32,958</b>	<b>14,565</b>
<b>TOTAL ASSETS</b>		<b>50,362</b>	<b>31,753</b>

## Parent Company Balance Sheet

AMOUNTS IN SEK THOUSANDS	NOTE:	12-31-2015	12-31-2014
<b>EQUITY AND LIABILITIES</b>			
<b>Equity</b>	15		
Restricted equity			
Share capital (18,622,196 shares)		1,862	1,379
<b>Total restricted equity</b>		<b>1,862</b>	<b>1,379</b>
<b>Unrestricted equity</b>			
Share Premium Reserve		142,051	94,224
Retained earnings		-81,640	-45,748
Net profit/loss		-33,802	-33,586
<b>Total unrestricted equity</b>		<b>26,609</b>	<b>14,890</b>
<b>Total equity</b>		<b>28,471</b>	<b>16,269</b>
<b>Long-term liabilities</b>	16		
Other liabilities		11,400	9,704
<b>Total long-term liabilities</b>		<b>11,400</b>	<b>9,704</b>
<b>Short-term liabilities</b>			
Customer advances		2,577	0
Accounts payable		3,384	3,690
Other liabilities		1,279	240
Prepayments and accrued income	17	3,251	1,850
<b>Total short-term liabilities</b>		<b>10,491</b>	<b>5,780</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>50,362</b>	<b>31,753</b>
Pledged assets	18	6,050	50
Contingent liabilities		None	None

# NOTES

## Note 1 Accounting Principles

The company's annual accounts have been prepared in accordance with the Annual Accounts Act and the Swedish Accounting Standards Board's general advice, BFNAR 2012:1 Annual Report and Consolidated Financial Statements (K3).

The accounting principles remain unchanged compared with those applied to the accounts for 2014 and which are described in the annual accounts, except that costs related to new share issues have been deducted directly from 2015 equity (KSEK 2,306); in 2014 (KSEK 6,514), these costs were reported in the profit and loss statement.

Assets, provisions and liabilities are valued at cost unless otherwise stated.

### GROUP ACCOUNTS

#### Subsidiaries

Subsidiaries are companies in which the parent company, directly or indirectly, holds a share of the vote greater than 50 percent or otherwise has a controlling influence. Controlling influence refers to a right to prepare a company's financial and operative strategies with the aim of obtaining financial benefits.

The reporting of operational acquisitions is based on the uniform approach. That means that the acquisition analysis is prepared as per the point when the acquiring party obtains a controlling influence. From that point onwards, the acquiring party and the acquired unit is considered as one reporting unit. The application of the uniform approach further means that all assets (including goodwill) and liabilities as well as revenue and costs are included in their entirety, also for part-owned subsidiaries.

The acquisition value for subsidiaries is calculated as the total of the fair value at the point of acquisition for assets paid adding arisen and assumed liabilities as well as equity instruments issued, costs directly attributable to the operating acquisition and any additional purchase sums. The fair value is determined in the acquisition analysis, with some exceptions, at the point of the acquisition of identifiable assets and assumed liabilities as well as minority interests.

The minority interests are valued at their fair value at the point of acquisition. The acquired company's revenue and costs, identifiable assets and liabilities, as well as any arisen goodwill or negative goodwill are included in the consolidated accounts from the point of acquisition.

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

Group-internal receivables and liabilities, revenue and costs and unrealized profits or losses arisen from transactions between group companies are entirely eliminated.

### INTANGIBLE AND TANGIBLE ASSETS

Intangible and tangible assets are reported at their acquisition value less accrued depreciations and amortizations. The acquisition value also includes, in addition to the purchase price, costs directly associated with the acquisition.

#### Capitalized costs for development and similar work

The costs for developments calculated as an average operating cost are capitalized and are reported per project (new products/projects). Once sales start per unit, a depreciation of capitalized costs is commenced. This depreciation continues during the sales period of the unit, however for no more than five years.

In the event of a closure/termination of units, an amortization of the entire remaining balance for the unit is done simultaneously and the costs are returned to the profit and loss statement.

#### Additional expenses

Additional expenses which fulfil the asset criteria are included in the reported value of the asset.

Expenses for regular maintenance and repairs are reported as costs as they occur.

#### Depreciations

Depreciations are linear across the asset's estimated useful life as this reflects the expected consumption of the asset's future financial benefits. The depreciation is reported as a cost in the profit and loss statement.

The estimated residual value has been taken into account as determined at the point of acquisition at the price levels at the time.

	Useful life
Capitalized costs for development and similar work	5 years
Inventories, tools and installations	5 years

#### Amortizations – tangible and intangible assets and shares in group companies

An assessment is made every balance sheet day whether there are any indications that the value of an asset is lower than its reported value. If there is such an indication, the asset's recoverable value is calculated.

The recoverable value is the greater of the fair value less sales costs and the utility value. When calculating the utility value, the current value is calculated of the future cash flows that the asset is expected to provide to the operating activities and when it is sold or disposed of. The discount rate applied is before tax and reflects market assessments of the time value of money and the risks associated with the asset. Any previous amortization is only returned if the grounds for the calculation of the recoverable value at the last amortization has changed.

## FOREIGN CURRENCY

Monetary items in foreign currency are converted at the exchange rate on the balance sheet day. Non-monetary items are not converted but are reported at the rate at the point of acquisition.

The exchange rate differences that occur due to adjustments or conversions of monetary items are reported in the profit and loss statement in the year they occur.

## STOCK HELD

The stock held is reported at the lowest of the acquisition value and the net sales value. The risk of obsolescence has been taken into account. The acquisition value is calculated using the first in, first out principle. In addition to purchase expenses, the acquisition value includes expenses for bringing the goods to their current location and condition.

## FINANCIAL ASSETS AND LIABILITIES

Financial assets and liabilities are reported in compliance with chapter 11 (Financial instruments valued at the acquisition value) in BFNAR 2012:1.

### Reporting in and removal from the balance sheet

A financial asset or a financial liability is reported in the balance sheet when the company becomes party to the contractual conditions of the instrument. A financial asset is removed from the balance sheet when the contractual right to the cash flow from the asset has ceased or has been regulated. This also applies when the risks and benefits associated with the holding have essentially been transferred to another party and the company no longer controls the financial asset. A financial liability is removed from the balance sheet when the agreed obligation has been fulfilled or has ceased.

### Valuation of financial assets

Financial assets are valued at the first reporting date at the acquisition value including any transaction expenses directly associated with the acquisition of the asset.

Accounts receivable and other receivables which are current assets are valued individually at the amounts expected to flow in.

After the first reporting date, financial assets are valued at their acquisition value less any amortizations and including any write-ups.

### Valuation of financial liabilities

Long-term financial liabilities are reported at their amortized acquisition value. Expenses directly associated with the raising of loans have corrected the acquisition cost of the loan.

Short-term liabilities are reported at their acquisition value.

## COMPENSATION TO EMPLOYEES

### Compensation to employees after completed employment *Classification*

Plans for compensation after completed employment are classified as defined contribution.

For defined contribution plans, set fees are paid to another company, usually an insurance company, and Heliospectra no longer has any liabilities to the employee once the fee has been paid. The size of the employee's compensation after completed employment is dependent on the fees paid and the capital return that the fees have provided.

### *Defined contribution plans*

The fees for defined contribution plans are reported as costs. Unpaid fees are reported as a liability.

### Provisions

A provision is reported on the balance sheet when the company has a legal or informal obligation due to an event occurred and it is probable that an outflow of resources is required in order to settle the obligation and it is possible to make a reliable estimation of the amount.

At the first reporting date, provisions are valued at the best estimate of the amount required to settle the obligation on the balance sheet date. The provisions are reassessed every balance sheet date.

The provision is reported at the current value of any future payments required for the settling of the obligation.

### Contingent liabilities

A contingent liability is reported above the line when there is:

- \* A possible liability associated with events occurred and the existence of such will only be confirmed if one or more uncertain future events, which are not entirely within the control of the company, occur or do not occur, or
- \* An existing obligation caused by events occurred, but which is not reported as a liability or a provision as it is not probable that an outflow of resources will be required in order to settle the obligation, or the size of the obligation cannot be calculated sufficiently satisfactorily.

## REVENUE

The inflow of financial benefits that the company has received or will receive on its own account is reported as revenue. Revenue is reported at the fair value of what has been received or will be received less any discounts.

### Sale of goods

When goods are sold, a revenue is reported when the following criteria have been met:

- \* The financial benefits associated with the transaction are likely to fall to the company,
- \* The income can be calculated satisfactorily,
- \* The company has transferred all essential risks and benefits associated with the ownership of the goods to the buyer,
- \* The company no longer has such involvement in the daily management as is normally associated with ownership and does not exercise any real control over the goods sold, and
- \* The costs which have occurred or are expected to occur as a consequence of the transaction can be calculated satisfactorily.

## Note 2 Group data

### Purchases and sales within the group

Of the parent company's total purchases and sales, 5.7 percent (0 percent) of purchases and

0 percent (0 percent) of sales relate to other companies part of the group that the company belongs to.

## Note 3 Compensation and reimbursements

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
Audit task	129	83	129	83
Tax advice	11	0	11	0
Other services	57	65	57	65
<b>Total</b>	<b>197</b>	<b>148</b>	<b>197</b>	<b>148</b>

## Note 4 Operational leasing

### Leasing agreements where the company is the lessee

Future minimum leasing fees regarding non-cancellable operational leasing agreements

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Within 1 year	755	755	755	755
Between 1 and 5 years	0	0	0	0
Later than 5 years	0	0	0	0
<b>Total</b>	<b>755</b>	<b>755</b>	<b>755</b>	<b>755</b>
The expensed leasing costs for the financial year including rent	801	767	801	767

The company's main leasing agreements are for the lease of premises.

## Note 5 Employees and company management

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
<b>Average number of employees</b>				
Men	18	13	16	13
Women	5	6	4	6
<b>Total</b>	<b>23</b>	<b>19</b>	<b>20</b>	<b>19</b>

### Gender distribution within the company management

Board members	5	4	5	4
Of which men	5	4	5	4
CEO and company management	5	5	4	4
Of which men	5	5	4	4

## Note 6 Salaries and other compensation as well as social contributions including pension costs

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
Salaries and other compensation to Board members and CEO	1,036	1,364	1,036	1,364
Other employees	8,136	7,248	6,971	7,248
<b>Total salaries and compensations</b>	<b>9,172</b>	<b>8,612</b>	<b>8,007</b>	<b>8,612</b>
Pension costs for board members and CEO	112	139	112	139
Pension costs for others	191	170	191	170
Other social contributions	2,246	2,145	2,176	2,145
<b>Total social costs</b>	<b>2,549</b>	<b>2,454</b>	<b>2,479</b>	<b>2,454</b>
Obligations relating to pensions or similar benefits to board members and CEO	0	0	0	0

## Note 7 Depreciation of tangible and intangible fixed assets

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
Capitalized costs for development and similar work	3,140	2,839	3,140	2,839
Inventories, tools and installations	747	778	747	778
<b>Total</b>	<b>3,887</b>	<b>3,617</b>	<b>3,887</b>	<b>3,617</b>

## Note 8 Income from shares in group companies

	2015	2014
Amortizations	0	122
<b>Total</b>	<b>0</b>	<b>122</b>

## Note 9 Interest income and similar items

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
Interest income, other	14	16	14	16
Exchange rate differences	174	0	0	0
<b>Total</b>	<b>188</b>	<b>16</b>	<b>14</b>	<b>16</b>

## Note 10 Interest expenses and similar items

	GROUP		PARENT COMPANY	
	2015	2014	2015	2014
Interest costs, other	966	784	966	662
Exchange rate differences	0	1	0	1
Other profit and loss items	816	0	816	0
<b>Total</b>	<b>1,782</b>	<b>785</b>	<b>1,782</b>	<b>663</b>

## Note 11 Capitalized costs for development and similar work

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Acquisition value carried over	19,772	14,684	19,772	14,684
Acquisitions	4,107	5,088	4,107	5,088
<b>Accrued acquisition values carried forward</b>	<b>23,879</b>	<b>19,772</b>	<b>23,879</b>	<b>19,772</b>
Depreciations carried over	-4,656	-1,817	-4,656	-1,817
This year's depreciations	-3,140	-2,839	-3,140	-2,839
<b>Accrued depreciations carried forward</b>	<b>-7,796</b>	<b>-4,656</b>	<b>-7,796</b>	<b>-4,656</b>
<b>Closing balance</b>	<b>16,083</b>	<b>15,116</b>	<b>16,083</b>	<b>15,116</b>

## Note 12 Inventories, tools and installations

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Acquisition value carried over	5,676	4,860	5,676	4,860
Acquisitions	29	846	29	846
Sales/disposals	-51	-30	-51	-30
<b>Accrued acquisition values carried forward</b>	<b>5,654</b>	<b>5,676</b>	<b>5,654</b>	<b>5,676</b>
Depreciations carried over	-3,686	-2,909	-3,686	-2,909
Sales/disposals	18	1	18	1
This year's depreciations	-747	-778	-747	-778
<b>Accrued depreciations carried forward</b>	<b>-4,415</b>	<b>-3,686</b>	<b>-4,415</b>	<b>-3,686</b>
<b>Closing balance</b>	<b>1,239</b>	<b>1,990</b>	<b>1,239</b>	<b>1,990</b>

## Note 13 Shares in group companies

	12-31-2015	12-31-2014
Acquisition value carried over	82	82
<b>Accrued acquisition values carried forward</b>	<b>82</b>	<b>82</b>
<b>Closing balance</b>	<b>82</b>	<b>82</b>

Information about company numbers and registered offices of subsidiaries are stated below.

COMPANY, COMPANY NUMBER, REGISTERED OFFICE	NUMBER OF SHARES	SHARE (%)	REPORTED VALUE
Heliospectra Personal AB, 556904-7243, Gothenburg	1,000	100	50
Heliospectra Inc., 5290422, USA	5,000,000	100	32

This relates to the capital share, which also corresponds to the share of votes for the total number of shares.

## Note 15 Equity

		SHARE CAPITAL	OTHER CONTRIBUTED CAPITAL	OTHER FINANCIALS INCL. NET PROFIT/LOSS
<b>Group</b>				
Opening balance	<b>01-01-2015</b>	1,379	94,307	-79,587
Net profit/loss				-33,954
<b>Changes in reported values recognized directly against equity</b>				
Issue costs				-2,306
Conversion difference				-2
<b>Transactions with group owners</b>				
New share issue		483	47,827	
<b>Total equity</b>	<b>12-31-2015</b>	<b>1,862</b>	<b>142,134</b>	<b>-115,849</b>

## Note 14 Prepayments and accrued income

	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Prepaid leasing fees	222	213	222	213
Other items	357	402	357	402
<b>Total</b>	<b>579</b>	<b>615</b>	<b>579</b>	<b>615</b>

## Note 15 Equity contd.

		SHARE CAPITAL	SHARE PREMIUM RESERVE	RETAINED EARNINGS
<b>Parent company</b>				
Opening balance	<b>01-01-2015</b>	1,379	94,224	-79,334
Net profit/loss				-33,802
<b>Changes in reported values recognized directly against equity</b>				
Issue costs				-2,306
<b>Transactions with group owners</b>				
New share issue		483	47,827	
Subscription rights				
<b>Total equity</b>	<b>12-31-2015</b>	<b>1,862</b>	<b>142,051</b>	<b>-115,442</b>

## Note 16 Long-term liabilities

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
With expiry as from balance sheet date				
– later than after one year	2,400	96	2,400	96
– later than after five years	9,000	9,608	9,000	9,608
<b>Total</b>	<b>11,400</b>	<b>9,704</b>	<b>11,400</b>	<b>9,704</b>

## Note 17 Accrued expenses and deferred income

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Salaries and holiday pay	1,151	1,001	1,151	1,001
Accrued social contributions	656	620	656	620
Other items	1,444	229	1,444	229
<b>Total</b>	<b>3,251</b>	<b>1,850</b>	<b>3,251</b>	<b>1,850</b>

## Note 18 Pledged assets

	GROUP		PARENT COMPANY	
	12-31-2015	12-31-2014	12-31-2015	12-31-2014
Other pledged assets	6,050	50	6,050	50
<b>Total pledged assets</b>	<b>6,050</b>	<b>50</b>	<b>6,050</b>	<b>50</b>

## Note 19 Definitions of key ratios

### Operating margin

Operating profit/loss / Net turnover

### Return on employed capital

Profit/loss before financial costs / average employed capital

### Employed capital

Total assets – non-interest bearing liabilities

### Return on equity

Net profit/loss relating to the parent company's shareholders /  
Average equity relating to the parent company's shareholders

### Solidity

Total equity / Total assets

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Gothenburg May 12, 2016

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**Jan Tufvesson**  
CHAIRMAN OF THE BOARD

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**Staffan Hillberg**  
CHIEF EXECUTIVE OFFICER

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**Martin Skoglund**

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**Andreas Gunnarsson**

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**Anders Ludvigson**

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**Göran Larsson**

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Our audit report was submitted on May 12, 2016

**FREJS REVISORER AB**

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**Mikael Glimstedt**  
CHARTERED ACCOUNTANT

# AUDIT REPORT

*For the Annual General Meeting in Heliospectra AB (publ). Company No. 556695-2205*

## REPORT ON THE ANNUAL ACCOUNTS AND THE CONSOLIDATED ACCOUNTS.

We have carried out an audit of the annual accounts and consolidated accounts for Heliospectra AB (publ) for the financial year 2015.

The company's annual accounts and consolidated accounts are part of the printed version of this document on pages 19-40.

### **The board and the CEO are responsible for the annual accounts and the consolidated accounts.**

The board and the CEO are responsible for preparing annual accounts and consolidated accounts which provide a true and fair picture in accordance with the Annual Accounts Act and for those internal controls which, in the assessment of the board and the CEO, are necessary for preparing annual accounts and consolidated accounts which do not contain any significant errors, whether these are due to irregularities or errors.

### **The auditor's responsibility**

It is our responsibility to make a statement on the annual accounts and the consolidated accounts on the basis of our audit. We have carried out this audit in compliance with International Standards on Auditing and generally accepted accounting principles in Sweden. These standards require us to comply with professional requirements and that we plan and perform the audit with a view to obtaining a reasonable certainty that the annual accounts and consolidated accounts do not contain any significant errors.

An audit entails the gathering of audit proof on amounts and other information in the annual accounts and the consolidated accounts using various measures. The auditor chooses what measures to take for example by assessing the risks for significant errors in the annual accounts and consolidated accounts, whether these are due to irregularities or errors. In this risk assessment, the auditor considers those parts of the internal controls that are relevant for how the company prepares the annual accounts and the consolidated accounts in order to provide a true and fair picture with a view to designing review measures that are suitable given the circumstances but not with a view to making a statement on the efficiency of the company's internal controls. An audit also entails an assessment of the suitability of the accounting principles that have been used and the reasonableness of the assessments made in the report by the board and the CEO as well as an assessment of the overall presentation in the annual accounts and the consolidated accounts.

We believe that the audit proof that we have obtained is sufficient and suitable as support for our statements.

### **Statements**

In our opinion, the annual accounts and the consolidated accounts have been drawn up in accordance with the Annual Accounts Act and do, in all essential aspects, provide a true and fair account of the financial position of the parent company and the group as of 12/31/2015 and of their financial profit/loss for the year in accordance with the Annual Accounts Act. The company report is compliant with the other parts of the annual accounts and the consolidated accounts.

We therefore recommend that the annual general meeting adopts the profit and loss statement and the balance sheet for the parent company and the group.

## REPORT COMPLIANT WITH OTHER STATUTORY AND REGULATORY REQUIREMENTS

In addition to our audit of the annual accounts and the consolidated accounts, we have also carried out a review of the company's proposals for disposals of the company's profit or loss and the board and the CEO's management of Heliospectra AB (publ) for the financial year 2015.

### **The responsibility of the board and the CEO**

The board is responsible for the proposal for disposals of the company's profit or loss and the board and the CEO are responsible for the management in accordance with the Companies Act.

### **The auditor's responsibility**

It is our responsibility to, with reasonable certainty, make a statement on the proposals for disposals of the company's profits or loss and on the management based on our audit. We have carried out this audit in compliance with generally accepted accounting principles in Sweden.

As support for our statement on the board's proposal for disposals of the company's profit or loss, we have reviewed whether the proposal is in compliance with the Companies Act.

As support for our statement on the discharge of liability we have, in addition to our audit of the annual accounts and the consolidated accounts, also reviewed significant decisions, measures and conditions within the company in order to be able to determine whether any board member or the CEO is liable for compensation to the company. We have also reviewed whether any board member or the CEO in any other way has acted in breach of the Companies Act, the Annual Accounts Act or the Articles of Association.

We believe that the audit proof that we have obtained is sufficient and suitable as support for our statements.

### **Statements**

We propose that the annual general meeting disposes of the profit as per the proposal in the company report and discharges the board members and the CEO from liability for the financial year.

Gothenburg May 12, 2016  
**FREJS REVISORER AB**

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**Mikael Glimstedt**  
**CHARTERED ACCOUNTANT**



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