RAYTELLIGENCE

We introduce a non-intrusive sensor for the new era of AI.

Investment Memorandum

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Highlights

Raytelligence offers a novel sensor and service for monitoring respiration, heart rate, body position and movement at distance. We are initially targeting the healthcare sector but we also see great potential for industrial applications.

- **Novel technology.** The sensor has a unique performance due to novel design and is covered by an international patent application.
- **Strong market interest.** Raytelligence has signed a number of agreements with important actors in eHealth
- **Core competences.** Our team has exceptionally broad competences, ranging from radar design and AI to healthcare market and sales. In addition, we have previous experience in building and introducing companies on the stock exchange.
- **Service oriented business model.** Subscription pricing model results in low entrance barriers for clients and high potential to scale our business.
- **Early IPO.** We plan for an IPO in 2018. This will give the company financial stability and shareholders good opportunities.

We are now strengthening our resources for industrialization and international expansion on the rapidly growing market for IT in the healthcare sector as well as the industrial sector. The financing will be used to speed up sales by strengthening the sales organization and product development of AI capabilities.

Investment offering in short

Financing	5 MSEK
Number of shares available	66 666
Valuation (pre-money)	50 MSEK
Subscription price	75 SEK per share
Minimum no. of shares	330 (24 750 SEK)
Subscription period ends	30 Mars 2018
Subscription procedure	Subscription by payment of shares
IPO	Planned in 2018

Shares are allotted on a “first-come first-served” basis. Persons who subscribed for shares at an earlier date have priority over persons who subscribed at a later date. The board of directors reserve the right to prioritise subscribers of strategic importance for the development of the company.

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A word from our CEO

I am very proud to present Raytelligence to you. We are in a very exiting stage of the development of the company. We have been working with our radar sensor RayVS1 and the technology behind it for the last years and is it is now on the way to reach the market. The RayVS1 and the ecosystem around it is totally new to the sensor market. It is a versatile sensor system based on novel radar technology. The system is built for AI algorithms to perform functions like predictions of health status of elderly or presence detection in specific areas in a room.

AI will defiantly change our world. We are already now using this class of algorithms to help out in big data searches and pattern recognition. As no surprise these algorithms can only perform as good as the data they get. That is where our big contribution comes in. Our divers 60 GHz radar sensor can simultaneously detect position and speed of several targets giving the AI algorithms in the sensor unique performance.

Our eco system gives the user a new experience regarding flexibility and the ability to overlook big data sets. Data from several sensors is easily viewed on any mobile platform. We experience an overwhelming response in the market for this sensor system. This goes for both the eHealth market and the industrial market. To monitor vital signs of elderly addresses an urgent problem in our society around the world. Also, to predict mechanical condition of machinery and to manage service is something of a dream in industry.
Our plan is to keep highest possible paste for international launch. We are starting to build international sales through a network of distributors and cooperation with some nationwide organizations in Sweden and in other European countries. Our plan is to build a global company that has the vision and the skill to combine AI and radar technology on the eHealth market. Therefore, we are planning for an IPO during 2018. In this Pre-IPO issue we invite investors that share our vision for the eHealth market.

“AI and radar sensing is a strong combination for the future”

Pelle Viberg
CEO Raytelligence

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Company description

Raytelligence is offering vital sign monitoring to the healthcare market by means of a service, based on the companies own 60 GHz radar technology. This technology is the basis for the RayVS1 radar sensor. This is the first sensor that incorporates an advanced mm-wave radar sensor and a flexible processing platform capable of running AI algorithms. For the industrial market the sensor targets machine maintenance and for the healthcare market monitoring of persons with respect to respiration and movement.

Contribution to eHealth

Healthcare systems worldwide are struggling to meet the growing demand for elderly care. As a result, healthcare systems are forced to provide cost efficient and high-quality care for an increasing number of people.

The number of people aged 65 or older worldwide is projected to grow from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase in developed countries. In the UK, the number of elderly is estimated to grow by 32% by 2022 causing a 37% increase in healthcare costs.

The reality is very much the same in other European countries, the US, China and Japan. To reduce the rapidly growing healthcare costs and provide high quality care, the healthcare sector is in urgent need of new methods and technologies.

AI (artificial intelligence) has the potential to be a gamechanger for the eHealth market. These services need reliable data. Raytelligence aims at playing a global role in this Eco-system. With our sensors and services incorporating machine-learning algorithms we will offer something new to this market.

Raytelligence offers an efficient solution for monitoring the health of elderly in their homes. Our service provides real-time alerts to care providers on specific events such as "Eric has fallen out of bed" or "Lisa has a respiration rate of 20 breath per minute". The event indications are sent to the care providers' backend e-health system, enabling them to act more quickly. The system has a web interface giving the user can get alerts without the involvement of any backend system.

Our solution enables elderly to receive safe care in their home as an alternative to nursing homes, which has been put forth to increase their independency and quality of life. Home care is also beneficial from a cost perspective. In Sweden, the use of remote patient monitoring through sensor IT is estimated to reduce gross costs in the Swedish healthcare system by 29 MDSEK per year from 2025.

Raytelligence product benefits:

- No sensor needed on the body, increasing comfort and safety as devices worn on the body can be put aside and forgotten.
- High degree of privacy for the monitored person, which is an important aspect for end users and regulators.
- Penetrates walls and performs well in all light conditions which increases cover age and safety.
- High degree of accuracy enables monitoring of vital signs (respiration and heart rate).
- Very accurate measurement of speed and position (less than a mm) enables fall detection.
- Flexible cloud service provides advanced signal data analysis. Potential applications such as long-term health trends and prediction of anomalies with or without cloud service.

Raytelligence could play an important role in modern and future health care. The ability to monitor respiration and motion patterns with one single sensor is a big leap forward for modern health care. Other solutions on the market requires physical visits (expensive with limited coverage), large numbers of sensors covering different parts of the home (limited coverage and more sensors needed), cameras (less privacy and measurement capabilities) or sensors worn on the body (less comfort and less safety).

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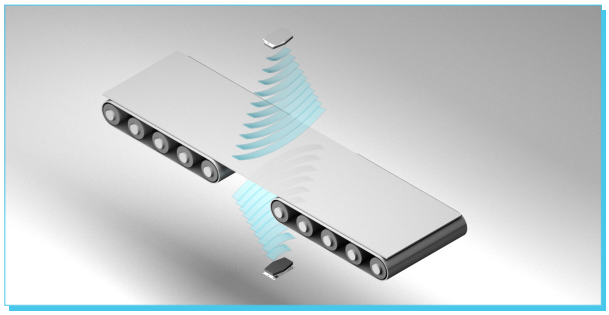
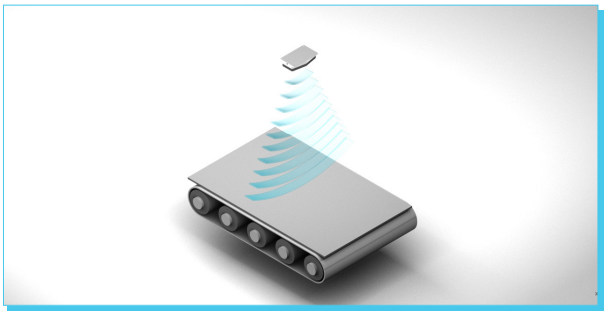
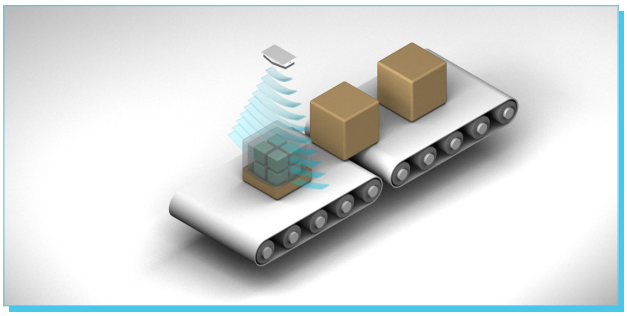
Next generation industrial sensors







In industrial environments, positioning of objects and surface characteristics two interesting parameters to measure. The RayVS1 can measure both parameters at the same time. The sensor also has a broad range of applications for monitoring safety aspects since it penetrates walls and can be placed outdoors without any special permits.

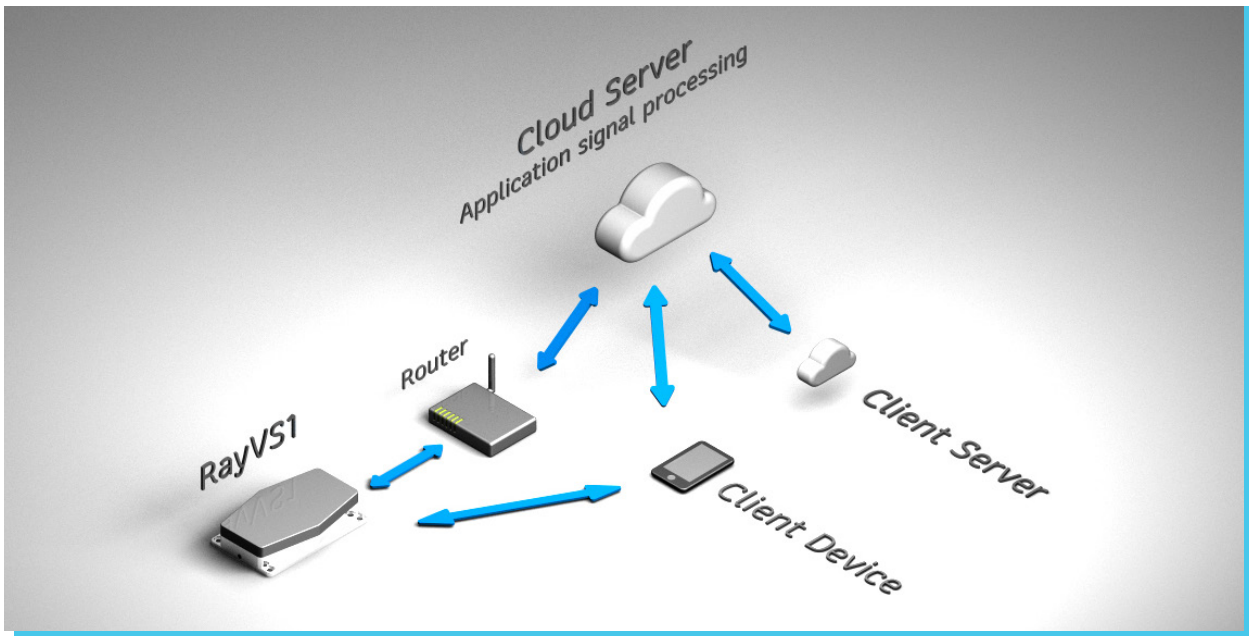
In terms of technology, RayVS1 is an ultra-high frequency microwave sensor for measuring movement and range to any object in the proximity. The sensor has the following features:

- Range: 10 m
- Measurement accuracy: 20 microns
- Updating frequency for target positioning: 100 Hz
- Penetrates walls
- Signal processing in the sensor or in a cloud service for maximum flexibility
- Customized lobe forming
- High performance processing capability
- Positioning of target objects in 2 dimensions

The RayVS1 operates in the 60GHz band and has a very small form factor: 75x150x30 mm. The sensor communicates via WiFi or Bluetooth. The RayVS1 sensor has a unique antenna and patent pending quasi-optic system that focus the radio energy according to the application.

Cloud-based eco-system

As our sensor outperforms many other sensors, it has great potential in the healthcare sector as well as in many other sectors. In industrial sectors, measurements are typically required in harsh environments with conditions such as poor light and dust, in which our sensors are ideal. In addition to the strengths of the sensor itself, we offer a valuable all-in-one solution where the sensor can be connected to a cloud-based ecosystem for data processing and alerts of specific events.



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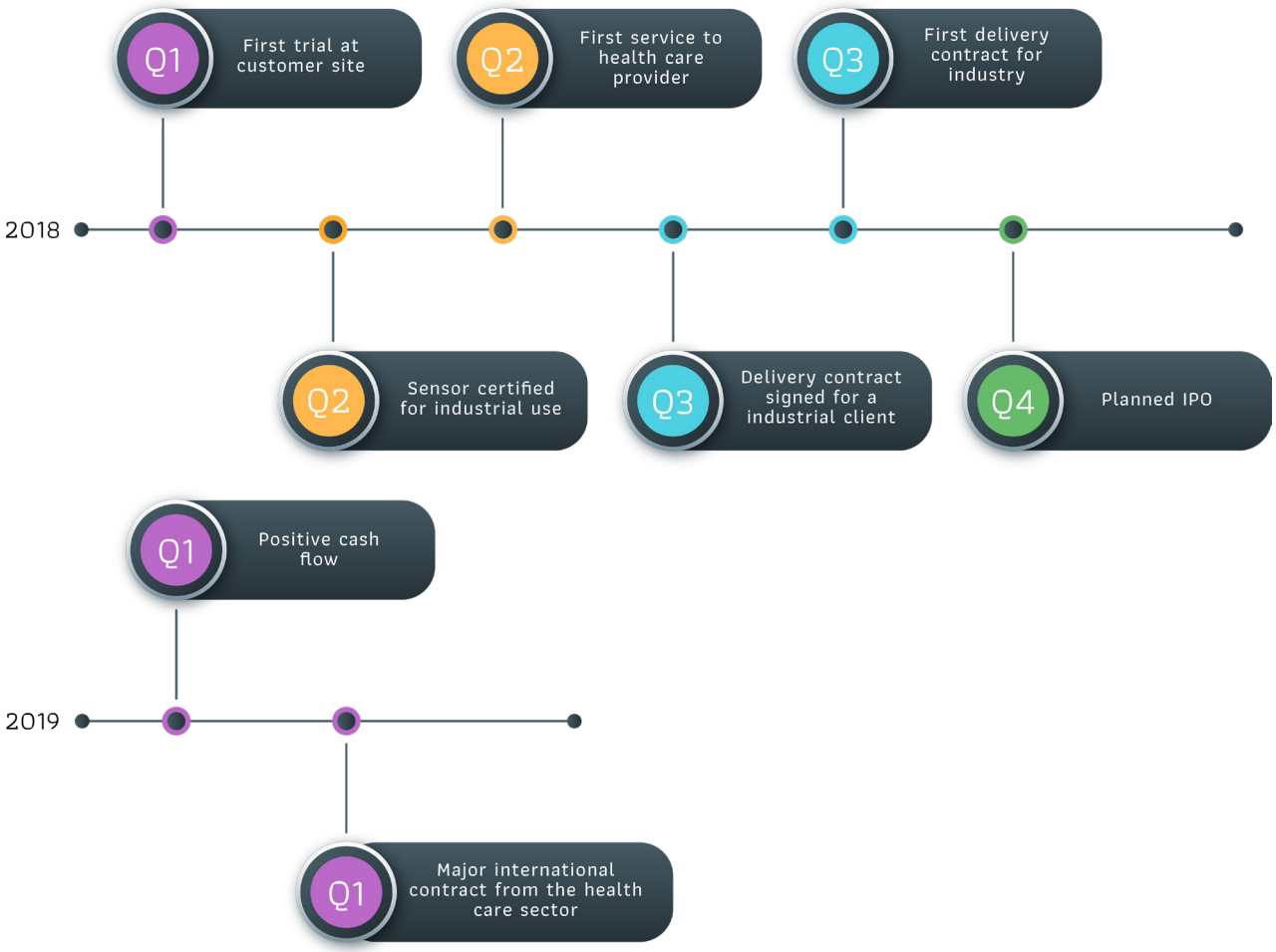
Milestones and Timeline



Market

Target customers
Our target customers are companies that provide e-health solutions to caregivers all over the world. Examples of such companies are Telia Healthcare, Tieto, Microsoft, GE Healthcare and many others. Our unique service can give these customers a competitive advantage in the race on the global e-health market.

We also see great potential to sell our product to companies that provide (i) solutions for home automation, and measurement devices for use within industry, marine, agriculture and security. Our primary market is the healthcare market but interest from industry has been overwhelming resulting in building up a partnership network.

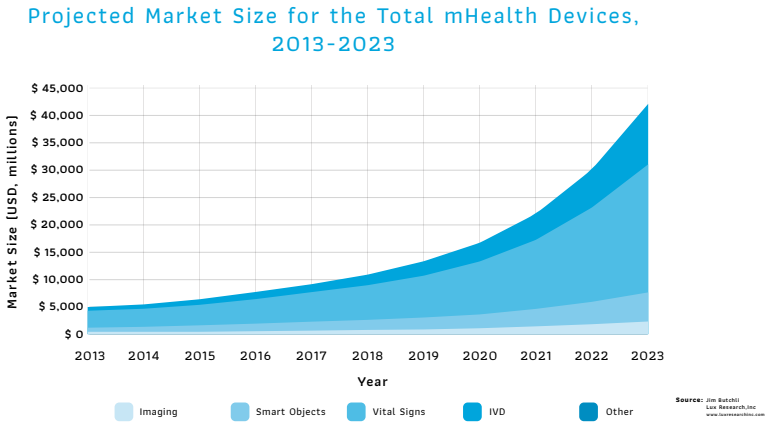
Revenue model
In the healthcare sector, we will use a subscription based payment model in combination with an entrance fee, which is beneficial since our target customers use similar models for the end customer (healthcare organizations). In addition to the device and service platform, we will offer installation of the device.

We have discussed our pricing strategy with IT companies in the healthcare sector to ensure that our price level is viable and attractive for the end-customer. The proposed price level is estimated to generate high margins for Raytelligence. Further information on pricing is available upon request.
For industrial customers, we will offer both subscription based models and one-off sales of devices through a distributor network and on line sales.

Healthcare sector market outlook
The costs for elderly care is increasing with the demographic development and home care are expected to grow substantially for both quality and cost reasons. These trends give Raytelligence a high growth potential in the healthcare sector.

Large companies in the healthcare sector are becoming increasingly active in providing competitive service platforms with integrated third-party solutions. Telia Healthcare, for example, offers a dedicated platform for home care. Other examples are Telenor and GE Healthcare. We see a great potential in delivering our solution to such players with the potential to strengthening their customer offerings.

The global market for mHealth devices is expected to grow from approximately 6 billion USD in 2017 to approximately 25 billion USD in 2023, corresponding to a growth of 300%.



Industrial sector market outlook

Sensors also play an integral role in the rapidly growing market for Internet of Things (IoT). The global IoT sensor market size was estimated to approximately $7,5 billion in revenue in 2016 and is expected to reach approximately $27 billion in 2022.

IoT can be used in industrial sectors to predict machine maintenance need and take pro-active actions to avoid costly breakdowns and inefficient routine-maintenance shut-downs. Other application areas driving the global demand for IoT sensors are the automotive industry, customer electronics, smart electricity and water use.

In addition to the healthcare sector, we have a great potential to deliver technology based on our sensor to within the IoT segment in general. We have already signed a supply and development contract within a specific industrial sector with a Danish company.

Our intention is to introduce a sensor system with machine learning capabilities for industrial applications. The combination of high performance radar technology and AI holds the potential of changing the industrial sensing market. Applications such as machine maintenance will benefit from this sensor system.

Marketing and sales strategy

In the healthcare sector, we will sell our solution through leading providers of IT for the health care sector, limiting our need of an in-house sales organization. Our current team has competence and experience in sales as well as relationships with leading IT providers both in Sweden and internationally.

Besides sales and marketing by the IT providers we sell through, Raytelligence will perform own marketing and sales activities to end-customers. We will participate at relevant trade fairs and establish direct contacts with large healthcare providers and other major players in the healthcare sector.

Exclusivity contracts for specific use may be awarded on a case by case basis but not in general. For example, we signed a contract with a construction company, which grants exclusivity for the use of our solution in a specific field.

Competitors
Camera suppliers offer competing solutions for monitoring but they cannot monitor vital signs such as respiration. Our solution is also beneficial as it works well in darkness and offers a high degree of integrity for the monitored person, which is a key aspect for both consumers and regulatory bodies.
The market offers plenty of wearable devices targeting the health care sector but such devices have two main draw backs: less comfort for the person wearing the device day and night as well as giving only motion of the device e.g the wrist. Our solution is less dependent on the human factor, which increases reliability and gives better data to signal analysis (AI) algorithms.
We also compete with other providers of radar sensors. To the best of our knowledge, none of them offer the connected cloud services and the accuracy provided by Raytelligence. While our signal processing is key for making sense of the data and providing real-time feedback to the caregiver, the high degree of accuracy is key for collecting reliable information on vital signs.

- The RayVS1 is a multi-channel radar with positioning capability which is unique in the health care and industrial sectors.
- Our signal processing offers high flexibility in adapting the service to the specific needs of different customers.

Patent applications and other IP rights covering the vital functions of the sensor protect our competitive advantages.

Risks
We have identified three main risks, which we have considered during our development phase and oversee on a regular basis.

- Technical risk that the development of our final product may take more time than expected. As our technology base has been verified in our prototype which functions well, we are confident that we will be able to deliver as expected. We also have core competences in our team to tackle any upcoming challenges.

- Commercial risks that it may be more difficult than expected to reach the market. As we have consulted many actors in the healthcare ICT sector during our development, we have verified that we fill an important need on the market.

- Supply of critical components. Our product has been developed based on a chipset provided by one vendor. We have identified providers of similar chipsets which can be used with some redesign of our product.

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The Team

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Board of directors

The board of directors include Per-Arne Viberg, Peter Martinson and Klas Arvidson.

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Financials

Historical financials

Thousand SEK	2017	2016
Revenue	138	0
Salaries and consultants	-1998	-69
Other external expenses	-53	-6
Profit/loss	-1913	-75

Financial forecasts
Breakeven is expected during 2019.

Current shareholders
The company has been funded by grants, the founders and private investors of a total funding of 7,4 MSEK.

Shareholder	Shares	%
Swedish Adrenaline AB (owned by the founders)	474 000	71,71
Cancer Foundation	31 000	4,69
Ann-Marie Alm Anderberg Projekt AB	27 000	4,08
Urd Förvaltnings AB	16 000	2,42
Nils Berg	14 000	2,12
Others	99 000	14,98
Total (50 shareholders)	661 000	100

No outstanding options besides an authorization for the board to issue shares to a dilution of maximum 10 % .

Available documents
Upon request the following documents can be provided:

- Records of shareholdings (swe. Aktiebok)
- Certificate of registration (swe. Registreringsbevis)
- Articles of association (swe. Bolagsordning)
- Issue resolution (swe. Emissionsbeslut)
- Shareholders' agreement (swe. Aktieägaravtal)

Contacts

Please feel free to contact us if you have any questions.

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