



IMPROVING RADIATION THERAPY IN CANCER TREATMENT

Company presentation

Tim Thurn, CEO

Table of contents

1. Introduction to C-RAD

2. Radiation therapy and market overview

3. Solutions and products

4. Business model and growth strategy

5. Financial highlights

Appendix

A. Financial summary & additional company information



C-RAD develops innovative solutions for use in advanced radiation therapy. The C-RAD group offers products and solutions for patient positioning, tumor localization and radiation treatment systems. All product development is conducted in three fully owned subsidiaries: C-RAD Positioning AB, C-RAD Imaging AB and C-RAD Innovation AB, all of which are located in Uppsala, Sweden.

C-RAD has established three companies for direct sales: C-RAD Inc. in the US, C-RAD GmbH in Germany and C-RAD Shanghai in China. Cyrpa International SPRL, a Franco-Belgian laser company, is a wholly owned subsidiary whose operations are integrated.

C-RAD AB is listed on Nasdaq Stockholm.

KEY FACTS

Founded:	2004
Headquarter:	Uppsala, Sweden
Order intake, MSEK (FY2019):	269.8
Revenue, MSEK (FY 2019):	205.4
Gross margin:	~60%



Tim Thurn
CEO

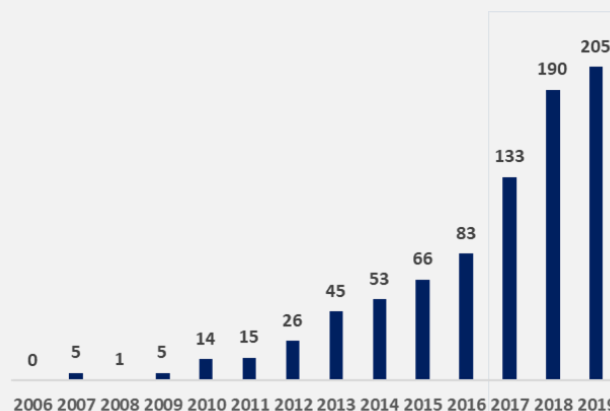
Tim Thurn has been CEO of C-RAD AB and President since July 2013; CEO of C-RAD Positioning AB since 2011; Acting CEO of C-RAD Imaging AB since 2014. Tim has worked in the field of radiation therapy since 2003 and previously worked with product development at the German laser company LAP GmbH, where he also held the positions of product manager and sales manager. Tim holds a Master in Business Administration and a master degree in Electrical Engineering.



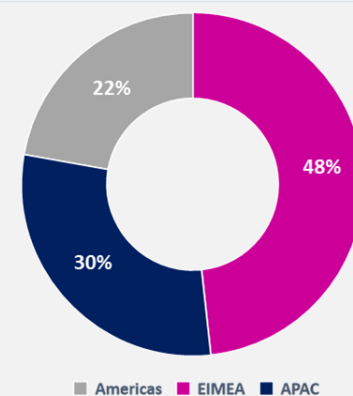
Henrik Bergentoft
CFO

CFO since March 1st, 2020. Born 1974. Henrik has an extensive experience of leading positions within finance, primarily in public companies. He was previously CFO at MSAB (publ.), a position he held for three years. Prior to that, he has held positions as CFO and Finance Director at Aerocrine AB, Nordkom AB, and ContextVision AB. Henrik holds a master's degree in International Business from the Uppsala University.

Sales development 2004-2019



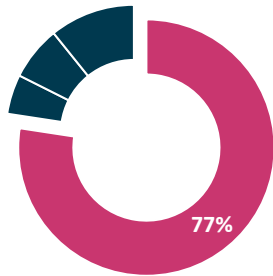
Geographical distribution 2019



Product categories

Positioning products

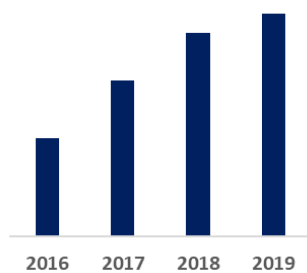
REVENUE SPLIT 2019



Products and solutions for patient positioning, real time motion monitoring, respiration gating solution and stereotactic radiation therapy support.

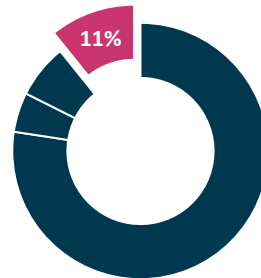
Main products: Catalyst HD and Sentinel.

SALES DEVELOPMENT 2016-2019



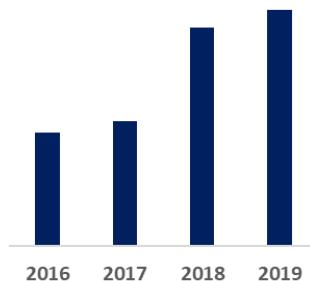
HIT lasers

REVENUE SPLIT 2019



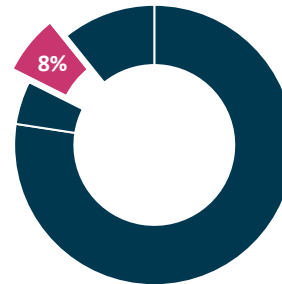
C-RAD Life Cycle Business includes service contracts, dedicated application training and installation services. The segment create long term customer relations based on the product life cycles and provides stable income streams.

SALES DEVELOPMENT 2016-2019



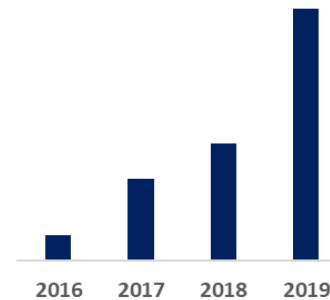
Service and support

REVENUE SPLIT 2019



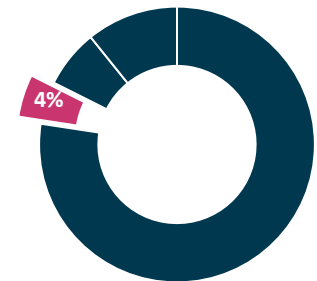
HIT Laser systems provide the virtual simulation required for CT, PET/CT, and MR in radiotherapy.

SALES DEVELOPMENT 2016-2019



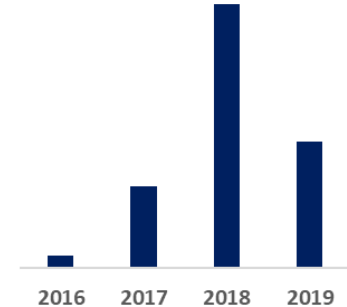
Distribution products

REVENUE SPLIT 2019



Distribution of IBA Dosimetry Products in the Nordic Countries. Distribution contract ended on September 30 to enable C-RAD to focus on the core business.

SALES DEVELOPMENT 2016-2019



Strong global footprint

C-RAD installation has covered main radiation therapy market

~450

installed systems
worldwide

~100

Systems are currently
in the order book

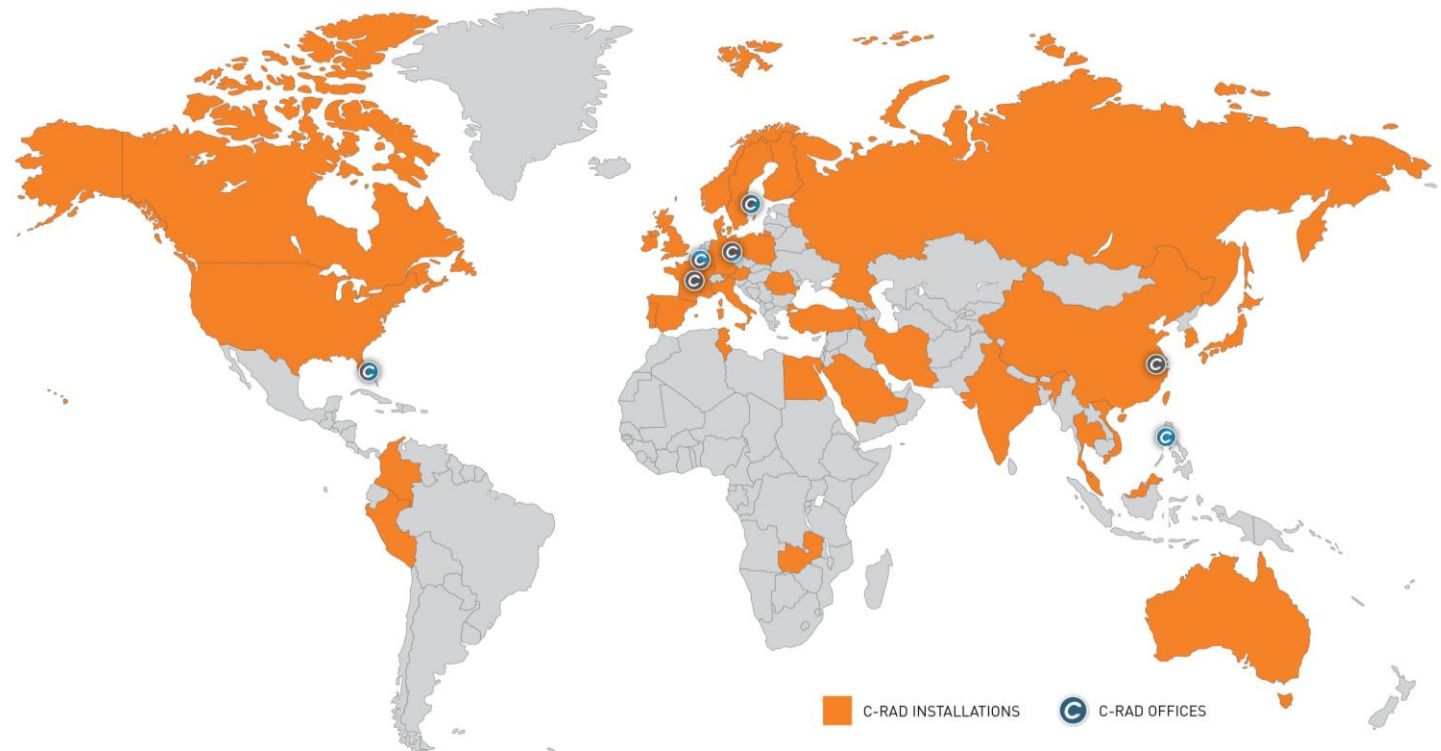


Table of contents

1. Introduction to C-RAD

2. Radiation therapy and market overview

3. Solutions and products

4. Business model and growth strategy

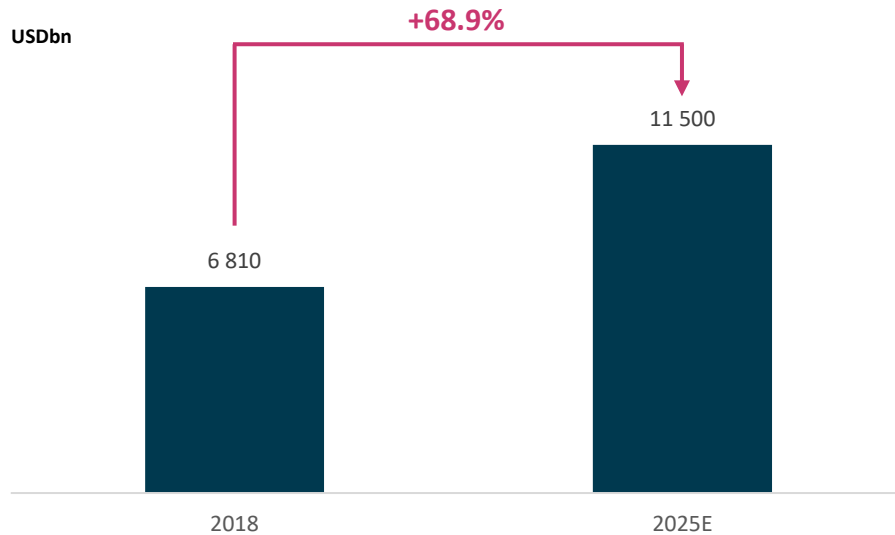
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Appendix

A. Financial summary & additional company information

Large and growing market for radiation therapy

Market for radiation therapy¹



Comments

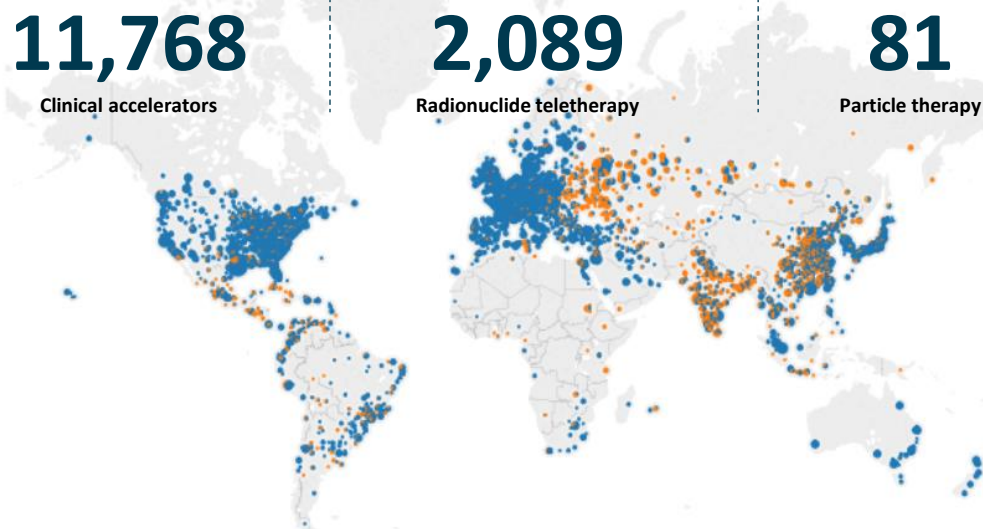
- The radiation therapy market is estimated to grow to USD 11.5bn up until 2025 corresponding to a CAGR of 7.8% between 2018 and 2025E¹
- Driving factors are: increasing number of cancer patients
- There are currently 8,000 radiation therapy clinics globally²
 - roughly 50% uses conventional radiation therapy³

Market drivers

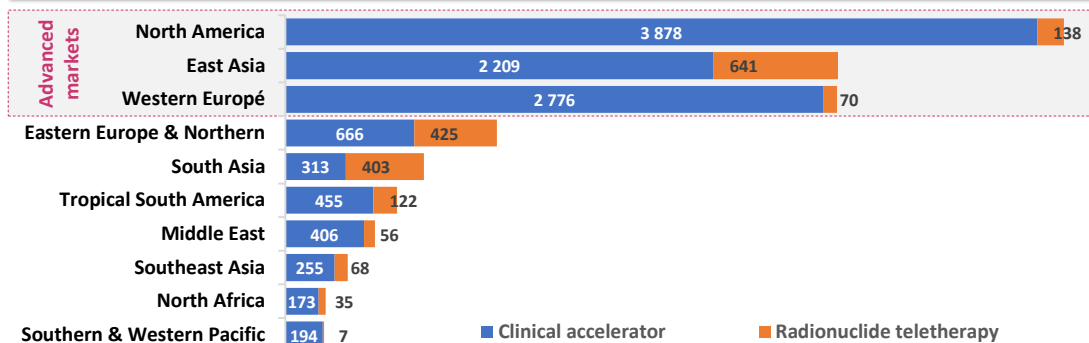
- Introduction of new advanced radiation therapy creates demand for complementing equipment such as system for positioning and imaging
- Global capacity shortage of 10,000 linear accelerators (almost double the current installed base), assuming all cancer patients are to receive adequate radiation therapy⁴
- Broader applications of radiation therapy – it can be used to treat an increasing number of diseases
- Clinical focus has shifted towards quality of life after treatment
- Main development towards higher speed meaning higher radiation dosage
- **Higher precision in beam delivery and accuracy becomes increasingly important to minimize the radiation on healthy tissues and organs of risk**

Large and growing market for radiation therapy

Geographical distribution of radiation therapy treatment centres¹



Regions and countries¹



C-RAD market driver

- Approx. 9,000 accelerators are installed in advanced markets¹
- 75% of the accelerators in advanced markets are expected to be equipped with SIGRT²
- Motion management on its way to become standard of care
- About 20% market penetration – across all vendors³
- C-RAD has been outperforming the market

Radiation therapy⁴

US transition of practice to increase SRS/SBRT/Hypo Fx

TREND	2016	2030E
Conventional (30 Fx)	59%	28%
SRS/SBRT (~3 Fx)	21%	39%
Hypofractionation (15 Fx)	20%	33%

Competitive landscape

Comment

Market by geography

- C-RAD regard themselves as a market leader in Asia and EU
- Vision RT is market leader in North America
- Africa is not a relevant region by any vendor

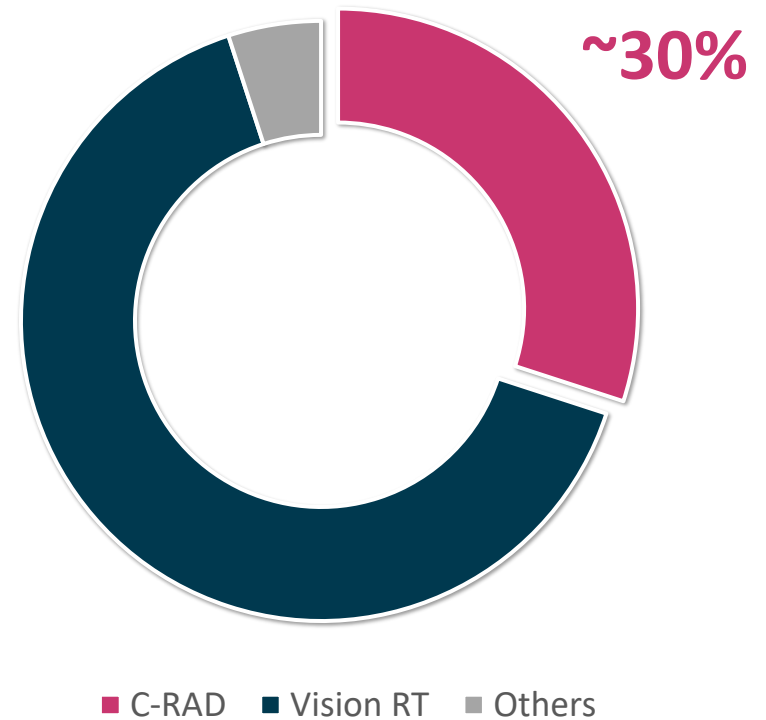
Strategic focus

- C-RAD cooperation with Original Equipment Manufacturer (Elekta)
- Vision RT focus on direct sales

C-RAD key selling points

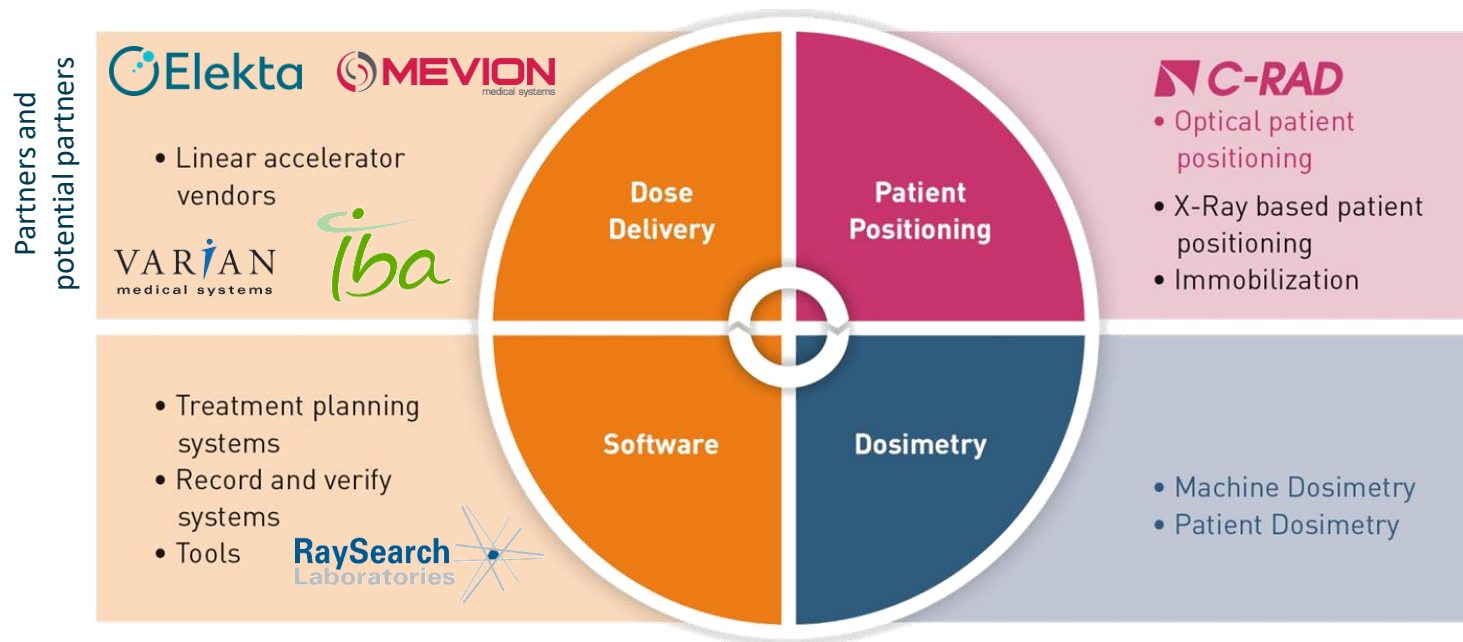
- Usability
- Highest level of integration
- Product performance

Market share within positioning for radiation therapy



C-RAD's position in the market

Overview of the radiation therapy market universe



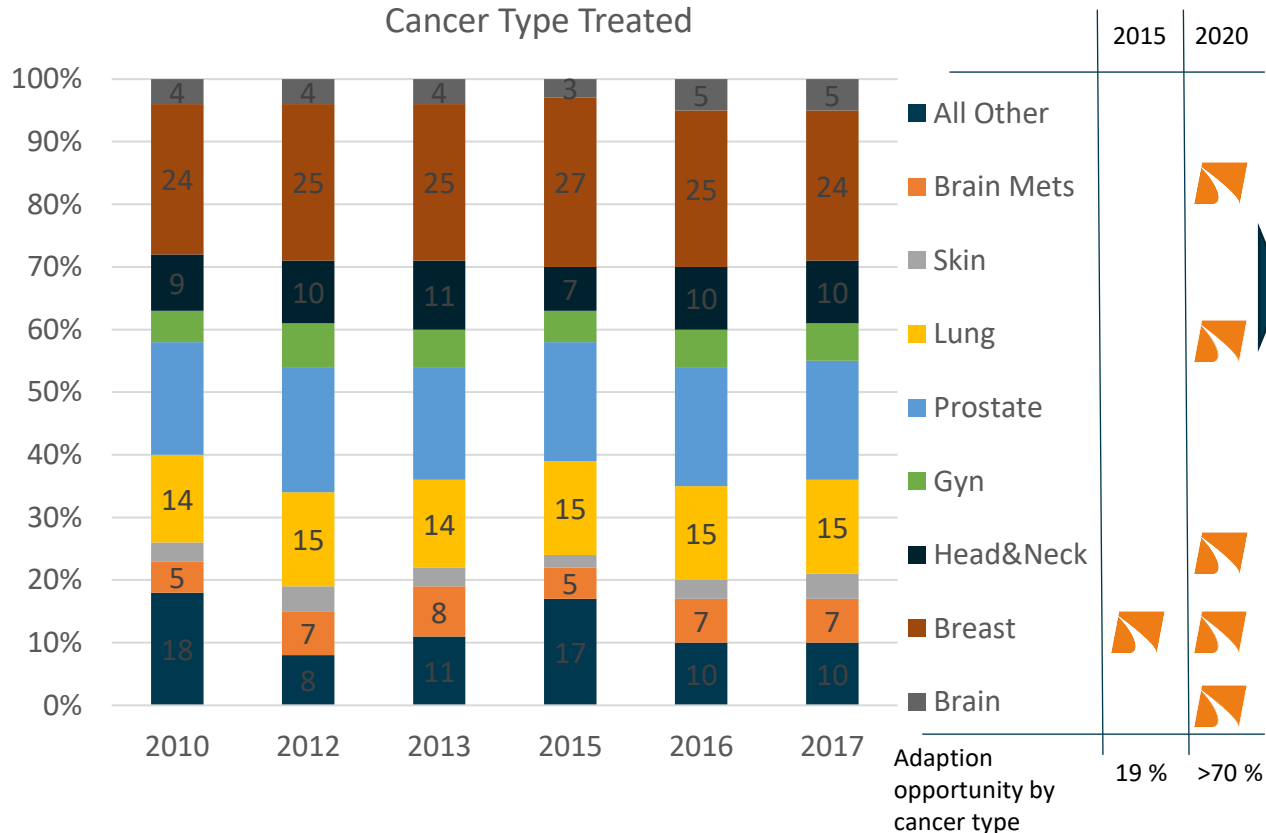
Comments

- With the current product portfolio C-RAD is focusing on optical patient positioning and patient surveillance
- Core products: Catalyst and Sentinel – complemented with the acquisition of Cyrpa which is specialized in innovative solutions within radiation therapy

C-RAD targets the most common cancers

Cancer statistics¹

Trend in the Distribution of Courses of Treatment by Cancer Type Treated



C-RAD

- C-RAD's products are targeting cancer centres to help to improve treatment for the most common cancer indications – thorax, breast and head
- Clinical adaption has been rapidly increasing over the past 5 years
- Relevant indications are treated at in avg > 90% of the cancer treatment sites
- New treatment techniques secure clinical outcome and reduce side effects – **accurate patient alignment is the key**
- C-RAD technology is on its way to become **standard of care**

C-RAD's value proposition

Treatment efficiency¹

Research Article

Optical Surface Management System for Patient Positioning in Interfractional Breast Cancer Radiotherapy



Zhao Ma,¹ Wei Zhang¹, Yi Su,¹ Peiji Liu,¹ Yinghua Pan,²
Gang Zhang,² and Yipeng Song¹

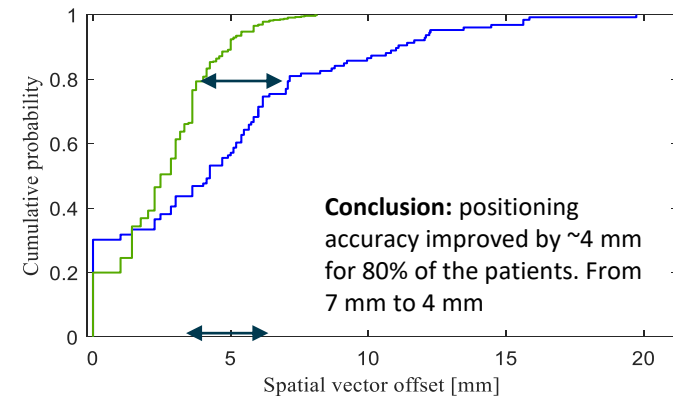
TABLE 1: Interfractional displacements of the 200 setups in 20 patients with breast cancer.

Parameter	LAT (cm)		LONG (cm)		VERT (cm)		Time (s)	
	OSMS	CBCT	OSMS	CBCT	OSMS	CBCT	OSMS	CBCT
Mean	0.049	0.041	0.018	0.040	0.062	0.065	66.810	308.040
Standard deviation	0.254	0.244	0.261	0.242	0.254	0.240	17.732	10.283
t-value	0.330		-1.029		-0.126		-215.262	
P value	0.742		0.305		0.900		0.000	

Comments

- **Method:** Displacements from concurrent OSMS and CBCT registrations were compared in a total of 200 setups of 20 patients to analyse the interfractional displacement and positioning displacement in three dimensions
- **Results:** The interfractional displacement on the lateral, longitudinal, and vertical directions for OSMS versus CBCT was 0.049 ± 0.254 versus 0.041 ± 0.244 centimetres (cm); 0.018 ± 0.261 versus 0.040 ± 0.242 cm; 0.062 ± 0.254 versus 0.065 ± 0.240 cm, respectively
- **Conclusion:** OSMS is an efficient tool to improve the accuracy and increase the speed for verifying the patient positioning in radiotherapy for breast cancer

Accuracy²



Note: 65 patients. Surface based setup (green), Conventional setup (blue).

Positioning challenge in radiation therapy

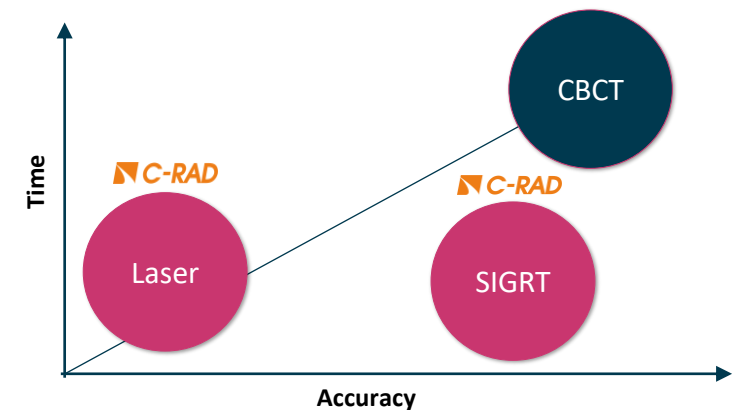


Table of contents

1. Introduction to C-RAD
2. Radiation therapy and market overview
- 3. Solutions and products**
4. Business model and growth strategy
5. Financial highlights

Appendix

- A. Financial summary & additional company information

Workflow imaging modality

Overview of the workflow management for imaging

1 patient session



Registration

Immobilization
Devices

4DCT

Facial registration
with cPatient

Snapshot on
used devices
and their setup

4D Imaging

 = C-RAD core business

 = Expansion into workflow management



SENTINEL™ 4DCT

4D CT Imaging

- Laser-based optical surface scanning system
- Functionality for 4D CT reconstruction and gated imaging in a CT room
- Lung & breast cancer

Workflow treatment modality

Overview of the workflow management for patient positioning



Advanced photon therapy

- Three Cameras at optimal angles
- Accurate positioning during non-coplanar treatments
- Intra-fraction detection to help maintain initial patient position
- Maximum dose deliver within the target



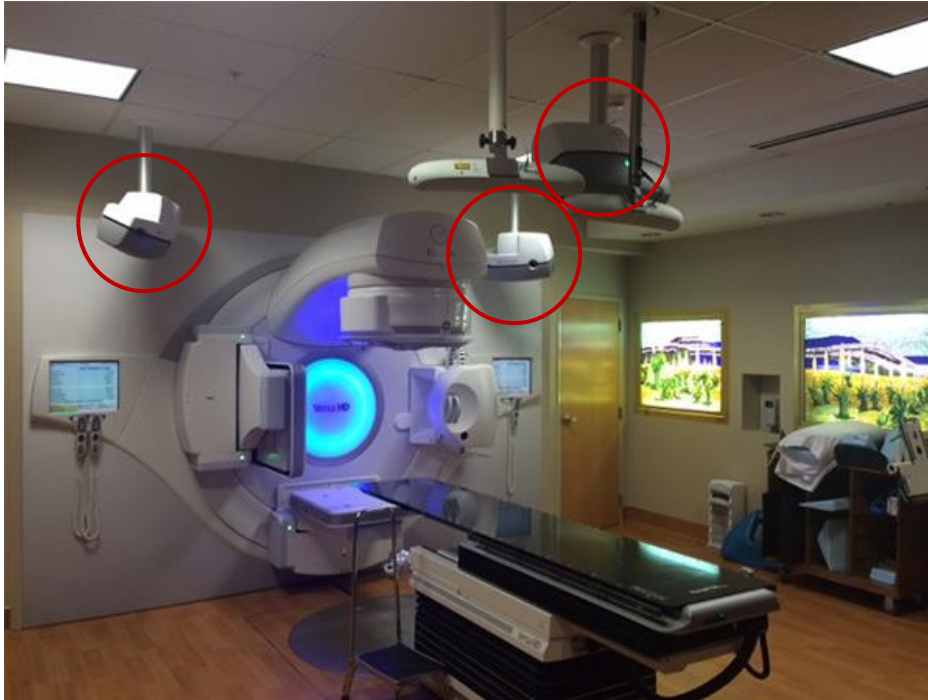
Proton and particle therapy

- Dedicated proton and particle therapy solution
- Automatic reference adjustments ensure uninterrupted motion monitoring
- For head & neck, pediatric patients



C-RAD's technology enables higher precision and improved treatment

Three Catalyst HD scanners in the treatment room



Comments

- Three Catalyst HD scanners in the treatment room enables a continuous monitoring of patient position during treatment
- Higher precision in beam delivery and accuracy minimize radiation on healthy tissues and organs of risk

Clinical advantages



Dose free

- Less side effects



Non-invasive

- Ease of use



Marker less

- Patient comfort



Less impact on daily workflow

- Usability advantages

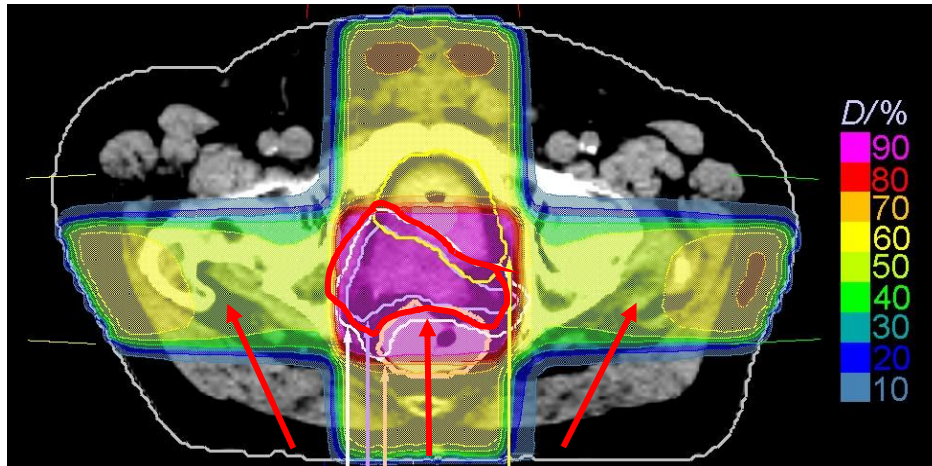


Patient compliance

- Standardized workflows

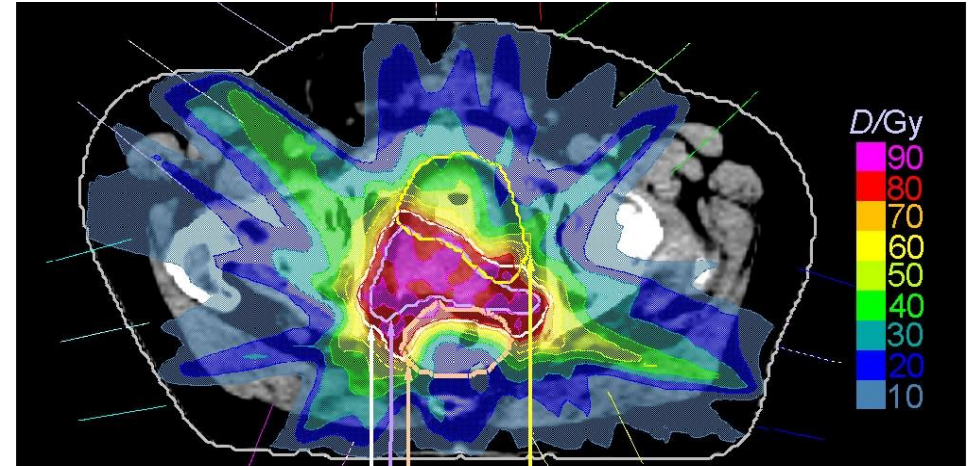
Treatment is optimized through more accurate radiation therapy

Conventional radiation therapy



Radiation that potentially
could give side effects

Biologically optimized intensity modulated radiation therapy



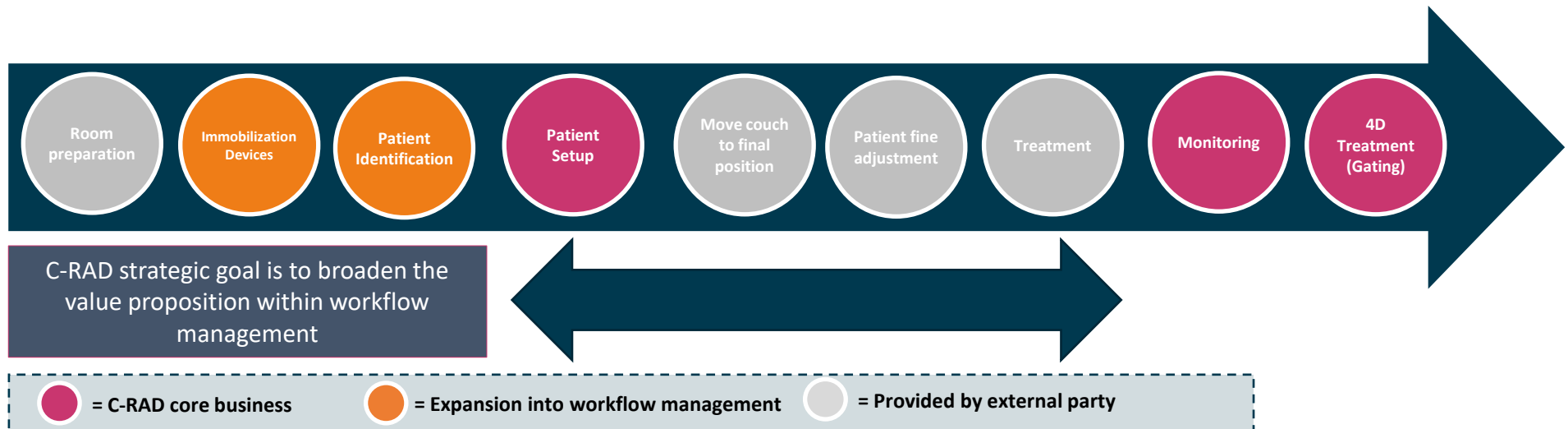
The radiation is now concentrated
to the tumour

Comments

- New methods in radiation therapy, with higher radiation dose rates, require highly accurate positioning (local control) to minimize the damage on healthy tissue and organs
- C-RAD's technology enables high precision, efficiency and safety to cure more patients with cancer
- Compared to conventional radiation therapy, the radiation is more focused – significantly reducing the negative impact of radiation on other organs of risk

cAnalytics - Outlook

Overview of the workflow management for cAnalytics



Objective	Technology	Knowledge base
– Unify treatment protocols for cancer centre groups – Adaptive therapy, active feedback on patient behaviour during treatment – Optimize use of resources such as immobilization devices – Improve the patient experience by reducing waiting time, ambient experience	– Collecting treatment data – Intelligent data processing – Interfacing to existing database systems	– Treatment reporting for QA purposes – Benchmarking – Admin Dashboard

Table of contents

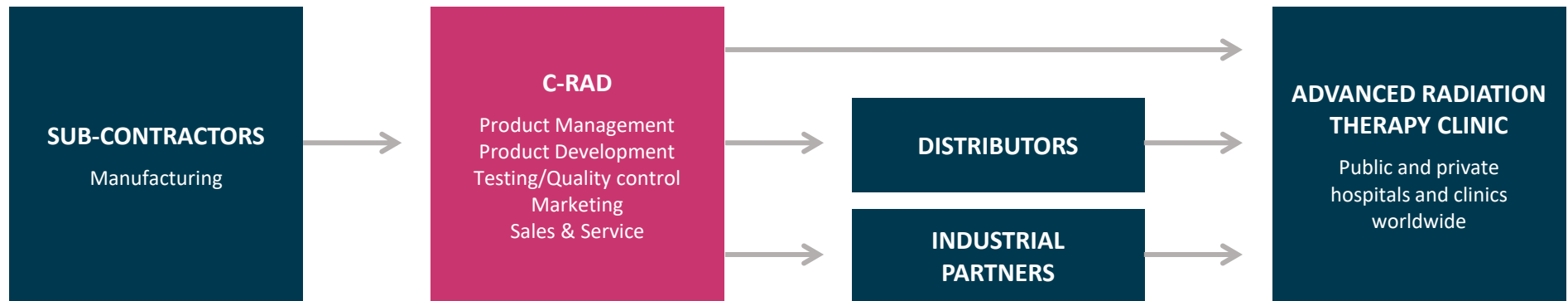
1. Introduction to C-RAD
2. Radiation therapy and market overview
3. Solutions and products
- 4. Business model and growth strategy**
5. Financial highlights

Appendix

- A. Financial summary & additional company information

Overview of the business model

C-RAD in the valuation chain

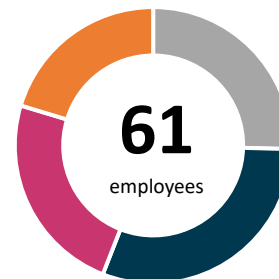


Comments

- Redundant Supply Chain: Manufacturing in Finland and Sweden
- Manufacturing in the US setting up

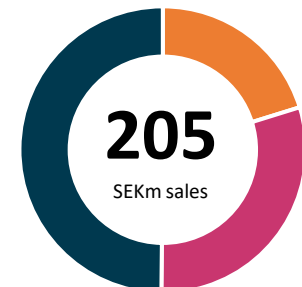
- Over half C-RAD team works directly with customers, either with sales or service
- Our strong development team assures a flow of future innovations that will benefit customers as well as patients

EMPLOYEES PER BUSINESS CATEGORY 2019



■ Marketing/Sales ■ Service ■ R&D ■ Other

REVENUE SPLIT PER SALES CHANNEL 2019



■ Industrial Partners ■ Distributors ■ Direct sales

Well defined growth strategy

Three areas where C-RAD looks to achieve excellence



Product excellence



Sales excellence



Service excellence

Product excellence

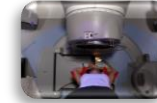
Stereotactic
Radiosurgery (SRS)



Deep Inspiration
Breath Hold (DIBH)



Stereotactic Body
Radiotherapy (SBRT)



Expansion into workflow management

Comments

- C-RAD has a excellent solution for main applications
- Modular software system gives flexibility to provide customer with tailored SIGRT solution
- Continuous R&D effort on cost improvements and integration
- C-RAD want to expand into workflow management

Service excellence – life cycle business

Service opportunities provide recurring revenue streams



2019 service revenue (SEK)

17.3m

2019 service orders (SEK)

63.1m

2018 – 2019 revenue growth

+114%

Service contracts

4.5%

of product price

Base contract

- Spare Parts
- Software Updates

9.0%

of product price

Premium contract

- Uptime commitments
- Software Upgrades
- On-Site Service

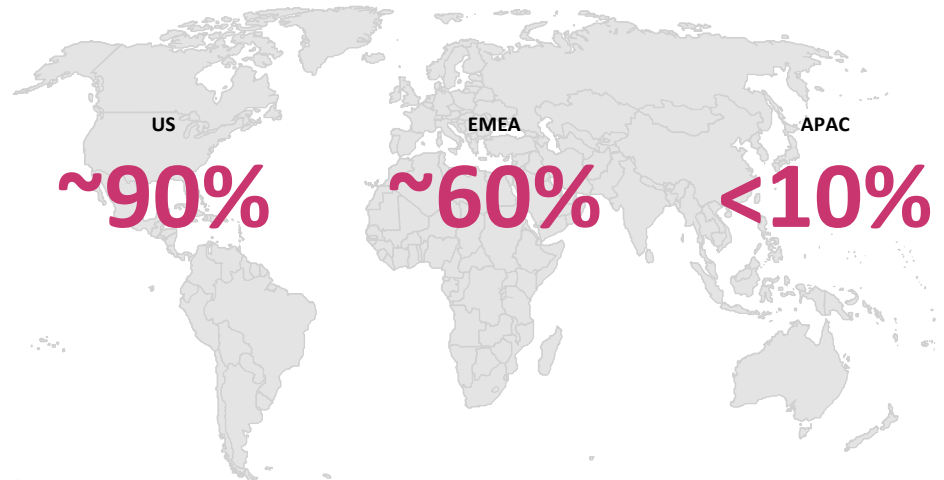
3-5

average years

Long-term commitments, served through

- C-RAD service organization
- Service partner

Attachment rate by region



Comments

- The attachment rate refers to the percentage of sold system that are covered by a service contract in each respective region

Table of contents

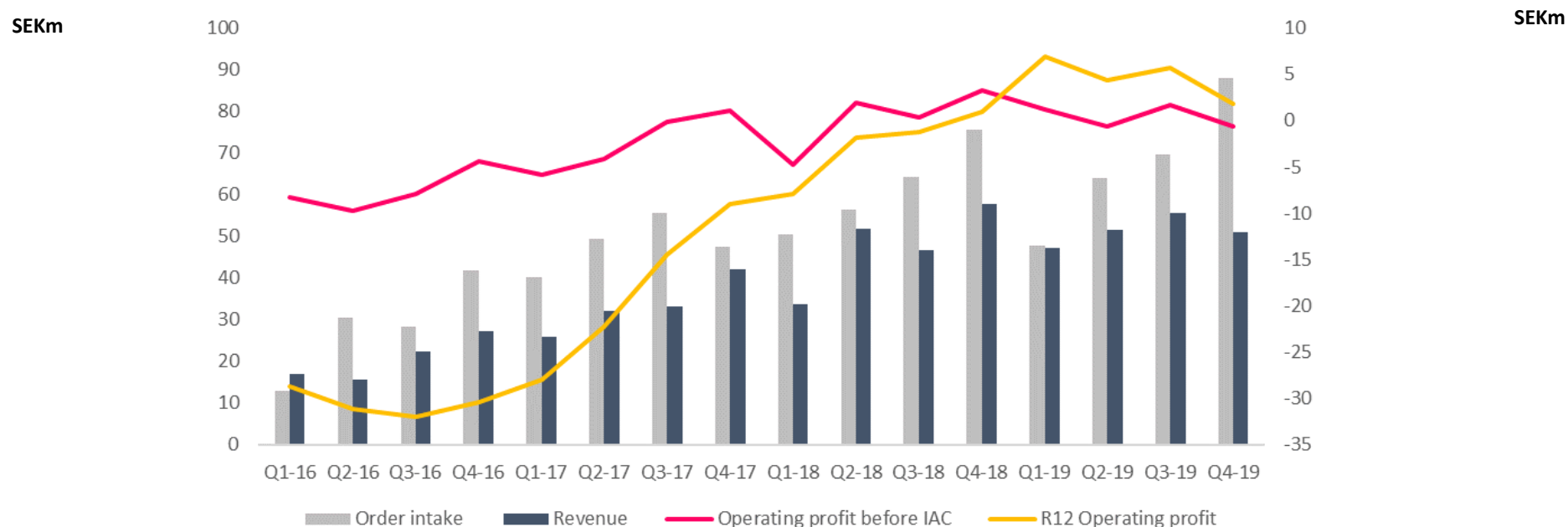
1. Introduction to C-RAD
2. Radiation therapy and market overview
3. Solutions and products
4. Business model and growth strategy
- 5. Financial highlights**

Appendix

- A. Financial summary & additional company information

Financial development by quarter

Order intake, revenue and operating profit (SEKm)



Comments

- Underlying driver for C-RAD growth is acceptance of SIGRT in the market place
- Revenue grew with 147% from 2016 to 2019 and operating profit from SEK -30.4m to SEK 1.9m* during the same period
- 2018 first FY profitable result
- Significant investments in the sales organization until 2016 to support sales development

* Operating profit before Items Affecting Comparability



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