

Digital
Dental Solution

2019 Investor Relations

www.raymedical.com

First Mover Ray





Ray changes the future of
dentistry changing the
world



Contents

- Prologue
- Market Opportunity
- Company Overview
- Competitive Edge
- Growth Engine
- Appendix



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Identity

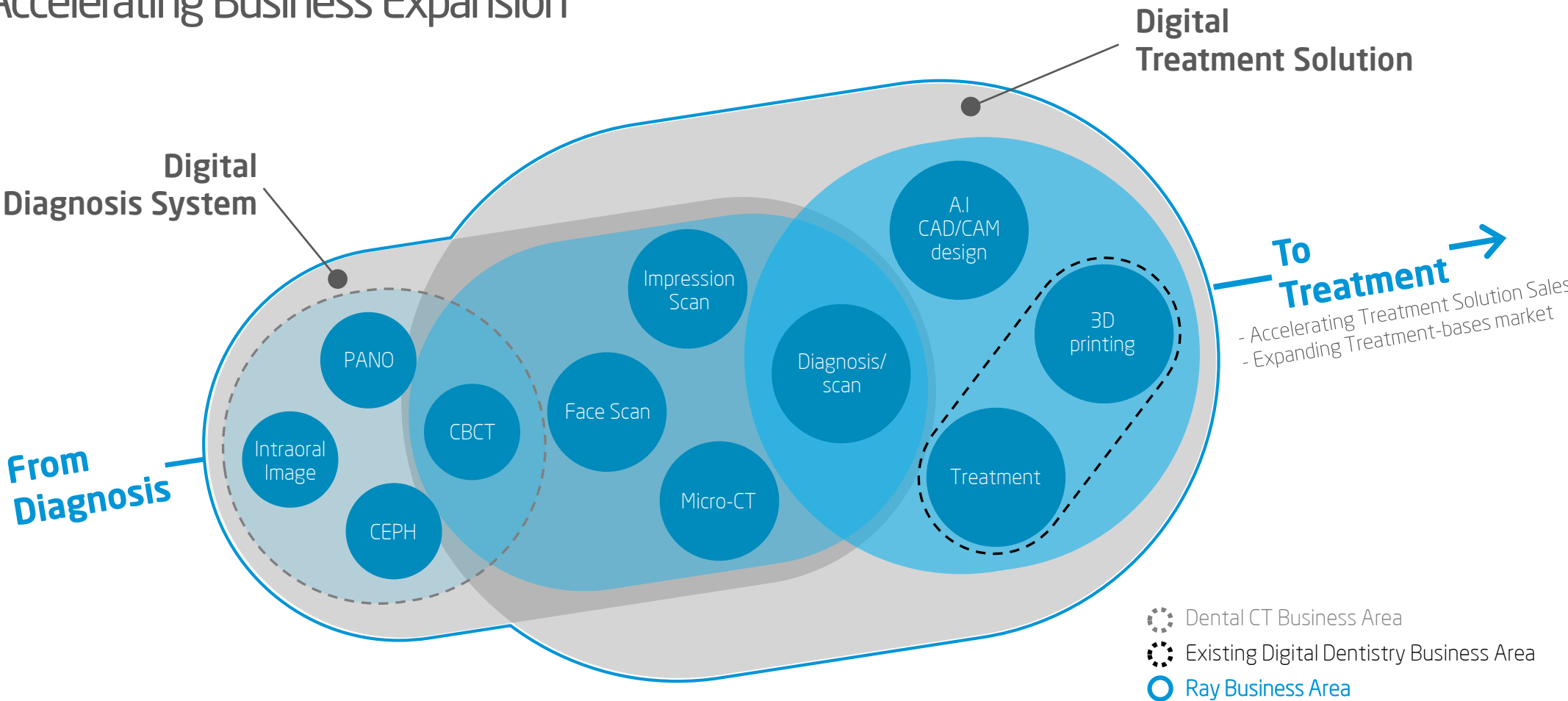
Ray changes your Life



Identity

Next Generation Digital Treatment Solution

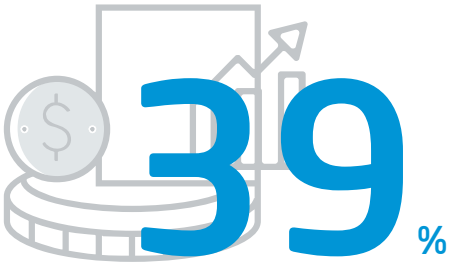
Accelerating Business Expansion



Identity



- The Korea's first Micro-CT
- The world's first Digital Dental Solution



CAGR for 3 years ('16~'18)



Sales Growth in Q1 2019 (YoY)



7 overseas bases



Exporting to 70+ countries



Overseas sales portion of 3 year average



Market Opportunity

1. Change the dental industry trends
2. Fully digital dentistry
3. Digital dentistry market size



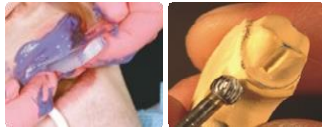
Transition from a hand-oriented simple treatment environment to a digital-oriented treatment, Change the trends into treatment solutions based on artificial intelligent.

1. Change trends of the dental industry (1)

Cure

Basic Treatment

Simple medical instrument,
Poor Treatment environment



Handmade



Poor Treatment environment



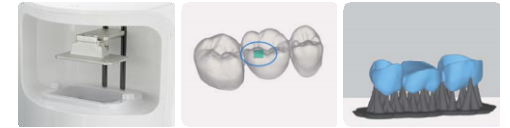
Film or 2D Image shooting



Care

Focusing on Medical Consumers

All in One Solution
Utilizing AI



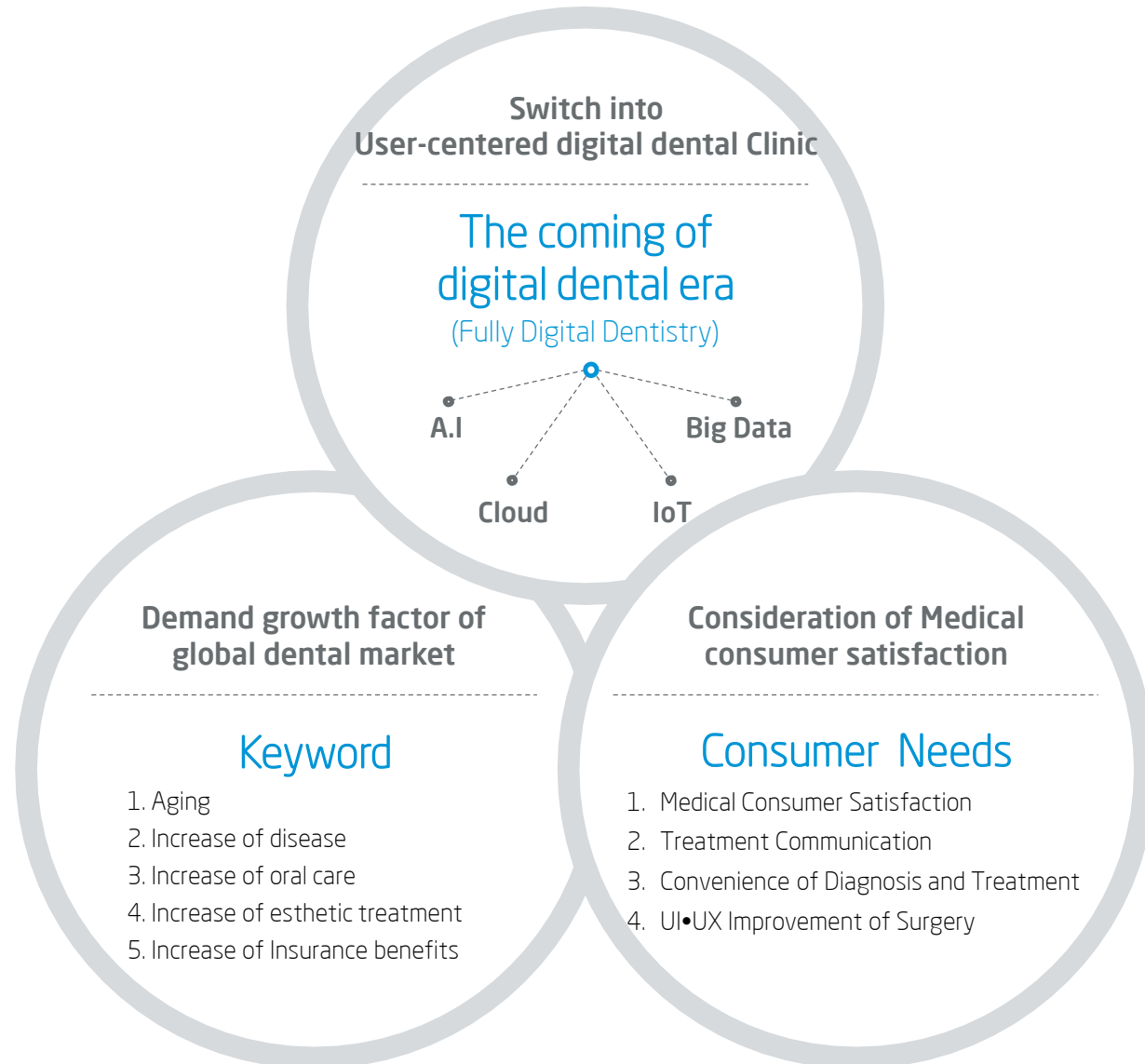
3D Printer, CAD/CAM based on AI



Solution from diagnosis to treatment

Dynamic Growth of Dental Market Acceleration of consumer and user-oriented digital solutions

1. Change trends of the dental industry (2)



One visit, New digital treatment solution completed in same day

2. Fully digital dentistry

More than **30** days → More than **15** days → **1** day

Same day solution in clinic



Diagnosis & Consulting



CBCT Scan



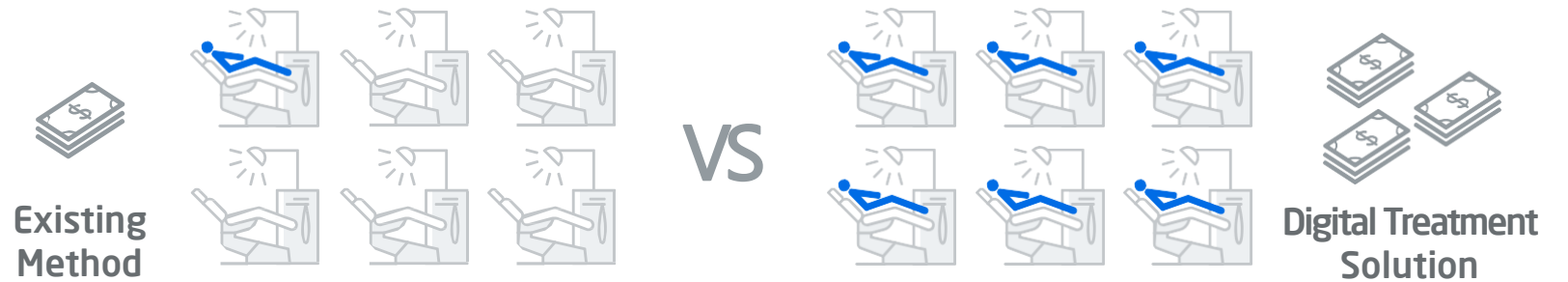
CAD/CAM Design



3D Printing



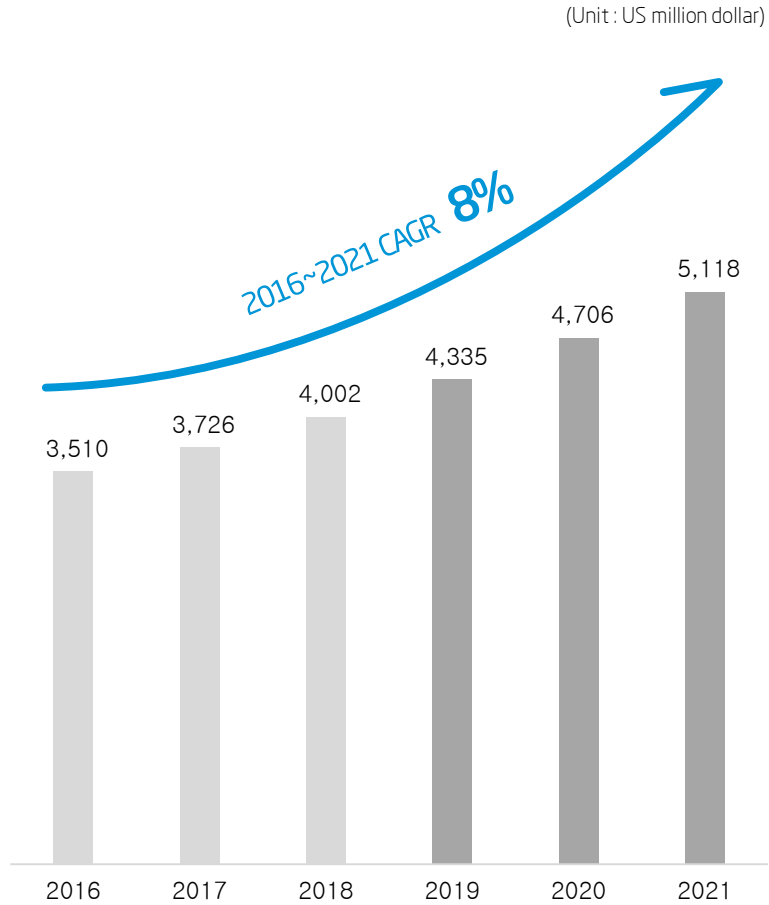
Finalizing



Digital Treatment Solution drives growth of the digital dental market

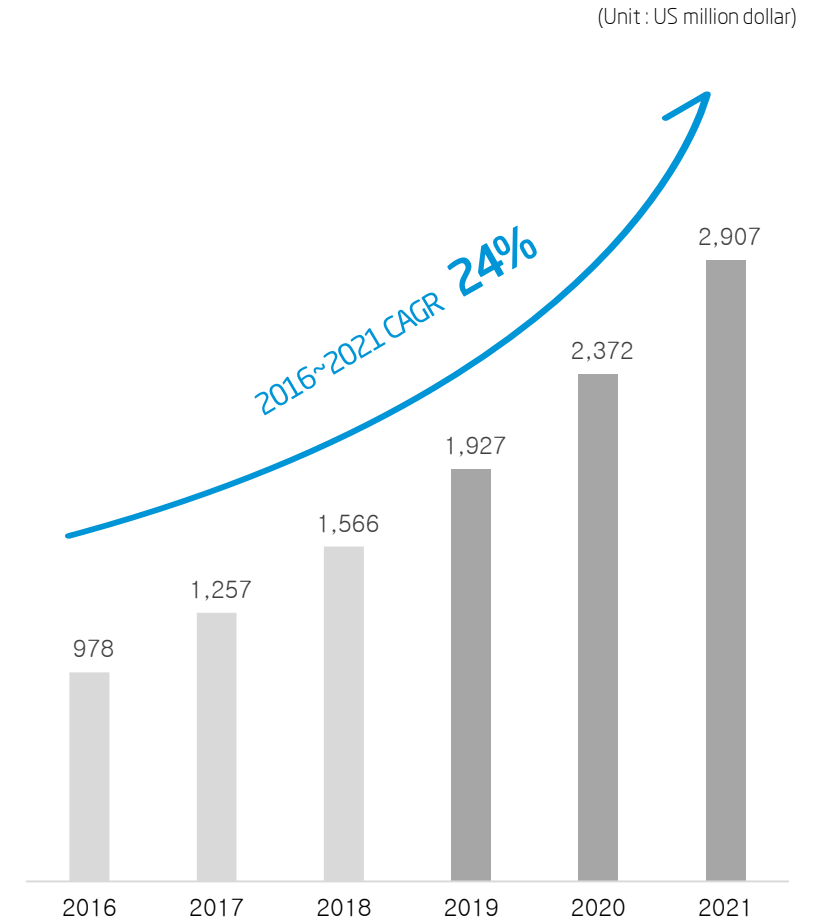
3. Digital dentistry market size

Digital Diagnosis System



Source : Global Dental Radiography Systems Consumption 2016 Market Research Report, QY Research, Zion Market Research 2017

Digital Treatment Solution



Source : SmartTech Markets Publishing 3D Printing in Dentistry 2015, Dental CAD/CAM TechNavio Analysis



Company Overview

1. Company introduction
2. CEO
3. History
4. Digital dental solution line-up
5. Expansion of business area
6. Differentiation of R&D competitiveness
7. Outstanding management performance



Ray is the future of dentistry changing the world.

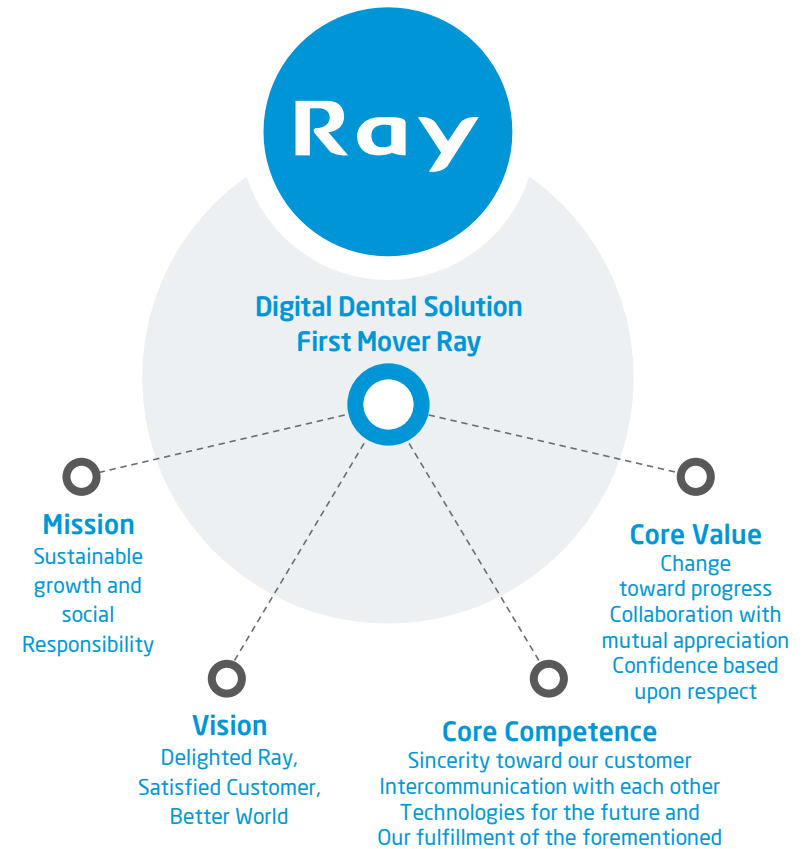
1. Company introduction

General Information

Company	Ray Co., Ltd.
CEO	SangChul, Lee
Date of Establishment	Oct, 06. 2004
Capital	2.8 Billion Won
Business Area	<ul style="list-style-type: none"> ▶ Digital Diagnosis System - Dental 2D Imaging System - 3D X-ray Imaging System ▶ Digital Treatment Solution - 3D Scan Solution - Dental CAD Solution - Dental 3D Printing Solution
Overseas Sites	USA, Europe, Japan, Australia, Mexico, Canada, Taiwan
Number of Employees	143 (As of April, 2019)
Address	<ul style="list-style-type: none"> ▶ Head Office: 221 Pangyoyeok-ro, Bundang-gu, Seongnam-si, Gyeonggi-do ▶ Factory: 332-7 Samsung-ro1 Hwaseong-si Gyeonggi-do
Homepage	www.raymedical.com

Note 1. Not included in employees of overseas sites

Management Philosophy



From the world's best 3D CBCT experts to a trailblazer of digital dentistry

2. CEO

Developed the world's first Micro-CT using flat panel detector

"Physics in medicine & biology" selected as the best paper (published in SCI thesis)

Developed CBCT source technology using the world's first flat detector

Manufacturing method and device development of artificial teeth using dental CT

RAYSCAN Studio release Digital Treatment Solution Commercialization

CEO SangChul Lee

Ph.D from Kyung Hee University Graduate School of East-West Medical science

Acquired the first doctoral degree in CT related field in Korea

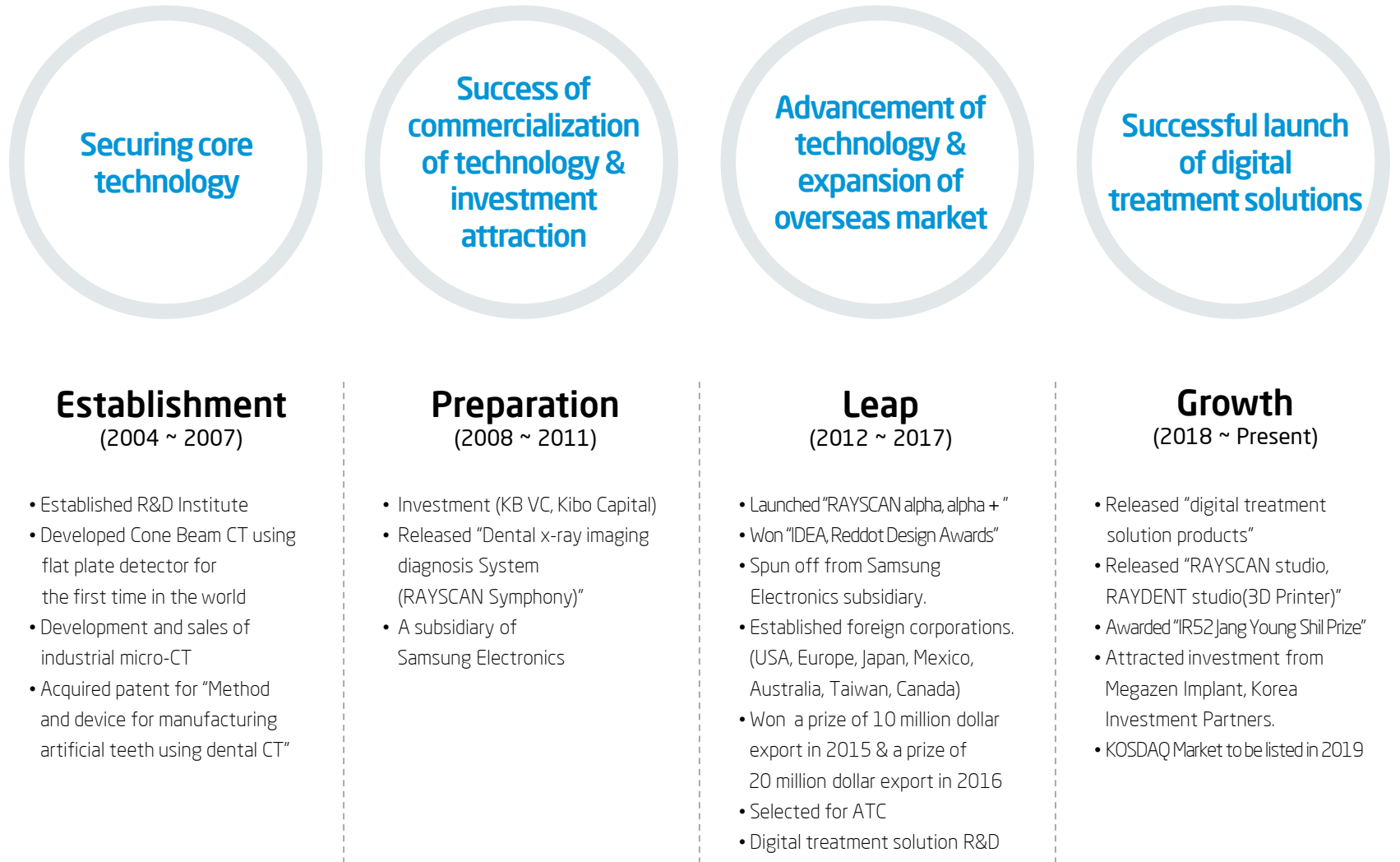
Developed the core technology of dental CT reconstruction algorithm

Received Prime Minister's Commendation from contribution



Growth as a global company through core technology and commercialization

3. History



Building a digital total solution from diagnosis to treatment

4. Digital dental solution line-up

X-ray diagnosis equipment field
Securing the best technology and
the quality competitiveness



Launched digital treatment solution
Market expansion based on treatment



Next-generation
dental solutions
based on A.I /
Cloud / IoT /
Big Data

2004

Utilizing Flat detector
Developed the
Korea's first Micro-CT

2008

2012

2014

2015

2016

2017

2018

2019



RIOsensor

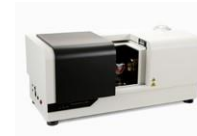


RIOScan

RAYSCAN α



RAYDENT
Studio



RAYDENT
Microscan



RAYDENT
Solution



RAYDENT
designer

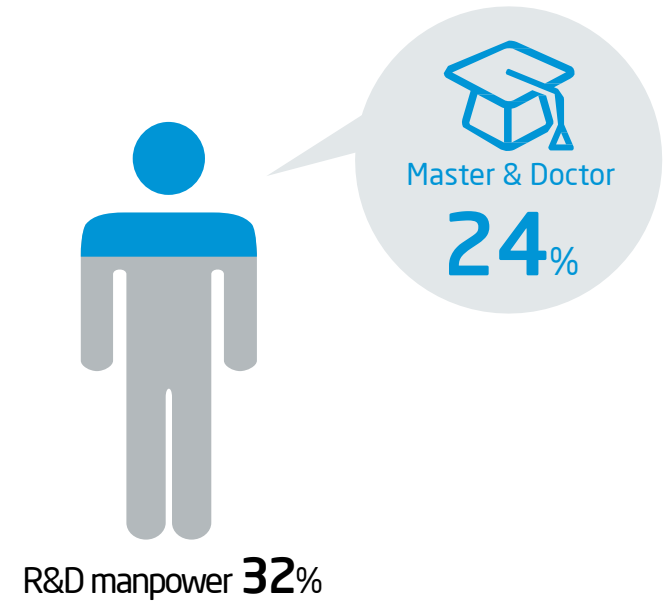
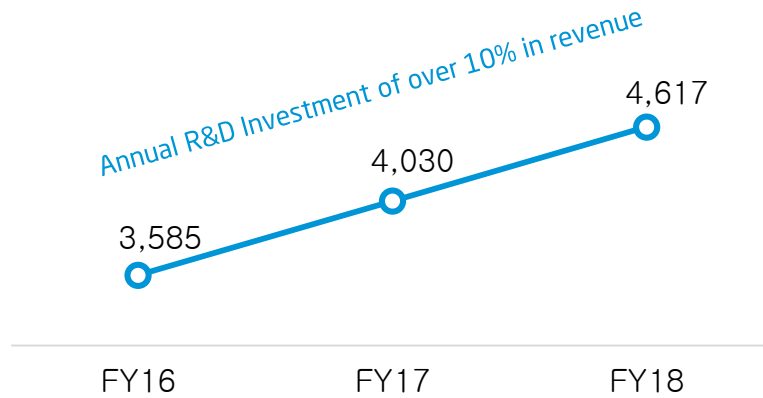


5. Differentiation of R&D competitiveness

World-recognized quality and design through continuous R&D investment

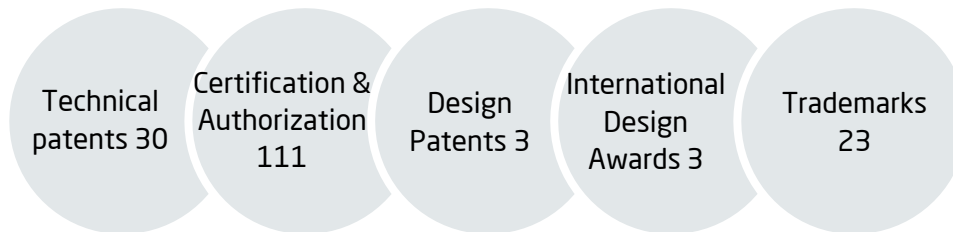
R&D manpower and investment status

—○— R&D Investment (Unit: million won)



Note1: By 2018
 Note2: R&D ratio from the proportion of employees in Head Office

Major Achievements



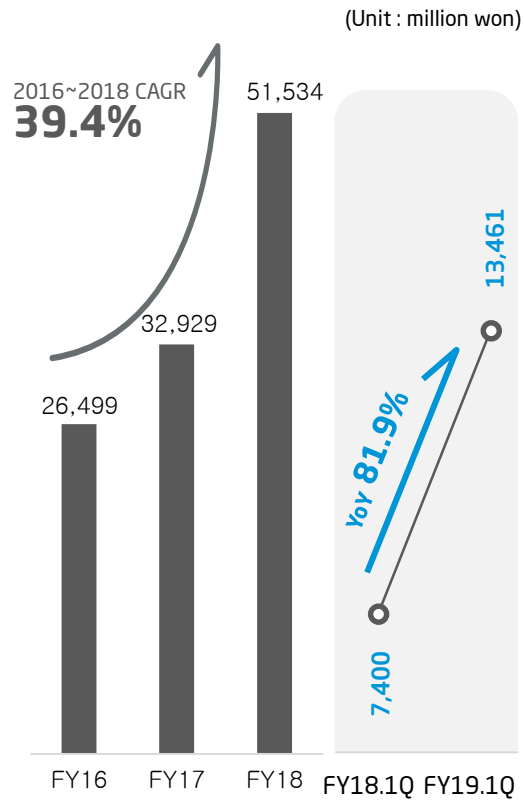
Holding core patent for digital dentistry



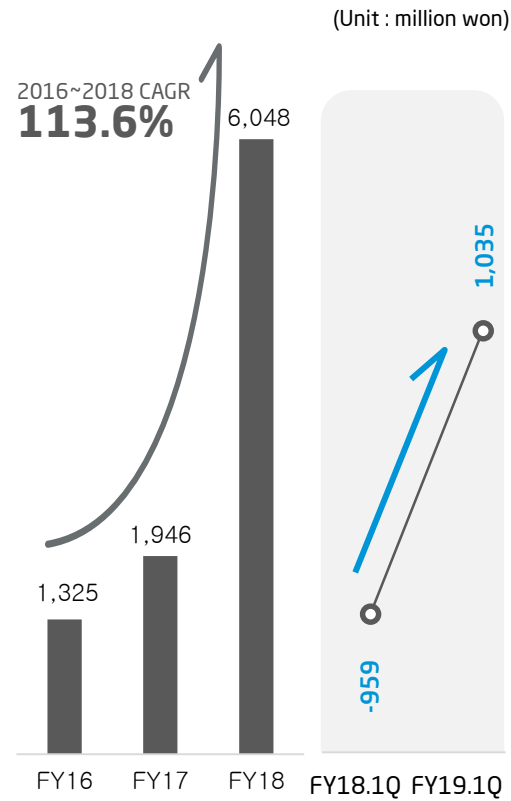
Achievement of the highest annual performance with continuous growth

6. Outstanding management performance

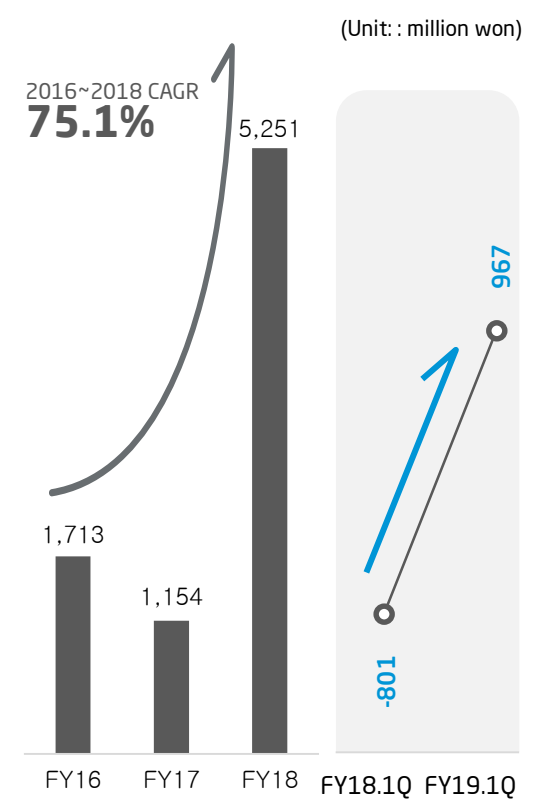
Revenue



Operating Profit



Net Profit



Note1. Consolidated

Note2: net income decreased temporarily due to foreign exchange loss



Competitive Edge

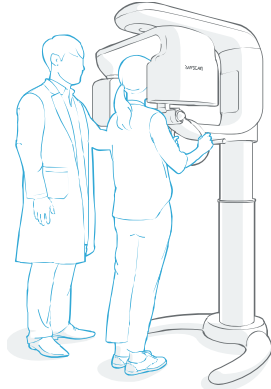
- 1-1. Ray's Digital treatment solution
- 1-2. Competitive advantage of digital treatment solution
- 1-3. Technical competitiveness of digital treatment solution
- 1-4. Increased economic effect of dentistry due to shorter dental treatment time
- 1-5. Increase of sales revenue of digital treatment solution
- 2. Expansion of global market
- 3. Global IoT service
- 4. Solution chosen by global famous KOL



One-stop digital treatment solution from diagnosis to CAD, 3D printing and treatment

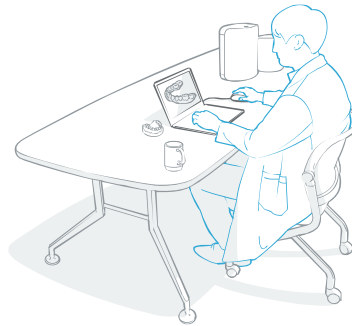
1-1. Digital treatment solution

Digital Workflow



Digital Scan

Scan precisely with innovative dental 3D scanning method



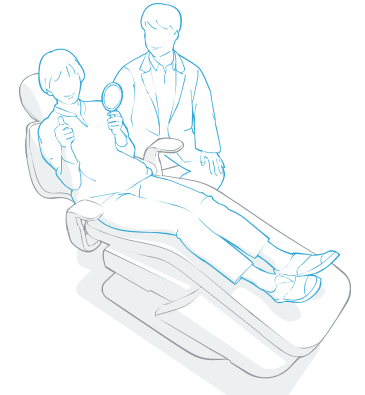
Digital Design

Easier and simpler design than any CAD software



Digital 3D Printing

Fast and accurate dental 3D printers give you room to spare



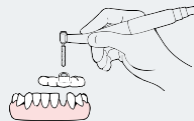
Smile Care

Digital technology makes a bright smile

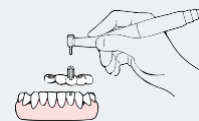
Application Cases



Temporary Teeth (Crown & Bridge)



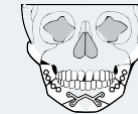
Implant Surgical Guide



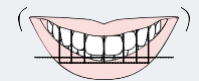
Neurological treatment guide



Clear aligner



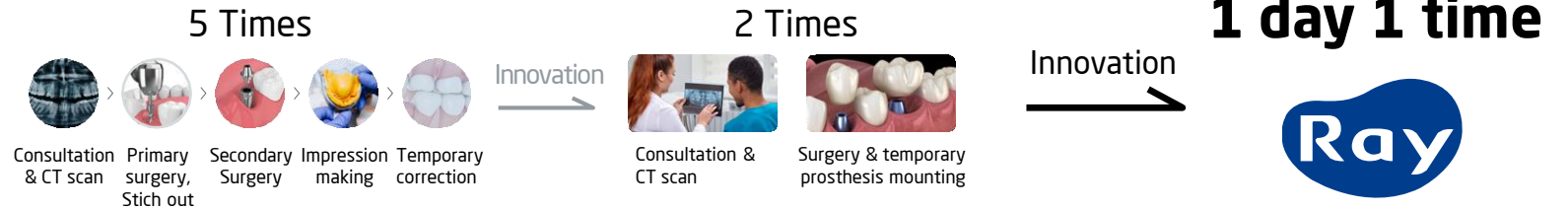
Orthognathic surgical guide



Smile design

Commercialization of in-house development one day solution

1-2. Competitive advantage of digital treatment solution



Division	Normal	Similar company
Number of visits	5	2
Required Period	123 days	5~7 days
Working Place	Clinic → Laboratory	Clinic → Laboratory → Dentist
Internalizing digital treatment solutions	X	External technology
Making as one step	X	X

VS

RAY

1

1 day

In Clinic

In-house development

Optimization



Sustainable innovation based on the best technology

1-3. Technical competiveness of digital treatment solution



The world's best technology

- ✓ High resolution HD image CT of Voxel size 70 μ m
- ✓ High resolution CT of Voxel size 35 μ m
- ✓ Light guided free FOV that can be set as desired
- ✓ World's first Visible X-ray Guide applicable scan



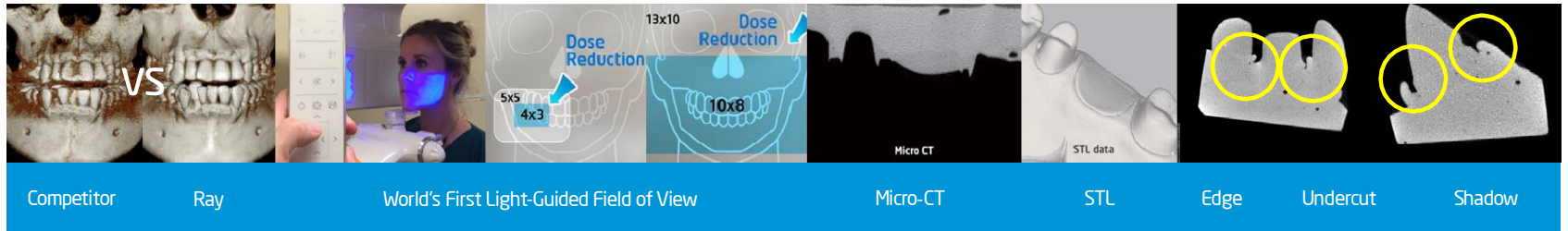
Patient priority technology

- ✓ Implement high resolution CBCT image(70 μ m) in 6 seconds
- ✓ Fast scan & 3D Reconstruction & Save = 9.9 seconds
- ✓ Ultra Low Dose



Application extension technology

- ✓ Patient CT and Micro-CT can be combined into a single machine
- ✓ Application diversification of dental treatment (Temporary teeth, surgical guide etc)
- ✓ CAD/CAM Software based on AI
- ✓ Application of the first IoT technology in the industry



Achieve high customer satisfaction by reducing treatment time.
This will increase dental clinic profits

1-4.
Increased economic effect of dentistry due to shorter dental treatment time

In clinic **1** day **1** time **1** hour



Satisfaction



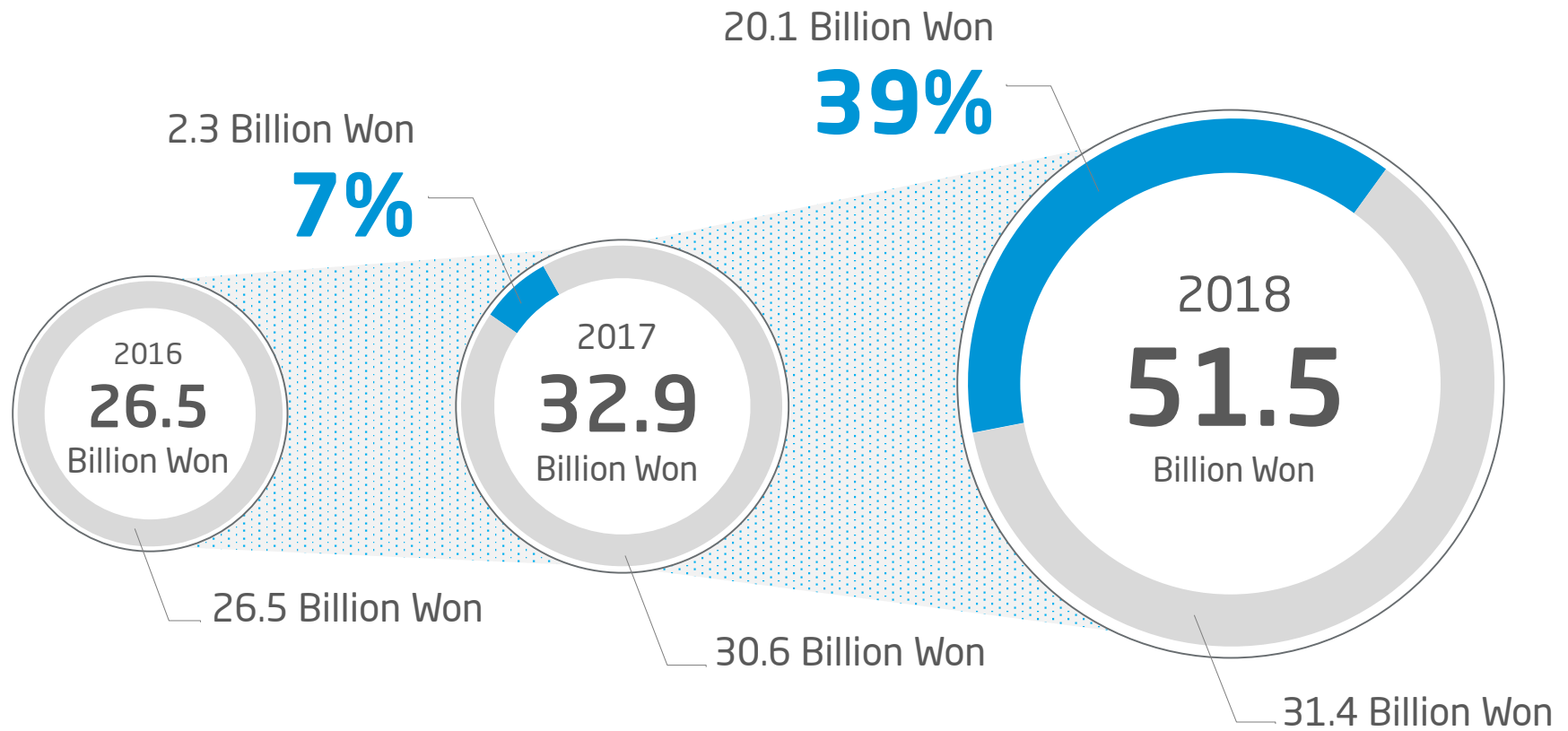
Increase revenue

Driving sales revenue growth and acceleration of digital treatment solution

1-5. Increase of sales revenue of digital treatment solution

Sales revenue growth trend of digital treatment solution

■ Digital Diagnosis System ■ Digital treatment solution



Note1: Consolidated



Targeting global market based on advanced technology,
Expansion expectation of continuous sales revenue in the future

2. Expansion of overseas market

7 sites

Supply chain management
Through the sites

70 countries

Sales growth
through export

46.9 Billion Won

Overseas Sales
revenue

36%

Overseas Sales
CAGR for three years



Providing the best service through real-time monitoring

3. Global IoT service

Industry's first
Monitoring
Service using IoT

Real-Time
status Check

Latest software and
firmware remote
update

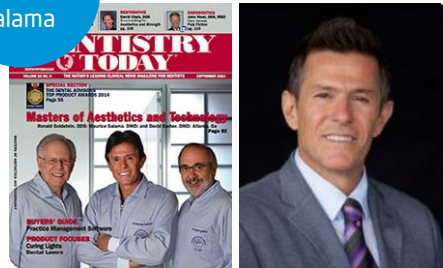
Before
Service



Globally influential key opinion leaders focus on ray

4. Solution chosen by global famous KOL

Dr. Maurice Salama



1st Place in implant field,
Dental Education Enterprise DentalXP founder

Dr. Marcus Engelschalk



"International dental digital academy & implant professional journal editor.
Global opinion leader in Implant & Prosthetic field

Dr. Inseong Jeon



"Domestic lectures 337 times, Overseas lectures 400 times Best Implant expert in Korea



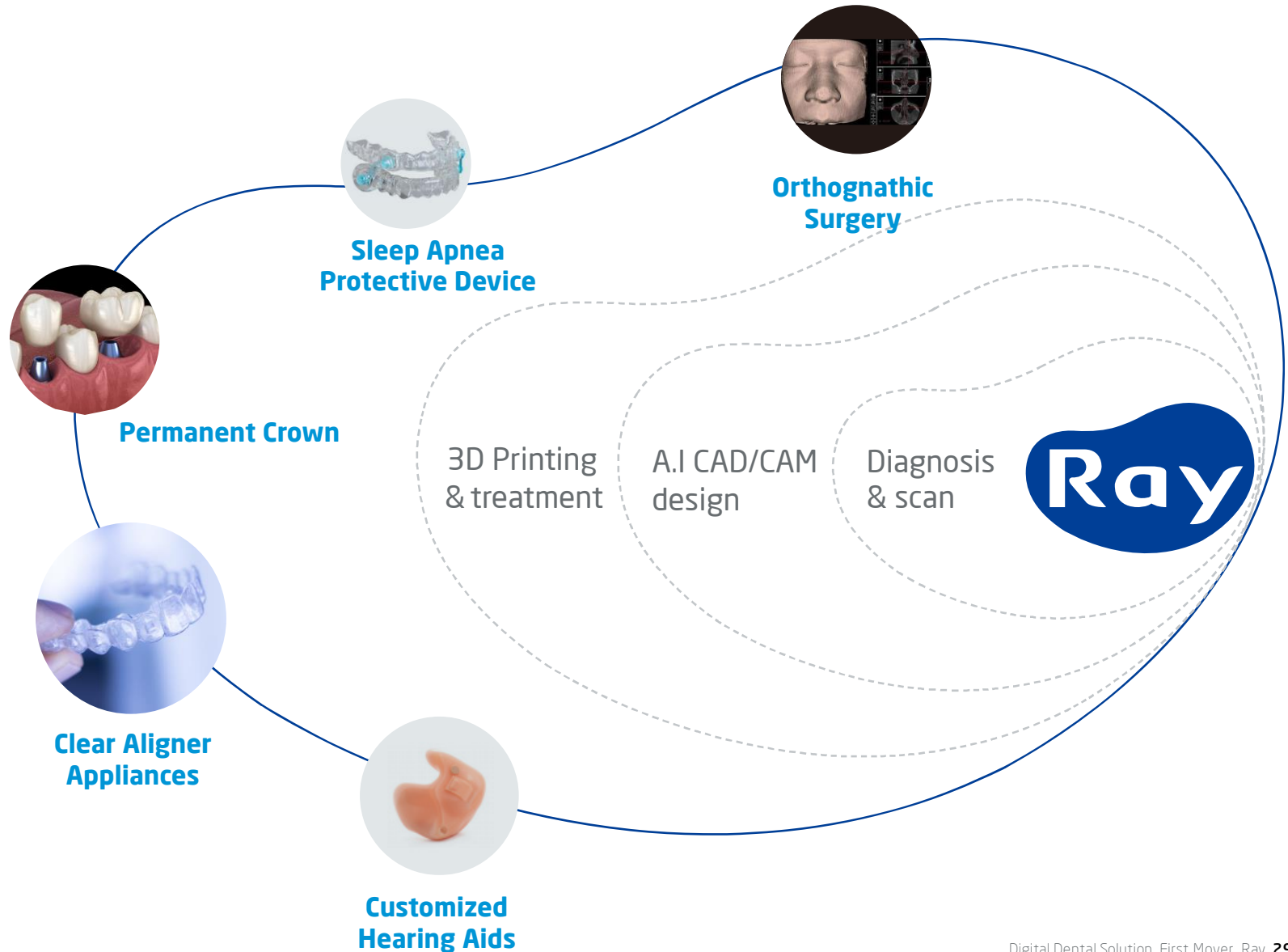
Growth Engine

1. Business diversification strategy
 - Business diversification A. Permanent Crown
 - Business diversification B. Clear Align
 - Business diversification C. Sales revenue of consumable products & design service
2. Increase of sales revenue by targeting China and India market



Expansion of various business areas based on core source technology

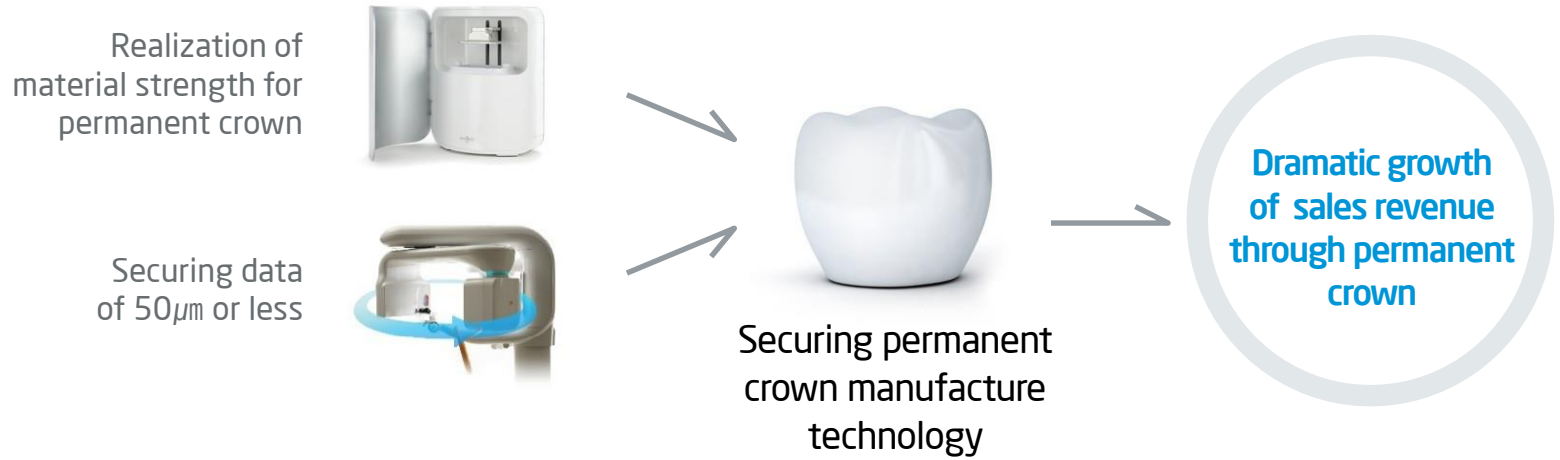
1. Business diversification strategy



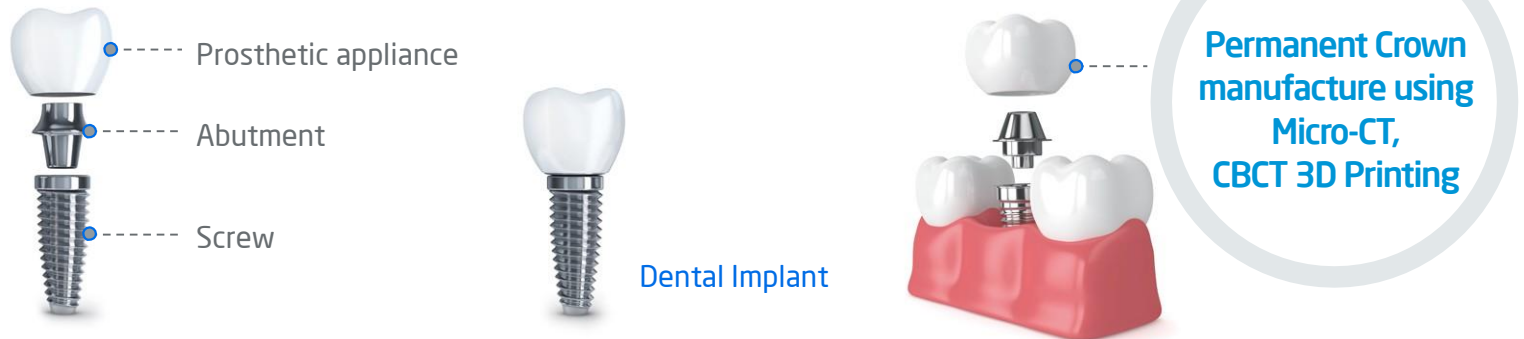
Fully digital dentistry will be realized through permanent crown

1. Business diversification A. Permanent crown

Permanent crown manufacture technology through 3D printing



Implant structure & Ray's permanent crown development



1/5 Price competitiveness, directly print out clear aligner in clinic with innovative solution

1. Business diversification B. Clear aligner

align

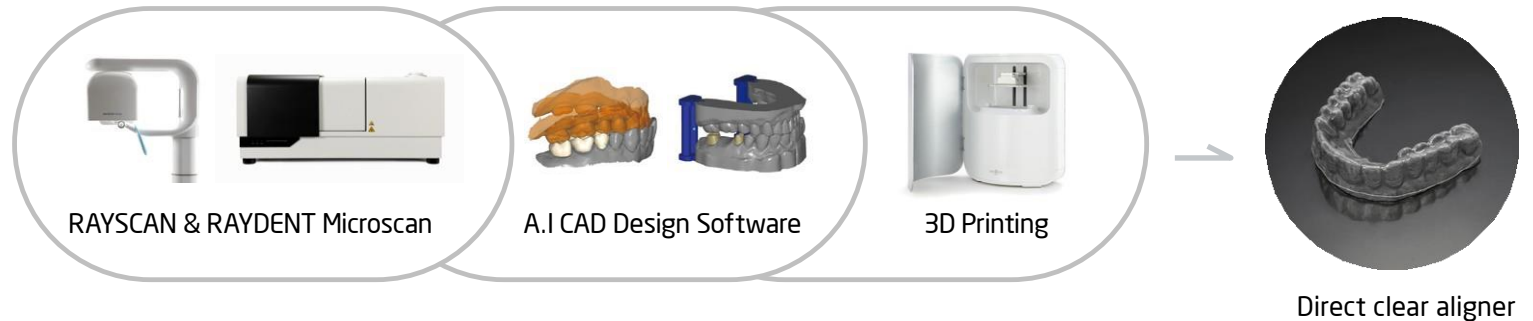
Nasdaq Market capitalization **216**billion US Dollar^{note1}
No.1 Market Share in Clear aligner market



VS

Ray

1/5 Price **In** Clinic **3D** Printing



Note1: As of July 2, 2019



Continuous expansion of revenue of Consumable product and design service due to the sales increase of digital treatment solution

1. Business diversification C.

Sales revenue of consumable products & design service

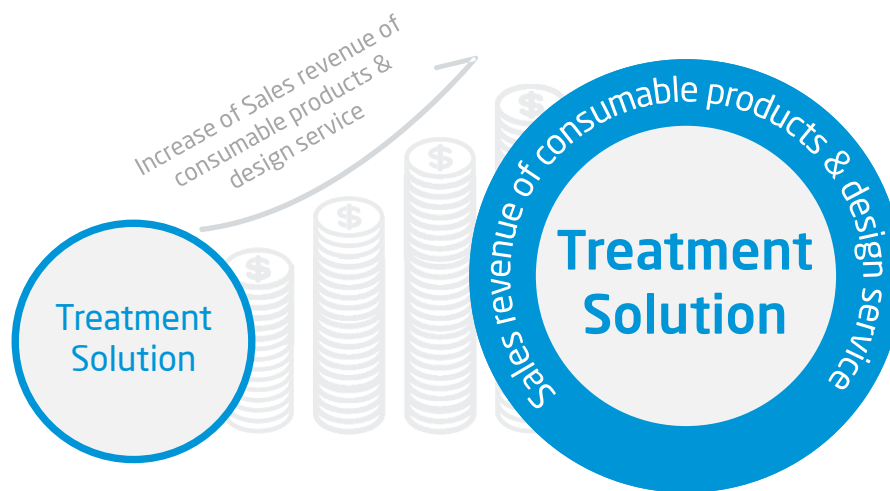


Disposable use of raw materials in pouch-type packaging
(Convenience & consumption)



Sales revenue of Design service fee

Sales increase of new digital treatment solution

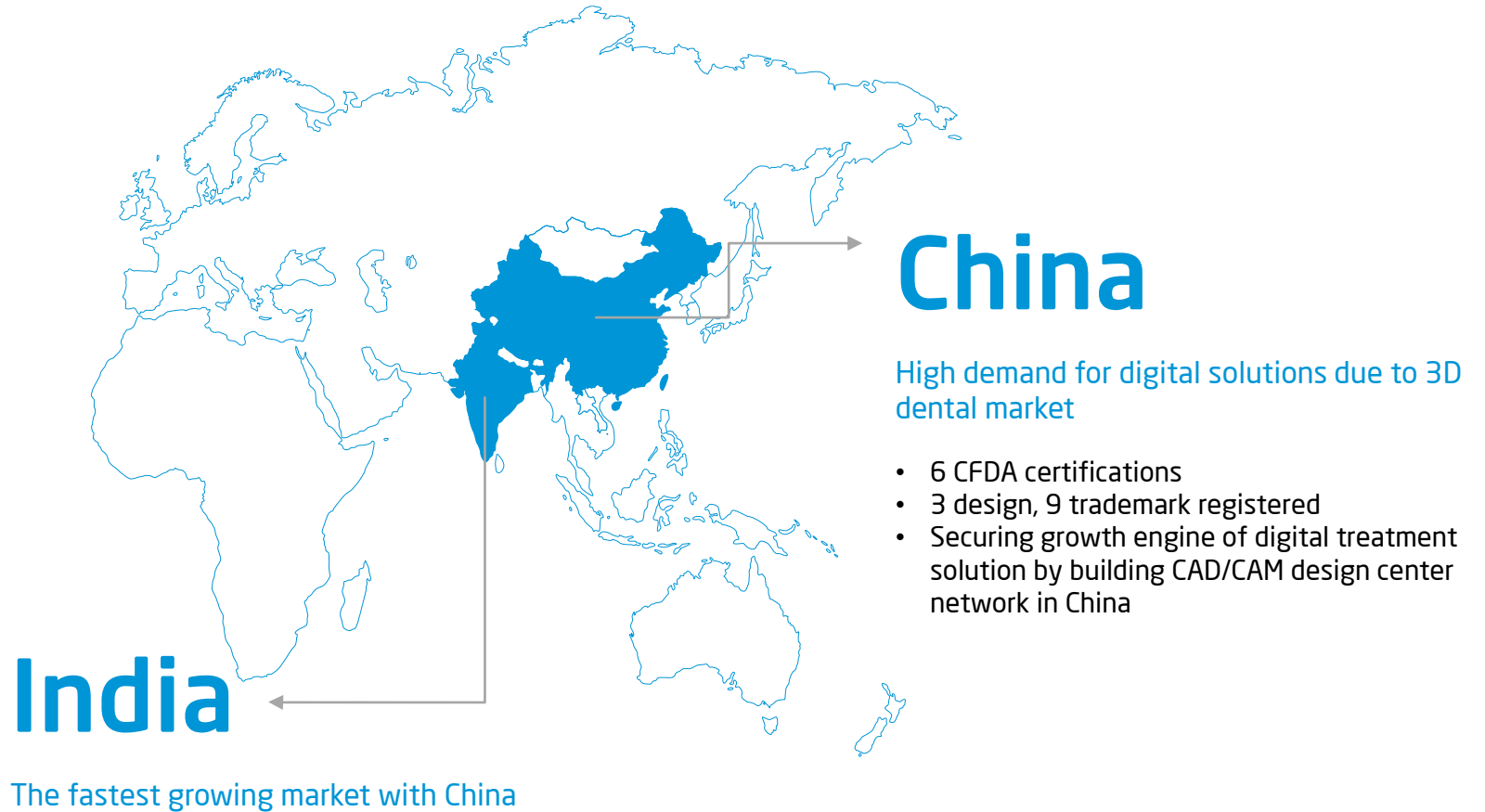


Easy, Fast, Price, Design, Size



Securing growth engines through Dramatic growth in the Chinese market & Entry into India Market

2. Increase of sales revenue by targeting China and India market



- Signed sales contract with top dental company in India
- New sales revenue has been generated since 2018
- Targeting Indian market through digital solution marketing

Digital Dental Solution

First Mover Ray

The First developed
A.I CAD/CAM
In the industry

The first developed
Chair Side 3D Printing
in the industry

The First developed
Micro-CT in Korea

The First developed
IoT solution in the industry

The World's Best
Dental CBCT



Appendix

1. Financial statements summary



1. Financial statements summary (1)

Consolidated Financial Statements

(Unit: : million won)

Item	FY16	FY17	FY18	FY19.1Q
[Current Assets]	18,529	18,161	33,990	35,148
[Non-Current Assets]	5,814	7,646	7,284	7,159
Total Assets	24,343	25,807	41,274	42,307
[Current Liabilities]	8,624	8,453	11,019	10,903
[Non-Current Liabilities]	2,310	2,663	3,978	4,123
Total Liabilities	10,934	11,116	14,998	15,026
Capital	2,670	2,670	2,812	2,812
Capital Surplus	15,920	15,920	22,618	22,618
Other capital	11	36	(27)	11
Earned Surplus	(5,192)	(3,935)	873	1,840
Total Capital	13,409	14,691	26,276	27,281

Consolidated Income Statement

(Unit: : million won)

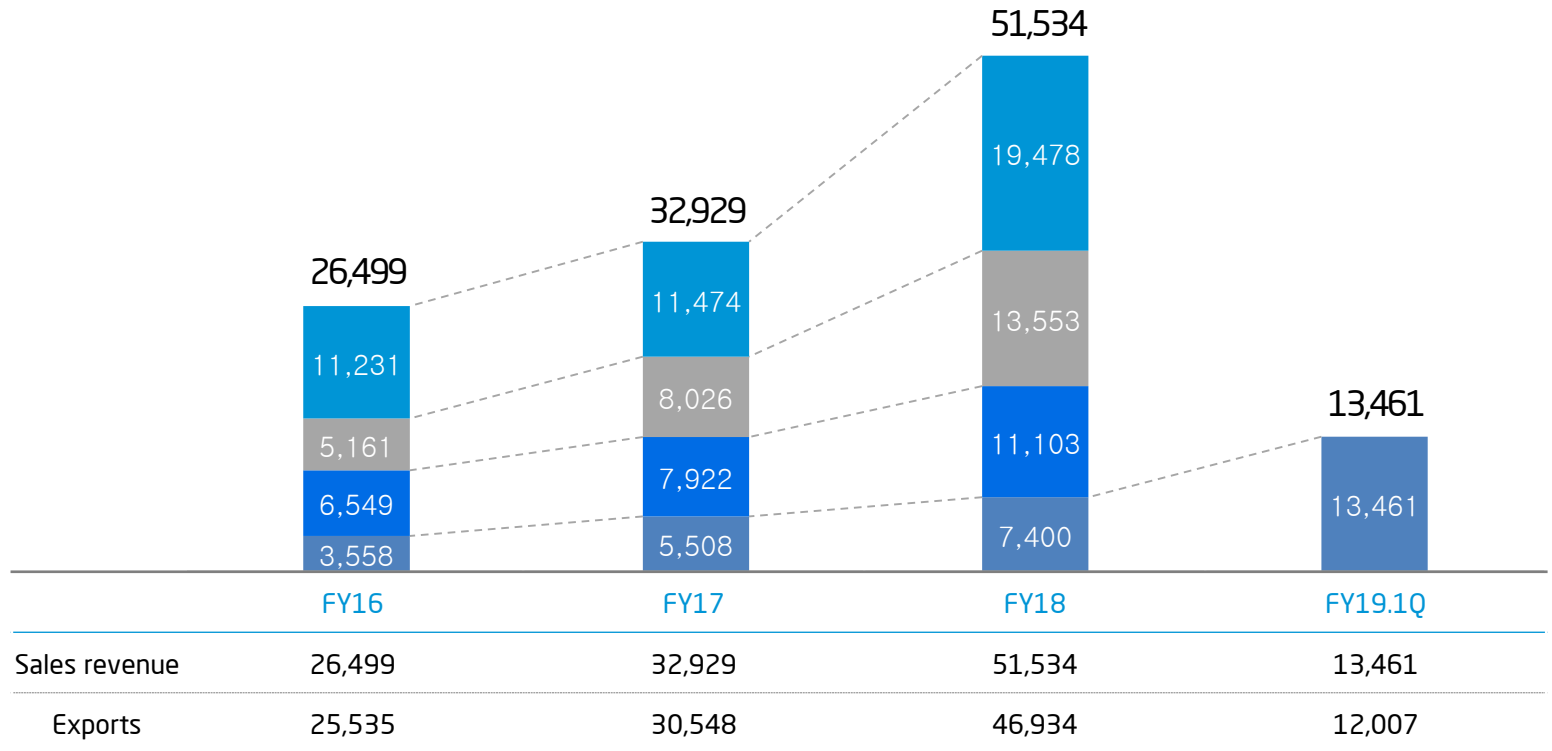
Item	FY16	FY17	FY18	FY19.1Q
Sales Amount	26,499	32,929	51,534	13,461
Sales Cost	15,645	17,967	29,074	7,423
Gross Profit Margin	10,854	14,962	22,460	6,038
Administrative and Selling Expenses	9,529	13,017	16,412	5,003
Operating Income	1,325	1,946	6,048	1,035
Other Profits	48	243	205	42
Other Expenses	9	1	16	0
Financial Income	661	364	777	268
Financial Expenses	441	1,555	801	99
Income before income taxes	1,584	996	6,213	1,247
Income Tax Expense	(129)	(158)	962	280
Current Net Income	1,713	1,154	5,251	967

1. Financial statements summary (2)

Quarterly sales and overseas sales trend

■ 1Q ■ 2Q ■ 3Q ■ 4Q

(Unit : million won)



Note1: Quarterly results are self-reported figures



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