



Healthcare Business

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Corporate Vice President

General Manager of Healthcare Business Unit

Healthcare | Business Strategy

Vision

Support improving quality of life for people through innovation

Achieved mid-term plan 3 years ahead of schedule

	FY 22	FY 23 Outlook	FY 25 Target	FY 25 New Target
Revenue	¥99.3B	¥95.0B	¥90.0B	Under review
Operating Profit	¥11.5B	¥11.0B	¥10.0B	Under review

Achievements and management policy

■ Life Science Solutions FY 22: Revenue up 30%+ YoY.

- Continued to launch new products, including building out series of high-end systems, cloud and other products and services.
- Aim for double-digit growth by strengthening application development and developing private sector markets with a focus on drug discovery.

■ Eye Care Solutions FY 22: Revenue up about 30% YoY.

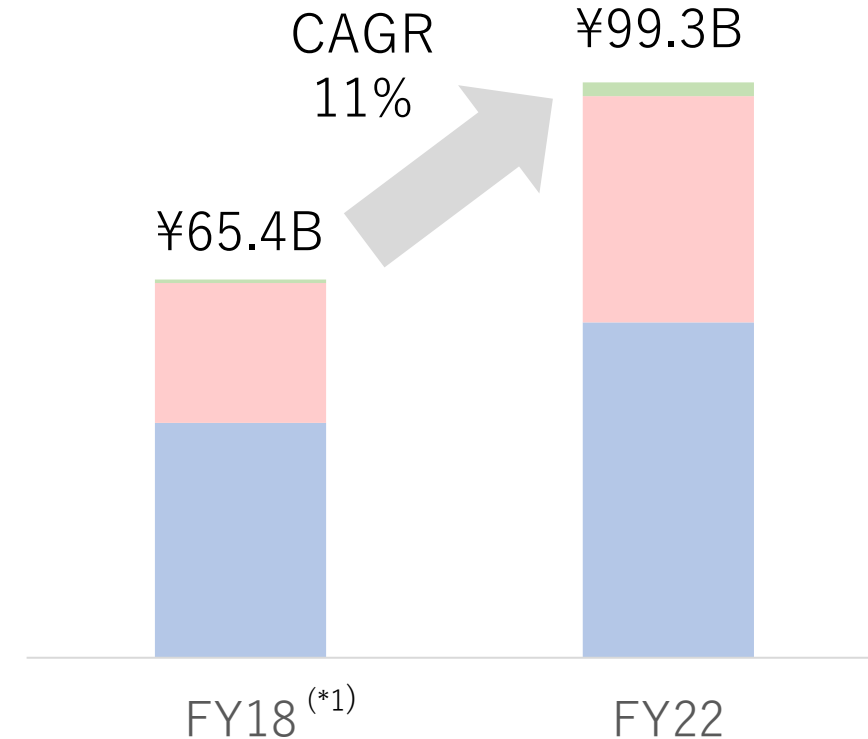
- Strengthening our sales force in each country to capture stable market growth.
- Aim for sustained growth on new diagnostic functions and modality development.

■ Contract Cell Manufacturing

- Nikon has achieved multiple accomplishments in contract manufacturing of regenerative medicine products approved in Japan. Solidifying our market reputation for quality technology.
- Aim to scale up our business by adopting promising projects including expansion of regenerative medicine commercial products already approved overseas and products are likely to be approved in Japan.

Healthcare sales growth

- Contract Cell Manufacturing
- Eye Care
- Life Science

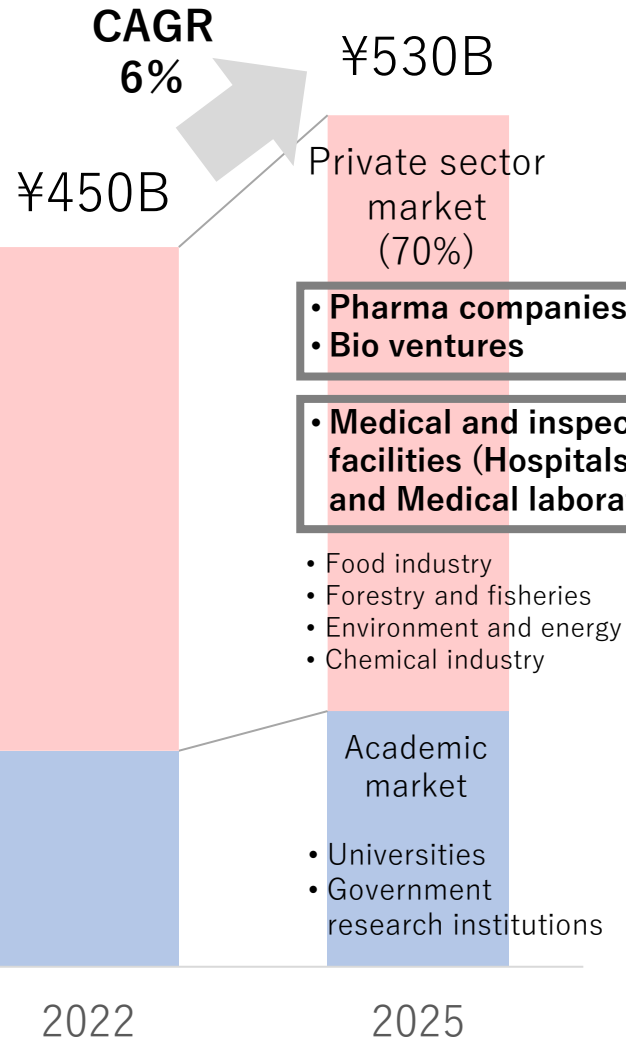


Business has steadily expanded by providing solutions that meet market needs

*1 : Healthcare Business Unit launched in June 2017

[Life Science] Generate New Value in the Stably Expanding Biological Microscope Market

Market scale Biological microscopes market(*1) : ¥450B



[Areas of focus]

① **Drug discovery support**
CAGR 7%

Support automation of cell manufacturing and evaluation of drug efficacy and safety using image analysis

② **Digital pathology**
CAGR 12%

Remote support of pathological diagnosis, share pathology case images and improve workflows

Growth potential

- The market for biological microscopes is expected to grow 6% CAGR. More specifically, drug discovery support should grow 7% and digital pathology 12%.

Nikon's differentiated technologies(innovation)

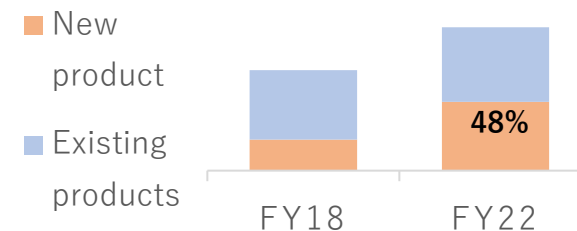
- Optical technologies capable of capturing complex tissues, neuronal development, and intracellular dynamics.
- Image processing and analysis technology leveraging AI and other cutting-edge technologies
- Solutions capabilities combining hardware and software

Source technologies developed through academic research

- Strong networks with global leading research institutions
- Accelerating development cycles and adding greater value through joint development

Nikon's life science sales : New products doing well

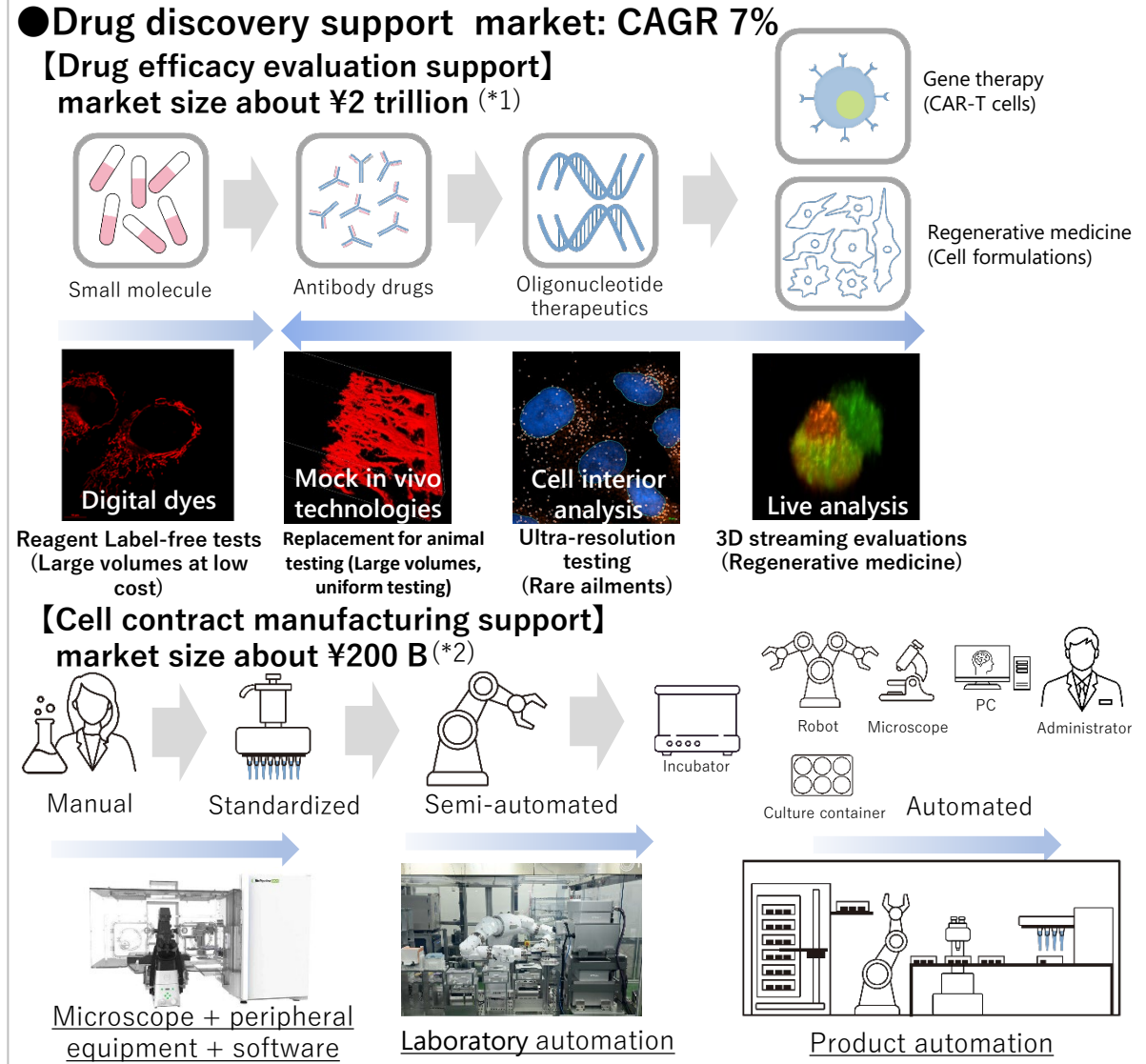
Revenue growth : 9% CAGR (> Market growth : 6%)



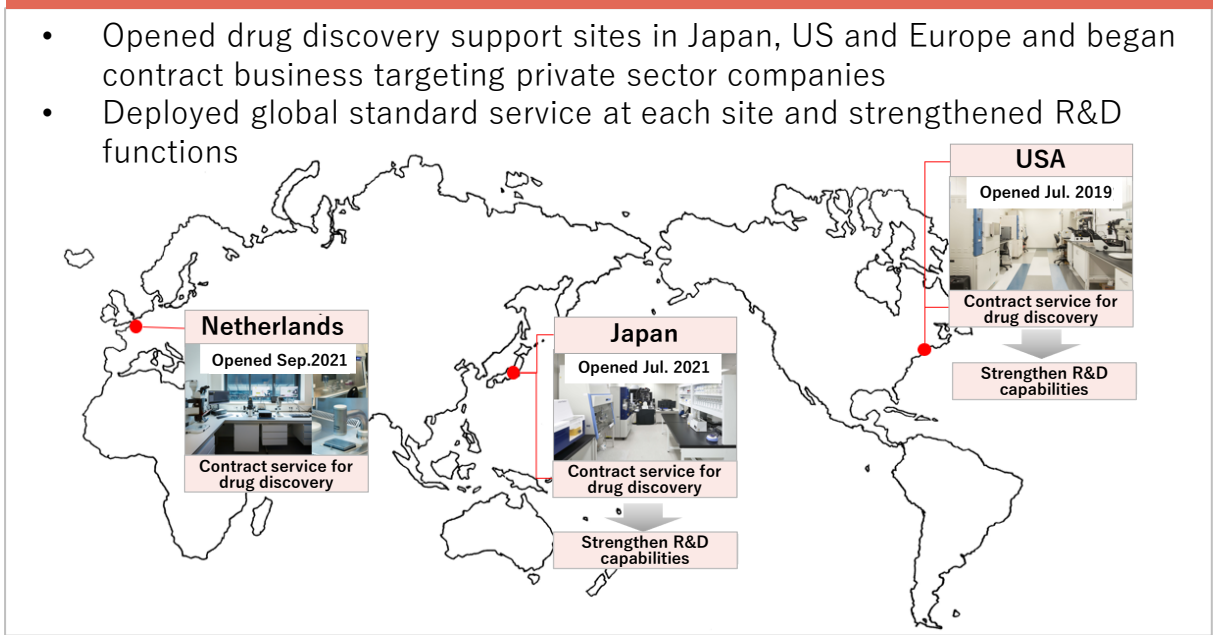
*1 : Market sizes and percentages are Nikon estimates based on various survey data (including 2022 microscopes and peripheral equipment and software).

[Life Science] ① Business Expansion in Drug Discovery Support (Drug Efficacy Evaluation and Cell Manufacturing)

Supporting diversifying drug development with image analysis and automation



Assisting customers by expanding global drug discovery support facilities



Accelerate business growth and aim for sales expansion that exceeds market growth

[Revenue] Revenue growth : CAGR 40%+ (> Market growth : 7%)

- Customers are mainly pharma companies and bio ventures
- Rapid ramp up in contract analysis requests since FY22

[Path forward]

- Expand our facilities and stand up development sites

Fiscal Year	Revenue Growth
FY22	Baseline
FY23	Significant increase
FY24	Further increase
FY25	Peak growth

*1 : MARKET SAND MARKETS CELL-BASED ASSAYS MARKET GLOBAL FORECAST to 2025
 *2 : MARKET SAND MARKETS CELL CULTURE MARKET GLOBAL FORECAST to 2024

Video : Nikon Well-Being Transformation toward Automation of Cell Manufacturing for Treatment of Ophthalmic Diseases

<https://www.healthcare.nikon.com/en/well-being/detail17.html>



[Life Science] ② Growth in Digital Pathology

Drive workflow efficiencies through digital transformation of pathological diagnosis

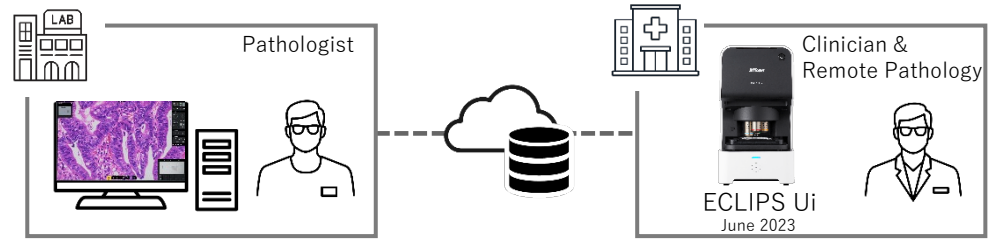
Step 1 (Device): Launched Japan's first digital microscope for medical use

- New medical device that is easy to operate and promotes the digitalization of pathological diagnosis



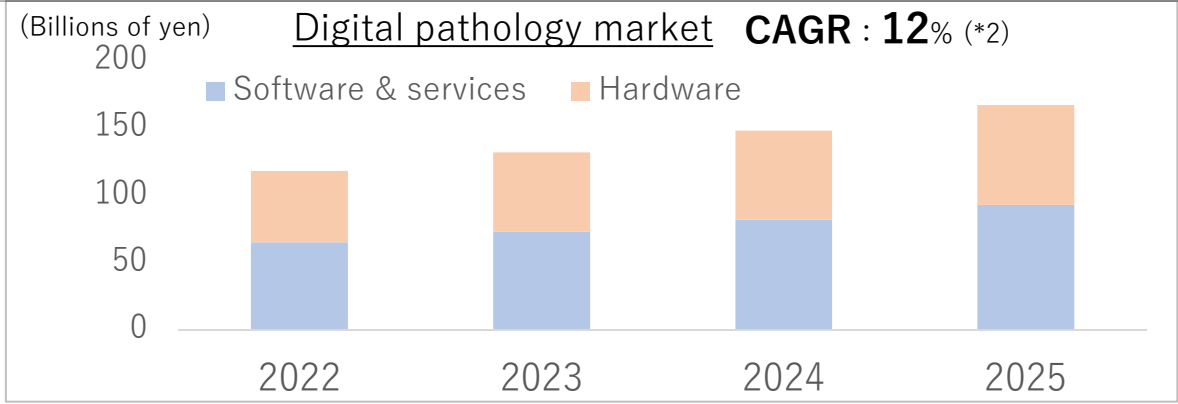
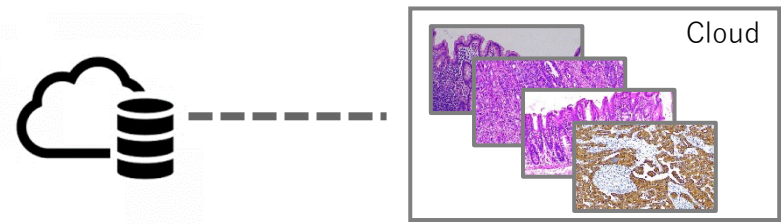
Step 2 (ICT^(*1)): Support remote pathology diagnosis accuracy and in-operation diagnosis

- Remote diagnosis functions that will change conventional workflows of pathological diagnosis



Step 3 (Cloud): Share pathology images and support conferences

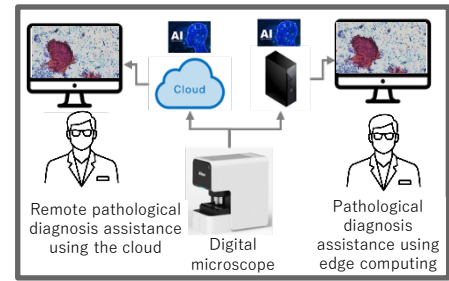
- Cloud-based efficiencies in pathologist workflows
- Relieve time and physical limitations on conference with shared data viewing



Initiatives aimed at individualized treatment leveraging composite data

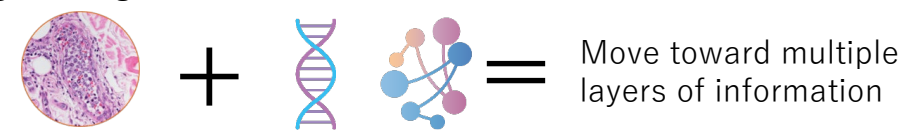
● Software & services: Pathological diagnosis support leveraging AI technology

- Support pathologists with pathological diagnosis assistance leveraging AI (Dr. with AI)



● Software & services: Composite pathological diagnosis geared toward personalized treatment

- Promote individualized treatment with move toward multiple layers of pathological diagnosis modalities



*1: Information and Communication Technology; A general term for technologies that utilize IT to support communication between doctors and patients.

*2 : MARKETSANDMARKETS DIGITAL PATHOLOGY MARKET FORECAST TO 2028

[Eye Care] Differentiation with Ultra-widefield in the Expanding Eye Screening Market

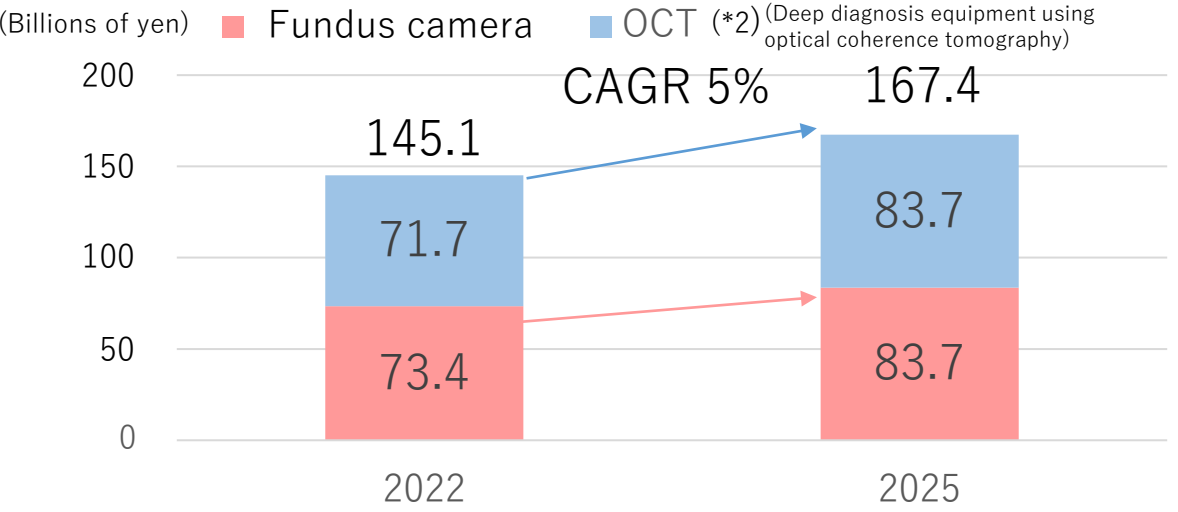
Growing demand due to aging and increased eye disease associated with young people using digital devices (*1)

Growth potential

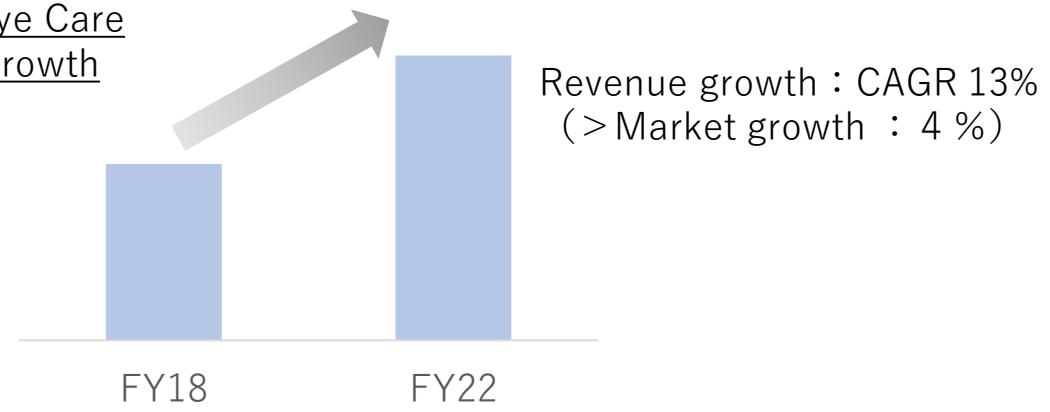
- Screening market for fundus cameras is growing (CAGR 5%).
- The number of patients is increasing, and the market is shifting from standard to ultra-widefield (UWF) models (UWF CAGR 11%).
- OCT market is expected to show stable growth in increased expectations for multi-point diagnosis of the fundus of the eye and deep, non-invasive observation (CAGR 5%).

Nikon's differentiating technologies (innovation)

- Promote composite diagnosis leveraging diagnosis results from multiple devices.
- Adding value through improved functionality and customers' workflow with cloud.
- Develop new diagnostic equipment leveraging Nikon's optical technology and Optos' laser technology.

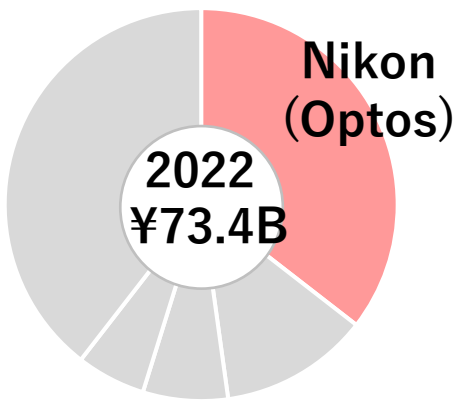


Nikon's Eye Care revenue growth



Fundus camera market share (amount) (*3)

Nikon Eye Care Solutions Products



Silverstone Fundus camera with integrated OCT

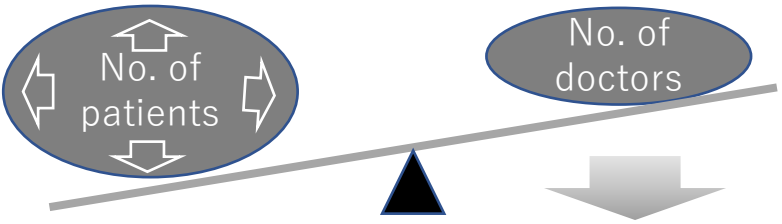


California Fundus camera

*1 : Market size data are Nikon estimates based on various survey data.
 *2 : OCT(Optical Coherence Tomography) Technology for image diagnosis of the retina and cornea using light
 *3 : MarketScope 2022-Ophthalmic-Diagnostic-Equipment-Market-Report

[Eye Care] Technology Synergies between Nikon and Optos and Business Growth

Supporting more patients and diagnosis



- Increasing aging society
- Increasingly younger patients
- **Diagnostic efficiencies**
- **Early discovery of disease**

Customer segments and business opportunities

- ASP : **UWF** is sold at **a few times** more premium than standard models.
- UWF penetration : less than **20%**
- Business growth : **UWF(13%)** > Standard model (5%)

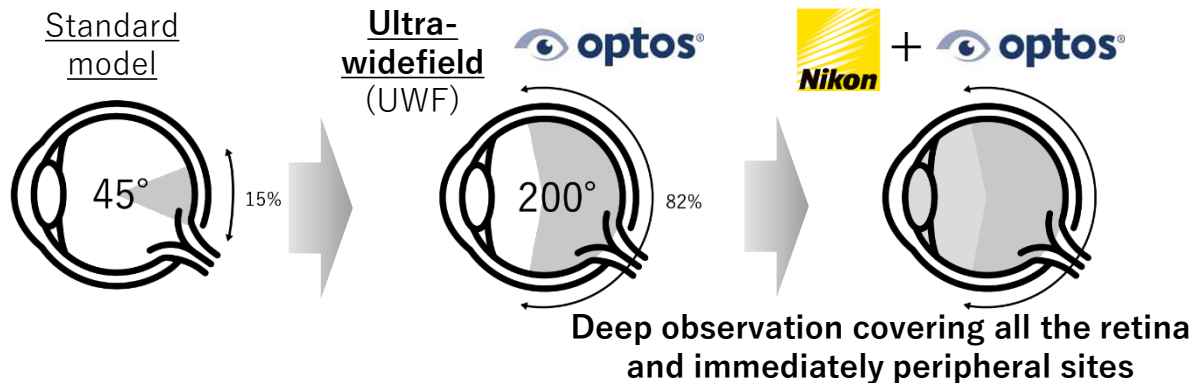
Ophthalmologists/
specialists

Medical exams
(optometrists)

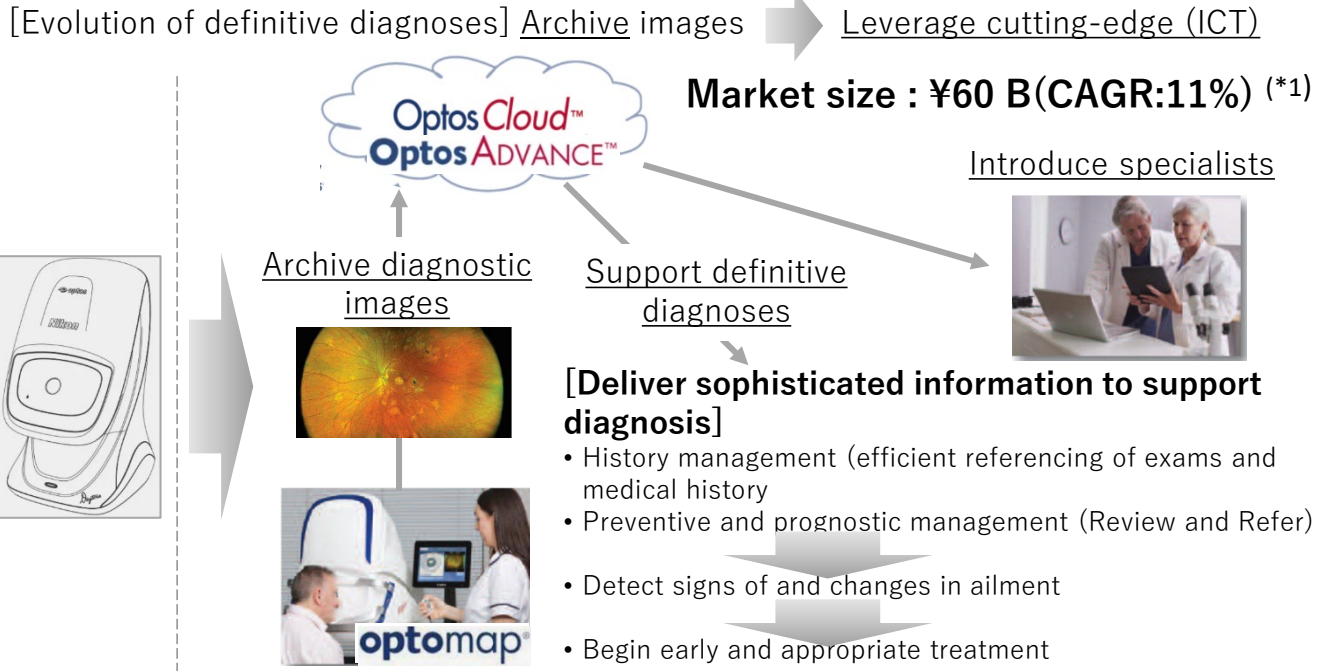
Medical exams
(internists, etc.)
(Diabetes, high blood pressure, etc.)



Market needs and technologies



Evolution of diagnosis through solutions

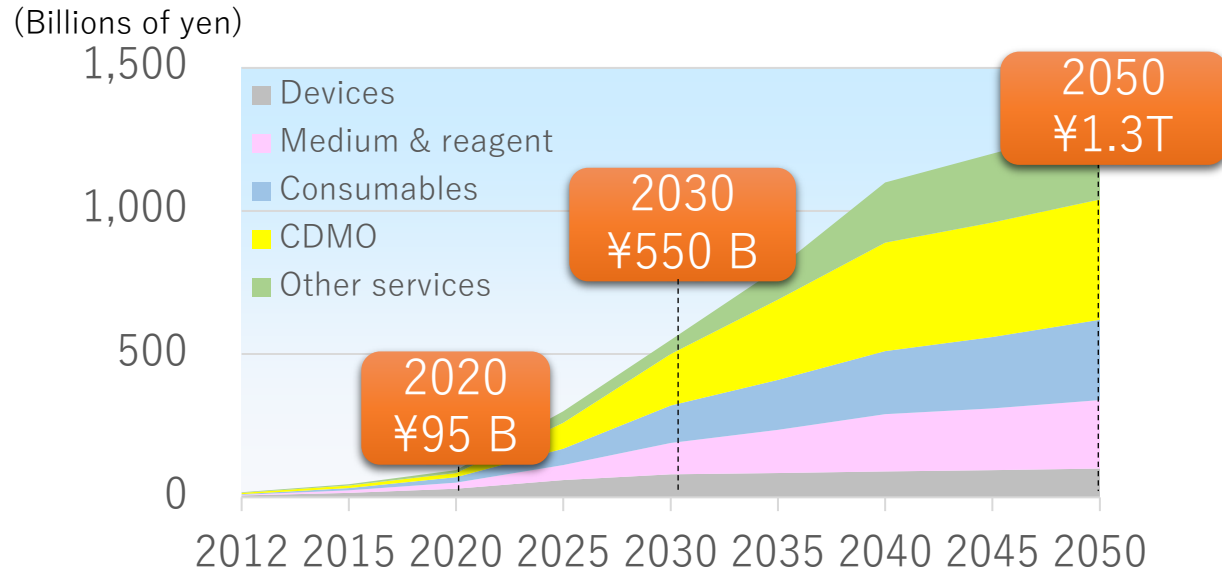


*1 : MarketsandMarkets "Total of Fundus Imaging Screening System market + Ophthalmology AI market + Ophthalmology PACS market" as of 2027

[Contract Cell Manufacturing] From Break-even to Profit Contribution Phase

Market scale

Regenerative medicine peripheral industries (Japan) (*1)



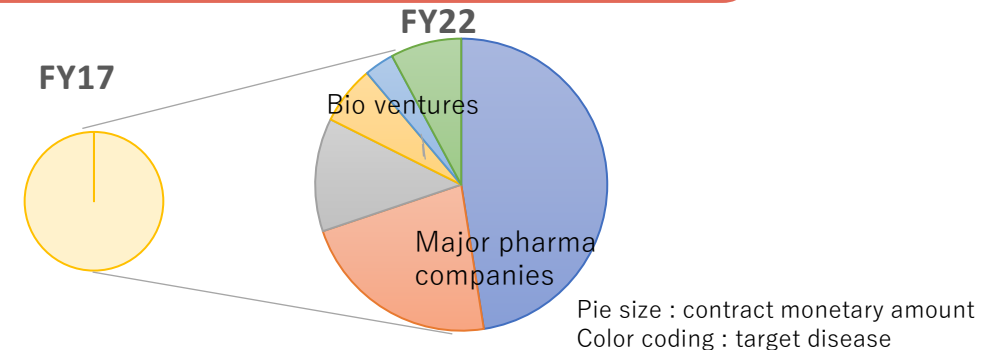
Growth potential

- The regenerative medicine industry is projected to grow 19% CAGR (from 2020 to 2030)
- CDMO is its largest market and projected to grow 28% CAGR
- It is highly expected to address unmet medical needs such as cancer and heart disease

Nikon's differentiated technologies (innovation)

- Business alliance with Lonza, one of the world's largest contract cell development and manufacturing company
- Nikon possesses one of Japan's largest GCTP/GMP(*2) - compliant production facility (7,500m²), which can support commercialization
- Nikon is pure CDMO(has no in-house projects) and can provide fully integrated services from process development through manufacturing commercial products.

Nikon's contract scale and target disease diversity



*1 : Nikon forecasts based on March 2020 Ministry of Economy, Trade and Industry Evaluation Study Group for Industrialization of Regenerative Medicine and Gene Therapy

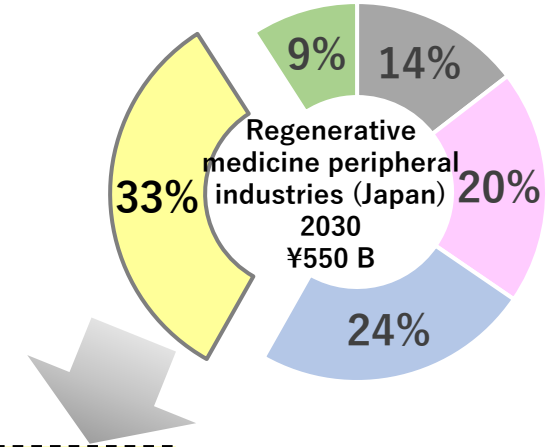
*2 : GCTP(Good Gene, Cellular, and Tissue-based Products Manufacturing Practice) , GMP(Good Manufacturing Practice)

[Contract Cell Manufacturing]

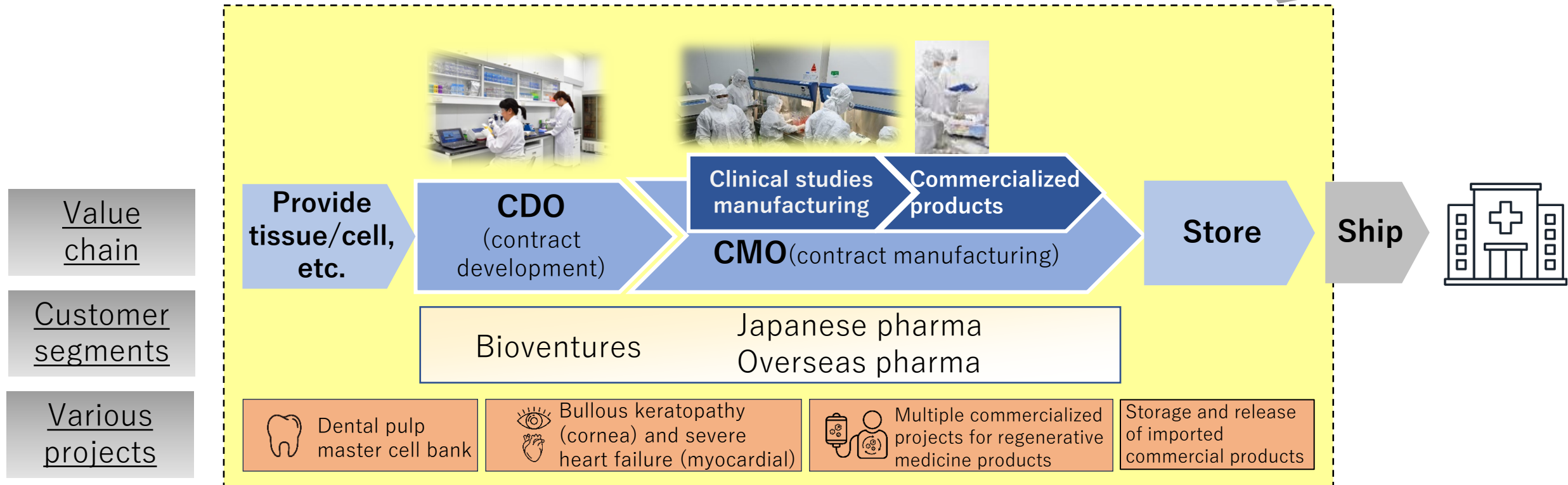
- Devices
- Medium & reagent
- Consumables
- CDMO
- Other services

Business model

- Provide process development and assay development services from the initial phases of manufacturing development considering commercialization.
- Nikon manufactures multiple approved commercial products by PMDA.^(*1)
- Involved in many projects including clinical trial from Japan and overseas customers.
- Nikon has accumulated multiple achievements and know-how culturing a wide range of cell types such as immune cells (T-Cell), iPS, and mesenchymal stem cells (MSC).



Business domain



*1 : Pharmaceuticals and Medical Devices Agency (An Independent Administrative Institution under the authority of the Ministry of Health, Labour and Welfare of Japan that is responsible for reviewing and certifying pharmaceuticals and medical devices)