

# Nikon IR Day 2023

September 28, 2023

# - Themes and Speakers -

 Opening Remarks **Toshikazu Umatate** 

Representative Director and President

 Advanced Manufacturing (ADM) Business

Yuichi Shibazaki

Corporate Vice President,

General Manager of Advanced Manufacturing Business Unit

Hamid Zarringhalam

Corporate Vice President, Nikon Advanced Manufacturing Inc. CEO

Healthcare Business

Tatsuya Yamaguchi

Corporate Vice President,

General Manager of Healthcare Business Unit

Sustainability Strategy

Yukako Yamada

Department Manager of Corporate Sustainability Department

 External Director Panel **Discussion** 

Shiro Hiruta

**External Director** 

Asako Yamagami

External Director

(Moderator) **Muneaki Tokunari** 

Director and Executive Vice President

# **Opening Remarks**

**Toshikazu Umatate** 

Representative Director and President

# A key technology solutions company

in a global society where humans and machines co-create seamlessly

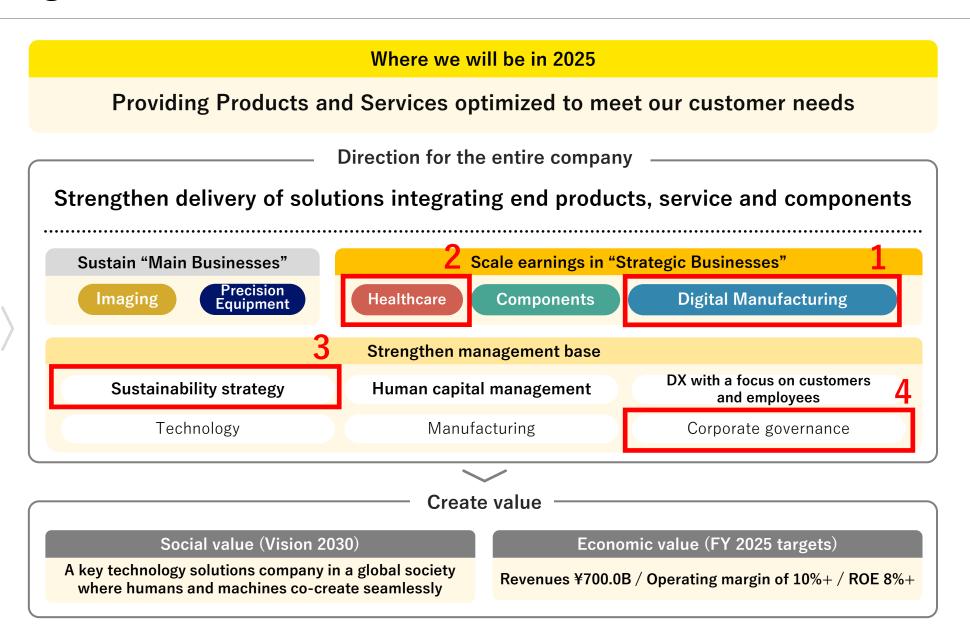
Nikon will provide innovative technology solutions that anticipate and meet our global customer needs and contribute to a better sustainable world where humans and machines co-create seamlessly to solve societal challenges

# Medium-Term Management Plan: Overview

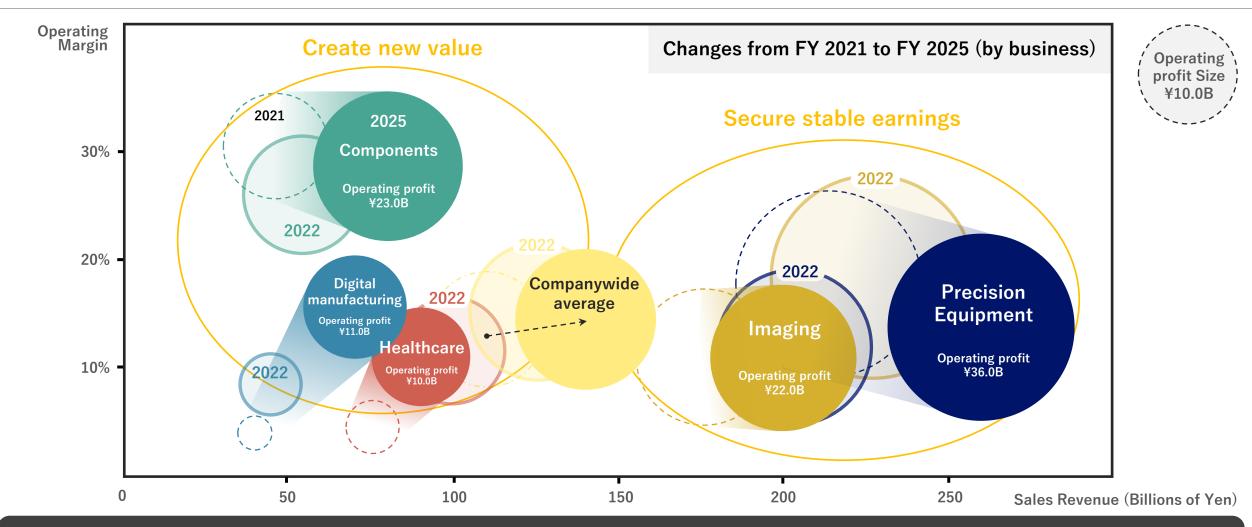
Substantial challenges

Evolve from a business mainly in sales of end products

Cultivate new
earnings pillars
alongside Imaging
Products and
Precision Equipment



# Revenue Portfolio: Progress toward Balancing Scale with Profitability



Generate diverse revenues from common core of optical and precision technologies and strengthen resilience against uncertainties and risks

# **Business Scope to be Covered Today**

#### **BUSINESS UNIT (BU) SEGMENT Imaging Products** Imaging BU **Precision Equipment** FPD Lithography BU Precision **Equipment Group** Semiconductor Lithography BU Healthcare Healthcare BU Customized Products BU Components Glass BU Digital Solutions BU Digital Manufacturing Industrial Metrology BU Advanced Manufacturing (ADM) BU **Others** Others Corporate expenses, etc. Headquarters division of the parent company Next Generation Project Division

# Advanced Manufacturing (ADM) Business

# Yuichi Shibazaki

Corporate Vice President, General Manager of Advanced Manufacturing Business Unit

# Hamid Zarringhalam

Corporate Vice President, Nikon Advanced Manufacturing Inc. CEO

# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# 



Vision

Enable innovations in manufacturing with applied optics application technologies

**Digital Manufacturing** 

**Industrial Metrology BU** 

**Advanced Manufacturing BU** 

Progress in Year 1 of Plan

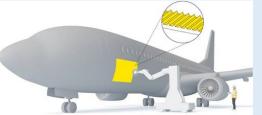
#### ■ Material Processing (growth driver)

- Built up a variety of measures aimed at accelerating growth, including the SLM acquisition, launch of a new standalone business unit, and the establishment of a business headquarters on the US West Coast, where many customers need precision metal processing.
- Robot vision (growth driver)
- Validated upgraded and more efficient parts pick & place with promising partner
- Laser radar and X-ray and CT systems
- · Expanded product and sales infrastructure for automotive and EV batteries. Achieved solid growth.
- In-line measurement
- Serving the automotive, aerospace and other industries, executed automated high precision non-contact metrology in large space and achieved compact, high speed, light weight format for industrial inspection.

#### **Topics** Expanded base for additive manufacturing business Built out infrastructure in Japan, US and Europe and accelerated co-creation within the Nikon group Nikon's first business neadquarters established MORF3D **Engineering Service** e-position to contribute to overall busing OPTISYS Metal additive manufacturing Aerospace antennas Nikon's largest acquisition Metal additive manufacturing equipment Leverage to drive scale Joint development with strategic partner

#### ■ Riblet processing

 Implemented durability tests on effects of drag reduction with ANA, JAL and JAXA for potential deployment to flights resulting in improved fuel efficiency and CO2 reduction.



Cultivate into core business of vision 2030 "a key technology solutions company in a global society where humans and machines co-create seamlessly"

# Correspondence Relationship Between ADM Business Unit and Company-wide Business Disclosure Segment

Excerpt from business results announcement material Period ending March 2023

Old Segment	Business Unit (BU)				Busin	ess Unit (BU)	New Segment
Imaging Products	Imaging BU				Imaging BU		Imaging Products
Precision	FPD Lithography BU				Precision	FPD Lithography BU	
Equipment	Semiconductor Lithography BU				Equipment Group	Semiconductor	Precision Equipment
Healthcare	Healthcare BU					Lithography BU	
Components	Customized Products BU				Healthcare BU		Healthcare
	Glass BU				Customized Products BU		
	Digital Solutions BU	Optical components, etc.			Glass BU		Components
		Material processing (incl. Morf3D)			Digital Solutions BU		
Industrial Metrology and Others	Industrial Metrology BU			, —	Industrial Met	rology BU	Digital
	Others			<b>→</b>	Advanced Manufacturing BU		Manufacturing
		SLM			Others*		Others
Corporate expenses, etc.	Headquarters division of the parent company				Headquarters company	division of the parent	Corporate
		Next Generation Project Division	(partly)	partly)		Next Generation Project Division	expenses, etc.

Departments and subsidiaries in the Material Processing Business have been consolidated under the Advanced Manufacturing BU and combined with the Industrial Metrology BU to make up the Digital Manufacturing Business segment (aligns with Medium-Term Management Plan business domain).

# ADM Business Unit: Business Portfolio and Business Description

# Nikon SLM Solutions Products Nikon Organic

- Sales of LPBF\*1 type metal 3D printer
- Maintenance and service, including powder sales
  - Forerunner of multi-laser system, and tech leader
- Due to M&A, making it a 100% Nikon subsidiary
  - → Company name changed to "Nikon SLM Solutions"





NXG XII 600

- Sales of DED\*1 type metal 3D printer
- Sales of high-precision ultra-short pulse laser processing equipment
- Sales of auxiliary measurement devices
- Optical and measurement engine sales



Lasermeister Additive



Lasermeister Subtractive

# Solutions

Morf3D

- Manufacturing of high value-added metal parts
- Manufacturing process contract development and engineering
- Mass production transition support





Process development / Engineering and manufacturing



- Improve efficiency and reduce fuel consumption of fluid equipment
- Riblet pattern design and construction
- Performance prediction simulation









Fuel saving / CO2 reduction

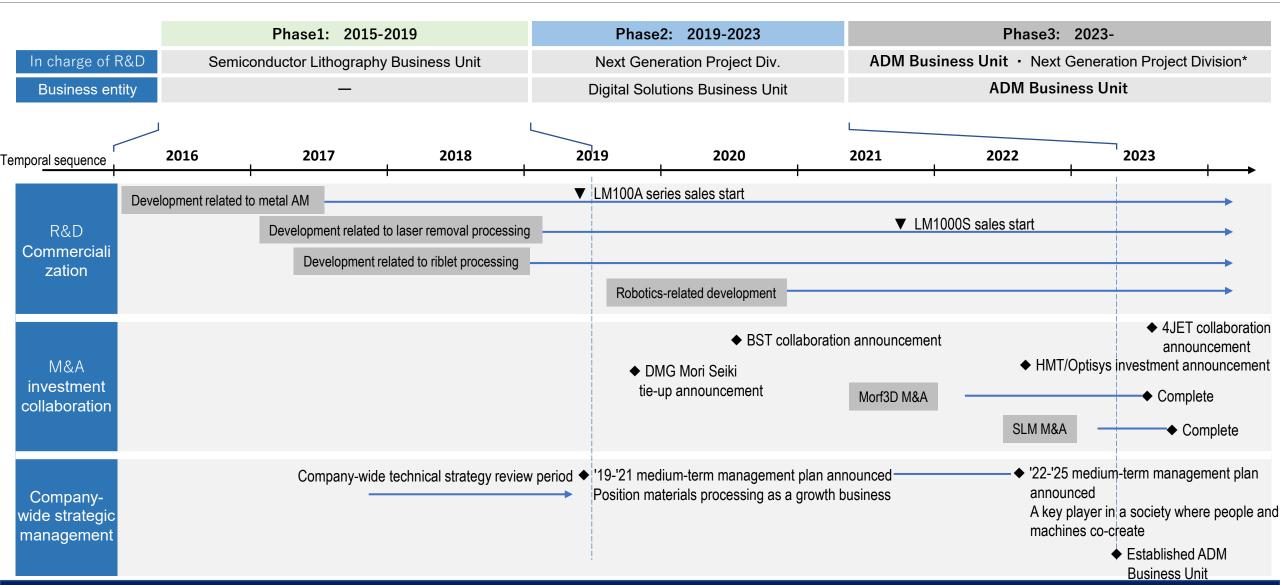
<sup>\*1)</sup> LPBF: Laser Powder Bed Fusion; DED: Directed Energy Deposition. Both are methods of metal 3D printing.

<sup>\*2)</sup> The cost related to riblets is attributed to the Next Generation Project Division and is recorded to investment in growth included in corporate expenses.

# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# **Background of Business Unit Establishment**



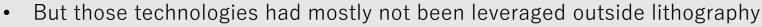
Started with small-scale R&D activities, and then was established as a new business unit via a large M&A

\*) The cost related to riblets is attributed to the Next Generation Project Division and is recorded to investment in growth included in corporate

# Reasons for Nikon to Take on Digital Manufacturing

Inception

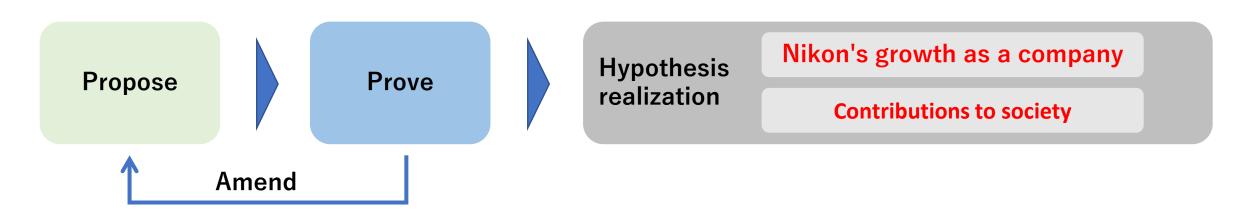
Nikon has accumulated massive amounts of technologies in lithography systems





Hypothesis

- What else could those technologies be applied toward?
- Could they be used to solve latent needs that had gone unnoticed up to this point?
- Is there anything that Nikon is uniquely equipped to tackle?
- Would it be possible to launch something new that could become a pillar of Nikon's business portfolio?
- Could that domain be Digital Manufacturing?



After numerous amendments, the hypothesis was proven and eventually became a reality

# **ADM Business Unit Vision and Aspirations for 2030**

#### **ADM Business Unit vision**

- Create new markets and industries for manufacturing
- Build a high-growth businesses utilizing Nikon's internal business and technology synergies
- Through digital manufacturing, <u>promote fundamental solutions for personnel-dependent and location-dependent</u> manufacturing
- Through riblet pattern technology, contribute to reducing energy consumption and CO2 emissions

## Vision for 2030: Revolutionize the world of manufacturing through optical application technology

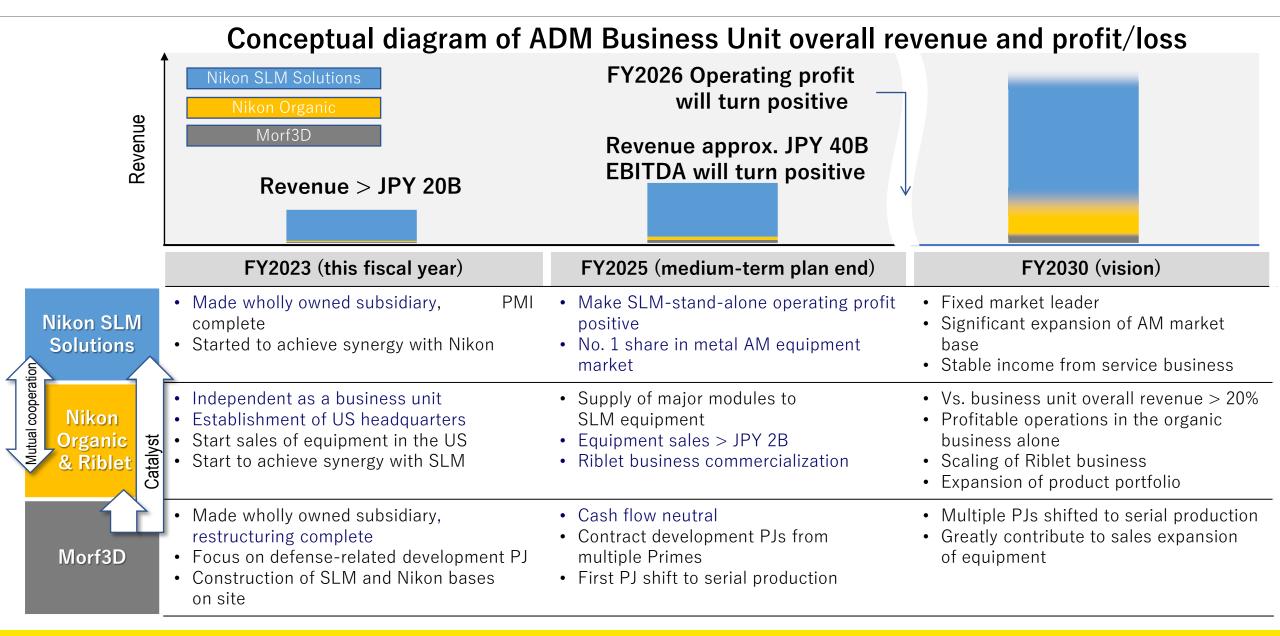
- Establish a solid position as a manufacturer using "optical processing machines and solutions" and grow it into one of the pillars of Nikon business
- Applications that are only possible with optical processing machines are being realized one after another
- Optical processing machines have become widespread as tools for machining, and are used in every situation as a matter of course
- Riblet processing \* for fluid machinery has been put to practical use in multiple fields, and it has become a major business as a processing service

(Optical processing machine: A generic name at Nikon for processing equipment that applies optical characteristics, such as 3D printers and ultrashort pulsed laser processing machines)

# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# Strategy, Business Plan, Major Milestones



<sup>\*)</sup> Figures are based on excluding riblet-related sales revenue, costs, etc.

# Nikon SLM Solutions – Becoming a Market Leader in Metal 3D Printers

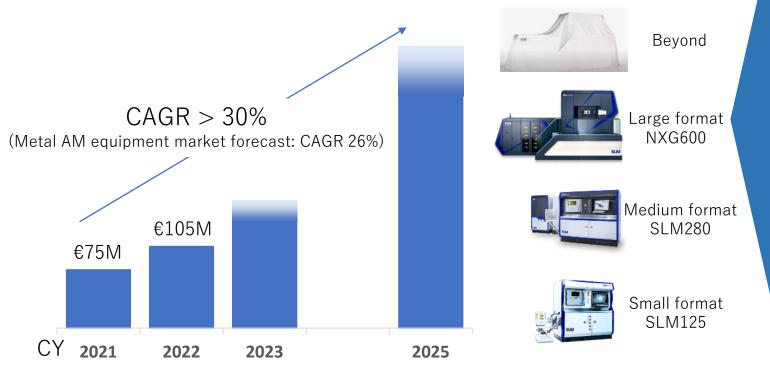
## SLM's '21-'25 medium-term plan VISION2025

## **VISION 2025**

CHANGE MANUFACTURING FOREVEI

5X REVENUE BY 2025 MARKET LEADER BY 2025

- Target 5x revenue growth in 2021-2025
- Become No.1 in the industry by 2025



Close collaboration with key customers

- Defense and aerospace Primes
  - "Hyper Car" OEM/foundries

Establishment of application development sites in the US and Japan

- First introduction and market expansion of NXG into APAC
- Large format AM market expansion

Core module supply and technology provision from Nikon

- Optical and measurement engines
- Process control and calibration technology

Development and horizontal deployment of next-generation platforms

- Strengthen competitiveness of small and medium-sized machines
- Improve cost competitiveness

Company name change and integration with Nikon brand

- "Nikon SLM Solutions"
- Leverage popular equipment segment

Maintain our position as a tech leader. Through collaboration with Nikon, we achieved growth at a rate that exceeds the industry average

# Organic & Riblet – Growth Utilizing Acquired Management Assets and Collaboration

## **Existing products**

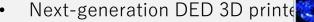
- Lasermeister 10XA
- Lasermeister 1000S



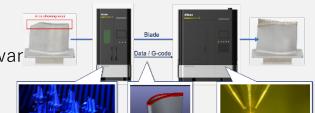
### **Future products**

• Turbine repair equipment

Measurement linking and advarautomation



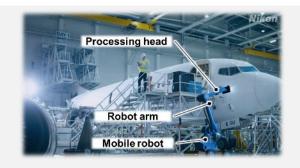
High speed and high definition





#### Riblet as a Service

- Commercial airframes
- Wind-powered turbines
- Freighters
- UAV and special uses



Collaboration on SLM customer base utilization and marketing

Application and customer development at US sites

Collaboration, technology introduction, and customer acquisition with German company Fraunhofer ILT

Collaboration with domestic heavy industries, application in Japanese government projects, etc.

Acquisition of certification through collaboration with airlines and OEM

Joint development of ultra high-speed laser mobile processing technology

Market entry with freeform curve riblet film

Leverage collaboration to scale our business. Aim to grow to 20% of business unit sales by 2030

# Morf3D Application Development Centered on the Aerospace and Defense Industry

## Morf3D (Long Beach, California)

- Made it a 100% subsidiary in 7/2023.
- Structural reform implementation and shifts in business strategies
- Focus on aerospace & defense-related applications
- Also used as a business development site for Nikon and SLM







US defense-related AM demand expected to grow rapidly (CAGR > 50%)

- Application development requires engineering and time
- Only companies that meet certain requirements can be involved.

Morf3D

Application development

Process development

- Theory verification
- Small-scale production

Shift to mass production

Copy Exactly

### **Prime companies and Service Bureaus**

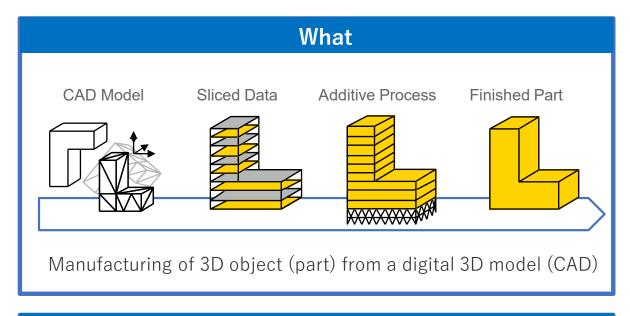
- Mass production deployment, support, and service
- At least 10 to 15 years
- Same equipment and same processes

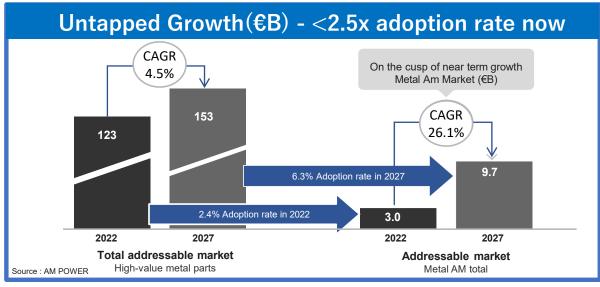
Long-term Nikon/SLM equipment demand acquisition (lock-in effect) through "Copy exactly policy"

# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# **Metal Additive Manufacturing**





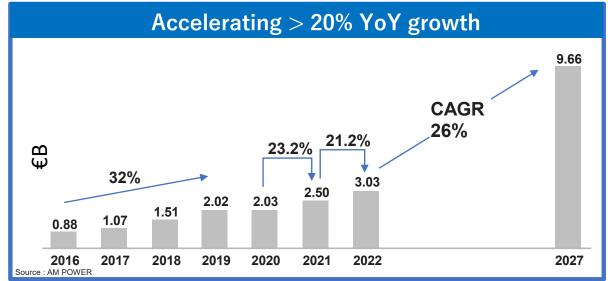
# Why

#### Advantages:

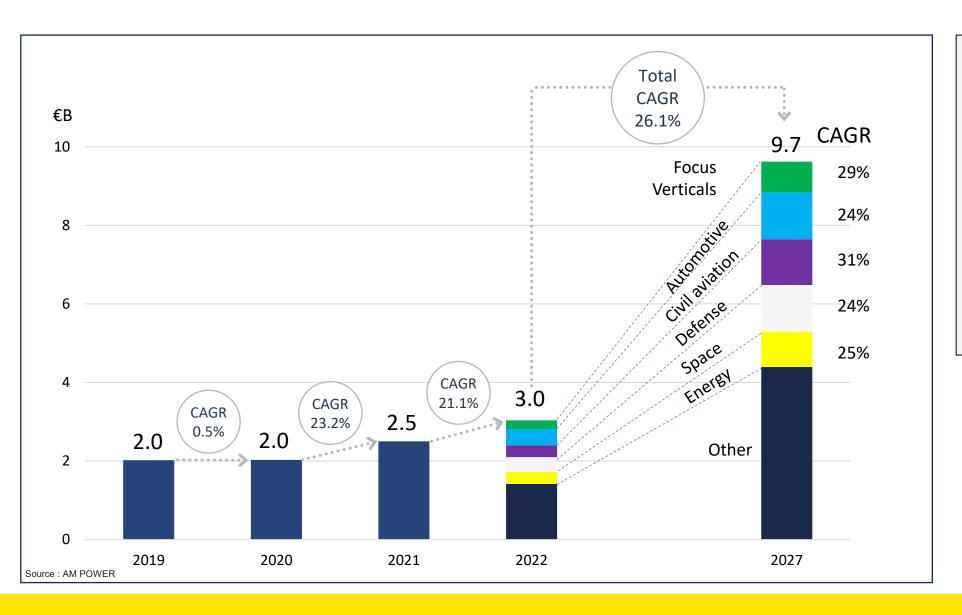
- Making complex 3D monolithic parts possible
- CAD to part reduced cycle time
- Reduce waste

#### **Challenges:**

- Still largely used in prototyping not HVM
- Size limitation
- Limited materials
- Repeatability + speed lower cost

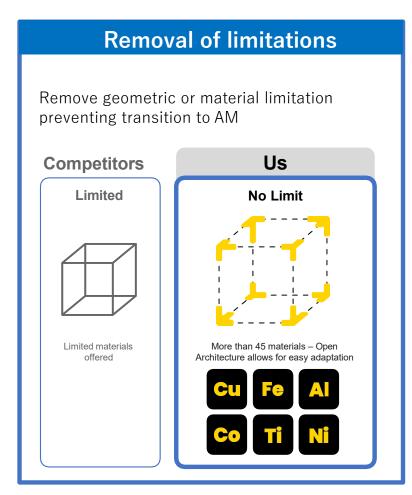


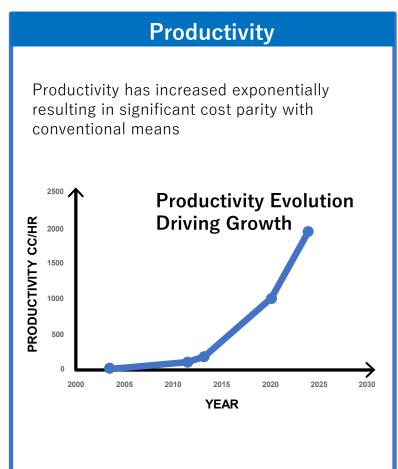
## **Metal AM Market Growth and Verticals**

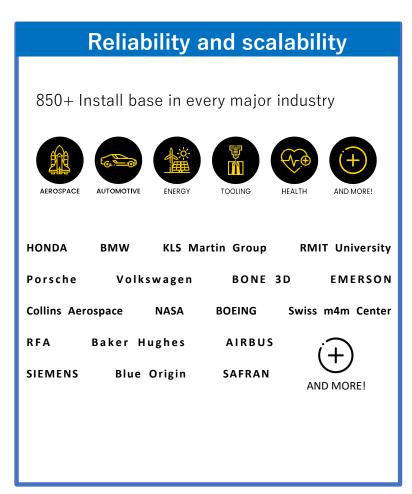


- We are focused on the fastest growing segments of an already growing market
- These segments require ultra large, high precision and very high productivity
- Our technology roadmap and portfolio matches our customer requirements

# **Right Solutions**

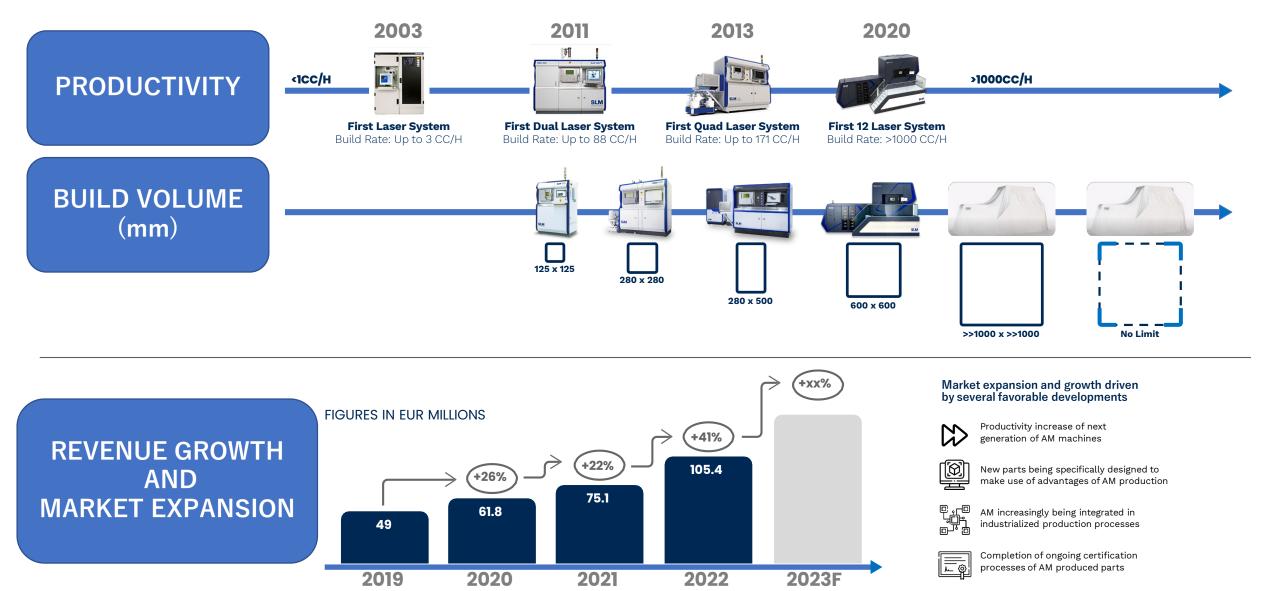






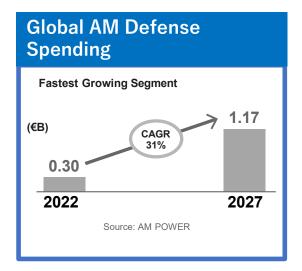
# Nikon SLM Solutions – Leading Edge LPBF Portfolio

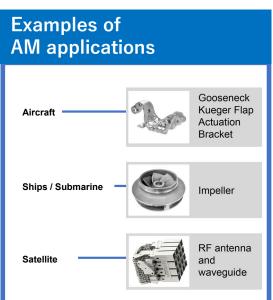


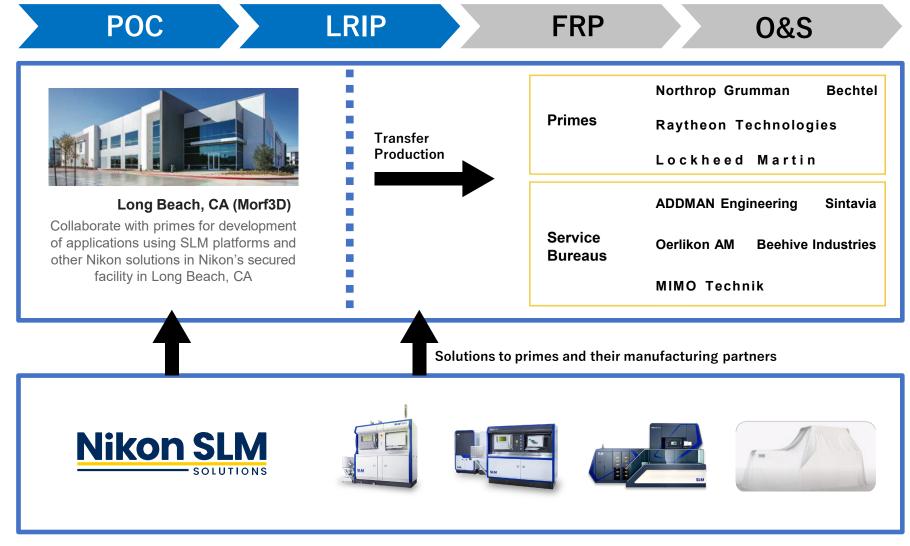


# Capitalize On Aerospace & Defense Opportunity Using Nikon Assets

Accelerate adoption – goal to make SLM Solutions defacto standard







# **Outline**

- 1. ADM business overview
- 2. Background of business unit establishment and future vision
- 3. Strategy and business plan
- 4. Additive Manufacturing market outlook and growth drivers
- 5. Global business development and application development

# **Global Presence – BD, Demo, Apps, Support**







#### Japan

#### Kumagaya/Gyoda area

- R&D overall (element development, product design)
- Japan application development center (Latest technology including NXG - customer application development.)

#### Nikon Shinagawa head office

- Sales and Marketing in Japan
- Manufacturing/QA



#### **US West Coast**

#### Nikon Advanced Manufacturing Inc. HQ

- Global headquarters of Nikon Advanced Manufacturing
- Strategy, governance, management

#### **Long Beach Center (Morf3D)**

- U.S. ultra secure facility
- SLM/Nikon application development center including demo
- Business Development, engineering and customer support

### Germany

#### Nikon SLM Solutions Lubeck HQ

- R&D overall/product manufacturing/QA
- Application development center
- Other headquarters functions

#### Fraunhofer ILT

- Nikon DED equipment exhibit demonstrations/customer development
- Application development
- Joint technology development

# Recap

Digital Manufacturing is a growth driver and key component of Nikon Vision 2030

Our vision is to revolutionize manufacturing by use of advanced optical technologies at scale

Metal Additive Manufacturing is at the cusp of adoption, creating a major market yet to be tapped

Nikon's comprehensive technology and manufacturing portfolio coupled with its trusted brand will accelerate adoption of AM into manufacturing

Nikon's investments in both organic and inorganic assets and their integration are paving the way to realize this growth

We expect Digital Manufacturing to be a core business and source of growth and profit for Nikon by 2030

# **Healthcare Business**

# Tatsuya Yamaguchi

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
<b>Operating Profit</b>	¥11.5B	¥11.0B	¥10.0B	review

#### **Achievements and management policy**

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

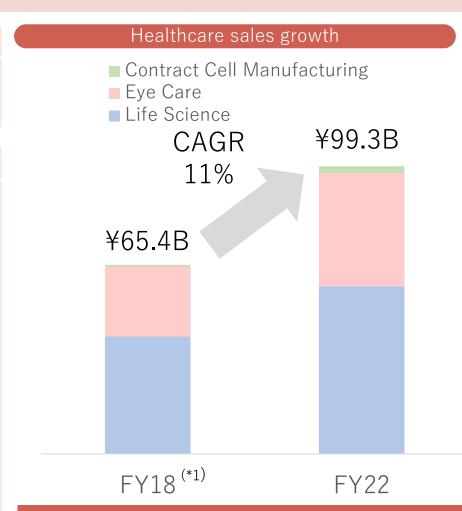
- Continued to launch new products, including building out series of high-end systems, cloud and other products and services.
- Aim for double-digit growth by strengthening application development and developing private sector markets with a focus on drug discovery.

#### ■ 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.

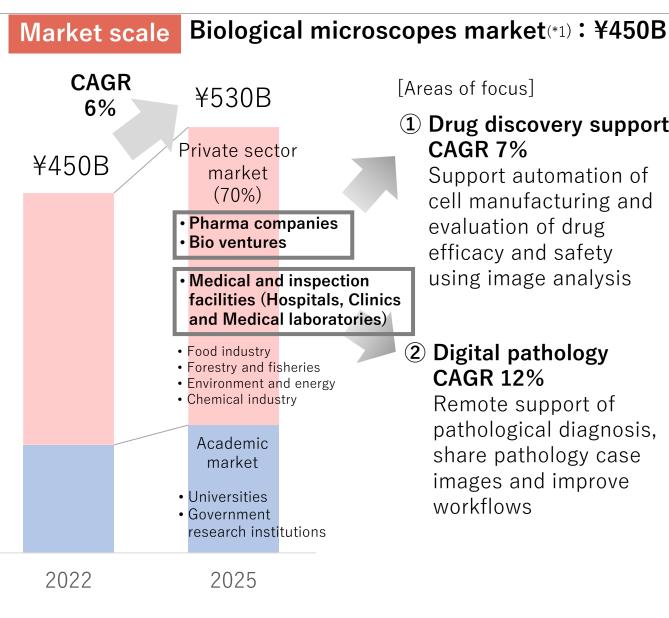
#### **■** Contract Cell Manufacturing

- 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.



Business has steadily expanded by providing solutions that meet market needs

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



[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)

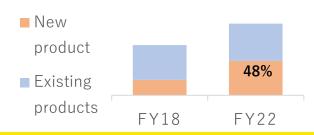
- Optical technologies capable of capturing complex tissues, neuronal development, and intracellular dynamics.
- Image processing and analysis technology leveraging AI and other cutting-edge technologies
- Solutions capabilities combining hardware and software

#### 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%)





# [Life Science] 1

equipment + software



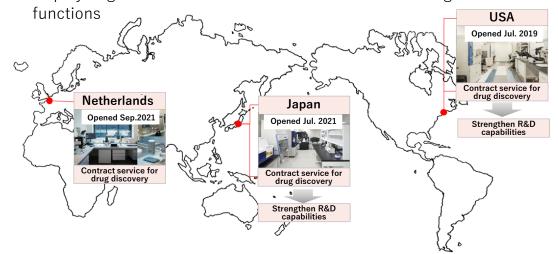
## **Business Expansion in Drug Discovery Support** (Drug Efficacy Evaluation and Cell Manufacturing)

#### Supporting diversifying drug development with image analysis and automation • Drug discovery support market: CAGR 7% [Drug efficacy evaluation support] Gene therapy market size about ¥2 trillion (\*1) (CAR-T cells) Regenerative medicine (Cell formulations) Oligonucleotide Antibody drugs Small molecule therapeutics Cell interior Mock in vivo Digital dyes Live analysis technologies. analysis Ultra-resolution 3D streaming evaluations Reagent Label-free tests Replacement for animal (Large volumes at low testing (Regenerative medicine) testing (Large volumes, (Rare ailments) cost) uniform testing) [Cell contract manufacturing support] market size about ¥200 B(\*2) Incubator Manual Standardized Semi-automated Culture container Automated Microscope + peripheral

#### Assisting customers by expanding global drug discovery support facilities

Opened drug discovery support sites in Japan, US and Europe and began contract business targeting private sector companies

Deployed global standard service at each site and strengthened R&D



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

#### [Revenue]

- · 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



Revenue growth: CAGR 40%+

Laboratory automation

Product automation

CELL CULTURE MARKET GLOBALFORCAST to 2024



## [Life Science] ② Growth in Digital Pathology

Drive workflow efficiencies through digital transformation of pathological diagnosis

## Step 1 (<u>Device</u>): 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 (<u>ICT</u>(\*1)): Support remote pathology diagnosis accuracy and in-operation diagnosis

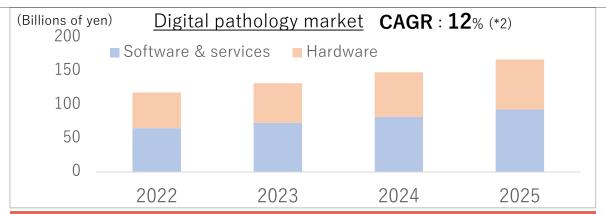
 Remote diagnosis functions that will change conventional workflows of pathological diagnosis



#### 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

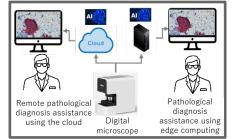




## Initiatives aimed at individualized treatment leveraging composite data

## ● <u>Software & services</u>: Pathological diagnosis support leveraging AI technology

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



## ● <u>Software & services</u>: Composite pathological diagnosis geared toward personalized treatment

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





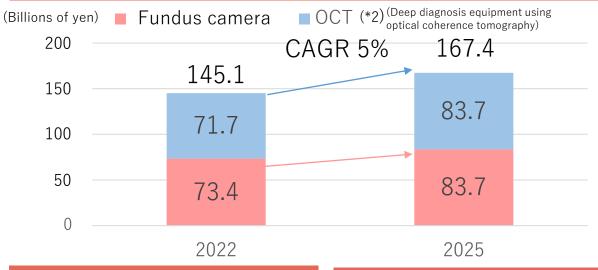


Move toward multiple layers of information

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

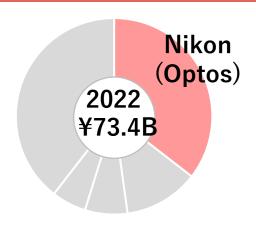
## [Eye Care] Differentiation with Ultra-widefield in the Expanding Eye Screening Market





Fundus camera market share (amount) (\*3)

## Nikon Eye Care Solutions Products







Silverstone Fundus camera with integrated OCT

California Fundus camera

### **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)

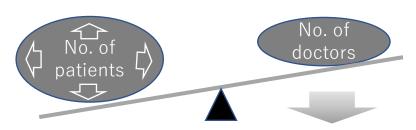
- Promote composite diagnosis leveraging diagnosis results from multiple devices.
- Adding value through improved functionality and customers' workflow with cloud.
- Develop new diagnostic equipment leveraging Nikon's optical technology and Optos' laser technology.



<sup>\*1:</sup> Market size data are Nikon estimates based on various survey data.

## [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 growth

- Market expansion among ophthalmologists/specialists
- Expanded role for medical exam market

#### Market needs and technologies



Deep observation covering all the retina and immediately peripheral sites

#### **Evolution of diagnosis through solutions**

[Evolution of definitive diagnoses] Archive images



Leverage cutting-edge (ICT)

Market size: ¥60 B(CAGR:11%) (\*1)

Introduce specialists



Archive diagnostic images

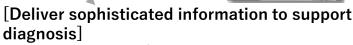
Optos Cloud™

Optos ADVANCE





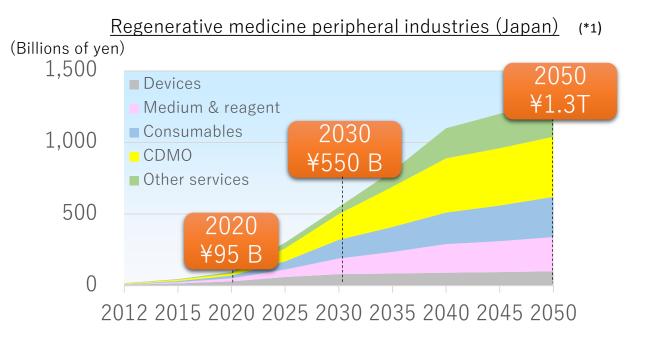
Support definitive diagnoses



- History management (efficient referencing of exams and medical history
- Preventive and prognostic management (Review and Refer)
- Detect signs of and changes in ailment
- Begin early and appropriate treatment

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

#### Market scale









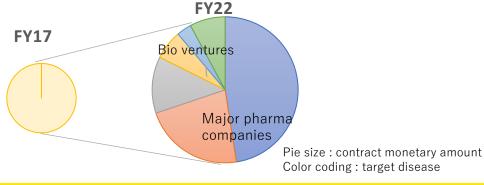
#### **Growth potential**

- 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 Consumables

Medium & reagent 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).

# 14% Regenerative medicine peripheral industries (Japan) 20% 2030 ¥550 B 24% Ship **Store**

**Business domain** 

Provide tissue/cell, etc.

**CDO** (contract development) Clinical studies manufacturing Commercialized products

**CMO**(contract manufacturing)

Japanese pharma Bioventures Overseas pharma

Dental pulp master cell bank

Bullous keratopathy (cornea) and severe heart failure (myocardial)



Multiple commercialized projects for regenerative medicine products

Storage and release of imported commercial products

Various projects

Value

chain

Customer

segments

\*1: Pharmaceuticals and Medical Devices Agency

# **Sustainability Strategy**

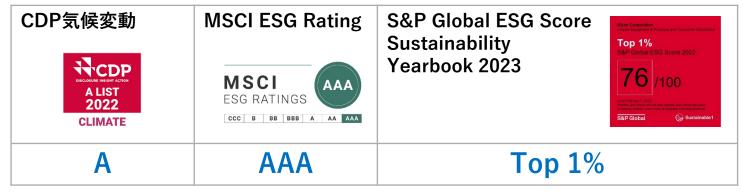
## Yukako Yamada

Department Manager of Corporate Sustainability Department

## **Sustainability** | External Evaluation

### High ESG scores. Included in all 6 indexes GPIF uses for ESG investment

ESG Evaluation (as of August 2023)



**ESG Investment Indexes** (as of August 2023)

Dow Jones	ESG investment by GPIF							
Sustainability Indices (DJSI) World	FTSE Blossom Japan Index	FTSE Blossom Japan Sector Relative Index	MSCI Japan ESG Select Leaders Index	MSCI Japan Empowering Women Index (WIN)	S&P/JPX Carbon Efficient Index	Morningstar Japan ex-REIT Gender Diversity Tilt Index (GenDi J)		
Member of Dow Jones	A July	FTSE Blossom Japan Sector	<b>2023</b> CONSTITUE ESG SELECT LEAD		S&P/JPX Carbon Efficient	-		
Sustainability Indices Powered by the S&P Global CSA	FTSE Blossom Japan	Relative Index	2023 CONSTITUE EMPOWERING WO	NT MSCI JAPAN MEN INDEX (WIN)	Index			
In	In	In	In	In	In	In		

THE USE BY NIKON CORPORATION OF ANY MSCI ESG RESEARCH LLC OR ITS AFFILIATES ("MSCI") DATA, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT, RECOMMENDATION, OR PROMOTION OF NIKON CORPORATION BY MSCI. MSCI SERVICES AND DATA ARE THE PROPERTY OF MSCI OR ITS INFORMATION PROVIDED 'AS-IS' AND WITHOUT WARRANTY. MSCI NAMES AND LOGOS ARE TRADEMARKS OF MSCI.

## **Sustainability Strategy**

### Medium-Term Management Plan integrates sustainability into its growth strategy

Our Philosophy Trustworthiness and Creativity

**Materialities** 

7

Sustainable society

Areas where Nikon contributes

Healthy environment

(Reduce human work/ automate and customize) Comfortable society

Mental and physical well-being

Safety and work environment

Decarbonization

Circular systems for resources

Health (More precise and individualized treatment)

Enriched spirit  $(Education \times digital)$ 

Contribute to society through Creativity

Meet society's expectations to win Trust

Industry

Creating social value through core technologies

Quality of Life



Activity

(2) Ensuring trustworthiness by maintaining and increasing quality



- (3) Promoting a decarbonized society
- (4) Promoting resource circulation
- (5) Preventing pollution and conserving ecosystems



- (6) Building a resilient supply chain\*
- (7) Respecting human rights
- (8) Diversity, equity & inclusion\*
- (9) Employees' health and safety



(10) Thorough compliance

- (11) Strengthening corporate governance
- (12) Strengthening risk management

<sup>\*</sup> November 2022: Amended Materiality 6 from Strengthening supply chain management to Building a resilient supply chain and Materiality 8 from Diversity and inclusion to Diversity, equity & inclusion.

## Sustainability Strategy: Meet Society's Expectations to Win Trust

Redisplaying Medium-Term
Management Plan
(FY2022-FY2025)
announced in April 2022
Progress added in red



- (3) Promoting a decarbonized society
- (4) Promoting resource circulation
- (5) Preventing pollution and conserving ecosystems
- FY 2025 targets for achieving carbon neutrality by FY 2050
  - Reduce green-house gas emissions from business sites: Reduce by 46.5% compared to FY 2013 levels. (FY 2030 Target: 71.4% reduction)
    - ⇒ FY22 actual: 33.8% reduction
  - Introduction of renewable energy: 18% (FY 2030 target: 30%)
    - ⇒ 100% migrated at Thailand and Tochigi main plants beginning in FY23
- Initiatives toward circular system of resources by strengthening systems re-use and refurbished sales



- (6) Building a resilient supply chain
- (7) Respecting human rights
- (8) Diversity, equity & inclusion
- (9) Employees' health and safety
- Promote DEI ⇒ Established Nikon Global DEI Policy
  - Prepare an environment and raise awareness for diverse talent to thrive
  - Promote the advancement of women
     Women in managerial positions: 8%+ by FY 2025

 $\Rightarrow$  6.9% (End of Mar 2023)

New grad female hires: Maintain 25%+

⇒ FY22 actual: 32.3%

(In FY2021, women made up 15% of the workforce)

- Advance respect for human rights across the supply chain
- Marketing communications that are mindful of human rights



- (10) Thorough compliance
- (11) Strengthening corporate governance
- (12) Strengthening risk management
- Link sustainability challenge KPIs to officer compensation
- Secure independence of external directors: More diverse board makeup
- Strengthen governance across the corporate group: Strengthen internal controls

## **Initiatives Aimed toward a Decarbonized Society**



### Initiatives aimed toward becoming carbon neutral by FY2050

Nikon Long-Term **Environmental Vision** Target year: FY2050 Meet society's expectations to win Trust Realizing a Decarbonized Society Achieving Carbon Neutrality Sustainable Society

Realizing a Healthy

and Environmentally

Safe Society

Realizing a Resource

Circulating Society

FY2030

Become carbon neutral across the entire supply chain

BUSINESS 1.5°C RE100

GHG reductions (vs. FY2013)

Scope1/2 71.4% reduction

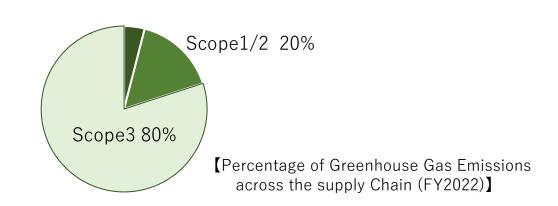
Scope3 (Categories 1/4/11) 31% reduction

Renewable energy: 30% in place

GHG reductions (vs. FY2013)

Scope1/2 46.5% reduction

Renewable energy: 18% in place



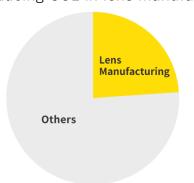
## Reducing Scope 1/2 Emissions toward a Decarbonized Society



#### **Initiatives at Nikon Group**

#### Product development efficiencies

Reducing CO2 in lens manufacturing



CO2 emissions at Nikon Group (%)



Substantially reduced greenhouse gas emissions and waste by leveraging quality engineering methods to reduce the number of experiments through glass manufacturing simulations, shrink lead times, and improve press precision, etc.

#### Energy conservation at business offices

A new head office with R&D functions (under construction) is scheduled to obtain ZEB Ready certification and the highest rank in BELS\* by reducing energy used for air conditioning and generating energy through solar panels etc.



#### Promoting the introduction of renewable energy

 Introduced locally generated power (renewable energy derived entirely from hydroelectricity) at two production subsidiaries in Tochigi (FY2023)

- Converted to 100% renewable energy at Nikon Thailand (FY2023)
- Introduced solar panels at Nanjing Nikon Jiangnan Optical Instruments Co., Ltd. (Annual power generation of about 160MWh)



Nikon Thailand



Nanjing Nikon Solar panels

## Reducing Scope 3 Emissions toward a Decarbonized Society



### Advancing measures to reduce Scope3, which account for 80% of emissions

#### Collaboration with procurement partners

(Category 1: Products and services purchased)

#### Participating in CDP supply chain program

- Began participating in 2023 to understand real greenhouse gas emissions at procurement partners
- Implemented survey at 50 important procurement partners
- Holding seminars for procurement partners and assisting with emissions calculations with the aim to reduce emissions across the entire supply chain

Scope3 Category 11 Use of company products sold: 11%

Scope3 Category 4 Upstream transportation and delivery: 3% curement partners and calculations with the across the entire

Scope1: 4%

Scope2
16%

Scope3 Category 1 Products and services purchased: 48%

Percentage of greenhouse gas emissions across the supply chain (FY2022)

#### Initiatives in transportation

(Category 4: Upstream transportation and delivery)

 Modal shift for healthcare products produced in China: Switched from long-haul truck to ferry within Japan. Also contributes to resolving driver shortage issues (GHG reduction: about 70%)



- Implemented buyers' consolidation on binoculars transport (GHG reduction: about 95%)
- Reduction of power consumption while product is in use

(Category 11: Use of company products sold)

#### **ECLIPSE Ni-L Upright Microscope**

- Use LED light sources, which consume less energy (40% reduction in GHG emissions compared to halogen light sources)
- LED light source lasts about 25 times greater than that of halogen light sources. Also contributes to reduced waste



## **Initiatives Aimed toward a Decarbonized Society**



### Contributing to a sustainable society and activities aimed at Nikon's sustainable growth

#### Green Loan

- A part of the construction costs of the new head office is funded from Green Loan that is limited to projects in which environmental efficiency is considered.
- Received the highest rating from Japan Credit Rating Agency (JCR) for benefits toward improving the economy and considerations toward any negative impacts



New head office image



Ceremony of putting up the ridge beam (September 2023)

## **Human Rights**



### Respecting the human rights of various stakeholders

#### Major human rights Initiatives

\*Current name

		O GITT OTTE TTGITTE
(FY)		WE SUPPORT
1997	Established Compliance Committee*	CLOBAL COAL
2001	Established the Nikon Code of Conduct*	A A A A A A
2006	Established Sustainability Committee*	
2007	Joined the United Nations Global Compact	
	Established the Nikon CSR Charter and the Nikon CS Standards*	SR Procurement
2010	Launched monitoring surveys to Group companies	
2011	Established the Policy on Conflict Minerals*	
2012	Launched Conflict minerals survey and disclosure of	survey results
2015	Launched CSR assessments and CSR audits	
2016	Launched disclosure of compliance statement with t	he UK Modern
	Slavery Act	
2018	Joined the Responsible Business Alliance(RBA)	
2019	Established the Nikon Human Rights Policy	
2021	Created the Communication with an Inclusive Perspersion Rights handbook	ective of Human
2023	Kumagaya Plant acquired Gold Status in RBA audit	

#### [RBA]

- RBA is an international industry organization aimed at proper management of labor, health and safety, environment, and ethics in the supply chain in the electronics industry.
- The RBA Code of Conduct is set as the standards that companies should comply with.

#### Human rights education

- Message from the CEO shared at World Human Rights Day in December was streamed to all Nikon Group employees
- Human rights education in various regions: Issued newsletter and implemented elearning

(92% of Nikon Group employees in Japan participated in human rights e-learning course in FY2022)

#### Respect for human rights is the foundation upon which our Medium-Term Management Plan sits

Toohikazu Umatata
Roprosontativo Director
Prusidont

a Human Rights Day, designated as December 10 by
the United Nations, I would like to share my thoughts
on Nikon's respect for human nights with the entire
Nikon Group members working globally.

In accordance with the Nikon Code of Conduct and the Nikon Human Rights Policy, the Nikon Group is committed to respecting every person's character and



#### Initiatives related to RBA

Joined RBA and striving to enhance sustainability across the entire supply chain, not just at the Nikon Group

- Requested that procurement partners adhere to CSR Procurement Standards that comply with the RBA Code of Conduct
- Received RBA audit at Kumagaya Plant
  Acquired Gold Status in July 2023



### **Sustainable Procurement**



### Building a resilient supply chain through collaborative relationships with procurement partners

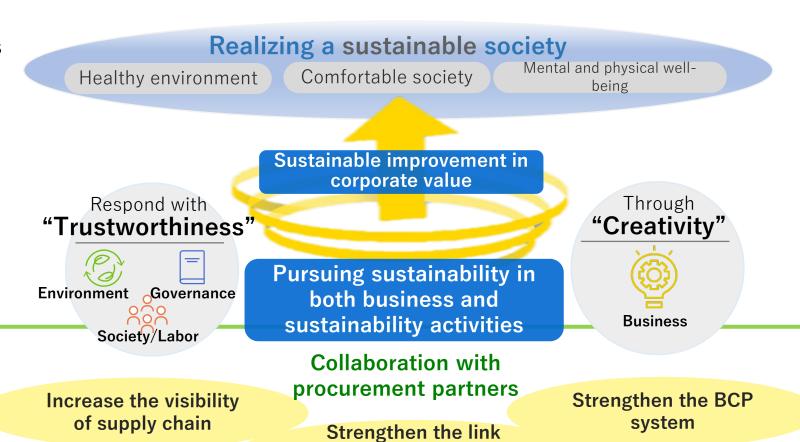
#### Vision

Sustainable supply chain that constantly maintains a sound state against business risks and social challenges



Meeting of procurement partners (June 2023)

ニコングループ調達パートナーの会



between CSR and quality management

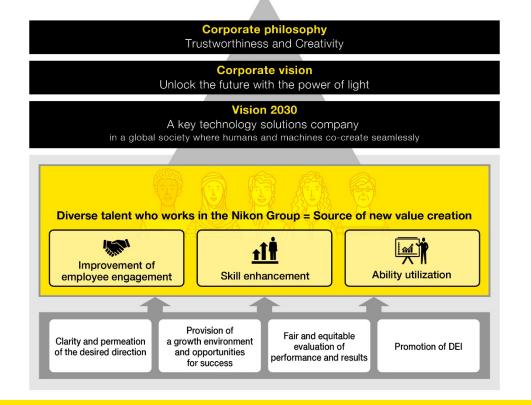
## **Human Capital Management**



Promote the "acquisition," "development" and "leverage" of diverse talent to realize the "Vision 2030" set forth in Medium-Term Management plan.

#### Basic approach

Nikon aims to grow together with each of our diverse employees to remain a company that contributes to a sustainable society.



#### Human resources strategy

Diverse talent who support "sustain our main businesses" and "scale earnings in strategic businesses " is needed to realize the Medium-Term Management plan.

Growth areas:

Talent who can lead customer development and strengthen our solutions businesses

Established areas:
 Talent who can support Nikon's core strength of manufacturing

elop target

Business

End products

Services
and components

Strengthen investment in human resources to secure both the quality and quantity of talent necessary for the transformation our business model.



## **Promoting the Success of Diverse Talent**



### Strengthening the acquisition of diverse talent who will be the source of new value creation.

#### Acquisition of diverse talent

#### Strengthening recruiting competitiveness

- Adopted a personnel system that determines treatment based on responsibility, roles, and results, regardless of age or gender.
- Introduced occupational-based hiring for some new graduate hires and strengthened efforts to acquire diverse talent.
- Raised employee salaries by up to 20%. (FY2022)
- Reinforced of recruiting branding, such as website renewal and active information dissemination via SNS.





Official X (formerly known as Twitter) account for recruiting new graduates

#### Leverage of Mid-Career Hires

## Strengthen recruitment of mid-career hires with various knowledge, skills, and experience

< Ratio of new graduates and mid-career hires among new hires of Nikon Corp >



#### **Supporting Mid-Career Hires in the workplace**

- Ratio of mid-career hires among managers: 29.6% (as of the end of March 2023)
- Strengthen the follow-up system to ensure the early success of mid-career hires, such as holding training and social gatherings, providing training for workplaces that accept mid-career hires, and conducting regular monitoring.

## **Promoting the Success of Diverse Talent**

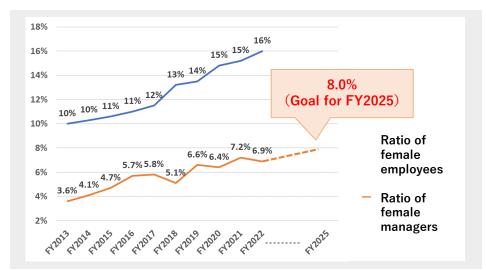


Continuing to provide opportunities and create an environment in which diverse employees can pursue their full potential, regardless of age or gender, etc.

#### Promoting advancement of women

## Goal: Increase the ratio of female managers to at least 8.0% by March 2026.

< Ratio of female employees and female managers at Nikon Corp>



#### Main initiatives:

- Increase the ratio of female new hires to at least 25% (FY2022: 32.3%)
- Offering flexible working arrangements tailored to different life stages
- Planned development and appointment for candidates for managerial positions
- Offering a mentor system, introducing role model employee etc.

#### Offering flexible working styles

- Flextime working system with no core time
- Telecommuting System
- Accumulated special leave
- A childcare leave system that exceeds legal requirements etc.



< Ratio of male employees taking childcare leave\*>

**85.4%** (FY2022, Nikon Corporation)

\* Includes leave for unique Nikon's childcare leave programs



#### Assistance for leveraging employees beyond retirement age

Post-retirement age Nikon employees who wish to work are re-hired by Nikon Nisso Prime Corporation\* to support their post-retirement careers

- Expanded career options beyond the Nikon Group.
   We have placed 23 Nikon alumni outside the Nikon Group (as of August 2023)
- Creating opportunities for private-public collaboration: Entered into agreements with 5 municipal governments (as of August 2023)



Agreement Ceremony with Minamiuonuma City (November 2022)

## **Cultivating Next-generation Talent**



# Cultivating next-generation talent who will work together to build a society where humans and machines co-create seamlessly

#### Cultivating science and engineering talent

## Established Nikon Scholarship for students at the national colleges of technology in Japan

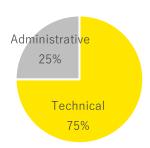
- Began recruiting applicants beginning in FY2023 to contribute to the cultivation of science and engineering talent that will support industries of the future and work together with us to build a society where humans and machines co-create seamlessly, as called for in our Medium-Term Management Plan
- Targets students in at least their 2nd year at any of 51 national technical schools from around Japan
  - 60 regular-course students (15 from each school year) and 20 technical-course students (10 from each school year)
- 40 students were selected for scholarships in FY2023 as part of the program's inaugural year



The award ceremony (September 2023)

#### Cultivating women engineers

- In Japan there are few female students who major in engineering-related fields, making it a challenge to cultivate the next generation of talent at Nikon, where many job positions are engineering-related
- Active participation and hosting of events promoting the employment of women into engineering-related fields
- Participated in a DE&I Working Group launched by SEMI Japan (Japan branch of a semiconductor industry organization headquartered in the US)



Percentage of administrative vs. technical fields (Nikon Corp.)

#### Scholarships in Thailand and Laos

- Aiding school attendance for those children who have difficulty attending school for economic reasons and helping cultivate talent who will grow to support their country and deepen amicable relations with Japan
- Contributing to regions where our businesses are located
  - In Thailand, Nikon has aided 2,917 students over 16 years
  - In Laos, Nikon has aided 1,260 students over 9 years



## **Diversity, Equity & Inclusion (DEI)**



Diverse talent are a source of new ideas.

Realize a corporate culture that accepts diversity and leverages it in business activities.





#### What does DEI mean to Nikon?

- DEI forms the foundation upon which we strive to embody our corporate philosophy of "Trustworthiness and Creativity" and realize a prosperous and sustainable society.
- The characteristics and differences that exist within each one of us are the sources of new ideas and the driving force behind the growth of Nikon.

#### Nikon Global Diversity, Equity & Inclusion Policy

- Nikon established a DEI Policy in April 2023 to promote DEI across the entire Nikon Group
- Issued a Communication Book to deploy a common policy globally and drive penetration



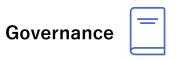
Advancing initiatives based on situations in various regions and workplaces



Forge a corporate culture capable of leveraging each of our differences as a team based on mutual respect to continue to respond to the challenges faced by increasingly diversified societies and customers

Perform product development and marketing activities with consideration for diversity and aim to contribute to a sustainable society

## **Corporate Governance**



## Continuing efforts to enhance the quality and effectiveness of corporate governance

		FY2019	FY2020	FY2021	FY2022	FY2023		
Increase of Board of Directors' diversity	% of external directors	42% (5 out of 12)	45% (5 out of 11)	45% (5 out of 11)	45% (5 out of 11)	50% (6 out of 12)		
	o/w % of those from major shareholders, etc.	60% (3 out of 5)	40% (2 out of 5)	40% (2 out of 5)	0%	0%		
	% of female directors	0%	9% (1 out of 11)	9% (1 out of 11)	9% (1 out of 11)	17% (2 out of 12)		
Improvement the effectiveness of the Board of Directors	Chairman of the Board	Separation from the position of officer	Separation from the representative director (strengthening of supervisory function over management)			<b>—————————————————————————————————————</b>		
	Committee	<ul> <li>Establishment of         Nominating         Committee (chaired         by external director)</li> <li>Appointment of         external director as         chairperson of         Compensation         Committee</li> </ul>				<del></del>		
	Independent External Directors' Meeting	_	_	_	Establishment	$\longrightarrow$		
	Effectiveness evaluation	Continuation of consideration and implementation cycles for improvement measure based on the results of the evaluation of Board of Directors' effectiveness conducted in the previous year						
Nominating	Succession plan for president	Formulation of the plan	Commencement of implementation	Full-scale implementation		<b></b>		
Compensation	Performance-based stock remuneration	Resumption of officer compensation system linked to the Medium-Term Management Plan			Decision of KPI based on the new Medium-Term Management Plan			

## **Corporate Governance**



Increased diversity and secured independence of the Board of Directors (No director from major shareholders, etc. from FY22), Management of the Board of Directors and committees centered on independent external director

Independent External Director		Committee			Skills matrix*					
		Audit and Supervi- sory	Nominat- ing	Compen- sation	Corporate management and management strategy	Internal control and governance	Legal and risk management	Finance and accounting / M&A	Global business	Technology
Shigeru Murayama	Senior Strategic Advisor Kawasaki Heavy Industries, Ltd.		V	✓ (Chair- person)	V				V	<b>√</b>
Makoto Sumita	Former Chairman & Director TDK Corporation		✓ (Chair- person)		V	<b>√</b>				<b>√</b>
Tsuneyoshi Tatsuoka	Former Vice-Minister of Economy, Trade and Industry		V			V	<b>√</b>		<b>√</b>	
Shiro Hiruta	Former Counsellor Asahi Kasei Corporation	✓ (Chair- person)		V	V	<b>√</b>				<b>~</b>
Asako Yamagami	Partner ITN law office	<b>√</b>	V			<b>√</b>	<b>√</b>		V	
Michiko Chiba	Commissioner of Certified Public Accountants and Auditing Oversight Board	<b>✓</b>				<b>√</b>	<b>√</b>	V		

<sup>\*</sup> Of skills each director possesses, up to three items of knowledge and experience are listed on which the Board particularly relies.

## **Corporate Governance**



### System of officer compensation linked to business performance in effect since the first year of our Medium-Term Management Plan (FY22)

**Compensation mix and main KPIs** ~ System design in which performance-based compensation is equal to or higher than fixed compensation (% depends on the position. Approx. 58% for CEO.)

The case of CEO	Fixed compensation	Performance-based compensation					
	Monthly fixed compensation	Short-term business performance	Medium-term business performance	Long-term business performance			
		Bonus	Performance Stock Unit (PSU)	Restricted Stock (RS)			
Ratio of compensation	1	0.7	0.225	0.45			
Linked KPI	_	"Consolidated operating profit (OP) amount" "ROE"	Medium-Term Management Plan priorities: "OP amount from growth drivers(*1)," "OP amount from service and components," and Achievement of KPIs related to "sustainability strategy," "human capital management"	(Assignment restrictions until retirement)			
Range of link	_	0-200%	0-150%	Linked to stock price			
Distribution method		Cash	Stocks				
Malus and clawback (*2)	Applies						

<sup>(\*1)</sup> Growth drivers comprise the following 5 fields: Optical and EUV related components; Material Processing and Robot Vision; Digital lithography; Imaging contents; and Contract Cell Development and Manufacturing and Drug Discovery Support.

(\*2) Malus: A clause that allows for the reduction or cancellation of vested incentive compensation before its payment if fraud or misconduct by the officer is identified. Clawback: A clause to have paid compensation returned in situations similar to the above.

## **Sustainability Strategy**

### Medium-Term Management Plan integrates sustainability into its growth strategy

Our Philosophy
Trustworthiness
and Creativity

Materialities

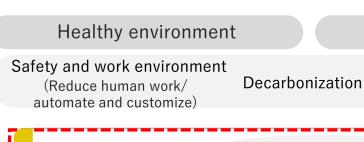
12

Sustainable society

Areas where Nikon contributes

Contribute to society through Creativity

Meet society's expectations to win **Trust** 



Comfortable society

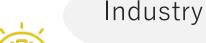
Circular systems for resources

Health Enri

treatment)

Enriched spirit (Education × digital)

Mental and physical well-being



Creating social value
(1) through core technologies

Quality of Life



(2) Ensuring trustworthiness by maintaining and increasing quality



- (3) Promoting a decarbonized society
- (4) Promoting resource circulation
- (5) Preventing pollution and conserving ecosystems



- (6) Building a resilient supply chain\*
- (7) Respecting human rights
- (8) Diversity, equity & inclusion\*
- (9) Employees' health and safety



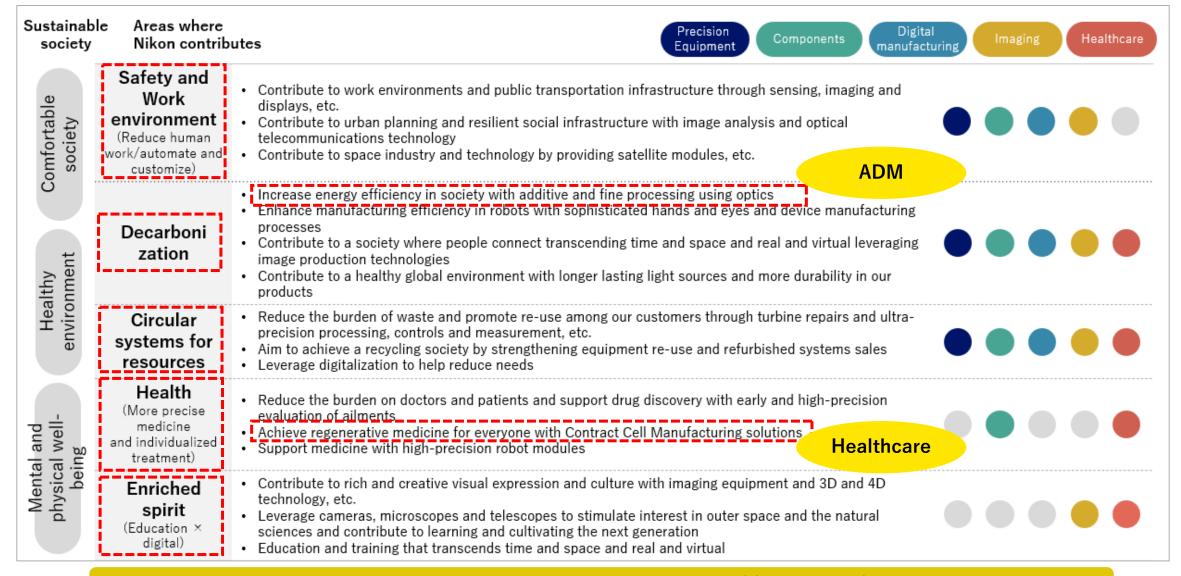
- (10) Thorough compliance
- (11) Strengthening corporate governance
- (12) Strengthening risk management

<sup>\*</sup> November 2022: Amended Materiality 6 from Strengthening supply chain management to Building a resilient supply chain and Materiality 8 from Diversity and inclusion to Diversity, equity & inclusion.

## Contribute to Society through Creativity

Redisplaying Medium-Term Management Plan (FY2022-FY2025) announced in April 2022 **Business** Activity





Contribute to society through Creativity: Movie <a href="https://youtu.be/nPaemWnxSjU">https://youtu.be/nPaemWnxSjU</a>

## **External Director Panel Discussion**

**Shiro Hiruta** 

**External Director** 

Asako Yamagami

**External Director** 

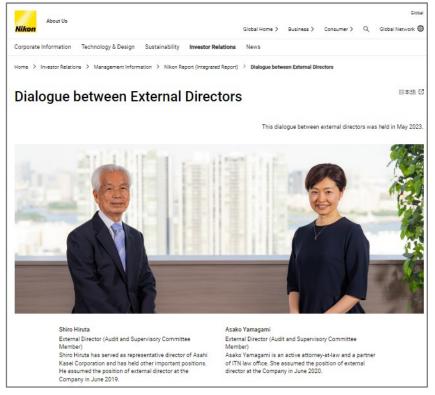
(Moderator) Muneaki Tokunari

Director and Executive Vice President

### **External Director Panel Discussion**



Solicited questions to investors and received a total of 35 questions, which are based on the dialogue between external directors in the Nikon Report (integrated report)



https://www.nikon.com/company/ir/management/ni kon-report/interview/

Classification	Question	Quantity
Corporate/	Business portfolio strategy	6
business strategies	M&A and SLM acquisition	5
	Formulation of the medium-term management plan	4
	Components Business	1
Corporate	Discussions at the board of directors	4
governance	Succession plan	4
	Diversity	3
	Board composition	2
	Independent External Directors' Meeting and Study Session for the Directors	2
	Officer compensation	1
BS and capital	Cross-shareholdings	2
management	BS management	1

