

Medium-Term Business Plan 2021-2023

INTER ACTION Corporation

Toward Higher Heights by Combining the 3 Segments with Optical Technology



Growth



**Internet of things
related works**

**Optical
technology**



**Promotion business
of Industry 4.0**



**Environmental
energy related works**

The Inter Action Group is presently developing business on three major pillars: Promotion business of Industry 4.0, Environmental energy-related works, and Internet of things-related works.

Looking ahead to 2022, the 30th anniversary of our founding, and in pursuit of further growth, we continue forward with the expansion of the scale of our business on the basis of our motto—The Customer Comes First.

Additionally, we intend to combine optical technology—the Group's core technology—with each of the three segments in an effort to achieve synergy with existing business and discover ways to create new value.



1

Medium-Term Business Plan Concept

2

Combining the 3 Segments with Optical Technology

- (1) Internet of things related works × optical technology
- (2) Environmental energy related works × optical technology
- (3) Promotion business of Industry 4.0 × optical technology

3

Efforts Toward Achieving SDGs

1

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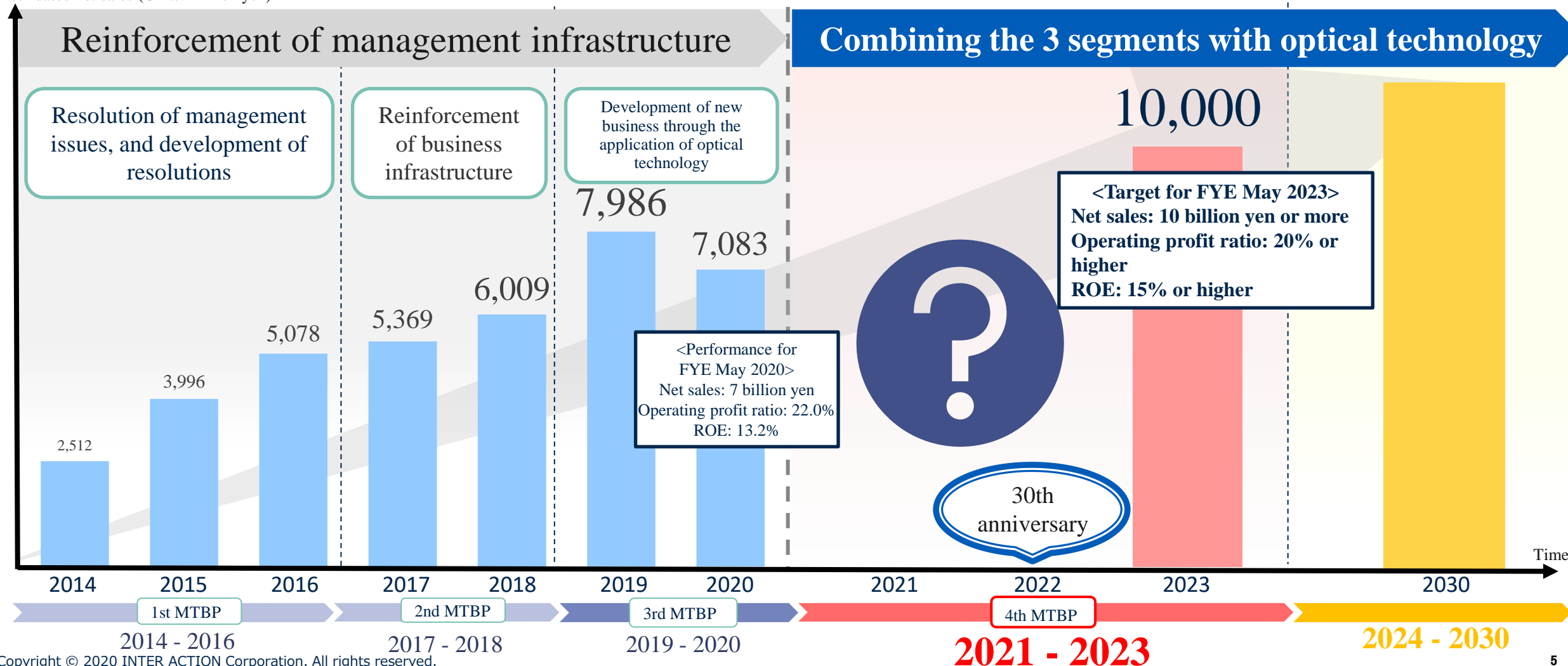
3

Efforts Toward Achieving SDGs

Medium-Term Business Plan Concept (Numerical Targets)

- In light of the recent business environment, we have revised some of the numerical targets set out in the Medium-Term Business Plan devised in January 2019, and changed the achievement target from FY2021 to FY2023.
- The spread of novel coronavirus infections has made it difficult to project short-term performance; however, we anticipate no major changes to the business environment over the medium and long term. Therefore, we will engage in activities with the aim of achieving consolidated sales of JPY 10 billion in FY2023.
- We intend to combine optical technology—the Group’s core technology—with each of the three segments in an effort to further expand business.

Consolidated net sales (Units: million yen)



Internet of
things related
works

Environmental
energy related
works

Promotion
business of
Industry 4.0

Further development through the leveraging of optical technology

Missions

- Further technological growth and business expansion in the image sensor market

- Entry into the ultraviolet printer business



- Promotion of FA image processing-related business
- Promotion of laser processing equipment business
- Share expansion in other businesses

1

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Efforts Toward Achieving SDGs

Internet of Things Related Works Segment × Optical Technology (Market)

[Image sensor market situation]

(1) For mobile devices

- In the short term, we expect image sensor manufacturers' strong inclination toward capital investment to persist amid increasing demand due to the inclusion of multiple cameras on smartphones.
- The introduction of 5G may generate device replacement demand.
- In the medium and long term, we expect the market to expand amid the proliferation of smartphones with cameras equipped with 3D sensors, including ToF sensors.

*ToF: Time of Flight

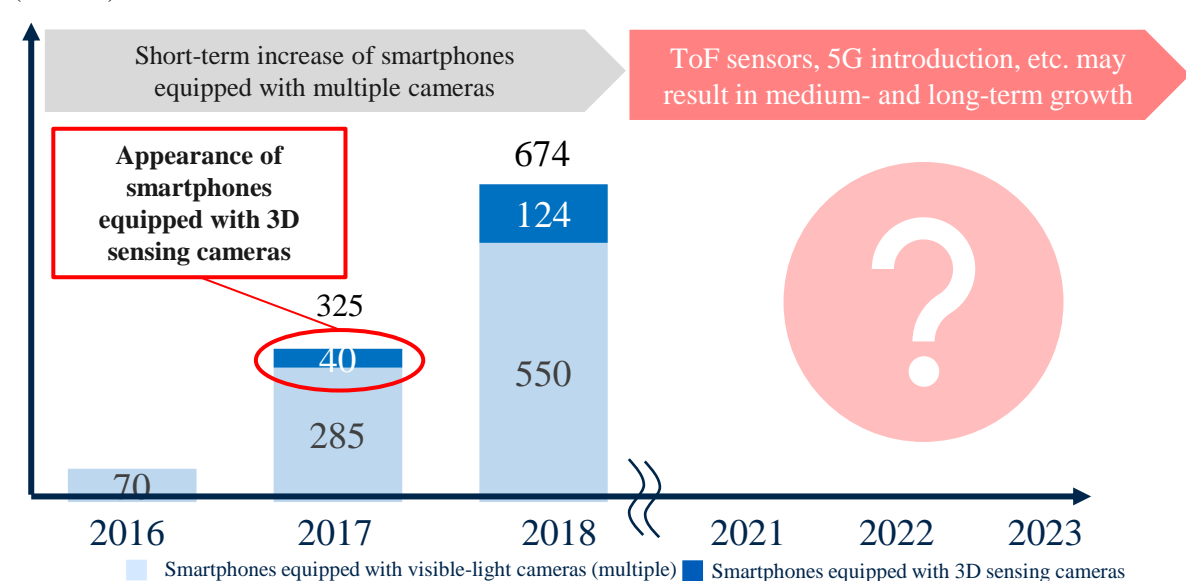
(2) For in-car

- Autonomous driving will advance to higher levels amid the transition to autonomous driving, and the number of visible-light cameras and sensing (invisible-light) cameras mounted on each vehicle will increase.

LiDAR and other new technologies will gain popularity; we expect the market to expand in the medium and long term.

*LiDAR: Light Detection and Ranging

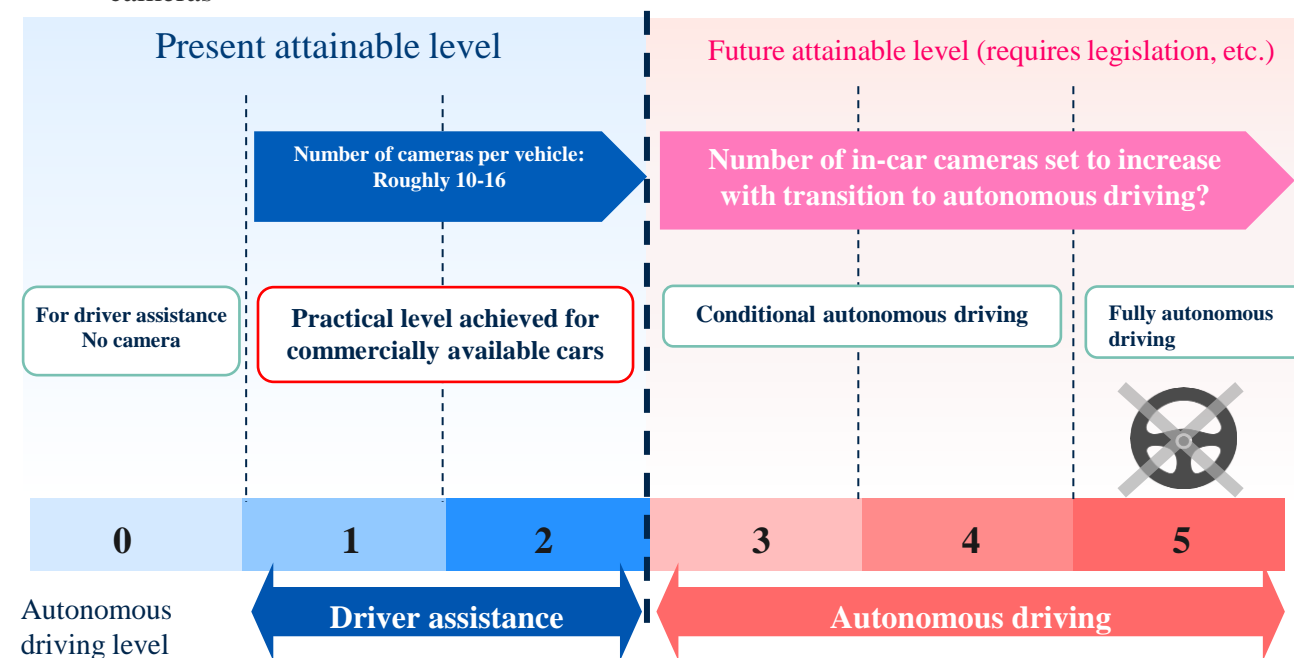
(1) Annual production volume of smartphones equipped with cameras (M units)



*Calculated based on total production values of major manufacturers.

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(2) Image of advancement in autonomous driving level and increase in the number of in-car cameras



Internet of Things Related Works Segment × Optical Technology (Vision)

[Progress of sensing technology]

We expect demand for image sensors for the range of invisible light to increase as the sensors are used in various areas, including autonomous driving technology, medical care, industry, and security.

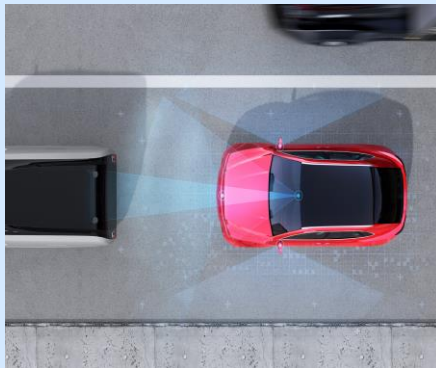
 We will proactively develop, manufacture, market, and demonstrate the superiority of the latest technology compatible with the combination of the conventional ranges of visible and invisible light.

[Present state]

- We have a share of the market for SONY, Samsung, and other major image sensor manufacturers.

[Issues]

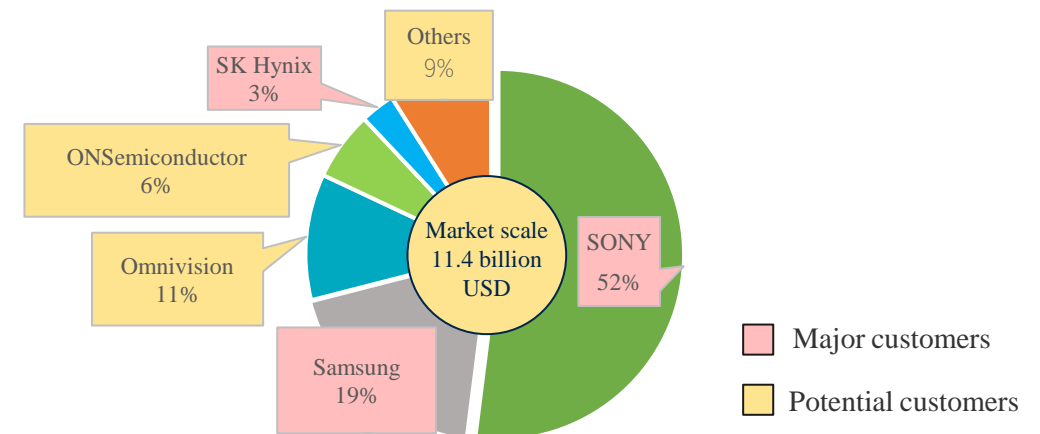
- Customers' policies to purchase from two companies are creating price competition. (in Japan)
- There are few customers; we are highly dependent on existing customers.



[Future]

- We will develop technology to stay one step ahead of our competitors, and demonstrate our superiority using our technical capacity in the visible and invisible light sectors.
- We will strive to capture shares of new sectors (products for in-car equipment, etc.) and intensify sales outside Japan.
- We will engage in activities with our focus expanded to include the development of middle-end products.

<CMOS image sensor shares in 2017>

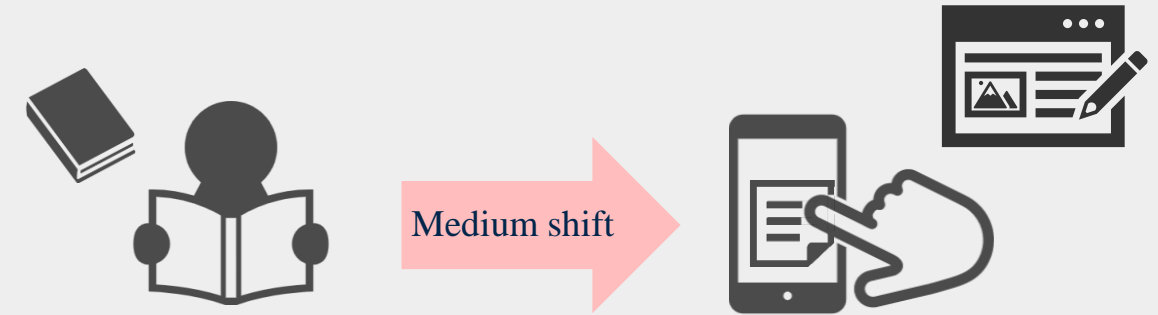


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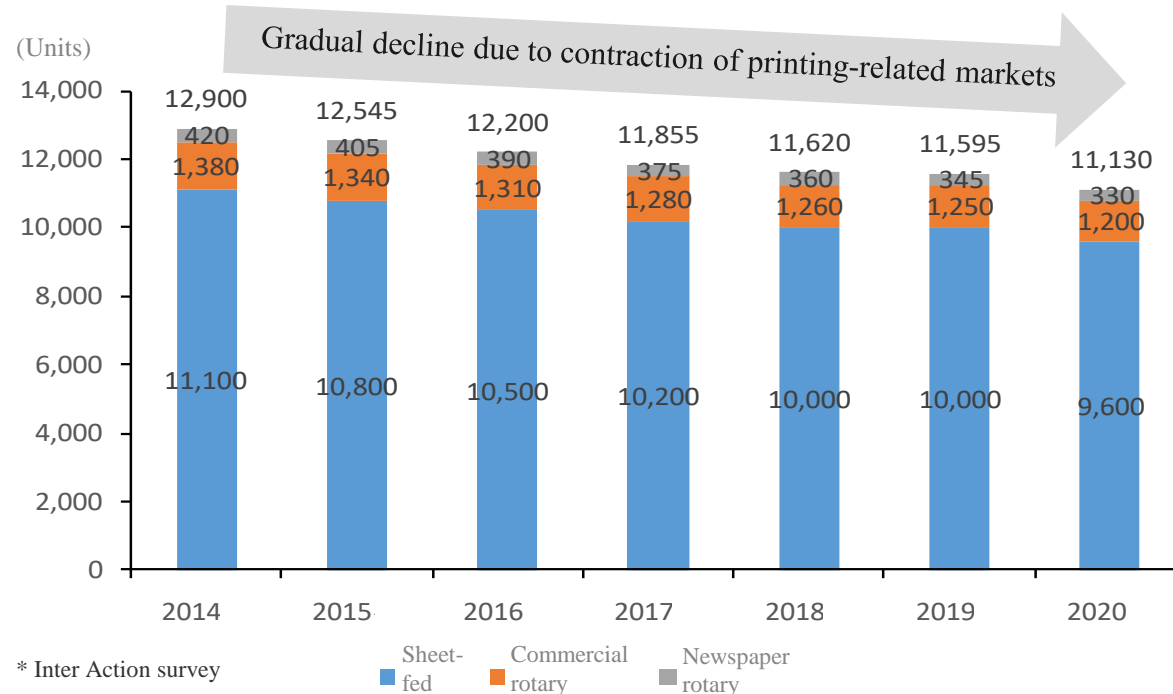
Environmental Energy Related Works Segment × Optical Technology (Market)

[Market situation]

- Digitization of paper media is contracting the market of the printing industry.
- The harsh market environment is causing nearly all competitors to retreat from relevant businesses.
- There is a shift away from regular ink due to pollution issues and productivity improvement.
→ Demand for UV ink printers is increasing.



<Japanese market for offset ink printers (based on number of operating units)>



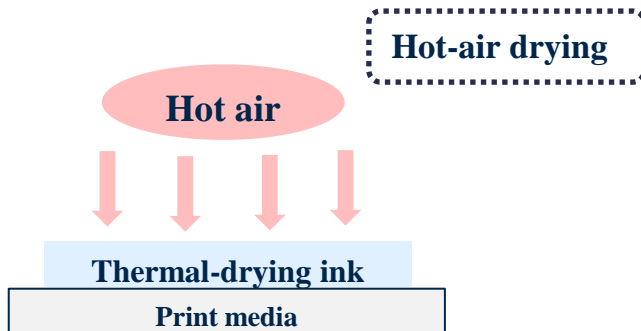
[Present state]

- We manufacture exhaust gas treatment systems to remove foul odors and exhaust gases generated in factories, drying deodorizers for offset rotary (printing) presses, and more.

[Issues]

- Sales are declining due to market contraction.
- Thin product lineup and narrow sales channels for offset printing presses.
- Forays into new sectors are not going well.

◆ Drying deodorizers



[Future]

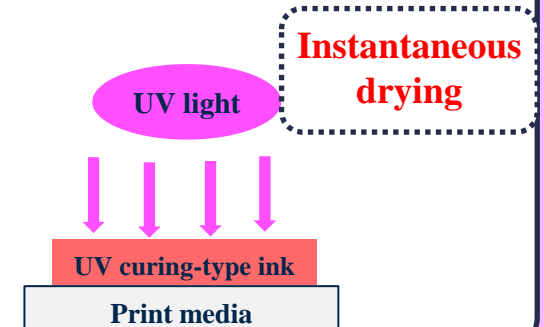
- We will develop a new UV curing-type drying system.
- We will leverage **optical technology** to achieve UV writing for application in printing.
- We will seek new business in sectors other than printing.




Conventional drying deodorizers



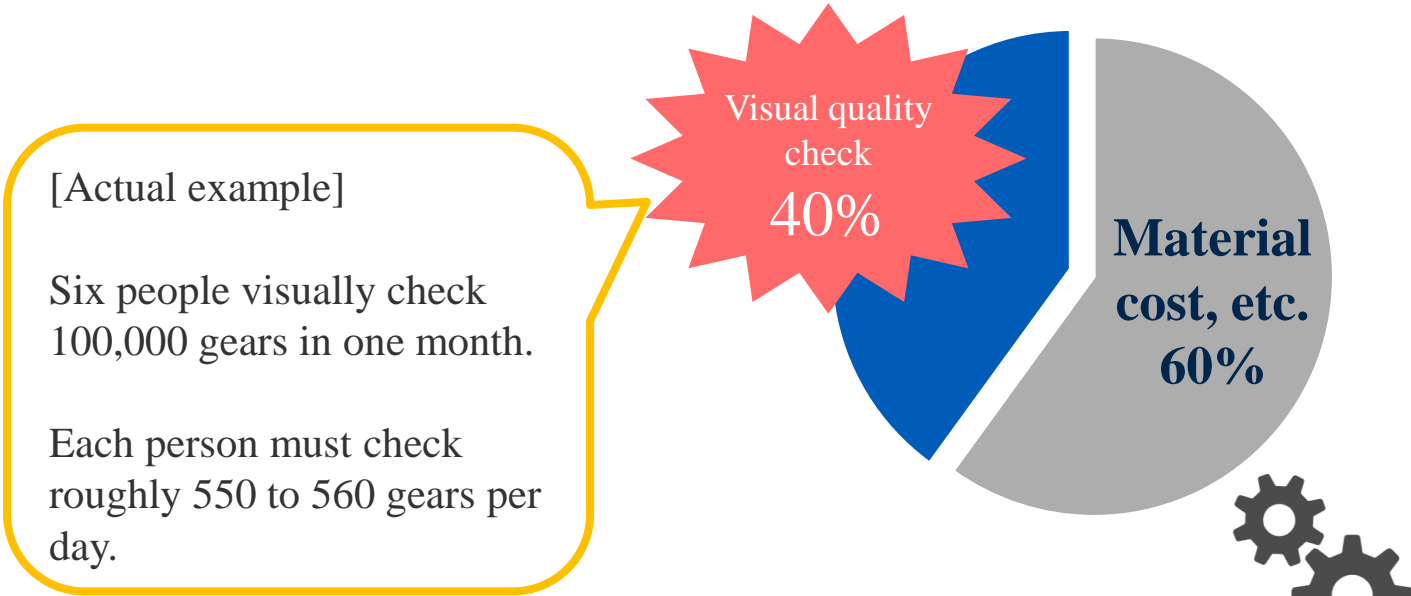
◆ UV curing-type drying system



- [Market situation]
- More companies are adopting image processing systems to meet a growing need for labor-saving amid a shortage of workers, and because image processing technology is improving. The market is expected to expand.
 - Even in the metal gear inspection sector in which the Group is involved, many companies that manufacture metal gears check components visually for defects.
-  This comprises roughly 40% of the cost of producing metal gears. Also, individual differences could lead to errors in distinction.



<Metal gear production cost breakdown>



(1) FA Image Processing-related Business (Vision)

[Detection of gear damage]

- Gears have complex shapes; it is difficult to detect damage on images.

➔ Our Group’s optical technology captures images suited to inspections by performing writing aligned with the items being measured.

<Status of progress>

	Conceptual phase		Verification phase		Investment phase
	Formulation and launch of business concepts	Establishment of elemental technology	Consideration of potential for developing as device	Production of prototypes	Commercialization
Present					

[Previous MTBP]

Conceptual

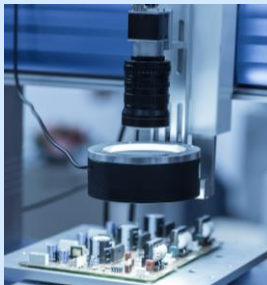
- Apply know-how from **gear testing machines** manufactured by the Inter Action Group.
- Start developing systems and mechanisms for automatically detecting defects from captured images of gears.



[Present state]

Verification

- Selection of lighting, camera, and controller parts of the **FA image processing device** is complete.
- Gear defect imaging is possible if performed one at a time.**
- We are brainstorming and developing an **AI system for distinguishing between good and defective gears** based on image data of imaged gears.



[Future]

Verification

Investment

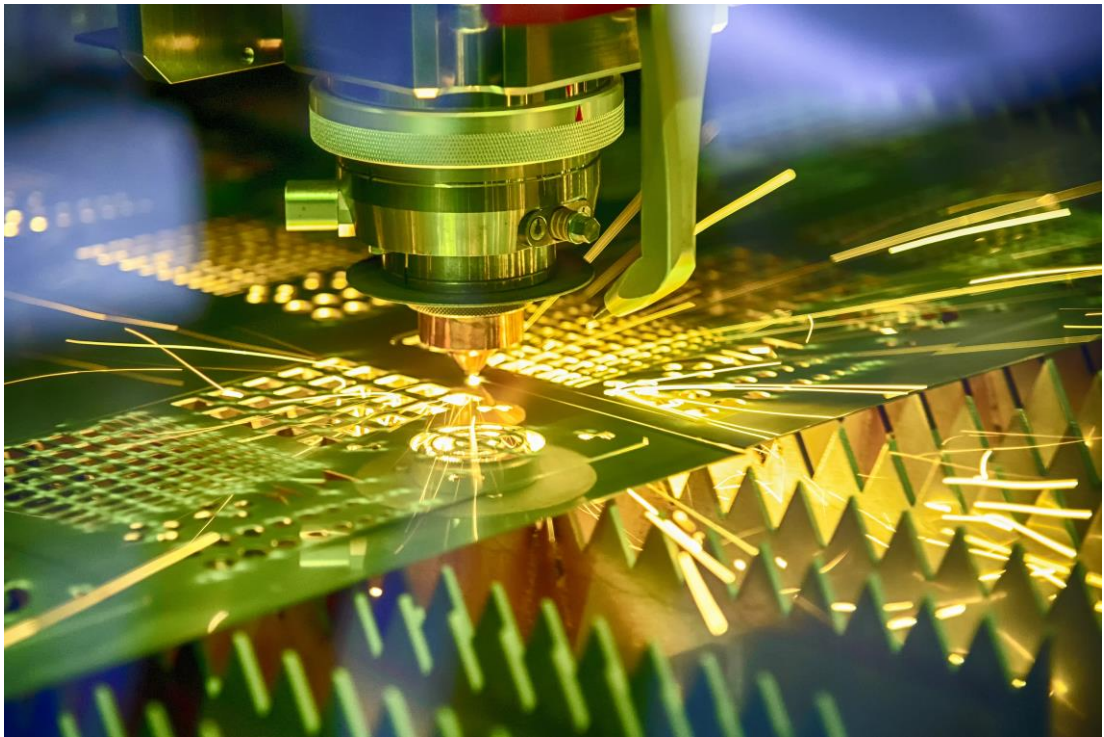
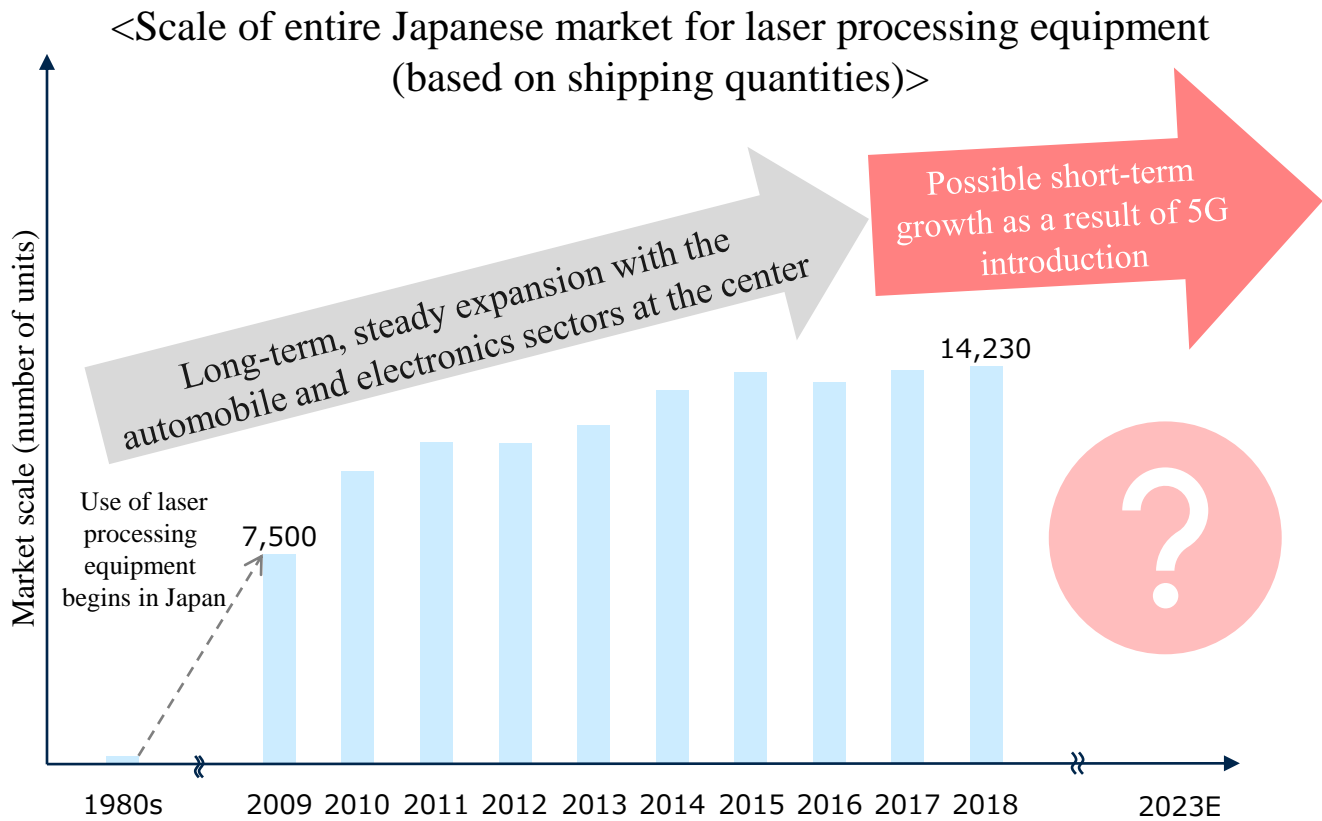
- Develop a system that uses image data to distinguish between good and defective gears.
- Brainstorm a system for robot parts tasked with moving and transporting the gears.
- We will expand our focus to include application to various metal products, and seek new needs outside of metal gear inspections.



[Market situation]

Long-term: Expand in due order with the automobile and electronics sectors at the center.

Short-term: Increase in the adoption of ceramic components (high-frequency components, LTCC circuit boards, etc.) in the course of 5G introduction.

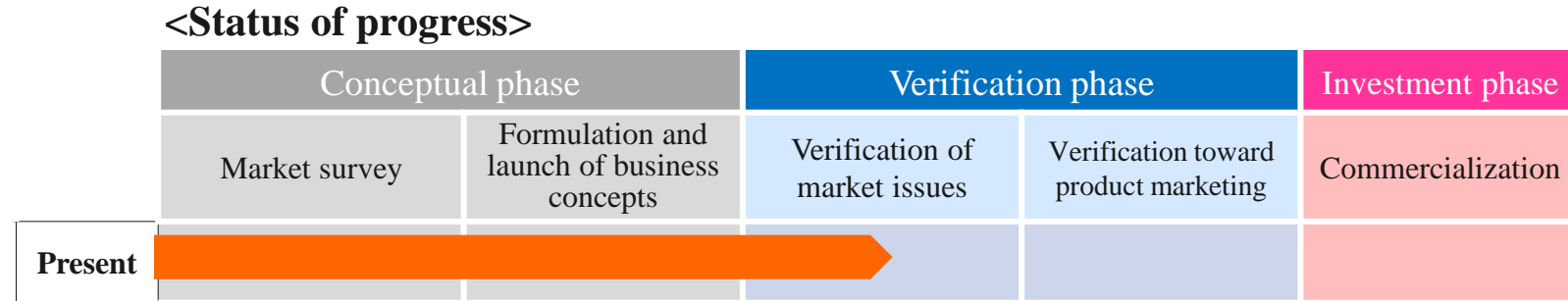


(2) Laser Processing Business (Vision)

[Development/supply of laser processing equipment suited to customers' needs]

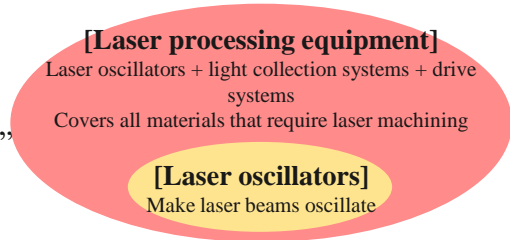
- Lastech Co., Ltd. made into a subsidiary company through M&A.

➔ Striving to develop business by leveraging three strengths



(1) In-house development/manufacturing of laser processing equipment

- “Laser oscillators”
- ➔ Limited scope of objects that can be machined.
- “Laser processing equipment”
- ➔ Possible to flexibly address customers' needs.



(2) Ownership of a massive database of machining conditions

- **Database compilation**
- ➔ Machining results of various materials are compiled into a database.
- Rapid response possible for system development as well.



(3) Collaboration with outside companies obviates major capital investment

- Response possible in niche sectors and small lot sizes that our major competitors rarely handle.
- We even provide consulting for major customers.



[Present state]

- We have been entrusted with the development of laser processing equipment using present facilities and staff members.

[Issues]

- Because production capacity is low, we are unable to accept some business.
- We need to establish and adjust our management base.

Conceptual

[Future]

- We will leverage our strengths and strive to establish a business base to enable medium- and long-term business expansion.
- Through capital investment and the addition of personnel, we will establish a system that enables us to capture all potential demand.

Verification

Investment



[Basic policy]

- Sales expansion of existing products ➡ Aim to increase product share by capturing customer demand from market trends.

Gear testing machines

[Issues]

Once introduced, the machines can be used for 20 years; thus, replacement is infrequent, and we do not have a consistent pool of customers to sell to.

- ➡ Product volatility is also high; thus, we need to expand our focus to include a consistent pool of customers or an increase in the number of customers.



[Future]

- We will continue to invest proactively in gear testing machines for the automobile industry—a long-term area of focus—with the aim of increasing the number of customers.
- Automobile production and units sold are increasing significantly in India, China, and other developing countries, and the transition to EV will continue; thus, we project further expansion of demand for gear testing machines.



Vibration isolation systems

[Issues]

- The market for related equipment within the target for sales is stagnant, **moving 0% to 1% per year**.
- It is difficult to envision groundbreaking innovation in this industry; thus, we expect the trends to continue in the future.
- ➡ We need to expand the range of target equipment/customers.



[Future]

- To expand the range of customers, we will invest more proactively in vibration isolation systems used in OLED-related sectors—a long-term area of focus.
- Demand is on the rise for OLED for applications for smartphones and the like; we will take advantage of the increased demand by proactively manufacturing foldable smartphones.



Mid-Term Plan

In light of the recent business environment, we have revised some of the numerical targets set out in the Medium-Term Business Plan devised in January 2019, and changed the achievement target from FY2021 to FY2023.

The spread of novel coronavirus infections has made it difficult to project short-term performance; however, we are moving ahead with business so that we can achieve consolidated sales of JPY 10 billion in FY2023.

	Performance for FYE May 2020	Target for FYE May 2023
ROE	13.2%	15% or higher
Net sales	7 billion yen	10 billion yen or more
Operating profit ratio	22.0%	20% or higher

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Efforts Toward Achieving SDGs (Sustainable Development Goals)

Sustainable development goals (SDGs) are global goals for creating a better world through sustainability as defined in the *2030 Agenda for Sustainable Development*. They were adopted at the UN Summit in September 2015.

The Inter Action Group is presently taking the following types of initiatives with the intent to contribute to the achievement of SDGs while further broadening the range of initiatives in the future.

Initiatives in business activities

(1) Acquiring ISO 9001 and ISO 14001 certification (Inter Action)

As a company worthy of society's trust, we are engaging in environmental conservation activities based on our policies for quality and the environment.



(2) RoHS measures (Meiritz Seiki)

We comply with EU regulations, and do not use specified hazardous substances (or use them below permissible concentrations) in our manufacturing of electrical and electronic equipment.



(3) Providing environmental solutions (Air Gases Technos, Tokyo Technical)

To reduce the burden on the global environment, we propose an ecosystem in which energy is used effectively to increase efficiency, and are promoting a transition to low carbon and greening.

Also, Tokyo Technical's gear testing machines are used to measure the gears used in wind turbines.



(4) Mega solar joint operation (Inter Action)

We are operating mega solar projects in collaboration with third parties.



(5) Initiatives for new business (Inter Action Group)

We are presently making efforts on FA image processing-related business and laser processing equipment-related business as new businesses. We are promoting business that crosses barriers between group companies to bring new innovation and solve problems that are holding back progress in those business sectors.



Initiatives in improving workplace environments

(1) Establishing an environment in which men and women have equal opportunities to flourish

We are establishing workplace environments that can respond flexibly to circumstances through the introduction of distinctive systems such as Family Support Leave that enables employees to provide care for elderly or sick family members, attend school functions, deal with morning sickness, acquire fertility treatment, and more.

Additionally, women account for 21% of Inter Action's full-time employees (as of May 31, 2020) and are flourishing in many sectors.



(2) Adopting a training system

We regularly provide leadership training, and are maintaining a system capable of delivering high-quality education.



(3) Improving welfare benefits

To achieve workplaces in which each and every employee can flourish, we have adopted various welfare benefits and systems.

- Employee Stock Ownership System
- Board Benefit Trust for employees
- Enrollment in Smaller Enterprise Retirement Allowance Mutual Aid
- Paying housing allowances and family allowances
- Conducting stress checks on a regular basis
- Fully subsidizing influenza vaccinations
- Paying for additional items on regular medical examinations (providing the option for a full physical examination with no individual copay for people above a certain age, etc.)



(4) Establishing a disciplined organization

We are taking the following types of initiatives to maintain a fair, proper work environment.

- Safety and Health Committee reviews of workplace environments on a regular basis
- Monitoring working hours to ensure compliance with overtime work agreements
- Paying for overtime work in one-minute increments
- Adopting whistleblowing systems



Key benchmarks	Equity Spread ROE WACC
Dividend policy	Total return ratio of 30%
M&A strategy	Focus on fields of growth and potential growth. Focus on fields where we can pursue business development by leveraging technologies and expertise built up thus far. Achieve positive net present value calculated on the basis of estimated cash flows for five years using WACC as the discount rate.

Company Profile

Trade name: INTER ACTION Corporation

Established: June 25, 1992

Representative: Nobuo Kiji, CEO & President

Capital stock: 1,760 million yen

Employees: 139 (Group-wide as of May 31, 2020)

Head office: Yokohama Kanazawa High-Tech Center 14F
1-1 Fukuura, Kanazawa-ku, Yokohama-shi,
Kanagawa
Tel: +81-45-788-8373 Fax: +81-45-788-8371

URL: <http://www.inter-action.co.jp>

Group companies:

Air Gases Technos Co., Ltd.

Meiritz Seiki Co., Ltd.

Tokyo Technical Instruments Inc.

Xian INTER ACTION Solar Technology Corporation

Shaanxi MEIRITZ SEIKI Co., Ltd.

MEIRITZ KOREA Co., Ltd.

Taiwan Tokyo Technical Instruments Corp.

TOKYO TECHNICAL INSTRUMENTS (SHANGHAI) CO., LTD.

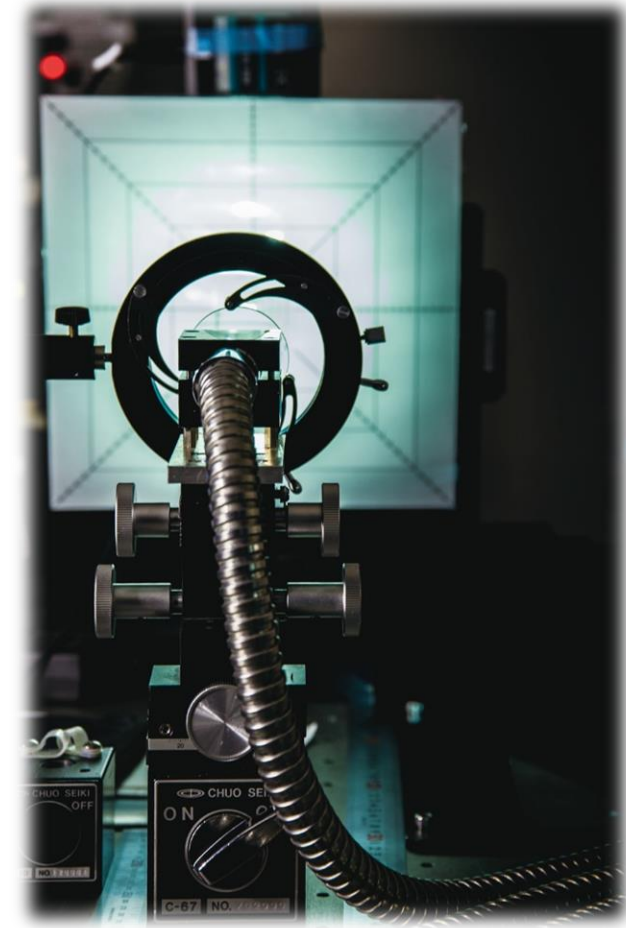
Lastech Co., Ltd.

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Please contact us through the Inquiries page
of the Inter Action website (in Japanese).





Notes

This document contains forward-looking statements particularly regarding Inter Action's future performance. The Inter Action Group has formed its outlook encompassing potential risks and uncertainties based on information available at the time of disclosure. Accordingly, please be advised that actual financial results may vary substantially from the forecasts presented, given that they are subject to economic circumstances surrounding areas of business going forward, market trends, and other such factors.

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