



Financial Results Material for Fiscal Year Ending March 31st, 2021

Autonomous Control Systems Laboratory Ltd.
12 May 2021

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- Under **ACSL Accelerate**, announced in August 2020, **ACSL is aiming to achieve 100 billion JPY sales after 10 years and over 5 billion JPY sales in FY23/03**, and proceeding initiatives to achieve these goals
- Civil Aeronautics Law is being revised for expansion of industrial drone market and social implementation, and demand for secure drones is increasing.
 - **In December 2020, the government announced plans to establish a licensing system and a certification system** for drone safety for Level 4 regulation in 2022 and Cabinet approved a revision of Civil Aeronautics Law in March 2020
 - As the **U.S. Government imposed embargo on DJI, Chinese drone manufacturer**, many security measures are implemented globally. **The Japanese government announced procurement policy of secure drones** in September 2020
- The business strategies in the mid-term management direction for the social implementation of drones are being implemented as planned, and the results of activities are starting realized
 - **Application-specific drone: Secure small aerial drones is progressing as planned toward the FY22/03 Q3 launch**, and prototype are disclosed in April 2021. **For enclosed environment inspection drone, a joint venture (FINDi) was established with NJS for full-scale mass production in FY22/03**. Smokestack inspection drone and the delivery drone have been successfully demonstrated in actual environments
 - **Subscription model : Launched a subscription service in May 2021** to meet a wide range of customer needs
 - **Entry into overseas : Decided to establish JV in India** to respond in rapid security demand in large market
 - **CVC : Investment in Aerodyne, Asia's No.1 drone service provider**, from CVC established in December 2020
- **Sales was 620 MM JPY in FY21/03. ACSL Accelerated R&D activities as an upfront investment, resulting in operating loss of 1,139 MM JPY.** Due to the prolongation of COVID-19 and emergency declaration, **decided to postpone projects, suspend demonstrations and shift to the next fiscal year**
- **Sales for FY22/03 are expected to be 2.5~3.0 billion yen** as the same level of sales as FY20/03 and **small aerial drone will contribute sales growth**. Already **backorder for this fiscal year of 311 million JPY**

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MISSION

Liberate Humanity Through Technology

VISION

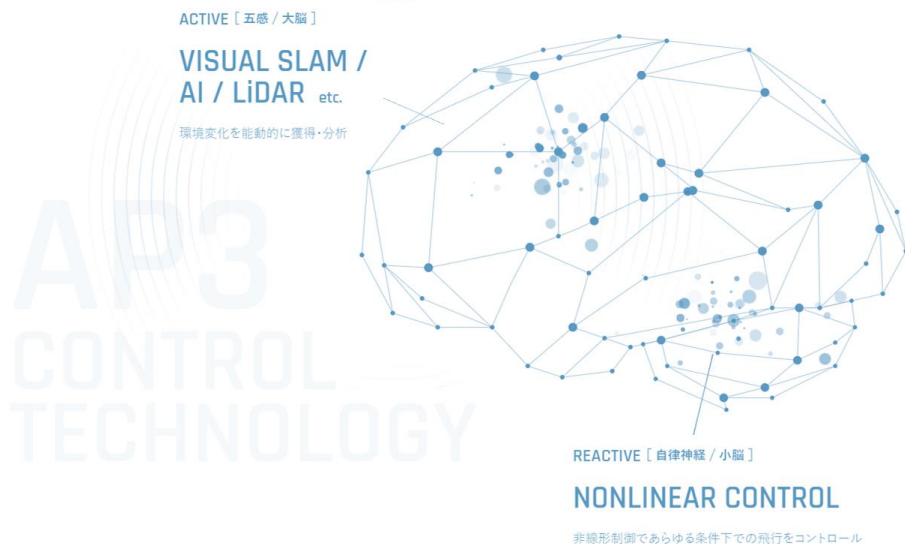
**Revolutionizing social infrastructure
by pursuing cutting-edge robotics
technology**

ACSL is an industrial drone manufacturer pioneering drone market

ACSL is an industrial drone manufacturer developing application-specific drones through site visits, discussions, and demonstrations with customers to replace and improve operations, using proprietary autonomous control as its core technology

ACSL core technology

The proprietary control technology consists of the “cerebrum”, which actively grasps the surrounding environment, and the “cerebellum”, which controls flight in any environment



Knowledge through customer projects

Develop specific drones through verification of technical and economic requirement for each applications through discussions with customers and demonstrations in actual environments.



Nihon Unisys, Ltd.



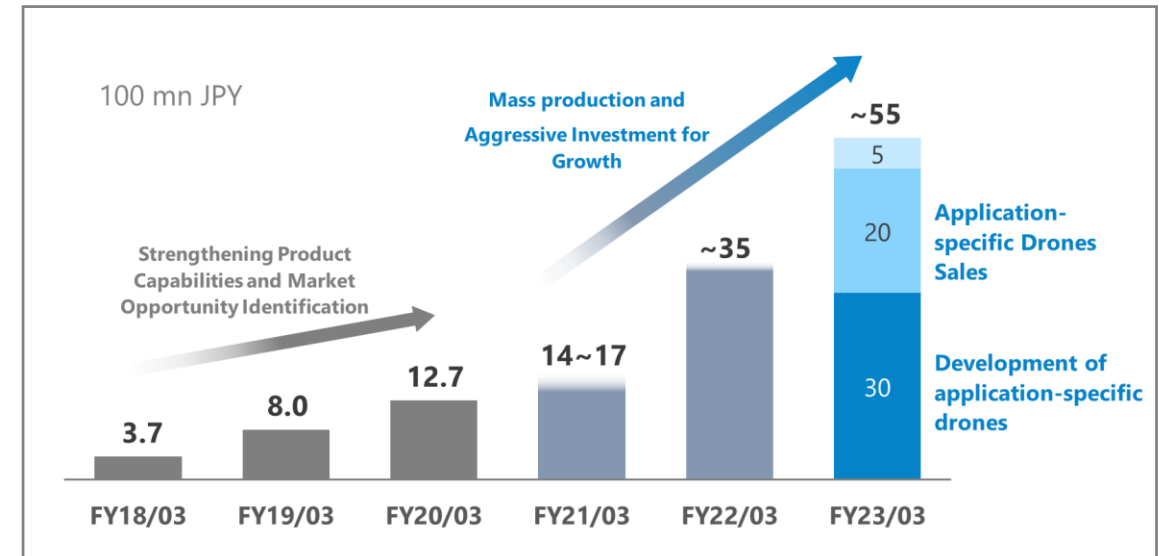
Announced "ACSL Accelerate" in August 2020 to achieve market dev

In the "ACSL Accelerate" announced in August 2020, a masterplan that defines what ACSL should be aiming for after 10 years and a mid-term management direction (FY21/03-FY23/03) to realize it and promoting projects to achieve

A masterplan defining what ACSL aim for after 10 years

- 1 Global pioneer in solving social infrastructure issues
- 2 More than 100 bn JPY sales, 10 bn JPY sales profit
- 3 Mass production manufacturer that produces 30,000 units/year
- 4 Supporting the country with de facto standards
- 5 Developing cutting-edge technologies for autonomous control (cerebellar and cerebral)
- 6 Nurturing the industry's most advanced and talented human resources
- 7 Constantly working to improve its corporate value and financial KPIs

Sales in mid-term management direction (FY21/03-FY23/03)



* FY21/03-FY23/03 sales are based on the mid-term management direction disclosed in August 2020.

The industrial drone market is growing

In addition to Levels 1, 2, and 3 which have already been in practical use, regulations for BVLOS¹ flight in populated areas (Level 4) are expected to be in place by 2022 and to create huge space and market for industrial drone usage in Japan.

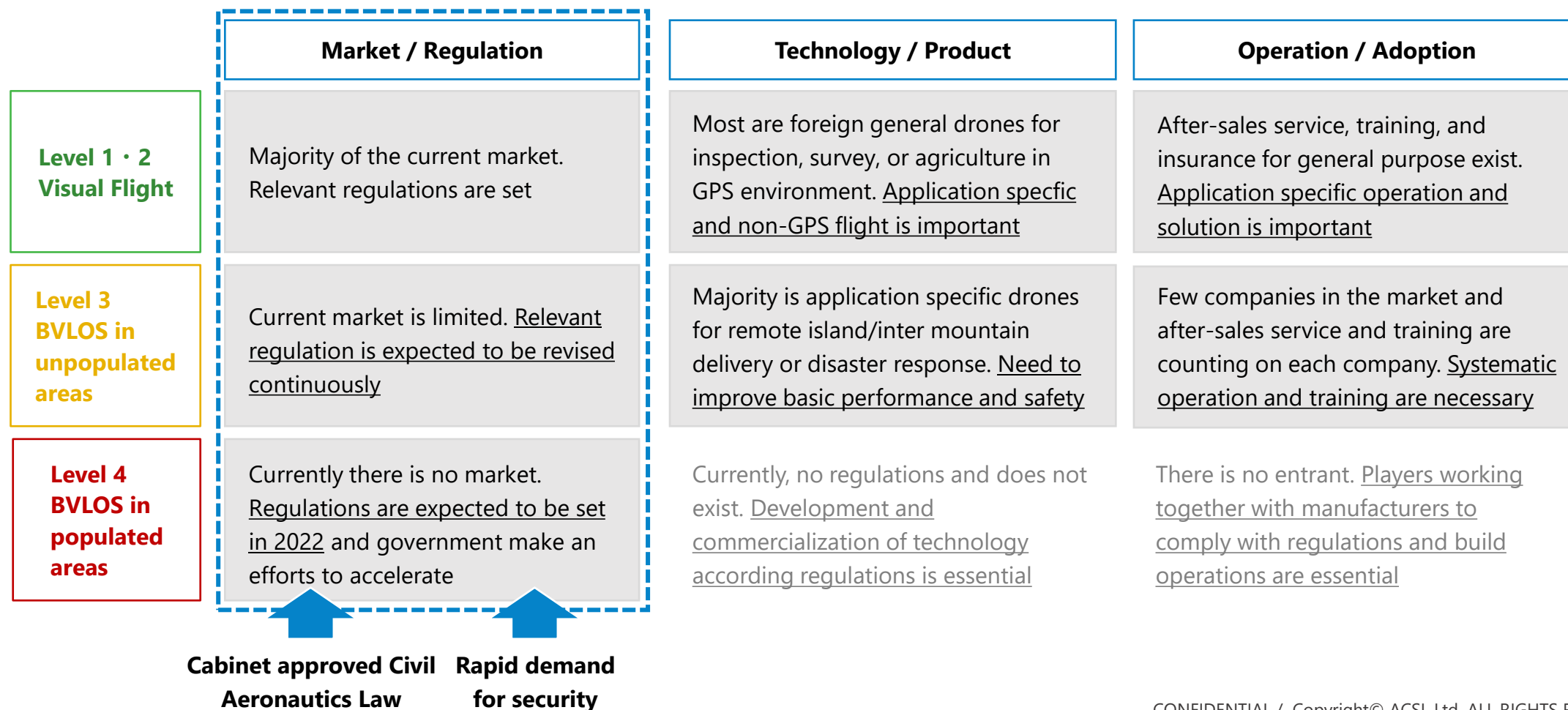
Industrial Drones Market Classification



¹: Beyond-visual-line-of-sight
SOURCE: Roadmap for Small UAV Utilization and Technological Development (April 28, 2016, Public-Private Sector Council for the Improvement of the Environment for Small UAVs)

Current Requirements for Market Expansion

In Levels 1 and 2, currently driving the market, requirement for market expansion are prepared, and the social implementation is expected. In Level 3 and 4, requirement are currently being developed, and the market is expected to expand in the future

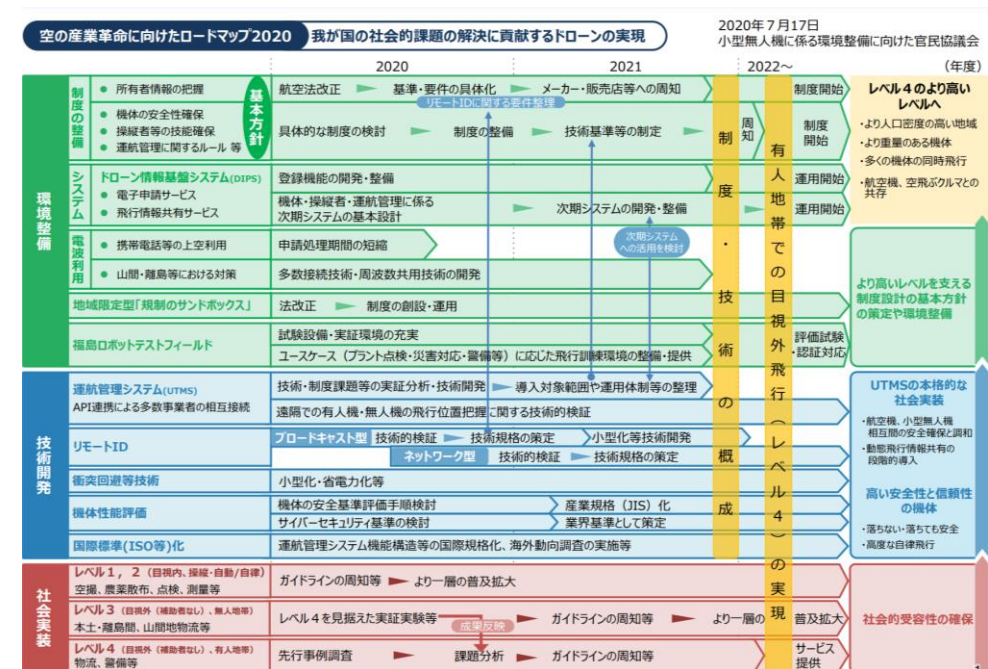


In May 2017, the Japanese government released its first "Roadmap for the Industrial Revolution in the Sky" and began working toward achieving Level 4 by 2022. In 2021, the Cabinet decided to revise the Civil Aeronautics Law in preparation for Level 4

Government action toward revision of Civil Aeronautics Law

May 2017	Released "Roadmap for the Industrial Revolution in the Sky" ¹
Sep. 2018	Announced Level 3 regulation²
Mar. 2020	Announced the institutional overview to achieve Level 4 Announced overview to achieve Level 4, including aircraft certification, pilot license, remote ID, etc. ³
Dec. 2020	New institutional directions for achieving Level 4 To ensure safety flight in a more stringent manner to achieve Level 4 flight, government announced the direction of setting the certification for drone safety ⁴
Mar. 2021	Cabinet approves revision of Civil Aeronautics Law to realize Level 4 Cabinet approved certification system for drone safety (aircraft certification), pilot skill certification (pilot license), and mandatory reporting of accidents, etc. ⁵

Roadmap for the Industrial Revolution in the Sky 2020



1: "Roadmap for the Industrial Revolution in the Sky," May 19, 2017, Public-Private Council for the Improvement of the Environment Related to Drone

2: "Examination Guidelines for Permits and Approvals for Unmanned Aircraft Flights," September 14, 2018, Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism.

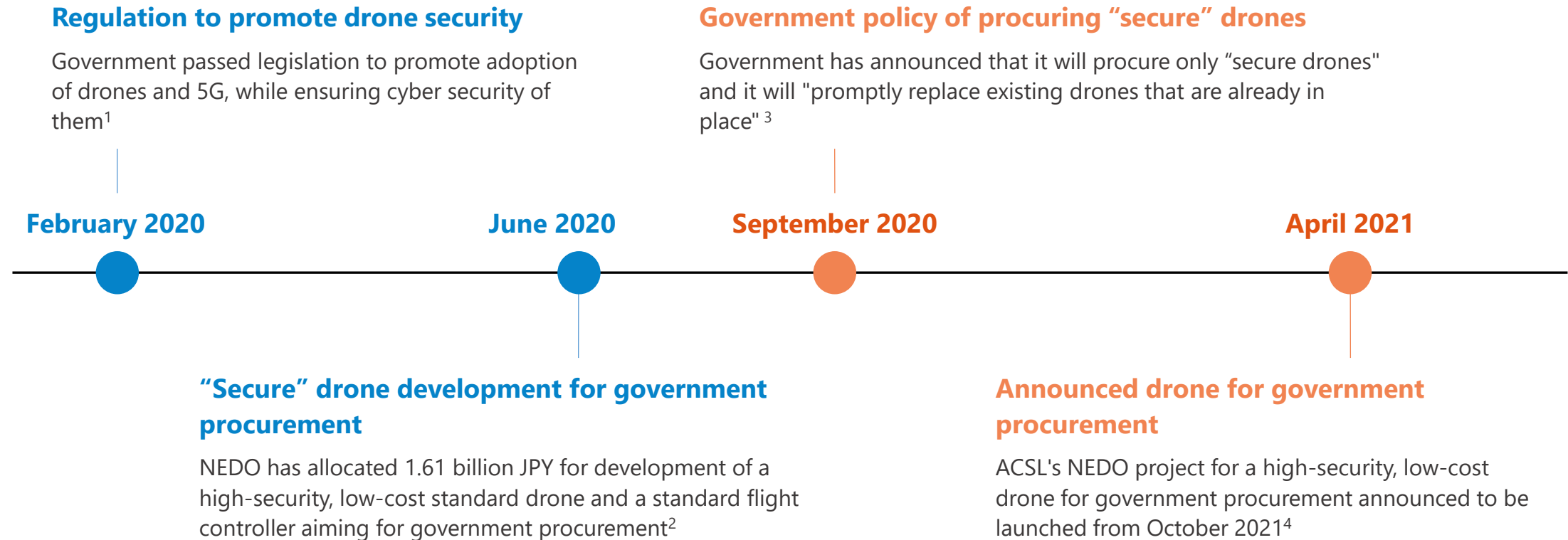
3: "Institutional Design for Realization of Drone Flights Beyond Visual Line of Sight (Level 4) in Manned Zones," March 31, 2020, Public-Private Consultative Group for Improving the Environment Related to Drone

4: "Toward the realization of beyond-visual-line-of-sight flight in populated areas (including cities) (Level 4) in manned areas" December 10, 2020 Liaison Conference of Relevant Ministries and Agencies on Small Drone

5: "Cabinet Decision on a Bill to Amend the Civil Aeronautics Act, etc." March 9, 2021, Ministry of Land, Infrastructure, Transport and Tourism

Japanese government decides to introduce secure drones

Japanese government announced procurement policy for secure drones in September 2020. In April 2021, it announced launch of a small aerial drone for government procurement from October 2021, ACSL had been working on under NEDO project



1: "Outline of the Draft Law on Promotion of Development, Supply and Introduction of Specified Advanced Information and Communications Technology Systems" February 19, 2020 Ministry of Economy, Trade and Industry

2: "Development of Basic Safety Drone Technology" June 25, 2020 New Energy and Industrial Technology Development Organization (NEDO)

3: "Policy on the Procurement of Unmanned Aircraft by Government Agencies, etc." September 14, 2020 Liaison Conference of Relevant Government Agencies on Small Unmanned Aircraft

4: "ACSL, secure drone release, sale in October" April 14, 2021, The Nikkei.

U.S. Government imposed embargo on DJI, Chinese drone manufacturer

In Japan, following the government policy of procuring secure drones, private companies have taken similar actions

U.S. Embargoes China's DJI, Largest Drone Company, for Involvement in Human Rights Violations

On December 18, the U.S. Department of Commerce imposed embargo on China's DJI, the world's largest drone manufacturer. It was determined that the company was involved in human rights violations using high-tech surveillance technology. Drones made by DJI are also used by Japanese companies and may be affected by the sanctions.

The company was added to the Entity List("EL"), a list of companies with security problems. Exporting U.S. products to the company requires a license from the Department of Commerce, and license applications are generally rejected. (ellipsis)

DJI's drones are used in many countries around the world, including Japan and the United States, and are said to hold 70% of the global market share.

DJI's drones incorporate U.S. semiconductors and other components, which **will become more difficult to procure. This is likely to have an impact on Japanese companies that use the DJI's products to inspect infrastructure and factories.**

The Trump administration has been pushing for a ban on DJI because of fears that Chinese drones, which can take aerial photos, could be used by the Chinese government for espionage. U.S. President-elect **Joe Biden is determined to take a hard line on China's human rights violations, and it is highly likely that sanctions will continue.** (ellipsis)

Chinese drones are being eliminated Infrastructure Inspection, Information Leakage Concern

Japanese companies are moving to avoid the use of Chinese drones, and NTT Group is switching to Japanese drones for infrastructure inspections. Kyushu Electric Power is also considering it. (ellipsis)
NTT's subsidiary companies are using drones to inspect communication cables in bridges, and some of which are Chinese drones while the number and manufacturer have not been disclosed. **The companies will stop using Chinese drone by the time they are due for renewal, and switch to Japanese drone.**

There is a national trend in the background. **In its drone procurement guidelines from FY 21, the government announced that it would "promptly replace high-cybersecurity-risk drone with low-risk ones".**

The Japan Coast Guard has already stopped using Chinese drones. In effect, it is seen as an **exclusion of Chinese products.** In addition to the security sector, drones for infrastructure inspection are also targeted. **The private sector, outsourcer of government work, was also asked to take security measures.** (ellipsis)

Strategy for the mid-term management direction in response to market conditions

In response to the regulation of Level 4 and the increasing demand for secure drones, mid-term management direction has set four business strategy with the goal of "from a prototype factory to a mass production manufacturer"

Development of application-specific drones

Commercialization of small aerial drones (for government procurement and the private sector), medium logistics drones (Level 4 compliant), smokestack inspection drones, and enclosed environment inspection drones

Introduction of subscription model

Subscription-based fixed income/recurring sales model to be introduced to meet various customer needs, in addition to one-off drone sales

Full scale entry into ASEAN region

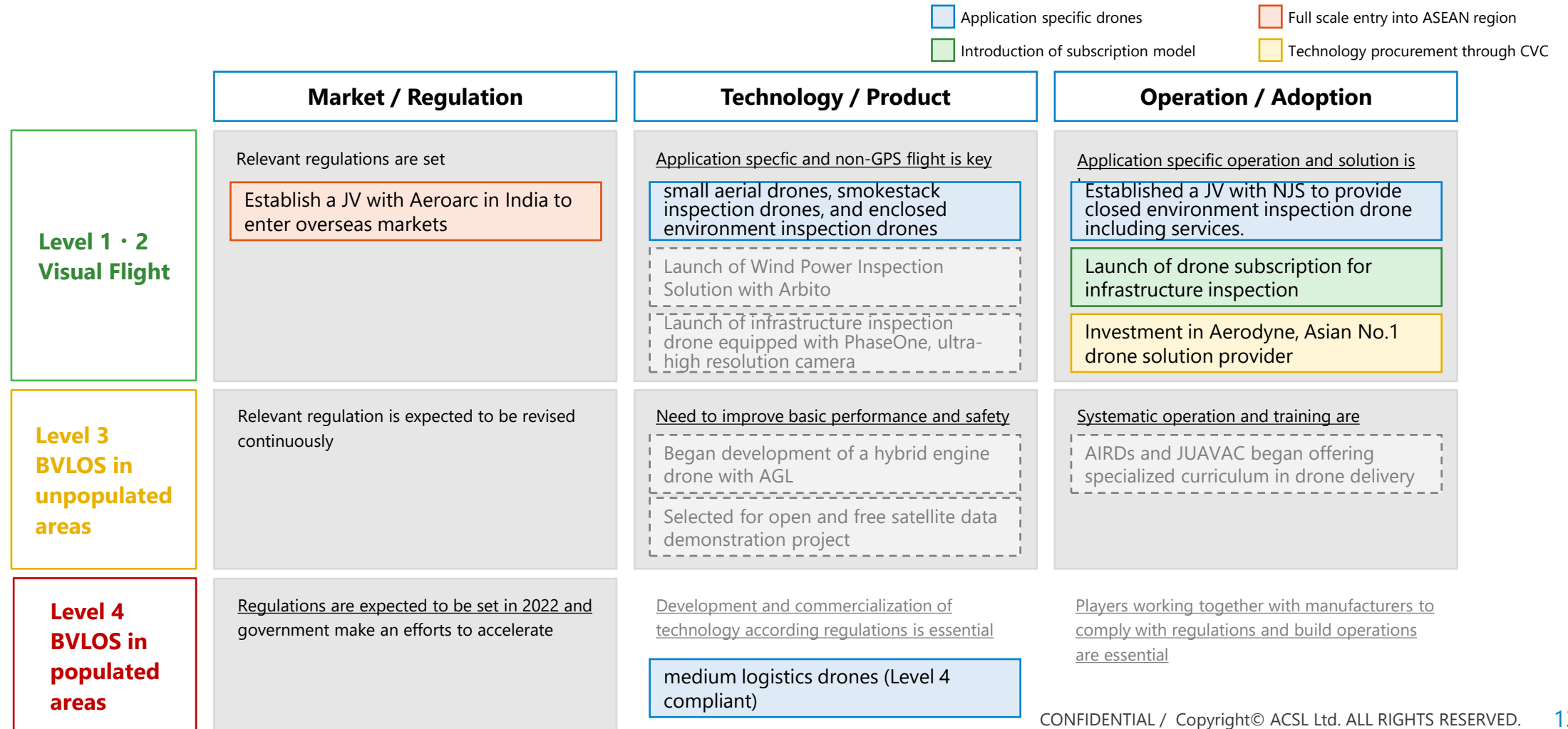
Establish an office in Singapore, the core city in the ASEAN region, and hire local talents to conduct development and sales activities, and begin full-scale overseas expansion

Technology procurement through CVC

Establish CVC (or equivalent function) and actively procure technologies with potential for technology synergies, such as AI, blockchain, security, image processing and sensors

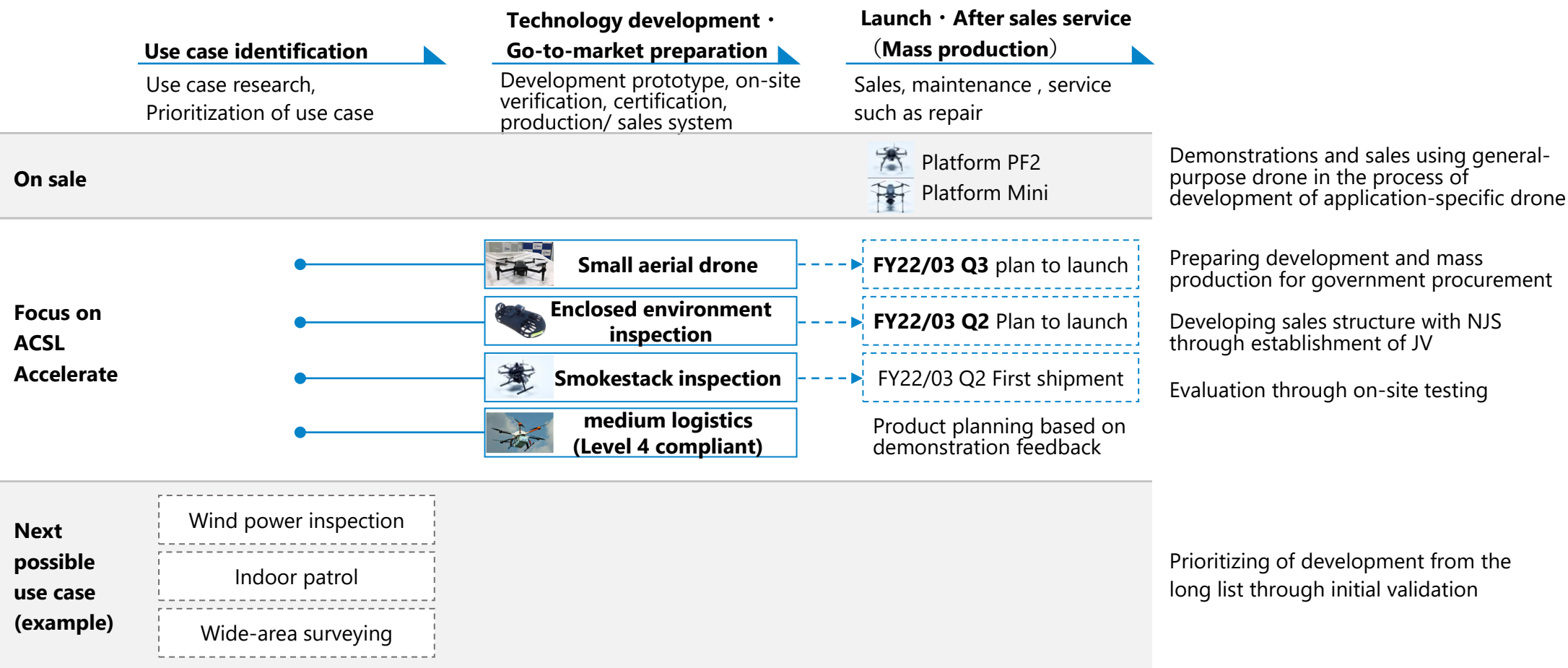
Implemented business strategy to expand markets and customer base

ACSL implemented many measures in addition to the four measures in the mid-term management direction "ACSL Accelerate" to meet the requirements for market expansion, and have achieved results. ACSL will continue strategic initiatives in the future for FY23/03



Application-specific drones : Steps toward the launch and current progress

ACSL is working with major customers to develop application-specific drones, and developing production, sales, and operation system for launch. Progress is on track toward four application-specific drone in the current fiscal year



Small aerial drones : Prototype released, launch from October 2021

NEDO project, of which ACSL is the consortium leader, has developed secure small aerial drones
Its prototype were released in April 2021, and announced that drones aim to start sales from October 2021

Project overview

- **NEDO launched a project of 1.61 billion JPY¹ for developing high-security, low-cost drone for government procurement** in April 2020
- **Announced that drones aim to start sales from October 2021**
- **ACSL was the consortium leader** in organizing the project
- Consortium members



Overview of the prototype drone

- 1.7kg / 65cm wide / IP43 (Dustproof · Waterproof)
- **Wide compatibility**, including one-touch camera switching and standard communication protocols
- **Security measures for flight data, photo data, wire communications, etc.**
- **User Interface incorporating user feedback** through agile development



1: The size of businesses adopted is the size of the projects of all the companies and is not ACSL sole budget

Prototype announcement attracted a lot of media attention

The secure drone, developed by ACSL as a consortium leader, attracted a lot of major media attention as drone for the government

ACSL, secure drone release, sale in October

ACSL, a project commissioned and subsidized by NEDO, **released a drone** under development by five companies including Yamaha Motor Co. The drone, which is **equipped with security measures** for flight data and other information, is scheduled to be sold as an ACSL drone from October, and ACSL **aims to record it as consolidated sales during the fiscal year ending March 2022.** (ellipsis)

In addition to disaster relief and security applications for government agencies, it is also expected to be used for infrastructure inspections by power companies. (ellipsis)
In addition to government and domestic companies, aims to sell in Southeast Asia, especially in India and Singapore. (ellipsis)

SOURCE : "ACSL, secure drone release, sale in October" April 14, 2021, The Nikkei. Translated by ACSL

Small drone to protect critical information to be developed for mass production this fall, METI

On April 13, the Ministry of Economy, Trade and Industry (METI) and the New Energy and Industrial Technology Development Organization (NEDO) developed and released a small drone with excellent security measures to protect important information such as flight records and photographic images. The drone will be used for **inspecting electric power facilities and checking the damage status at disaster sites**, aiming to solve the shortage of workers and reduce dangerous work.

Aiming to establish a mass production system at a contract development company this fall. (ellipsis)
The communication information is encrypted to prevent leaks, and the data is stored in the cloud instead of in the drone. Domestically produced drones for industrial use have traditionally been mainly large models, but the introduction of small agile models is expected to revitalize the market.

SOURCE: "Small drone to protect critical information to be developed for mass production this fall, METI" April 13, 2021, KYODO NEWS, Translated by ACSL

Media photos



Delivery : Successful site demonstration with a 5 kg payload drone

In December 2020, Conducted on-site demonstration of a 5 kg payload delivery drone as actual environment with ANAHD
Successful flight a total of 65 times, more than 160 km in four days

Project background

- **ACSL has conducted Level 3 demonstrations in the delivery area with a number of clients**
- Payload of current ACSL drone is about 3kg
- **For social implementation**, capability of 20 km flight distance **with 5 kg payload** is essential
- **Developed prototype of 5 kg payload delivery drone** based on the on-site verification results
- Will continue to conduct further on-site demonstration with prototype delivery drone , aiming for social implementation

Project overview

- **Conducted on-site demonstration of a 5 kg payload delivery drone prototype in actual environment with ANAHD**
- Demonstrated an immediate delivery service of daily necessities and prescription drugs
- **Succeeded 65 times flights, in total more than 160 km**, in four days



5 kg payload delivery drone prototype



Cargo transportation in on-site demonstration

The smokestack inspection drone developed by KEPCO using ACSL-PF2 conduct on-site demonstrations in actual environments and got satisfactory results. Building evaluation and production system for initial shipments in FY22/03 Q2

Background and Objectives

- **Issues such as safety risks** at heights working and work that takes **several weeks** to complete, etc.
- In August 2020, **ACSL-PF2 was provided to an autonomous drone developed by Kansai Electric Power Co. for smokestack inspection** of smokestack in thermal power plants.
- Kansai Electric Power, KANSO Technos and ACSL collaborate to promote inspection work inside smokestack



Overview of Smokestack Inspection Drones

- **Controlled to always be in the center of the smokestack, stable flight in non-GPS environments**
- Equipped with high-intensity LEDs and a high-definition camera (60 megapixels), can inspect interior walls and detect minute cracks in dark environments



Top left: Smokestack inspection drone (ACSL – PF2)

Top right: LiDAR technology which realized drone to estimate its own location, even in dark, hard-to-recognize smokestacks

Bottom: Image of the movie taken from PF2. The upper center is the entrance to the top of the smokestack

Development of a non-GPS autonomous drone for inspecting pressure regulating water tank¹ at hydroelectric power plants with Hokkaido Electric Power Co. by applying the application-specific drone in "ACSL Accelerate"

Project background

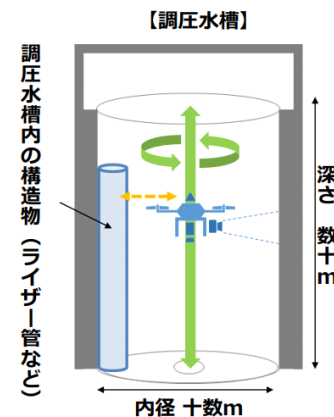
- Pressure regulating water tank inspection requires workers to suspend themselves from the top and directly check the deteriorated condition, which is **unsafe and inefficient**
- **Development of autonomous drone capable of stable flight in a non-GPS, dark environment inside water regulating tank by applying application-specific drone technology**
- ACSL develops drones for non-GPS indoor facility inspections with Hokkaido Electric Power Company



1: Pressure regulating water tank: A facility to mitigate water hammer effects caused by sudden changes in power output, such as load interruption of a generator

Overview of inspection drone

- **The drone flies while calculating its own location**, using the structure as a landmark in regulating water tank
- Repeatedly fly up and down and turn to take images of the entire inner wall surface.
- Check the condition of the inner wall surface based on the images



Established Joint Venture with NJS in anticipation of full-scale mass production of enclosed environment inspection drones, which have been jointly developed with NJS since 2015, aiming for the launch in FY22/03 Q2

Project background

- The total length of sewerages is approximately 480,000 km¹ in Japan, **increasing burden of inspection work** due to aging
- **ACSL have jointly developed enclosed environment inspection drone with NJS**, a leading company in Japan, **since 2015**
- With the aim of **full-scale mass production from FY22/03 Q2**, **established JV** to provide services including support



Jointly developed Air Slider™ 2

Overview of JV



- **Provide enclosed environment inspection drones**
 - 10% of capital
- **Provide infrastructure management technologies such as inspection, survey, and analysis**
 - 90% of capital

FINDi

- **Provide inspection and other services using enclosed environment inspection drones**

1 : Ministry of Land, Infrastructure, Transport and Tourism website
2 : NJS

Subscription model : Service starts in May 2021

In addition to one-off drone sales, launched a subscription service for inspection to lower initial cost for customers
Expect to attract potential customers by subscription services

Background and Objectives

- Introduction of drones is expected to reduce manpower and unmanned operations in infrastructure inspection
- However, **the introduction of high-quality industrial drones is a burden in terms of initial costs and maintenance cost and resource**
- Some customers gave up drone implementation due to hesitation to short-term costs
- **Launch subscription service, not one-off drone sales and aim to acquire potential customer base**

Advantages of subscription service

- **Significantly reduce the initial cost of installation of infrastructure inspection drone**
- Cameras and other equipment can be selected according to environment and application
- Contract periods are 3, 6, and 12 months



ACSL-PF2



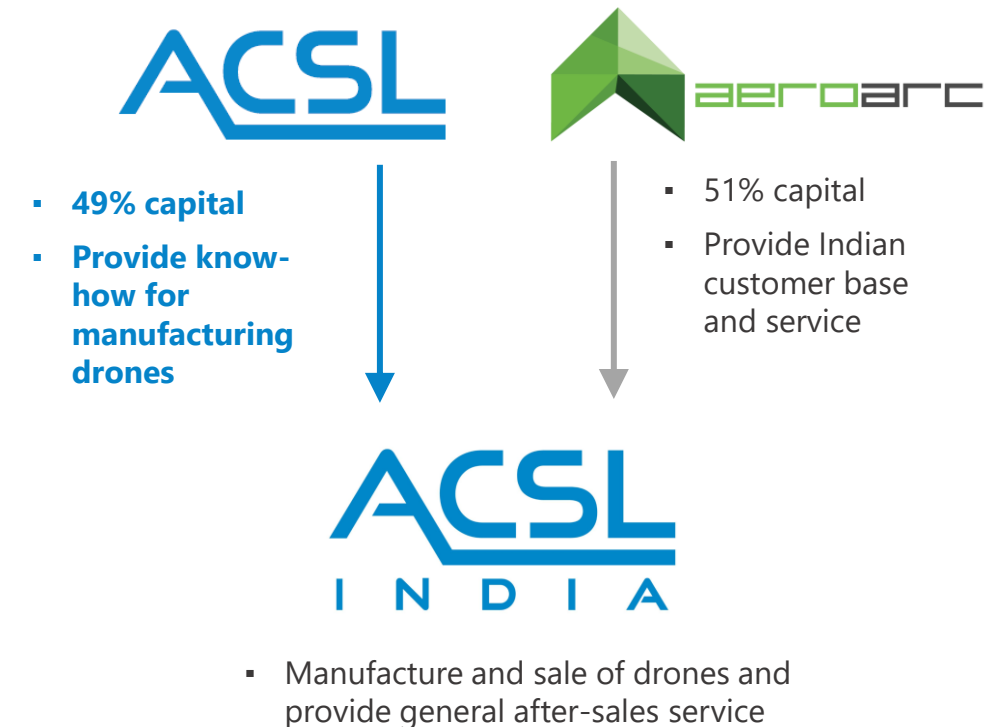
Entry into overseas : Establish JV for full-scale entry into India

Establish Joint Venture in India to acquire the huge Indian market that is expected to replace Chinese drones
Collaborating with Aeroarc, a local partner, to achieve early profitability

Background and Objectives

- **India has concern on cybersecurity risks in drones** as in Japan and the United States
- India government **reviewed policy on drones**, for example, majority of company's capital should owned by Indian capital to conduct drone business
- Mega trend in India to replace Chinese drones, which now hold a large share of the India drone market¹
- **ACSL Established JV to acquire huge Indian market** and leverage customer base of Aeroarc, local partner, to **make profitable soon**

Overview of JV






1 : Nikkan Kogyo Shimbun

CVC : Investment to Aerodyne, Asian No.1 drone service company

Investment in Aerodyne from CVC established in December 2020 with the purpose of accelerating the business
Further improvement of ACSL's technology and further acceleration business including expansion to India

Collaboration in drone and its peripheral technologies and CVC

	Control	Commu- nication	Pro- pulsion	Payload / Sensors	Analysis/ Operation
Inhouse development	ACSL Core technology Proprietary "cerebrum" and "cerebellum" control and communication		Developing technologies for specific applications through collaboration with external partners		
Direct investment	 Perceptive Navigation	Not invested yet	Not invested yet	Not invested yet	
CVC investment	Reviewing actively potential investments				

Background and purpose of investment in Aerodyne

- **Aerodyne is Asia's No. 1 Drone Service Company¹**
- **Collaboration with Aerodyne already started in November 2020**
 - Conducted up to 1,000 hours of flight tests in Malaysia
 - For Level 4 environment, sufficient flight time and basic data to assess the risk level are important
 - **Further improvement of ACSL control technology based on the acquired data**
- **Accelerating collaboration for overseas expansion, including India**



1: Frost & Sullivan "Asia-Pacific Best Practices Awards 2019" Asia-Pacific Unmanned Aerial Vehicle (UAV) Services Company of the Year

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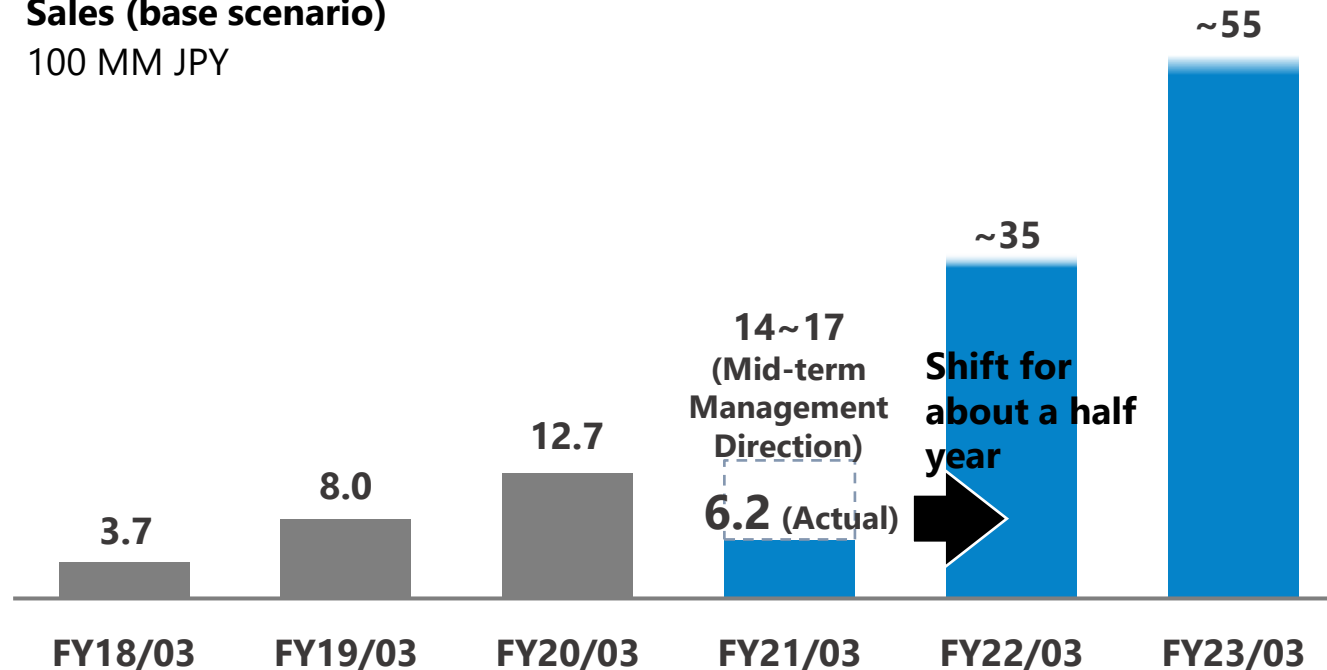
4 Appendix

ACSL results for FY21/03 were affected by COVID-19

Due to the prolongation of COVID-19 effect and state of emergency declaration, ACSL postponed projects, suspended demonstrations and decided to shifted to the next fiscal year. As a result, sales shifted about six months

Sales (base scenario)

100 MM JPY



Infection of COVID-19

- Keep an eye on the impact of the prolongation of COVID-19 and emergency declaration from the beginning of the year
- **Postponed** the current fiscal year projects **to the next fiscal year due to restrictions on activity**
- **Suspended demonstrations** scheduled for this fiscal year and **shift to the next fiscal year**, prioritizing customer safety

* FY21/03-FY23/03 sales are based on the mid-term management direction disclosed in August 2020

* Please refer to P33 for current FY22/03 sales forecast

* Please refer to page 33 Note 1 for key assumptions for future sales projections

Difference from FY21/03 results

Despite the impact of COVID-19, sales were in line with forecast. Operating income was higher than expected through partial optimization of R&D expenditure. Net income was lower due to impairment loss on investment securities

100 MM JPY	Actual results	Previous forecast	Difference	Reason for the differences
Sales	620	600	+20	In line with previous forecast. Conducted some demonstration in FY21/03
Gross profit	68	70	▲2	Decrease due to slight increase in some project costs
Gross profit margin	11%	12%	▲1ppt	Same as above
R&D Expenditure	583	650	▲67	Cost optimization through partial review of outsourcing costs
Operating income	▲1,139	▲1,200	+61	Increase due to decrease in R&D expenditure
Net income	▲1,511	▲1,300	▲211	Booked extraordinary loss of 305 million yen due to the impairment of investment securities

Sales and Operating profit by quarter

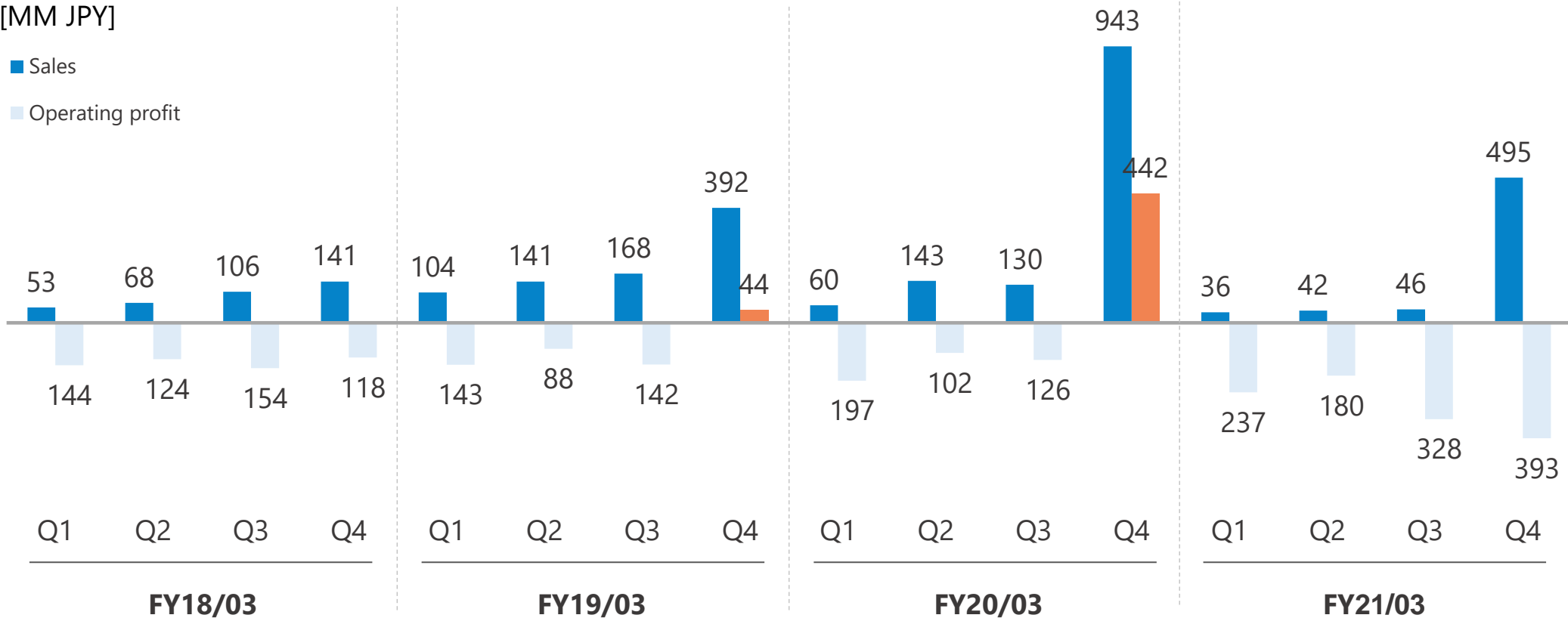
As is typical year, sales is small in Q1-Q3 and tend to be skewed toward Q4. In this fiscal year, ACSL postponed projects, suspended demonstrations and shifted them to the next fiscal year due to COVID-19

Sales and Operating profit by quarter

[MM JPY]

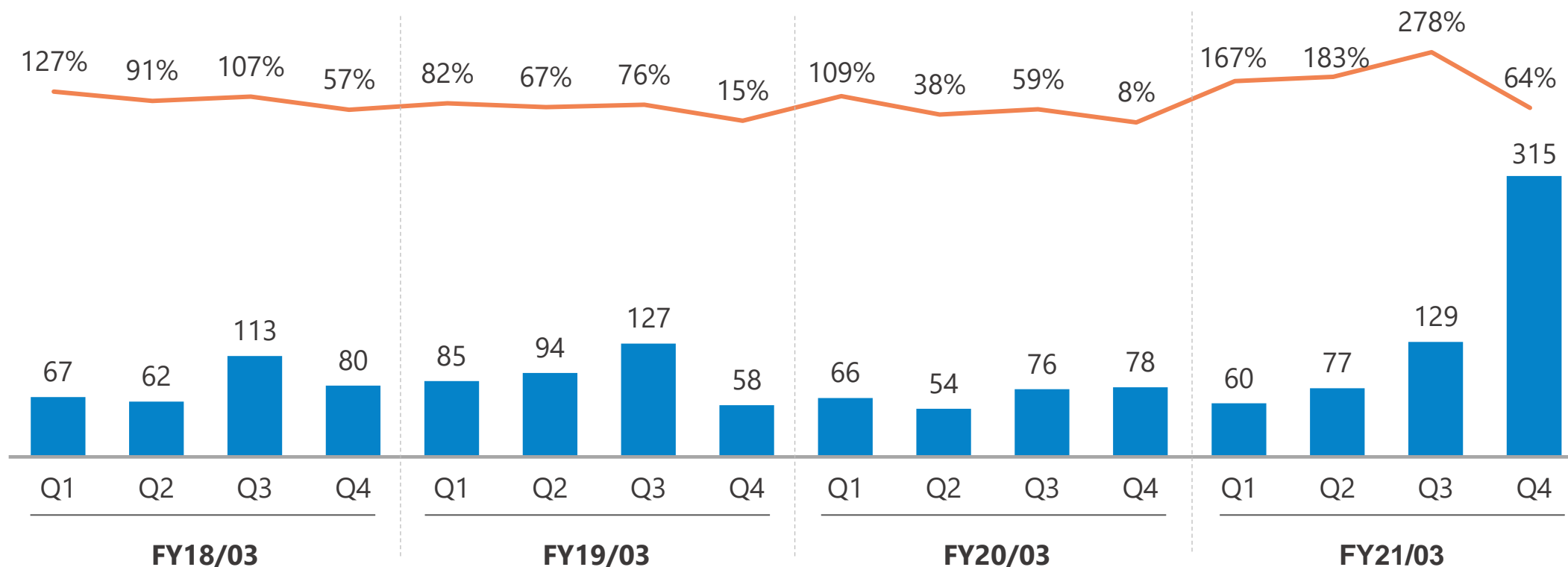
■ Sales

■ Operating profit



Even under the influence of COVID-19, ACSL continued core R&D activities as an upfront investment for the future market expansion

Quarterly R&D Expenses and Sales Ratio
[MM JPY]



Full impairment of AutoModality in the U.S., which was invested in August 2019 in accordance with accounting rules. AutoModality's technological superiority remains unchanged, and ACSL intend to continue to collaborate.

Amount and Details

- Approximately 305 million JPY were impairment of AutoModality Inc. invested minority in August 2019
- Due to COVID-19 in the U.S., sales activities are limited, which caused delays from the original business plan, and impairment losses based on accounting rules

Status of AutoModality

- The technical superiority of AutoModality's "Perceptive Navigation" ¹ remains unchanged
- Restrictions on economic activity in the U.S. are gradually returning to normal, and business results is expected to recover as well












Strategy for the future

- Unchanged from the initial investment. Collaboration with AutoModality will continue in order to utilize "Perceptive Navigation" as a complement to ACSL's technology
- Aim to acquire projects with a more difficult situation for autonomous flight with AutoModality's technologies

¹ : Perceptive Navigation In AutoModality's definition, a technology to estimate self-position for non-GPS environments through recognition of closed objects using Lidar technology (laser-light-based remote sensing technology). Perceptive Navigation enables drones to operate in open spaces such as bridges and improves location estimation of drones by providing absolute position information of the nearby objects

Major business highlights for FY21/03

In parallel with collaborating with existing and new customers in demonstration and developing of application specific drones, promoted collaboration with development, manufacturing, and sales partners for mass production

Apr.	Small aerial drones Adopted in New Energy and Industrial Technology Development Organization (NEDO)'s project " Development of Secure Drone Infrastructure Technology "	
May.	Enclosed environment Collaboration began with VFR for joint development of application-specific commercial drone	VFR Inc.
Jul.	Started collaboration with Toko Tekko to develop and sell disaster prevention drones	
Aug.	smokestack KEPCO developed autonomous flight drones that can inspect the inside of smokestack at thermal power plants . The ACSL-PF2 is provided as a base drone	
	Made business partnership with ACCESS for development and sales of drone software	
	Delivery Selected for Tokyo Metropolitan drone delivery project	
	Delivery 4D GRAVITY® License Agreement with AERONEXT	
Oct.	Delivery AIRDs and JUAVAC began offering specialized curriculum in drone delivery	
	Delivery Built a remote island model of telemedicine using drone logistics and other services in Goto City, Nagasaki, and ACSL provided delivery drones and operational support.	
Nov.	Selected for Open and Free Satellite Data Demonstration Project	
Nov.	Delivery Started collaboration with Aerodyne for continuous flight tests in ASEAN	
	Decided to establish corporate venture capital to realize technology synergies	
	Delivery Started delivery drone development for social implementation with VFR	VFR Inc.
	Launch of drones equipped with an ultra-high resolution camera	
Dec.	Development of drone emulator using VR with RIKEI and VFR.	
	Delivery Successful site demonstration with a 5 kg payload drone with ANA HD	
	Development of hybrid technology drone with AeroGLab	
Jan.	Provided solutions for wind turbine inspection with Arbito	
	Indoor DX solutions using drones with Blue innovation	
Feb.	Launched ToA Project to achieve drone social implementation for Level 4 in 2022 with SUNDRED, SENSYN ROBOTICS, PHB Design, VFR, and RIKEI	
Mar.	Development of "Non-GPS Compatible Autonomous Drone" for Inspection of Water Regulating Tanks at Hydroelectric Power Plants with Hokkaido Electric Power	

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In FY22/03, sales are expected to be 2.5 to 3.0 billion JPY through sales expansion of application-specific drones. Operating loss is expected to be 700~300 million JPY with upfront R&D investment

MM JPY	FY22/03		FY21/03	FY20/03
	Forecast	Difference	Actual	Actual
Sales	2,500~3,000	303~384%	620	1,278
Gross profit Margin	~40%	+29ppt	11.0%	63.2%
Operating Income	▲700~▲300	-	▲1,139	15
Ordinary income	▲680~▲280	-	▲1,081	231
Net Income	▲685~▲285	-	▲1,511	239

1: lower Limit : Infection of COVID-19 can be as active as FY20, assuming recover to normal activity from January to March
Upper Limit : Assuming sufficient business activity and demonstration will be possible in 2021

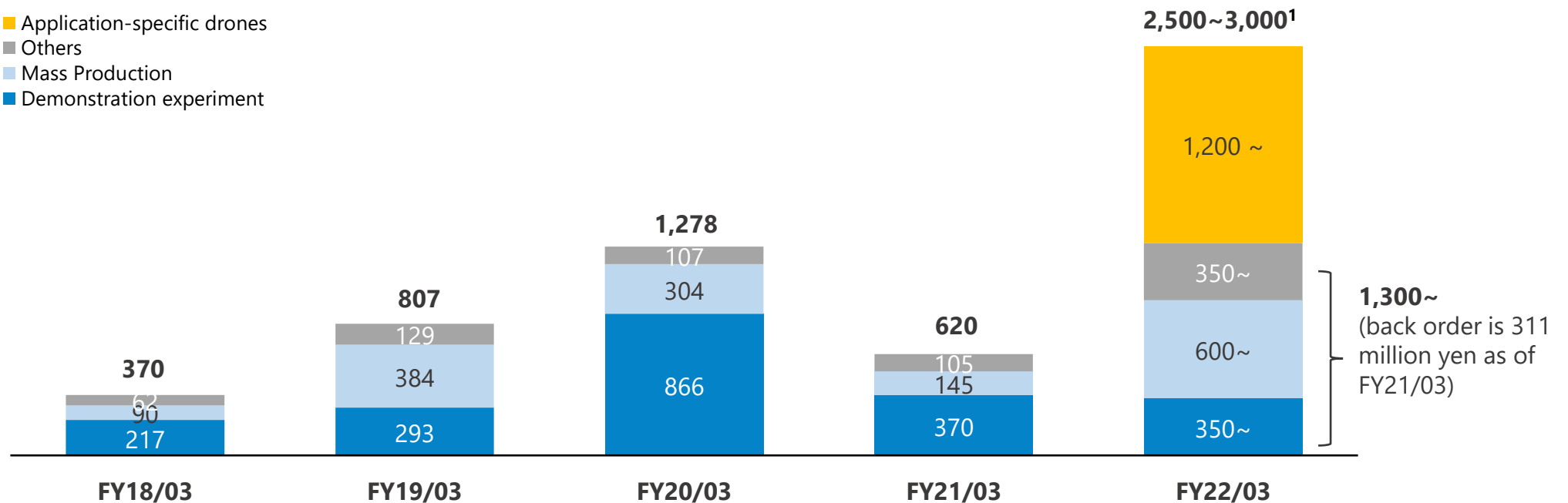
Expect sales of 2.5 to 3.0 billion yen in FY22/03

FY22/03 sales are expected to be 2.5-3.0 billion yen due to the same level of sales as FY20/03 and an increase in sales from small aerial drone As of the end of FY21/3, the current back order of this fiscal year is 310 million yen

Sales

[MM JPY]

- Application-specific drones
- Others
- Mass Production
- Demonstration experiment



1: lower Limit : Infection of COVID-19 can be as active as FY20, assuming recover to normal activity from January to March

Upper Limit : Assuming sufficient business activity and demonstration will be possible in 2021

Solution development (STEP1, 2) and Mass production (STEP3, 4) were respectively renamed as demonstration experiment and platform drone sales from FY21/03 Q1.

1 「ACSL Accelerate」 / Business Highlights

2 FY21/03 Financial Results

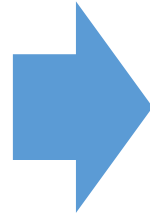
3 FY22/03 Forecast

4 Appendix

Although the drone industry trends and our strategy have not changed since created "ACSL Accelerate", the impact of COVID-19 has been longer than originally anticipated, limiting our activities

Assumptions at ACSL Accelerate

- The infection is expected to be contained by December 2020, and a certain level business activity will be possible from January to March 2021
- After April 2021, the same activities as before COVID-19 expansion will be possible








Current Status and Outlook

- **State of emergency was declared between January and March 2021** due to the infection spread, and **business activities were severely restricted**
- From April 2021, **some restrictions on business activities** such as the spread prevent measures and state of emergency will **continue for the rest of the fiscal year**
- **FY22/03 forecast** assumes that **business activities will be possible from April to December as in FY21/03**, and that **business activities will be possible from January to March 2022 without restriction such as state of emergency**

Implications of Mid-term Management Direction for sales targets

Anticipate that sales of small aerial photo may increase more than initially expected, and other application-specific drones and platform drones will be as expected. The demonstration was more difficult than initially expected due to COVID-19

Sales breakdown		Sales (100mn JPY)		FY23/03 (Mid-term Management Direction)	Impact of changes in assumptions on the Mid-term Management Direction	
		FY20/03 Actual	FY21/03 Actual			
Sales of application-specific drones						
Small aerial photo (low ASP)	small aerial photo to the government			10	Increasing demand for security not only from governments but also from the private sector	
Other application- specific drones (high ASP)	Delivery (Level 4) Smokestack inspection Enclosed environment inspection	-	-	10	Development of application specific drone is on track.	
Development of application-specific drones						
PoC and Development	PoC and development of drone and systems at customer sites	8.6	3.7	20	Demonstration delayed due to COVID-19	
Sales of Platform/ Evaluation drones	Sales of platform drone (PF2, etc.)	3.0	1.4	10	Continue to utilize platform drone	
Other	Maintenance National projects	1.0	1.0	5	No impact on maintenance, national projects	

index	FY18/03	FY19/03	FY20/03	FY21/03	FY22/03 (forecast)	FY23/03 (Mid-term Management Direction)
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Sales of application-specific drones

Small aerial photo (low ASP)	Unit	-	-	-	-	1,000	1,000~
	Value (100mn JPY)					10	10
Other application-specific drones (high ASP)	Unit					80	300~
	Value (100mn JPY)					2	10

Development of application-specific drones

PoC and Development	# of project	60	81	112	82	50	-
	Value (100mn JPY)	2.1	2.9	8.6	3.7	3.5	20
Sales of Platform/ Evaluation drones	Unit	40	106	101	46	-	-
	Value (100mn JPY)	0.9	3.8	3.0	1.4	6	10
Number of shipments		-	136	128	71	100	~300

Quarterly Sales

Fiscal year		FY18/03				FY19/03				FY20/03				FY21/03			
Quarterly results		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Demonstration experiment¹ <ul style="list-style-type: none"> • Proof of Concept • Customized development 	Sales (MM JPY)	6	37	57	116	25	59	75	133	27	65	102	671	1	22	22	323
	number of deals	8	6	27	19	6	16	22	37	14	22	21	55	2	11	15	54
Platform drone sales² <ul style="list-style-type: none"> • Sales of standard and general-purpose drone • Improved drone to customers based on standard drone 	Sales (MM JPY)	16	25	32	16	10	67	80	225	24	48	19	212	4	10	13	116
	number of unit	7	10	18	5	8	20	31	47	6	12	9	74	1	3	5	37
Others³ <ul style="list-style-type: none"> • Sales of parts and modules • Repair service • Some national projects 	Sales (national project) (MM JPY)	30 (27)	6	16	9	68 (65)	14	12	33	9	29 (18)	9	59	30 (21)	8	10	55











1: Solution development (STEP1, 2) was renamed to "Demonstration experiment" from FY21/03 Q1 2: Mass production (STEP3, 4) was renamed to platform drone sales from FY21/03 Q1

3: For national projects, subsidies received are generally posted as non-operating income. On the other hand, some projects whose main purpose is to conduct commissioned experiments are recorded as sales

Quarterly major financials

Fiscal year	FY18/03				FY19/03				FY20/03				FY21/03			
Quarterly results	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Sales (MM JPY)	4	40	63	68	13	83	101	204	8	69	75	655	▲ 6	▲ 6	▲ 13	94
Gross profit margin	9%	60%	60%	48%	13%	59%	60%	52%	14%	48%	58%	70%	▲19%	▲16%	▲28%	19%
SG&A expenses (MM JPY)	149	165	218	186	157	172	244	159	205	171	201	213	230	173	314	488
R&D expenses (MM JPY)	67	62	113	80	85	94	127	58	66	54	76	78	60	77	129	315
R&D expenses ratio to Sales	127%	91%	107%	57%	82%	67%	76%	15%	109%	38%	59%	8%	167%	183%	278%	64%

Promoting the SDGs by providing drone solutions in the delivery and disaster fields, which ACSL is focusing on

Issues	ACSL Approach	Specific examples	SDGs Target
Delivery	<ul style="list-style-type: none"> Increase in logistics volume due to expansion of EC 	 Conducted a demonstration on delivery between remote islands in Goto City, Nagasaki with ANAHD	  
	<ul style="list-style-type: none"> Difficulty in maintaining existing logistics due to declining labor force 	 Conducted a demonstration of drone delivery in the Nishi-Okutama, Tokyo, with Japan Post	
		 Development of delivery drone with VFR	
Disaster	<ul style="list-style-type: none"> Need for rapid disaster response in the event of natural disasters 	 Conducted a survey as initial action using a drone during a rain disaster in Nagano	  
	<ul style="list-style-type: none"> Local governments are burdened with disaster response cost 	 Conducted a survey to check the situation using a drone during a rain disaster in Kyusyu	
		 Transported emergency supplies in Nishitama-gun, Tokyo, with ANAHD and NTT DOCOMO	

Started supporting for disaster areas with ACSL drones

Started supporting disaster areas through free offer of ACSL's disaster drones.
Contribute development of small aerial drones and delivery drones to support disaster areas

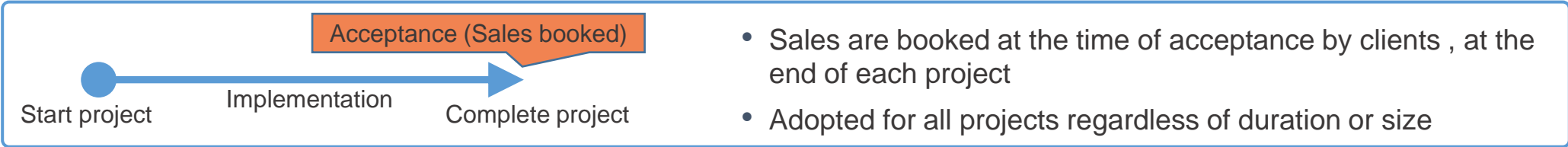
- Decided to start supporting disaster areas through free offer of disaster prevention and disaster-specification drones in order to solve the problems faced by local governments and other organizations
- ACSL has a proven track record transporting emergency supplies based on a request from the Tokyo Metropolitan Government in October 2019
- Despite clear benefits of using drones, some organizations give up purchase due to issues such as maintenance costs
- Small aerial drones and delivery drones, highlighted in "ACSL Accelerate," are used in disaster management and supporting disaster areas



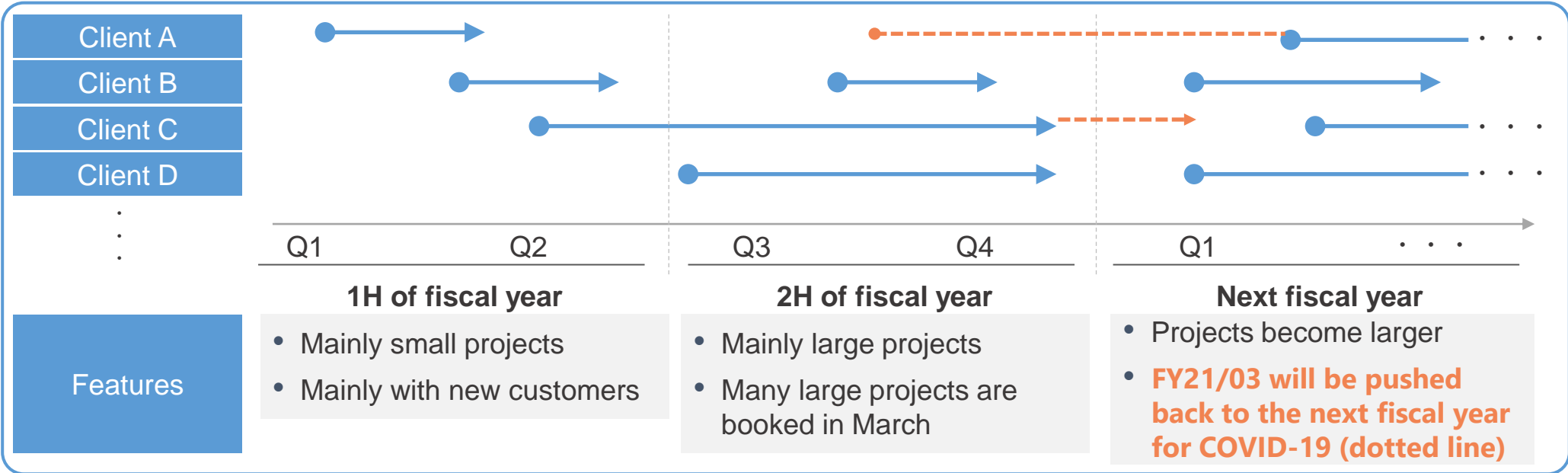
Emergency supplies transported in Tokyo in October 2019
(Tokyo Metropolitan Government, "Providing Relief Supplies by Using Drones")

Sales are booked upon acceptance by client (at end of project). Seasonality increases towards 4Q driven by large-scale projects, mainly from existing customers

Sales Recognition



Large-scale projects and seasonality



Management Team as of May 12, 2020



CEO

Dr. Hiroaki Ohta

Ph.D. from Kyoto University. Assistant professor at Department of Aeronautics and Astronautics, Kyoto University, followed by research scientists at University of California, Santa Barbara. Also served as Technical Advisor for a start-up in Silicon Valley. McKinsey & Company from 2010. Joined ACSL as in July 2016.



**President
& COO**

Satoshi Washiya

M.S. of Architecture from Waseda University. Served both domestic and multinational companies in corporate wide transformation projects at Tokyo and Stockholm office of McKinsey & Company. Joined ACSL in July 2016.



CFO

Kensuke Hayakawa

M.S. of Management of Technology from Tokyo institute of technology. Implemented operational improvement/transformation of Portfolio companies at KKR Capstone. Joined ACSL as CFO in March 2017.



CTO

Dr. Chris Raabe

Ph.D. from University of Tokyo. Embedded software engineer at Boeing from 2006. Assistant professor at Department of Aeronautics and Astronautics, University of Tokyo from 2014. Joined ACSL as CTO in April 2017.

**External
Director**

Masanori Sugiyama

**External
Director**

Shinichi Suzukawa

**Audit & Supervisory
member**

Akira Ninomiya

**Audit & Supervisory
member**

Hideki Shimada

**Audit & Supervisory
member**

Takeshi Ohnogi

MM JPY	FY21/03		FY20/03
	Actual	YoY Increase/Decrease	Actual
Current Assets	3,257	▲32%	4,818
Cash	1,891	▲50%	3,775
Fixed Assets	751	+67%	449
Current Liabilities	432	+85%	233
Long-term Liabilities	3	—	0
Total Liability	436	+87%	233
Net Asset	3,572	▲29%	5,034
Total Asset	4,008	▲24%	5,268

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