Supplementary Documentation to the financial report for the second quarter of the fiscal year ending March 2023

November 14, 2022

Eyes to the all machines

2Q Highlights

Customer commercialization, an indicator of our business progress, move forward at a faster pace than planned

- A total of three projects for customer commercialization, including the first project, have been confirmed since July, 2022
- Due to strong progress, the commercialization forecast for the current fiscal year was revised upward in August, and we are moving forward to accelerate growth in the next fiscal year onward

The adoption of our technology in the Intel's product is a milestone in the industry *

- Achievement: the world's first commercial SLAM fully adopted in a major semiconductor product
- The integration of our technology into a product that forms the core of the technology ecosystem will enable manufacturers to efficiently develop the next generation of autonomous mobile robots, providing a major tailwind for market expansion and technology diffusion
- Following this, we have expanded and evolved our partnerships with companies such as NVIDIA (a major semiconductor), ADLINK (a major electronics), and INNOVIZ (a major in-vehicle sensor), which are also expanding their ecosystems, and are progressing toward making our technology an industry standard

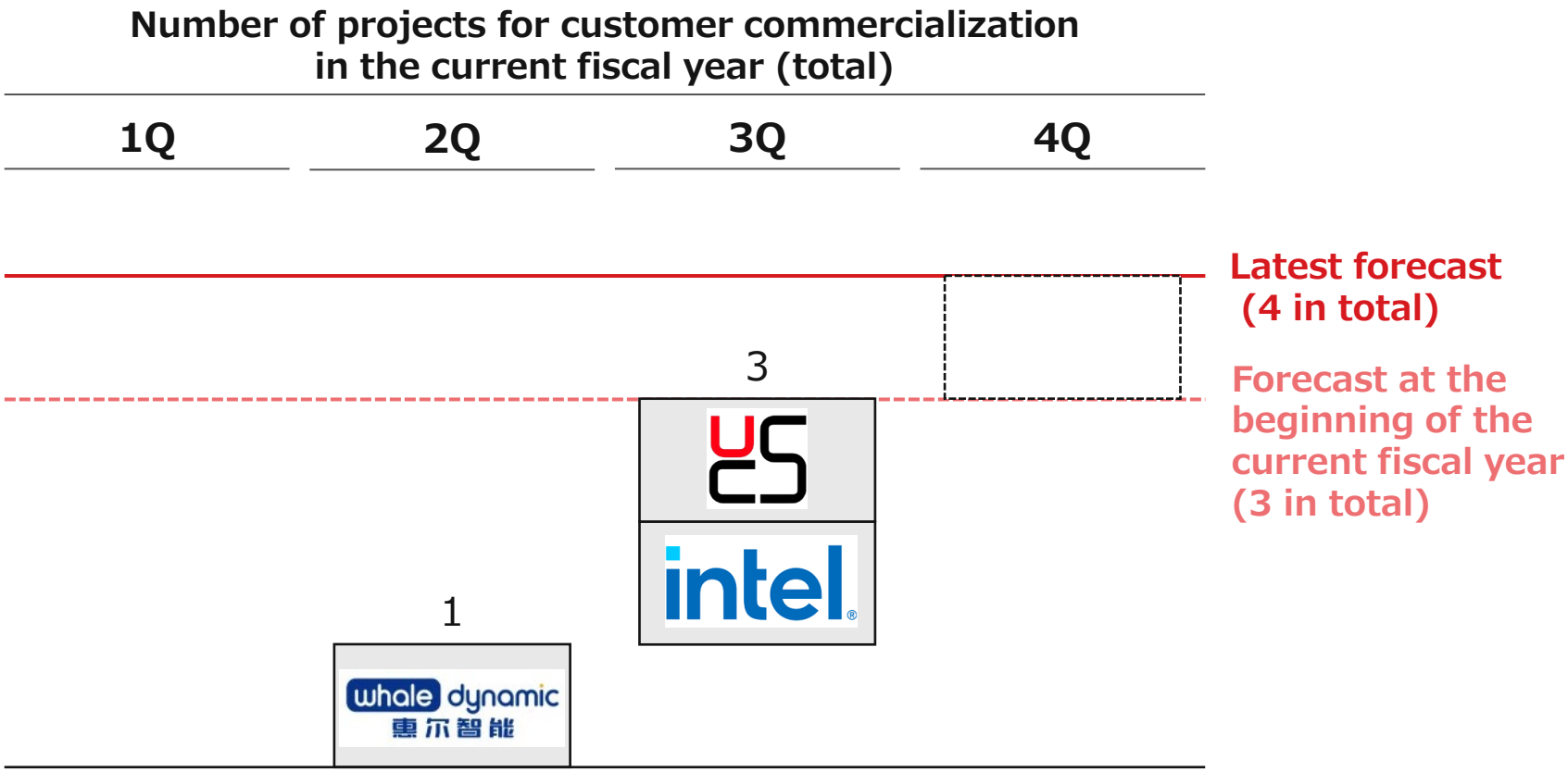
Improvement of financial base and earnings structure largely maintained for stable growth with business progress as a foothold

- In financing linked to business indicators, we have completed the first tranche of 630 million yen, approximately 20% more than planned, and secured funds for business development to further commercialize customer products and increase in scale of projects
- The earnings forecast for this fiscal year is maintained. Although costs are affected by foreign exchange rate trends and other factors, progress has been made in improving the earnings structure

[*] See p.6 for details on commercialization with Intel

Progress in customer commercialization

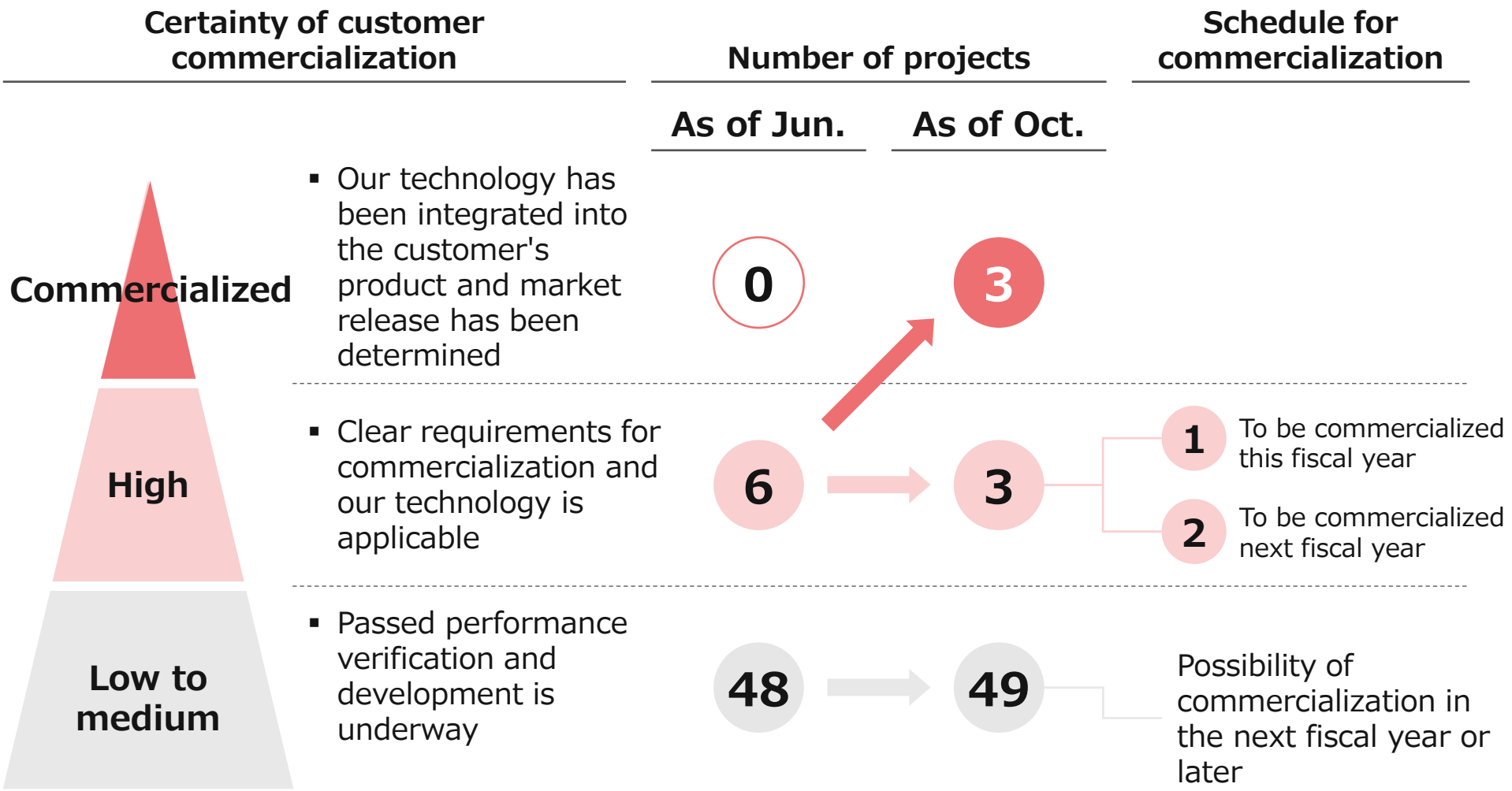
- **Following the first project (Whale Dynamic)* in July, two projects (Intel/UCS) for customer commercialization were confirmed in October**
- **In August, we revised upward our forecast for customer commercialization for the current fiscal year (from 3 to 4 in total)*, and we are progressing the plan steadily**



[*] Already announced in 1Q financial results presentation

Status of projects for future customer commercialization

- **Maintain and progress other pipelines for future customer commercialization and scale expansion, and expect to continue commercialization in the next fiscal year**



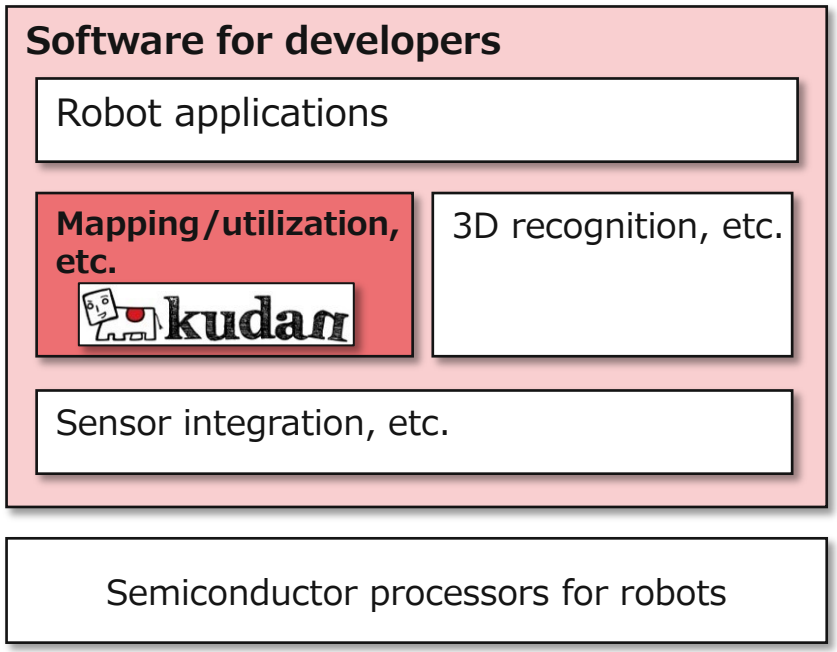
Highlights of projects accumulated for customers' commercialization

	Company	Overview and progress	Commercialization schedule
Robotics	Intel	Kudan SLAM has been adopted as part of Intel's product for robotics and launched for sale to customers, with hardware-acceleration optimized for the characteristics of Intel's product	Commercialized
	Robotics-related	Completed product implementation, and installation testing is underway with potential customers in preparation for the product release	Short-term
	Major industrial machinery	Started initial development process to introduce spatial location DX solution	Mid-term
	Major telecommunication	Completed PoC and demonstration of autonomous mobile robot combined with 5G	Mid-term
Autonomous driving/ ADAS	TOP5 automotive OEM	Development by cloud implementation to realize large scale maps for autonomous driving is in progress	Mid-term
	Major automotive parts Tier1	Verification for the higher performance of the parking assist system is underway and discussions on the business side are also ongoing	Mid-term
Mapping	UCS	Product implementation completed and has been delivered to multiple customers	Commercialized
	Major telecommunication	Demonstration tests for map base for smart cities are in progress	Mid-term

Adoption for the Intel product

- The world's first commercial SLAM fully adopted on a major semiconductor platform, as a company specializing in this technology area
- Intel's platform provides comprehensive software functions, in which our technology is a core module, for elemental technologies of next-generation autonomous mobility capabilities that robot manufacturers need to invest significantly in to develop in-house
- In addition, dedicated customization specifically for the linked Intel hardware chip delivers a significant improvement in SLAM performance
- This is expected to greatly eliminate hurdles to commercial development for robot manufacturers adopting Intel products and expand efficient and rapid practical application of autonomous mobile robots

Intel's package for robots*

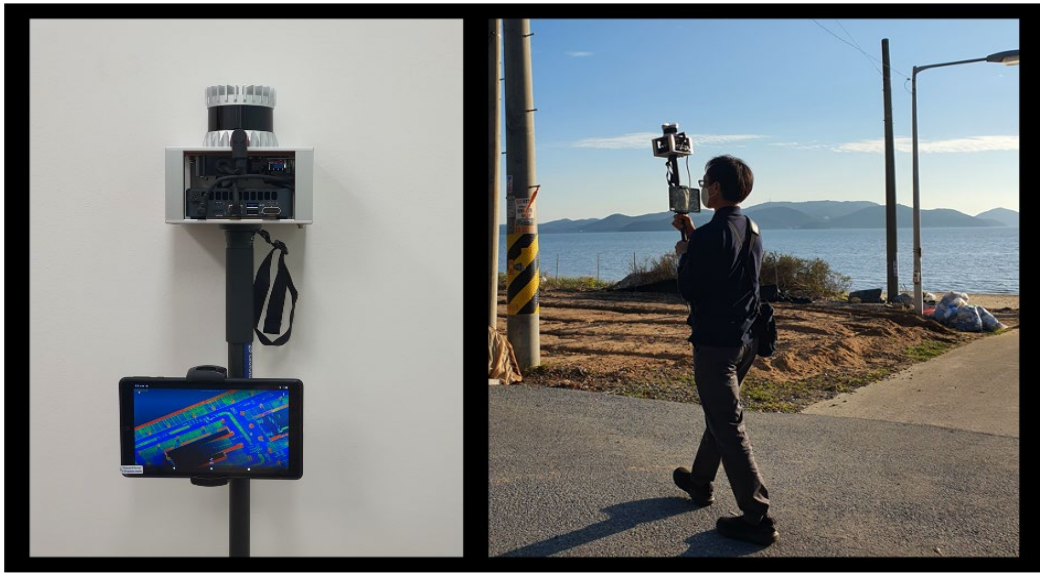


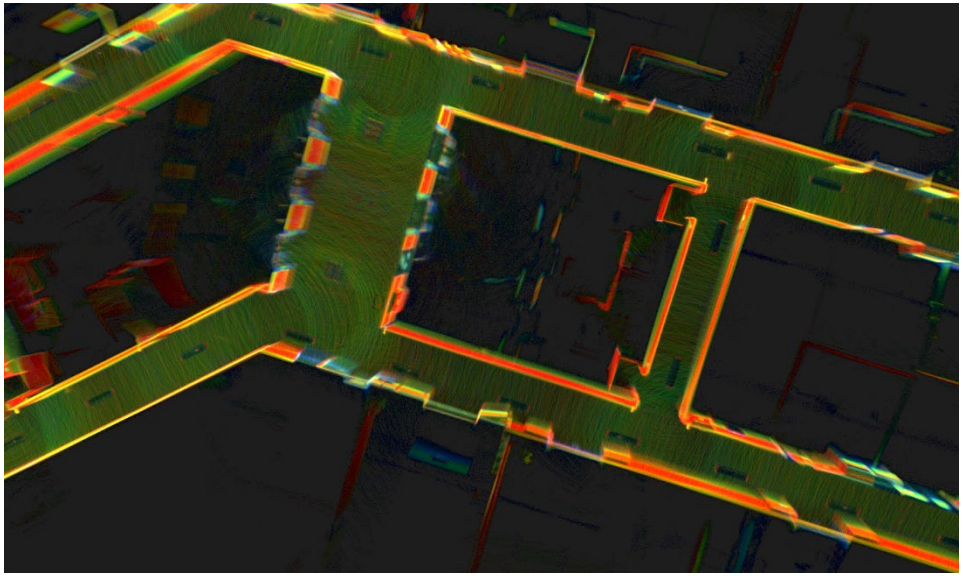
- Among the various software required for robot development, the mapping and utilization module is at the core of the product's autonomous mobility capability
- The software processing method is optimized to match the characteristics of Intel's semiconductor circuits, enabling extremely high-speed processing. This was achieved through joint development with Intel

[*] See below for detailed product information
https://contents.xj-storage.jp/xcontents/AS02977/0f99200a/333d/40c0/9924/c4b15824611d/140120221013544058.pdf

Product release with UCS

- Developed a handheld mapping device implementing Kudan technology in about 6 months with UCS, a Korean mapping solution provider, and have already sold several units. This proves the maturity of Kudan technology, which enables a customer to quickly develop and complete integration to a customer product.
- Kudan 3D-Lidar SLAM enables accurate mapping with an inexpensive sensor set, realizing product commercialization at a competitive price
- We will meet the high market demand for simple and affordable mapping solutions on a global level for a variety of applications, including research, surveying and inspection of forests, roads, buildings, and indoor facilities





Progress in partnerships

- Following the release of Intel's product, technology acquisition by major companies that focus on the industry ecosystem is expected to accelerate further
- We have been working on partnerships with major semiconductor and sensor companies, and further expanded and deepened our alliances to standardize our technology in the industry
- Aiming to expand product partners like Intel, establish a position as the foundation of the technology ecosystem as a deep tech company, and expand sales channels for the technology in the future

	Business co-creation/technology development partners[*1]	**Product partners**
Overview	• Client referral and project co-participation • Marketing and event planning • Technology development and implementation collaboration	• Offer as embedded in partner products
Semiconductor and sensor company	OUSTER: Event co-sponsorship INNOVIZ TECHNOLOGIES: New partnership	NVIDIA, ADLINK LEADING EDGE COMPUTING: Development progress intel: Commercialization[*2]

[*1] Examples of our partner companies. See Appendix P34 for other major partners
[*2] Commercialization definition: Kudan SLAM is incorporated as part of a partner product and delivered to the end customer via the partner

R&D

- Deepen joint development with semiconductor and sensor manufacturers, start offering in-house packages for autonomous mobile robots, and strengthen customer development support to significantly improve the performance and integration speed of Kudan SLAM technology into customer products
- In addition, the integration of Kudan and Artisense's Visual SLAM technology is progressing on schedule and is now available to some customers for evaluation purposes. The expanded provision of our technology will enable the acquisition of projects in a wider range of applications, such as outdoor environments and high-speed movement.
- As a result, we have made steady progress in laying the groundwork to accelerate the expansion of the use of our technology, including customer commercialization

Algorithm	Development item	Examples of ongoing projects
kudan ARTISENSE Visual SLAM	• Launched ROS package for autonomous mobile robot (AMR), and improved performance and speed of on-board integration greatly • (Ongoing) Integration of Kudan Visual SLAM and Artisense Visual SLAM • (Ongoing) Improve processing speed and load reduction for specific processors • Reduced memory usage, including map size	Major sensor OEM Intel Autonomous robot OEM Robotics Autonomous robot OEM Robotics
kudan Lidar SLAM	• Automation of map updates along with the environment changes • Improve accuracy by further utilizing other sensor information for mapping applications • Point cloud coloring function	Automotive OEM Autonomous driving Mapping solution Mapping in non-GPS environment Major telecommunication

For this quarter, in both Visual SLAM and Lidar SLAM, in parallel with R&D, significant improvements were made in packaging and supporting documentation to improve usability for customers

Financing

Completed financing of 630 million yen for Tranche①, securing funds to accelerate product commercialization and scale projects

- Tranche① was completed with the financing of 630 million yen, approximately 20% more than the originally planned amount of 530 million yen, due to an increase in the stock price after the financing launch. The procured funds will be used to further accelerate product commercialization and promote business development for scaling projects
- In addition, the conditions related to commercialization in Tranche② and Tranche③ were met. After achieving the stock price conditions of 5,000 yen and 7,500 yen, Kudan will raise an estimated 530 million yen each to secure funds for further growth (maximum dilution rate of approximately 2% in the future)

	Tranche① : 630 million yen	Tranche② : 530 million yen	Tranche③ : 530 million yen
	Complete	Planned	Planned
Conditions			
Commercialization	Achieved The first commercialization	Achieved The second commercialization	Achieved The third commercialization
Stock price		Not yet 5000 yen	Not yet 7500 yen
Purpose			
Accelerate and expand customer products	Strengthen technology and business development to accelerate scaling projects due to market penetration by leveraging the existing projects		
Development of solution business		New business to support solutions / platforms that further expand the value of customer products	

[*] See below for details on financing
https://contents.xj-storage.jp/xcontents/AS02977/17a135fc/c636/4d60/8eb3/9da74e959d3a/140120220708597482.pdf

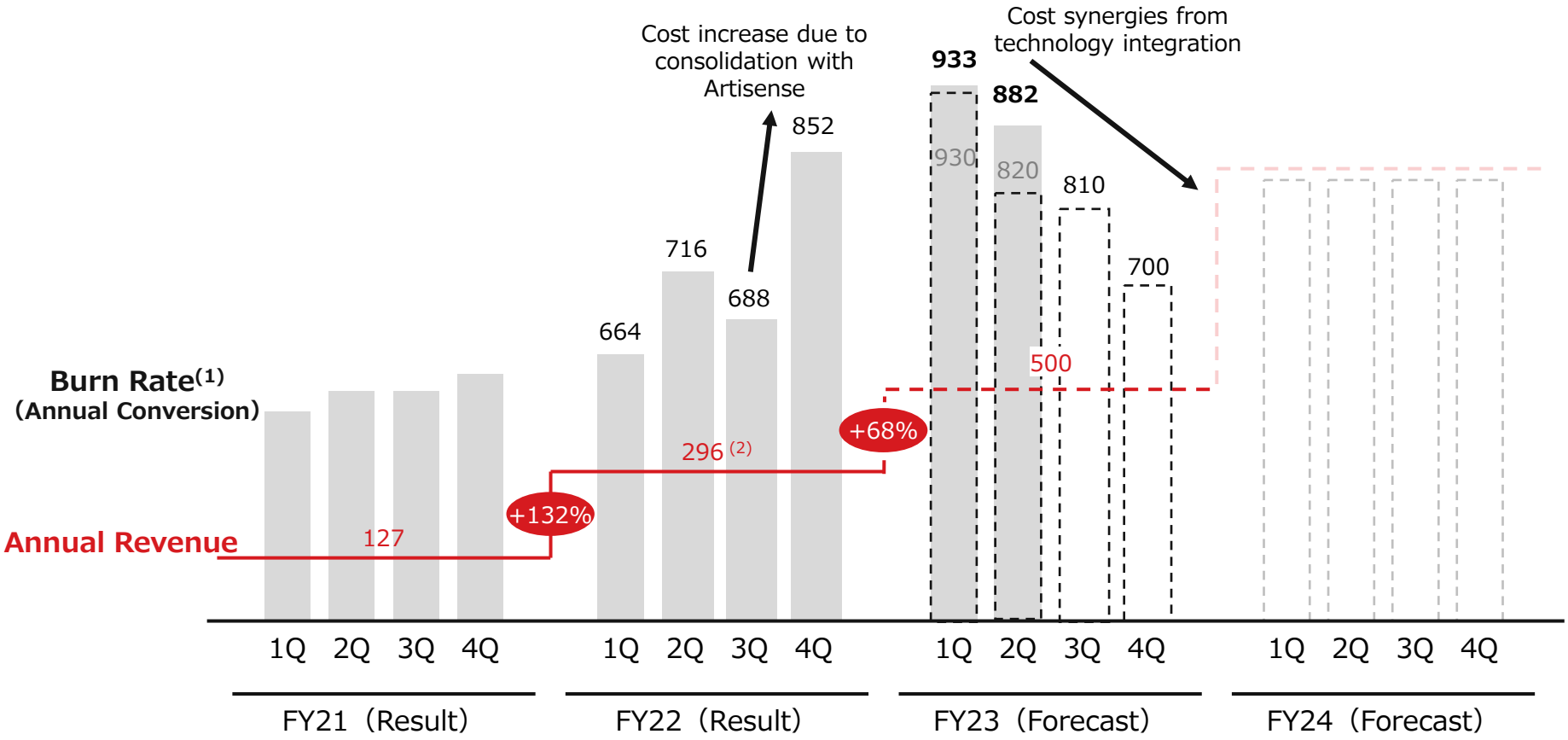
Performance overview

- Achieved continuous revenue growth by accumulating and scaling projects centered evaluation and development. Continue the tendency in this fiscal year that most of the annual forecast revenue will be recorded in 4Q, and maintain the annual revenue forecast
- With achievement of the customer commercialization, product license revenue starts booking in addition to license and development support revenue from evaluation and development projects. However, full-scale expansion of product license revenue is not expected until the next fiscal year or later.
- Cost of sales and SG&A expenses increase from the previous year due to the consolidation effect of Artisense
- Due to the sharp depreciation of the yen, a large amount of foreign exchange gains were recorded in non-operating profit from intra-group receivables and payables

(Unit : million yen)	Performance for 2Q of FY 2022	Performance for 2Q of FY 2023	Forecast for FY2023	Change (from the performance for 2Q of FY22)	Performance For FY2022 (Reference)
Net Sales	**110**	**155**	**500**	**40.0%**	**271**
Operating Profit	**△220**	**△312**	**△350**	**—**	**△433**
Ordinary Profit	**△323**	**△81**	**△300**	**—**	**△681** (incl. “share of loss of entities accounted for using equity method”(403))
Profit Attributable to Owners of Parent	**△321**	**△84**	**△315**	**—**	**△2,237** (incl. impairment losses of (1,474))

Progress in earnings structure improvement

- Cost results were higher than budget due to the impact of sharp yen depreciation (foreign currency appreciation), but technology integration with Artisense and cost synergies (significant efficiency in development through sharing architecture, modules, etc.) are progressing as expected
- Continued improvement in earnings structure is expected despite the possibility of higher costs than initially expected depending on the exchange rate trends and accelerated business investment through financing onward



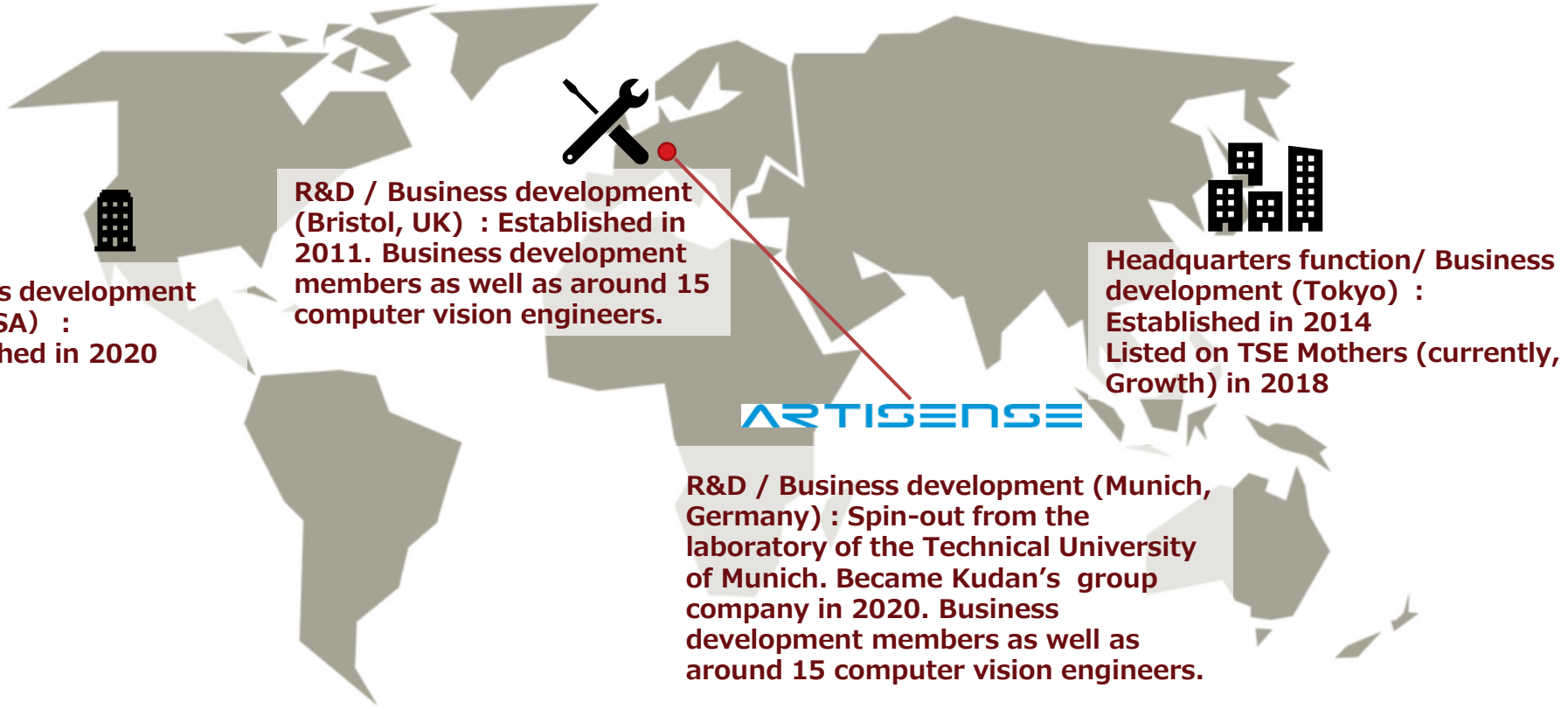
(1) Annual costs required for business activities, calculated by each quarterly cost times four. Calculated by deducting R&D subsidy income from total cost of sales, SG&A expenses, non-operating expenses, extraordinary losses, income taxes, etc. (adjusted for seasonal variations, foreign exchange losses and other transitory costs). Prior to FY22/3Q before Artisense was consolidated, Artisense-related costs such as impairment losses and share of loss (income) of entities accounted for using equity method were deducted and only Kudan's costs were totaled. (2) Revenue adjusted for the impact due to accounting standards change

Appendix

Company Overview

Company overview

- **Kudan is a research and development company that provides AP (Artificial Perception) algorithms and embedded elemental technologies**, specializing in SLAM as the core, which give vision to computers and robots
- Established in the UK in 2011, and with a R&D team of about 30 people in the UK and Germany, Kudan has developed partnerships and customer projects with top global companies. Promoting business for social implementation of AP technology in all next-generation industries including AR, robotics, and autonomous driving



AP will be the basis for broad range of industries alongside AI

- The artificial perception technology provided by Kudan (providing machines with “eyes”) both complements and operates in unison with artificial intelligence (providing machines with “brains”) to allow a range of machinery (robots and computers) to move and function autonomously

Artificial Perception ⇄ **Artificial Intelligence**

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The “eyes” of machines, allowing them to perceive and understand their environment

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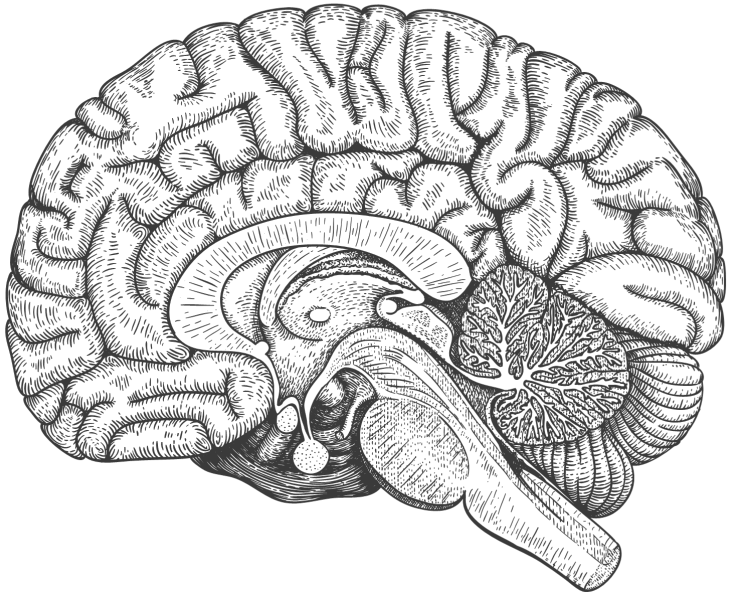
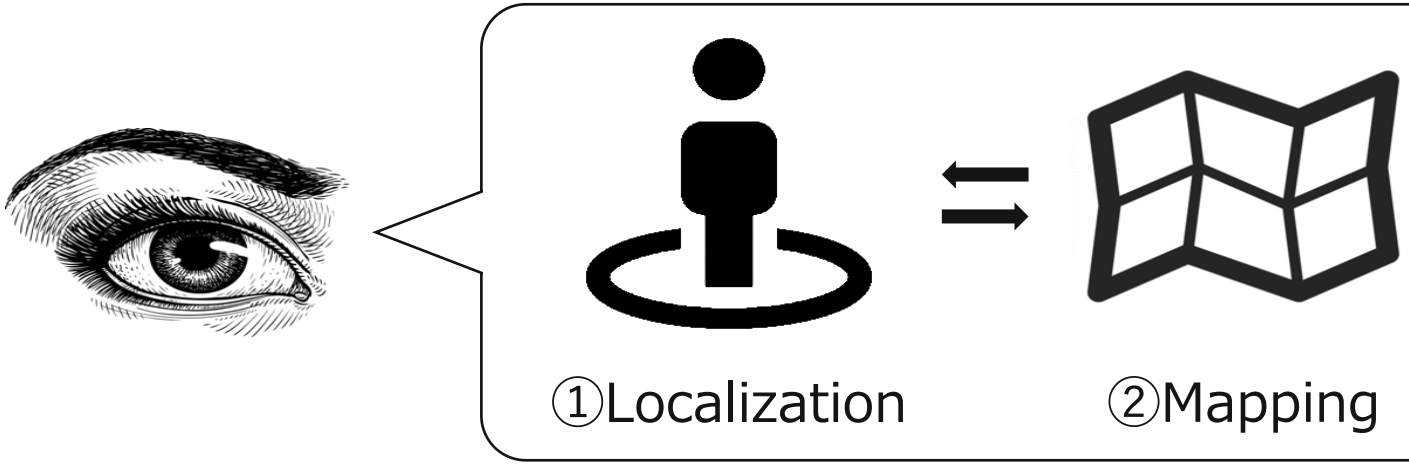
The “brains” of machines, allowing them to make appropriate decisions



SLAM (Simultaneous Localization and Mapping) as the core of AP technology

- AP technology is a group of Deep Tech centered on SLAM (Simultaneous Localization and Mapping)

SLAM technology (Simultaneous Localization and Mapping)



Re-localization technology

Tight-coupling technology

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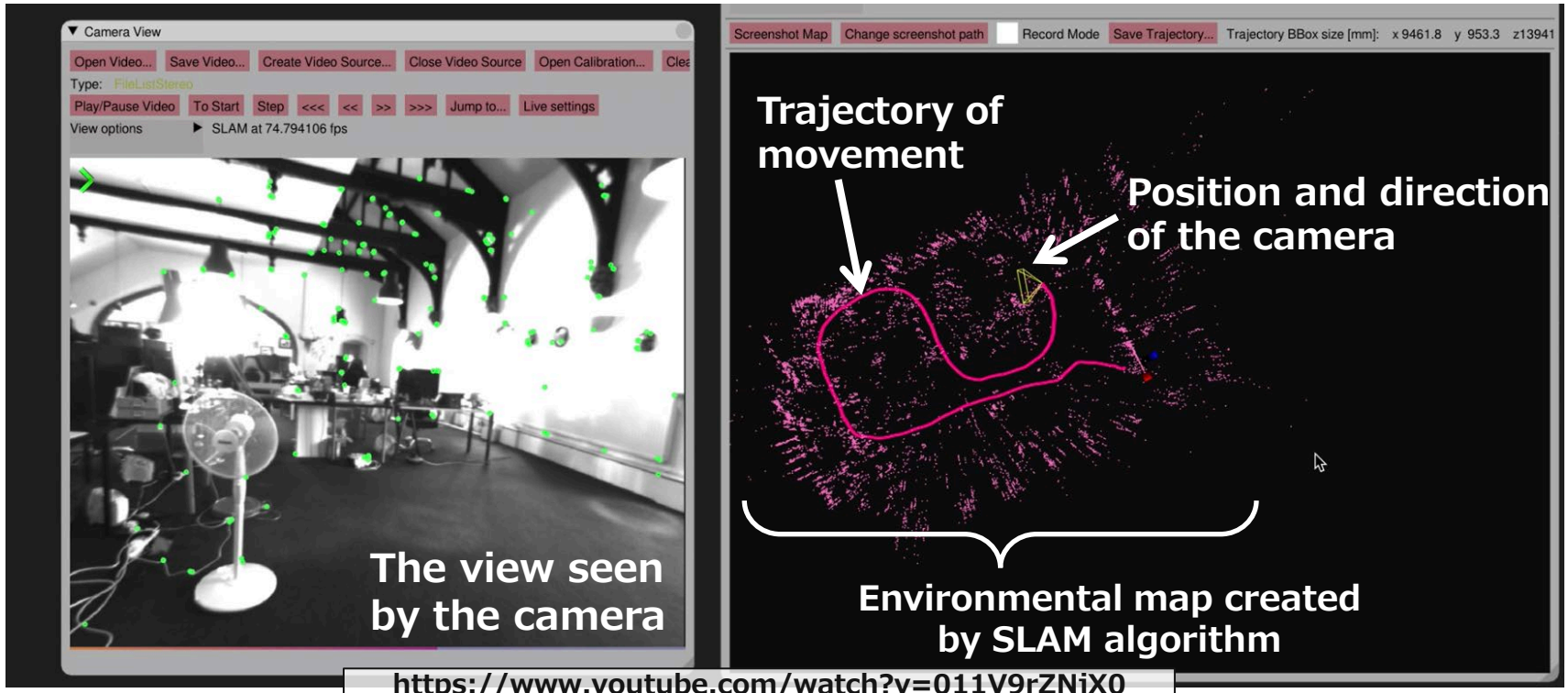
What is SLAM (Simultaneous Localization and Mapping)?

- Technology that simultaneously determines where we are (Localization) and what our surroundings look like (Mapping) based on input from sensors such as cameras and Lidars
- We can keep a track of how we move while creating a map in a new environment (tracking), and recognize where we are based on a map we created beforehand (re-localization)
- Unlike GPS and beacons, which use external radio waves to detect location, SLAM can recognize its own location as a stand-alone software and can be used in a wider range of environments, situations, and use cases



https://www.youtube.com/watch?v=011V9rZNjX0

Kudan is one of the world's largest SLAM development company groups

- Company solidification by securing a world-class technical team and the IP (Intellectual Property) of future technology. Achievement of a dominant position in the field
- Aim for successful breakthroughs via industry-leading technology commercialization

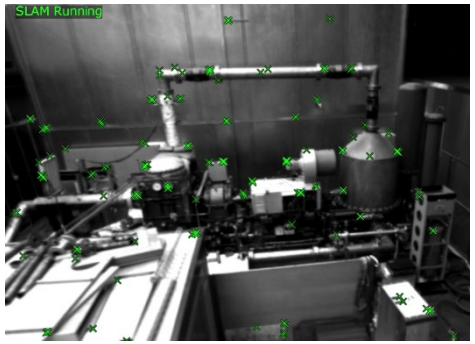
⇒ Accelerated integrations of each technology, such as SLAM and Deep Learning, Lidar SLAM and Visual SLAM, Direct SLAM and Indirect SLAM

kudan

Strength in turning technology into business, with leading, unique methods of implementing technology, and a global track record

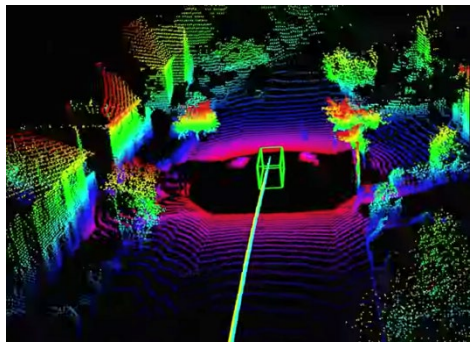
Indirect SLAM

- Camera image (visual) processing
- Capable of high-speed recognition
- High versatility



Lidar SLAM

- Lidar data processing
- Strong in recognizing fast movements
- High stability



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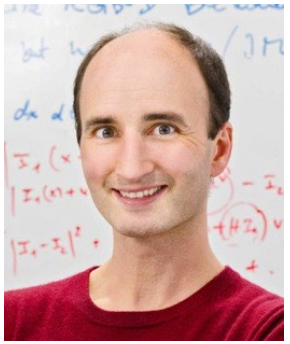
ARTISENSE

Headed by a global leader in self-driving automotive research, Prof. Daniel Cremers, technical experts including Ph.Ds from TUM

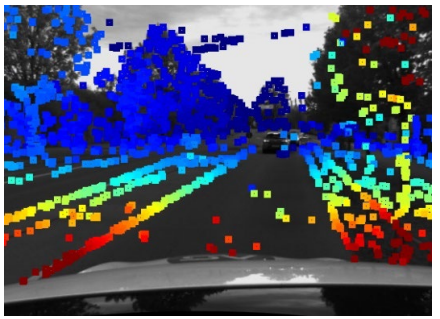


Prof. Daniel Cremers
Artisense founder and CSO

- Over 55,000 citations of his work in academic papers, h-index 110 (Nobel laureates average 45.1)
- 2016 Leibniz Prize Winner (Germany's most prestigious academic award)
- More than 10 years of joint research with European OEMs, including Daimler, in autonomous driving research

Direct SLAM

- Camera image (visual) processing
- Capable of detailed recognition
- High stability
- Integration with deep learning models



About Kudan/Artisense SLAM software

Unique algorithms refined to overcome the "hurdle to commercialization"
many customers who are developing on an OSS (open source) basis are sure to face

High performance in a variety of environments
High accuracy and high stability Environmental robustness

Flexibility to adapt to various sensors and various operating environments
according to usage and purpose

kudan
ARTISENSE

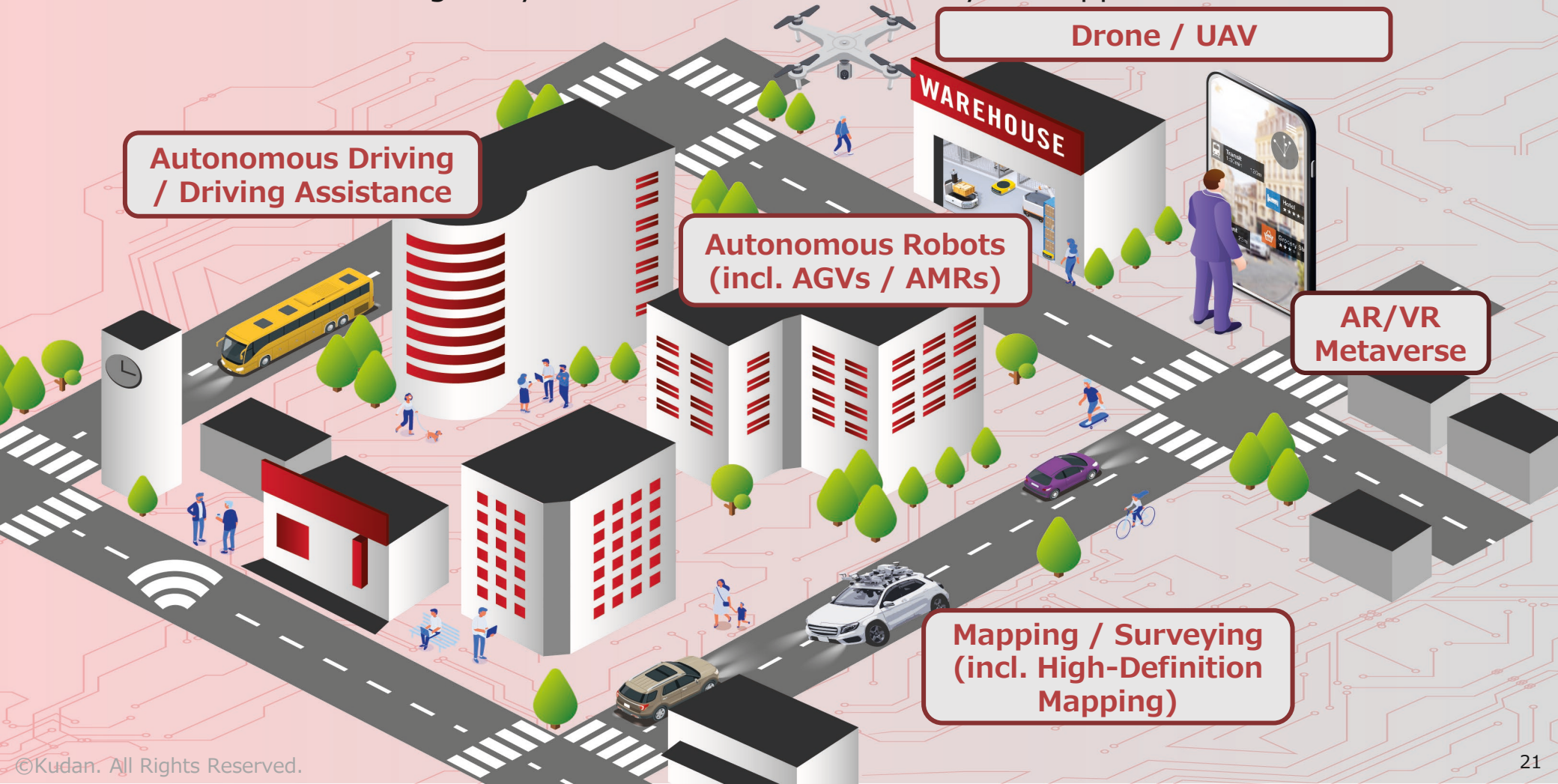
Commercial-grade SLAM

Provide essential functions for field operations such as map handling and map sharing to multiple devices

Updates with resources not found in OSS and **strong technical support by a dedicated team**

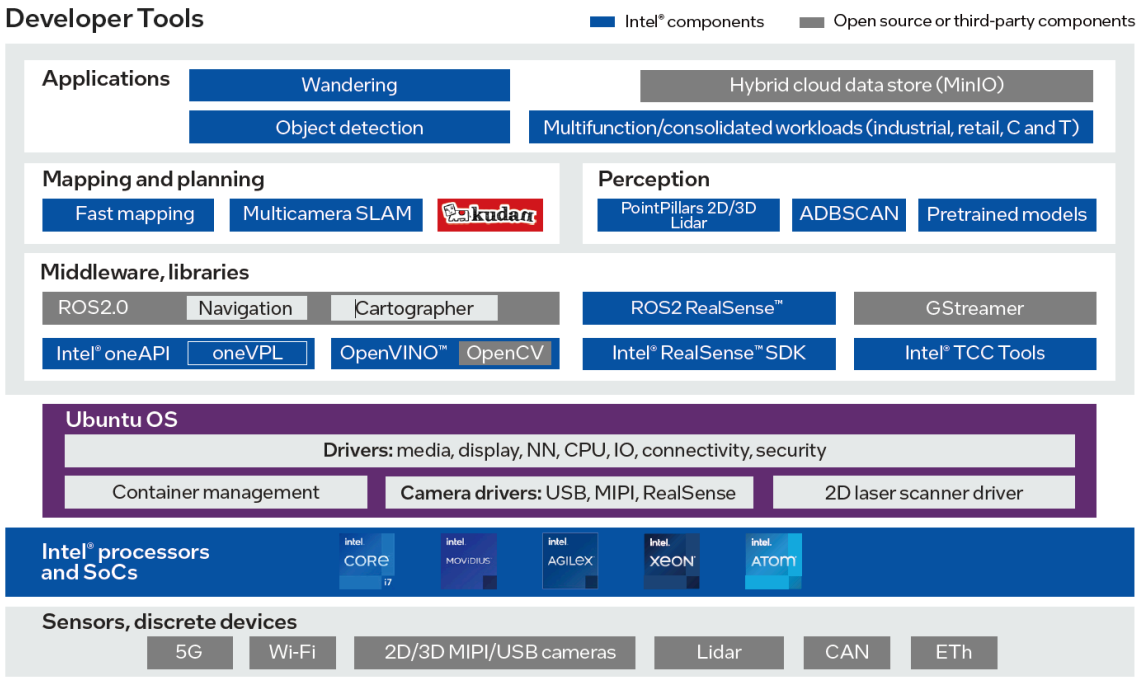
Broad range of SLAM application areas including AR, Robotics and Autonomous Driving

- Localization & Mapping technology centered SLAM is necessary in cases where moving machines and equipment need to change their subsequent movements and outputs depending on their positions and movements
- GPS and beacons are greatly limited in terms of accuracy and applicable environment



SLAM application (Project Highlights) : Autonomous mobile robots / Drones

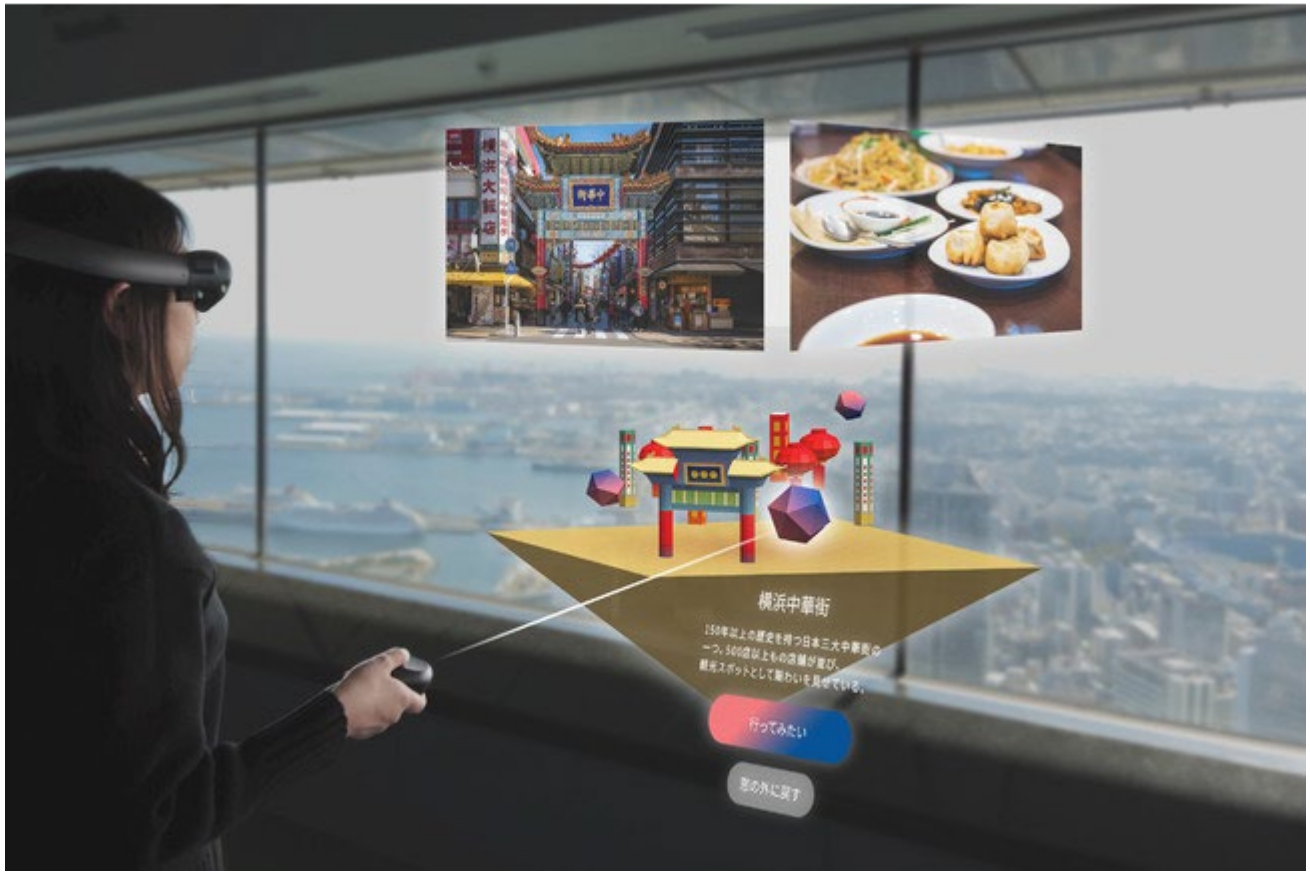
- **Intel** : Kudan Visual SLAM was adopted as a commercial SLAM in the platform for AMR (Autonomous Mobile Robot). This is the world's first commercial SLAM adopted in a major semiconductor company's product
- **Major Japanese telecommunication** : Progress toward commercialization of a platform that enables cooperative use of various robots
- **Major Japanese manufacturer** : Development and implementation underway for autonomous flight of drones for infrastructure inspection
- Multiple other projects, including **European robot manufacturer, Japanese major auto parts supplier, (several) localization of forklift projects**



Adoption to
Intel's Edge Insight

SLAM application (Project Highlights) : Implementation in technology infrastructure (AR/General)

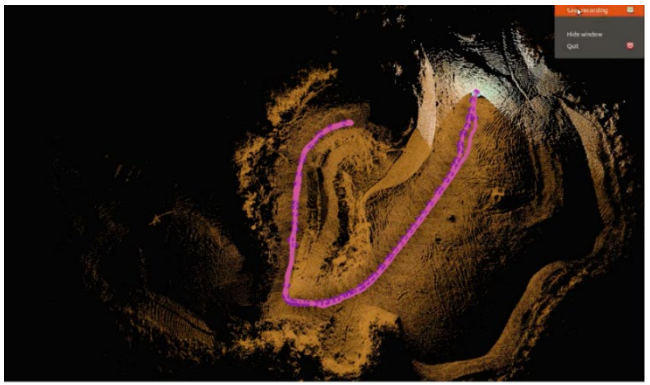
- **NTT DOCOMO** : Developing an AR cloud application and released publicly in April 2021
- Several other projects including **leading telecom companies** (three of the top seven global companies), **leading telecom equipment manufacturer** (top global company)



AR cloud with NTT DOCOMO

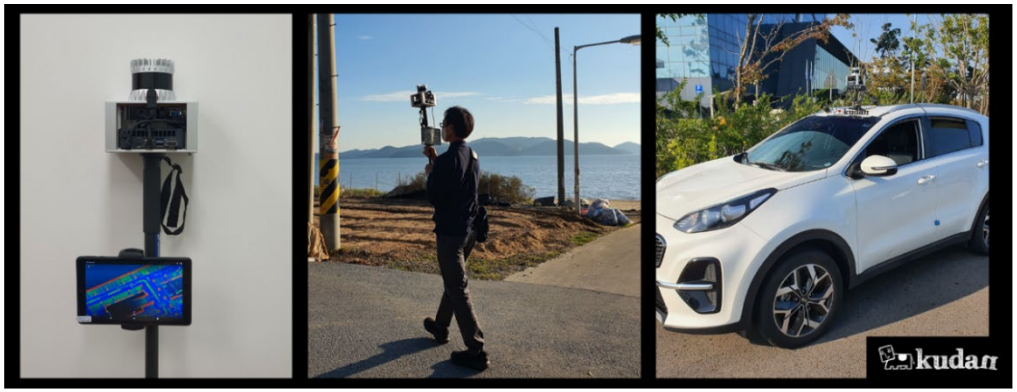
SLAM application (Project Highlights) : Next-generation map

- **Atos** : In addition to the handheld mapping, conducted technological verification of in-vehicle mapping and promote joint development for products commercialization
- **UCS, Korean solution provider** : Launched a handheld mapping device powered by Kudan 3D-Lidar SLAM
- **US mapping solution provider** : Signed a commercial license agreement and is undergoing final development for commercialization
- **Major Japanese telecommunication** : Conducted technological verification for building map base for smart cities



"Construction DX" (= i-Construction* project) with Atos

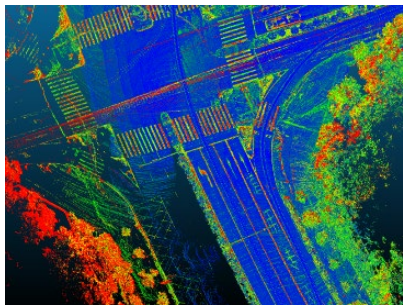
*i-Construction is an initiative by the Ministry of Land, Infrastructure, Transport and Tourism to improve the productivity of the entire construction production system and make construction sites more appealing.

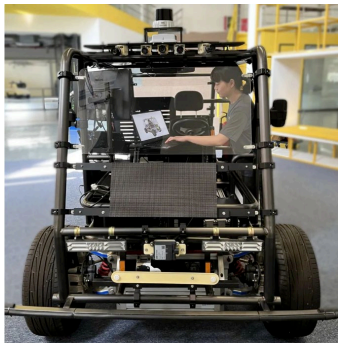


Commercialization of a handheld mapping device with UCS

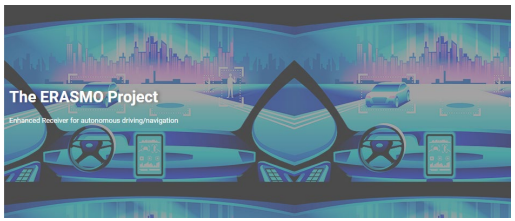
SLAM application (Project Highlights) : Automobile-related

- **Whale Dynamic, an autonomous driving technology company in China** : Products for autonomous driving by integrating Kudan 3D-Lidar SLAM are released
- **“ERASMO”, a multi-year autonomous driving research project funded by an EU research institute** : Participation on this project with other EU companies including Renault and the development of an on-board positioning device enabling fully autonomous driving is in progress (https://erasmo-gnss.eu/)
- Not only autonomous driving, but also a wide variety of applications such as driving support and traffic management including **AR navigation development with HERE / NNG**
- Several other projects including **two of the top three global automotive OEMs** and **four major sensor companies**

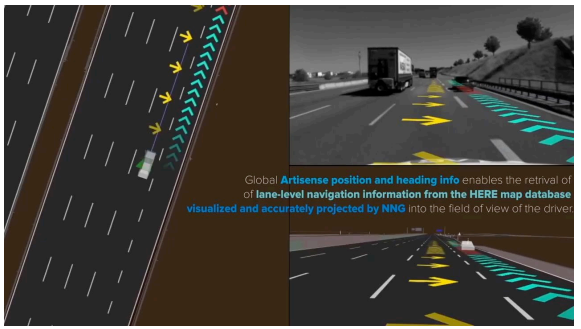




Whale Dynamic commercialization



ERASMO project

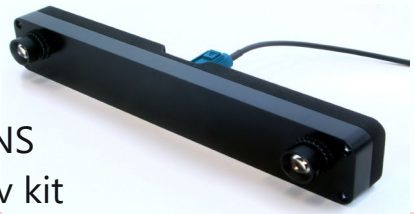


AR navigation with HERE / NNG

Business Strategy

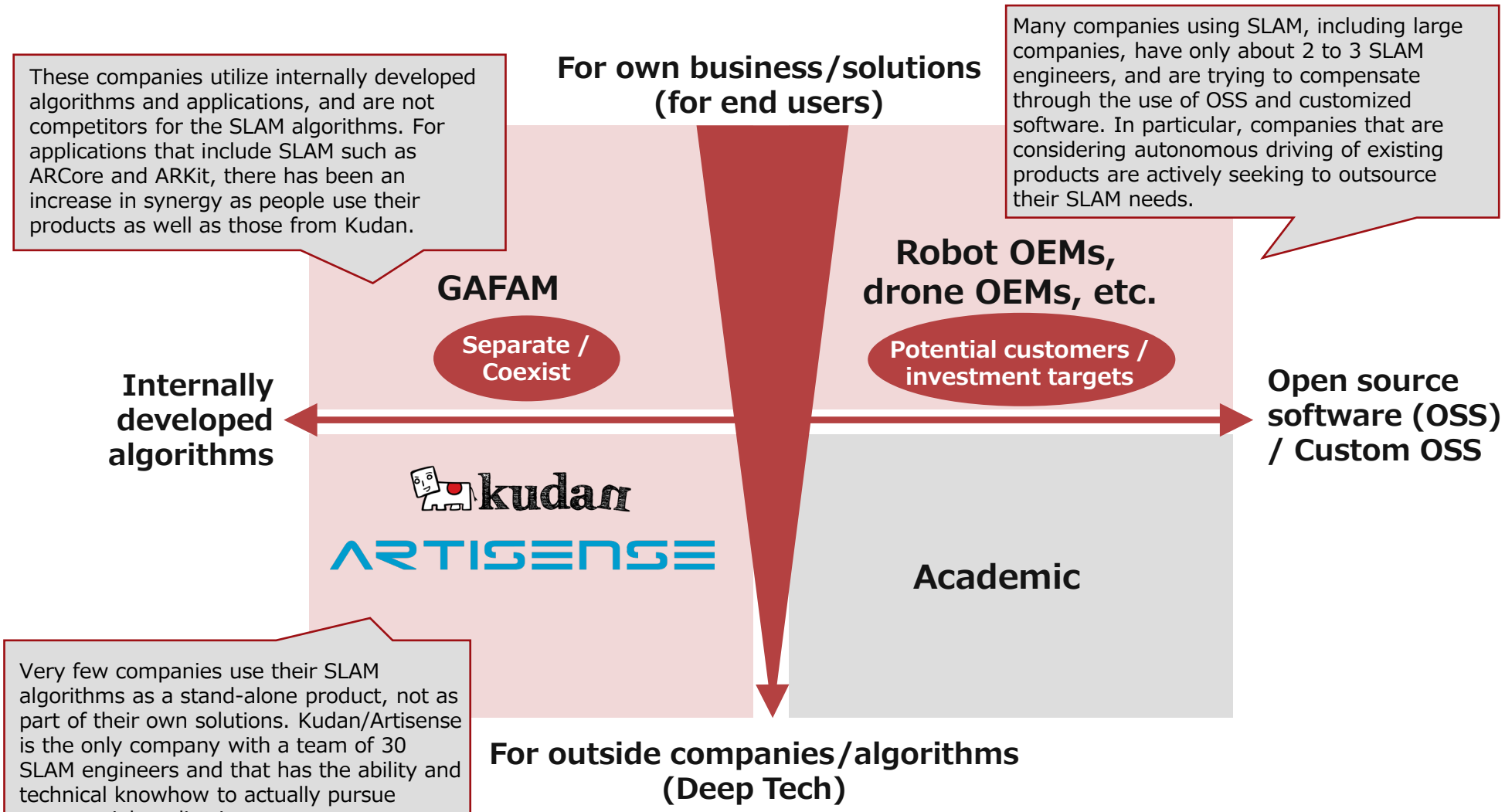
Leader in the Deep Tech layer with strategic positioning

- While maintaining a fundamental focus on the establishment and maintenance of leading position on the low-volatility deep tech layer, measures are being implemented to accelerate the creation and cultivation of markets for Kudan's products in the higher layers of the AP technology pyramid

Layers of AP technology	Players	Measures put in place targeting each layer
Solutions	▪ Providers of product operation and added-value services	① Provision of prototypes and dev kits, allowing clients to reduce lead-in time / accelerate commercialization
Products	▪ Developers of end-user products in the mobile / wearable / robotics / mobility fields	 VINS dev kit
Applied technology	▪ Developers of algorithm and sensor packages	② Accelerated market penetration through cooperation with sensor and semiconductor manufacturers Qualcomm Qualcomm Technologies, Inc. SONY
Deep tech	▪ **Provision of AP tech algorithms (frameworks), including SLAM** kudan	③ Strengthening of R&D and maintenance of deep tech monopoly through corporate acquisitions ARTISENSE
		④ Continued strengthening through increased investments

Expansion of potential customers or investment targets through strategic positioning

Kudan/Artisense enjoys an exclusive position in the area of commercial SLAM algorithms while avoiding direct competition with GAFAM, and many companies that use SLAM technology are also potential customers or investment targets.



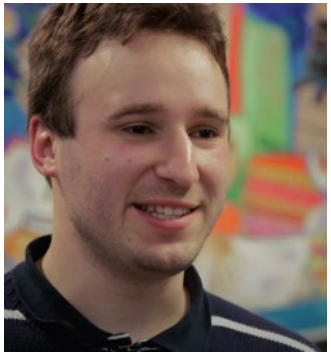
Demand for technology that is not open-source and has been professionally developed for commercial use

	Image recognition with AI / Deep Learning	Spatial location recognition with Artificial Perception / SLAM
Characteristic	▪ Algorithm is simple	▪ Algorithm is complex
Development environment	▪ Can be completed with software	▪ Advanced hardware integration is essential
Open-source	▪ Practical	▪ Not practical
Talent acquisition	▪ High competition for talent acquisition, but also high supply	▪ Need niche rare talent
Technological competitiveness	▪ Quality and quantity of data	▪ Accumulation of engineering

Developed by specialized companies like Kudan

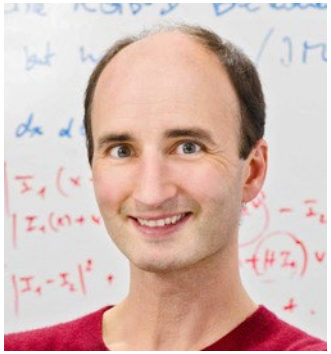
Management structure for promoting R&D and social implementation of Deep Tech

Research & Development



Kudan founder & CTO John Williams

- Implemented SLAM technology for smartphones ahead of Apple / Google



Artisense founder & CSO Professor Daniel Cremers

- The most influential SLAM/robotics expert in the world
  (The head professor at the Technical University of Munich, about 55,000 citations of his work in academic papers, h-index 110)

Other management members (previous employments)

accenture　McKinsey & Company　EY　TOYOTA　ERICSSON　SAMSUNG

Acquired world-class technical team to support R&D

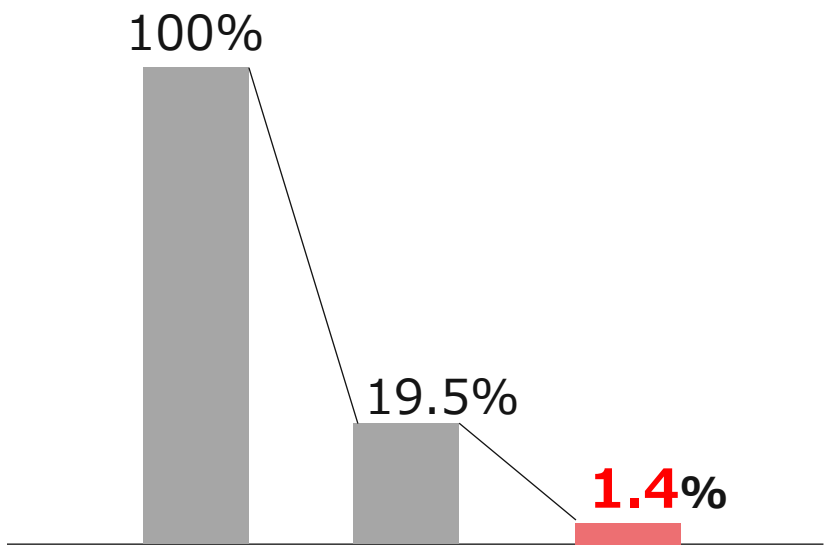
Researchers and engineers specializing in SLAM technology are extremely rare, even in the field of computer vision. Despite this, Kudan and Artisense employ many world-class professionals with PhDs in the field. The partnership with industry leaders such as Professor Daniel Cremers and the Technical University of Munich will ensure continued access and expand further to top talent and cutting-edge research.

University of BRISTOL

Technical University of Munich

There is Professor Cremers, a founder & CSO at Artisense

Estimated breakdown of computer vision and SLAM engineers per 100 machine learning engineers



*Based on a LinkedIn search

Other companies trying to organize SLAM engineer teams of the same level and scale will require large investments in both recruitment and labor costs

Related technologies are acquired in the world, only a few independent SLAM development companies left

Founded in 2011

IPOed in 2018

Around 30 SLAM specialized Engineers
General-purpose, including robotics

Founded in 2016

Acquired in 2021

Founded in 2010

Acquired in 2014

Founded in 2016

Acquired in 2020

Founded in 2003

Acquired in 2015

Founded in 2016

Acquired in 2020

Specialized for smartphone AR

While the increase of acquisitions of the related technologies, Kudan and Artisense leads the market in track record and awareness

- More limited numbers of SLAM-focus / SLAM-feature software companies due to acquisitions by larger technology companies
- Kudan and Artisense have been in a leading position in terms of breadth of offering, track record and awareness in the market

SLAM-focus / SLAM-feature software player

kudan + ARTISENSE

- Offers Indirect & Direct Visual SLAM and Lidar-SLAM
- Flexible sensor options
- Track records in various applications such as AR, robotics and autonomous driving

SLAMCORE

- Only Indirect Visual SLAM
- Optimized for limited camera models

VanGogh Imaging

- Focus on very specific medical application

outsight

- Only Lidar-SLAM
- Optimize for their own hardware kit

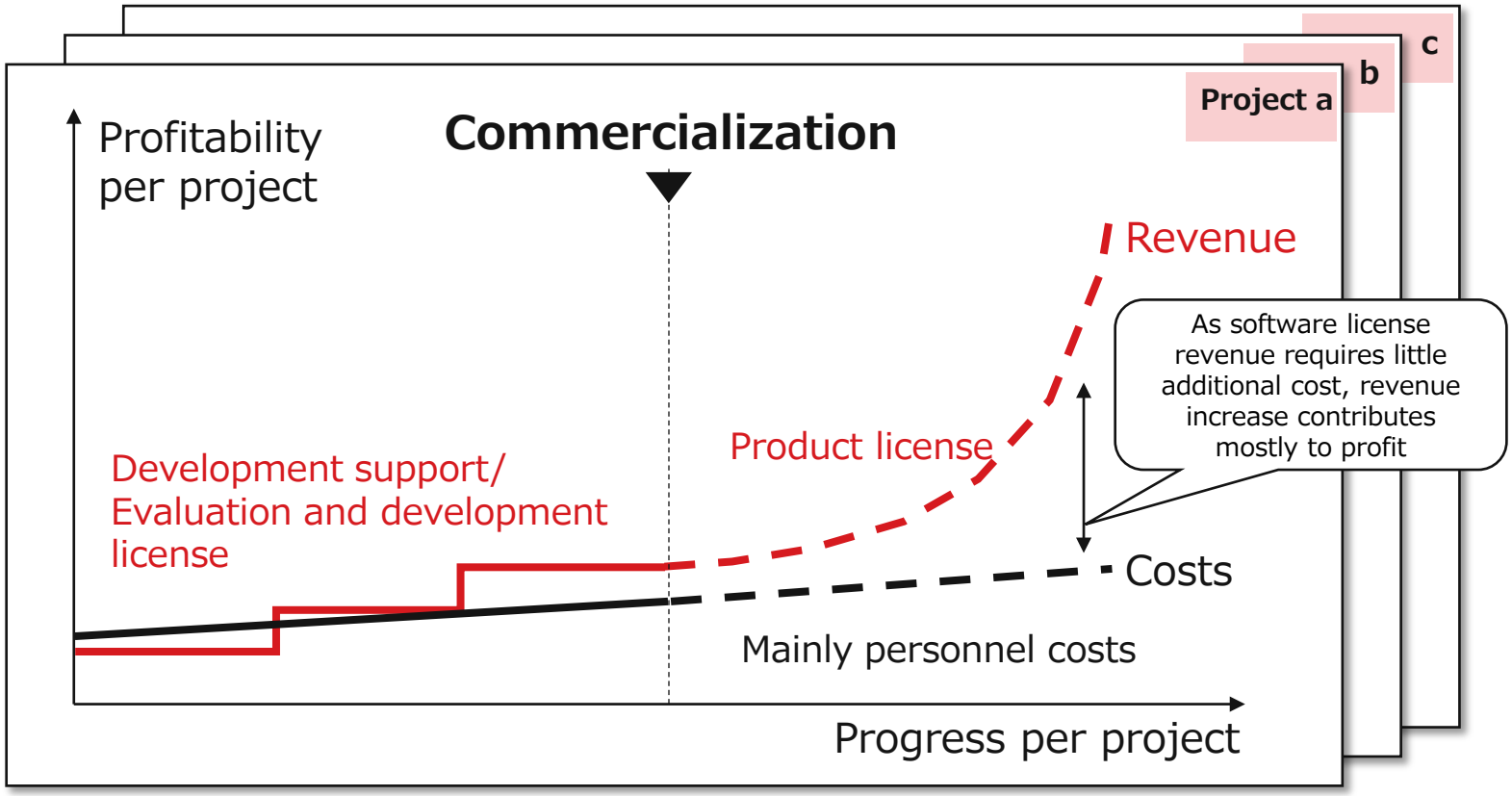
Development projects and partnership with global leading players have been increasing

	Timing	Main target applications and project overview
FY20	May.	**Robotics**) Partnership with Thales group for next-gen tracking system development
	Aug.	**Mobility**) Signed with Japan Unisys to collaborate as Business Scaling Partner
	Sep.	**Mobility**) Partnership with Macnica to develop new value-added solutions for mobility business
		Robotics, Mapping) Partnership with Ouster
	Nov.	**AR**) Develop RGB-D SLAM on smartphones with ToF sensor with Sony Semiconductor Solutions
	Jan.	**Robotics, Mapping)** Partnership with Cepton on Lidar-SLAM and joint exhibition demo
		Robotics, Mapping) Partnership with Velodyne on Lidar-SLAM
FY21	May	**Robotics**) Launch SLAM library for Qualcomm® Robotics RB3 Platform with their technical support
		Robotics) Joint development of 3D SLAM demo application with Analog Devices
	Nov.	**Robotics**) Partnership with Vecow to jointly offer integrated solution for autonomous mobile robots
		AR, Mobility) Artisense released Automotive AR navigation demo with HERE technologies and NNG
	Dec.	**General**) Achieved 40% image process acceleration with Synopsys ARC EV processor IP on Kudan SLAM
	Mar.	**General**) Joined NVIDIA Inception Partner Network
FY22	Apr.	**AR)** Released utilization of Kudan SLAM in NTT docomo's developing AR cloud
	May.	**Robotics**) Partnership with robotics developer UGO to integrate Kudan SLAM into robotics and joint sales
	July.	**Mapping**) Signed a Developing License General Agreement with BIMEXPERTS and develop joint solutions
	Aug.	**Robotics**) Partnership with ADLINK, development of AMR, integration of Kudan SLAM into robotics, joint sales
		General) Joined Texas Instrument's partnership network in robotics
		General) Become official SLAM partner with Ouster, a leading Lidar provider, and start offering tools on Website
	Oct.	**Autonomous Driving**) Participation with Renault and other companies in ERASMO, an autonomous driving project by an EU research institute
	Mar.	**Robotics**) Exhibited at Intel-sponsored event "Intel IoT Planet ~ Robotics Week"
FY23	Oct.	**Robotics**) Adopted as a commercial SLAM for Edge Insight, Intel's platform for AMR
		Robotics, Mapping) Partnership with Innoviz to promote digital mapping project

Growth Potential

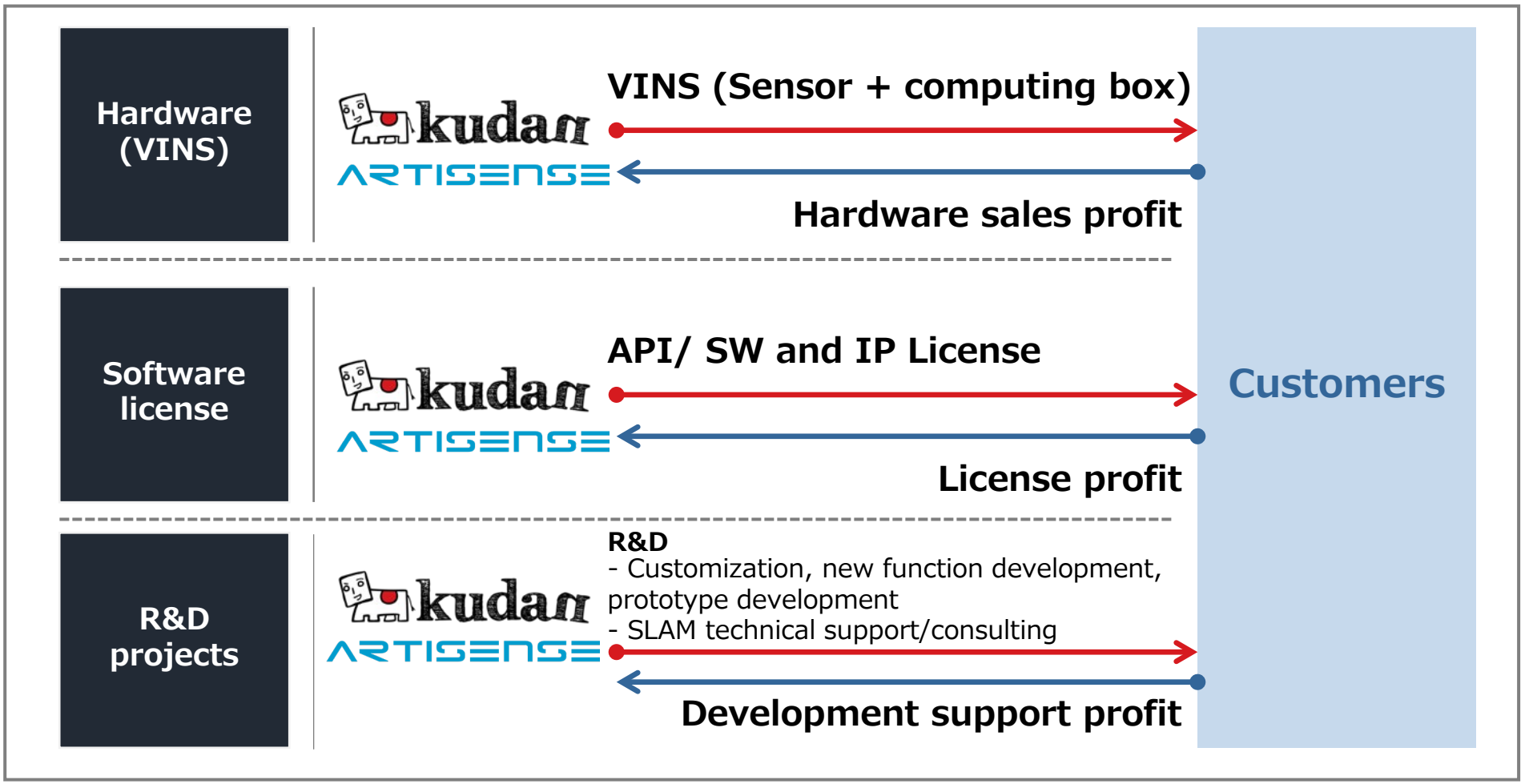
Revenue model

- Almost all of customers' projects are in the evaluation or development phase, and we have focused on acquiring and continuing high-quality projects that are expected to achieve customers' commercialization and expand the scale of sales in the future (Business phase in the red due to upfront investment in R&D expenses, mainly engineer personnel expenses)
- Although stable growth can be expected in revenue based on evaluation/development licenses and customer development support in the evaluation or development phase, the most important goal is to contribute to all next-generation industries and to achieve a significant increase in revenue through commercial license profit with the implementation of Kudan's Artificial Perception technology



(Reference) Revenue model (Evaluation/Development phase)

- After commercialization of customer-developed projects, expand license profit through pay-as-you-go billing based on the number of products sold, data volume ,etc. according to the customer's business model (Shift to a stock revenue model)
- In the "evaluation and development" phase, which is prior to the commercialization of customers ' products, we gain revenue mainly from license profit and development support profit based on the development volume and development period.



Performance forecast for FY2023

- Continuous significant revenue growth is expected due to increasing of evaluation and development projects and scaling of projects
- Cost of sales and SG&A expenses are expected to increase from the previous year due to the full-year consolidation effect of Artisense (consolidated only for 3 months in the previous year), but cost structure will be improved by 4Q
- Non-operating profit is expected to include subsidy income from R&D in the U.K. and Germany

(Unit : million yen)

	Performance for FY2020	Performance for FY2021	Performance for FY2022	Forecast for FY2023
Net Sales (Prior to accounting standards change)	**456**	**127**	**271** (296)	**500**
Operating Profit	**9**	**△451**	**△433**	**△350**
Ordinary Profit	**△12**	**△1,575** (incl. "share of loss of entities accounted for using equity method"(1,232))	**△681** (incl. "share of loss of entities accounted for using equity method"(403))	**△300**
Profit Attributable to Owners of Parent	**△29**	**△1,608**	**△2,237** (incl. impairment losses of (1,474))	**△315**

Highlight for future growth strategy based on customers' commercialization

- With plans to have several customers launch their products using Kudan software from this fiscal year ending March 2023, **the transition from the "preparation phase" to the "harvest phase" is underway**

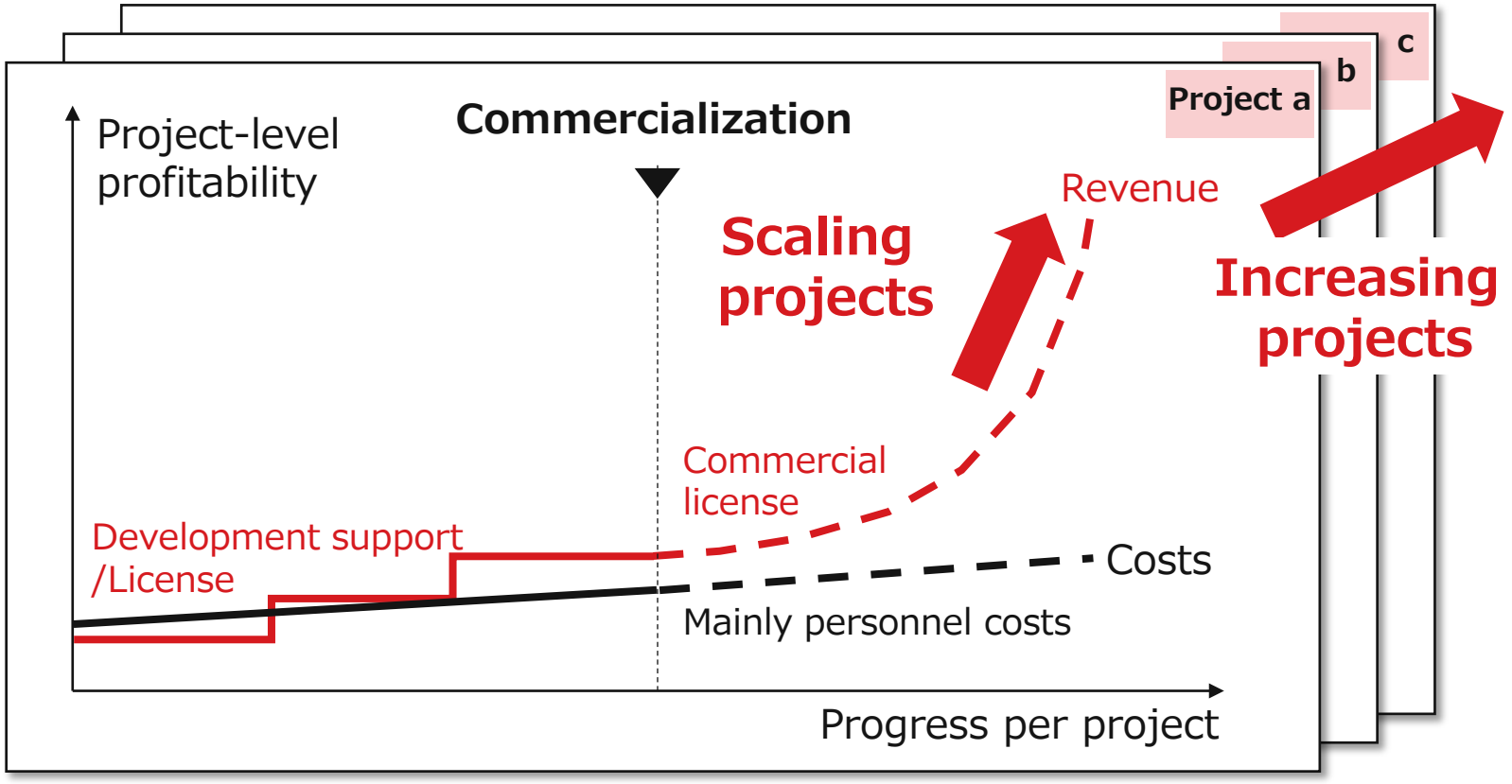
- To accelerate this transition, we will strengthen our business based on customers' commercialization

  A **Acceleration and expansion of customers' commercialization:** Strengthen support, technology development, and business development with the aim of increasing the number of projects to be commercialized and increasing profit at the project level

  B **Solution business launch:** Not only embedding Kudan technology in individual products, but also providing engineering service to accelerate new solution development that synchronize multiple products and expand their applications centered on Kudan technology (digital twin, robot platform, Metaverse, etc.)

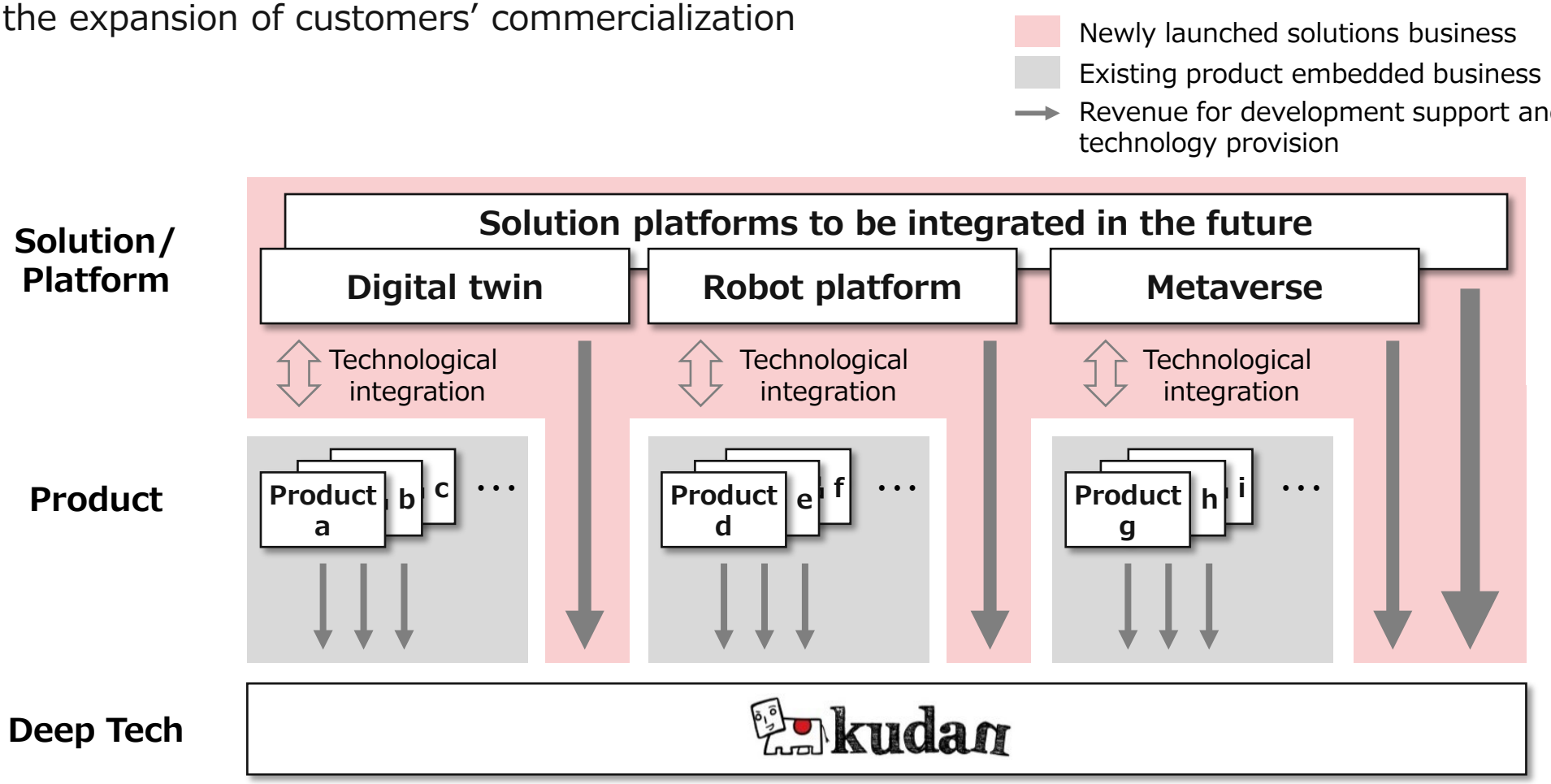
A Acceleration and expansion of customers' commercialization

- **Scaling projects:** Strengthen support functions and technology development for the purpose of scaling projects in order to advance to the harvest phase at the project level, starting with the realization of customers' commercialization
- **Increasing the number of projects:** Strengthen business development, including global expansion, to increase the number of commercialization projects by leveraging the existing projects



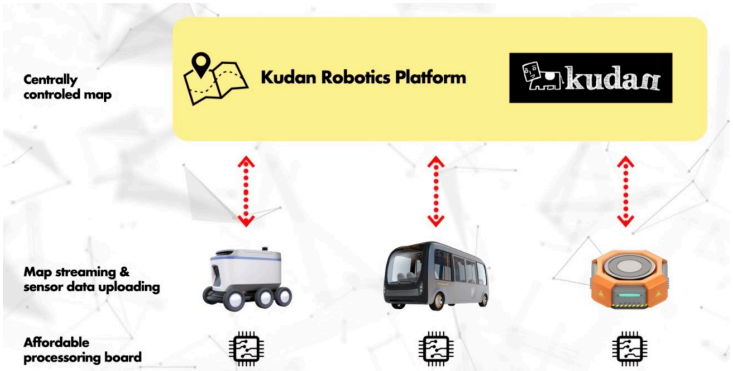
B Solution business launch

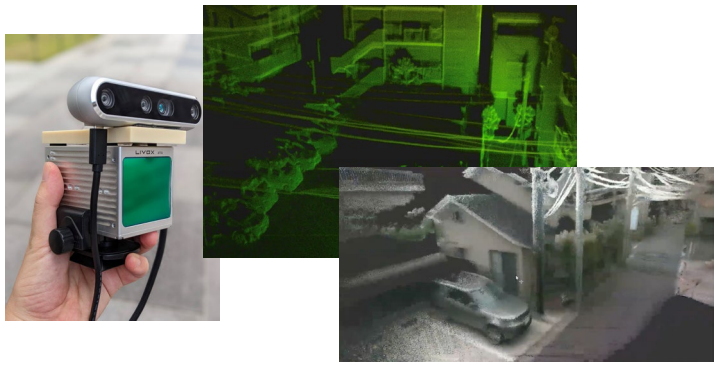
- Support the realization of solution platforms that allow multiple products to synchronize or expand their applications centered on Kudan technology
- Aim to improve profitability by taking customers' commercialization as a foothold for the solution business and by generating synergies from the solution business that will support the expansion of customers' commercialization

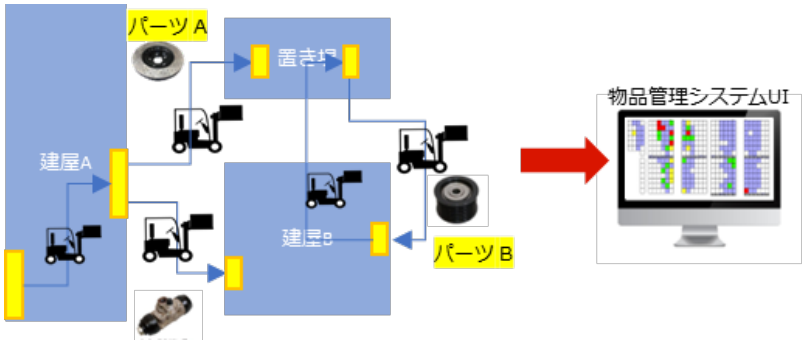


B Solution Business Development (Solution examples)

Solution examples







SLAM with AI enable
real-time, integrated management of complex parts inventory status across buildings

◆ Robotics platform

When a phase of introducing one robot on a trial basis is over and entering a phase of operating multiple types of robots on site, we are beginning to see the issue of disorganized maps and management tools for each type of robot

With Kudan's SLAM solution, we can develop **a unified platform that can centrally manage robots** from different companies

◆ Mapping solutions

3D maps are used for digital twin and simulation. On-site operations were sometimes difficult since the equipment for acquiring maps has been extremely expensive and it has been necessary to call in specialized companies to acquire and update maps.

Kudan's SLAM solution **enables inexpensive equipment to acquire highly accurate 3D maps**. Also, **the maps include feature points from which location information can be obtained** and can be developed into a number of robotic and Metaverse solutions.

◆ Location × AI DX Solutions

By combining location information from our SLAM with AI technology from partner companies, we can provide a completely new DX solution that has never been seen before.

For example, when parts are transported between buildings in a factory using forklifts in any direction, it has been difficult to manage in real time which parts and how many parts are in which storage area.
To solve this problem, we will develop a DX solution that can manage parts in real time without using markers, RFID, etc. by **using AI to recognize what parts have been picked up and SLAM to recognize where they have been transported to.**

Shift to the harvest phase

- Keep the strategy to shift earnings structure aiming for profitability and revenue model through the commercialization of customers' products to realize revenue growth from the fiscal year ending March 2024 onward
- Aim to shift to the harvest phase from "project-level profitability" to "business-level profitability" by strengthening growth drivers
- Depending on the commercialization of customers' products, Kudan aims to generate several million yen to several tens of millions of yen per project at the start of commercialization, and then to generate revenue in the hundreds of millions of yen per project as product sales expand

Business Phase

Preparation Phase
- Raise the level of competitive advantage through M&A
- Accumulation and larger scale of high quality development projects

Shift phase
- Shift of earnings structure
- Shift to commercialization of customer's products

Harvest phase
- Increase revenue due to technology diffusion

Growth Drivers

Increase in the number of new projects

Increase in scale of ongoing projects

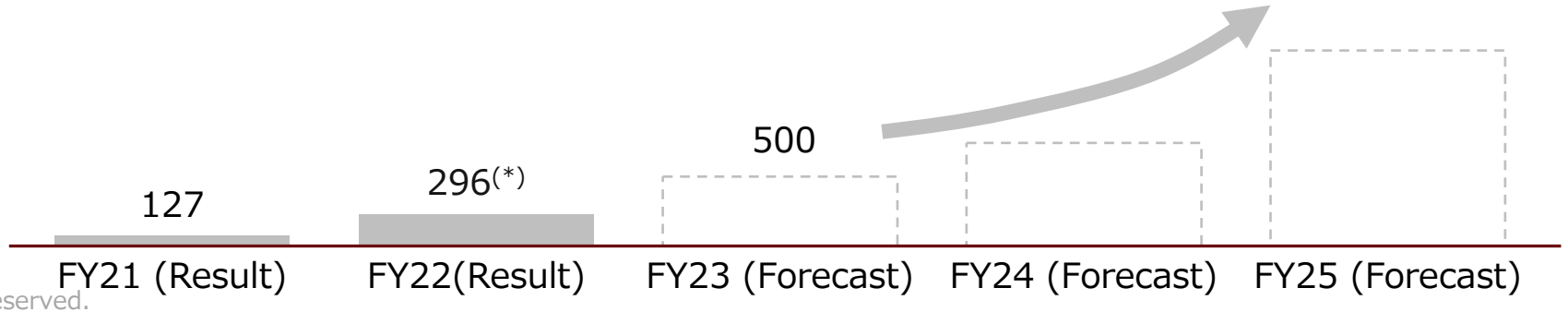
Growth drivers aiming to strengthen

A Commercial licenses through customer product commercialization

A Commercial licenses through customer product commercialization

B Solutions business launch

Net Sales
Million JPY

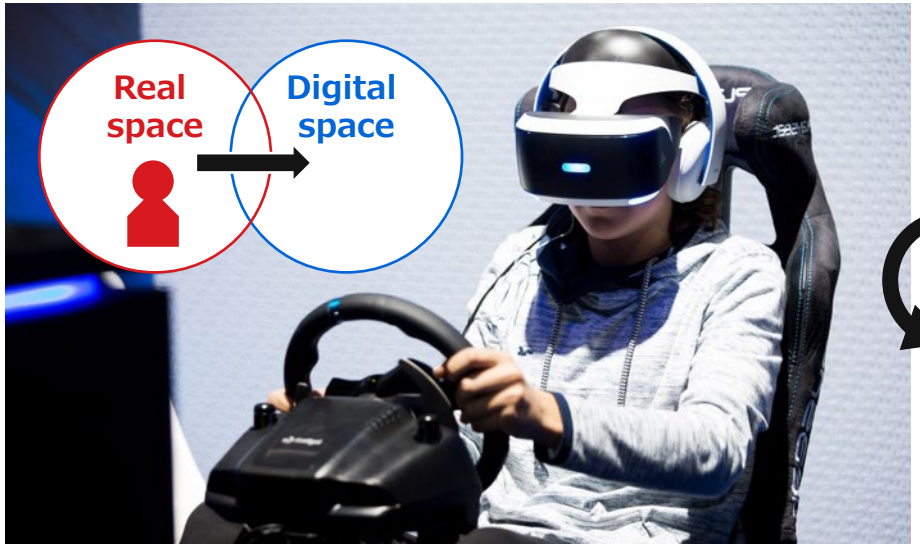


(*) Revenue adjusted for the impact due to accounting standards change

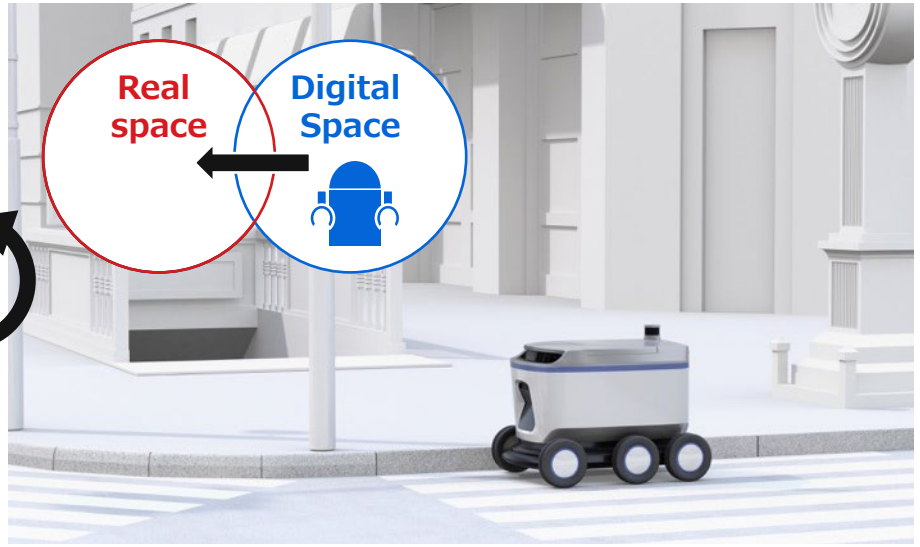
Metaverse demand pushes us forward

- With the demand for Metaverse as a tailwind, Kudan's Artificial Perception/SLAM technology is the core technology of the Metaverse, which realizes the "coupling of real space and digital space," and further extends the Metaverse to integrate with robotics
- Capture the ongoing evolution of Metaverse demand for growth by providing versatile-purpose technology for both Metaverses
- For more information on the concept of the Metaverse and its step-by-step development in the future, please refer to our publicly available white paper
  https://contents.xj-storage.jp/xcontents/AS02977/f73312e9/8386/46c0/844c/0b4442e0ad71/140120220224594911.pdf

Metaverse（AR/VR）



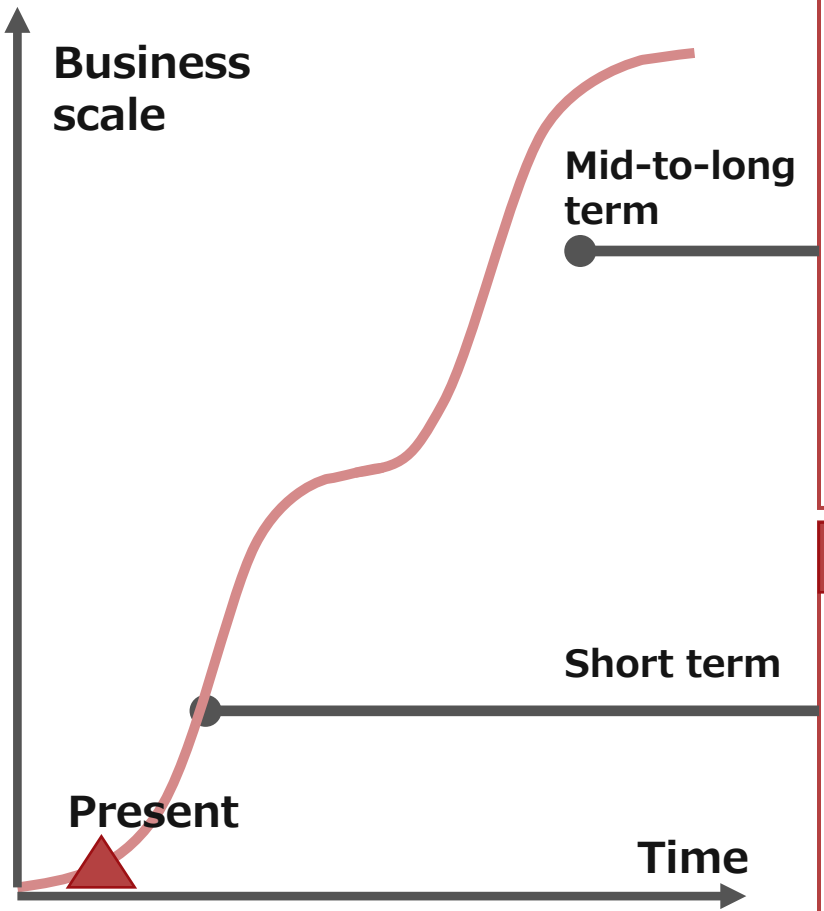
Extended Metaverse（Robotics）



Metaverse evolves as real and digital spaces are more highly connected, such as robot operations via the Metaverse

Mid- to long-term R&D investment for discontinuous growth

- In addition to developing its Deep Tech efforts, the company will invest in additional technological innovations for discontinuous growth over the mid to long term
- Due to the nature of an algorithm-layered Deep Tech company, the majority of R&D investment is in personnel costs, and the scale of additional investment in the future is expected to be about several additional engineers per year

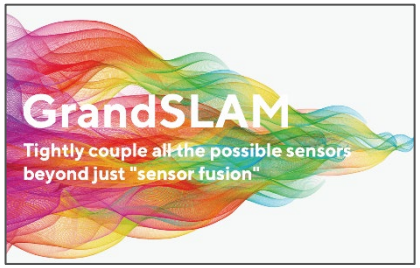


Dramatic growth via mid-to-long term technological innovation

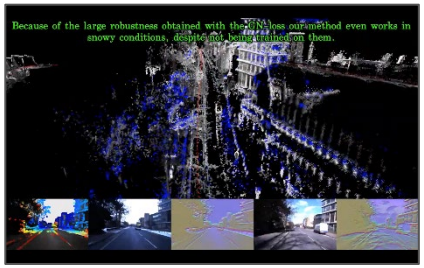
Event-based camera SLAM
(Applied technology for next-generation cameras that imitate the visual nerve and retinal structure of living organisms. Further breakthrough technology for autonomous driving and robotics because it is ultra-high speed but stable even in dark place.)

Growth by capturing and strengthening the base upon areas where the demand is evident

GrandSLAM
(Tight coupling of major sensors)

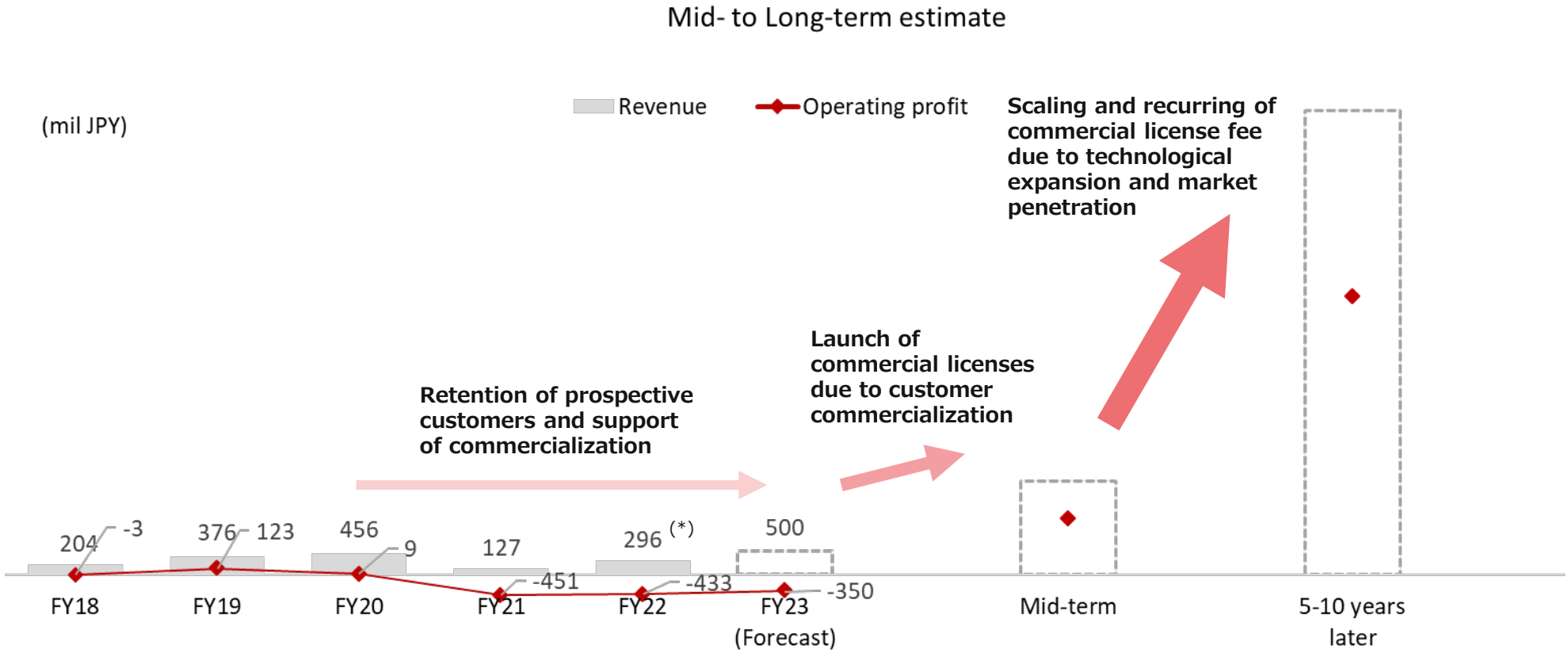


GN-Net/Super-point
(Combining SLAM with deep learning)



Future growth potential (Mid- to Long-term)

- Stable commercialization from the cumulative customer projects creates technological penetration to the market, leading to recurring revenue from commercial licenses and significant growth in profit



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Important Notice

- This document contains Kudan's plans, estimates and expectations for the future based on its current business situation and industry trends.
- All such projections for the future inherently involve uncertainty and a wide variety of risks.
- It is conceivable that risks both understood and unforeseen, uncertainties and other factors may cause actual results to differ from the projections contained within this document.
- Kudan offers no guarantee of the accuracy of its projections for the future and accepts that they may differ significantly from actual results.
- All projections for the future included in this document are based upon information available to Kudan as of November 14th, 2022, and may not be updated or changed to reflect future developments or changes in status.