

Asia Digital Transformation (ADX) Projects Briefing Materials

August, 2021

Japan External Trade Organization (JETRO)

Asia Digital Transformation(ADX) Projects (Support for Joint Pilot Projects (PoC) between ASEAN and Japan)

- JETRO supports Japanese companies in conducting Pilot Projects, working together with ASEAN companies/institutions, to contribute to solving the socio-economic challenges in ASEAN member states by using digital technologies.
- In this project, the Japanese companies will also proactively contribute deliberating measures for further disseminating digital innovations and to creating a business environment in collaboration with the governments and private sector in ASEAN member states.

Target Countries

10 ASEAN member states

(Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam)

Support measures & Maximum subsidy amount, subsidy rates

- To subsidize joint pilot projects between ASEAN and Japanese companies
 - Large companies: maximum 10 million yen, less than one-third of the subsidy-eligible expenses
 - SMEs: maximum 30 million yen, less than one-half of the subsidy-eligible expenses
- To coordinate with government and related organizations in order to facilitate the projects

Project Requirements

- To specifically identify socio-economic challenges in the country and contribute to solution of them
- To use digital technologies which contribute to promoting 4th Industrial Revolution (4IR)
- To identify ASEAN company/ institution as the project partner
- To be expected that the business operation will start or continue early (generally within two years after the completion of the PoC) in the target country or other ASEAN region

Project Period

Date when the grant is decided – Tuesday, January 31, 2023

The Result of the Call

- The call was opened from May 25 to June 15, 2021 and received 45 applications.
- As a result of the examination, it adapted 17 projects.

Total 17 projects (6 large companies, 11 SMEs)

	BRN	CAM	IND	MAL	PHI	SIN	THA	VIE	MAL/SIN
<u>Subtotal</u>	2	2	2	2	2	2	2	2	1
<u>Mobility</u>	1			1	1	1		1	
<u>Agriculture</u>	1			1					
<u>Fisheries</u>		1	1						
<u>Medical & Nursing</u>			1			1		1	1
<u>Manufacturing & Logistics</u>					1		2		
<u>Finance</u>		1							

Asia Digital Transformation (ADX) projects(2021) Selected Projects①

Mobility

Company Name	(Project) Country	Company Size	Project Name
Broadleaf Co., Ltd.	Philippines	Large	Demonstration project of smart mobility platform in the country of Philippines
Mitsubishi Corporation	Brunei	Large	Proof of Concept for On-demand Shared Mobility in Brunei
Nippon Koei Co., Ltd.	Singapore	Large	Advanced Road Management using Big Data from vehicle camera mounted on commercial vehicles in Singapore
SmartDrive Inc	Malaysia	Small/medium	Development and Demonstration of "EV Mobility Data Platform" to Promote the Spread of Electric Vehicles in Selangor, Malaysia
WILLER Inc.	Vietnam	Small/medium	The Project of AI Route On-demand Share Bus Demonstration in Hanoi, Socialist Republic of Vietnam

Agriculture

Company Name	(Project) Country	Company Size	Project Name
ELM Inc.	Brunei	Small/medium	Development of temperate vegetable cultivation technology in Brunei using the container-type robotic cultivation system "EcoNursery"
Polar Star Space Co., Ltd.	Malaysia	Small/medium	Oil palm disease early detection business by ultra-high precision spectrum measurement

Asia Digital Transformation (ADX) projects(2021) Selected Projects②

Fisheries

Company Name	(Project) Country	Company Size	Project Name
FishBiotec.co.Ltd	Cambodia	Small/medium	Development and demonstration projects of the Production Management System with farm-raised tilapia utilizing a digital transformation(DX) for building the aquaculture economics in Cambodia
OceanEyes Co., Ltd.	Indonesia	Small/medium	Surface fishery digitalization in Indonesia

Medical & Nursing

Company Name	(Project) Country	Company Size	Project Name
aba Inc.	Singapore	Small/medium	Development and introduction of the Helppad, an excretion care system developed in Japan to solve the shortage of nursing staff
Allm Inc.	Singapore / Malaysia	Small/medium	Development and introduction of solutions for contribution to the DX of dialysis clinics in Singapore and Malaysia
CarbGeM Inc.	Vietnam	Small/medium	Development of an AI-assisted online bacteria identification support platform aimed at promoting DX in the infectious disease area in Vietnam
PARAMOUNT BED CO., LTD.	Indonesia	Large	The project for the development of a more accurate monitoring service business for telemedicine and other situations using sensing devices in Indonesia

Asia Digital Transformation (ADX) projects(2021) Selected Projects③

Manufacturing & Logistics

Company Name	(Project) Country	Company Size	Project Name
IHI Jet Service Co., Ltd	Philippines	Large	Improving visibility and traceability for cross-border supply chain
i Smart Technologies Co.,Ltd	Thailand	Small/medium	The Project of Building a productivity improvement service business by IoT tools and surporting improvement in Thailand.
NIPPON STEEL ENGINEERING CO., LTD	Thailand	Large	Advanced Safety management system for Manufacturing and Construction site worker by using image sensing AI

Finance

Company Name	(Project) Country	Company Size	Project Name
CAMPFIRE SOCIAL CAPITAL, Inc.	Cambodia	Small/medium	The Project of PoC on financial DX through application for visualization among mobility after-sales service providers and member drivers in the Kingdom of Cambodia

Mobility

Mitsubishi Corporation



Mitsubishi Corporation

- ❑ Address: Chiyoda-ku, Tokyo
- ❑ Employees: 5882
- ❑ Established in 1950
- ❑ Business: Wholesale

<https://www.mitsubishicorp.com/jp/en/>

Outline of the demonstration project

- Proof of Concept for On-demand Shared Mobility in Brunei

Cooperation with local companies/governments

- Local partner: Dart Logistics Sdn.Bhd.
- Details of cooperation and collaboration: Provision of on-demand shared transportation services in the urban center of Brunei.



Targeted economic/social issues

- In Brunei, traffic congestion and a shortage of parking spaces in urban areas have become chronic with the gradual population increase and high car ownership.
- Buses are the main form of public transportation, but the service level has room for improvement (e.g. operations with no timetable).
- The Brunei government plans to promote the digitization of public transportation.

Details of demonstration

- Operational demonstration of the first shared shuttle service in Brunei Darussalam.
- Rides are booked via smartphone. A new travel option is provided by utilizing an algorithm that allows multiple passengers to share a ride efficiently.
- As a shared-mobility service, fares are expected to be cheaper than the existing ride-hailing services in the future.

Expected outcome of beneficiary effects

- Creating an alternative transportation option to the use of private cars could help alleviate traffic congestion and reduce GHG emissions in the long run.
- Creation of new jobs engaged in the relevant services.
- It is also expected to expand shared transportation services to neighboring countries that have common issues.

Nippon Koei Co., Ltd.



NIPPON KOEI

- ❑ Address: Chiyoda-ku, Tokyo
- ❑ Employees: 2397
- ❑ Established in 1946
- ❑ Business: Development, and engineering consulting and engineering evaluation services, design and construction of electric power facilities and various works, manufacture and sale of electric power-related equipment, electronic equipment and devices, etc.

<https://www.n-koei.co.jp/english/>

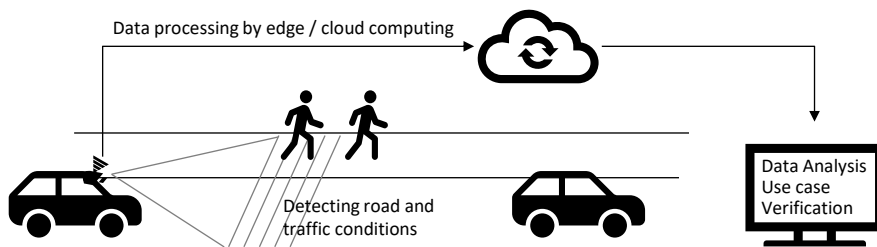
Outline of the demonstration project

- Advanced Road Management using Big Data from vehicle camera mounted on commercial vehicles in Singapore

Cooperation with local companies/governments

- Local partners: Car Club Pte Ltd
- Details of cooperation and collaboration: Provision of vehicles

[Demonstration project image]



Cameras are mounted on car-sharing vehicles

Targeted economic/social issues

- In Singapore, there is an urgent need to address the ongoing aging of road infrastructure and to respond to the increasing development of new roads.
- Because of the rising domestic labor costs and the difficulty in securing foreign workers due to COVID-19, road maintenance management mainly by manpower is also an issue.

Details of demonstration

- Demonstration of the services that data obtained from cameras mounted on car-sharing vehicles is analyzed using AI and IoT technologies, and provided mainly to road managers.
- It will improve the efficiency of daily inspections and support the drafting of road repair plans based on data predictions, and effective traffic safety measures are proposed based on the relationship between traffic volume, road structure, and other factors.
- Using the collected data, we aim to develop unique services by combining it with the road maintenance management support systems, road structure measurement systems, etc., which we are working on separately

Expected outcome of beneficiary effects

- Contribution to the export of infrastructure management technologies and services accumulated in Japan to the Southeast Asian region.
- Economic benefits from ensuring the quality of road infrastructure and strengthening the road network are also expected.
- It also collects data that can be used for traffic safety, autonomous driving, and other transportation measures promoted by Singapore.



SmartDrive Inc.



SmartDrive

- ❑ Address: Chiyoda-ku, Tokyo
- ❑ Employees: 63
- ❑ Established in 2013
- ❑ Business: Development and provision of telematics services, applications, hardware, etc., and data collection and analysis

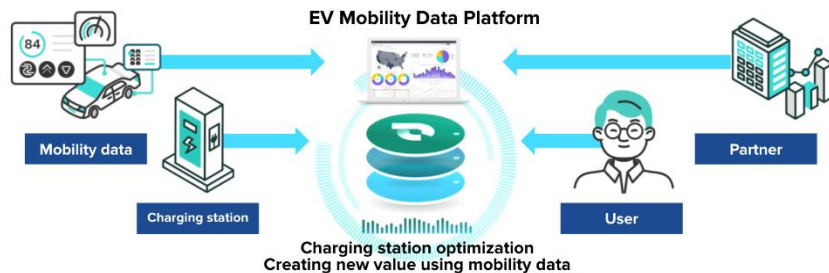
<https://smartdrive.co.jp/>

Outline of the demonstration project

- Development and Demonstration of "EV Mobility Data Platform" to Promote the Spread of Electric Vehicles in Selangor, Malaysia

Cooperation with local companies/governments

- Local partner 1: Management & Science University (MSU)
- Local partner 2: Garisan Industries Sdn Bhd
- Details of cooperation and collaboration: Development Partners



Targeted economic/social issues

- In Selangor, the number of private cars is about 7 million for 6.5 million people in the state, and the utilization rate of public transportation is low.
- Per capita CO² emissions are high at 7.27 tons per year, and the EV penetration rate is very low, so the government is planning full-scale investment to realize carbon neutrality.

Details of demonstration

- Based on the knowledge obtained from the research and development in Japan, simulations will be conducted on the optimal placement of charging stations, which is indispensable for the spread of EVs.
- In addition, we will build data platforms, and from the big data related to EVs, we aim to create new services for the private sector to promote EVs, such as reservation apps for EVs and charging stations, EV car sharing, and electronic payment systems with points.

Expected outcome of beneficiary effects

- The simulations in this project can also be used to support the development of smart cities and calculate the amount of CO² reduction.
- This will contribute to the promotion of EVs not only in Malaysia but also in other ASEAN countries with similar issues and needs.

WILLER Inc.



WILLER

<https://willers.com.sg/>

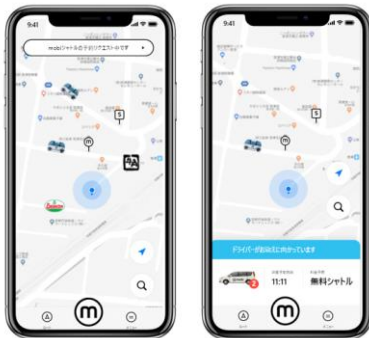
- ❑ Address: Osaka City, Osaka Prefecture
- ❑ Employees: 154
- ❑ Established in 2005
- ❑ Business: (1) Marketing and development of mobility services (2) Development/operation of transportation/travel e-commerce sites for domestic and inbound tourists, etc.

Outline of the demonstration project

- The Project of AI Route On-demand Share Bus Demonstration in Hanoi, Socialist Republic of Vietnam

Cooperation with local companies/governments

- Local partners: Renaissance Vietnam, Inc., etc.
- Details of cooperation and collaboration : Communication with customers who will become users of AI on-demand share bus



The car is an image.

Targeted economic/social issues

- In Hanoi City, traffic congestion, traffic accidents, air pollution, etc. caused by motorcycle travel have become problems.
- In Vietnam, where dual-income households account for the majority, the transportation for children is a major burden. There is a demand for mobile services that allow children to travel safely and securely even by themselves.

Details of demonstration

- We demonstrate a highly convenient shared AI on-demand bus service.
- The user makes a booking a virtual bus stop displayed in the area on the mobile app in advance. Through the analysis of AI routing technology and usage data, it identifies the location of the virtual bus stop within approximately 200 meters walking distance from the user, determines the optimal route, and informs the user of the exact plan of ride-off time via the app.
- Furthermore, by combining safety management and service quality management cultivated in the bus business in Japan, we have built a system that can be used safely and securely even by children alone.

Expected outcome of beneficiary effects

- Reduction of the number of motorcycles, solution of traffic congestion, reduction of traffic accidents, and environmental conservation can be expected.
- It is also expected to expand to urban areas around ASEAN that are facing similar social issues.

Agriculture



ELM Inc.



- ❑ Address: Kagoshima Prefecture
- ❑ Employees: 48
- ❑ Established in 1980
- ❑ Business: Contract development and design of electronic application equipment and design of industrial labor-saving machinery

<https://en.elm.jp/>

Outline of the demonstration project

- Development of temperate vegetable cultivation technology in Brunei using the container-type robotic cultivation system "EcoNursery"

Cooperation with local companies/governments

- Local partner:
SUPERFISH GROWERS SDN BHD
- Details of cooperation and collaboration:
Production, sale and export of grains and fruits



Automated robot transport after sowing



Seedling cultivation with efficient recipes



Healthy seedlings to be transplanted into fields for cultivation

Targeted economic/social issues

- Although 42.2% of the vegetables consumed by Brunei people are temperate vegetables, many of them depend on imports.
- To establish cultivation technology to control the harsh environment of high temperature, high humidity and heavy rains and promote domestic production of high value vegetables is a challenge from the perspective of food security and improving the quality of life of the people.

Details of demonstration

- EcoNursery (EN System), a container type cultivation system, is introduced to study and demonstrate the cultivation technology of temperate crops in Brunei in the tropics.
- Indoor hydroponic cultivation systems are expensive and difficult for a single farmer to procure, but the EN System has all the necessary equipment for cultivation in the container, making it possible to reduce investment costs and introduce the system in a short period of time. Environment control through remote operation is also possible.

Expected outcome of beneficially effects

- It has the potential to realize the goals of high-efficiency, high quality production and promotion of exports set by the Bureau of Agriculture in Brunei Darussalam and contribute to the realization of the medium- to long-term national plan.
- It is also expected to create a new industrial sector called "digital agriculture" and promote employment for young people.

Polar Star Space Co., Ltd.



- ❑ Address: Chuo-ku, Tokyo
- ❑ Employees: 5
- ❑ Established in 2017
- ❑ Business: Proposal of solutions using micro satellites, drones, ground measuring equipment, etc.

<http://polarstarspace.com/ENG/index.html>

Outline of the demonstration project

- Oil palm disease early detection business by ultra-high precision spectrum measurement

Cooperation with local companies/governments

- Local partners: FELCRA BERHAD, etc.
- Details of cooperation and collaboration: Provision of farms for experimental use, support of local experiments, etc.



Targeted economic/social issues

- Palm oil production is a major industry in ASEAN including Malaysia.
- In large-scale palm farms, 10% to 15% of the damage is caused by diseases every year (amounting to over 400 billion yen annually), and it is a serious issue for farm management.

Details of demonstration

- Drone monitoring demonstrates early detection of diseased palm trees.
- An ultra-high-definition hyper-spectrum camera is mounted on a drone to obtain a large amount of detailed information specific to disease-infected trees.
- We have built a system for early detection of diseases through our original AI image analysis and learning. Inexpensive cameras are used to realize low-cost monitoring in operation.

Expected outcome of beneficiary effects

- It is expected to reduce the loss incurred due to the large-scale expansion of diseases (about 200 billion yen in Malaysia) by 20% in the initial stage and by around 60% ultimately through early detection and improvement in accuracy by deepening the machine learning.
- It can also be applied to the early detection of diseases in other crops and low-cost monitoring of the growth of crops.

Fisheries

FishBiotec. Co., Ltd.



- ❑ Address: Toyonaka City, Osaka Prefecture
- ❑ Employees: 8
- ❑ Established in 2017
- ❑ Business: 1. Development of seedling production 2. Smart aquaculture 3. Development of next-generation feed, etc.

<https://fiotec.jp/>

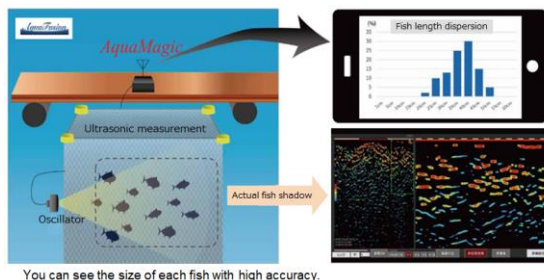
Outline of the demonstration project

- Development and demonstration projects of the Production Management System with farm-raised tilapia utilizing a digital transformation(DX) for building the aquaculture economics in Cambodia.

Cooperation with local companies/governments

- Local partner: Rainbow Progress Enterprise Co., Ltd.
- Details of cooperation and collaboration: Using the aquaculture management system developed in our own aquaculture facilities in Cambodia, the demonstration of aquaculture is conducted as our outsourcing partner.

Measure the length of the fish in the aquarium with sonar. Check at any time, anywhere!



Targeted economic/social issues

- In Cambodia, the fisheries industry is an important industry that accounts for about 10% of GDP.
- The importance of aquaculture is increasing as the problem of overfishing, which accounts for two-thirds of the total catch, and environmental pollution in the sea and rivers are becoming more serious.
- However, the modernization of aquaculture has been delayed, and there is an urgent need to improve productivity and establish a system for processing and sales.

Details of demonstration

- Development of a system for tilapia based on the aquaculture management system that has already been developed for another fish species at our own facilities in Japan.
- The system detects and records water temperature, turbidity, PH, etc. using sensors, and notifies producers when abnormal values are detected. The accuracy of the system will be improved through the demonstration. After this demonstration, we plan to develop a system to make breeding proposals with AI for further improvement of productivity and quality.

Expected outcome of beneficiary effects

- Fish currently discarded in the production/processing process can be converted into fishmeal and used as feed for aquaculture, which contributes to increasing profits.
- By improving the efficiency and quality, and the commercialization of aquaculture, new entrants and investments are stimulated, leading to the establishment of an aquaculture economy in Cambodia, with expansion of new businesses.

OceanEyes Co., Ltd.



- ❑ Address: Kyoto Prefecture
- ❑ Employees: 13
- ❑ Established in 2019
- ❑ Business: Information and communications

<https://oceaneyes.co.jp/en/>

Outline of the demonstration project

- Surface fishery digitalization in Indonesia

Cooperation with local companies/governments

- Local partner: PT Kopernik
- Details of cooperation and collaboration:

On-site work and surveys in the project country where projects are implemented.

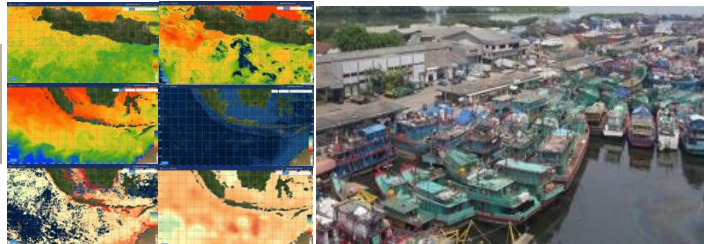
Provision of sea condition data to sea fishermen
Application of AI/physical oceanography

Improvement of operating efficiency
Analysis/utilization of catch data

FishersNavi



Cloud based sea condition viewer on Tablet.



Targeted economic/social issues

- Indonesia's fisheries are less productive, with per capita production of 3.5 tons (for instance, 27.6 in Japan and 225.2 in Iceland).
- One of the reasons for low productivity is that the rational use of data is yet to widespread.
- In Indonesia, the means of communication on board is often wireless, and the Internet environment is not yet developed.

Details of demonstration

- Information on predicted sea conditions, which is an important factor in deciding fishing grounds, is prepared using observation data from meteorological satellites and simulation technology based on the latest numerical models of the ocean. It also provides information on chlorophyll and sea level, which are in high demand in low latitude waters such as Indonesia.
- In addition, wireless operators who communicate with fishing vessels from onshore will be trained on how to use data so that they can indicate the expected location of fishing grounds, thereby improving the operating efficiency.

Expected outcome of beneficiary effects

- Improvement of the information and communication environment on local fishing vessels and creation of a new market for information services for fishery workers.
- It is expected that the managed fishery will be established in Indonesia, and expanded horizontally to neighboring countries such as Thailand and Malaysia.

Medical & Nursing

Aba Inc.



- Address: Chiba Prefecture
- Employees: 29
- Established in 2011
- Business: R&D, planning and sales of nursing care robots

<https://www.aba-lab.com/>

Outline of the demonstration project

- Development and introduction of the Helppad, an excretion care system developed in Japan to solve the shortage of nursing staff

Cooperation with local companies/governments

- Local partner: Leave a Nest Singapore Pte.Ltd.
- Details of cooperation and collaboration: Introduction of local companies, provision of field trials and other support for local business development



Targeted economic/social issues

- In Singapore, the aging of the population is progressing rapidly.
- Issues include a shortage of human resources for nursing care, and a lack of know-how related to the development of human resources for nursing care.
- On the other hand, Singapore is proactive in utilizing digital technology, and solutions using digital technology are beginning to be proactively introduced in the healthcare field as well.

Details of demonstration

- Demonstration of the introduction of Helppad, an excretion care system from Japan that supports burdensome excretion care, which is the biggest issue for both caregivers and care recipients.
- The system uses an odor sensor to detect both urine and feces without attaching a machine to the body. In addition, the data is managed in the cloud, and the accumulated data is used to realize efficient nursing care, such as visualization of excretion patterns and guiding to the toilet.

Expected outcome of beneficiary effects

- Creation of new markets by promoting the dissemination of excretion care systems.
- After achieving results in Singapore, reimporting the introduction of ICT in the nursing care field into Japan's same field will contribute to solving nursing care issues in Japan

Allm Inc.



- ❑ Address: Shibuya-ku, Tokyo
- ❑ Employees: 77
- ❑ Established in 2001
- ❑ Business: Development and sales of medical ICT mobile solutions

<https://www.allm.net/en/>

Outline of the demonstration project

- Development and introduction of solutions for contribution to the DX of dialysis clinics in Singapore and Malaysia

Cooperation with local companies/governments

- Local partner: DaVita Care Pte. Ltd.
- Details of cooperation and collaboration: Introduction and on-site operation verification of solutions that contribute to DX of dialysis clinics in Singapore and Malaysia



Targeted economic/social issues

- Singapore and Malaysia rank first and second in the world in the percentage of patients whose diabetes becomes severe enough to be shifted to dialysis treatment. The number of diabetic patients is higher than the global average at 11.0% and 16.7% respectively.
- There is an urgent need to improve the efficiency of communication and administration because of the heavy workload and low retention rate of nurses who are responsible for care.

Details of demonstration

- Promotion of the development and commercialization of packaged solutions to improve the response to dialysis patients and prevent their conditions from becoming severe.
- In addition to a communication app for medical professionals a solution for total community healthcare system will be used to improve communication with dialysis patients and realize the efficient administration for nurses.
- The system will also respond to the growing local need to ensure the security of patients' medical information.

Expected outcome of beneficiary effects

- If the system is demonstrated as effective, it is planned to develop as a tool for monitoring diabetic patients and other chronic-phase diseases for the purpose of preventing lifestyle-related diseases.
- It is also expected to expand to the countries around ASEAN that have issues with diabetes and lifestyle-related diseases.

CarbGeM Inc.



- ❑ Address: Shinagawa-ku, Tokyo
- ❑ Employees: 7
- ❑ Established in 2021
- ❑ Business: Telecommunications

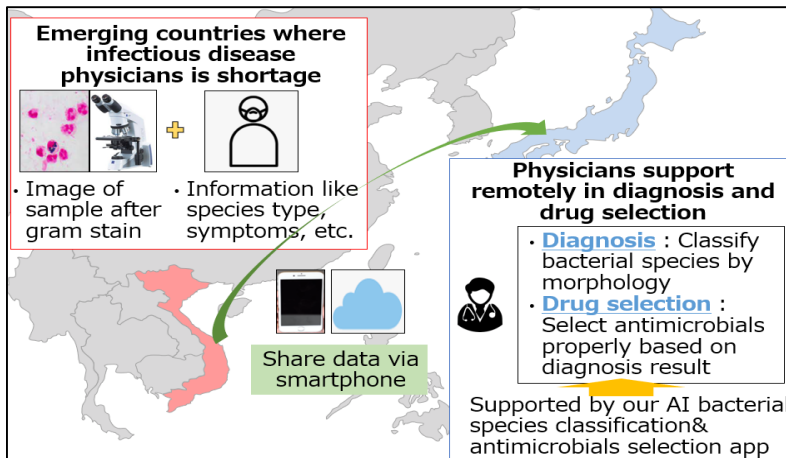
<https://carbgem.com/>

Outline of the demonstration project

- Development of an AI-assisted online bacteria identification support platform aimed at promoting DX in the infectious disease area in Vietnam

Cooperation with local companies/governments

- Local partner: Bach Mai Hospital
- Details of cooperation and collaboration : Clinical advice, evaluation of usefulness, etc.



Targeted economic/social issues

- Bacteric infections frequently occur in emerging countries, and one of the reasons is antimicrobial resistance (AMR), which is resistance to antimicrobial drugs.
- One of the reasons of the above is the frequent inappropriate use of antimicrobial drugs from improper diagnosis due to the lack and uneven distribution of medical specialists.
- AMR is particularly serious in Vietnam, where the use of antimicrobial agents is high, and 42% of the population carries drug-resistant bacteria, making it a social issue.

Contents of demonstration

- We have built a remote platform to assist doctors in diagnosis and treatment by incorporating data such as Gram stain images, specimens, and symptoms taken with local general-purpose optical microscopes.
- In collaboration with medical institutions in Japan and Vietnam, the system will enable quick and highly accurate identification of causative bacteria in infectious disease even in facilities where there are no specialists for infectious diseases or in the absence of specialists such as in nighttime emergency.

Expected outcome of beneficiary effects

- With Vietnam as the starting point, it is possible to expand to emerging countries that are facing similar issues.
- Because infectious diseases include many different of disease areas, we expect to expand new businesses, such as the development of ancillary services.
- This will contribute not only to the market of partners, but also to the promotion of Japanese industry and the export of medical technology.



PARAMOUNT BED CO., LTD.



- ❑ Address: Koto-ku, Tokyo
- ❑ Employees: 914
- ❑ Established in 1950
- ❑ Business: Manufacture and sale of medical/nursing care beds and furniture and fixtures, etc.

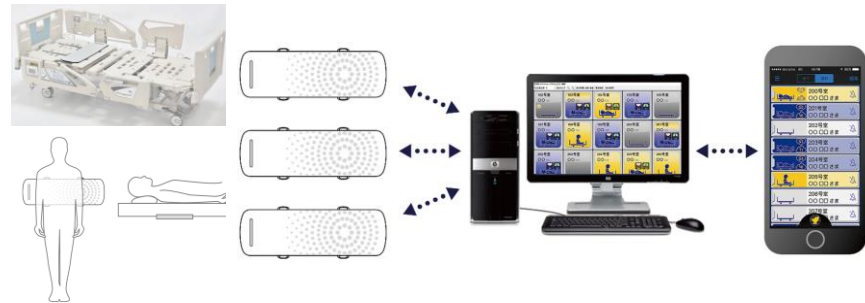
<https://www.paramount.co.jp/english/>

Outline of the demonstration project

- The project for the development of a more accurate monitoring service business for telemedicine and other situations using sensing devices in Indonesia

Cooperation with local companies/governments

- Local partner: PT. Metro Healthcare Indonesia. Tbk
- Details of cooperation and collaboration: Evaluation of equipment systems in clinical practice, collaborative study and planning for utilization in remote diagnosis.



Targeted economic/social issues

- Indonesia faces the challenge of improving the quality of health care services.
- In addition, the aging rate is expected to exceed 14% in 2038.
- There is an urgent need to respond to the aging society, and the government has set up the measures to overcome lifestyle-related diseases and aging.

Details of demonstration

- Introduced sensing device that has a proven track record of adoption in the medical and nursing care fields in Japan.
- The strength of the device is that the sensor placed on the bed can acquire data such as the sleeping state, heart rate, and respiration rate with accuracy, while elderly patients lying down in a non-contact manner.
- Established a platform to verify whether appropriate data can be obtained at local medical facilities for grasping the condition of patients. The aim is to realize more efficient remote diagnosis and watching and care services for the aged.

Expected outcome of beneficiary effects

- Expectations are high for the formation of a new market linked to sensing devices in the field of remote diagnosis and monitoring.
- It may also contribute to solving the shortage of medical institutions, preventing lifestyle-related diseases, and reducing nursing care costs.

Manufacturing & Logistics

IHI Jet Service Co., Ltd.



株式会社IHIジェットサービス

<https://www.ihj.co.jp/en/>

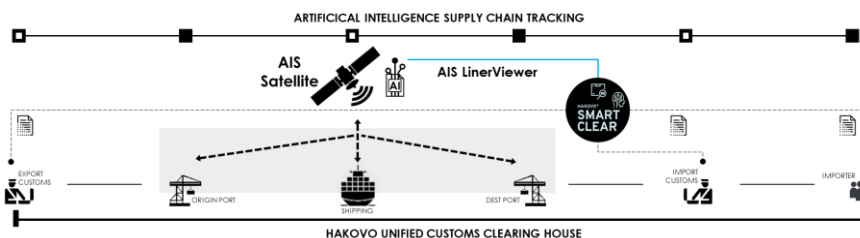
- ❑ Address: Akishima City, Tokyo
- ❑ Employees: 900
- ❑ Established in 1978
- ❑ Business: (1) Maintenance services for gas turbines
(2) Technical services in the fields of aerospace
(3) Value-added services utilizing satellite data, etc.

Outline of the demonstration project

- Improving visibility and traceability for cross-border supply chain

Cooperation with local companies/governments

- Local partner: HAKOVO PTE, LTD.
- Details of cooperation and collaboration:
Responsible for providing information to end users and system linkage with governmental agencies (customs) in ASEAN



Targeted economic/social issues

- Major ports in the world are experiencing significant disruptions in transportation schedules due to increased cargo movement and a shortage of containers.
- The Philippines is no exception, and the time and cost required for import customs clearance is the worst in ASEAN.

Details of demonstration

- Demonstration of the visualization of overseas supply chain information and reduction of import-related costs by linking AIS LinerViewer, which integrates schedule information and location information of containerships, with the partner's electronic customs clearance platform.
- Provision of a system that enables a real-time, integrated understanding of containership location information using satellite technology, delay prediction using AI, and the status of import customs clearance, thereby improving the efficiency of ship operations and import operations.
- In addition, all import-related documents will be digitized using AI to improve the efficiency of customs clearance operations, by reducing errors caused by handwriting for instance.

Expected outcome of beneficiary effects

- It is also expected to facilitate the coordination of the arrival and departure schedules of containerships, preparations for tax exemption, and coordination with import trade management and import customs clearance operations.
- In the future, we plan to provide customs clearance services for the entire Philippines, and expand the service to Japan, ASEAN, and the Middle East countries.



i Smart Technologies Co., Ltd.



- ❑ Address: Hekinan City, Aichi Prefecture
- ❑ Employees: 12
- ❑ Established in 2016
- ❑ Business: IoT systems/improvement services

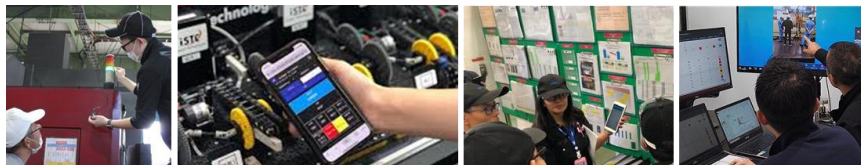
<https://www.istc.co.jp/en/>

Outline of demonstration project

- The Project of Building a productivity improvement service business by IoT tools and coaching Kaizen activity in Thailand.

Cooperation with local companies/governments

- Local Partner: Mobile Innovation Co., Ltd.
- Details of cooperation and collaboration: Charging telecommunication systems and sales



Visualizing issues by IoT service

Coaching in Kaizen activity

Targeted economic/social issues

- Thailand's labour productivity ranks fourth among 10 ASEAN countries, and its working-age population is on a downward trend after peaking in 2020.
- There is an urgent need for promoting DX at manufacturing sites to improve the quality of employees and reduce costs as wages rise.
- In order to improve productivity, many companies are working on visualization using IoT, but there are few cases that actually lead to productivity improvement and human resource development.

Details of demonstration

- IoT devices will be installed in existing facilities, and a series of services including visualization and analysis of manufacturing line productivity and issues thereof, and human resource development programs will be deployed in Thailand as "KaaS (Kaizen as a Service)."
- In addition to the introduction of IoT, a feature of this service is that it has a program to train human resources who can contribute to solving problems on the site by utilizing digital technology.
- MOU has been concluded for cooperation with the Thai Ministry of Industry.

Expected outcome of beneficiary effects

- To produce actual profit with IoT service
- To solve social issues, wage increase and declining birthrate and aging by improving productivity.

NIPPON STEEL ENGINEERING CO., LTD.



- Address: Shinagawa-ku, Tokyo
- Employees: 4758
- Established in 2006
- Business: Construction

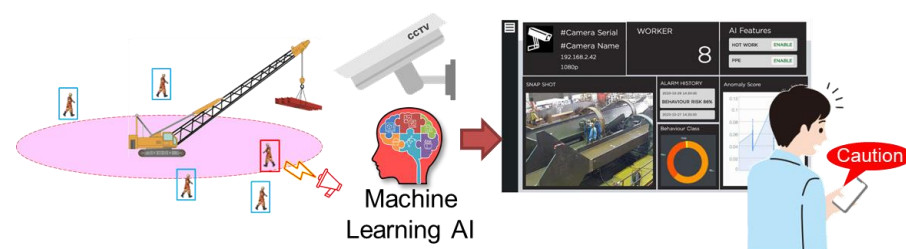
<https://www.eng.nipponsteel.com/english/>

Outline of the demonstration project

- Advanced Safety management system for Manufacturing and Construction site worker by using image sensing AI

Cooperation with local companies/governments

- Local partner: AI and Robotics Ventures Company Limited
- Details of cooperation and collaboration: Joint development of machine learning AI



Targeted economic/social issues

- In ASEAN countries including Thailand, awareness of "safety and health" is increasing, and the realization of safe workplaces in the manufacturing and construction sectors is a social issue.
- In Thailand, a shortage of workers due to the declining birthrate and aging population has become significant, leading to a decline in productivity.

Details of demonstration

- Introduction of an advanced safety monitoring system that recognizes and classifies the status of on-site work in real time through video devices, evaluates safety, and warns of safety risks.
- Development of a unique AI that can read on-site information from videos.
- This system, which uses image processing technology that can not only detect objects but also recognize the working state of workers, is a unique initiative in ASEAN not only in Thailand.

Expected outcome of beneficiary effects

- The system reduces the burden on managers who work for safety management on a daily basis, and contributes to improving productivity by enabling them to work in safer workplaces.
- The system can also help solve the shortage of human resources by monitoring safety in areas that we cannot keep an eye on due to time and location constraints.

Finance

CAMPFIRE SOCIAL CAPITAL, Inc.



- ❑ Address: Shibuya-ku, Tokyo
- ❑ Employees: 10
- ❑ Established in 2015
- ❑ Business: Type II financial instruments business, business consulting etc.

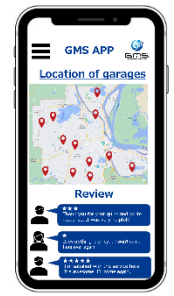
<https://owners.camp-fire.jp/>

Outline of the demonstration project

- The Project of PoC on financial DX through application for visualization among mobility after-sales service providers and member drivers in the Kingdom of Cambodia

Cooperation with local companies/governments

- Local partner: Global Mobility Service (Cambodia) Co., Ltd.
- Details of cooperation and collaboration: Development of apps systems, operational support and coordination of field personnel.



Targeted economic/social issues

- In Cambodia, deterioration of the transportation environment is noticeable with the rapid popularization of private cars.
- One of the factors is poor maintenance of automobiles, but the information on reliable auto-repair shops is very limited for drivers, and it is difficult for them to access timely and appropriate services.

Details of demonstration

- Developing and providing a mobile app for drivers that maps after-sales service providers for repair and maintenance of automobiles and visualizes their ratings.
- It demonstrates the introduction of a system that contributes to improving the reliability of after-sales service businesses, which are mainly privately owned, by scoring the ratings of repair and maintenance businesses and linking them to credit information at local financial institutions.

Expected outcome of beneficiary effects

- Expanding business opportunities for mobility finance in Cambodia.
- Contributing to job creation and improvement of income for drivers and auto repair businesses.
- Also contributing to the promotion of financial inclusion in Cambodia by helping financial institutions to better understand their customers and improve their credit decisions.