



CYBERDYNE

**Consolidated Financial Result Briefing for
the Six Months Ended September 30, 2021**

**CYBERDYNE Inc.
November 12, 2021**

Consolidated Financial Statement

Consolidated financial results - year-on-year comparison for the six months ended September 30, 2021



Revenue: ¥825 Million (+3.9%)
Operating profit: ¥-480 Million

(Unit: Millions of Yen)

	FY2020 (Apr.1-Sep.30)	FY2021 (Apr.1-Sep.30)	+/-	+/-%
Revenue (Gross profit)	794 (553)	825 (619)	+31 (+66)	+3.9% (+12.0%)
Operating profit	-362	-480	-118	—
Profit before tax	442	-388	-830	—
Profit attributable to owners of the parent	167	-427	-594	—

Revenue (year on year)

- Rental +54M (Mainly Medical HAL outside Japan)
- Sales -55M (Mainly decrease of one time sales)
- Service +33M (Mainly Robocare and treatment center, C2)

SG&A year on year (year on year)

Other SG&A 80M (advertisement fee for TV Ad)
47M (Fee related to M&A)

Revenue related to investment security 29M (net)

Gain on valuation +106M (finance income/gain related to CEJ)
Tax effect -36M (corporate income tax)
Reclassification -41M (third party interest in CEJ Fund)

Ref) Revenue related to invest security at Sep 2020: 471M (net)

Quarterly results (accumulated result)



【Consolidated statement of profit or loss for the consulted 6 months ended September 30, 2021】

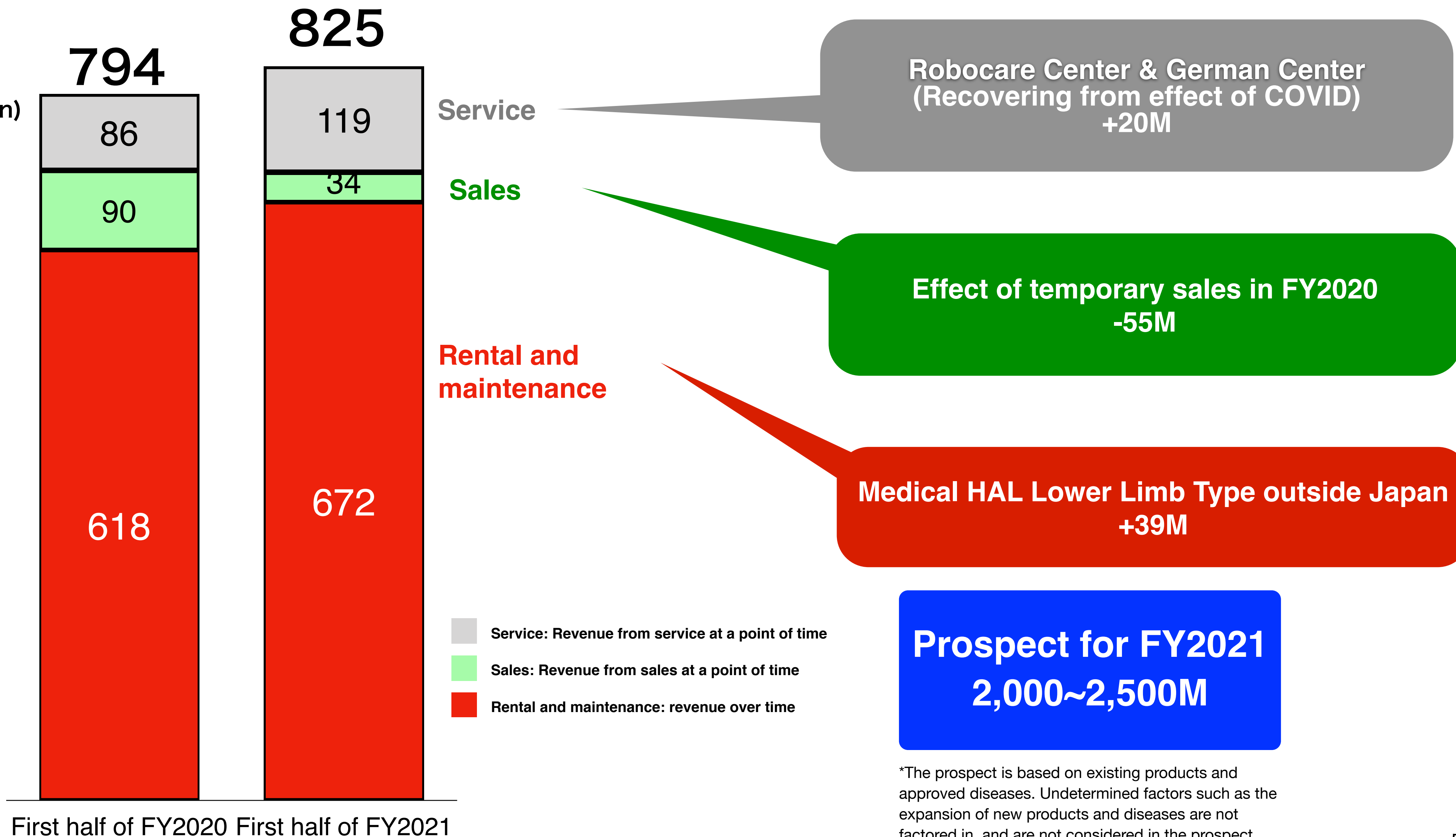
(Unit: Millions of Yen)

	FY2020	FY2021			Quarter on quarter		Year on year	
	Q2 (Jul.1-Sep.30)	Q1 (Apr.1-Jun.30)	Q2 (Jul.1-Sep.30)	Q1+Q2 (Apr.1-Sep.30)	+/-	+/- %	+/-	+/- %
Revenue <i>(year on year)</i>	435	380 <i>(+5.9%)</i>	445 <i>(+2.3%)</i>	825 <i>(+3.9%)</i>	+65	+17.0%	+10	+2.3%
Cost of sales	134	103	103	206	+0	+0.0%	-31	-23.2%
Gross profit	301	277	342	619	+65	+23.3%	+40	+13.6%
R&D expenses	165	188	162	350	-25	-13.4%	-3	-1.7%
Other SG&A	304	391	389	780	-3	-0.7%	+85	+28.0%
Other income/expense	36	19	12	31	-7	+64.6%	-24	-66.2%
Operating profit	-132	-283	-197	-480	+86	+30.4%	-65	-49.3%
Finance income/expense	505	4	21	26	+16	+242.5%	-484	-95.9%
Other	135	13	53	66	+295	+208.9%	-82	-60.6%
Profit before tax	508	-265	-123	-388	+142	+53.6%	-631	-124.2%
Profit attributable to owner of the parent	296	-276	-151	-427	+126	+45.5%	-447	-150.9%

Consolidated financial result by type of transaction and prospect



(Unit: Millions of yen)



*The prospect is based on existing products and approved diseases. Undetermined factors such as the expansion of new products and diseases are not factored in, and are not considered in the prospect

Revenue from rental and maintenance (by products)



Steady increase of HAL for Medical Use Lower Limb towards market outside Japan

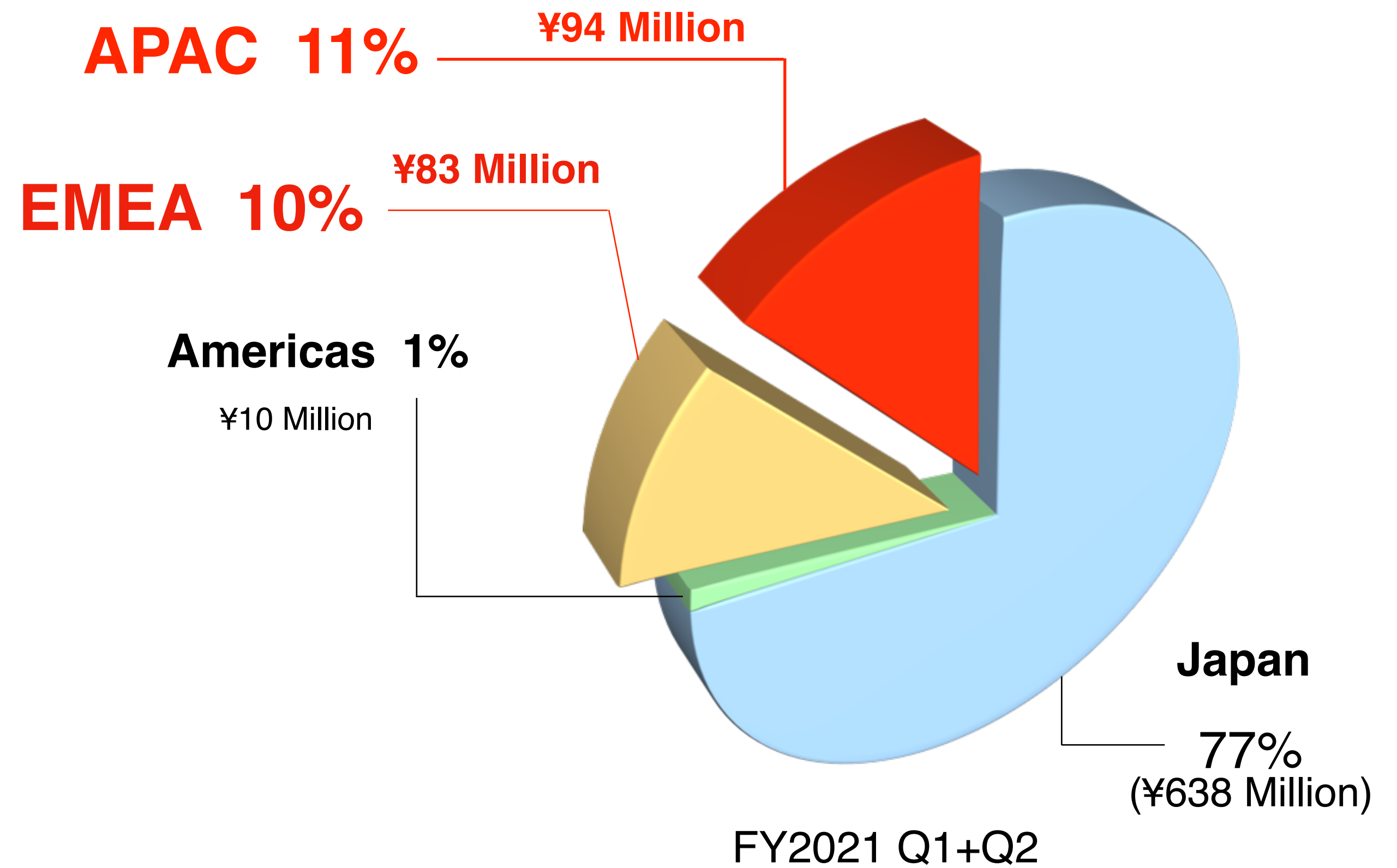
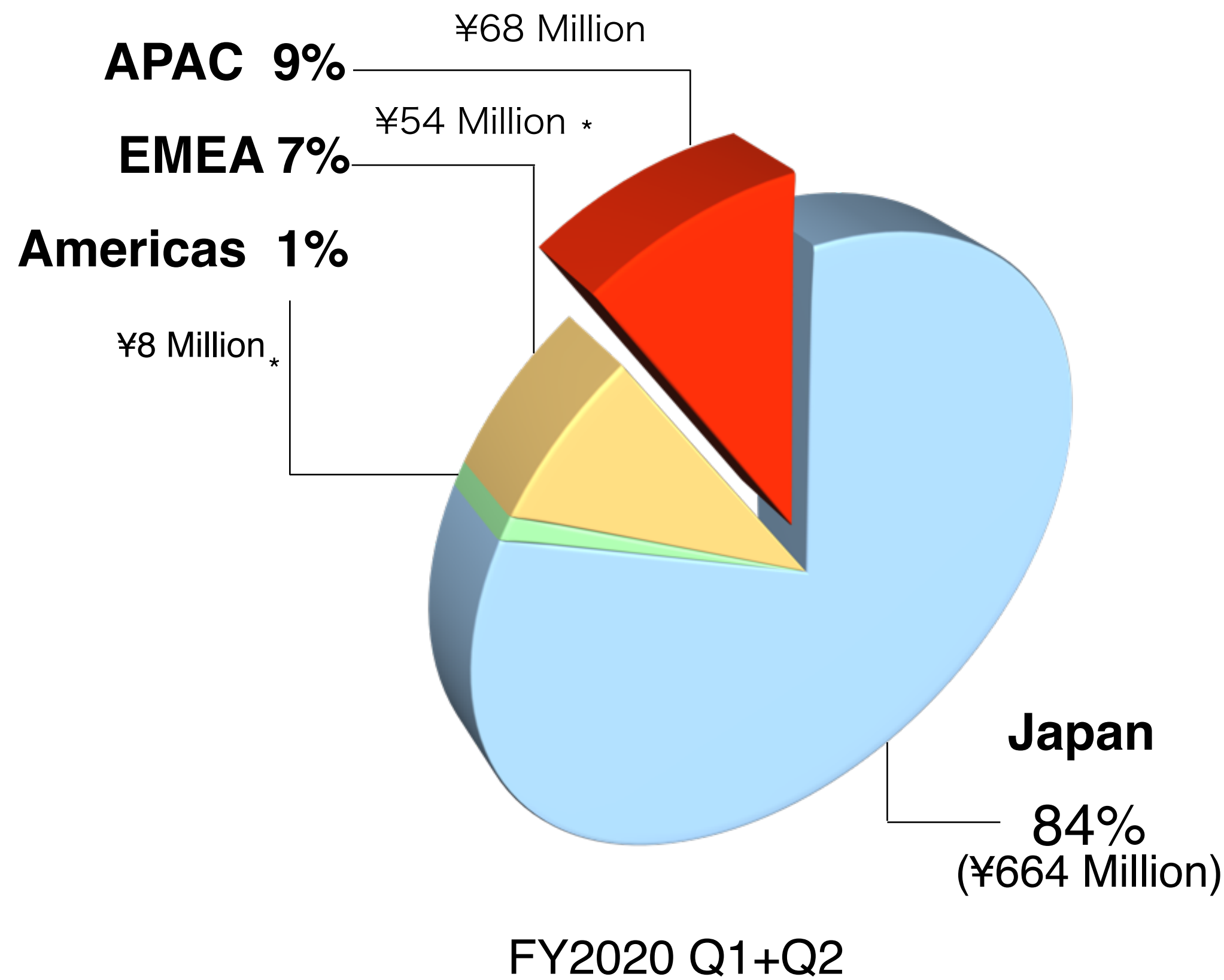
(millions of yen)

Product		FY2020 Q1+Q2	FY2021 Q1+Q2	+/-	+/- %
For hospitals (to improve patient's physical function)	HAL Lower Limb Type (medical)	233	269	36	15%
	HAL Lower Limb Type (non-medical)	98	94	-4	-4%
	HAL Single Joint Type	63	60	-3	-5%
For Well-being	HAL Lumbar Type	120	131	11	9%
For Labor Support	HAL Lumbar Type	70	55	-15	-21%
Autonomous navigation robot (disinfection/cleaning, transportation etc.)		25	27	2	8%
Other		12	37	25	208%
Total		618	672	54	9%

Consolidated financial results - year-on-year comparison by geographical regions



Increase of sales outside Japan +43%
EMEA (Mainly Europe) +53%
APAC (Mainly South East Asia) +38%



Americas: North, Central and South America
 EMEA : Europe, the Middle East and Africa
 APAC : Asia-Pacific *Revenue from Japan is stated separately

Ref) by geographical regions and type of transaction



(Unit: Millions of yen)

FY2021 Q1+Q2 (FY2020 Q1+Q2)	Rental and maintenance	Sales	Service	Total
Japan	526 (523)	33 (74)	79 (66)	638 (664)
Americas	9 (8)	0 (0)	0 (0)	10 (8)
EMEA	44 (35)	0 (-)	39 (19)	83 (54)
APAC	93 (52)	1 (15)	0 (1)	94 (68)
Total	672 (618)	34 (90)	119 (86)	825 (794)

Ref) Number of operating units



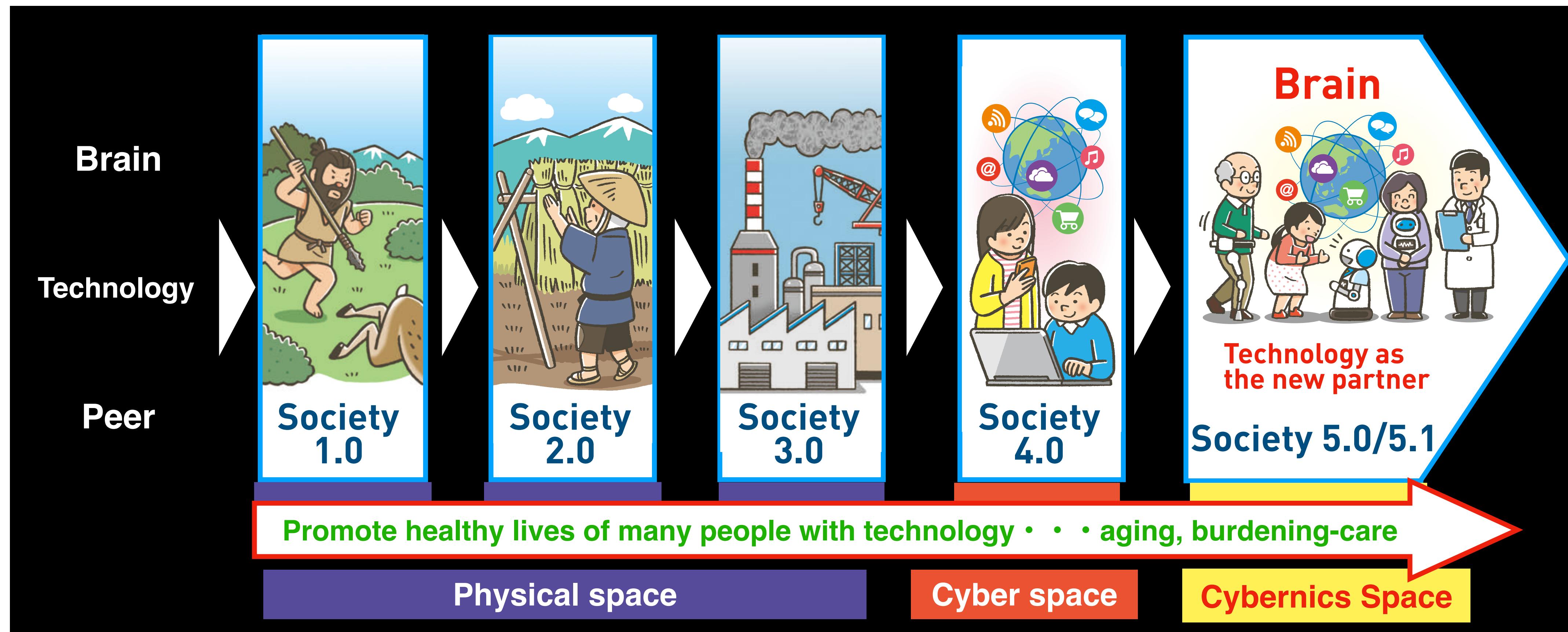
(単位：台)

	End of FY2017	End of FY2018	End of FY2019	End of FY2020	End of Q2 FY2021
HAL Lower Limb (Medical)	257	291	310	351	361
HAL Lower Limby (Non-medical)	398	357	357	342	334
HAL Single Joint	234	252	300	391	433
HAL Lumbar (Well-being)	847	919	951	1,074	1,142
HAL Lumbar (Labor Support)	372	572	624	459	456
Cleaning/disinfection/Transportation Robot	27	44	75	141	143
Total	2,135	2,435	2,617	2,758	2,869

Business strategy

Realization of Techno-peer Support Society, Where human and technology lives together and supports each other

Promote innovation that leaves no one behind



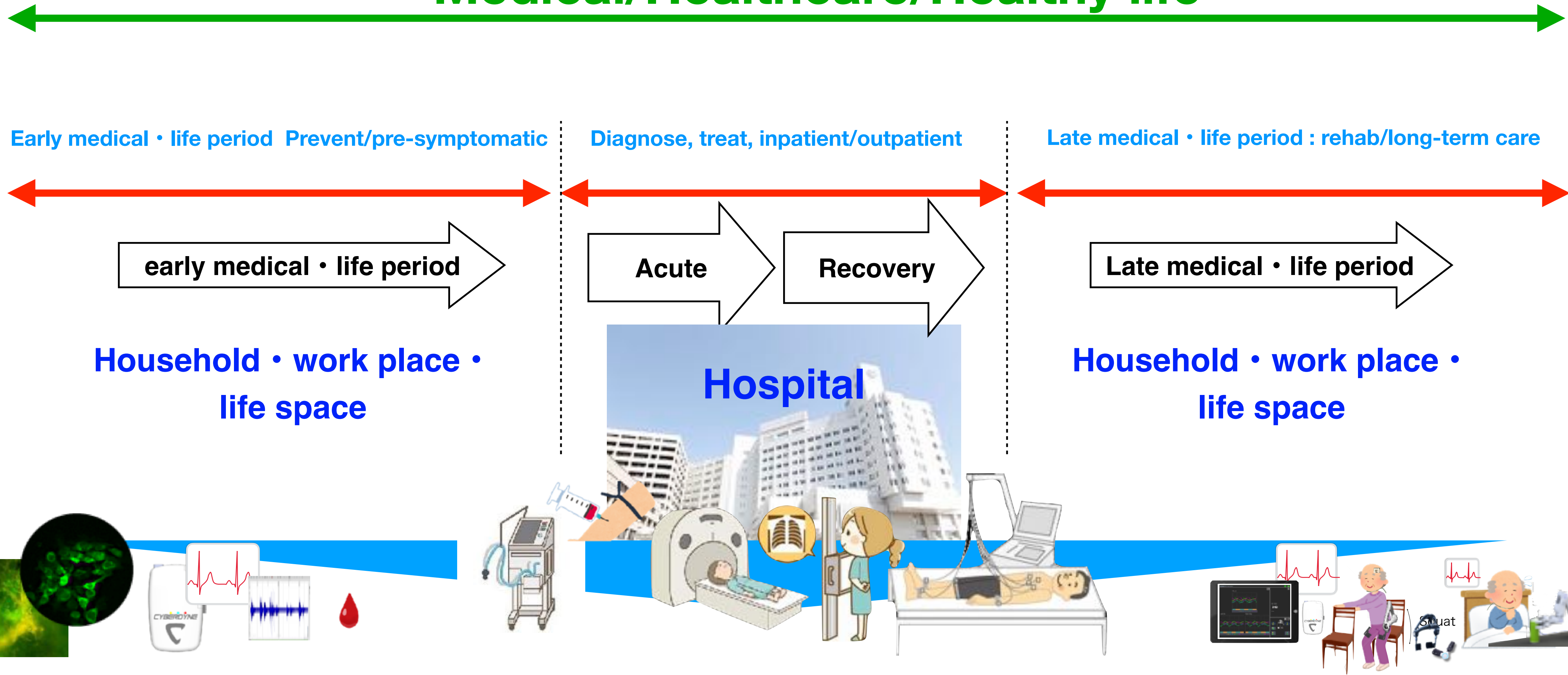
“Cybernetics” that fuses “Human” + “Cyber/Physical Space”

👉 Create **“Cybernetics Industry”**, a new industry that follows Robot and IT Industry

CYBERDYNE's next step : Future of medical healthcare and healthy life

Prevention/pre-symptomatic, medicine, rehabilitation/long-term care

Medical/Healthcare/Healthy life

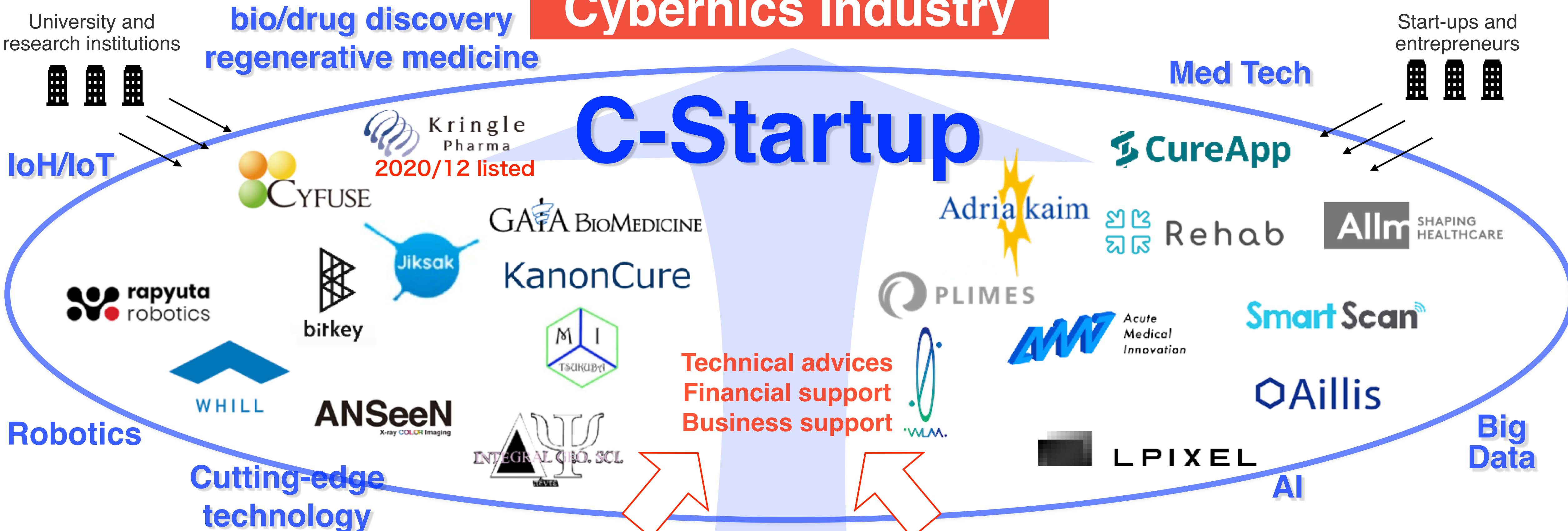


Close coordination, fusion between medical and non-medical field to evolve into comprehensive initiatives

C-Startup Innovation ecosystem to create Cybernics Industry


Cybernics Industry

C-Startup




CYBERDYNE

Medical institutions, care facilities, companies, allied partners



University, research institute, government
WEF Centre for 4th Industrial Revolution,
Consortium of cutting-edge medicine in the
21st century
Smart city council etc.,



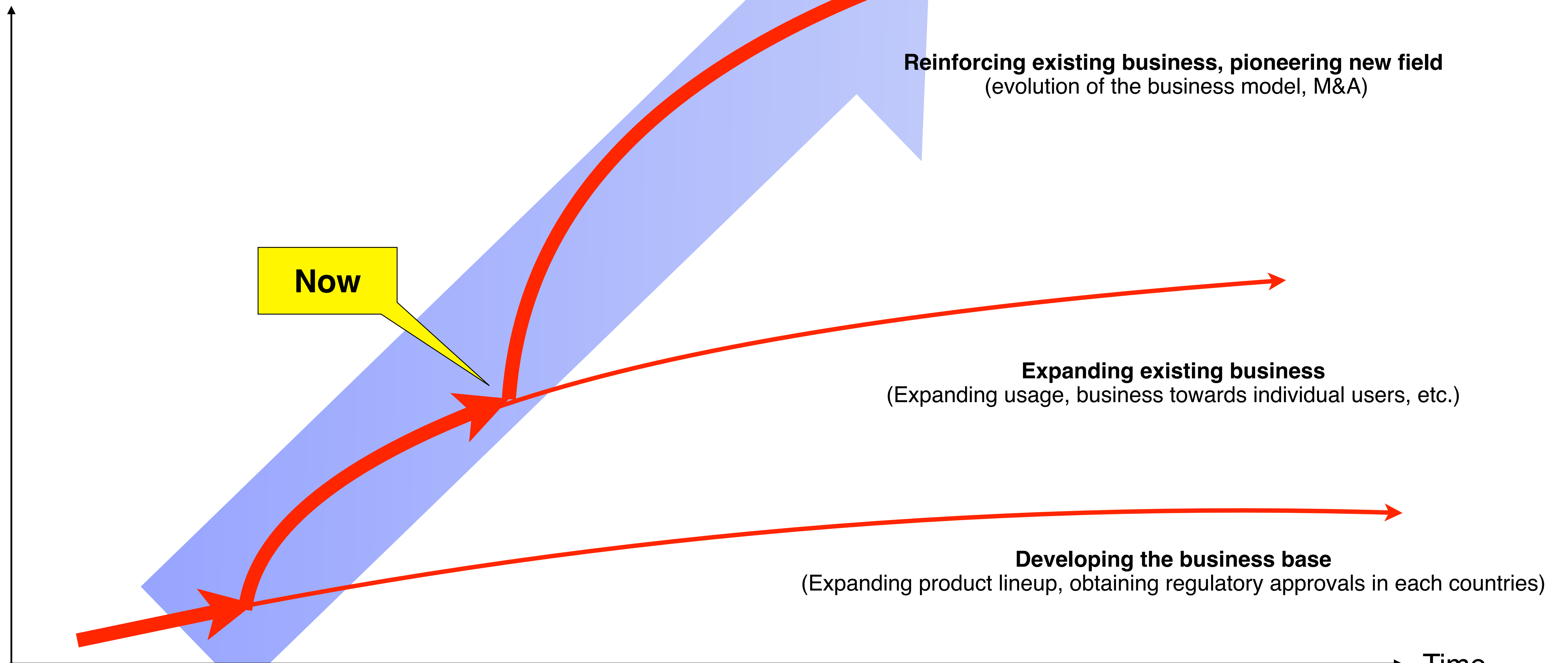
CEJ Fund (scale of 10 billion)



2021.9.21 updated

Initiatives for gradual growth

Business scale



Strengthening the healthcare field by utilizing sleep data



No. of download
3.2 million

Sleep data
75 million

Active user
300 thousand
per month

Sleeping app
Rank 1
in Japan

"JUKUSUI", a Sleeping support app that visualizes sleep

Identifies risks of Sleep Apnea Syndrome at early stages

Smartphone app “JUKUSUI”



Active user
300 thousand
per month



Check sleeping condition

small vital sensor “Cyvis”



High-precision screening tests
(Measures breathing during sleep)



Easy and routine screening for health management of drivers, etc.

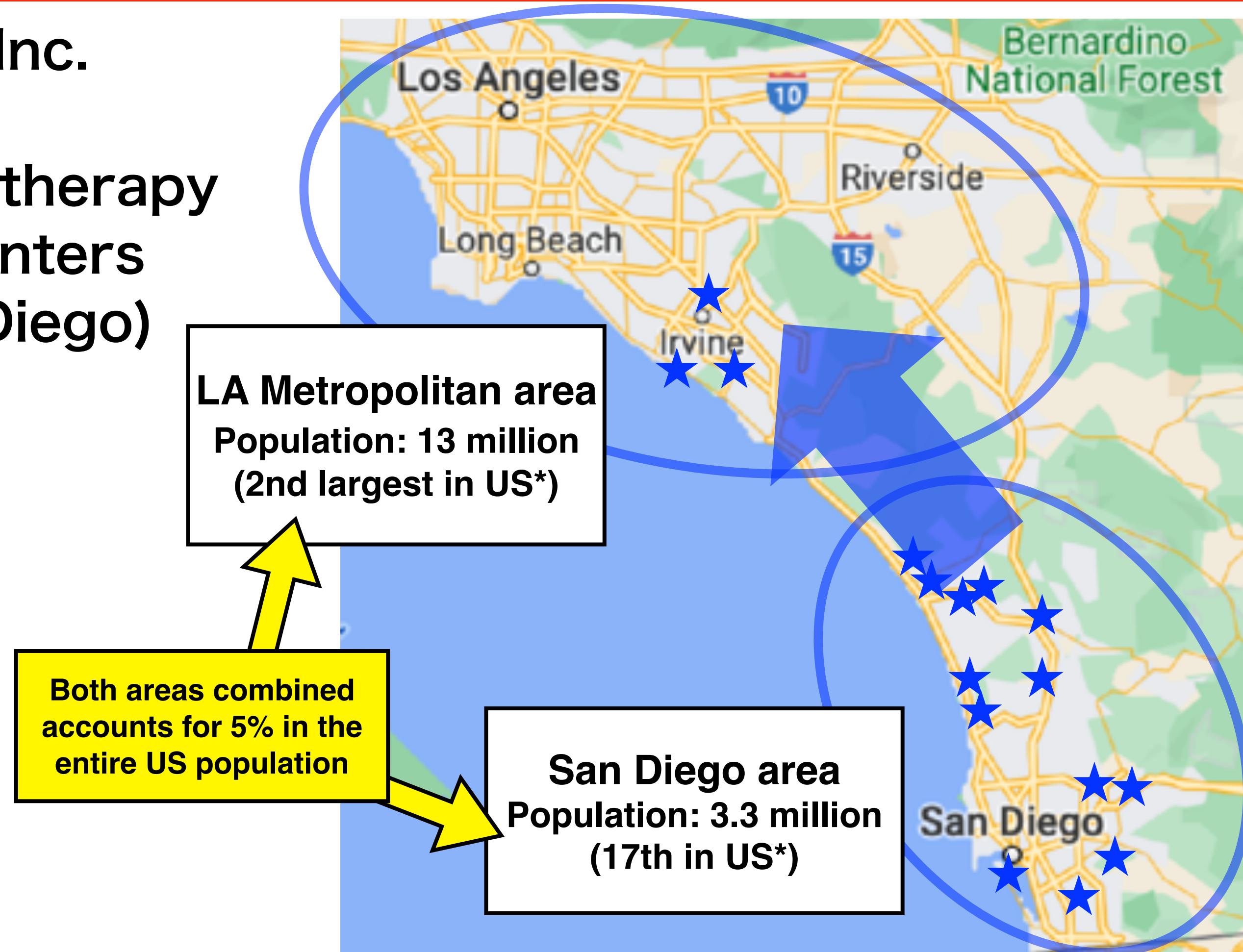
Entering medical service business in the US

Name : RISE Physical Therapy Inc.

Established : 2014

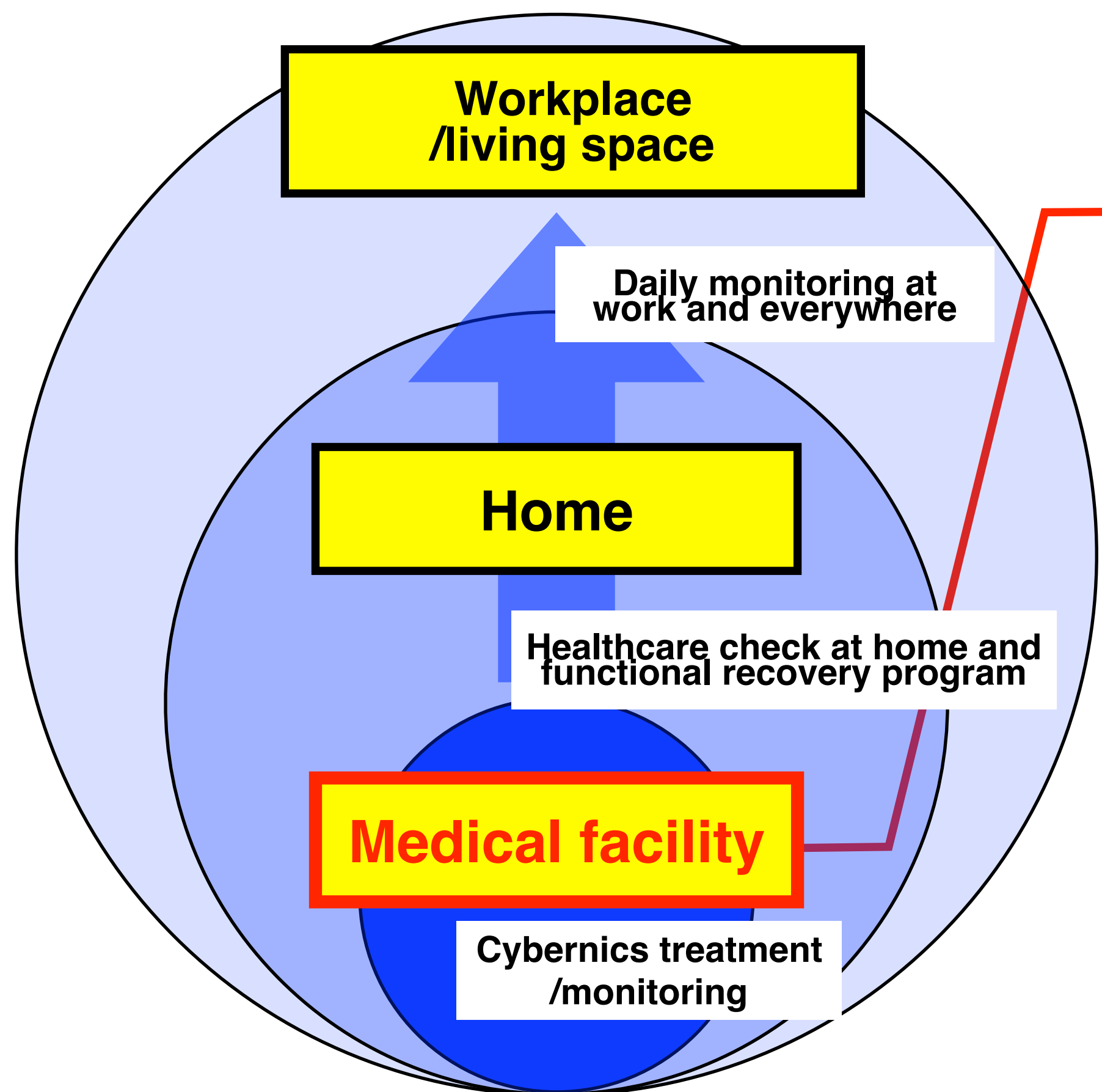
Business : Outpatient physical therapy

No. of facilities : 16 medical centers
(Ranked third in San Diego)



Based on San Diego, the group is expanding facilities to LA (2nd biggest metropolitan area in the U.S)

Formulating platform that could reach individuals directly



US PT market

PT : Physical Therapy

- Orthopedic+brain-nerve diseases (target of HAL)
- Typically done manually by PT (can differentiate with HAL)
- Growing market due to aging population (Annually 33.1 billion=3.7 trillion yen)*
- Players are dispersed (potential for further growth through M&A)



RISE Physical Therapy Inc.
→ First facility in the west coast area

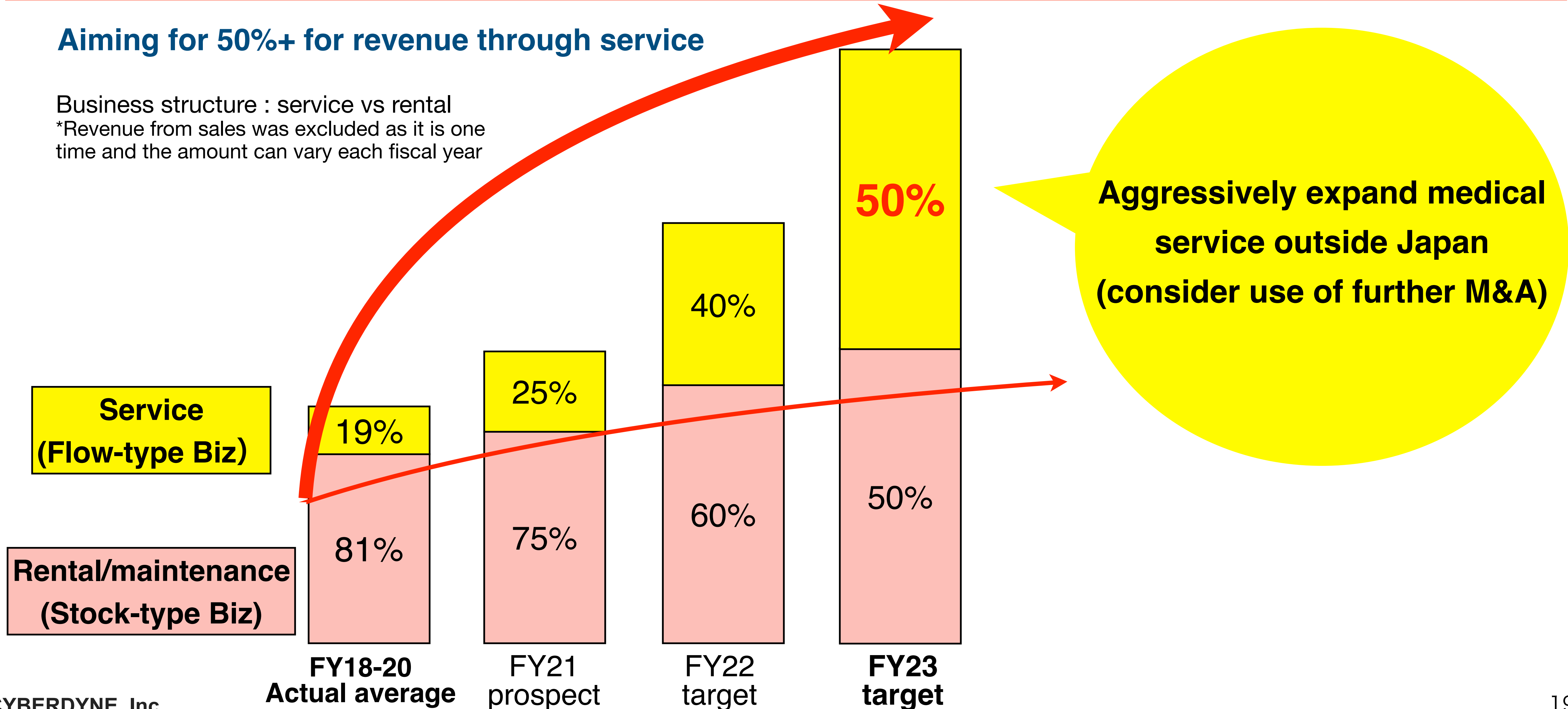


Functional recovery at home and daily healthcare monitoring
Preparing for launch of service towards individuals (consider further M&A)

Accelerate social implementation through own service

Aiming for 50%+ for revenue through service

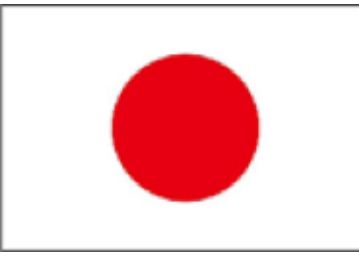
Business structure : service vs rental
*Revenue from sales was excluded as it is one time and the amount can vary each fiscal year



Medical Field

Ref) Potential addressable market for Medical HAL



	Stroke	Spinal Cord Injury	Neuromuscular diseases	Market Size
Japan 	Preparing application for medical approval 1.2	Planning clinical trial 0.2	Medical device approval + Public health insurance 0.05	1.5 Million
USA 	Medical device approval 6.8	Medical device approval 0.3	Medical device approval 0.15	7.3 Million
European Union(*) 	Medical device approval 1.8	Medical device approval 0.3	Medical device approval 0.15	2.3 Million
	9.9 Million	0.8 Million	0.4 Million (**)	11.1 Million

(Ref) New Energy and Industrial Technology Development Organization (2013), Ministry of Health, Labour and Welfare of Japan (2011), Translational Research Informatics Center (2014), American Heart Association (2010), National Spinal Cord Injury Statistical Center (2013), The Patient Education Institute, Inc. (2010). Parkinson's Disease Foundation (2010)

(*) Countries included for the calculation of EU numbers (Germany, France, Britain, Italy, Sweden)

(**) The number of neuromuscular patients in USA and EU were calculated based on 0.05M patients in Japan

(***) In addition the Group is working together with regenerative medicine and pharmaceuticals on research on the treatment of Parkinson's Disease 1.9M patient

Progress in each region

【HAL for Medical Use Lower Limb Type】

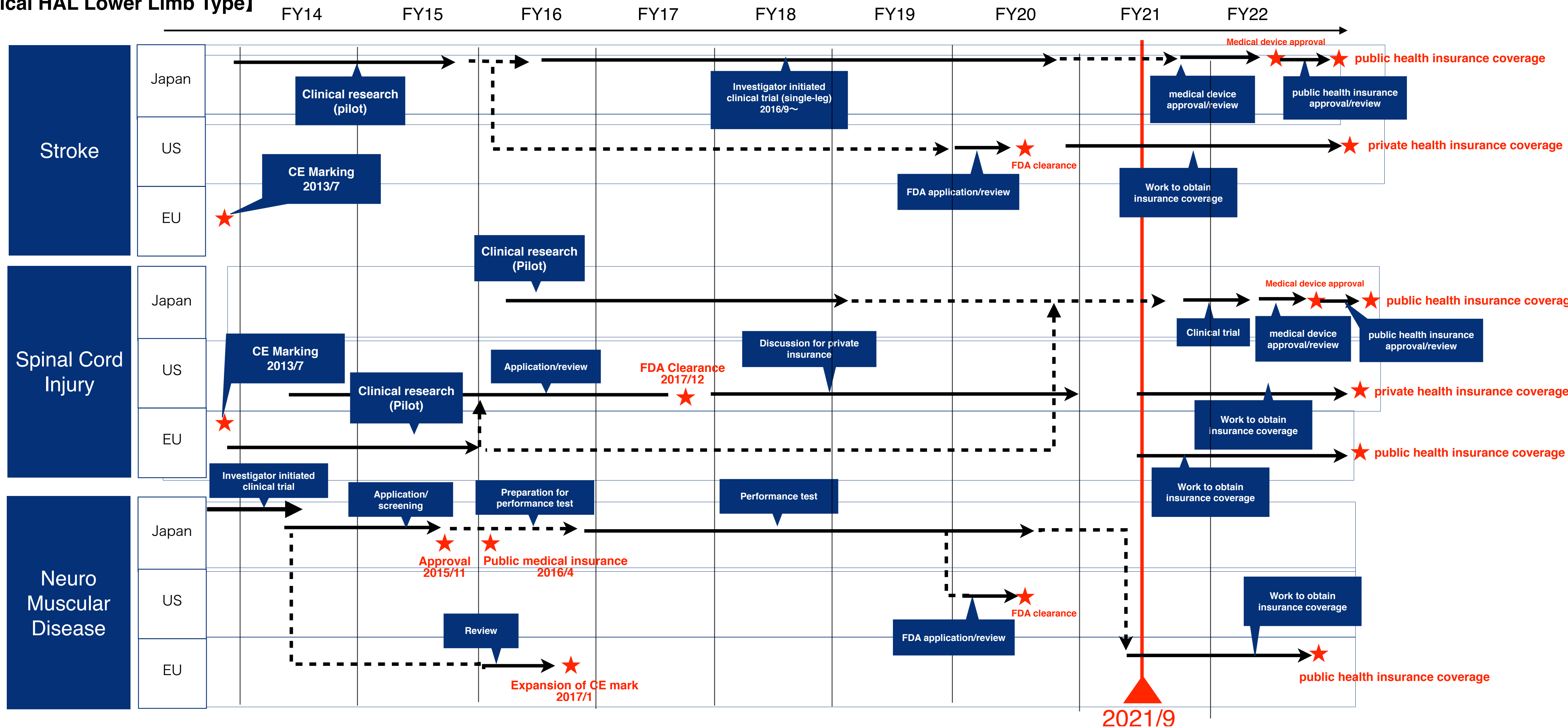
As of September 30, 2021

		Stroke	Spinal Cord Injury	Neuromuscular disease*
Japan		Planning submission of application for medical device approval	Planning clinical trial	Approved
USA		Approved	Approved	Approved
EMEA	EU	Approved	Approved	Approved
	Saudi Arabia	Approved	Approved	Approved
	Turkey	Approved	Approved	Approved
APAC	Malaysia	Approved	Approved	Approved
	Indonesia	Approved	Approved	Approved
	Thailand	Approved	Approved	Approved
	Taiwan	(application in progress)	Approved	(application in progress)
	Singapore	Approved	Approved	Approved
	Australia	Approved	Approved	Approved

Roadmap on regulatory process of Medical HAL



【Medical HAL Lower Limb Type】



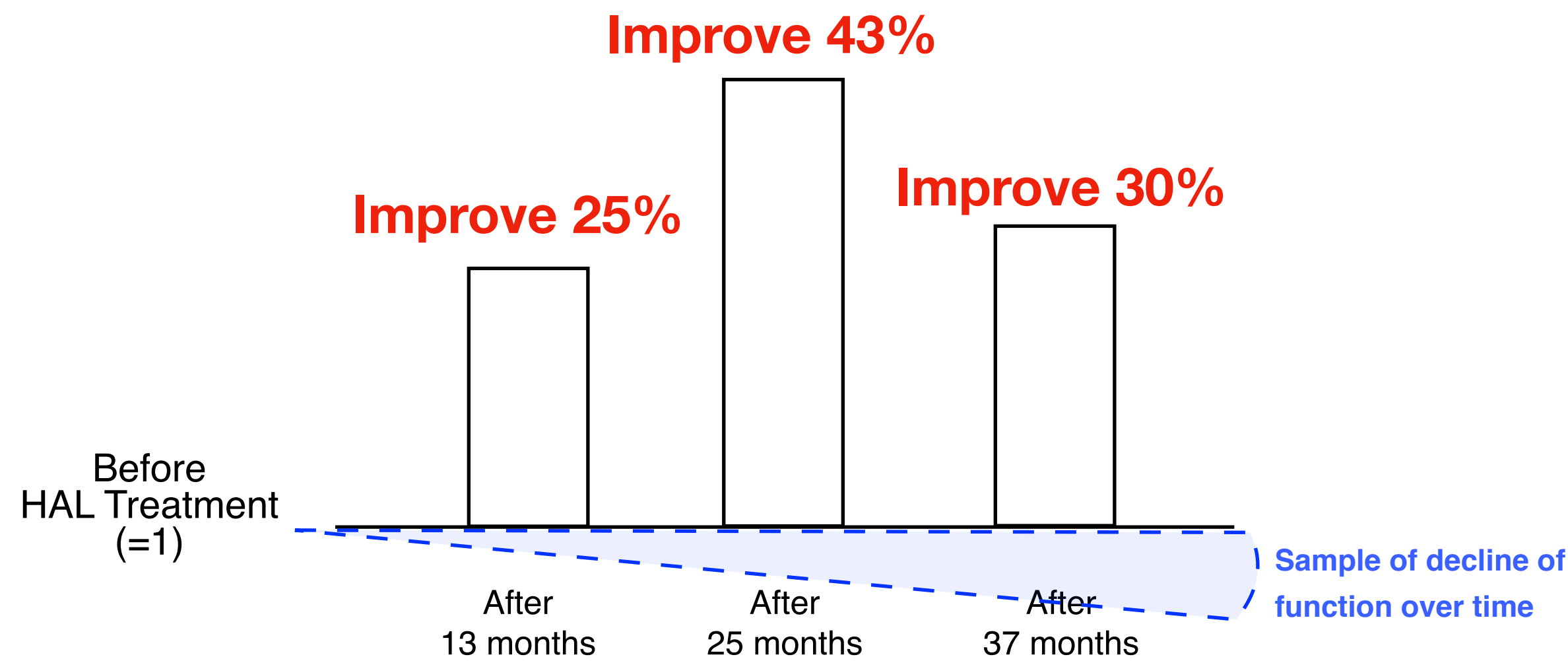
Other target diseases : Spastic Paraplegia including HTLV-1 Associated Myelopathy (applied for medical device approval), cerebral palsy (planning to start clinical trial in 2021), parkinsons disease (planning clinical trial), multiple sclerosis (pilot study underway)

Performance test suggests high efficacy and safety

Efficacy

- Ambulatory function remained above level at the beginning of the treatment over long duration

Distance covered in 2 min walk
(Rate of change from the level before HAL Treatment)

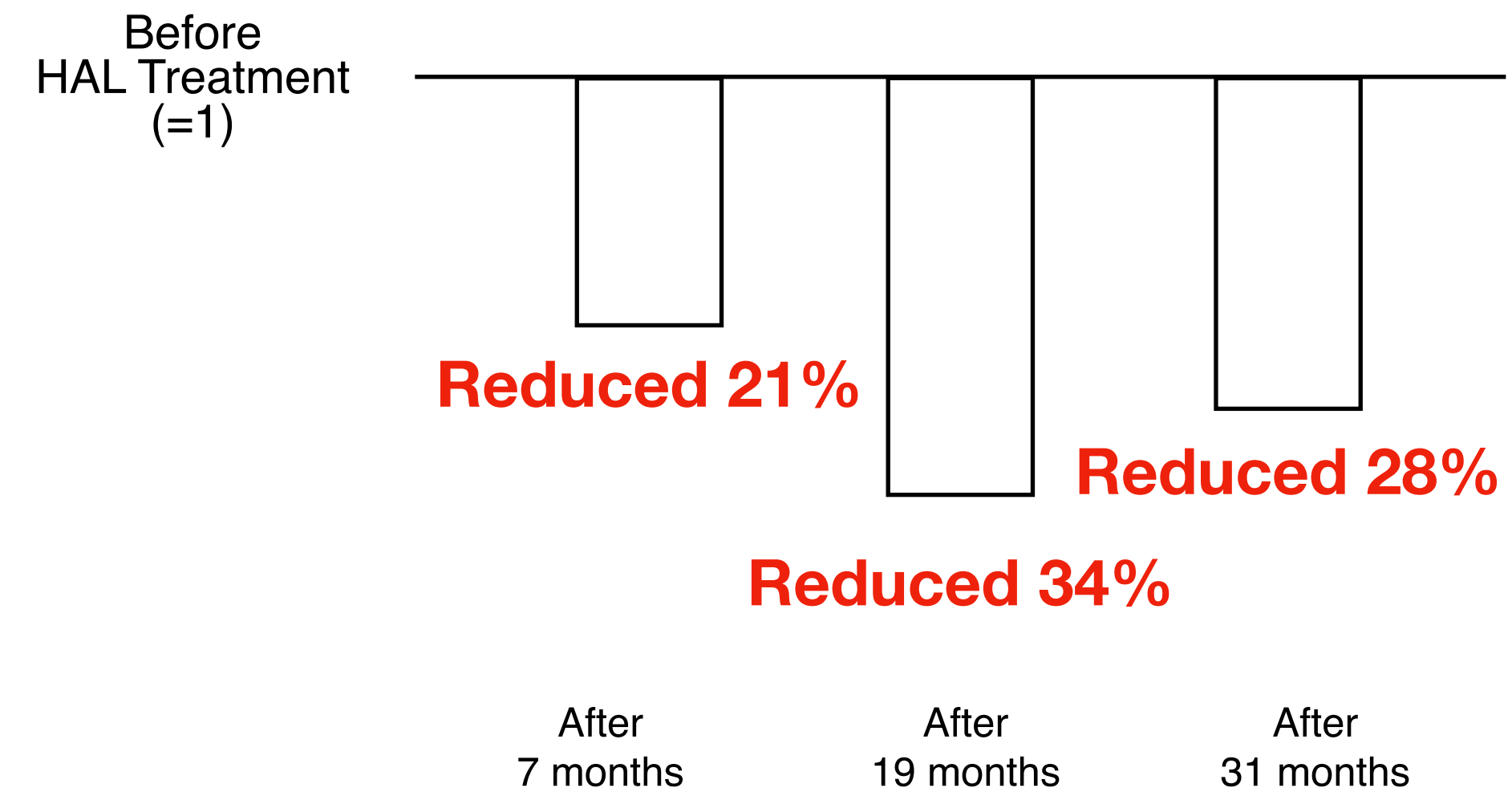


*Due to its progressive nature, typically ambulatory function will decline over time

Safety

- Reduced damage to the muscle tissue

CK Blood Level*
(Rate of change from the level before HAL Treatment)
*Test to identify damage to the muscle



- *Conventional exercise therapy will accelerate the damage on the muscle tissue

Target disease: Spinal muscular atrophy, spinal and bulbar muscular atrophy, amyotrophic lateral sclerosis, Charcot-Marie-Tooth disease, distal muscular dystrophy, inclusion body myositis, congenital myopathy, muscular dystrophy

Significant difference was observed for comparison of 6 min walking distance

- **6 min walking distance (important secondary endpoint: recommended by PMDA) : superiority of HAL group was suggested. The dispersion is less likely to influence the result and it achieved $p < 0.022$**
- **10m walking speed (primary endpoint): Result suggest greater improvement of HAL Group, but due to the number of cases, effect of dispersion remained and the result did to achieve $p < 0.05$**

As a result of the analysis based on the data of 49 patients, excluding 3 patients who had major accidents in their daily life during the trial period, the amount of change was larger in the HAL group than in the control group, and the difference was statistically significant.

The opinion of the study coordinator that the 6-minute walking distance is an appropriate assessment

"Although walking speed improves in both compensatory and physiological walking, distance measured tends to increase in physiological walking but not in compensatory walking. As HAL is thought to remove physiological walking, evaluation of walking distance could have been more suited for this trial. It was reasonable that the 6-minute walking distance showed good results."

Target patient : 49 acute stage stroke patient who have reached "plateau" state of improvement**

Method : Patient was separated into control group and HAL treatment group and result was compared after 20-25 session without wearing HAL

Result : Average improvement of walking distance before and after the intervention was

Control group : 17.34 ± 4.68 m
HAL Treatment group: 34.10 ± 5.23 m

Control group : 80 min conventional rehab

HAL Treatment : 60 min conventional rehab + 20 min HAL Treatment



6 min walking distance

Difference between group
 $p = 0.022$

Average improvement
17.34 m

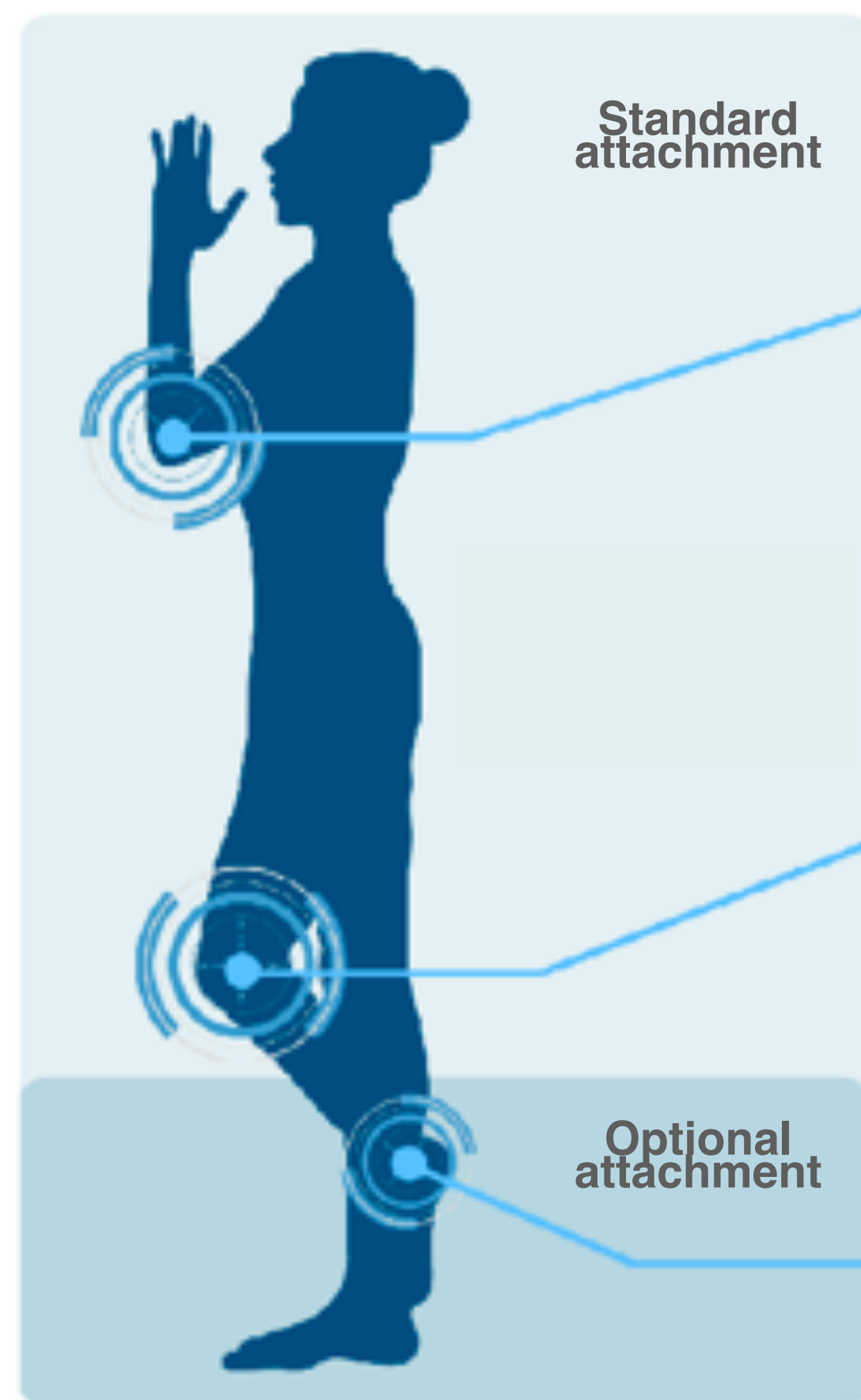
Control group (conventional rehab)

Average improvement
34.1 m

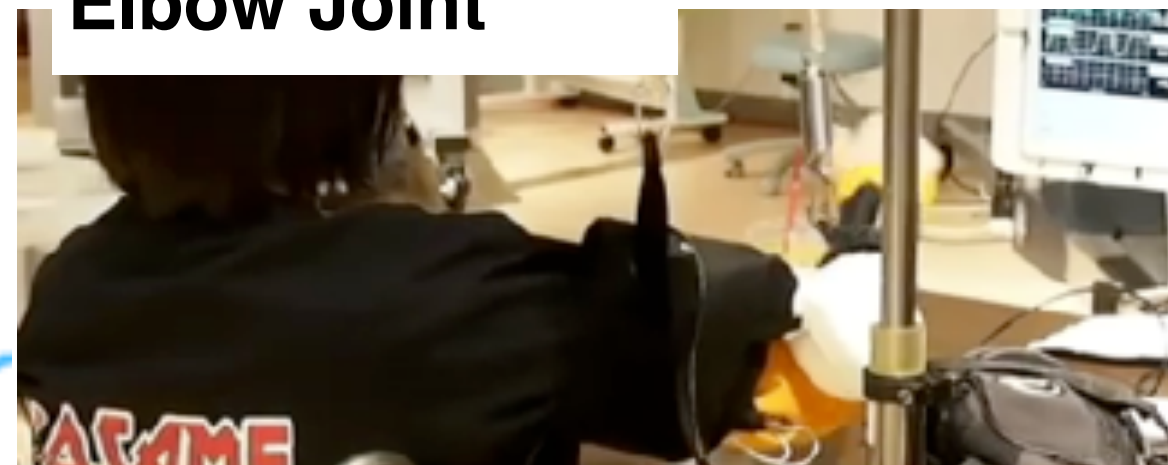
HAL Treatment

In addition to Japan* and Europe, medical device approval has been completed in the U.S., Australia, Thailand, Malaysia, and Turkey

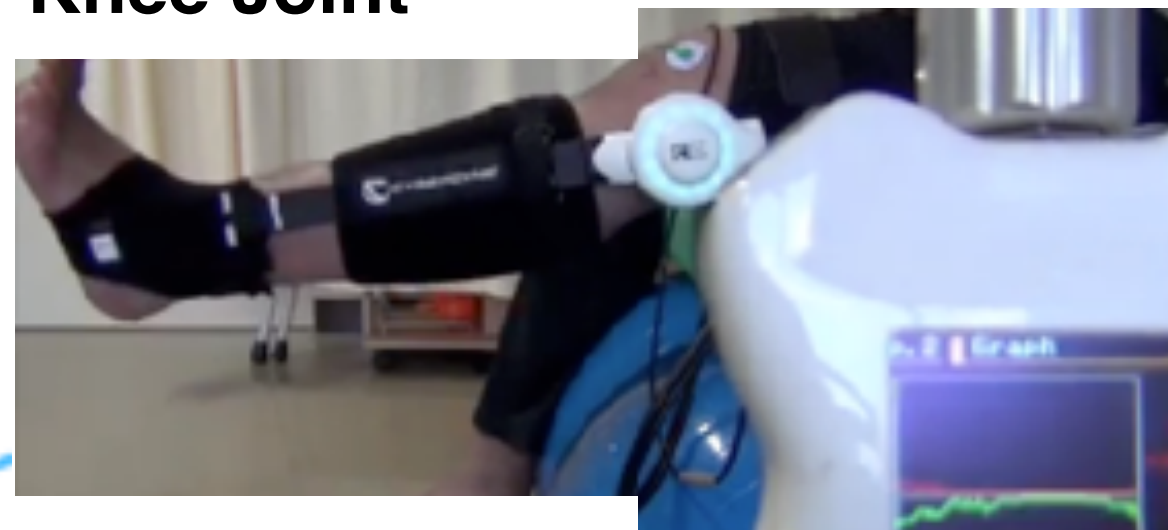
*Medical device approval as a device for increasing amount of exercises



Elbow Joint



Knee Joint



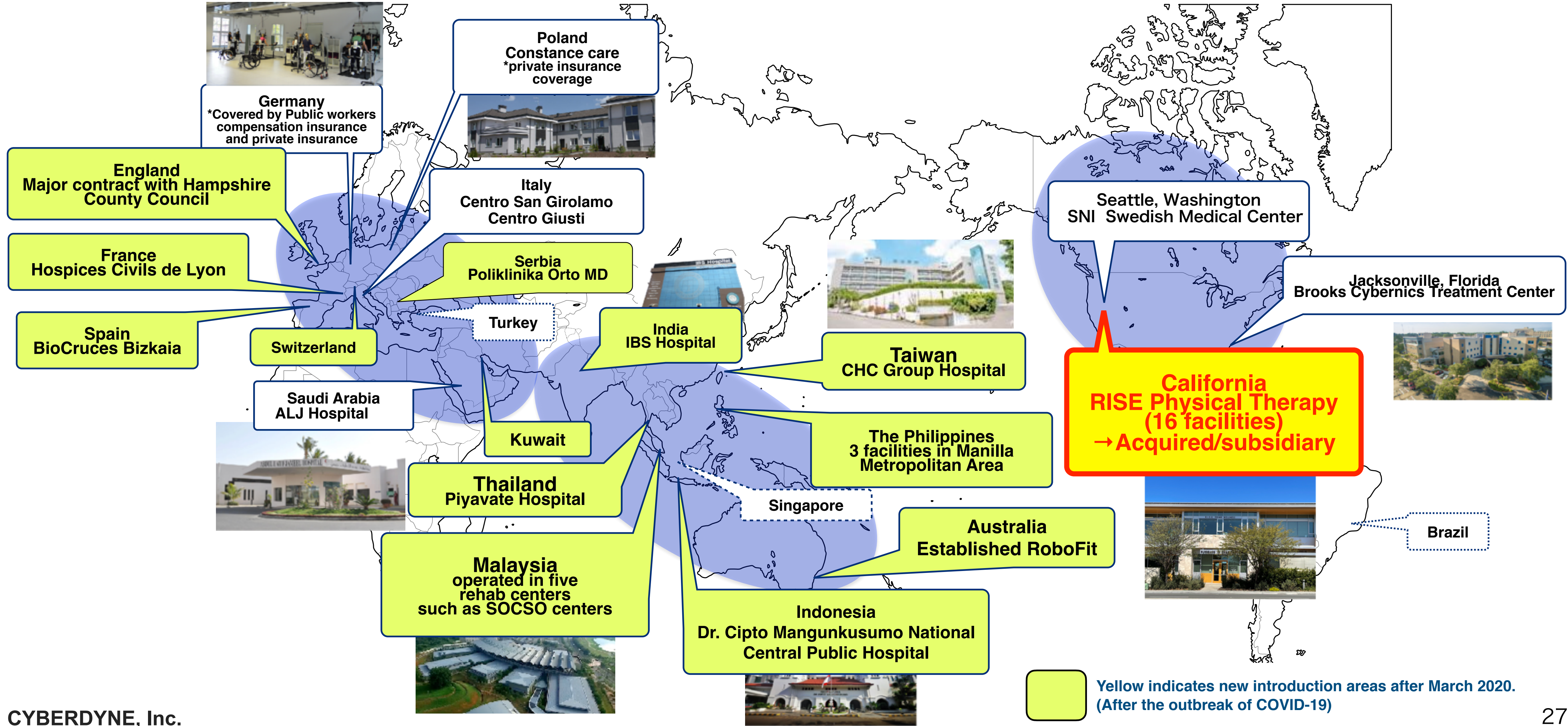
Ankle Joint



Feature

- **Light weight and compact design**
- **Intensive treatment of different joints**
- **Suited for patient with various condition (can treat while laying, seated or standing)**
- **Can make early intervention when patient still has to stay on bed**

Progress in US, EU and APAC despite COVID



Installed to large university hospital

Hospices Civils de Lyon

The Université Hospital of Lyon has a staff of 24,000, of which 5,000 are doctors and over 11,000 are nurses. It is known as one of the largest hospitals in France, integrating 14 facilities, including three general facilities offering a wide range of services such as emergency, internal medicine, and surgery, seven specialized facilities, and four facilities for the elderly.

<https://www.chu-lyon.fr/about-us>



Exterior image of the hospital



Photo from HAL safety operation training by staff members

Installed to the highest ranked hospital in the Basque

BioCruces Bizkaia@Gurutzetako Unibertsitate Ospitalea

BioCruces Bizkaia is the Health Research Institute of Cruces University Hospital, the biggest hospital in the Basque Country, with a consolidated history of teaching and research. Its mission is to promote, unite and support research groups within the Institute to develop top-level translational research and promote effective innovation and collaboration with other entities. All this is to provide new tools, practices, and knowledge to improve health care, population health, wealth creation, and economic development.

<https://www.bbk.eus/en/projects/biocruces/>



Exterior image of Cruces University Hospital (from its website)



Photo from the HAL safety operation training by staff members

Public social security system allows treatment with minimal financial burden from the patient

Used in six facilities

South (Melaka)

Central (2 facilities in Kuala Lumpur)

East (Kuala Terengganu)

North (Kota Bharu)

West (Penang)

76 units of HAL

Lower Limb Type 23 Units

Single Joint Type 30 Units

Lumbar Type 23 Units

**Due to effect of COVID-19
20 units of HAL is waiting for delivery**

*SOCSO (Malaysian Public Social Security Organization)

SOCSO has four functions: disability pension, survivor's pension, medical coverage and occupational injury coverage, and is compulsory for Malaysian and foreign workers in Malaysia to join the program. It provides medical compensation, disability compensation, funeral benefits, child support and nursing care benefits for illness or injury that occurs while commuting to and from work.



Installed to the largest public hospital in Indonesia

- 1) Obtained medical device approval for HAL Lower Limb Type on April 2020**
- 2) Exported HAL to Dr. Cipto Mangunkusumo National Central Public Hospital on March 2021**



Photo of the hospital (cited from the website of the hospital)

Dr. Cipto Mangunkusumo National Central Public Hospital

The hospital is known to be one of the largest national public hospitals in Indonesia. The hospital serves as a teaching hospital for the University of Indonesia, and it is said to be the nation's leading teaching hospital. The hospital is run by the Indonesian Ministry of Health, making the hospital well-resourced with advanced diagnostic and therapeutic medical technology.

8 HALs in two hospitals in Manila Metropolitan area

- 1) The Ospital ng Maynila Medical Center (June 2021)
- 2) The Medical City South Luzon (October 2021)



The Ospital ng Maynila Medical Center



The Medical City South Luzon



Due to effect of COVID-19, seven units of HAL is waiting for delivery

Robot opens as a facility for Cybarnics Treatment on May 2021

- 1) Obtained medical device approval for HAL Lower Limb Type on October 2020
- 2) RoboFit opened as a facility for Cybarnics Treatment on May 2021



Demonstration at the Launch event



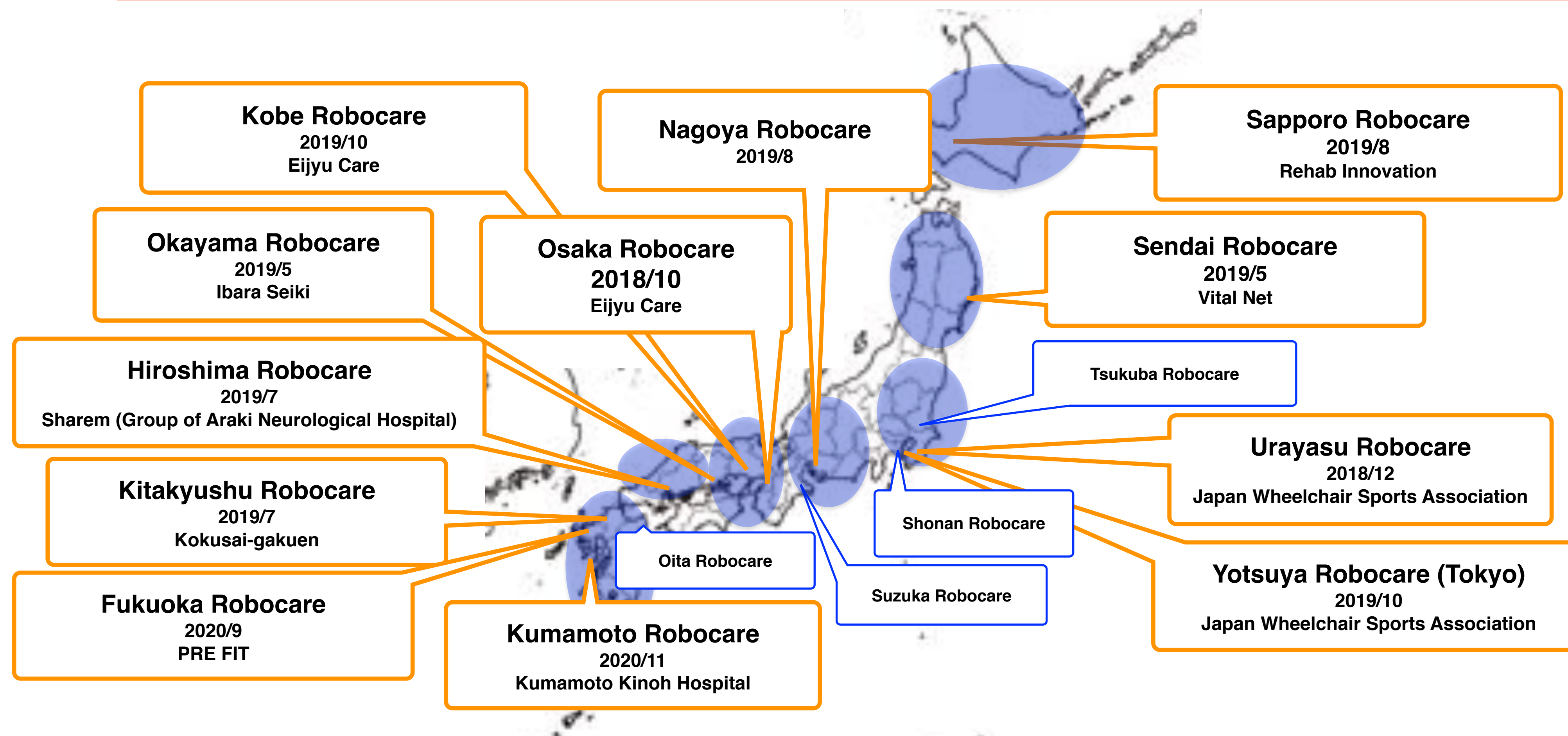
Husband-and-wife duo Maryanne Harris and Daniel Hillyer

**Due to effect of COVID-19,
two units of HAL is waiting for delivery**

for care givers and care receivers

Expansion of Robocare Center as a facility for individual customers

Spreading *Neuro HALFIT* in Japan to 16 centers



Planning to open 2~3 facilities in addition to existing 16 within this fiscal year

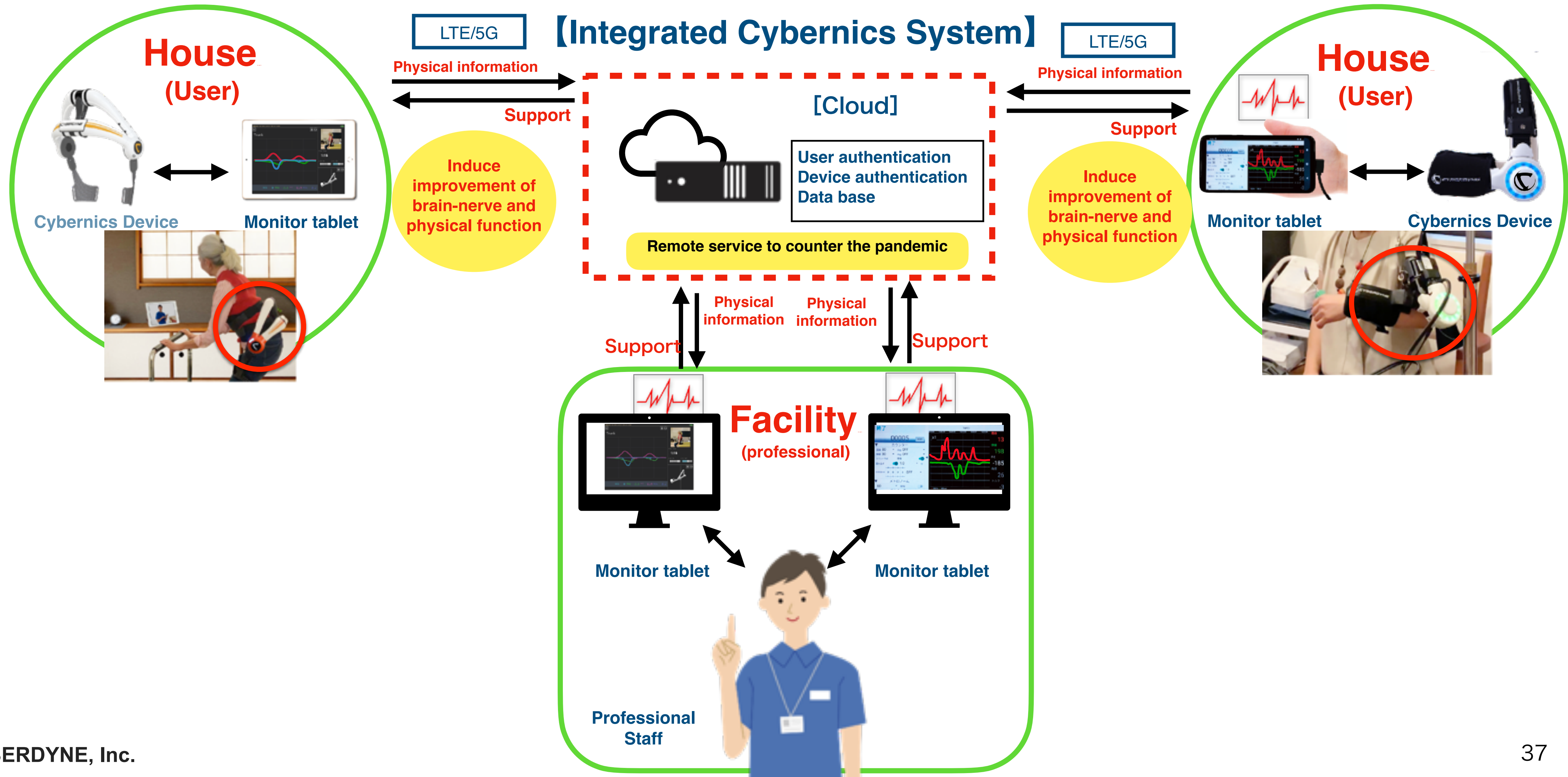
Major improvement of ambulatory function, standing/sitting towards seniors

Evaluation result of HAL program (2 weekly sessions x 20 times) to prevent the necessity of care (n=20 average age:72.2±9.88)

Evaluated item	Before HAL (Mean±SD)	After HAL (Mean±SD)	Rate of improvement	P Value
10m walking speed (m/sec)	0.72±0.33	0.97±0.50	34.7%	< 0.001***
Stride length during 10m walk test (m)	0.83±0.27	0.98±0.33	18.1%	< 0.001***
TUG (sec) *ambulatory function, balance during motion, agility	18.63±15.41	15.91±14.38	14.6%	< 0.001***
CS-30 (times) *Standing up/down for 30 seconds from a chair	10.25±6.13	14.75±8.43	43.9%	< 0.001***
BBS *Evaluates the balance function	46.60±7.80	48.90±8.09	4.9%	< 0.001***
standing on one leg with one's eyes open(sec) *evaluates muscle level in the legs and balancing	13.11±27.37	16.77±27.63	27.9%	< 0.05*
2step test *evaluates stride (leg muscle, balance, flexibility)	0.74±0.40	0.84±0.44	13.5%	< 0.001***
Check for locomotive syndrome *Checks for indication of declines in bones, joints and muscles, etc.	4.20±1.47	3.55±1.79	15.5%	< 0.05*
FRT (Upper limb anterior reach. cm) *evaluates balance when standing	21.29±6.97	26.57±5.66	24.8%	<0.001***
Long seat forward bending(cm) *evaluates balance when sitting	23.4±8.5	26.95±8.5	15.2%	<0.01**

Cyvis-Ultra small Vital Sensor

Expands remote service that connects households to hospitals and facilities



Rental service towards individuals: Neuro HALFIT at Home



Prevents the need for care by improving the function of the brain-nerve-muscular system through daily training at home



HAL is data-linked with the Cyberdyne Cloud, which visualizes biopotential signals that command body movements and posture information, etc. This system enables the wearer to obtain visual feedback and allows the trains to customize a program for each user based on the results of data analysis.



Image of use

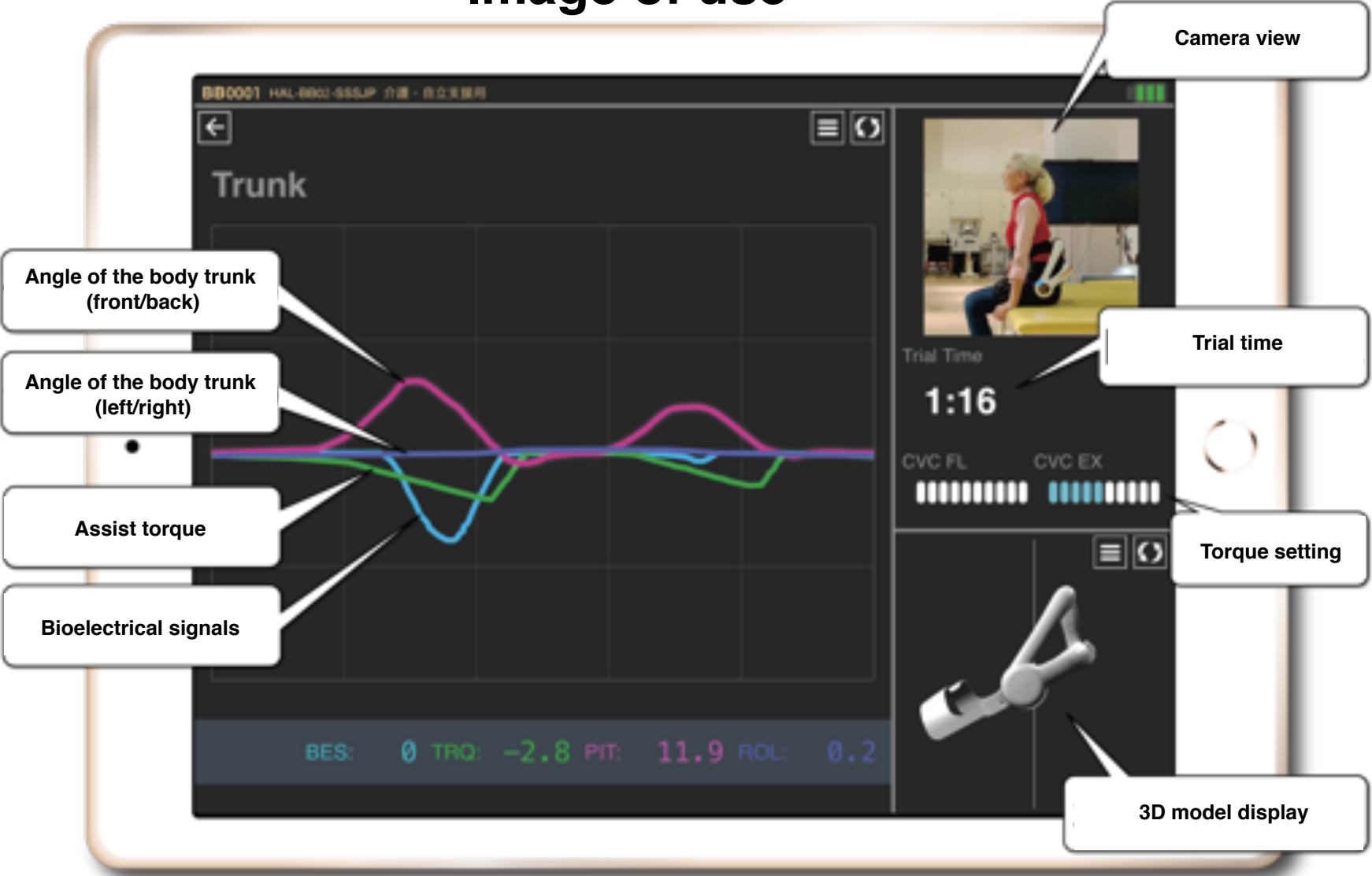


Image of HAL Monitor

Prevention and early detection

Prevent, early detect and improve on daily basis



Seamless data linkage between hospitals, facilities, homes, and workplaces with IoH/IoT

Healthcare monitoring on daily basis

Continuous measurement of wide range of vital data



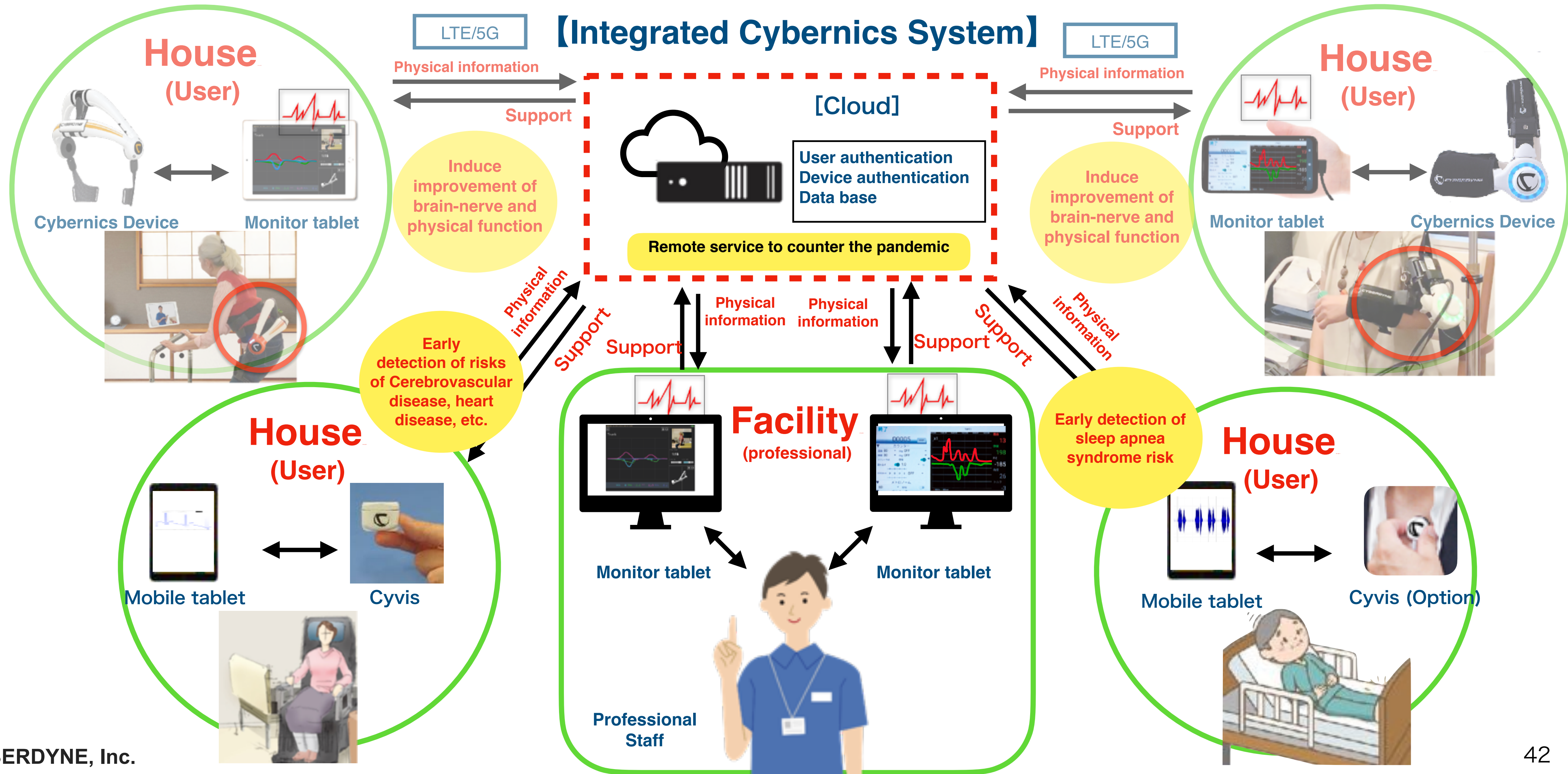
- **Cardiac activity**
- **brain activity**
- **body temperature**
- **SpO2**
- **Body movements**

[Check for arrhythmia and atrial fibrillation to prevent myocardial infarction and cerebral infarction](#)

* Optional feature enables continuous monitoring of sleep respiratory status and screening for SAS (Sleep Apnea Syndrome)

Cyvis-Ultra small Vital Sensor

Expands remote service that connects households to hospitals and facilities



Daily life and work places

Usefulness highly evaluated after 3 years of trial use

Hampshire County, England

- Verification confirms effectiveness of HAL
- With a budget of 500 million yen, a total of 127 units will be introduced
- Suggested additional purchases of up to 1.5 billion yen

Confirmed effects

- Reduced burden: less fatigue and tension
- Reduced risk of injury
- Positive feedback from caregivers
- Increased caregiver efficiency: less need for two people to work (more tasks can be done by one person)



Hampshire
County Council

Promotion video

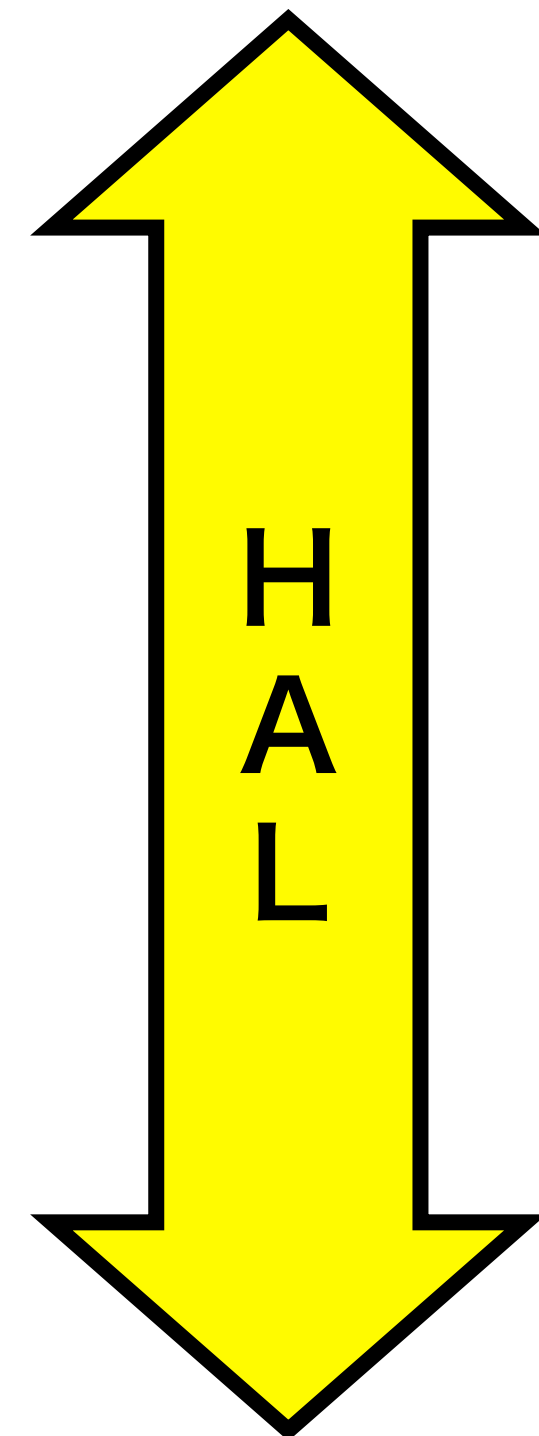


<https://www.youtube.com/watch?v=sF-XYdVF3MY>

Detail of the result

<https://www.local.gov.uk/case-studies/taking-strain-cobots-care>

Advantage of HAL in construction sites, etc.



1. **Lightest (3.1kg) active type device** → can be worn for long hours productivity
2. **Compact** → can be worn with full body safety belts and air-conditioned clothes
3. **Assists walking** → makes travel between locations smooth productivity productivity Safety
4. **Can travel during crouch posture** → Adapts to various tasks productivity
5. **IoH/IoT Device** → Visualizes workload and operation status, and enables total management of productivity productivity Safety
6. **Wearable Cyborg** → Moves according to the wearers intention productivity
7. **Can be worn in 10 seconds** → Can be taken off and on easily, can be shared with other workers productivity
8. **Waterproof/dustproof (IEC standard IP54)** → Can be used outside, even in rain productivity

HAL was ranked highest by users: “Speed of work” “Reduction of fatigue”

Working group on introduction of power-assisted suits in construction work

(Test period: December 2020 to February 2021)

Two passive, two active type product

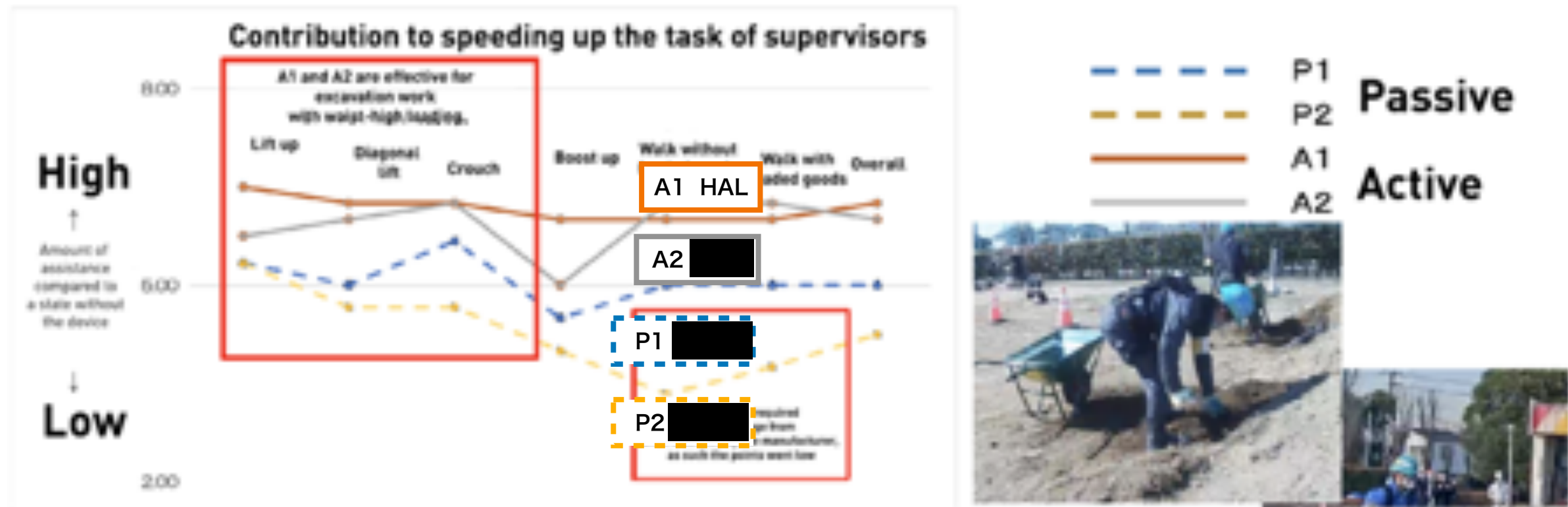
1) Passive product: P1 [redacted] P2 [redacted]

2) Active product: A1 HAL, A2 [redacted]

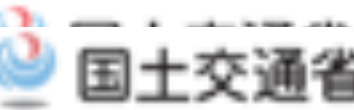
Results of the questionnaire ① Speed (Artificial earthwork/supervisors, etc./average)



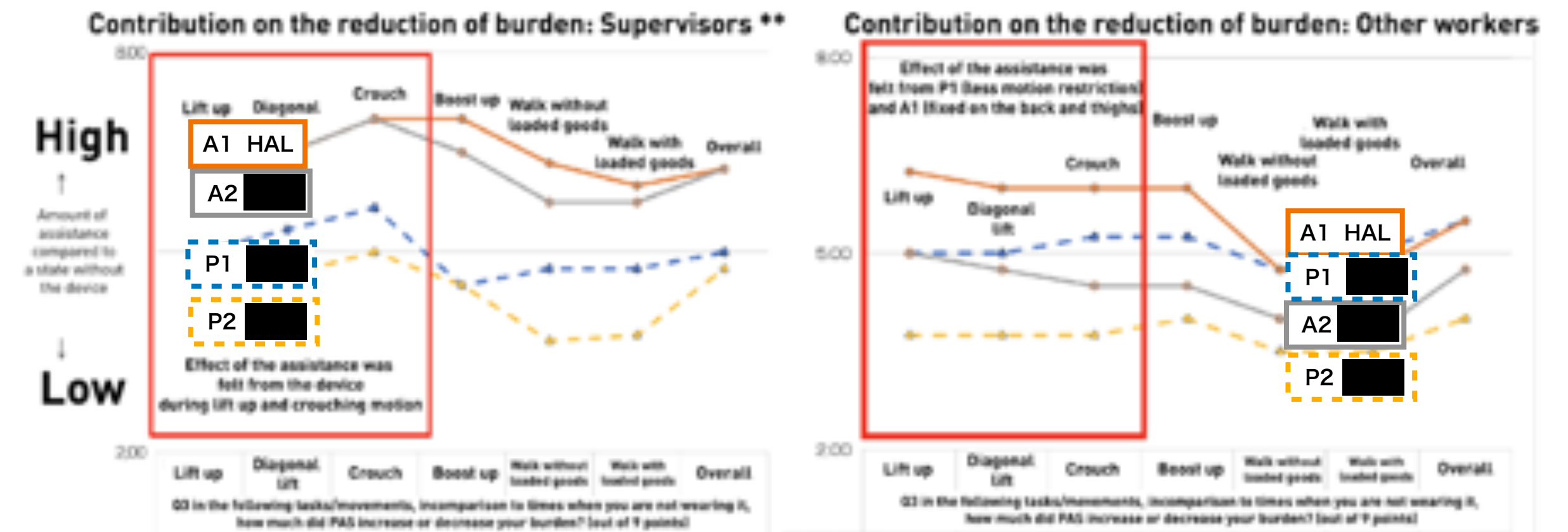
- For the supervisor, etc., P1 is made of a rubber material with minimal restrictions on movement. It enabled equivalent movement when it is not attached.
- A1 and A2 that is actively supported with motor power contributed to speeding up lifting and tasks that requires continuous use of lower back
- Passive P2 was evaluated low because the reaction force of the auxiliary force was obtained by the thighs, and the work was carried out without unrestraining the thighs this time.
- *The manufacturer of P2 recommends the use of thigh restraints to be released when walking. During simulated work, thigh restraints were used to evaluate a series of tasks.



Results of the questionnaire ② Reduction of fatigue



- For the supervisor [presumably same level as new recruits] experienced reduction of fatigue with Active A1 and A2
- Other workers only experienced reduction of fatigue with Active A1



July 13, 2021
 The 4th Working Group on the Introduction of PAS in Construction, Document 3
<https://www.mlit.go.jp/common/001415266.pdf> (trial translation by Cyberdyne)

Operating next-generation technologies for the Post-COVID Society

Extensive Cleaning ability

- **High speed autonomous navigation** (Can safely clean at 4km/h to cover massive space in short time)
- **Massive cleaning area** (Detects wall that is 30m away and cover max 3,000m² with full charge battery)
- **High vacuum performance** (one of the best in the industry)

Automatically rides on elevator

- **Elevator interface unit developed inhouse** (Can connect to elevators developed by multiple vendors)
- **Can work on multiple floors** (Expands the space that can be cleaned)

Can be used for multiple tasks such as disinfection

- **Disinfection agent sprayer** (Disinfects handrails and benches)
- **UV Ray Disinfector** (set on the bottom of the robot to disinfect floors)

Visualizes its work

- **Dust distribution map** (visualizes result of the task)
- **Navigated route** (to create efficient and effective cleaning plan)

Cloud linkage

- **“CYCLES” designed for the Robot** (realizes high usability and management)
- **Integration with the base system**

SDGs for Society 5.0/5.1



10 REDUCED INEQUALITIES



Develop Cybernics Technology to support people with reduced physical function

Main initiatives

- Disseminate Cybernics Treatment that promotes functional improvement and regeneration of the brain, nervous system, and muscular system using a Wearable Cyborg HAL, as a global standard treatment
- Disseminate Wearable Cyborg HAL to improve the level of care required by the elderly and prevent severe illness and prevent frailty and maintain independence as physical functions decline with age
- Develop Cyin for Living Support for people with severe disabilities who cannot speak or write as they wish due to the progression of intractable diseases to communicate and operate machines without speech or physical movement



3 GOOD HEALTH AND WELL-BEING



Health Risk Management with Cyberdyne Cloud

Main initiatives

- Develop Cyberdyne Cloud to accumulate, analyze, and perform AI processing of big data on people and things (IoT/IIoT big data) obtained through all Cybernics Technologies equipped with communication functions
- Realize personalized healthcare through Cyberdyne Cloud
- Develop sensing technology to monitor vital information daily
- Develop HAL at Home as a new service that can share user's information on their training sessions conducted at home using HAL with medical and care facilities



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Form social infrastructure to create the Cybernics Industry

Main initiatives

- Establish a system to support companies and human resources that develop and deploy technologies and services that solve social problems
- Construct Cybernics Innovation Base to promote innovation in the medical and biotechnology fields
- Continue the projects at the Next-generation multi-purpose robotized production facility to induce innovation in the production field



11 SUSTAINABLE CITIES AND COMMUNITIES



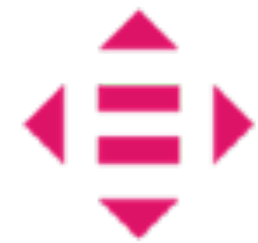
Realize Society 5.0/5.1, a future society that accelerates innovation

Main initiatives

- Develop mobility technologies that are safe, affordable, and ready for use by all people
- Develop a future city where all people, including the elderly and disabled, can easily access public spaces.
- Establish educational institutions that develop knowledge and skills to help people.
- Create shared spaces that promote innovation and scientific research and areas for field testing

Develop Cybernic Technology to support people with reduced physical function

10 REDUCED INEQUALITIES



Main target

10.2 by 2030 empower and promote the social, economic and political inclusion of all irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Our contribution

By developing the Wearable Cyborg HAL for medical and welfare fields, and Cyin for Well-being to support severely disabled to communicate their intentions, we are supporting the elderly and disabled person by maintaining and improving their functions. We also help them express what they have in mind.

We also develop another type of HAL to support people engaged in heavy work.

This project promotes the empowerment of these people and their social, economic, and political inclusion.



Cybernics Treatment Center and Medical HAL



Cyin for Living Support to support severely disabled person on their communication



HAL Lumbar Type to support various heavy work

Disseminating Medical HAL as a global standard treatment

As of the end of March 2021, HAL for Medical Use is available in 16 countries and regions, including Southeast Asia and South Asia, as a treatment technology for stroke, spinal cord injury, and intractable neuromuscular diseases.

In addition, in order to contribute to solving the needs of developing countries, we have been selected by the Japan International Cooperation Agency (JICA) to conduct a research project in Brazil.

We will continue to disseminate the technology.

Post-discharge care at the Robocare Center

For those who want to keep improving their physical functions after they get discharged from the hospital, we offer Neuro HALFIT at self-funded rehabilitation facilities called RoboCare Center. As of the end of March 2021, they are 16 centers around Japan. A user can also access similar programs at self-funded rehabilitation facilities with which we have cooperative relationships.

In addition, we have formed alliances with private insurance companies such as Daido Life, AIG Insurance, and Sompo Japan to cover the cost of such programs for their policyholders.

We will continue our efforts to improve physical and economic access.

Improving the working environment

Job turnover due to the onset of back pain and the deterioration of performance caused by frequent heavy lifting is becoming a significant issue in nursing care, construction, and logistics.

The Company develops HAL Lumbar Type to reduce the risk of developing back pain by reducing the load applied to the lower back. The technology empowers people engaged in heavy lifting and enables the worker to continue working longer and safer.

As of the end of September 2021, 1,575 units of HAL Lumbar Type were in operation.

This product is currently available in Japan and the UK. We will continue to disseminate the technology to more countries and regions.

Supporting communication for the severely disabled

We develop Cyin for Living Support, which enables people with severe disabilities who cannot speak or move their bodies due to the progression of intractable diseases to communicate and operate devices.

The product is available on the market. Daido Life Insurance donated the product to several patient groups and patient support groups to promote this endeavor.

We will continue to work on additional functions and offer the product outside of Japan once it is ready.

3 GOOD HEALTH AND WELL-BEING



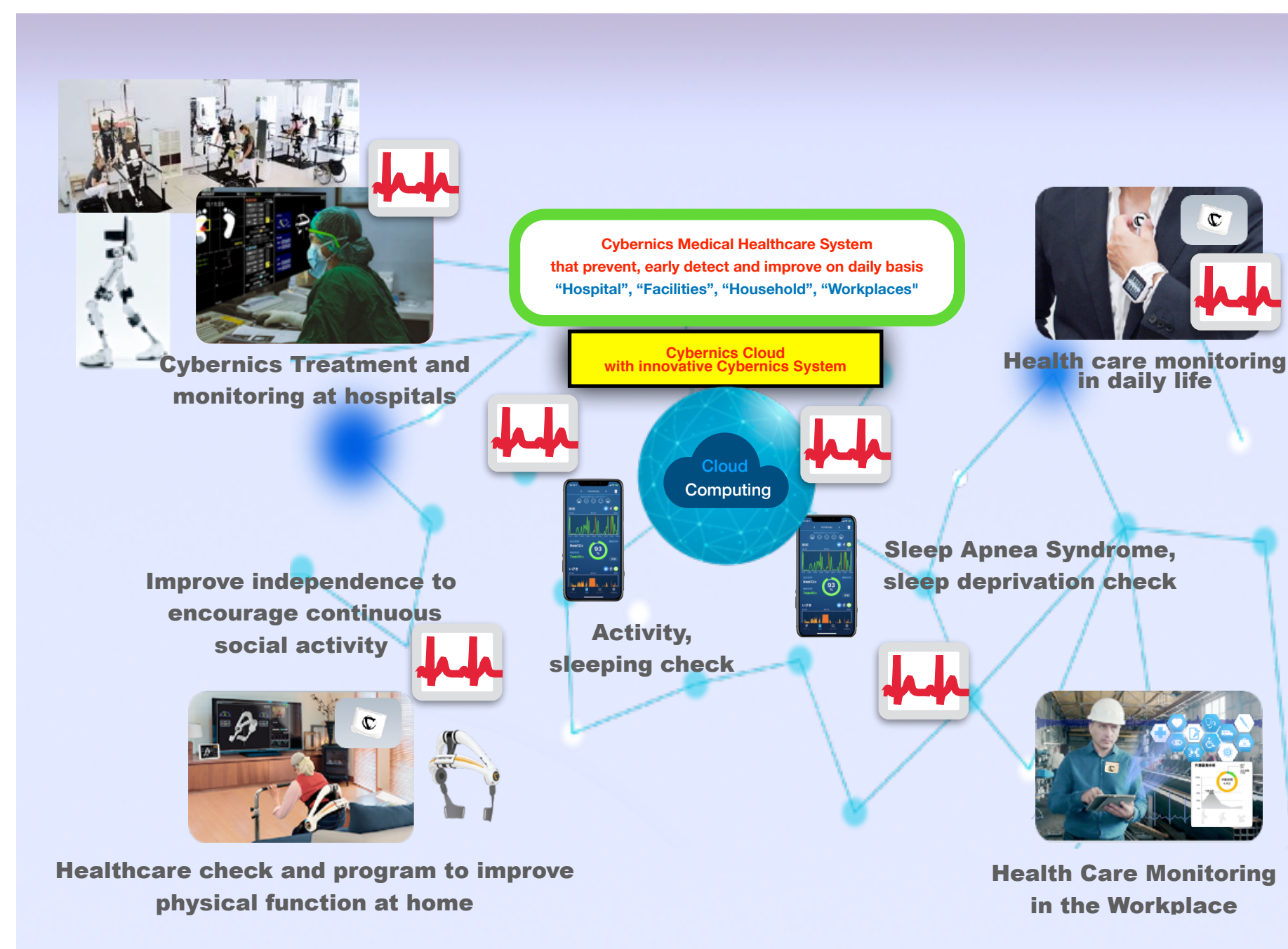
Main target

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

Our contribution

Cyberdyne Technology deployed in various fields such as medicine, nursing-care, production, and other workplaces with households, integrally connects people's internal information (brain nerve information, physiological information, etc.), people's external information (behavioral information, lifestyle information, etc.), and environmental information with a supercomputer.

The Company works on the system that accumulates, analyzes, and AI processes all the loH/loT Big Data obtained through this process, contributing to personalized medicine, early warning of health risks, and enhancing risk mitigation and risk management capabilities.



Release of Cyberdyne Cloud

The Company develops Cyberdyne Cloud to connect different fields and provide feedback on health risks based on loH/loT Big Data. In Japan, a system that allows users to send information on their training sessions from home to a facility and receive timely support from the facility is already in operation from November 2020.

We will continue to expand this system to other fields according to the development of products and services. We will also offer the system outside Japan to contribute to health management in all countries, including developing countries.

Realizing personalized healthcare

By accumulating, analyzing, and AI-processing loH/loT Big Data related to a single user across different fields, we will realize personalized healthcare that will maximize the effect and safety of that user.

This initiative is being carried out simultaneously with the formation of loH/loT Big Data for all users. We will continue to expand this system to other fields according to the development of products and services. We will also offer the system outside Japan to contribute to health management in all countries, including developing countries.

Developing vital sensing technology

In addition to developing the Wearable Cyborg HAL and autonomous navigation technology, we are developing sensing technology to prevent and detect diseases.

For example, commercialization of Cyvis, an ultra small-sized vital sensor to detect arteriosclerosis and arrhythmia at an early stage, and a photoacoustic imaging device to enable real-time analysis of capillary information.

By promoting these products, we will accumulate important vital information that will lead to the prevention and early detection of diseases, thereby contributing to the enhancement of capabilities for health risk management.

New service: HAL at Home

In April 2020, we launched a new service, HAL at Home. This service can create exercise opportunities, which many people lost due to the voluntary restraint from going out because of COVID-19.

The service became a new option for safe and effective training that the user can practice at home. HAL at Home also realized the visualization of exercise information and remote online support by professional staff through HAL's built-in communication functions.

At the end of September 2021, HAL at Home have reached an accumulation of 369 contracts

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Main target

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

Our contribution

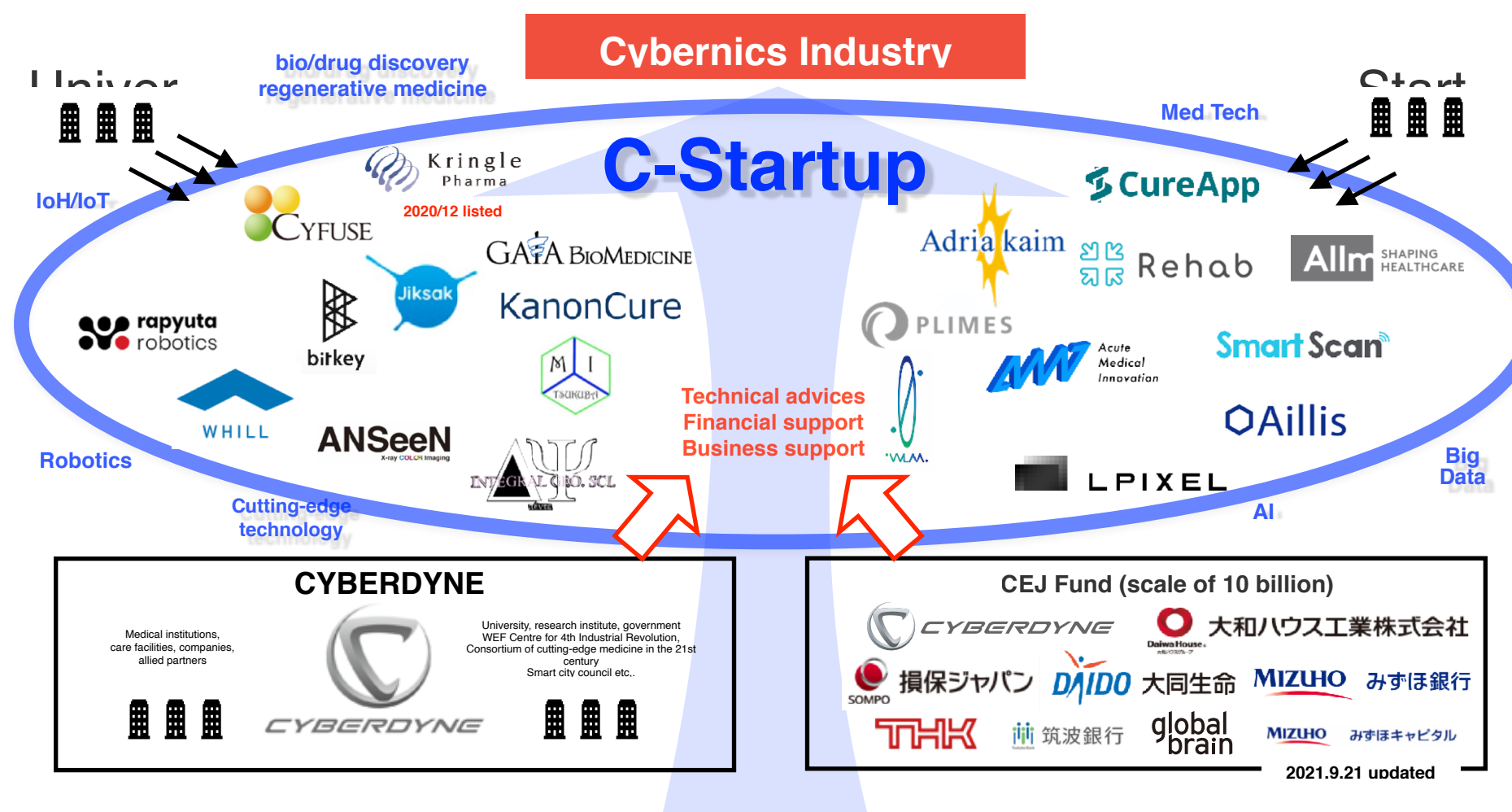
We are working to create an inclusive and sustainable industry called Cybernics Industry by building an innovation ecosystem called C-Startup and facilities to accelerate innovation in medicine/biotechnology and production.

C-Startup, the foundation for the creation of new industries

C-Startup is an innovation ecosystem to create a new industry for solving problems of people and society: Cybernics Industry. We work together with startups and entrepreneurs with similar visions, regardless of their nationalities.

We accelerate creating the Cybernics Industry by providing technical advice by Yoshiyuki Sankai (CEO of CYBERDYNE/Professor of Tsukuba University) and financial support by CYBERDYNE and its related Fund.

As part of this initiative, we have formed partnerships with a total of 21 startups and are managing a 10 billion yen fund to support this endeavor.



Promoting the vision of the Cybernics Industry

The Company promotes the vision of the Cybernics Industry, a new industry that fuses Human and Cyber/Physical Space, both domestically and internationally. With this initiative, we are leading the efforts to form Cybernics Industry together with industry, academia, and government.

For example, in 2019, we communicated this vision to various countries at the G20 Trade and Digital Economic Ministerial Meeting held in Tsukuba City, Ibaraki Prefecture.

We will continue to share our vision of the Cybernics Industry as a foundation for industrial and technological innovation.



G20 delegates visit CYBERDYNE HQ (2019)



Exterior image

Construction of Cybernics Medical Innovation Base

We plan to construct the Cybernics Innovation Base in Kawasaki City, Kanagawa Prefecture, as a facility to accelerate innovation in the medical and biotechnology fields. The facility will house a cluster of medical and biotechnology ventures. The Company, universities, and resident companies can conduct a clinical trial in the facility on their own and through collaboration.

The facility will be constructed adjacent to Haneda International Airport in February 2022.

Activities at the Next-Generation Multipurpose Robotic Manufacturing Base

In Koriyama City, Fukushima Prefecture, we have constructed a next-generation production base to produce robots and devices with Cybernics Technology. In this facility, the Company embedded the skills of experienced workers into the robots so the robots and human workers can work in harmony.

The Company constructed the facility in 2016 and completed a registration to manufacture medical devices in 2020.



Exterior of the facility

11 SUSTAINABLE CITIES AND COMMUNITIES



Main target

11.2 by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.7 by 2030, provide universal access to safe, inclusive and accessible, green and public spaces, particularly for women and children, older persons and persons with disabilities

Our contribution

Using innovative Cybernics Technology, we promote the fusion of Human and Cyber/Physical Space to create Society 5.0/5.1. We envision this future society as a techno-peer-supported society where technology and human support each other as partners.

Creation of Society 5.0/5.1

Society 5.0 is a concept first proposed in Japan's Fifth Science and Technology Basic Plan as the ideal future society. In this society, science and technology connect all people and things, sharing various knowledge and information to create new values never seen before.

We contribute to the creation of Society 5.0 by implementing Cybernics Technology in the various business fields to integrate internal information (brain nerve information, physiological information, etc.), people's external information (behavioral information, lifestyle information, etc.), and environmental information with a supercomputer. As one of the leaders in this challenge, we work to explore the society beyond Society 5.0/5.1.



perspective drawing of the future city

Mobility Infrastructure

We are working on personal mobility and drones for transportation that is safe, inexpensive, and easy to use, taking into consideration the needs of the elderly and disabled living in the community.

We are also planning cities based on the premise of introducing mobility, which will shorten travel time and create new connections and added value between functions and facilities.

While developing mobility infrastructure in-house, we are also collaborating with startups that are developing related technologies.

Shared Economy

We plan to shift from the conventional model of occupying information, people, goods, space, and time to a new form of a city where we can share and help each other.

We will work to achieve success with the allies formed in C-Startup. We will also continue to gather people and companies with seeds related to Cybernics and accelerate the creation of innovation through sharing and mutual aid of information, people, goods, space, and time.

Futuristic housing

Through daily health management and lifestyle support infrastructure based on Cybernics Technology, we will develop housing where all people, including the elderly and disabled, can live in harmony with technology and mutually support each other to ensure peace of mind.

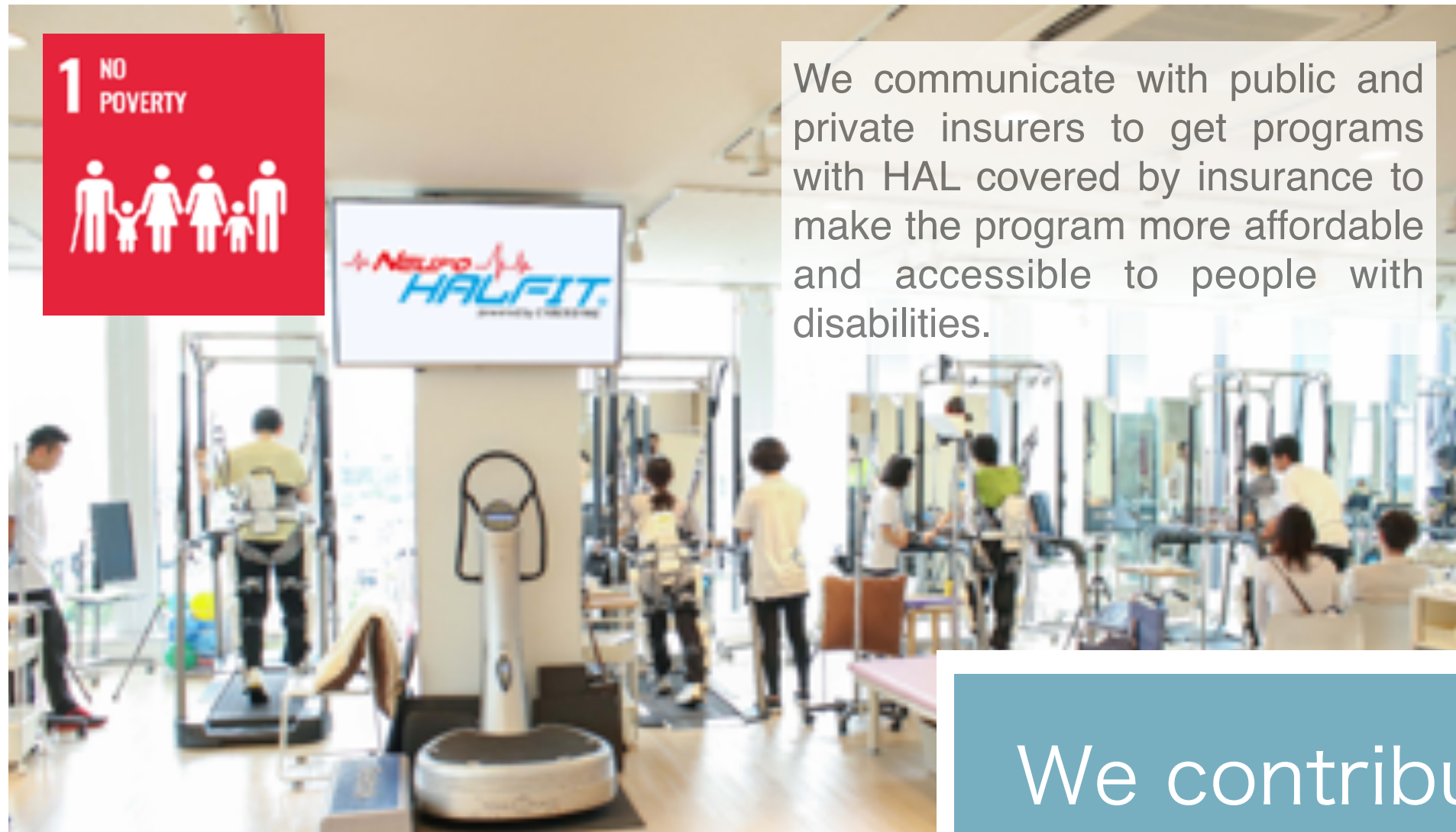
Specifically, various Cybernics Technologies, such as the Wearable Cyborg HAL, autonomous navigation robots, and vital sensors, will be introduced into every space, including residences. Personal health information will be accumulated, analyzed, and processed by AI to be linked to medical facilities to manage each person's health and safety better.

An educational institution that nurtures the next generation of human resources

Through collaboration between industry, academia, and government, we are planning an educational institution to foster the next generation of innovators.

We will nurture the next generation of innovators with educational institutions ranging from graduate school to elementary school, taught by instructors from various companies.

Other initiatives to achieve SDGs



1 NO POVERTY



We communicate with public and private insurers to get programs with HAL covered by insurance to make the program more affordable and accessible to people with disabilities.



2 ZERO HUNGER



We are developing a robot that automatically collects fruits and vegetables at the optimal harvest time using a camera to determine the sugar content.



4 QUALITY EDUCATION



Takezono High School in Tsukuba City featured our company's challenge in their SDGs Karuta, a card game where players can learn about SDGs while having fun.

We contribute to the achievement of other sustainable development goals set by the United Nations through various initiatives



5 GENDER EQUALITY



To create a comfortable working environment for workers of all genders, we grant flexible work styles.

For example, both male and female workers in our company have a record of taking childcare leave.



6 CLEAN WATER AND SANITATION



By developing a toilet docking robot that assists the elderly and other people to use the toilet, we are working to help the elderly become more independent and reduce the burden of nursing care.



7 AFFORDABLE AND CLEAN ENERGY



We are working on the development of environmentally friendly, next-generation mobility technologies.

Other initiatives to achieve SDGs

8 DECENT WORK AND ECONOMIC GROWTH

We help people with disabilities return to life and work by improving their physical functions.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

In cooperation with various organizations, we thoroughly manufacture products following international safety standards, and we produce products that users can use safely.

13 CLIMATE ACTION

To support recovery from natural disasters, we are lending HAL Lumbar Type, which reduces the load on the lower back, to disaster areas free of charge.

We contribute to the achievement of other sustainable development goals set by the United Nations through various initiatives

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Based on the motto "science exists for humans and society," we implement various measures to prevent our technology from being diverted to weapons. We are working to solve social issues and realize a peaceful world through our business.

17 PARTNERSHIPS FOR THE GOALS

We actively collaborate with industry, government, academia, and other business fields to pioneer the future together.

This presentation contains forward-looking statements concerning CYBERDYNE, Inc. and its Group's future plans, strategies and performance. Forward-looking statements contained in this presentation are based on information currently available and on certain assumption redeemed rational at the time of creation of this presentation. As such, due to various risks and uncertainties, the statements and assumption does not guarantee future performance, may be considered differently from alternative perspectives and may differ from the actual result.

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