

**Consolidated financial statements** 



# FY2024 - Consolidated Results Summary (IFRS)

	FY2022	FY2023	+/-	YoY
Revenue	3,289	4,354	+1,065	+32.4%
Operating profit	-1,145	-2,018	-873	
Profit before tax	53	-1,141	-1,194	
Profit attributable to owners of parent	-298	-1,476	-1,178	
EBITDA	-1,005	-1,177	-172	
		<ul> <li>Increase from rental outside</li> </ul>	Japan +121 Million	

**4,354** Million Revenue **YoY +1,065** million (+32%)

**Operating profit** 

-2,018 Million YoY -873 Million

**Profit before tax** 

**-1,141** Million **YoY -1,194** Million

 $\Rightarrow$  EBITDA = Operating profit + Depreciation and amortization  $\pm$  Other income and expenses



3

#### (Unit : Millions of yen)

• Increase from treatment service in US RISE Group etc. +361 Million • Increase from acquisition of new business area such as German mobility company +582 Million

Increase from rental +137 Million Initial investment in U.S. and European subsidiaries	* Operating profit without this one- time losses		
-350 Million One-time losses due to impairment of good will -660 Million	-1,358 Million YoY -213 Million		
Increase of operating loss -873 Million			

• Finance income/expenses and gain/loss related to CEJ Fund -321 Million

(FY23 877M - FY22 1,198M = -321M

## **Consolidated financial results (IFRS) Performance trends**

## **[Q4 results]** Sales +24% (QoQ comparison)

	FY2022	FY2023					Quarter on Quarter		Year on Year	
	Q4	Q1	Q2	Q3	Q4	Q1-Q4	+/-	+/- %	+/-	+/- %
Revenue	915	1,045	1,058	1,115	1,135	4,354	+20	+1.8%	+220	+24.0
Cost of sales	440	480	480	517	484	1,961	-33	-6.3%	+44	+10.1
Gross profit	475	566	579	598	651	2,393	+53	+8.8%	+176	+37.0
R&D Expenses	241	174	180	163	360	877	+197	+120.9%	+119	+49.6
Other SG&A	757	766	757	771	958	3,251	+187	+24.3%	+201	+26.5
Other income/ expenses	127	67	-651	49	252	-282	+203	+411.2%	+125	+98.4
Operating profit	-396	-308	-1,008	-287	-415	-2,018	-129	-	-19	-
Finance income/ expenses	434	363	-12	-106	-184	61	-78	_	-618	-142.4
Other	-97	712	74	6	24	816	+18	+272.6%	+121	-
Profit before tax	-59	767	-947	-386	-575	-1,141	-189	-	-516	-
Profit attributable to owner of the parent	-366	330	-933	-349	-525	-1,476	-176	_	-159	-
EBITDA	-488	-212	-194	-177	-595	-1,177	-418	-	-107	-

(Unit : Millions of Yen)





## **Consolidated financial results:** Revenue/Operating profit (Margin)

### **Operating profit from rental of products 818 Million (Operating profit margin 46%)**

		FY2022 Q1-Q4	FY2023 Q1-Q4	+/-	+/- %
Product rental	Revenue Operating profit ☆ (Margin)	<b>1,640</b> 744 (45%)	1,762 818 (46%)	+121 +74	<b>+7%</b> +10%
Treatment service	Revenue Operating profit ☆ (Margin)	<b>1,285</b> -310 (-24%)	<b>1,646</b> -552 (-34%)	<b>+361</b> -242	+28% -
New business expansion	Revenue Operating profit ☆ (Margin)	<b>364</b> -161 (-44%)	<b>946</b> -197 (-21%)	+582 -35	+160% -
RD expenses and ** Head office expenses	Adjusted amount	-1,418	-2,087	-670	_
Consolidated total (IFRS)	Revenue Operating profit (Margin)	<b>3,289</b> -1,145 (-35%)	<b>4,354</b> -2,018 (-46%)	+1,065 -873	+32%

Operating income by business segment is the amount of profit or loss, which is revenue minus operating expenses, for each business.  $\overrightarrow{\mathbf{x}}$ 2 RD expenses and head office expenses, are adjustment amount of R&D expenses, head office administrative expenses, other income and expenses, etc.

Without one-time expense of (660M), -1,427M

(Unit : Millions of Yen)

- Rental of product: Rental income from the Group's product (include income from sold products)
- Treatment service: Income from treatment at the Group's rehabilitation facilities (including Robocare)
- New business expansion: Revenue from new business area of the Group (subsidiary company in mobility and sleep apps)





## **Rental revenue by each products**

## Overseas product rental sales increased by 190M YoY (+30%)

Usage	Product classification	Japan	Outside Japan	Total
	HAL Lower Limb Type (Medical)	<b>333</b> (325)	<b>517 +40%</b> (369)	<b>850</b> (694)
Cybernics Treatment (Functional improvement/ regeneration)	HAL Lower Limb Type (non-medical)	<b>163</b> (179)	_	<b>163</b> (179)
	HAL Single Joint Type	<b>90</b> (116)	<b>100</b> (82)	<b>190</b> (198)
Care and for well-being	HAL Lumbar Type for Well-being	<b>114</b> (162)	<b>95</b> (113)	<b>209</b> (275)
Lobor Cupport	HAL Lumbar Type for Labor Support	<b>46</b> (65)	_	<b>46</b> (65)
Labor Support	Mobility Robot (CL02 etc.)	<b>139</b> (89)	_	<b>139</b> (89)
Other (Acoustic X and other products)		<b>60</b> (78)	<b>103</b> (62)	<b>164</b> (140)
	Total	<b>946</b> (1,015)	<b>816</b> +30% (626)	<b>1,762</b> (1,640)



(Unit : Millions of Yen)

Top : FY2023 Q1-Q4 (Bottom : FY2022 Q1-Q4)



## Consolidated financial results (IFRS) by geographical region

## Significant increase of oversea sale +1,155M (53% to 67% of total revenue)



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

## Ref) Consolidated financial results (IFRS) by geographical regions and type of transaction

## Significant increase in overseas revenue from each type of transaction

FY2023 Q1-Q4 (FY2022 - Q1-Q4)	Japan	Americas	EMEA	APAC	Total
Rental of products	<b>946</b> (1,015) -7%	68 +34% (51)	280 (205) +36%	<b>468</b> (370) +27%	<b>1,762</b> <sub>+7%</sub> (1,640)
Treatment service	<b>137</b> -19% (169)	1,453 <sub>+38%</sub> (1,051)	55 -14% (65)		<b>1,646</b> <sub>+28%</sub> (1,285)
New businesses	<b>373</b> <sub>+3%</sub> (364)	_	573 (-)	_	<b>946</b> (364) +160%
Total	<b>1,457</b> <sub>-6%</sub> (1,547)	<b>1,521</b> <sub>+38%</sub> (1,102)	<b>908</b> +236% (270)	<b>468</b> (370) +27%	<b>4,354</b> <sub>+32%</sub> (3,289)

# CYBERDYNE

(Unit : Millions of Yen)



**Outline of the business** 



## **Realization of Techno-peer Support Society**

### A future society where people and technology coexists, cooperates and mutually support each other

For wide variety of people faced with health, physical function, cognitive and psychological problems A safe and secure society (well-being society) where people of all generations can increase their independence, freedom and solve various problems in their lives





## Cybernics Technology: Innovative core technology of Cybernics Industry

### **Cybernics: Fuses and combines humans, Al-Robots and Information Systems**



Psychology Psysiology Psysiology Philosophy Ethics, Law, Business etc.

\*Cybernics: Science and technology in cutting-edge areas that combine different fields such as brain/neuroscience, physiology, artificial intelligence (AI), robotics, information technology (IT), psychology, economy and innovation with a focus on Human, AI-robots and Information Systems to realize the fusion of bio/medical technologies and AI, robotics and information technologies.

#### (Reference)

The Cabinet Office's FIRST, ImPACT, and SIP programs address Cybernics as pioneering cutting-edge innovative science and technology areas



## Business in the integrated space of "Human" + "Cyber/Physical Space"

#### Improving the well-being of seniors and people with disability



#### Improving the well-being through supporting and supervising solutions



**Towards the 5th Industrial Revolutions!** "Human"+"Cyber/Physical Space" **HCPS Fusion Technology Cybernics Industry** that will follow Robot and IT Industry





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#### **Prevention, early detection and** medical/healthcare



through AI automation



Autonomous robot that can carry heavy loads on its own

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## [Medical] Global Dissemination of Cybernics Treatment

CYBERDYNE, Inc.



# **Motion principle of Cybernics Treatment Technology**

## Wearable Cyborg HAL : Cybernics Treatment that induces functional regeneration



1) HAL obtains information related to the brain nerve and muscles from the peripheral part of the body HAL synchronizes with the wearer's intentions and functions according to the intention 3) Forms an interactive bio-feedback loop to induce improvement in the body-nerve and muscles systems,

achieving the goal of the Cybernics Treatment

#### Signals from a person's brain nerve system are processed by signal processing and artificial intelligence in real-time, HAL moves as if it were a part of the person's own body according to the person's intention







## **Medical Insurance reimbursement for Cybernics Treatment**

#### Increased insurance points after confirming safety and efficacy during 5 years of post-marketing surveillance

Excerpts from the Proposal to Evaluate the Medical Technology (why it should be reevaluated) submitted by the Japanese Society of Neurological Therapeutics – Translated by CYBERDYNE

established treatment methods that are effective. The medical effect observed was unheard of by any years, an opposite trend was suggested, and motor function was maintained/improved. Furthermore, the new treatment method to activate the loop of the patient's brain-nerve systems."

Added to items not covered by the DPC comprehensive evaluation (items calculated at piece rate)!

Increased reimbursement points (40,000 yen for the first 9 sessions and 20,000 yen for the following sessions) are realized!

- "During 5 years of post-marketing surveillance, the medical technology produced significant improvement of physical function towards slowly progressive neuromuscular disease, which are intractable diseases with no existing treatment methods, including pharmaceuticals approved for these diseases. Due to the progressive nature of these intractable diseases, research on the natural course of the disease suggest a gradual decline of motor functions. <u>However, when this medical technology was utilized repeatedly over a long duration of 3.5</u> medical technology did not increase the destruction of the patient's muscles. The CK value in the blood\*\* was actually in the declining trend, which is medically noteworthy. Thus, it was suggested that medical technology is a safe treatment method for progressive neuromuscular patients. The medical technology should no longer be regarded as a treatment method to support gait exercises. It should be reevaluated as a



## [Medical] Cybernics Treatment (functional improvement/rehabilitation treatment)

#### Cybernics Treatment: Developed as innovative method utilizing HAL for treating brain-nerve-musculoskeletal disorders



HAL Lumbar Type



\*The treatment services operated by the Group are classified as "service sales" and "rental sales" in cases where products are rented based on rental contract

HAL Single Joint Type

HAL Lower Limb Type





## Global dissemination of Cybernics and reinforcing collaboration (1)

## **INTERNATIONAL CONFERENCE on CYBERNICS HAL 2023**



#### 2023.10.13 Kuala Lumpur Malaysia

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## Global dissemination of Cybernics and reinforcing collaboration (2)

#### 2024.1.12 Hannover Germany Cybernics & Neurobionics Summit 2024 (Jointly hosted by International Neuroscience Institute)

#### Gathering the world's leading pioneers in cutting-edge developments in Cybernics and neurobionics



Joint hosts Dr. Madjid Samii (center) - Founder of INI, President of INI Dr. Amir Samii (right) - Vice President of INI







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# **Progress of approval by the U.S. FDA**

## US FDA becomes to first to clear HAL Small Model and Cerebral Palsy (2024/5/7)

Applicable height 150~190cm

**Small** 

Model

**Applicable height** 100~150cm

Conventional model





\*Above 12 years old

Use image of HAL Small Model\*



\*Product used in this image differs from the medical version

© Okayama Robocare Center





# **Development pipeline (1)**

# Medical HAL (Lower Limb Type) : Clinical trials etc.



As of May 15 2024

![](_page_19_Figure_4.jpeg)

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# Development pipeline (2)

# 2) Medical HAL (Lumbar Type) : Clinical trials etc.

Target disease	Product Development	Clinical Trial (Exploratory)	Clinical Trial (Validation)	Application/ examination	<b>Approval</b> (public health insurance in Japan)	Marketing (Post-marketing surveillance)	Public health insurance	Current status
Parkinsons Disease								Currently designing a protocol clinical trials while confirming efficacy through pilot studies

\*Topics : Started working on parkinsons disease, a disease with over nine million patients world wide

# 3) Medical HAL (Single Joint Type)

Target disease	Product Development	Clinical Trial (Exploratory)	Clinical Trial (Validation)	Application/ examination	<b>Approval</b> (public health insurance in Japan)	<b>Marketing</b> (Post-marketing surveillance)	Public health insurance	Current status
<b>Brain-nerve</b> (e.g. stroke)							Public Health Insurance	Equipment for increasing exercipe Planning for insurance reimburs Planning for insurance reimburs
Orthopedics (e.g.Post knee joint replacement)								Planning for insurance reimburs Planning for insurance reimburs Planning for insurance reimburs

#### As of May 15 2024

# As of May 15 2024

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# Medical device approval for Medical HAL Lower Limb Type

# **Expansion of cleared diseases in USA (Disease/Size)**

		Stroke	Spinal Cord Injury	Neuromuscular Disease*	Other diseases	Small size
	Japan	(Preparing for additional trial)	(Communicating with regulators)	Approved	<ul> <li>HTLV-1 Associated Myelopathy (HAM)</li> <li>Hereditary spastic paraplegia</li> </ul>	(application in progre
	USA	Approved	Approved	Approved	<ul> <li>Cerebral palsy</li> <li>HTLV-1 Associated Myelopathy (HAM)</li> <li>Hereditary spastic paraplegia</li> </ul>	Approved
	Europe	Approved	Approved	Approved		(application in progre
EMEA	Türkiye	Approved	Approved	Approved		
	Saudi Arabia	Approved	Approved	Approved		
	Malaysia	Approved	Approved	Approved		
	Indonesia	Approved	Approved	Approved		
	Thailand	Approved	Approved	Approved		
APAC	Singapore	Approved	Approved	Approved		
	India	Approved	Approved	Approved		
	Taiwan	(application in progress)	Approved	(application in progress)		
	Australia	Approved	Approved	Approved		

\*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

#### As of May 15, 2024

![](_page_21_Picture_5.jpeg)

# **Global dissemination of Medical HAL/Cybernics Treatment**

HQ

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 $\square$ 

Singapore General Hospital

(Singapore)

![](_page_22_Figure_1.jpeg)

EMEA : Europe, Middle East and Africa

## Available in over 20 countries and regions

![](_page_22_Picture_4.jpeg)

#### **RISE Healthcare Group** (USA California)

**Americas Base CYBERDYNE USA INC.** 

Brooks Rehabilitation

(US Florida)

![](_page_22_Picture_7.jpeg)

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# Social implementation of Cybernics Treatment (USA)

# **Development of Cybernics Treatment through Rise Healthcare**

![](_page_23_Picture_2.jpeg)

## Strong business in LA • San Diego

- Commenced fee-based service from 2023 (out-of-pocket+insurance hybrid treatment)
- No. treatment sessions increased 2.4 times, even though fee-based service started\*
- Top3 users are stroke, Parkinson's disease and spinal cord injury patients
- 76% referred by doctors/patient-to-patient/ patient associations

\*Performance from January to December

![](_page_23_Picture_10.jpeg)

Accelerate business further in light of approval of HAL small model, and expansion of indications for cerebral palsy, etc.

![](_page_23_Picture_12.jpeg)

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# Social implementation of Cybernics Treatment (Malaysia)

### Collaboration with Malaysian government-affiliated organizations to promote Cybernics Treatment

![](_page_24_Figure_2.jpeg)

![](_page_24_Picture_4.jpeg)

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# Social implementation of Cybernics Treatment (Malaysia)

### Provides Cybernics Treatment free for patients due to Public Social Compensation Insurance

### SOCSO/PERKESO (Malaysia 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.

#### Facilities with HAL (12 facilities)

![](_page_25_Figure_5.jpeg)

# Socso urged to build three new rehabilitation centres in five years

Bernama 15/01/2024 16:00 MYT KESUMA Minister Urges Nationwide Expansion of SOCSO Rehabilitation Centers

![](_page_25_Picture_9.jpeg)

https://www.astroawani.com/berita-malaysia/socso-urged-build-three-new-rehabilitation-centres-five-years-454129

![](_page_25_Picture_11.jpeg)

![](_page_25_Picture_12.jpeg)

# Social implementation of Cybernics Treatment (Malaysia)

### The National Center for Neuro-Robotics and Cybernics, the largest medical complex in Southeast Asia

#### **PERKESO** National Neuro-Robotic and **Cybernics Centre**

![](_page_26_Picture_3.jpeg)

![](_page_26_Picture_4.jpeg)

![](_page_26_Picture_5.jpeg)

![](_page_26_Picture_6.jpeg)

- ✓ First phase project
  - ✓ 15.6 Hectare (Approx. 3.4 baseball stadiums)
  - ✓ Gross floor area is approximately 86,400 square meters
- ✓ Capable of accommodating 700 patients at any given time

Strategic base for social implementation of **Cybernics Industry, such as HAL, Cybernics Products and technologies of other companies** that CYBERDYNE invests through C-Startup

https://www.perkeso.gov.my/images/kenyataan\_media/2023/190203\_-\_LAWATAN\_MENTERI\_SUMBER\_MANUSIA\_KE\_TAPAK\_PUSAT\_REHABILITASI\_PERKESO\_PERAK.pdf? 10251d84d1723291abc11ccb8adcffc6ab4640a6f84d8e56752b87e7c10ac4d5baf7b

![](_page_26_Picture_13.jpeg)

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![](_page_26_Picture_14.jpeg)

![](_page_26_Picture_15.jpeg)

![](_page_26_Picture_16.jpeg)

![](_page_26_Picture_17.jpeg)

## **Spinal Cord Injury: Clinical Trials by German Insurance Authorities**

### Clinical trials to be conducted on the premise of German public medical insurance coverage

#### G-BA (German Federal Joint Committee) decides to conduct clinical trials under the premise of insurance coverage

G-BA approves Cybernics Treatment as the standard of care to be considered for spinal cord injury patients (in accordance with §137eSGB V of the Study Regulations)

G-BA itself decides to conduct a clinical trial (the clinical trial will be covered by public health insurance for Cybernics Treatment in advance).

The results of the clinical trial are expected to be included in the German public medical insurance system.

## **G-BA Preparing Protocol for Clinical Trials**

2023/01 Protocol outline presented

2023/03 Expert hearing held

2023/09 Protocol guideline announced

G-BA (Federal Joint Committee): Organization at the federal level that determines basic benefits, prices, standards, etc. for German insurance treatment. **§137e SGB V** (Trial Regulation): A system under which the G-BA conducts its own initiated clinical trials and makes final evaluations of promising treatments that could become the standard of care.

#### → Commenced selection of CRO on March 2024

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![](_page_27_Picture_17.jpeg)

![](_page_27_Picture_18.jpeg)

![](_page_27_Picture_19.jpeg)

# **Social implementation of Cybernics Treatment (Italy)**

# **Promoting "Scientific Evidence-Based Rehabilitation Model"**

![](_page_28_Picture_3.jpeg)

![](_page_28_Picture_4.jpeg)

- ✓ Social cooperative association established on 1984
- ✓ Service in medical, care and education fields
- ✓ Provides service to approximately 6,500 people daily in 8 areas of Italy
- ✓ Over 3,000 professionals

Utilizing 25 units of HAL for treatment of approximately 1,000 stroke and spinal cord injury patients

![](_page_28_Picture_10.jpeg)

### **Key points of collaboration**

- Operates Italian Cybernic Center Second walk (Within Italy)
- Cooperation for public health insurance reimbursement in Italy
- Utilization of Coopselios Network in Asia, **Middle East, South America and Africa**

![](_page_28_Picture_15.jpeg)

![](_page_28_Picture_16.jpeg)

![](_page_28_Picture_17.jpeg)

![](_page_28_Picture_18.jpeg)

**CYBERDYNE**, Inc.

Healthcare and labor support

![](_page_29_Picture_3.jpeg)

# [Healthcare] Neuro HALFIT (Functional Improvement Program)

## Program to improve brain-nerve-musculoskeltal function at Robocare Center

![](_page_30_Picture_2.jpeg)

#### HAL Lumbar Type

![](_page_30_Picture_4.jpeg)

![](_page_30_Picture_5.jpeg)

HAL Single Joint Type

#### HAL Lower Limb Type

![](_page_30_Picture_8.jpeg)

![](_page_30_Picture_9.jpeg)

## Medical Healthcare Service for Individuals:Neuro HALFIT at Home

### Expansion of remote services connecting home and hospitals/facilities through cloud computing

![](_page_31_Figure_3.jpeg)

### [Integrated Cybernics System]

![](_page_31_Picture_5.jpeg)

## Robocare Center: Nationwide expansion of Neuro HALFIT

## Expansion of hubs in the medical healthcare service business for individuals

![](_page_32_Figure_2.jpeg)

![](_page_32_Picture_3.jpeg)

# (Healthcare) HAL Lumbar Type care prevention program

## **Care prevention program (Kanagawa Mirai MIBYO Cohort Study)**

Interim evaluation results of short-term intervention twice a week for a total of 10 sessions

<b>Evaluation item</b>	Before HAL Mean (95%CI)	After HAL Mean (95%CI)	Improvement rate	P-value
10m walk (walking speed m/sec)	<b>1.05</b> (0.98, 1.12)	<b>1.43</b> (1.35, 1.51)	36%	<0.001
Locomotiv 5 check *Signs of motor unit deterioration	<b>8.5</b> (7.7, 9.3)	<b>4.4</b> (3.3, 5.4)	93%	<0.001

#### Significant improvement in mobility functions (daily activities such as standing, walking, running, sitting) of the elderly

![](_page_33_Picture_7.jpeg)

#### Recruited N=80 people Out of which, Participants N=79, (Average 75yo, : Intervention group 40 (one drop-out), Control group 39 (one drop out)

Research and development of nursing care prevention programs utilizing healthcare robots

![](_page_33_Picture_10.jpeg)

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![](_page_33_Picture_11.jpeg)

![](_page_33_Picture_12.jpeg)

# **(Healthcare) Neuro HALFIT at Home (for individuals in daily lives)**

## Functional improvement program at home (expands home visit services)

![](_page_34_Picture_2.jpeg)

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

\*The Home programs are classified as "service sales" and "rental sales" in cases where products are rented based on rental contract

![](_page_34_Picture_5.jpeg)

Use image of Neuro HALFIT at Home

![](_page_34_Picture_7.jpeg)

![](_page_34_Picture_8.jpeg)

![](_page_34_Picture_9.jpeg)

# [Labor Support] HAL Lumbar Type

## New HAL Lumbar will be announced soon, making the device light weighted and thinner

#### Lightest Active type device

#### Slim design (back free)

#### Assist walk

Can move around in crouching posture

#### **IoH/IoT device**

Wearable Cyborg

Puts on in 10 seconds

Water/dustproof (IEC reg IP54)

- Can be worn for long hours **Became even lighter (2.7kg)**
- Can be worn together with safety belts (full body) and air-conditioned clothes Can drive cars while wearing it
- Can move smoothly to the required venue
- Assists various practical movements
- Visualize workload analysis and operating status! integrated production management
- It moves according to the wearer's intention
- Easy to put on and take off, share with multiple people!
- Can be worn outdoors, even in the rain! (New model is also waterproof)

![](_page_35_Picture_18.jpeg)

![](_page_35_Picture_19.jpeg)

![](_page_35_Picture_20.jpeg)

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![](_page_35_Picture_21.jpeg)

![](_page_35_Picture_22.jpeg)

![](_page_35_Picture_23.jpeg)

# **(Workplace)** Disinfection/Cleaning Robot CL02

### Make office buildings smarter and reduce management costs with advanced technology Can also be linked with building OS! (Also considering collaboration with major industry players)

Extensive Cleaning ability	<ul> <li>High-speed autonomous navigation (Can safely clean at 4kn</li> <li>Massive cleaning area (Detects wall that is 30m away and cov</li> <li>High vacuum performance (One of the best in the industry)</li> </ul>
Can be used for multiple tasks such as disinfection	<ul> <li>Disinfection agent sprayer (Disinfects handrails and benches</li> <li>UV Ray Disinfector (Set on the bottom of the robot to disinfect</li> <li>Wiper cleaner (Small sound as it does not use vacuum)</li> <li>Carpet spray &amp; Brushing (Make carpet long lasting)</li> </ul>
Visualizes assigned tasks	<ul> <li>Dust distribution map (visualizes result of the task)</li> <li>Navigated route (to create efficient and effective cleaning plan</li> </ul>
Automatically rides on the elevator	<ul> <li>Elevator interface unit developed inhouse (Can connect to elevators developed by multiple vendors)</li> <li>Can work on multiple floors (Expands the space that can be determined on the space of th</li></ul>
Cloud linkage	<ul> <li>"CYCLES" designed for the Robot (realizes high usability and</li> <li>Integration with the base system</li> </ul>

![](_page_36_Picture_3.jpeg)

![](_page_36_Picture_4.jpeg)

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![](_page_37_Picture_0.jpeg)

**CYBERDYNE**, Inc.

Strategy for growth

![](_page_37_Picture_3.jpeg)

Image of growth scenario: Strengthen development areas and business strategies

![](_page_38_Picture_1.jpeg)

### **Reinforcing existing business**, pioneering new field (evolution of the business model, **M&A**)

**Expanding existing business** (expanding usage, business towards) individual users, etc.)

**Developing the business base** (Expanding product lineup, obtaining regulatory approvals in each countries)

Time

![](_page_38_Picture_7.jpeg)

CYBERDYNE

![](_page_38_Picture_8.jpeg)

![](_page_38_Picture_9.jpeg)

# HCPS fusion technology : Cybernics/Human cooperative robotics

#### As a commitment to science, technology and innovation, CYBERDYNE participated in the Cabinet Office Strategic Innovation Creation Program (SIP) to strengthen growth strategies

![](_page_39_Picture_2.jpeg)

- Application to various living spaces such as houses, facilities, workplaces, etc. 2) cognition, psychology, etc.)
- Non-invasive acquisition and utilization of human information through HCPS fusion human collaborative robotics 3) 4) Linking with other related technologies to improve the independence and freedom of seniors and people with mobility problems

Utilization of HCPS fusion master/remote control technology (Cybernic master/remote technology) integrated with human information (physiology, body, behavioral

Source: Cabinet Strategic Innovation Program (SIP), Secretariat of Science, Technology and Innovation, Cabinet Office, Government of Japan, "Development of Fundamental Technologies and Rules for Expanding Human-Coordinated Robotics: Strategy and R&D Plan for Social Implementation," Pg 5.

![](_page_39_Picture_10.jpeg)

# Future of medical healthcare and healthy life

![](_page_40_Figure_2.jpeg)

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

## [Prevention and early detection] Ultra small vital sensor Cyvis

# Healthcare monitoring on daily basis with Cyvis

Daily accumulation, analysis, and Al processing of various vital data

- Cardiac activity
- brain activity
- body temperature
- Body movements
- Breathing / SpO2 (optional)

Developed "Cyvis-2" after trial of "Cyvis-1"

"Cyvis-2" submitted medical device application on Apr. 2024 and schedules to commercialize on summer to autumn 2024

![](_page_41_Picture_12.jpeg)

**Check for arrhythmia and atrial fibrillation** to prevent myocardial infarction and cerebral infarction Option to check breathing conditions during sleep for early detection of sleep apnea risk

![](_page_41_Picture_14.jpeg)

CYBERDYNE

![](_page_41_Picture_15.jpeg)

![](_page_41_Picture_16.jpeg)

## [Prevention and early detection] Ultra small vital sensor Cyvis

## Expands remote service that connects households to hospitals and facilities

![](_page_42_Figure_2.jpeg)

![](_page_42_Picture_3.jpeg)

# **Cybernics Medical Healthcare System**

![](_page_43_Picture_2.jpeg)

physical function at home

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

![](_page_43_Picture_5.jpeg)

![](_page_43_Picture_6.jpeg)

![](_page_43_Picture_7.jpeg)

![](_page_43_Picture_8.jpeg)

### **(Prevention and early detection)** Photoacoustic Imaging Device using LED light array

# Contrast-free, non-invasive, real-time, high-resolution 3D imaging

#### LED array method (patent held by CYBERDYNE)

![](_page_44_Picture_3.jpeg)

Adopted as the cover of BioPhotonics, a U.S. industry journal dealing with biophotonics

![](_page_44_Picture_5.jpeg)

**Peripheral vascular and blood** conditions, etc.

Currently promoting medical device commercialization as a next-generation medical diagnostic imaging device

Peripheral level examination, which could not be done with conventional imaging equipment, is now possible!

### **Example of application**

- Routine examination and diagnosis of diabetic foot lesions
- Examination of vascular regeneration status by regenerative medicine
- Examination and diagnosis of cancer lacksquare
- Examination of aging skin, etc.

![](_page_44_Picture_15.jpeg)

(C) CYBERDYNE

![](_page_44_Figure_16.jpeg)

![](_page_44_Figure_17.jpeg)

#### [Prevention/early detection] Acoustic X" photoacoustic imaging system with LED light source

#### Hospitals with Acoustic X: Various hospitals installed the product for clinical researches

![](_page_45_Picture_2.jpeg)

![](_page_45_Picture_3.jpeg)

## **C-Startup : Innovation ecosystem to create Cybernics Industry**

![](_page_46_Figure_1.jpeg)

![](_page_46_Picture_2.jpeg)

## (Ref) Fair value assessment of strategic investment through "C-Startup"

### Cumulative investment income 11.4 billion yen vs cumulative investment amount 5.1 billion yen

![](_page_47_Figure_2.jpeg)

Decrease of fair value (4 companies -1.18 billion)

**Cumulative investment amount 11.4 billion (32 companies)** 

\*Unlisted equity securities are fair valued in accordance with IFRS 9 "Financial Instruments

\*\*OCI (Other Comprehensive Income): Income not recognized in net profit or loss (PL)

(Reference) Investments in which no valuation differences are currently recognized: 6 companies

#### (As of March 31, 2024)

![](_page_47_Picture_10.jpeg)

# **Cybernics Medical Innovation Base: Outline**

# Reinforcing CYBERDYNE's growth strategy Accelerate the fusion of bio- and medical-related technologies with AI, robotics, and information technologies

#### Innovation center based on Cybernics Technology and regenerative medicine/drug discovery

![](_page_48_Picture_3.jpeg)

Life science companies such as C-Startup partners in regenerative medicine and drug discovery move in **New fusion R&D will be promoted!** 

(C) CYBERDYNE

#### Kingsky Front Tonomachi, Kawasaki New base with a view to global expansion (5 minutes from Haneda Airport)

YODOBASHI CAMERA

7-Eleven

Assembly Center

アッセンブリーセンター

ヨドバシカメラ

Haneda Airport Gard

最天空の湯河

Ferry terminal

Tamagawa Sky Bridge 多摩川スカイブリッジ、

Tonomachi

**Cybernics** medical

innovation base

![](_page_48_Picture_7.jpeg)

# **Cybernics Medical Innovation Base: Purpose**

### 1) Combined Cybernics Treatment : Regenerative Medicine and HAL

While "Cybernics Treatment" using the world's first Wearable Cyborg HAL is becoming a standard treatment for functional improvement and regeneration of human brain nerves and muscles (HAL is already available in 20 countries in Europe, the U.S., Asia, etc.), further therapeutic effects are expected for severe patients by introducing technology at the cellular level and cell-produced substances. The Group will promote the systemization of Cybernics Treatment at this research facility.

### 2) Combined Cybernics Treatment : Drug and HAL

After the post-marketing study of "Cybernics Treatment" using the Wearable Cyborg HAL, the combination of the latest nucleic acid drugs and HAL has begun in actual medical practice, and synergistic effects from the combined therapy of drugs and HAL are hoped for. CYBERDYNE will promote the systematization of Cybernics Treatment in cooperation with pharmaceutical companies and the institutions occupying such research facilities.

### 3) Integration of medical and bio-based technologies with AI, robotics, and information systems

In addition to deploying the Group's new-generation robotic bioreactor technologies and technologies that integrate medical/biotechnologies with AI, robotics, and information technologies, the company will provide research facilities to partner companies (medical/biotechnological companies and start-ups that can collaborate with the Company) and others to develop new medical technologies and expand the **Company's business.** 

![](_page_49_Picture_8.jpeg)

# Disclaimer

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![](_page_50_Picture_3.jpeg)