



News Release

15 May 2017

CYBERDYNE, Inc.
Works Applications Co., Ltd.

CYBERDYNE and Works Applications Enter into Business/Capital Alliance
- To Apply Cybernic and AI technologies in the Joint Development of Next-generation Systems
as part of Japan's "Society 5.0" and "Connected Industries" growth strategies -

CYBERDYNE, Inc. (Headquarters: Tsukuba, Ibaraki Prefecture; President and CEO: Yoshiyuki Sankai; hereinafter "CYBERDYNE") and Works Applications Co., Ltd. (Headquarters: Minato-ku, Tokyo; Executive Director and Chief Officer: Masayuki Makino; hereinafter "WAP") hereby announce that they have entered into (a) a business alliance, under which the two are to apply Cybernic technology^{*1} and artificial intelligence (hereinafter "AI") to as part of the "super-smart society" concept proposed by the Japanese government within its Society 5.0^{*2} initiative, and (b) a capital alliance, under which CYBERDYNE is to take an equity stake in WAP.

This partnership brings together (a) biometric/environmental data collected via CYBERDYNE's Cybernic devices/interfaces as well as (b) the capabilities of WAP's "AI WORKS", the AI-infused next-generation enterprise software solution. Together, the two companies work toward the development of next generation systems and aim to generate long-term societal impact (cybernic revolution), one that applies IoT (the Internet of Things) and AI beyond the realm of traditional manufacturing to support economic advancement, longer and healthier lives, and other aspects of Society 5.0. Our work is aligned with the Japanese government's "Connected Industries" initiative^{*3}, a new vision for Japan's industries, which would develop solutions tapping into Japan's wealth of advanced technologies and accumulated operational know-how.

Background to the Business Alliance

CYBERDYNE utilizes its innovative Cybernic technologies that combine and fuse human, robots (machines), and information to provide solutions to problems brought by hyper aging societies and declining birthrates. As part of those attempts, the company developed and launched Robot Suit HAL® as a front runner of those various IoT integrated Cybernic devices and interfaces.

WAP is well-known for the development of "AI WORKS", the AI-infused next-generation enterprise software solution. In response to the emerging industrial and societal revolutions, WAP is introducing a new "Workforce Tech" concept to help companies tackle emerging needs of the modern workforce defined by changes in demographics as well as employer-employee relationships. The Workforce Tech concept aims to maximize the productivity as well as the long-term value of each individual employee.

The alliance between CYBERDYNE and WAP was agreed in recognition of the alignment between the two companies' vision of the future as well as synergies of capabilities. CYBERDYNE believes that science and technology has meaning only when it contributes to society as well as mankind. By combining its Cybernic technology with WAP's Workforce Tech, the two companies hope that it would be able to realize next-generation systems that would contribute to both Society 5.0 as well as Connected Industries. These systems, when plugged into the greater societal infrastructure, would not only solve critical societal issues, but also realize Society 5.0, where humans, society as well as technology co-exist.

Overview of the Business Alliance

The two companies have agreed to advance a business alliance through collaboration in the following areas.

- (1) Joint development of next-generation ERP systems/software based on the collection of biometric/environmental information from Cybernic devices/interfaces, which would enhance workforce/productivity management
- (2) Joint development of Cybernic technology-based systems/devices for the maintenance/improvement of employee health and workplace environments
- (3) Joint development of Cybernic technology-based next-generation production systems
- (4) Joint development of software for Cybernic systems etc.

(*1) Cybernic technology: Cybernic technology means the practical application of "Cybernic", which is a new academic field that is centered around human, robots and information systems. Targeting medicine, welfare and living support fields (including labor support) as its main industries, the technology fuses and combines the functions of humans, robots and information systems, realizing interactions between physical-information-vital systems. Cybernic is championed by Dr. Yoshiyuki Sankai, a professor at the University of Tsukuba (he is also the President and CEO of CYBERDYNE) and the technology is thought to be one of the core technical domain that drives the movements to realize "Society 5.0".

(*2) Society 5.0: a concept of super-smart society of the future, promoted by the Japanese government. It is the fifth society after "hunter-gatherer society (Society 1.0)", "agricultural society (Society 2.0)", "industrial Society (Society 3.0) and "information society (Society 4.0)". It is a new image of a society brought by science and technological innovation, where technologies such as artificial intelligence (AI) and Internet of Things (IoT) will be fully implemented into the society. It was stated in the 5th Science and Technology Basic Plan that Japan is going to start their endeavor ahead of other countries to realize this society. As Japan was the host of the G7 Meeting that was held in May 2016, Japanese government projected this concept to the world as the ideal future society where humans and technology coexist. As one of the major power force driving the endeavors to realize "Society 5.0", CYBERDYNE contributed to the G7 Science and Technology Ministers' Meeting which was held in Tsukuba, Ibaraki, Japan as CEO Yoshiyuki Sankai presented a keynote speech as well as a speech addressing the ministers at the meeting. CYBERDYNE also hosted a group of representatives from the G7 countries to visit CYBERDYNE's headquarters.

(*3) Connected Industries: Humans, Machines and Technologies are CONNECTED across borders and generations and NEW VALUE is generated continuously. The concept rests on three pillars: (a) New Digital Society -- Humans and Machines/Systems work together --; (b) Multilevel Cooperation -- Across Regions, Borders and Time --; and (c) Human Resource Development -- Knowledge and Skills for Digital Age --. This concept was presented by Japanese government officials at the CeBIT 2017 Global Event for Digital Business, held at Hannover, Germany.

(*4) Workforce Tech: a concept that goes beyond existing HR technologies, and seeks to better understand all aspects of the employee via technology, to create workplace environments in which each and every employee can work to his/her full potential. AI WORKS is well-positioned to provide Workforce Tech, given its capability to aggregate and analyze ERP, collaboration as well as sensor data (biometric data etc.), and to provide business insights using AI.

<About CYBERDYNE, Inc.>

Since CYBERDYNE, Inc. was established as a venture company from the University of Tsukuba in 2004, the company has promoted the comprehensive development of various Cybernic systems (Cybernic devices, Cybernic interfaces, etc.) that utilize Cybernic technology from research and development to social implementation, aiming to tackle the various issues facing society. The company has developed business in the fields of medicine, welfare and daily living (including the work environment), and its main product robot suit HAL® is widely distributed not only in the medical and welfare fields but also in care support and labor support fields. In addition, new products such as Transport Robots and Cleaning Robots equipped with artificial intelligence and environment recognition functions, HAL (Lumbar Type) that reduces the load and stress on the lower back, smaller-sized HAL (Single-Joint Type), vital sensors for detecting arteriosclerosis and arrhythmia measurements, etc. are continuously being developed.

For more details, please visit: www.cyberdyne.jp

<About Works Applications>

For six consecutive years, WAP, developer of AI WORKS, the AI-infused next-generation enterprise software, has maintained top market share for ERP package software for large corporate entities^{*5} in Japan. AI WORKS taps the accumulated business know-how of WAP's clients - 1,200 major corporate groups while using AI-based capability to collect, analyze and learn from "big data." This, together with distributed, high-speed processing, helps eliminate routine, repetitive work, freeing up employees for creative tasks that increases job satisfaction and productivity. In 2016, WAP's contributions via AI WORKS were formally recognized by the Japan Ministry of Economy, Trade, and Industry with a METI Minister's Award (corporate sector) for Contributions to the Promotion of Informatization.^{*6}

URL : <http://www.worksap.com/>

(*5) Top market share: Market share ratio (for packaged software) by number of companies sold to (Source: Fuji Chimera Research Institute, Software Business New Markets 2016)

(*6) Award for Individual Contributions to the Promotion of Informatization: This award, presented by the Japan Ministry of Economy, Trade, and Industry (METI), recognizes individuals, corporations, or other entities that are deemed to have played a leading role in or have made some outstanding contribution to the research & development of high-level information processing technologies, to the nurturing of skilled IT personnel, to the introduction/implementation of IT at late adopters, to the assurance of information security, or to the promotion of some other such activity pertaining to informatization.

Media Contacts:

CYBERDYNE, Inc.

IR/Media

Email: media@cyberdyne.jp