

NEDO Technology Commercialization Program (TCP) 2015



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Network Intelligence

IT

Development of an IoT-based versatile high-precision autonomic position-estimating system

Fine Feature Electrodeposition Research Institute

Elc Mat

Licensing and sale of a copper plating solution never to cause trouble with a drop of a new additive

ASUKA ELECTRIC CO.,LTD.

Oth

Commercialization of a diabetes screening device for sole sensory measurement

Melody International Ltd.

Elc IT Oth

Establishment of a telediagnosis platform for expecting mothers as a solution for the lack of obstetricians

A Protein Synthesis System 3.0 (PSST)

Bio

Development of a system to synthesize tailor-made membrane proteins

APSAM (Automated Pathological Service by Applied Mathematics)

Bio IT

Development of an automatic pathological diagnosis system with remote diagnosing technologies

eSep Inc.

Egy Mat

Reduction of energy consumed during the chemical process with nanoceramic separation membranes

Ecos Co., Ltd.

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Creation of a new and innovative package based on threads

Up Performa Co.,Ltd

IT

Development of Eagle Eye which realizes data-based soccer for players around the world

minimal

Egy

Manufacturing and sale of Dokodemo Fusha (Windmill Anywhere), a next-generation power-generating device

Hero Egg

Mch

Development and capitalization of "Hero Leg", a next-generation personal mobility

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Environment



Electronics



Biotech



Machinery and System



Materials, Nanotechnology



IT



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Network Intelligence

Development of an IoT-based versatile high-precision autonomous position-estimating system

Osaka

For the IoT (Internet of Things), which provides new information-processing services by gathering physical information of things and environments into the internet with a number of wireless sensor

Fine Feature Electrodeposition Research Institute

Licensing and sale of a copper plating solution never to cause trouble with a drop of a new additive

Osaka

iPhone 6-S's DRAM (memory) and LOGIC (micro processor) are connected with a 40,000 μ m-long wire, but the new 50 μ m-long Through Silicon Via (TSV) enables the iPhone to work smoothly for three days without any battery charge. We developed a new linear-expansion copper plating solution which prevents TSV's expansions by heat and allows no use of expensive chemical mechanical polishing (CMP), halving the production cost and eliminating the 500 million-yen initial investment. By the end of 2017, 60 million yen in initial investment will be poured, and from 2018, annual sales of 500 million yen are to be generated from royalty revenue and product sale.

ASUKA ELECTRIC CO.,LTD.

Commercialization of a diabetes screening device for sole sensory measurement

Osaka

Diabetes, a disease rapidly prevailing worldwide, shows no subjective symptoms at its early stage. We commercializes a non-invasive diabetes detector developed focusing on nerve damages in the leg which appear earlier than other complications. The device is non-invasive, highly safe and excellent in detecting early symptoms.

Melody International Ltd.

Establishment of a telediagnosis platform for expecting mothers as a solution for the lack of obstetricians

Osaka

The communication tool between doctors and expecting mothers, with cloud-based fetal heart-rate monitors connected with electronic maternity passbooks, unifies prenatal care. Mothers, otherwise having risks of long-distance doctor visits or emergency transportation due to the shortage of obstetricians, can give birth to their babies safely, and doctors can group the mothers by the degree of urgency to diversify risks. Our fetal heart-rate monitor is much cheaper, smaller and smarter than the conventional one, and can be connected with a smartphone app. It is easy to wear, and doctor supervision is unnecessary.

A Protein Synthesis System 3.0 (PSST)

Development of a system to synthesize tailor-made membrane proteins

Osaka

We develop a new protein expression system which can synthesize any kind of protein in a day, with which we produce hard-to-synthesize proteins and sell them in the proteomics research/drug development markets. For the conventional methods, it is hard to synthesize membrane proteins and impossible to analyze genes. Our business will be expanded with industrial manufacturing of various secreted proteins, which will inevitably innovate the proteomics research/drug development markets.

APSAM (Automated Pathological Service by Applied Mathematics)

Development of an automatic pathological diagnosis system with remote diagnosing technologies

Osaka

Pathological diagnosis offers important information when the course of cancer treatment is decided. With a shortage of pathologists worldwide, automatic diagnosis technologies using remote diagnosing systems have been eagerly anticipated. We have developed a new mathematical tool for tissue analysis which can cope with complex forms of tissues and process data speedily. We aim to make contributions to the improvement in medical services in developing and other countries.

eSep Inc.

Reduction of energy consumed during the chemical process with nanoceramic separation membranes

Osaka

The membrane separation technology is one of the promising technologies to simplify the processes used in the chemical and oil industries and to drastically reduce energy consumption in the future. We develop and offer a technology for simple, eco-friendly and efficient separation, focusing on manufacturing nanoceramic separation membranes, where nanopores are precisely controlled, and designing membrane separation processes.

Ecoss Co., Ltd.

Osaka

Creation of a new and innovative package based on threads

Our automatic cardboard box-sewing system provides workers with a comfortable and safe working environment where long-hour work is possible. With single-loop sewing, where threads are reeled only from the end of sewing, metal parts to join boards together are no longer necessary. Products inside can be protected from rust and damages in transit, and cardboard boxes can be reused. As a result, the total cost will be cut, and a new logistics package will be incubated.

Up Performa Co.,Ltd

Osaka

Development of Eagle Eye which realizes data-based soccer for players around the world

Eagle Eye is a tracking system oriented to amateur football teams and provides them with players' tracking data like in the professional setting. The Eagle Eye uses wearable terminals, which solves challenges such as expenses to introduce the device and analyze data, and portability. We aim to sell the Eagle Eye globally, in order to achieve a "vertical" success in the service, as well as a "horizontal" success by spreading its use in other sports and fields.

minimal

Osaka

Manufacturing and sale of Dokodemo Fusha (Windmill Anywhere), a next-generation power-generating device

Our high-performance power generator and zero-standby-power controller are essential for Dokodemo Fusha, a system to efficiently convert any motional energy (wind power, water power, human power, etc.) into electrical energy. These core technologies are expected to have a spillover effect by promoting new energy and energy-saving technologies and serving as the core of the creation of new industries.

Hero Egg

Osaka

Development and capitalization of "Hero Leg", a next-generation personal mobility

We 1) develop and sell Hero Leg as a next-generation personal mobility, 2) create an extreme sports market with the Hero Leg, and 3) nurture the vehicle into one of global business contents. With the Hero Leg, a next-generation personal mobility service, new sports will be created.

Eyes, JAPAN Co. Ltd.

Tokyo

Development of a non-invasive salivary marker-based technology to detect the risk of acquiring cancer

We, jointly with Shinshu University, develop a non-invasive, quick and cheap self specimen-measuring kit, based on the relation between cancer and salivary cytokine. It tells the user the area affected by cancer. Also, an AI technology-based algorithm to recommend users to visit a doctor is developed. Early detection/prognosis control of cancer is focused, and the service available at dental offices, pharmacies and malls will encourage users with a risk of getting cancer to visit a doctor at an early stage.

Brand Pit

Tokyo

Brand Pit Analytics: SNS analyses*image recognition*global expansion

We, a research company, own a SNS analysis tool based on image-recognition technologies. It scans a great number of pictures on SNSs and directly extracts information from the pictures, such as about people and products, and the analysis results are reported to companies owning brands. With this service never to be hampered by language barriers, we aim to upset conventional wisdom on marketing research while keeping an eye on global expansion.

Venom Technologies

Tokyo

Development of a drug from tarantula toxins coupled with peptide display and ion channels

We convert toxins produced by the tarantula, a venomous spider, into a drug with a newly developed peptide display technology called the PERISS method. As the tarantula toxin pairs perfectly with ion channels, we, first, focus on this field to generate drugs to meet unmet medical needs.

NanoDex, Inc.

Tokyo

Development of a Japan's original molecular-targeted anti-cancer agent, making use of the autophagy mechanism, for refractory cancer

Collaborating with Kumamoto University, we develop and globally sell a novel anti-cancer agent. It kills cancer cells through mitochondria degradations caused by the autophagy induction mechanism. The target of the low molecular-weight molecular-targeted anticancer drug is the folate receptor on the cell surface. It is one of the few anticancer drugs made in Japan with superior efficacy, few side effects, unlikeliness to induce tolerance, suitability for refractory cancer and cost effectiveness.

Bublation (Bubble+Ablation)

Tokyo

Commercialization of a needle-free syringe: materialization of a less-invasive syringe with micro bubbles

We develop a syringe which creates, on the skin, a hole so small that can avoid touching pain points by utilizing ablation of micro bubbles whose diameter is 30µm or smaller and which are emitted in a high speed. The syringe, then, injects drug intradermally or subdermally with the help of the surface tension and flow dynamics of micro bubbles. We aim to materialize a less-invasive syringe and prevent accidents/second infection caused by syringes.

Team Retissa

Tokyo

Manufacturing and sale of a vision-support eyewear to directly project images on the retina

We develop a welfare device which helps the visually challenged with refractive error and opacity clearly "see" by directly projecting images on the retina. The number of people with low vision is some 1.5 million in Japan and more than 200 million in the world. At the same time, the device can be used as a visionary information device such as for AR-based task support and entertainment.

LacteoLABO

Tokyo

Provision of a training support system based on sensors to measure vital signs in the sweat

We develop an inexpensive disposable sensor chip which constantly measures exercise intensity and fatigue degree from the components of sweat during exercise. It visualizes effects of science-based training for/offers the value of enjoying exercise healthfully to more than 60 million running lovers and sports gym users worldwide.

Cognitee Inc.

Tokyo

Utilization of BrainPlots, an "intelligent thinking partner", as the system supporting decision-making

We apply BrainPlots, thinking support software mostly used in outside Japan (90%), to risk/process management as a B2B-oriented decision-making support system. Instead of the search-based natural language analysis approach requiring a massive amount of investment, we use our unique modeling rules and data-accumulating method, leading to reduced dependence on language and broad versatility in various fields.

Adoretech Co.Ltd.

Tokyo

Development of a new effective education system for chromosome analysts utilizing IT technologies, and a technique assessment system

Demand for chromosome analysis tests is rapidly increasing, but there is a severe shortage of chromosome analysts. So far, the analysts have been educated by expert analysts, which affects the experts' operations. In addition, it takes a long time for novices to master techniques. Our effective chromosome analyst training system allows novices to autonomously learn techniques, and our technique assessment system enables evaluators to assess the trainees' technical abilities.

Trickey

Tokyo

Commercialization of "Trickey", a customized keyboard for PCs

We propose a module-based keyboard, whose minimum configuration can be customized, for gamers, creators and other users unsatisfied with existing keyboards. The final goal is to make it superior to any other existing keyboards by enabling users to add various functions with standardized modules.

Sustainable Madicine, LLC.

Tokyo

Commercialization of a clinical data-based software application to improve sleep

We develop an app where cognitive behavioral therapy techniques, used when curing insomnia, can be found: they are available at a limited number of medical institutions due to a lack of manpower. The commercialization of the accessible app will help overcome the exiting sleeping drug-related problems. Clinical tests will be conducted at medical institutions specializing in sleep to verify validity, which will guarantee the healthcare quality of the app.

WiFiShare

Tokyo

Provision of a traffic-sharing service to make internet connections free of charge

We develop an app which enables users to share their surplus network resources (deriving from unmeter plans for fixed lines and surplus mobile traffics) with others. The shift in the concept of network communications from "owning" to "sharing" will make a world where users can access to free high-speed internet networks anytime and anywhere.

Dimentions Co. Ltd.

Tokyo

Provision of a cheap, light-weight and high-spec salt meter connectable to a smart phone, and a health SNS service

Hypertension, a modern disease; a trigger of all kinds of diseases; and a national disease, bothers more than 50% of people in their thirties and older. We, a company with a good record in developing smartphone-connected sensors, offer the world's first light-weight and cheap salt meter. The versatile sensor application will help those already got/likely to get hypertension improve health literacy in terms of early prevention and dietary education.

WondeLab

Tokyo

Development of a next-generation smart accessory to innovate daily lives

We offer WonderRing, a ring-type wearable device developed based on the core technologies necessary for the commercialization of wearable devices, such as motion-recognition technologies essential for natural UIs, wireless charging technologies, waterproof design and chips. Put a WonderRing on your index finger, and you can control things with automatic logins and maintain your lifelog without trouble only by using one finger.

eNFC Inc.

Tokyo

Provision of a unique communication technology-based intuitive-approach communications infrastructure, specializing in certification and charging

"Certification" is the basis of every service in the modern IT society. However, security incidents always happen despite various technologies, such as passwords, biometrics and IC cards. We commercialize a certification service using the world's first communications system to achieve maximum safety and usability, and make the world more convenient and human beings smarter.

SYMAX, INC.

Tokyo

Commercialization of a full-automatic device, attachable to the toilet, to check signs of disorder, and a system to operate it

We develop a service where a small-sized and low-price device based on our unique biosensing technology, installed in the toilet, automatically checks users' health and sends the result to a smartphone. Diabetes and other chronic diseases, before subjective symptoms appear, can be detected and treated at the early stage, resulting in a reasonable amount of medical care cost in Japan.

ChiCaRo

Tokyo

Development of "ChiCaRo", a robot for remote parenting support

We provide core families raising babies with ChiCaRo, a robot which realizes remote parenting. With a ChiCaRo, parents doing house chores can have someone away from their home take care of their babies casually for a short time. We aim to decrease the burden imposed on the increasing two-income households with babies with a new measure, namely, remote childcare support.

Project Tyrell

Tokyo

Development of a silent drive unit with nickel-titanium alloy

Household robots are getting popular, but their motion noise can be disturbing at home. A specially treated alloy made from nickel and titanium can be used as the material of a wire which expands and contracts silently with connection/disconnection to electricity. Utilizing the special material, we offer users a new experience of machines working silently at home.

Kanda Robotics

Realization of a world, where robots are ubiquitous, with connected actuators

Tokyo

We aim to make it possible to introduce robotics to the existing life and operation, instead of creating or developing new robots. For that goal, we have integrated a motor which can be modified easily by other parties, an ICT system for controlling a the motor and an interface into a package for ease of introduction. The next step is to adopt and utilize robotics, collaborate with corporations, and materialize a robot society.

Pyrenee Inc.

Development of a voice-controlled head-up display to show smartphone screens and traffic safety alerts in front of the driver's eyes

Tokyo

The device helps prevent traffic accidents and provides the driver with a better driving environment. Cameras and sensors constantly monitor events outside the vehicle. Quickly detecting pedestrians and other vehicles to come too closer to your vehicle, the device tells you about the situation by showing information on the head-up display with sound. It also pairs with an iPhone or Android and displays information about the speed, GPS (MAP), music and telephone calls visually and in sound. The driver can keep his eyes on the road while checking key information, and enjoy a safer and more pleasant ride.

SORA, Inc.

Development of e-Sky, a personal airborne mobility: changes in travel change the world

Tokyo

We are annoyed with heavy traffic jams, packed trains and travel to remote areas/isolated islands, which can be solved if we can move freely in the air. e-Sky, a personal mobility developed by us, is a electric personal airplane to accommodate one to two passengers. The goal is to develop a safe and quick-to-use airplane and sell it in North America and Southeast Asia.