2025.4.13 [SUN] - 2025.10.13 [MON]

## **Osaka Healthcare Pavilion Nest for Reborn**

With the theme "REBORN (People can be reborn, take new steps forward)", this pavilion makes you feel an exciting and bright future while leveraging Osaka's strengths.

# **Osaka Healthcare Pavilion Nest for Reborn**

Expo 2025 Osaka, Kansai, Japan Osaka Healthcare Pavilion "Reborn Challenge" PR Magazine

## **Reborn Challenge Journal vol.02**

Small/Medium Enterprise & Startup Exhibition Planning Committee (Osaka Business Development Agency, Osaka Chamber of Commerce and (Secretariat: Osaka Business Development Agency) 7F MyDome Osaka, 2-5 Honmachibashi, Chuo-ku, Osaka 540-0029 E-mail:op-expo2025@obda.or.jp



公益社団法人 2025年日本国際専覧会 大阪バビリオン



**米**大阪市

**公** 大阪府

●大阪商工会議所 💽 大阪産業局

Healthcare Pavilion









# A Glimpse into the Future.

A 13-4235 Marchard Auge of the Construction of						
<ul> <li>All and the space of the space</li></ul>				4.13(Sun)-4.20(Sun)	Resona Mirai Color ~Spring~ Future Healthcare	
Kan k	At the "Reborn Challenge" section within the Osaka Healthcare Pavilion at the Expo 2025 Osaka,			4.21 <sub>(Mon)</sub> -4.28 <sub>(Mon)</sub>	Resona Mirai Color ~Summer~ Metropolis of the Future	
And Advacus Bases advances for the "The foregree in the specified a statement and advacus for the specified a stat	Kansai, Japan, over 400 Osaka-based small and medium-s showcase their new technologies and products on a weekly	ized enterprises and startups will rotation throughout the 26-week		4.29(Tue)- 5.5(Mon)	Innovations Embedded in the Space for a Wellness Lifestyle : The Office Committed to Physical Health and Beauty	
Parking with Monore All Manages Transits are Data Park of the Data Park of Dat	expo period, following themes planned by the "Reborn Challenge Implementation Bodies,"			5.6(Tue)- 5.12(Mon)	Innovations Embedded in the Space for a Wellness Lifestyle : The Office Aimed at Mental and Cognitive Health	
Bit down dia down down down down down down down down	broadcasting their innovative technological capabilities to the v	world.		5.13(Tue)- 5.19(Mon)	Rethink Decarbonization Initiatives starting in Towns : Towns and Society, Lifestyles of the Future	
Struct dot Water struct do	The theme of the Osaka Healthcare Pavilion is "REBORN."			5.20(Tue)- 5.26(Mon)	Originating in Osaka! Futuristic Living : Be the Most Excited and Interested Metropolis in the World	
<ul> <li>Adder dar bereck hatter seit auf har berechten sich auf har berechten sicher aus naturet auf die berechten Urge affreit aus der berechten Urge affreit uns der berechten Urge aff</li></ul>	This word carries the message that "people can be reborn" and "take new steps forward." Through the "Reborn Challenge," which pursues health and happiness for all people and envisions the near future, we aim to create exhibitions that will help visitors discover new aspects of themselves and trigger actions toward the future.			5.27(Tue)- 6.2(Mon)	Let's Create the Future of Humans, Things and Digital Together : Transform Manufacturing of Osaka into Digital Based	
And ender the series and ender				6.3(Tue) <sup>-</sup> 6.9(Mon)	Let's Envision the Society Everybody Lives Comfortable : The Lifestyle and Workstyle in the Future	
Lifestyle example Performation Performati				6.10(Tue)- 6.16(Mon)	Future Lifestyle ~ Smart Room ~	
Please course is between the special course of a sease of a course	The PR magazine Reborn Challenge Journal introduces in de companies for each week's theme.	etail the exhibits and participating	Lifestyle	6.17(Tue)- 6.23(Mon)	Future City Project for Everyone	P.04
Art       Fundaminant       11000 00000000000000000000000000000000	Please come to the venue to see the crystallization of each cor	mpany's wisdom and technology.		6.24(Tue)- 6.30(Mon)	"Smart Healthcare Town" Project, a Town Making Fun Tomorrow.	P.06
Art Environment En				7.1(Tue)-7.7(Mon)	Carbon Neutral Treasure Hunt ~Technologies Supporting a Comfortable future~	P.08
Art Bevironment Reborners Subsection States				7.8(Tue)- 7.14(Mon)	MOBIO Osaka Pavilion Exhibition: No/BORdER - A Technology Exhibition that Transcends Borders, Barriers, Times, and Limits-	P.10
Design       Technology       Partial       A testing down for four four four four four four four	Art Environme	nt		7.15(Tue)-7.21(Mon)	Power Spots in OSAKA: Small and Medium-sized Enterprises	P.12
Design       Technology       9 de         Digital       9 defends a RB00NH Human Stores Foundation for the Future Sockety       9 de         0.12 mer B.11 mu       6 selends A RB00NH Human Stores Avail 32 de 30 datas Socket, classes Theory S Pacidon       9 de         0.12 mer B.12 mu       6 selends A SelendonH Human Stores Avail 32 de 30 datas Socket, classes Theory S Pacidon       9 de         0.12 mer B.13 mu       6 selends A SelendonH Human Stores Avail 32 de 30 datas Socket, classes Theory S Pacidon       9 de         0.13 mer City       Well-being       9 de       9 de <th></th> <th>Rehord</th> <th>Formtoch</th> <th>7.22(Tue)-7.28(Mon)</th> <th>A Testing Ground for New Tourism Ventures : Revitalizing Kansai through the Tourism Industry</th> <th>P.14</th>		Rehord	Formtoch	7.22(Tue)-7.28(Mon)	A Testing Ground for New Tourism Ventures : Revitalizing Kansai through the Tourism Industry	P.14
Digital       8.5m/s 8.11/m       Academia × REDORN + transport between Academia & Society, setures Transport & Totality       9.10         B.12/m 8.18/m       Series A: Selection - 10 transport work at Databa Bright Acade Society, setures Theory & Totality       9.20         B.12/m 8.18/m       Series A: Selection - 10 transport work at Databa Bright Acade Society, setures Theory & Totality       9.20         B.12/m 8.18/m       Series A: Selection - 10 transport work at Databa Bright Acade Society       9.20         B.22/m 9.18/m       Series A: Selection - 10 transport work at Databa Bright Acade Society       9.20         B.22/m 9.18/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.2/m 9.18/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.2/m 9.28/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.2/m 9.28/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.2/m 9.28/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.20/m 9.21/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.20/m 9.29/m       Resona Miral Color - Autumn - Harmony between Agamese Tradition and the Future       9.20         9.20/m 9.29/m	Design		renitech	7.29(Tue)- 8.4(Mon)	Building Together on Our Diverse Foundation for the Future Society	P.16
Digital       Energy       Bil2are 8.184a       Series 4; Selection -10 Immotors who will Rick a Bright Fadare Society-       P.20         Well-being       Bil9are 8.25aa       Resona Wiral Color - Autumn - Harmony between Japanese Tradition and the Future       P.20         9.20are 9.19aa       Resona Miral Color - Autumn - Harmony between Japanese Tradition and the Future       P.20         9.20are 9.29aa       Resona Miral Color - Autumn - Harmony between Japanese Tradition and the Future       P.20         9.20are 9.29aa       Resona Miral Color - Autumn - Harmony between Japanese Tradition and the Future       P.20         9.20are 9.29aa       Resona Miral Color - Muter - Futura Technology       Image Second Miral Color - Muter - Futura Technology       Image Second Miral Color - Muter - Futura Technology       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color - Muter Fashion hased on Sustainability       Image Second Miral Color	besign	Technology		8.5(Tue) <sup>-</sup> 8.11(Mon)	Academia × REBORN -Harmony between Academia & Society, between Theory & Practice-	P.18
Smart city	Dinital			8.12(Tue)- 8.18(Mon)	Series A; Selection ~10 Innovators who will Build a Bright Future Society~	P.20
Well=being       9.26 truer 9.1 boo       The Mandracturing SMEs "E, N, NO, SHI, TA" (unsung herces) that Support Our Lives in the Near Future       9.24         Smart city       9.20 truer 9.1 boo       Resona Miral Color - Autumn- Harmony between Japanese Tradition and the Future       9.10         SDGs       9.20 truer 9.1 boo       Resona Miral Color - Winter- Future Technology       1         9.20 truer 9.1 boo       Resona Miral Color - Winter- Future Technology       1         9.20 truer 9.1 boo       Resona Miral Color - Winter- Future Technology       1         9.20 truer 9.1 boo       Resona Miral Color - Winter- Future Technology       1         9.20 truer 9.2 boo       Resona Miral Color - Winter- Future Technology       1         9.20 truer 9.2 boo       Co-creation Project for Future Fashion based on Sustainability       1         9.20 truer 9.2 boo       Aiming to Realize a Wellbeing Lifespan       1         10.7 truer 10.13 boo       Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers       Exhibits from Appli 13 to Jum 16 are introduced in "Rebort Challenge Journal" Vol. 1, and exhibits for Meglet 13 to Jum 16 are introduced in "Rebort Challenge Journal" Vol. 3.	Dighten	Fnerny		8.19(Tue)- 8.25(Mon)	Reborn with Bioplastics	P.22
Well-being       9,2 <sub>tut</sub> 9,8 <sub>M0</sub> Resona Mirai Color - Autumn- Harmony between Japanese Tradition and the Future         Smart city       9,2 <sub>tut</sub> 9,8 <sub>M0</sub> Resona Mirai Color - Autumn- Harmony between Japanese Tradition and the Future         SDGs       0,16 <sub>tut</sub> 9,22 <sub>M0</sub> Coclar Factory Entertainment - MSEBUSAND Model-         9,30 <sub>tut</sub> 9,10,4 <sub>M0</sub> Co-creation Project for Future Fashion based on Sustainability         9,30 <sub>tut</sub> 9,10,4 <sub>M0</sub> Aming to Realize a Wellbeing Lifespan         10,7 <sub>tut</sub> 10,13 <sub>M0</sub> Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers         Exhibits from September 2 to October 13 are introduced in "Reborn Challenge Journat" Vol. 1.		Lincityy		8.26(Tue)- 9.1(Mon)	The Manufacturing SMEs "E, N, NO, SHI, TA" (unsung heroes) that Support Our Lives in the Near Future	P.24
Smart city       9,9(rur 9,15/mon       Resona Mirai Color - Winter- Future Technology         SDGs       0,0(rur 9,25/mon       Cocal Factory Entertainment! - MSERUBANAD Model-         10,7(rur 10,13/mon       Resona Mirai Color - Winter- Future Technology         10,7(rur 10,13/mon       Resona Mirai Color - Winter- Future Technology         10,7(rur 10,13/mon       Resona Mirai Color - Winter- Future Technology         Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 1, and exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 3.		Well-being		9.2(Tue)- 9.8(Mon)	Resona Mirai Color ~Autumn~ Harmony between Japanese Tradition and the Future	
Since city       9.16 mer 9.22 mon       Local Factory Entertainment! -MSERUBAYAD Model-         9.23 mer 2.29 mon       Co-creation Project for Future Fashion based on Sustainability         9.30 meet 10.6 mon       9.30 meet 10.6 mon         10.7 meet 10.1 mon       Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers         Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 3.				9.9(Tue)- 9.15(Mon)	Resona Mirai Color ~Winter~ Future Technology	
Smart city       9.23(Tue)       9.29(Mu)       Co-creation Project for Future Fashion based on Sustainability         SDGs       9.30(Tue)       10.6(Mu)       Aiming to Realize a Wellbeing Lifespan         10.7(Tue)       10.13(Men)       Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers         Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 1, and exhibits from September 2 to October 13 are introduced in "Reborn Challenge Journal" Vol. 3.				9.16(Tue)- 9.22(Mon)	Local Factory Entertainment! ~MISERUBAYAO Model~	
SDGs       9.30(Tue)- 10.6(Mon)       Aiming to Realize a Wellbeing Lifespan         10.7(Tue)- 10.13(Mon)       Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers         Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 1, and exhibits from September 2 to October 13 are introduced in "Reborn Challenge Journal" Vol. 3.	Smart city			9.23(Tue)- 9.29(Mon)	Co-creation Project for Future Fashion based on Sustainability	
SDGs       10.7 (Tue)- 10.13 (Mon)       Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers         Carbon neutral       Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 1, and exhibits from September 2 to October 13 are introduced in "Reborn Challenge Journal" Vol. 3.				9.30(Tue)- 10.6(Mon)	Aiming to Realize a Wellbeing Lifespan	
Carbon neutral       Exhibits from April 13 to June 16 are introduced in "Reborn Challenge Journal" Vol. 1, and exhibits from September 2 to October 13 are introduced in "Reborn Challenge Journal" Vol. 3.		SDGs		10.7 <sub>(Tue)</sub> - 10.13 <sub>(Mon)</sub>	Real Solutions for Global Problems: Osaka, the Big Hub of Small Manufacturers	
		Carbon neutral		Exhibits from April 13 to Ju and exhibits from Septemb	une 16 are introduced in "Reborn Challenge Journal" Vol. 1, per 2 to October 13 are introduced in "Reborn Challenge Journal" Vol. 3.	

# 2025

**Schedule** Exhibition Schedule The theme overviews and introductions of exhibiting companies are here

# **Future City Project** for Everyone

Building an affluent society through the remote control of working vehicles

### **ORAM Corporation**

We are working on the social implementation of a new way of working with the remote control of working vehicles. We will enrich the future of working people by using communication lines to change the operations performed in harsh environments to operations possible in comfortable indoor environments. In the exhibition, we will use 1/14 scale hydraulic machinery models and other exhibits to introduce the remote control of construction equipment.



## Next-generation robot hands that can be operated intuitively

#### **KAWATEK CO., LTD**

The "BYO Bionic Hand" for amputees uses AI and sensory feedback to create an artificial hand that realizes natural and intuitive movement. The electrical signals of the muscles are captured to control the hand, so it contributes to functional recovery and an improvement in quality of life. It also has the versatility to enable its application to humanoids and industrial robots. At the venue, we will exhibit the actual equipment and have visitors operate it.



## A new type of communication robot with healing effect on people



### Vstone Co.,Ltd.

"HIROCHAN", a nursing care robot is equipped with acceleration sensor and speaker to make its mood can be changed according to the user's movements with it. Depending on the using situations such as on the nursing care facility, it is expected not only to provide a healing experience for the elderly, but also can reduce the workload of the nursing staff. In the exhibition, visitors will be able to experience the soothing effect of interacting with the robot.



**Experience driving a 1/10 scale car** in a realistic car race!

#### C1 Ltd.

We are using low-delay communications to develop remote control technology for vehicles and flying objects. At the venue, we will introduce the future automotive society through videos and the experience of remotely controlling 1/10 scale cars. In the driving experience, people can experience a realistic feeling as if they are actually driving the car.

Construction work photo ledgers are completed by just taking photos!

#### verbal and dialogue Inc.

The AI construction work photo app "Cheez" uses the image recognition AI ChatGPT to automatically read the text written on the construction blackboards that are photographed and instantaneously create links with the documents in the system. This enables the quick completion of construction work photo ledgers. which were previously created manually. In the exhibition, we will present the current issues in the operations performed in construction sites and introduce how the photo ledgers are actually created



## Future dental care realized through the metaverse and AI consultation

#### **Dental Prediction Co., Ltd.**

We have developed the "DenPre 3D Lab" as a service that uses 3D data analysis technology to create custom-made 3D printed models for patients from their 3D dental data. The service can be used for dental treatment simulations, dental education, and the sharing and accumulation of case examples. At the Expo, we will introduce the future of dental practice with exhibits of the DenPre 3D Lab and also our "Dental Health Consultation mamoru," a system which uses AI to support the communication between dentists and patients.



#### **Reborn Challenge** Implementation Body

Osaka Business Development Agency

Software industry plaza TEQS

## Visualizing walking age to support health

#### Walk Care

We use sensing technology that measures the state of the feet during walking, and technology to calculate a person's walking age through gait analysis, and we are combining these with AR to develop "classes on future health." In the exhibition, visitors will just need to walk five meters while wearing a device on one calf and then their walking age will be displayed on AR classes We will also provide training advice based on the analysis results

## An app to learn kanji characters in a fun way with an original story

### Learn More CO.,LTD.

We will exhibit the "KANGPT" kanji study app that uses generative AI to automatically generate original stories and pictures using the kanji characters that a user selects. At the venue, we will have visitors actually choose three kanji characters and then give them a picture book created using the story generated based on those characters.



## Visualize ESG: Experience **Sustainability Immersively**

#### Takabama Co...Ltd

BeFitterXR makes understanding ESG (Environmental, Social, and Governance) simple and engaging! Put on the goggles and instantly visualize all the ESG elements within your company operations. Explore an immersive environment, interact with various aspects, and assess their impacts. Learning ESG becomes easy and intuitive, regardless of the industry. After the experience, you'll receive an assessment report to solidify your understanding.

In typical Osaka fashion, with its sights set on becoming a super city beyond the Osaka-Kansai Expo, we will propose a collaborative space where everyone can envision the city of the future. This will be achieved by healthcare, and presenting them as content that blends the real and virtual under the theme of the city of the



Contact Window: X-Tech Promotion Business Division(Software industry plaza TEOS)



## **Experience a future city in a game** that fuses virtual and real-world elements

#### **Continuum**.Social Inc

The "CyberTrophy" app uses Web3 technology to create virtual items (NFT) and place them on maps. In the exhibition, we will use CyberTrophy to offer an immersive virtual game called "Eco Quest Challenge." Participants will learn about building sustainable future cities through AR.



## A future city with no language barriers realized using AI interpreters

#### C&T Co.,Ltd

We have developed a service that enables users to communicate in different languages hands-free by using Talk-Trans (a fully automatic face-to-face Al interpreter) and communication badges connected via Bluetooth. Automatic language recognition is supported for the 10 most common languages, such as English. In the exhibition, visitors will experience a new type of foreign language communication in which AI automatically recognizes and translates speech according to what is said by the other party and then uses speech synthesis in the language of the other party to communicate.



A future of natural dialog between humans and AI in automated customer service systems

#### Qualiagram Inc.

We will utilize an automated customer service system built using a large-scale language model to enable visitors to experience a world where humans and Al coexist through an Al substitute for face-to-face dialog. At the venue, an avatar shown on digital signage will play the role of a receptionist and provide visitors with guidance on the exhibition. The avatar will learn about the exhibition contents n advance and will respond smoothly to the auestions from visitors



# "Smart Healthcare Town" Project, a Town Making Fun Tomorrow.

Utilizing a hybrid ER system with Al and human collaboration to eliminate preventable deaths

#### fcuro

The ER automated triage system ERATS, analyzes total-body CT images and identifies life-threatening lesions within 10 seconds, enabling physicians to make faster and more accurate diagnoses.

At the venue, visitors can experience the power of AI-assisted acute care and witness scenes of lifesaving in action.



Al medical device that predicts the future condition of a heart

#### **Cardio Intelligence**

We developed an Al-powered medical device. SmartPAFin, that can predict the risk of future atrial fibrillation (AF) episodes by analyzing a normal electrocardiogram (ECG). In the exhibition, we will introduce SmartPAFin's technology and expect that this device will contribute to stroke prevention by predicting future heart conditions.





## Saving a baby's life with butt-breathing

#### **EVA Therapeutics**

We are developing Enteral Ventilation (EVA) Technology that aims to supply liquid oxygen to premature babies with serious respiratory problems through Gut-Mediated Oxygen Delivery. The program is at the clinical trial stage. Visitors can experience the surprises created by the 2024 Ig Nobel Award winning discoveries

## A Groundbreaking, Personalized **Microbiome Supplement**

#### bacterico

At bacterico, we're transforming global health through advanced gut microbiome analysis technology. Our innovative approach reveals each individual's unique gut microbiota, identifying distinctive bifidobacterium. We craft bespoke bacterial supplements tailored to your microbiome-a scientifically designed wellness solution exclusively for you. Visit our exhibition to explore the future of personalized healthcare.



## Aiming to build bodies for people to keep walking throughout life

#### eightis

"shintai" is an app that helps users maintain and improve their athletic ability while avoiding motor system problems such as joint inflammation and bone fractures. We have created a system using the accumulated know-how of top trainers to make it possible to propose the most suitable training for each individual. In the exhibition, visitors will experience the future of healthcare through the app.





We are developing a system to make it possible for home-visit doctors, nurses and medical workers providing remote medical care to provide the optimal medical care by partnering with a "medical care support AI" that has learned expert know-how on each disease. In the exhibit, we will introduce scenes of linking with medical records to present risk assessment and treatment plans that are tailored to individual patients.

**Regenerated killer T cell medicine to** contribute to the treatment of cancer and virus infection



Rebirthel

Cubec

The exhibition on "Regenerated killer T cell medicine" where killer T cells that recognize and kill cancer cells and virus-infected cells are produced from pluripotent stem cells such as iPS cells and ES cells.

This technology opens up a future where T cell medicine to battle with pandemic caused by an unknown virus will be created quickly.

**Reborn Challenge** Implementation Body

Osaka Business **Development Agency** 

**OSAKA INNOVATION HUB** 

# of menopausal women

### JBIRC [Tani Shokai/LEDEAL]

We introduce the future of beauty salons, where the salon is positioned as a community health clinic. It offers not only beauty services, but also health consultations and the chance to receive various examinations without going to a hospital. In addition, by connecting local beauty salons and gynecology, we provide support for improved quality of life where women can stay healthy, beautiful, and continu to have fun.

> Future smart wear with no inside or outside and no back or front



#### HONESTIES

We have developed clothing of the future that is made using special sewing technology to be comfortable to wear despite having no inside or outside and no back or front. We will exhibit this wear at the venue and propose a new direction for universal design that reduces the burden of changing clothes and supports all people who have challenges when changing clothes.

## "Cartilage Conduction" is the third kind of hearing and opens up the future of voice communications

#### **CCH Sound**

Cartilage conduction was discovered as the third pathway to hearing after air conduction and bone conduction. It has a mechanism and characteristics that are completely different from those of bone conduction and it creates the possibility of developing completely new acoustic equipment. In the exhibition, visitors will experience future voice communication through smartphones and headphones equipped with cartilage conduction technology

The main theme of the Osaka Healthcare Pavilion is healthcare. We will exhibit innovative products and services developed by startups, allowing visitors to experience them firsthand. Through this, we aim to propose a future lifestyle that protects life and health, ensuring that everyone can live happily and safely.

TEL:06-6359-3004 E-mail:rc-oih@obda.or.jp



pecial Websit

"Beauty salons as community health clinics" - protecting the mental and physical health

Future beauty salons realizing both beauty and health



## Preventing diabetes

with hair analysis

#### Tellme Solutions

Achieving Wellbeing future

by supporting mental and

Exhibiting THE CARE, our wellness management app.

physical changes.

We are developing technology to use hair analysis to measure the "risk of glycation," which leads to diabetes and aging. In the exhibition, we will introduce future beauty salons that consider the perspective of health in addition to beauty.



With Midwife

## people by learning about careers and human resources, and have solved many work/health related problems A future where cancer is detected through tear fluid analysis

#### TearExo

This app aims to prevent work/health related problems by utilizing PHR(Personal Health Record).

In order to run this app, we have supported many users with our team, which includes qualified as nurses.

public health nurses, and midwives. We have operated a consultation service specializing in supporting

We develop innovative and accessible cancer detection tools. TearExon that leverage tear fluid to provide reliable screening for everyone.

Our goal is to demonstrate that this method enables the early detection of breast cancer, ultimately enhancing the health and guality of life for women across all generations

We will be showcasing TearExo® at the venue.

## Al suggests food for the ideal you. Experience your personalized food.

dentifying user characteristics

hrough smart devices



### by Al-Diet technology Wellnas.

Offering personalized meal and product recommendations powered

We are developing AI-Diet Technology, an advanced system that analyzes individual health data to recommend personalized nutrition plans tailored to each person's wellness goals. At the pavilion, visitors can experience on-the-spot meal recommendations through the "NEWTRISH" app, which integrates this cutting-edge technology.

The companies and exhibition contents listed are subject to change in the future.

2025 7.1 (Tue)- 7.7 (Mon) REBORN Environment

## **Carbon Neutral Treasure Hunt** ~Technologies Supporting a Comfortable future~

'Zippar," the self-propelled ropeway, for smoother urban mobility.

#### Zip Infrastructure

Zippar is a self-propelled ropeway that operates autonomously-running on ropes along straight paths and on rails around curves. Equipped with batteries and motors, it can navigate curves and branch points that conventional ropeways cannot handle. With its low-cost, quick-to-deploy, and carbon-free transportation system, Zippar offers clean and highly convenient mobility.



## "ZERO Waste Project" Turning Waste into Hydrogen

#### **BIOTECHWORKS-H2**

We are developing waste analysis and plant technology to generate hydrogen from organic waste and convert it into renewable energy, along with a digital platform to centrally manage the operation of the entire system.During the event, we will showcase our equipment and facilities with a model that faithfully reproduces our pilot plant that is currently in operation in the United States

## A future supported by green manufacturing using electricity

#### OioN

We are developing the technology to use electricity such as that from renewable energy to manufacture chemical products by utilizing high-performance ion conductive membrane synthesis technology. In the exhibition, we will introduce how "Technology that allows the materials essential to humanity, such as ammonia, to be produced anywhere with clean electricity" has the potential to create a sustainable and peaceful world.



## A sustainable future living with forests



We are developing technology to accurately and efficiently grasp the value of forests, which contribute to the maintenance of the global environment. In the exhibition booth, we will introduce our latest products for forest value evaluation and conservation, drones that are used to identify tree species using AI, and software that analyzes forest information on a tree-by-tree basis



## Future marine transportation created by autonomous navigation

#### **Eight Knot**

Autonomous navigation technology uses AI to determine safe and efficient navigation based on the conditions around the vessel. In the exhibition, a demonstration using a model ship will introduce the mechanisms of the navigation and the possibilities for the sustainable use of the ocean and the solution of the problem of crew shortages.

## Using light to produce chemicals from waste materials



#### Photo-on-Demand Chemical

We will introduce our "photoproduction," which takes sewage, seawater and air as raw materials and uses light to produce chemicals (such as polymers and raw materials for medical and agricultural chemicals). In the exhibition, we will use dioramas to depict how the biogas, chlorine, and oxygen produced from cities, the sea and forests are introduced into a photoreactor and the chemicals are produced.



## A revolution in biofuels using rice plants and euglena

#### **Revo Energy**

We have developed a biodiesel fuel production plant that incorporates original technology for the high-speed cultivation of euglena using a culture solution obtained from rice plants. In the exhibition, we will introduce the production plant and propose a future where companies such as transportation companies can be self-sufficient in fuel by installing the plant on their premises.

**Reborn Challenge** Implementation Body

Osaka Business Development Agency

**OSAKA INNOVATION HUB** 

#### **EneCoat Technologies**

Perovskite solar cells generate electricity even with weak light and can be fabricated on lightweight and flexible film material. The exhibit shows the potential of the new photovoltaic cells



## Can we recycle air to make glass!?

#### **AC Biode/REVCELL**

We are developing DAC (Direct Air Capture) technology to collect carbon dioxide from the atmosphere. At the venue, we will exhibit small-scale DAC equipment and glass products made using carbon dioxide as part of their raw materials and we will introduce an example of a new circular carbon econom

## **Bioplastics to solve poverty** and deforestation issues in the areas of origin



#### Hemicellulose

Based on R&D of the polysaccharide hemicellulose, our bioplastic technology has enabled to create a variety of products from cacao, coffee, and other waste products generated both in food factories (Japan) and on farms (Latin America, Africa, Asia). By returning the profits to the area of origin, new jobs are created, making its agriculture sustainable

Startups that are environmentally conscious and contribute to carbon neutrality will showcase their products. The exhibit will provide hands-on experiences for visitors, raise awareness of environmental issues such as global warming and encourage behavioral changes to address these challenges.

TEL:06-6359-3004 E-mail:rc-oih@obda.or.jp



ecial Website

## The "Dokodemo Dengen<sup>®</sup>" (power supply anywhere) that can generate power in cloudy weather and indoors

## "Duck power generation" to generate electricity from waves







Duck power generation is a power generation system that uses waves, which are renewable energy from the sea. We are aiming to realize a carbon-neutral society by utilizing the endless energy of waves. In the exhibition, we will introduce our new power eneration system.



## Achieving environmentally friendly greenhouse cultivation through the effective use of rice husks

#### **Jikantechno**

We have developed a system that takes the heat generated during the manufacture of silica from rice husks, which are an agricultural waste material, and diverts it to a boiler, and then takes the CO2 generated during firing and uses it to promote the photosynthesis of tomatoes. At the exhibition, we will introduce our efforts to reduce CO2 emissions by moving away from the use of heavy oil in greenhouse cultivation.



## **Biomanufacturing production system** using optical switching - mii-Bioprocess



#### miibio

We will introduce "mii-Bioprocess," our biomanufacturing production system that uses photoswitching proteins in technology to control microbial genes with light. The system helps to lower costs and increase efficiency in mass production in biomanufacturing

A new form of plant resource where resin trees are grown in the mountains for use



#### **ELEMUS**

We will exhibit our germination and cultivation technology for URUSHI trees, which produce sap that has the same chemical structure as a type of plastic. We will also exhibit our 100% natural raw material manufacturing technology that uses only that sap and wood powder. At the venue, we will introduce this new utilization of plant resources

## **MOBIO Osaka Pavilion Exhibition:No/BORdER** -A Technology Exhibition that Transcends Borders, **Barriers, Times, and Limits-**

**Reborn Challenge** Implementation Body

Osaka Business **Development Agency** 

Monodzukuri Business Infomation-center:MOBIO

## An innovative coating that produces a sustainable future

### TAKENAKA SEISAKUSHO CO., LTD.

Our special anti-rust coating technology protects metal surfaces with a thin and highly adhesive special coating. This coating improves the durability of metal material by preventing deterioration due to oxidation or corrosion. In the exhibition, we will introduce our coating technologies that help to extend the life of structures and to reduce environmental impact.

## Heavy construction machinery moves just by "Thinking" in Your Head! Remote control system using brain waves

### C&M L.L.C.

Brain-Machine Interface (BMI) technology is technology that uses electrodes placed in contact with the human scalp to detect weak brain waves and then send drive instruction signals to machinery (which in this exhibit is heavy construction machinery). In this exhibition, we will demonstrate the conversion of brain waves into driving signals for the operation of miniature (1/14 scale) heavy machinery in the venue and have the visitors experience a feeling that they are there.



## Realizing unmanned work at heights with master and slave drones that adhere to walls!

#### Hishida R&D Co., Ltd.

These are drones that operate in a set of a master unit and a slave unit. Vacuum pumps and suction cups mean that the drone body can be fixed to a wall. This attachment makes it possible to perform inspections and tasks that are difficult while flying, such as drilling a hole. We aim to improve the

safety and efficiency of work in high places that are difficult to reach. We will exhibit a master unit with a diameter of 2 m and a slave unit equipped with a drill, and visitors will be able to experience the suction power of the suction cups.









## The dream is to go back to space! Lunar jumping robot "MAIDO-2"

### **ASTRO TECHNOLOGY SOHLA**

We will give an easy-to-understand explanation of technology to make robots leap by expanding and contracting springs with the resultant force of SMA (shape memory alloy) coils and a toggle mechanism. The explanation will answer the questions, "What kind of technology can we use to make robots operate and leap in the harsh environment on the moon?" and "What kind of specifications are necessary to make actions on the Earth also operate on the moon?"

> Changing the future with "deformed wire"! **Contributing to manufacturing** for CO<sub>2</sub> reduction

#### Namitei Co.,Ltd.

"Deformed wires" are wires produced with cross sections of various shapes. They are materials that offer a high degree of design freedom, improve vields, and are environmentally friendly because they reduce scrap. In the exhibition, we will introduce "ultra-deformed wires". These contribute to the development of higher outputs and smaller sizes on the motors used for electrification (such as on electric cars and drones)

## Solving social issues with safe, powerful magnetism

### SIMOTEC CO., LTD.

The "Switching Magholder" (SMH) is a magnetic attachment device where once the device is adsorbed, it continues to keep adsorbing without energizing. It contributes to the solution of social issues such as labor shortages and the reduction of CO2 emissions in various industries including logistics and transportation. In the exhibition, we will introduce how the SMH contributes to the efforts of companies toward the SDGs. We are also planning demonstrations such as a robot that uses magnetic adsorption force to walk on a wall.

# Bright and Powerful X-ray Mirrors Contribute to



**JTEC CORPORATION** 

We are exhibiting the next-generation two-dimensional focusing X-ray mirror with an "ideal shape" and "the world's highest level of smoothness." This mirror generates the brightest and strongest focused X-rays ever on Earth, enabling detailed scans of objects' deep internal structures that were previously impossible to observe. This technology will enable the creation of technologies and products that contribute to solving future social challenges such as drug discovery and environmental issues.

## **Contributing to the development of** medicine and engineering with technology to make a wide variety of items "thin"

#### **Tajiri Thin Section Laboratory**

A "thin section" is a specimen prepared for microscopic observation. They were originally developed in geology, where they were made by grinding rocks into thin pieces. In addition to rocks, our company also has original technology to simultaneously cut areas of differing hardness or moisture content to produce thin sections, and we have a track record of creating thin sections of various materials. At the venue, we will exhibit a wide range of thin sections including rocks, bones, teeth, insects, and industrial products



## **Experience the Future of** Healthcare: See, Feel, and Connect with Life

### Nalux Co., Ltd.

Step into the future of healthcare innovation at our exhibition. Observe the process of our cutting-edge healthcare exercise device in action as it works to improve blood vessel flexibility and spread its healthy effects throughout the body. Furthermore, visitors can enjoy the fascinating effects of ever-changing color floral works by our visibility optimization illumination technology , which is developed for medical professionals and to improve the clinical environment. Don't miss this unique opportunity to experience next-generation innovations that are shaping the future of life and health.

"REBORN / do ▶ No / BORdER: Go beyond borders by being REBORN!" will feature products and technologies from small and medium-sized manufacturing companies in Osaka Prefecture that transcend borders, barriers, times, and limits. This exhibition aims to enhance the technological capabilities of Osaka' s small and medium-sized enterprises, stimulate the creation of new products, and serve as a bridge between the past and future, driving technological

TEL:06-6748-1052 E-mail:mobio\_expo2025@obda.or.





## **Scientific and Technological Challenges**

homen



Union Co., Ltd.

floating in empty space.

## A door of the future that is "contactless" but "produces the feeling of touch"!?

We will exhibit a door handle of the future that is "non-contact" but "tactile."

This is achieved by using two advanced technologies: haptics technology

that reproduces the sense of touch without touching an object, and 3D

display technology that creates a three-dimensional image of the door handle





Lightweight, strong, and will not loosen: composite resin fasteners comparable to metal!



HARDLOCK Industry Co.,Ltd

Inspired by the wedge principle-a centuries-old Japanese construction technique—we develop fasteners designed to resist loosening and withstand intense vibrations and impacts. At this exhibition, we are introducing a composite resin nut and bolt featuring our non-loosening design, reinforced with carbon fibers for greater strength than aluminum alloy.

New value for waste materials! Stationery series created out of locally produced waste materials

#### Daiichi Seikosha CO.,Ltd

The "free blend method" pulverizes eggshells, paper scraps, and other waste materials and uses them as the main raw material. Plastic materials are used as a binding material, but are only about 20% of the material. This is a unique. environmentally friendly technology where the rate of waste material use is raised to a maximum of 80%. At the venue, we will exhibit a series of products created from local waste materials from around the country



Nonwoven fabric spacers used in radiation therapy for cancer protect healthy organs!

#### Kanai Juyo Kogyo Co.,Ltd

Nonwoven fabric spacers are a product that protect healthy organs from the radiation used in cancer treatment, which expends the possibility of a definitive surgery.

Furthermore, these products have been designed to fit closely with the needs of the patients as they are degraded and absorbed in the body after the treatment, eliminating the need for surgery to remove them. In the exhibit, we will introduce these future spacers that are expected to improve quality of life (QOL) after treatment

# **Power Spots in OSAKA: Small and Medium-sized Enterprises**

A new form of pest control that separates the spaces occupied by humans and insects

#### **BURRTEC Co., Ltd.**

By changing from the traditional belief that "it is natural to kill harmful insects with chemicals if they get indoors" and instead working to separate the spaces occupied by people from the living space of insects, we are advocating the sense of values where "we respect the lives of people, organisms and nature and we coexist." By using the insect repellent brushes, we aim to create a future where it is possible to perform pest control (the control of harmful organisms) while maintaining the balance of the ecosystem.



## **Next-generation storage racks** that maximize the utilization of warehouse space

#### Shinkawa, Ltd.

In the logistics industry, increasing the efficiency of storage space and reducing the cost of transportation are major issues. In Japan in particular, there are strong demands for efficient storage and resource optimization to make effective use of the limited land area. In addition, as SDGs initiatives and the interest in sustainability increase, there has been rapid growth in the demand for products that will have a long service life and then be recyclable. The height adjustment function and environmentally friendly materials of this product will make a large contribution to the designing of the warehouses of the future and to the realization of a sustainable society

**Small particles change the future!** The diverse possibilities of nanopowders



#### YOUGROP Co.,Ltd

Seasonings, detergents, pharmaceuticals, and cosmetics ... A variety of powders are used in our daily lives. It is known that when we further pulverize these powders into fine particles (nano-sized particles), their physical properties change. In the future, it may be that technology to create nano-sized powder will lead to the creation of new materials and functions that will make our lives even richer and more comfortable. At the Expo, we will use video and other media to show the visitors a future society brought about by the use of nano powders

Power electronics technologies supporting future infrastructure



#### TAKENAKA SEISAKUSHO CO., LTD.

Power electronics are technology to efficiently convert and control electric power. They are used in sectors such as electric vehicles and renewable energy and are expected to contribute to improvements in energy efficiency. At the Expo, we will introduce our efforts to address various issues such as environmental problems, including with an introduction to ultra-low power consumption EV vehicles that utilize power electronics technology. We will propose the importance of power electronics technology in future society.



For a sustainable future society where we live with water and air purification

#### Hair Clinic Reve-21 Co.,Ltd.

Our "Afforestation Carbon Neutral Project" is promoting the cultivation and planting of Moringa, which is a plant with a high CO2 absorption rate, our "Loofah Project" aims to reduce the plastic waste outflow from household drains by cultivating and commercializing loofah scourers, and our "Water Quality Purifying Shampoo" utilizes the water purifying action of plants. At the Expo, we will use video and other methods to give the visitors an introduction to these SDG activities that can be implemented in everyday life.



**Reborn Challenge** Implementation Body

**Osaka Prefectural Federation of Small Business Associations** 

## A future society created by small toys from Osaka

#### **OSAKA TOY INDUSTRY ASSOCIATION**

Toys are something that everyone picked up and played with as a child. Simple, analog toys that we use our hands and head to play with are an important part of our culture and nurture the imagination and creativity of our children. The wisdom and ingenuity contained in their simple design fits closely with the growth of the children and gets passed down to the next generation. At the venue, images and animations will be projected inside a huge object to depict a future society created by toys.

## Nostalgic but new! Neo-retro cute "crafted jelly sweets"

#### Midori Seika Co., Ltd

Our crafted jelly sweets, which are described as semi-perishable sweets, are made by boiling down sugar, starch syrup and agar. Our handmade crafted jellies are formed in the shapes of animals and plants and consumers can feel their warmth and the good quality of their ingredients. As a project to pass on our traditional crafted jelly sweets to the future, we hope that we can enrich the food culture of today whilst also contributing to the creation of a better society and bringing the joy of food to evervone

## the circle of participants from hand to hand



#### Ace Co., Ltd. [The Signage co.Itd/futureDesign Co., Ltd.]

In addition to introducing the scenery and traditions of Osaka, we will present a video that gives a sense of how the Osaka SMEs that will contribute to future society will grow and develop in the future and create new connections. The themes of the videos are "Reborn" and "SDGs." In the exhibition, visitors will be able to experience "naked eye 3D," which uses the latest simulation technology and AI to realize advanced animation performance. We will also introduce a new approach to advertising that combines naked eye 3D images with marketing

We introduce the excellent products, technological capabilities, high-quality services, traditional crafts, culture, and the appeal of Osaka's food culture through exhibitions and experiences presented by Osaka's small and medium-sized enterprises, aimed at a future society. Additionally, by utilizing virtual technology alongside physical exhibits, visitors can experience and deeply understand various products and content without spatial constraints. We believe this approach can showcase the high potential of Osaka's small and lium-sized enterprises to a global audience

I Website



TEL:06-6947-4370 E-mail:expo2025@maido.c





## A new experience of paper craft and glasses-free 3D! Enjoy the charm of handmade creations in 3D vision.

#### **Digital Printing & Solutions Co., Ltd.**

You can enjoy the sensation of being at the Osaka Expo of 1970 through a meticulously recreated paper craft of the venue and a stereoscopic experience using a VR display that does not require goggles. Please experience the fusion of warmly crafted handmade models, created with care and time, and cutting-edge technology

## Introducing the school bags of Japan to the world!

#### Katochu co., Itd.

The "RANDOSERU" school bag is a unique part of Japanese culture. We believe it is a bag that we can be proud of in the world, including as it has the durability to last for six years, is comfortable to use, and has meticulous specifications. We want to spread the appeal of these school bags to people all over the world. Through our exhibition of the bags at the venue, we will present visitors with a variety of ways to use them in their daily lives and create new possibilities for the future of these school bags



3D video like a world peace relay, where we expand

## **Experience Japanese culture through** colorful dolls and moving armor

#### The Consortium manufacturing industry of seasonal festival in Osaka Kansai EXPO

With an exhibition of items mainly from the Osaka hina doll manufacturer Matsuyoshi Ningyou Co., Ltd., we will exhibit hina dolls of various sizes and colors that are dressed in costumes that utilize advanced sewing techniques, and we will also introduce what materials they are made of. We also plan an appearance by a

robot dressed in armor. With these exhibits of products made with delicate Japanese dressmaking techniques and traditional techniques that have remained unchanged from the past, we hope that the visitors will gain an interest in the traditional Japanese culture of seasonal festivals





2025 7.22 (Tue)- 7.28 (Mon) REBORN SDGs Other (Inbound, Tourism Industry and Various Themes Derived from Inbound or Tourism Industry)

# **A Testing Ground for New Tourism Ventures:**

**Revitalizing Kansai through the Tourism Industry** 

## Using Web3 technology to "Touch and Connect" with the local region



#### **HashPort Inc.**

We are developing and providing the EXPO2025 Digital Wallet, a wallet service that will be used at the Osaka, Kansai Expo. At the venue, we will introduce the revitalization of local communities and the construction of a token economic zone (a new economic zone based on virtual currency and blockchain technology) through the use of Web3 technology, which is also used in the wallet service. We are planning an interactive exhibition where visitors will be able to experience the attractions and culture of the region while they are experiencing non-fungible tokens such as NFT and SBT through various devices. In addition, we will present a model of future tourism where visitors connect with a tourist destination through NFT and SBT, not only during their trip, but also after it. By doing so, they will be able to experience an even more special tourism experience when they visit the destination again





## Sending luggage realizes greater freedom in travel

#### Airporter, Inc.

We will introduce the new "City check-in/Off-airport check-in" system that is currently in demonstration testing in Japan. This system makes it possible to ship baggage directly from the accommodation on the last day of the itinerary and to have it sent via the domestic departure airport to the international arrival airport. If this is realized, it would free travelers from the constraints on their movement due to their baggage, and from the complexity of airport baggage check-in procedures. In addition, it would reduce the number of people traveling around with large baggage such as suitcases and would eliminate the check-in queues at airports, so it would be able to contribute to the solution of the growing problem of overtourism. Through our exhibition, we will propose a future of tourism that is happier both for the tourists and for the local residents

## The "REBORN" life spreading from remote tourism

#### **Tokyo Travel Partners, Inc.**

"Tabisuke TV" is a remote tourism service that allows users to participate in live travel programs via chat or quizzes. We will hold an exhibition on its future vision of providing "future concierge services for the elderly." By utilizing generative AI and avatar technology, we propose services that are more attuned to the elderly, such as a listening function that serves as a conversation partner for the elderly. and a function that takes information from the conversation and provides topics and action suggestions suited to the user. At the venue, we plan to show a concept movie depicting a future in which this concierge service has become a comprehensive living tool. We are also planning to display panels introducing what kinds of functions will solve what kinds of problems experienced by the elderly

Travel imes Health A new form of video distribution service



Japanese culture reborn, where special experiences accompany the

**Reborn Challenge** Implementation Body

MUIC Kansai

#### J-CAT, Inc.

We are planning and operating a variety of activities so that we can draw out the wonderful attractions to be found around the country and deliver them to visitors as exciting experiences. What is useful for this is the expertise we have accumulated so far regarding how to draw out the maximum potential of region-specific culture. Rather than offering the generally available tourism experiences, we aim to cooperate with parties such as the artisans, creators, cultural facilities, and lodging facilities in each region so that we can offer "touching experiences" that provide a chance to enjoy a moment of richness that is rarely possible in everyday life, and to rediscover the unknown charms of the region. At the venue, we will introduce examples of the various activities we offer through Wabunka, a concept that brings together these efforts to let visitors rediscover the attractiveness of Japanese culture in a new light.





Aiming to revitalize the tourism industry based on social issues and various themes derived from them, we will conduct repeated demonstration experiments and aim for social implementation by the 2025 Osaka-Kansai Expo. In addition to introducing the technologies and ideas of startups, we will provide a place for people to experience 'what has changed' through social implementation, and by exposing it to people of various countries and generations, it will serve as a 'Catalyst' for revitalizing the regional economy.

cial Website



Contact Window : Expo staff TEL:070-3798-1230 E-mail:hidemi\_oonishi@k-innovation.or.jp

## reincarnation of some carefully selected attractions from various parts of Japan



Go on a trip of exploration with an illustrated digital map that lets you discover the hidden charms of Kansai!

#### Stroly, Inc.

The "Stroly" illustrated digital map operated by Stroly is a map platform that uses easy-to-understand illustrations with a distinctive world view to thoroughly guide you to "encounter, know, and experience" exciting information in an area. There are 11,000 illustrated digital maps from around the world, including maps for sightseeing, festivals, events and area promotions all around Japan. It is also possible to customize a map, by providing recommended points and event information, and by arranging illustrations as if affixing stickers. Moreover, it is possible to visualize the human flow data and usage information based on the browsing information for a map and there is also support for creation in multiple languages as a measure for inbound tourism

## **Together on Our Diverse Foundation** Building for the Future Society

Reborn Challenge Implementation Body

MUFG Bank, Ltd.

## Future glasses to support people who are visually impaired or may have difficulty reading

#### SystemGear Vision Co., Ltd.

We will exhibit the generative AI-enabled "ReaderN," which is a wearable audio reader for the visually impaired. The device may be fitted to a pair of glasses and by tapping the device, will take a picture of the item in front of you. It can then perform various tasks, including converting text to speech and reading it aloud, summarising a passage of text or explaining an image or photograph. With simple operations, this device provides support to people who are visually impaired or have difficulty reading, enabling them to access information, including text, that they might otherwise find difficult to obtain.At the venue, we will set up the device along with items for reading and other tasks, allowing visitors to experience these 'glasses of the future' for themselves







Use the latest AI technology to experience the challenges encountered by visually impaired people

#### **Computer Science Institute Consortium**

We are developing the smartphone app "Eye Navi" as walking support for the visually impaired. The app has route guidance, obstacle detection, and walking recorder functions and provides spoken notifications of pedestrian signal colors and braille blocks. At the venue, we will provide a simulated experience of walking around a city by using the smartphone app and signage so that the transitioning of the screens makes it look as if you are walking around the city, and visitors will be able to experience the functions such as obstacle detection. By providing opportunities for everyone to get equal access to the information they need, we aim to create a society in which everyone can freely and happily travel around anywhere

A new form of communication that allows people to use the movement of their eyes and faces to communicate

#### Nissin Denki Kohsaku CO,,LTD

We are developing an app called "Messay" that allows users to perform various operations on a screen by using information such as the angle of the user's eyes and face, and the opening and closing of the user's eyes. This information is obtained from the camera of a smartphone or tablet. People who can only move their eves or parts of their face can use the app to select words or compose sentences and then output them in speech, enabling them to communicate smoothly with family members or caregivers. At the venue, we will exhibit this human interface technology in the form of a game based on actions in daily life. We hope that visitors will be able to imagine a future of DEI (diversity, equity and inclusion) in communications.





## Creating a society where having friends all over the world is the norm

#### **HelloWorld Inc.**

The "WorldClassroom" platform for English language learning and international exchange is a DX system for English language education that is equipped with speech recognition technology for speaking practice functions and a function for international exchange with schools overseas. The platform provides a place where people can perform speaking practice and study according to their own English ability, and also connect with other classrooms around the world as if they were just popping into the classroom next door, to have international exchanges with people of their own generation. At the venue, we will connect with overseas partner schools in real time and have them communicate with the visitors while we also show the scenes of the Expo to those children in other countries



## and move forward together



**COMARU Inc.** 

a tool that can be used by everyone, including those with particular and play an active role

We believe that diversity in the workplace and society can spark "chemistry" through respecting each other's differences and leveraging each other's unique strengths. This is what we consider the realization of DEI (Diversity, Equity & Inclusion).By collaborating with small and medium-sized enterprises and startups to spark this "chemistry" and commit to DEI, we aim to present an exhibition that allows visitors to envision a more prosperous future society.

#### [Contact]

Contact Window: Business Promotion & Management Division (Osaka) TEL:050-3501-4115 E-mail:expo2025\_mubk\_pf@mufg.jp





## Visualize what is in your heart,

"MARUMARK" is a health care app that uses a unique algorithm to perform simple psychological tests and display the state of mind in a visual manner in the form of a barometer and stickers. This visualization helps you and the people around you get a better understanding of your state of mind. It is designed to be developmental characteristics. By providing support tailored to individua characteristics, we aim to create a society in which everyone can be independent

## Creating a society where everyone can dream through a new scholarship



#### GAXI.Inc.

With the aim of creating a society in which everyone can take on challenges without giving up on their dreams, we operate one of the largest scholarship information websites in Japan and are also working on a project to form partnerships with companies, individuals, and local governments to create new scholarships. In the exhibition, we will hold a "New Scholarship" contest where we ask the public for ideas on scholarships people want to realize in the future and then have them voted on at the venue and via a website during the period of the Expo. We will also show a short movie depicting the future we want to realize through scholarships, to provide an opportunity for visitors to become more familiar with the scholarship system.

## Supporting career and life planning for women through egg testing





#### **BeLiebe Consortium**

"EggU" is a test kit that measures the number of eggs a woman has remaining by collecting a small amount of blood. We provide counseling based on the results of the test and support the women in their planned attempts to get pregnant and in their efforts to balance a career with childbirth. We work in cooperation wit testing centers and medical institutions to "identify the issues related to pregnancy" and provide "the processes for their resolution (through consultation with a specialist)." At the venue, we will create a booth featuring an "egg" motif and introduce our service and the history behind the development. This will provide an opportunity for people to think about the design of career life plans for women.

# Academia × REBORN

——Harmony between Academia & Society, between Theory & Practice——

Innovative antibacterial technology "Nanospikes"

#### NanoSpike Inc.

The new material "Nanospikes" is composed of nano-sized protrusions. It can perform bactericidal and antibacterial processing with its physical properties, so it can be used as an antibacterial, water repellent and antifouling material that does not use chemical substances. Conventional antibacterial and antibiotic agents that use a chemical action have the issues that they place a burden on the environment and have a risk of adverse effects on the human body. "Nanospikes" is an innovative material that overcomes these disadvantages. We aim to use this new antibacterial technology to realize an affluent society free of infectious diseases. At the expo, we will exhibit a resin film that is equipped with "Nanospikes.

The same nanospike structure as on a cicada wing



Bacteria and viruses die on the nanospikes

## DNA origami nanorobots that will lead advances in medicine 50 years from now



#### Cranebio Co., Ltd

DNA origami nanorobots have the potential to play various roles such as in the early detection and treatment of pathogens. We aim to use this nanorobot technology to create a future where anyone can easily test for diseases, even if they do not have any specialized knowledge or expensive equipment. At the Expo, we will introduce future medical technologies for detecting bacteria and viruses to the visitors by exhibiting our "DNA origami nanobots." These are created using DNA origami technology to fold DNA molecules into minuscule structures (about 1/500 the thickness of a hair) and are so small that they cannot be seen by the naked eye



## **Autonomous Driving Race Championship in Digital Space !**

#### Virtual Motorsport Lab Inc.

Virtual Motorsport Lab offers a simulator that enables users to experience the development of autonomous racing cars. We host autonomous driving race championships in a virtual space, allowing participants from across Japan and around the world to join online. Through these races, participants can enjoy learning about AI and mobility technologies in a competitive and engaging environment. At Expo 2025, we will collaborate with Horiguchi Lab at Kansai University to showcase interactive exhibits where visitors can experience voice control and the development of autonomous racing cars. By offering hands-on experiences with cutting-edge technologies, we aim to inspire and nurture the next generation of talent in AI and mobility.



New efforts for coral reef restoration by using Al and regenerative medicine technologies to protect the oceans of the future

#### Innogua Inc.

Environmental transfer technology is an innovative approach that utilizes AI and IoT to recreate diverse ecosystems in water tanks. By integrating this with a titanium breeding platform inspired by regenerative medicine, we enable the efficient propagation of coral. At the venue, we will showcase an ecosystem tank that appears as if it were a direct slice of the natural ocean, demonstrating how this technology contributes to marine conservation and the future global environment. Additionally, we will introduce our efforts to achieve carbon neutrality through the utilization of blue carbon

Reborn Challenge Implementation Body

Kansai University



#### KUREi Co.,Ltd.

There are various problems associated with freezing in cold regions, including that "roads freeze and become slippery," "the attachment of snow makes traffic lights and signboards unreadable," and "late frosts mean that flowers cannot grow into fruit." It is possible that these problems may be solved by reducing the size of the ice crystals. In the exhibition, we will introduce future measures for cold areas to prevent the problems of freezing by using technology to control freezing. This technology uses an "ice crystal control function" that controls the process from the generation of ice nuclei to the growth of ice crystals.

## Sew three-dimensional objects at home! The sewing machine of the future

#### AXE YAMAZAKI CO.,LTD.

We will introduce the MIRAI Sewing Machine, which utilizes the patented "tag stitch technology" of Toyota Auto Body to sew three-dimensional objects that have not been possible with conventional household sewing machines. We focused on the advantages of this technology, which is used to directly apply decorative sewing to interior parts for automobiles and made it possible to directly sew three-dimensional objects such as sofas. We will create a future where it will be possible to repair a tear on a space suit while the suit is still being worn.

## A sustainable society realized by circular economy batteries

#### iElectrolyte Co., Ltd.

At the venue, our original characters the "IL Battery Brothers" will give a fun introduction to the IL (Ionic Liquid) batteries that are currently under development. This will include regarding the safety of the batteries, as the liquid does not evaporate so it does not burn even when a flame is brought close to it, and regarding the practical use of the batteries in special environments such as outer space. We will also exhibit our efforts to realize circular economy batteries, where the batteries can be recycled without being disposed of, by using parts that utilize natural materials and manufacturing technologies that reduce environmental impact.



Under the theme "The Potential for Innovation Created by University x Companies," and focusing on keywords such as SDGs and carbon neutrality, Kansai University will create an exhibition space that embodies the synergy between universities with cutting-edge education and research resources and the technological capabilities of Osaka's small and medium-sized startures. startups. This synergy aims to contribute to the creation of a bright and sustainable future society.

#### [Contact]

Contact Window: President's Division (Expo Promotion Project Office) TEL:06-6368-1416 E-mail:expo@ml.kandai.jp





## Future technology that controls freezing

"Artificial rubies" and the "Kandai alloy" created with cutting-edge material processing technology



#### Osaka Yakin Kogyo Co., Ltd.

We will exhibit "tea utensils" made of artificial rubies that have the same crystal structure as real ones. These are manufactured using millimeter wave irradiation, which is a next-generation heating technology developed as a result of collaborative research by industry and academia. The exhibits will express the fusion of "Japanese harmony" and "next-generation technology." We will also introduce technologies that contribute to the realization of a carbon-neutral society by utilizing the Kandai alloy silicolloy, which is an advanced material that is resistant to cryogenic temperatures



## **Connecting Muslim tourists with** restaurants in Osaka and Kansai



#### Goenjin inc.

The Osaka and the Kansai areas are known as places where you can "eat till you drop" in "the kitchen of Japan" and they are places with a high concentration of food culture attractions. However, for Muslims, a lack of consideration and information can mean that they sometimes feel restricted when it comes to sightseeing and eating. We want Osaka and Kansai to also be highly attractive areas for Muslims, so we will use exhibits of food samples and the original character Sakura Fika to introduce "Muslim Smile" information related to the highly attractive foods of Kansai to the Muslim visitors to the Expo.

# **Series A; Selection**

~10 Innovators who will Build a Bright Future Society~

Reborn Challenge Implementation Body

The Osaka Chamber of **Commerce and Industry** 

## Converting the energy generated in daily life into electricity











Power consumed by the battery in the door

Winding of roller in power generation system

Power generation in the door and power storage

### **UNION DOOR TECH Co., Ltd.**

A spring roller is wound when a sliding door is opened and then released when the door is closed under its own weight. At that time, the power is multiplied several times by a speed increasing gear to generate and store electricity. We are developing mechanisms to utilize that power in daily life as circular energy. A great variety of uses can be expected in future society including as action for an aging society, and to provide emergency power in the event of a natural disaster. In the exhibition, visitors will be able to experience the "daily life power generation system" which generates electricity from an actual door.

## The arrival of a new space age! A future of riding electric bikes on the Moon



#### **RIDE DESIGN**

We are currently utilizing the experience we have accumulated in product design for areas such as electric mobility to work on a project to produce an electric motorcycle to explore the surface of the Moon. We are working on various aspects to thoroughly pursue the practicability of this, including with a vehicle design that can cope with the harsh terrain of the lunar surface, a shape that will be easy for astronauts to operate, and weight reduction to reduce the cost of launching it in a rocket. It can also be expected that it will be used on Earth in situations such as disaster rescues In the exhibition, we will introduce an electric motorcycle for the age of space exploration that provides safety, functional beauty and a fun ride.



The manufacturing technology of Osaka is closely linked to people's lives and

supports those lives with its advanced technological capabilities and safety,

social infrastructure, famous buildings, and communications infrastructure. In

including in areas such as the space industry, transportation infrastructure,

the exhibition, we will use VR in a dome-shaped space to express the

high-level processes of this manufacturing and its style of work, which

emphasizes DEI (diversity). We will use a 3D projector to enable visitors to

experience the manufacturing workplaces that are not normally visible, and

The people and technology of small-scale

city factories will create the future!

**OSAKA LOCAL FACTORY EXPO** 

will create a sense of realism

## Log in to another world with the avatar service "GENCHI"

#### toraru Co.,Ltd.

GENCHI is a service in which a robot or a person with a smartphone acts on your behalf as your alter ego. The vision, hearing and touch are shared using patented technology that further develops the telepresence technology used on robots. The service allows the users to experience a sense of realism as if they are actually there. At the venue, we will connect in real time with locations such as Tsutenkaku in Osaka, Asakusa in Tokyo and overseas destinations such as India, and it will be possible for visitors to use "GENCHI" to walk around those areas and talk with the local people

# will make your daily life enjoyable

### **RealWorldGames K.K.**

Using the 3D map engine "TERRA" that we developed in-house, a navigator provides comment on various topics such as "healthy exercise "stress-free commuting time," and "advice on date plans" based on information on the user such as location information and lifestyle rhythm information. At the venue,

we will exhibit the "Leave it up to me! Life health navigation" that uses this svstem. Be sure to experience it at the venue to see how your own dedicated health navigator could improve your life each day.



## The Metaverse: **Empowering Seniors for Better Health**

#### **Techlico Inc.**

friends



## A brilliantly colorful and sustainable future realized through consideration for the environment and surface treatment

### **TSUDA Industrial Co., Ltd.**

One problem with petroleum-derived plastics and paints is that they do not decompose naturally and have a major impact on the global environment. In response to this, we are developing biomass paints derived from plants and technologies to decorate rubber and glass, which have been difficult to process until now. In the exhibition, visitors will see the colorful manufacturing created by environmentally conscious materials and decorative techniques such as the vacuum deposition of a metal coating on a surface, and painting that enables the desired color scheme.



Series A; Selection aims to exhibit innovative products and prototypes developed by innovative SMEs and startups primarily focused on B2C businesses. These exhibitions will cover fields such as Green Tech (GX), SDGs/ESG, XR (AR, VR, Metaverse, Digital Twin) and Lifestyle. Visitors will have the opportunity to see, touch, and enjoy these cutting-edge innovations.

#### [Contact]

Contact Window: Industry and Technology Promotion Staff, Industry Division TEL: 06-6944-6300 E-mail: sangyo@osaka.cci.or.jp





# Your own dedicated health navigator



## **Creating new value for locally produced vegetables!** Aiming for a society with no food loss



#### ASP Co., Ltd.

We will introduce the "Local Healthy Food" that is made by upcycling vegetables and other agricultural and fishery products into foods that promote health. The foods are processed to improve their shelf life, such as by turning them into powder and by fermenting them, and then upcycled into foods for purposes such as improving the intestinal environment, preventing diabetes, and measures against heatstroke. In the exhibition, we will also introduce our efforts for a platform to co-create new markets that will create future food, as we aim to realize a society where the regional foods of Japan are passed down as an important part of the food culture while using up the food completely so that there is no need for phrases such as substandard product or food waste

We will exhibit "Rehamaru Go", a metaverse service for seniors that utilizes Mixed Reality (MR) technology. The service offers features such as access to medical services online, a program that simultaneously trains both cognitive and physical functions, and a point-based system that makes rehabilitation enjoyable. In addition, communication features within the metaverse allow users to deepen their connections with family and



## Hokusai's masterpiece comes to life! A fusion of art and technology

#### UTSUBO Co.,Ltd.

Hokusai's iconic The Great Wave artwork is reimagined at the Expo as an interactive digital experience Brought to life with immersive 3D visuals and body-tracking technology, the wave shifts and transforms in real time, responding to your every move. This installation bridges the physical and digital worlds, offering visitors a unique, modern encounter with one of Japan's most celebrated artworks



# **Reborn with Bioplastics**

Reborn Challenge Implementation Body

West Japan Plastic Products Industrial Association



## Containers that will support the medical care of the future

#### Taisei Kako Co..Ltd.

We support to provide the solution for future medication and challenges in pharmaceutical industries through the products such as biomass plastic pharmaceutical container, counting containers that incorporate the perspective of universal design and devices that support the safe and reliable administration o medication.

## **Organic combs that are gentle to** hair, people and the planet



#### Bamboo charcoal is a material that is gentle on both the hair and the environment. It slides well due to its fine particles and it prevents static electricity, so it protects the cuticle and prevents split ends. At the venue, we will exhibit organic combs made from domestic bamboo charcoal with a biomass ratio of more than 99%.



## Gentle toys that are derived from plants

#### Sanyu Raito Co., Ltd.

We will exhibit educational toys produced using 100% plant-derived bioplastic and bioplastic made from rice husks, which can often become waste material. We are particular about safety throughout. from the selection of the materials to the functional aspects of the toys. We aim to create a future society where the reuse of toys becomes the norm by building a sustainable system for recycling and reproducing products.



## spout pouches

#### Aska Company Co., Ltd.

Our unique spout pouches are made of biomass plastic, a product that reduces the total amount of plastic used. Due to its innovative and sleek design, consumers will unlock new use cases for spout pouches. We will exhibit futuristic scenes at the Expo venue.



### Shifting from toothbrushes that are thrown away, to toothbrushes that are grown

#### Ebisu Co., Ltd.

We will propose a way that we can coexist with plastic products in the future by changing from items that are thrown away to items that we arow

## A pipe organ made from bioplastic

ASAHI KAKO CO ., LTD/Izumi Seisakusho Co., Itd./ Kakuichikasei Co., Ltd./SAKAE CO., LTD./ SAHARA Chemical Co., Ltd./SANKYO PLUS CO., LTD./ SHOEISEIKA INDUSTRY CO., Ltd/FUDO PLASTICS MANUFACTURING INC.

We will exhibit and play music on a pipe organ that has been made from bioplastic. We will introduce the characteristics of this material and the technical challenges involved in its development, together with discussion of its consideration for the environment and coexistence with society.



## **Environmentally friendly lunch boxes**

#### **OSK corporation.**

We will exhibit lunch boxes, cups, and other daily-use items that have been made from bioplastic composite materials that have improved resistance to degradation in hot and humid environments. This will provide an opportunity for visitors to learn that there are some plastics that are environmentally friendly

## **Modular Pen Stand**



### Daimei Plastic Co., Ltd.

By adopting environmentally friendly materials, we aim to contribute to solving social issues. At the exhibition, we will showcase a pen stand made of bioplastic material using injection molding. The pen stand features a functional design that allows it to change shape depending on its use, along with an beautiful design

## **Converting used plastic** into city gas

### **KYOWA Co., Ltd**

In the exhibition, collaborating with Osaka Gas Co., Ltd, we will present the 'Future Energy Recycling System,' which involves the production of methane from waste bioplastics, specifically 'polylactic acid molded products,' by microorganisms.

The produced methane can be upcycled as a raw material for city gas.

## Environmentally friendly goods for everyday life



### Yoshikawakuni Plastics Industries, Ltd.

We will introduce our environmentally friendly products for everyday life that have received LCA evaluation. These are made using bioplastics and composite resins that are our original blend of general-purpose resins mixed with biomass materials such as cellulose nanofibers and cellulose microfibers



## A syringe without a needle

### **IWASAKI INDUSTRY INC.**

We will exhibit a futuristic, human-friendly syringe that realizes hypodermic injections without using a needle. This is achieved by using gas pressure to fire the vaccine or drug solution at high speed through a very small hole in the tip of the syringe

## Changing the plastics around us to plant-based products

#### **Ueyama Plastics Manufacturing Co., Ltd.**

We will exhibit number tags and card stands that are made by injection molding a bio-polyethylene resin reinforced with cellulose nanofiber and contain 90% or more plant-derived ingredients. We will also make new proposals of products for daily use that could be expected to reduce atmospheric CO<sub>2</sub> emissions in the future if bioplastics are used.





**Environmentally friendly pallets suitable** 

for a recycling-oriented society

Our Eco Eco Pallets are made using bioplastics and

strong enough to be used repeatedly, and the raw

we will introduce this new form of pallet that

contributes to a recycling-oriented society.

agricultural waste materials as raw materials. They are

materials can be recycled in the same way as regular

plastics at the time of their disposal. At the exhibition,

Wakakusa Co.,Ltd.







We will work with small and medium-sized plastic product manufacturers concentrated in Osaka on product development, with the goal of showcasing bioplastic products at the EXPO 2025 Osaka, Kansai, Japan. This effort is intended to pave the way for business development following the Expo

**Special Website** 



[Contact] Contact Window: Expo staff TEL:06-6538-6100 E-mail:bio@nishipla.or.jp

## Learning about being environmentally friendly through play

#### **Ring Co., Ltd.**

At the venue, our original corporate character "Join' will introduce environmentally friendly plastic models that are made from bioplastic by using advanced injection molding technology. This will teach children the fun and importance of participating in the creation of a sustainable future.

### Protecting the natural environment with supercritical foaming technology

#### **PLASTECO Corporation**

At the venue, we will exhibit items such as our plant-derived and biodegradable floats made using our unique supercritical foaming technology, and our products made using bioplastic foaming materials that have high-level design possibilities. We aim to manufacture and use highly functional plastic products in an environmentally friendly manner

### **Functional bioplastic containing** a wasabi component

#### Yamaki Plastic Resins Co.,Ltd.

We are developing products in which a wasabi component (AITC) is microencapsulated and kneaded into bioplastic materials. This component is anti-mold, antibacterial, insect repellent and deodorant. At the exhibition, we will introduce products such as pellets and sheets that use this material and have a low environmental impact.



### **Environmentally friendly cutlery that** can be broken down by microorganisms

#### TADA PLASTIC INDUSTRIES CO., LTD.

We use the injection molding technology we have been perfecting for over 70 years to form various shapes with a biopolymer that is 100% plant-based and biodegradable in seawater. We will introduce an environmentally friendly set of plates and cutlery. The design of the plates is a cherry blossom motif to give them a Japanese impression



## A beer tumbler made from bamboo charcoal and sugar cane



#### Yamayoshi Plastic Industry Co., Ltd.

By blending porous bamboo charcoal powder into the tumbler material, a creamy foam is generated when the beer is poured. We will introduce "a tumbler that makes beer delicious" that is made of environmentally friendly materials, with a mixture of resin derived from sugar cane and bamboo charcoal.

Medical devices that offer safety and reassurance for both people and the environment



In the exhibition, we will introduce future manufacturing that combines 3D scanning, 3D printing, and environmentally friendly sustainable materials to provide one-of-a-kind medical devices that are tailored to each individual patient

# The Manufacturing SMEs "E, N, NO, SHI, TA" (unsung heroes) that Support Our Lives in the Near Future

Reborn Challenge Implementation Body

**Osaka Research Institute of** Industrial Science and Technology(ORIST)

## Surface modification technology pioneering the near future beyond 5G

#### **Beyond 5G Surface Modification Unit**

We are developing technologies related to the substrates, electromagnetic shielding, and metasurface reflectors that are essentia for realizing the high-speed communications infrastructure described as "Beyond 5G." In the exhibition, we will introduce various technologies that contribute to the realization of Society5.0, including plating primer technology and pattern exposure technology that realize the control of electromagnetic waves in high frequency bands, and surface modification technology and plating technology that realize direct plating on low dielectric constant resins for next-generation high-speed communications



## Future lifestyles realized with old but new phenolic resin

#### LIGNYTE CO., LTD.

We will introduce the next generation of environmentally friendly gears, which are made by incorporating plant-derived materials into phenolic resin, which was the world's first plastic. We will also exhibit a prototype all-solid-state battery that uses carbides derived from phenolic resin as the negative electrode material, which our company has been developing for many years. Phenolic resin was first created more than 100 years ago, but we will introduce technology to utilize it as an advanced material of the future that can contribute to carbon neutrality

## Special substrate materials supporting the future of communications



#### **Beyond 5G materials development team**

We are developing substrates that will be the key to the next-generation "Beyond 5G communications infrastructure. The use of materials with low dielectric properties is necessary in order to realize the ultra-high speed, ultra-low delay, and multiple simultaneous connections that are the characteristics of Bevond 5G communications In the exhibition, we will introduce materials such as resins and connector materials that improve the dielectric properties, which affect signal delay and transmission loss, balanced substrate materials that maintain their moisture absorption resistance, heat resistance, and dimensional stability while also having low dielectric properties, and materials that are made recyclable. Be sure to come and see the cutting-edge technologies that will contribute to the communications of the future.



Environmentally friendly gears

Carbides derived from phenolic resin are used as the negative electrode material



All-solid-state battery

# off easily with the power of electricity



# and in any quantity.

#### **SOEC Green Hydrogen Development Consortium**

The SOEC (Solid Oxide Electrolysis Cell) technology, which generates hydrogen by electrolyzing water at high temperatures, enables the production of low-cost and environmentally friendly green hydrogen. At the exhibition, we will showcase a compact and highly efficient "SOEC Green Hydrogen Production Unit" that utilizes renewable energy. Additionally, we will explain its potential to evolve into a multi-energy supply system capable of producing methane and ammonia using the generated hydrogen.

## A sustainable diet realized with a superheated steam cooker



#### ACE SYSTEM CO., LTD.

We will introduce food processing technologies that create delicious, long shelf-life foods that also contribute to health. This includes the use of 'superheated steam cooking technology," which does not cause much destruction of the food cells during processing, and "steam control technology," which preserves the taste and nutrients of the ingredients. We will explain the mechanism by which these processed foods contribute to food loss reduction. We will also provide a futuristic food coordinator experience for the visitors by combining superheated steam cooking with an AI chef that performs food management to fit with the health condition of the individual

## Realizing a prosperous society by coexisting with electromagnetic waves



Medical-Aid Co., Ltd.

With the spread of smartphones and various communication systems, EMC technology to prevent electromagnetic interference and equipment malfunction is becoming increasingly important. At the venue, we will show a video on the theme of "Realizing a prosperous society that coexists with electromagnetic waves" and we will exhibit items such as new special electromagnetic shielding materials that reduce the effects of reflection and resonance, a variety of medical and military-use clothing that protects against electromagnetic waves, and an electromagnetic wave shielding box where the inside can be viewed from the outside. Please be sure to experience the latest anti-electromagnetic wave technology at the venue

## **Biologging and next-generation** lithium-ion battery innovation

#### ATTACCATO LLC.

We will introduce the latest battery technology and the peripheral technologies that support it, through exhibits of biological models equipped with biologgers (devices attached to wild animals to obtain ecological data). exhibits of next-generation high-capacity lithium-ion batteries and others. We will show how we are contributing to the SDGs from the perspectives of contributing to clean energy and protecting biodiversity. We will also exhibit the battery development we are conducting in consideration of a circular economy, and the recycled materials from those efforts.

We will exhibit prototypes and technologies that have been successfully commercialized using ORIST's technical support menu, showcasing the technological capabilities of Osaka's small and medium-sized enterprises (SMEs) to the world. For nearly 100 years, ORIST has supported a wide range of companies, including SMEs and startups, across various technical fields. We will highlight those companies that have achieved commercialization and technological advancements, presenting them as "the products and technologies that will support our life in the near future." We hope visitors will appreciate the exceptional technologies that Osaka's SMEs have to offer.

**Special Website** 



#### [Contact]

Contact Window: Planning Division, Corporate Management Headquarters TEL: 0725-51-2525 E-mail: keiei@orist.jp

# Strange adhesive tape that can be peeled



### VIGteQnos Co., Ltd.

Electro-peeling adhesive tape" has the characteristics that it forms a strong bond during its use, but after use, simply applying a voltage of 10 V for 10 seconds reduces the adhesive strength by more than 90%. Furthermore, it can be used repeatedly, so our aim is to have it implemented in the future as a sustainable technology in terms of its recycling and the environment. At the venue, we will demonstrate how the tape can be easily peeled off with electrical stimulation.

The future of on-demand hydrogen: produce it whenever, wherever,

At that time, AI determines the ideal electric power to use so that it is used wisely!



#### mirai-no-koto Co.Ltd

"SMART GRID MANAGEMENT" is a system in which an AI linked to weather information refers to information on the Japan Electric Power Exchange (JEPX). It then performs the optimal operation of the power In the exhibition, we will use models and LCD screens to explain how the weather forecast and the equipment such as photovoltaic power generation, storage batteries and air conditioning equipment are linked together to generate, store, use, procure, and sell electricity wisely. We will also explain the effectiveness of this system

## Various power control technologies that will realize a carbon neutral society

#### WAKOH DENKEN Co.,Ltd

We are developing technologies for the efficient conversion of renewable energy into electrical energy, and for the social implementation of the use of electrical energy generated by using hydrogen and ammonia as energy sources. In the exhibition, we will introduce our power control technologies such as a highly efficient bi-directional power supply that controls the flow of electricity in both directions, and a DCDC converter for fuel cells that stabilizes the output voltage of the fuel cell.



## The world of forging technology, which has endless possibilities

#### HI-TEN INDUSTRY COMPANY, LTD

When die sets (the jigs and tools for fixing molds) that have improved heat insulation performance are combined with die processing technology, it becomes possible to perform highly accurate and precise metal processing. At the venue, we will have visitors experience the world of advanced forging technology through exhibits of daily necessities such as kitchen knives and incense holders that an made from a titanium alloy by hot forging at 900°C.





### Expo 2025 Osaka, Kansai, Japan Osaka Healthcare Pavilion "Reborn Challenge" Exhibiting Companies List

(\*) indicates consortium name.



uilding Together on Our Diverse Four	ndation for the Future Society			> P.16
nk, Ltd.		Special Website 🕨		
Computer Science Institute Consortium(*) SystemGear Vision Co., Ltd.	Nissin Denki Kohsaku CO,,LTD HelloWorld Inc.	BeLiebe Cons	sortium(*)	
cademia × REBORN -Harmony between Aca	ademia & Society, between Theory & Practio	ce-		> P.18
iversity		Special Website 🕨		
Osaka Yakin Kogyo Co., Ltd. KUREi Co.,Ltd. Cranebio Co., Ltd	Goenjin inc. NanoSpike Inc. Virtual Motorsport Lab Inc.			
eries A; Selection ~10 Innovators who will E	Build a Bright Future Society~			> P.20
a Chamber of Commerce and Industry		Special Website 🕨		
TSUDA Industrial Co.,Ltd. Techlico Inc. toraru Co.,Ltd.	UNION DOOR TECH Co.,Ltd. RIDE DESIGN RealWorldGames K.K.			
eborn with Bioplastics				> P.22
an Plastic Products Industrial Association		Special Website 🕨		
Daimei Plastic Co., Ltd. Kakuichikasei Co., Ltd. KYOWA Co., Ltd SAKAE CO., LTD. Ltd. SAHARA Chemical Co., Ltd. SANKYO PLUS CO.,LTD. Sanyu Raito Co., Ltd.	SHOEISEIKA INDUSTRY CO.,Ltd Taisei Kako Co.,Ltd. TADA PLASTIC INDUSTRIES CO.,LTD. FUDO PLASTICS MANUFACTURING INC. PLASTECO Corporation Yamaki Plastic Resins Co.,Ltd. Yamayoshi Plastic Industry Co.,Ltd.	YOSHIKAWA Yoshikawakur LEADER CO., Ring Co.,Ltd. Wakakusa Co	KASEI CO., LTD. ni Plastics Industries, LTD. .,Ltd.	Ltd.
e Manufacturing SMEs "E, N, NO, SHI, TA" (uns	sung heroes) that Support Our Lives in th	e Near Future		> P.24
search Institute of Industrial Science and Technolog	y(ORIST)	Special Website 🕨		
HI-TEN INDUSTRY COMPANY ,LTD VIGteQnos Co., Ltd. Beyond 5G materials development team(*)	Beyond 5G Surface Modification Unit(*) mirai-no-koto Co.Ltd Medical-Aid Co., Ltd.	LIGNYTE CO. WAKOH DEN	,LTD. KEN Co.,Ltd	

You can also check exhibiting companies on the Expo 2025 Osaka, Kansai, Japan Osaka Healthcare Pavilion "Reborn Challenge" special website.

