# Let's Create the Future of Humans, Things and Digital Together:

——Transform Manufacturing of Osaka into Digital Based

A World Where Your Own **Words Become the Key** "Open Sesame" Has Been Realized

#### **WEST inx Inc.**

We provide a new experience that captures sound and words as waveforms and converts them into key roles. It's a mechanism where when you speak Osaka dialect toward the microphone, those words are converted into waveforms, and if the intonation matches, the door opens. By using "sound" instead of physical keys, PIN codes, or fingerprint authentication to lock and unlock doors, we propose a new style of key that overturns conventional wisdom.









**Realizing a Plastic-Free World with 100% Paper Material Origami Products** 

#### OUTSENSE inc.×Omikenshi Co.,Ltd

We are advancing development aiming to replace containers using plastic with 100% paper materials and realize containers for liquids like water and oil with 100% paper materials. We also introduce 100% paper material exhibition fixtures for the exhibition decoration industry. By combining OUTSENSE inc.'s folding engineering with "MAGNATURE" developed by Omikenshi Co., Ltd. using 100% paper materials we contribute to plastic reduction

**Fusion of Digital Technology and Traditional Craftsmanship 100-Year-Lasting Manufacturing** 

### HAGURUMA Co., Ltd.

Through multi-color letterpress printing, we present a wall-wide art piece featuring 72 types of cards with motifs symbolizing traditional good luck, strong relationships, and protective charms. Feel the warmth of paper through touch and admire the vivid colors, overprinted in up to 12 layers. Experience the unique analog value of this era, born from the fusion of digital precision and craftsmanship



## **Digitalizing Shinra-Bansho**



#### KUMONOS Co., Ltd.

Digitalizing World Heritage sites using "3D point cloud data" technology utilized in architecture and civil engineering fields. Leveraging our track record of acquiring over 3,000 point cloud data sets, we aim for high-precision point cloud data to be utilized in all fields in the future, transmitting digital twins through cutting-edge technology to the world.

**Realizing through Fusion of Technology, Development Capability, and Digital Manufacturing Site "Society 5.0"** 

#### **VESSEL CO., INC.**

We exhibit "tools," "peripheral devices," and "storage" that assist engineers and mechanics working in factories of the future, imagining maintenance of "flying cars" to be operated at the Osaka Expo. Through video, see how tools become convenient through digital technology, how Al functions. and how safe, comfortable work without human error is realized.



Reborn Challenge Implementation Body

The Senshu Ikeda Bank, Ltd.

Experience a space that lets you feel the "manufacturing site" of the future in Society 5.0. Through the use of digital technology, focusing on manufacturing within an ever-changing industrial landscape, we aim to develop content that allows visitors to experience the future of manufacturing by showcasing both companies pursuing digital transformation (DX) and startups providing such technologies, expressing this as "The Manufacturing Site of the

Contact Window: Regional Co-creation Innovation Department 

Special Website



# **Packaging Technology of the Future** Considering the Environment

#### NissiN SeaL Industry Co.,LTD.

We will exhibit packaging products made of single materials that enable chemical recycling (recycling that returns materials to the same raw materials) which is normally difficult due to composite materials. Also, "shrink bottle" using shrink film normally used only for labels as part of the container can reduce the total amount of resin in the container and uses biomass-derived materials. This is packaging materials of the future considering the environment



# A Society Where Digital Twins of Factories and Manufacturing Processes Are **Implemented in the Real World**

#### **Hutzper Inc.**

Through a large-scale simulation video envisioning a "small-scale factory equipped with cutting-edge technology," we provide an immersive space where visitors can experience the future of manufacturing.

This is not a far-fetched "smart factory" concept but a realistic portrayal of how future factories will evolve in real-world settings



# **Protecting Japan's Infrastructure! Making the Impossible Possible in** "Elevated Work"

#### Shinmen Tekko Co., Ltd.

Maintenance after completion of giant steel structures like the Akashi Kaikyo Bridge is a major challenge, and especially surface inspection and repair are difficult for humans, and current technology cannot fully protect them. Therefore, we show the possibility of realizing what was previously impossible by evolving and combining existing robot, Al, laser, and other technologies

**Automatic Generation of AI Teaching Data Using Cutting-Edge Generative AI Technology** 



#### **DATAGRID** Inc.

We build digital twins of factory interiors using the latest generative AI technology. In this exhibition, focusing on product data digitalization, when developing "visual inspection AI" that automates inspection processes, we build big data for AI development by using generative AI to generate diverse and massive amounts of good/defective product image data needed in large quantities. We will introduce how visual inspection AI is automatically built by automatically generating teacher data (training data) most important for Al development.

# A hybrid world of manufacturing that fuses analog and digital.

#### TOHO INTERNATIONAL INC.

To showcase our vision of "old but coolish" future manufacturing using IoT service technologies applied to aging manufacturing equipment, we have created a demonstration using wire based Rube Goldberg apparatu By visualizing the flow of IoT data through rolling silver balls, we aim to make IoT easy to understand and engaging, leaving visitors with the impression that it is "cool"



# **Site of the Future** Where Manufacturing **Craftsmen Shine Even More**

#### Tokai Spring industries, Inc.

We believe that the manufacturing sites of the future will not be inorganic where Al and robots replace craftsmen's work, but rather because it will be a world where Al and robot technology will have developed, craftsmen will be able to concentrate on high-value-added, high-difficulty product making, and their value will be increasingly sought after. We will introduce the "manufacturing site of the future" that produces high-value-added spring products through craftsmen's manual techniques while utilizing the latest sensing technology and Al

The listed companies and exhibition contents are subject to change





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