

# 05

Lifestyle | Social Infrastructure

## Preparedness for Emergencies and Everyday Public Services: A Future of Resilient and Flexible Infrastructure

[Activity Overview]

- Digital evacuation drill using generative AI and real-space metaverse technology | AEON MALL Iwaki Onahama (Iwaki City, Fukushima Prefecture)
- Joint evacuation drill at Shikama Elementary School: Protecting lives through self-help and mutual aid | AEON MALL Himeji River City (Himeji City, Hyogo Prefecture)
- Lake Town Disaster Prevention Fair 2024 | AEON Lake Town (Koshigaya City, Saitama Prefecture)
- Hiroshima City Danbara Community Support Center | Hiroshima Danbara Shopping Center (Hiroshima City, Hiroshima Prefecture)
- Sano Shintoshin Administrative Service Center | AEON MALL Sano Shintoshin (Sano City, Tochigi Prefecture)
- Ogaki City South Service Center | AEON MALL Ogaki (Ogaki City, Gifu Prefecture)
- Tsugaru City Library | AEON MALL Tsugaru Kashiwa (Tsugaru City, Aomori Prefecture)
- Futtsu City Library | AEON MALL Futtsu (Futtsu City, Chiba Prefecture)





# Digital Evacuation Drill Using Generative AI and Real-Space Metaverse Technology



## Project Overview

This project consisted of evacuation drills using the latest digital technology. Residents used a smartphone app that helped with evacuation, and interacted with an AI avatar that gave advice at evacuation centers.

Incorporating disaster prevention digital transformation to build a community where people can live with peace of mind



Digital Evacuation Drill (Held March 3, 2024)

A total of 140 people attended, including 39 residents from the neighborhood around AEON MALL. Participants evacuated while checking the Evacuation Assistance Smartphone App, which provided real-time information about nearby hazards.



## Unique Features

The Disaster Countermeasures Headquarters monitors evacuations in real time. The app also lets users report real-time disaster information. The app provides evacuation guidance based on the current disaster conditions.

### Facility: AEON MALL Iwaki Onahama

AEON MALL Iwaki Onahama is located within the Onahama Port Rear Land Earthquake Reconstruction Land Readjustment Project. As a symbol of reconstruction, as stated by Iwaki City, the mall aims to serve as a disaster prevention mall and contribute to the creation of a vibrant urban center.

Basic market area	: 140,000 households and 370,000 people within a 45-minute drive
No. of stores	: 130 (specialty stores)
Land area	: Approx. 44,000 m <sup>2</sup> (including parking on a separate lot)
Parking spaces	: Approx. 1,300
Opening	: June 15, 2018

### Location: Iwaki-city, Fukushima Prefecture

With its mild year-round climate, Iwaki City is often called the "Hawaii of the Tohoku region." The Onahama area, where the mall is located, is home to Aquamarine Park, where visitors can enjoy an aquarium and sightseeing boats. The town is a lively port town that hosts various events throughout the year.



Life Design Developer  
Iwaki City × Tohoku University  
International Research Institute of Disaster Science × AEON MALL Iwaki Onahama



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## Zero Delayed Escape and Zero Disaster Deaths: A Challenge to Strengthen Disaster Preparedness

**Mr. Honda:** Iwaki City suffered extensive damage from the Great East Japan Earthquake and the Reiwa 1 East Japan Typhoon. We used those events as lessons to improve our disaster preparedness and become a model city for crisis management—one with zero delayed escape and zero disaster deaths. To become this model city, it is important to strengthen and coordinate self-help, mutual aid, and public support, while also promoting collaboration between industry, academia, and government. We also have a disaster prevention agreement with AEON MALL Iwaki Onahama.

**Mr. Kawaguchi:** Yes, that is right. We are developing the mall to function as a temporary evacuation site and information hub in the event of a tsunami. Since fall 2021, we have been holding tsunami evacuation drills with Iwaki City and local residents every six months, alongside infrastructure improvements. We saw how enthusiastic many participants were during the drills, but we also realized the need for a more practical way to raise disaster awareness—that's when we learned about this demonstration experiment.

**Mr. Oishi:** Disaster management still lags behind other areas when it comes to using digital technology. I'm working on research and development to promote disaster prevention digital transformation, which aims to transform disaster preparedness by using advanced technologies like generative AI and the metaverse. As part of this effort, we wanted residents to actually try using two tools—the Evacuation Assistance Smartphone App that shows real-time danger in the area and displays arrows for evacuation routes, and an AI avatar that supports life in evacuation centers. Our goal was to test effectiveness as we move toward making these tools available for practical use.

## Providing Safety and Peace of Mind to Local Residents and Visitors

**Oishi:** Looking back on the Great East Japan Earthquake, while evacuation and ensuring safety are personal actions, as Mr. Honda said, mutual aid, or community support, played an important role. From this perspective, we wondered if we could collaborate with AEON MALL, a place where local residents gather and which is committed to co-creating with the community.

**Kawaguchi:** I felt honored when I heard about this opportunity. I believed that we

could contribute to protecting the safety and security of residents and visitors in Iwaki City, as well as help advance disaster prevention digital transformation in Japan.

**Honda:** I also had high expectations. This time, the Evacuation Assistance Smartphone App is very easy to understand because it is simple, with arrows on the app's screen showing the evacuation routes. We considered this drill appropriate for the region because it ensures efficient evacuation for residents and prompt evacuation for visitors and others who may not be familiar with the area's geography.



## Evacuation Assistance Smartphone App Screen

A real-space metaverse that overlays information onto the physical environment. The app notifies the Iwaki City Disaster Countermeasures Headquarters when a dangerous location is reported during an evacuation and uses this information to display safe evacuation routes with arrows. We tested the system during the evacuation drill.



## Iwaki City × Tohoku University

## International Research Institute of Disaster Science × AEON MALL Iwaki Onahama

## We Want to Do it Again: Using the Latest Technology Added Extra Value to the Drill

**Honda:** We worked closely with Mr. Oishi and Mr. Kawaguchi to prepare for the drill. Because evacuees would be walking while looking at their smartphones, we discussed safety measures in advance with the Iwaki-Higashi Police Station. On the day of the event, AEON MALL staff and security personnel supported us to ensure everything ran safely.

**Kawaguchi:** At the residents' previous briefing, we explained things in a clear and simple way so people of all ages could feel encouraged to join the drill with a positive attitude. In fact, everything went smoothly except for the



Computer College and National Institute of Technology, Fukushima College—we were able to run the event smoothly and without major problems. We hope to keep working with the local community to create a new standard for disaster prevention drill. I may be transferred anywhere in the country, so I want to take on challenges like this at every new place. Thank you, Mr. Oishi, for your ongoing support.



**Oishi:** Likewise, thank you. Conducting this drill and receiving feedback from the people of Iwaki City, who are deeply committed to disaster preparedness through their own experience, was the most meaningful outcome. I also realized that using this kind of new technology at AEON MALL locations across Japan could help improve the overall disaster readiness nationwide. As technology continues to evolve, I hope to keep working to link developments with real-world challenges and transform disaster response.



glad to confirm the need to promote disaster prevention digital transformation by carrying out this forward-thinking initiative in Iwaki City. We were also pleased to share it with people across Japan through coverage by many media outlets.

**Oishi:** I believe the drill's goal resonated with both the residents and the media because everyone at AEON MALL, led by Mr. Kawaguchi, explained and guided us clearly.

**Kawaguchi:** Disasters can cause panic, so we want to improve our communication and leadership skills even more.

## Ongoing Challenges to Strengthening Disaster Preparedness

**Honda:** I want to keep working to improve Iwaki City's disaster preparedness, including advancing disaster prevention digital transformation.

I also hope to work with AEON MALL to both revitalize the community and strengthen disaster prevention efforts.

**Kawaguchi:** Thanks to the cooperation of many people—including Iwaki City officials, the Onahama Fire Department, local fire companies, the Higashi Police Station, and students from Iwaki

part where we had to install the app.

**Honda:** No one said the drill was difficult, and the post-drill survey received positive feedback from participants who said they wanted to do it again. Generally speaking, it is difficult to get people to participate in drills on a regular basis. Regular practice is key to improving disaster preparedness, so drills like this are helpful.

**Oishi:** I saw a positive reaction because both the Evacuation Assistance Smartphone App and the AI Avatar received high praise, even from older people. The use of digital technology also energized the drill, attracting many young participants.

**Honda:** Evacuation behavior data showed that people who used the app walked over 200 meters less than those who didn't, meaning app users evacuated more efficiently. We were

## Lifestyle Projects

The following section introduces a few of our regional initiatives.

## PROJECT | CASE 02

## Evacuation Drill and Disaster Prevention Fair



Raising Disaster Awareness With the Community Through Realistic Disaster Simulations

## Joint Evacuation Drill at Shikama Elementary School: Protecting Lives Through Self-Help and Mutual Aid

AEON MALL Himeji River City | Himeji City, Hyogo Prefecture

In November 2024, we held an evacuation drill at the mall, which is designated as a tsunami evacuation building. Teachers and students from Shikama Elementary School, who have participated in work experience programs with us, took part in the drill. On the day of the event, older children quietly evacuated while holding hands with younger children. Mall employees felt satisfied after successfully evacuating 700 people and identifying challenges in managing the evacuation.



## Lake Town Disaster Prevention Fair 2024

AEON Lake Town | Koshigaya City, Saitama Prefecture

A citizen-participatory disaster prevention event is held every May at all AEON Lake Town buildings (mori, kaze, Lake Town OUTLET, and AEON Style Lake Town), where children and adults alike can experience the importance of disaster prevention while having fun. In 2024, about 40 organizations—including the Koshigaya City Fire Department, local government, community groups, and businesses—worked together to hold a two-day event that attracted approximately 80,000 participants in total.



Co-Creation Partner: Akihiro Hotta, Vice Chairperson, BeGood Cafe (NPO)

## PROJECT | CASE 03

## Various Administrative Services



Creating Places Where People Can Learn About Administrative Services, Consultations, and Educational Opportunities While Shopping

## Hiroshima City Danbara Community Support Center

Hiroshima Danbara Shopping Center | Hiroshima City, Hiroshima Prefecture



## Ogaki City South Service Center

AEON MALL Ogaki | Ogaki City, Gifu Prefecture



## Sano Shintoshin Administrative Service Center

AEON MALL Sano Shintoshin | Sano City, Tochigi Prefecture



## Tsugaru City Library

AEON MALL Tsugaru Kashiwa | Tsugaru City, Aomori Prefecture



## Futtsu City Library

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