

# Anticipating the Future, Building Next-Generation Digital Governance and Living Environments

The Civil IoT Taiwan Theme Pavilion brings together relevant project implementation departments to jointly exhibit under the theme of “Anticipating the Future, Building Next-Generation Digital Governance and Living Environments” . It showcases comprehensive solutions in the four major areas of water, air, land, and disaster, demonstrating through the collaboration of public and private sectors the protection of the environment and successful international export of applications and technologies. It bears witness to the utilization of technology and industrial technical capabilities to promote intelligent disaster prevention and governance.

**Water Domain** - This collaborative effort involves the Water Resources Agency of the Ministry of Economic Affairs, the Irrigation Agency of the Ministry of Agriculture, the Department of Industrial Technology of the Ministry of Economic Affairs (Industrial Technology Research Institute), and other related units. Through the use of independently developed sensors and advanced monitoring and simulation forecasting, the Civil IoT Taiwan project demonstrates its achievements in enhancing smart water-saving irrigation, monitoring water situations, and ensuring river water quality. By employing technologies like AI and cloud computing, these entities can engage in remote, automated, and intelligent management, working towards the shared goal of efficient utilization. Furthermore, it exemplifies the comprehensive solution of exporting domestically developed sensors internationally.

**Air Domain** - Collaboration among the Ministry of Environment, the Department of Industrial Technology of the Ministry of Economic Affairs (Industrial Technology Research Institute), the National Science and Technology Council (Taiwan Instrument Research Institute), and other relevant departments is crucial. Initiated by the Ministry of Environment, the Air Quality Ten Thousand Point Sensor Project drives the development of PM2.5 and air quality-related sensor components, while also promoting the domestic production of environmental sensor technology systems. This initiative involves establishing air quality infrastructure, collecting data on air pollution, developing data analysis and forecasting

models, implementing intelligent inspections, all aimed at positioning Taiwan as a benchmark country in smart environmental sensing and applications.

**Land Domain** - Collaboration among the Central Weather Administration of the Ministry of Transportation and Communications, the National Center for Earthquake Engineering, and other units emphasizes the importance of public-private cooperation in promoting earthquake early warning and disaster prevention services in our country. By showcasing government-led “infrastructure” and “systems/platforms” development, it aims to create a value-added platform that demonstrates the joint efforts of the public and private sectors in intelligent early warning, enabling Taiwan's industries to export applications internationally.

**Disaster Domain** - Collaboration among the National Science and Technology Center for Disaster Reduction, the National Fire Agency of the Ministry of the Interior, and other relevant departments involve the application of data from the Civil IoT Taiwan platform, incorporating emerging technologies such as AI and digital twins. This value-added integration enhances smart disaster prevention applications, showcasing government data governance. It supports central and local government disaster prevention and response decision-making, implements, and strengthens public awareness of disaster prevention, all aimed at creating a livable society and fostering mutually beneficial industrial development.

