

NIAR Introduction

Established in June 2003, the National Institutes of Applied Research (NIAR, pronounced "near"), formerly known as the National Applied Research Laboratories (NARLabs), officially adopted its new English name " NIAR " on March 25, 2025, and combined 8 national centers into an independent nonprofit institute under the National Science and Technology Council (NSTC) . Despite the name change, NIAR remains committed to its core missions, including establishing R&D platforms, supporting academic research, promoting frontier science and technology, and fostering high-tech talent. With our vision of "Global Excellence, Local Impact " , we provide research facilities, platforms, and technical services to industry, government, academia, and research institutes in Taiwan. NIAR endeavors to translate academic research results into real businesses and emerging industries in the hope of making contributions for the benefit of social welfare.

Prospect

Looking forward to the future, NIAR will pursue multidisciplinary integration and newly applied technologies, which include semiconductors, AI, cyber security, unmanned systems, net zero technology, and biotechnology based on existing scientific research domains to respond to environmental impacts and social changes. NIAR will spare no effort in its role to establish R&D platforms and enable innovative technologies, exhibiting its irreplaceable value in national technological development.

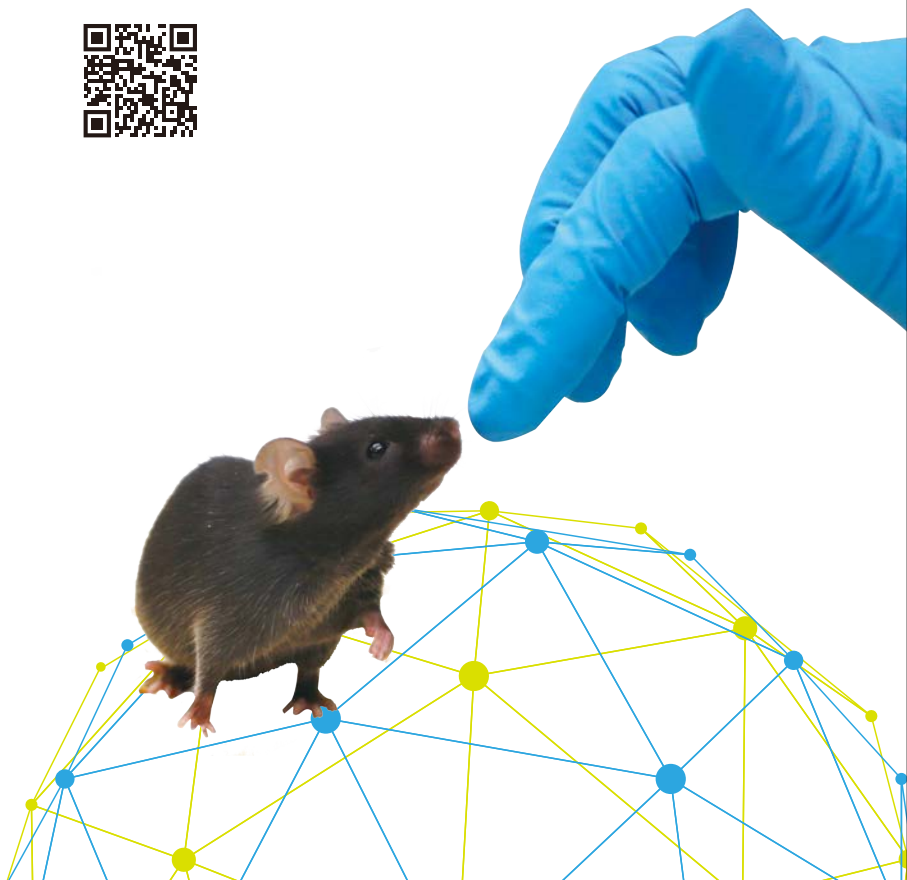


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National Center for Biomodels

Precision Medicine Hero the Heroes

Conquer disease with precision. Hero the heroes in translational medicine. Aiming to support drug innovation and medical device development, NCB teams up all expertise and animal resources to provide a one-stop-shop efficacy service platform for preclinical animal testing.



NIAR NATIONAL INSTITUTES OF APPLIED RESEARCH
National Center for Biomodels

Biomedical Technology

- Genetic Modification & Reproductive Management of Laboratory Animals
- Development and Validation of Alternative Methods
- High-end Medical Material Implant Surgery and Efficacy Testing
- Germ-free Mice and Isolator Technology
- Disease Model Establishment and Efficacy Testing
- Facility Management and Professional Counseling

National Center for Research on Earthquake Engineering

Building a Sustainable and Seismic-Safe Homeland

Pre-Earthquake Preparedness:

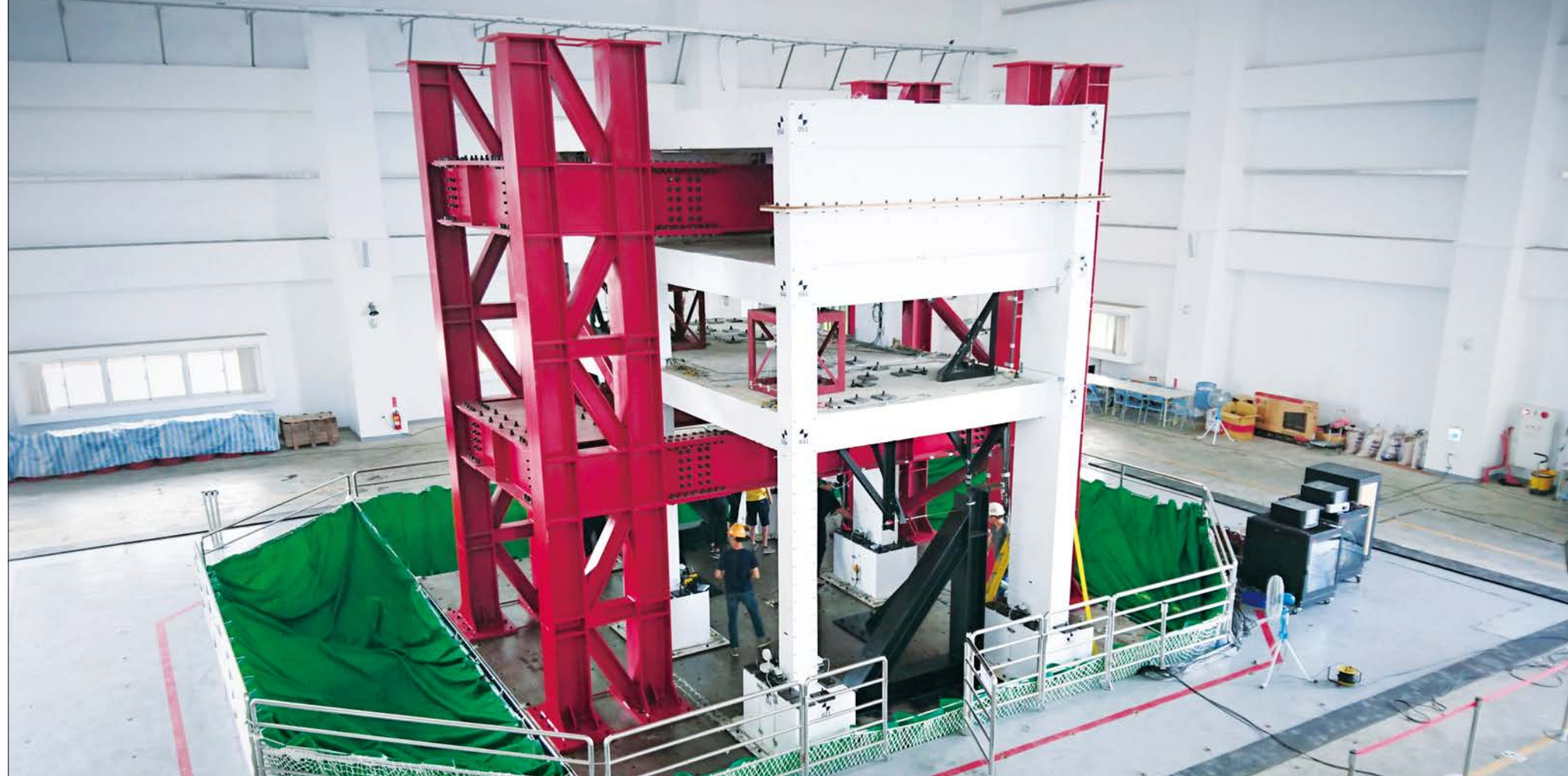
Promoting seismic provisions and revisions, seismic assessment and retrofit, and seismic isolation and energy dissipation technology to ensure the safety of our homeland.

Emergency Response:

Developing early warning notification of strong earthquakes and early loss estimation to instantly examine structural safety and reinforce emergency response.

Post-Earthquake Restoration:

Providing post-quake rescue facilities and rapid evaluation of structural damage status to assist with post-quake restoration.



NIAE NATIONAL INSTITUTES OF APPLIED RESEARCH

National Center for Research on Earthquake Engineering

Environment Technology

- Seismic Testing and Numerical Simulation Technologies
- Seismic Resistant Design, Evaluation, and Retrofit Technologies
- Earthquake Loss Estimation Technologies

National Center for High-performance Computing HPC Acceleration – Science and Research Advancement

The NCHC is dedicated to integration of national-level cloud facilities for high-performance computing, the 100G advanced research and education network, high-performance storage, and big data analysis to provide world-class HPC and AI high-speed computational resources to help scientific research transcend limits in physical tests and facilitate scientific breakthroughs and technological innovations. As a cornerstone of the “Digital Nation, Smart Island” policy, the NCHC continues to develop next-generation high-performance computing technology and applications to build more powerful and resilient networks, improve the environment for digital research and development in the country, and keep up with international standards.



NIAE NATIONAL INSTITUTES OF APPLIED RESEARCH

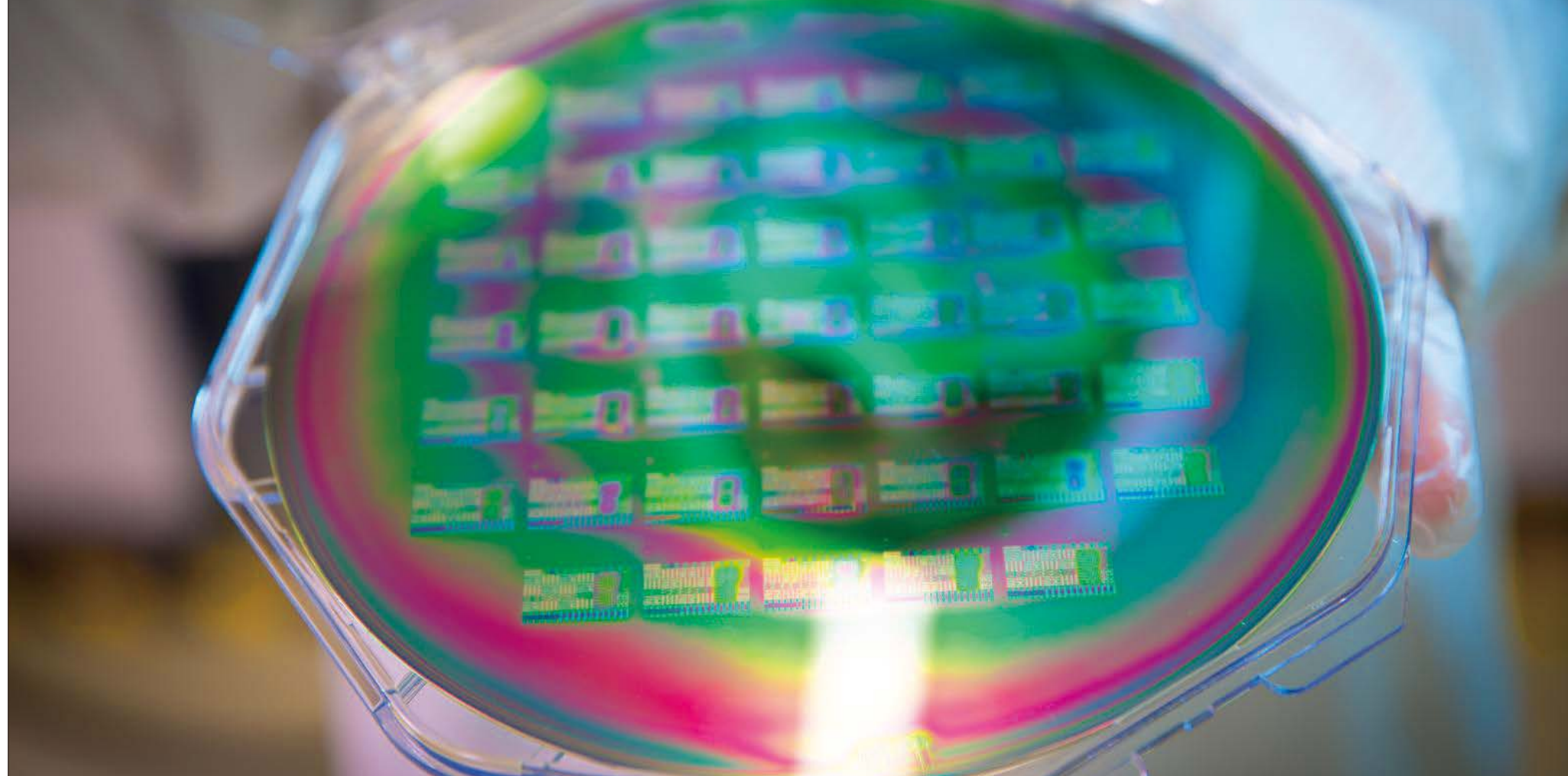
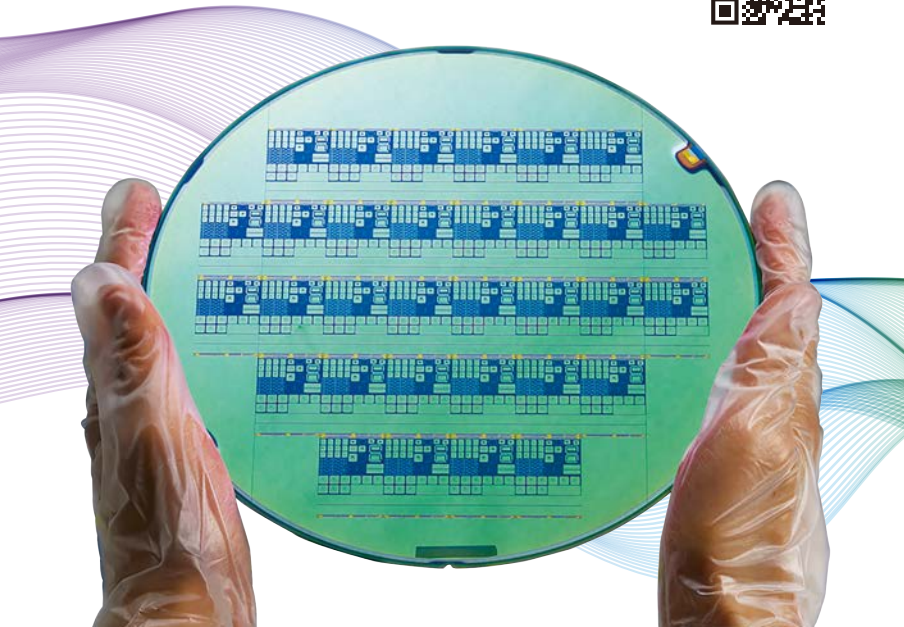
**National Center for
High-performance Computing
Information & Communication
Technology**

- High-performance Computing
- Big Data Computing
- AI Computing Cloud Services
- Network and Information Security

Taiwan Semiconductor Research Institute

Integration Transcends Limitation

TSRI effectively integrates resources, establishes shared environments and platforms for chip design, manufacturing, and R&D; offers R&D services for chip design, tape-out, testing, semiconductor devices, materials, and processes; and provides talent cultivation. In the future, TSRI will continue to carry out integration while taking design and process into total consideration, elevating its effectiveness and innovative technologies while enabling Taiwan semiconductor technology to play a major role in the world.



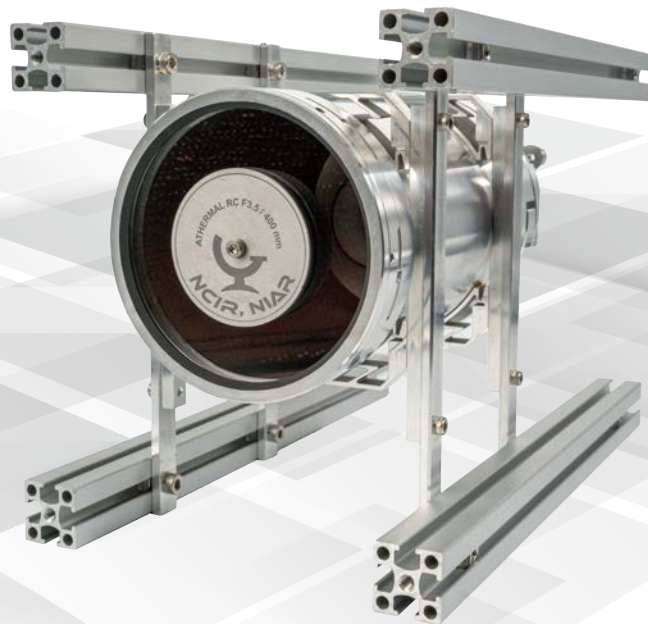
Information & Communication Technology

- Chip Design Tape-out Procedure Integration
- Pioneering Device and Processing Technology
- Heterogeneous Chip Integration Technology
- Material Detection and Analysis Technology
- Chip Packaging and Measuring Technology

National Center for Instrumentation Research

A Cradle for Novel Instrument

Being the "Dream Incubator for Frontier Technology" within the industry and the academia, NCIR targets to prosper Taiwan's R&D strength in instrument technology. NCIR has been a significant key partner in research through establishing service platform for instrument development and talent cultivation as well as providing customized services for cutting-edge technologies and leading academic and research institutions. NCIR also supports academic research and exploration, bridge the industry and the academia to promote technology development and implementation. In order to ensure the sustainable advancement of Taiwan's advanced instrument technology, NCIR is also dedicated to cultivating professionals.



NIAIR NATIONAL INSTITUTES OF APPLIED RESEARCH

National Center for Instrumentation Research

Information & Communication Technology

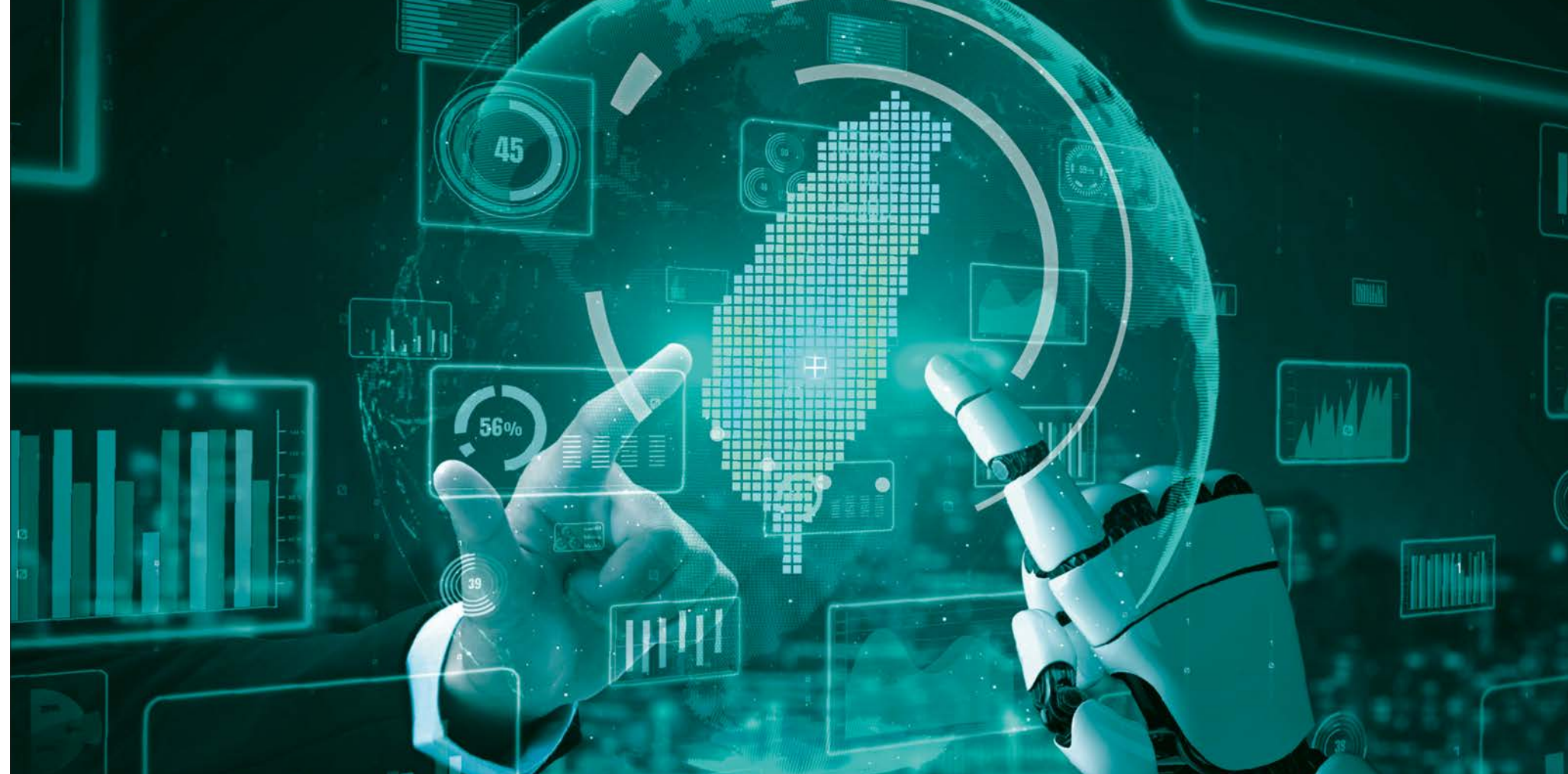
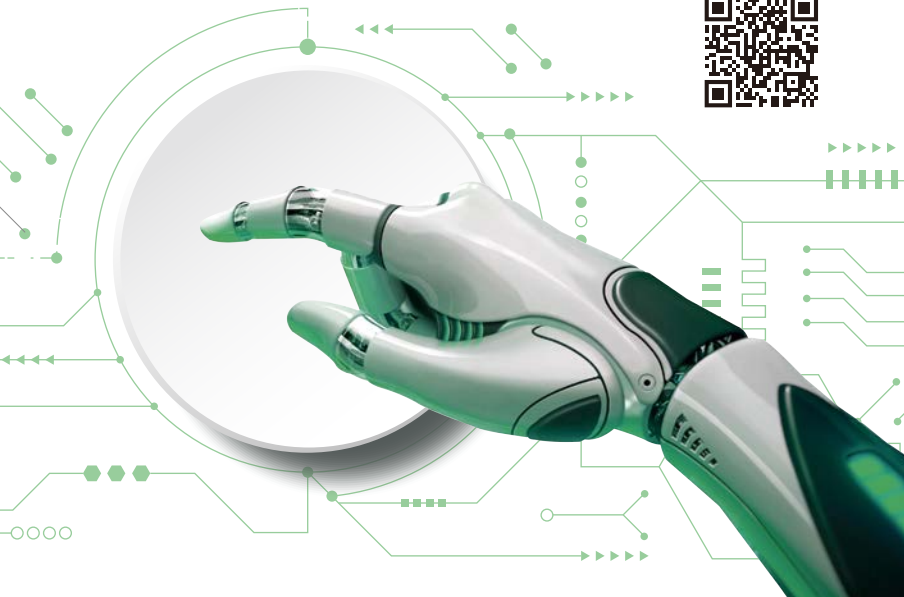
- Opto-electro-mechanical System Integration
- Precision Opto-mechanical Technology
- Electro-optics Remote Sensing
- Vacuum Equipment and Advanced Thin Film Technology

Science & Technology Policy Research and Information Center

Technology Innovation for Policy Navigation

STPI is committed to supporting the National Science and Technology Council (NSTC) in advancing Taiwan's S&T development. STPI focuses on five core missions: supporting the government in S&T policy planning and industrial development, assisting in the evaluation and program management, providing integrated information services, and activating the innovation eco-system of R&D achievements.

In response to global technological trends, STPI leverages AI as a key driving force to integrate diverse S&T databases and strengthen collaboration among government, industry, academia, and research communities. By continuously enhancing its capabilities in S&T policy research and innovation services, STPI aims to reinforce its role in decision support, assist the government in forward-looking planning, and boost national competitiveness.



 **NIAAR NATIONAL INSTITUTES OF APPLIED RESEARCH**
**Science & Technology
Policy Research and Information Center**

Science and Technology Policy

- S&T Policy Research and Planning
- S&T Industry Development Support
- Government S&T Program Management
- Academic Innovation Ecosystem
- Integrated S&T Information Services

Taiwan Ocean Research Institute

Strongest Backer in Ocean Science & Technology

TORI takes pride in being the backbone of the national marine research and exploration task force. With several core facilities and in-house development instrumentation systems, TORI collects ocean data around Taiwan and waters in the open ocean. These data sets provide valuable references for marine research and government policy-making. Meanwhile, the institute also plays the role of a hub to initiate international collaboration. We expect to support not only marine-related issues, but also to be a cradle for new marine talent.



TORI **NIEP** NATIONAL INSTITUTES OF APPLIED RESEARCH
Taiwan Ocean Research Institute

Environment Technology

- Long-term Marine Environment Observation and Modeling
- Marine Exploration Technology and Facility R&D
- Marine Environmental Data Value-added Services
- Operation and Service of Research Vessel and Exploratory Equipment