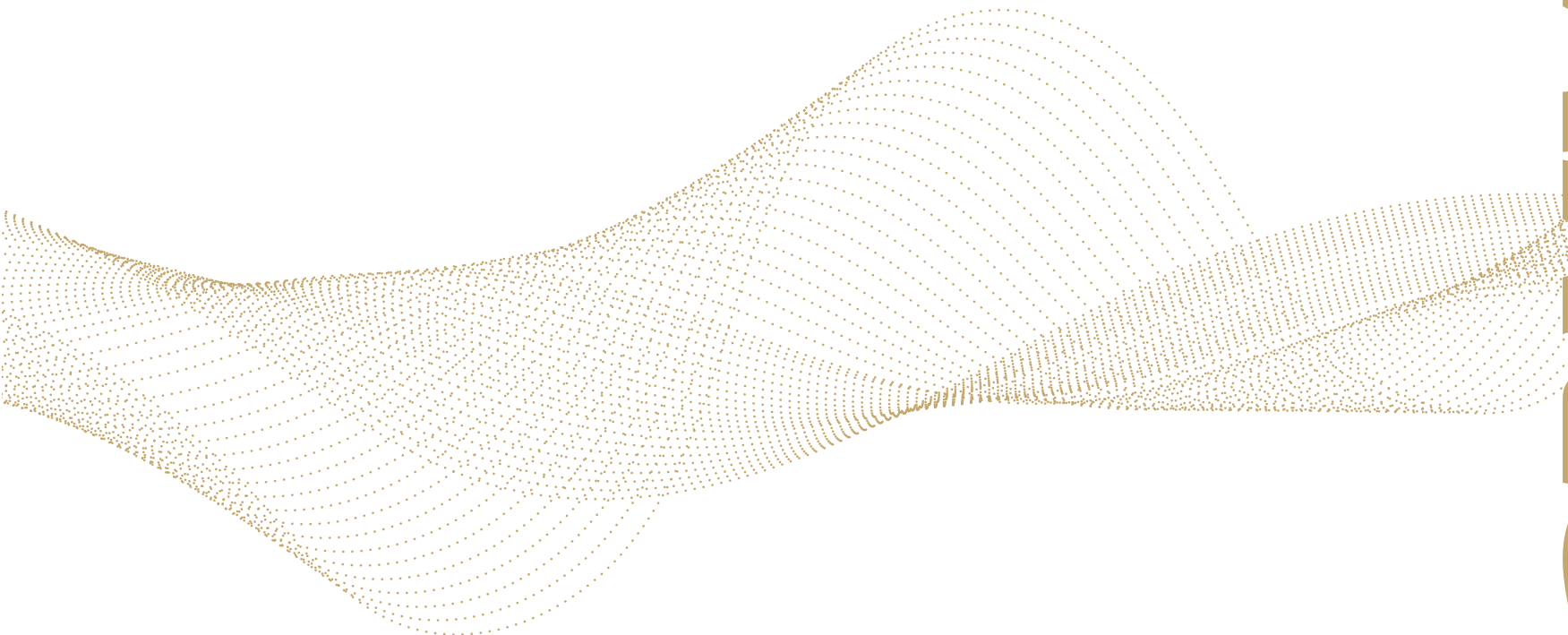


MAP
LABS



NARLabs Introduction

Established in June 2003, National Applied Research Laboratories (NARLabs) has combined 7 national laboratories into an independent non-profit institute under the guidance of the National Science and Technology Council. With its four major missions, establish R&D platforms, support academic research, promote frontier science and technology, and foster high-tech manpower, NARLabs is striving for "global excellence, local impact." It 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

As NARLabs is embracing its 20th anniversary, another revolution in technology has also arrived. Facing new technological torrents and challenges, NARLabs works in accordance with national policies to lead technological innovation and take on the role of a national laboratory. NARLabs is at its turning point.

Looking forward to the future, NARLabs will pursue multidisciplinary integration and newly applied technologies, which include AI, big data, unmanned vehicles, the Internet of things (IoT), and biotechnology based on existing scientific research domains to respond to environmental impacts and social changes. NARLabs 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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- Establish R&D Platforms
- Support Academic Research
- Promote Frontier Science and Technology
- Foster High-tech Manpower

NARLabs

國家實驗研究院

National Applied Research Laboratories

創新 | 包容 | 永續
Innovation | Inclusiveness | Sustainability

National Laboratory Animal Center

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



NAR Labs National Applied Research Laboratories
National Laboratory Animal Center

Biomedical Technology

- Genetic Modification Techniques
- Management of Reproduction and Breeding of Laboratory Animals
- Disease Model Establishment and Efficacy Testing
- Sterile Mouse and Isolation Technology
- High-end Medical Material Implant Surgery and Efficacy Testing
- Facility Management Professional Counseling

National Center for Research on Earthquake Engineering

Building a Sustainable and Seismic-Safe Homeland

Pre-Earthquake Preparedness:

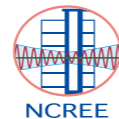
Promoting seismic provisions and revisions, seismic assessment and retrofit, and seismic isolation and energy dissipation technology to ensure the safety of our homeland.

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.



NAR Labs National Applied Research Laboratories
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.



NAR Labs National Applied Research Laboratories

National Center for High-performance Computing

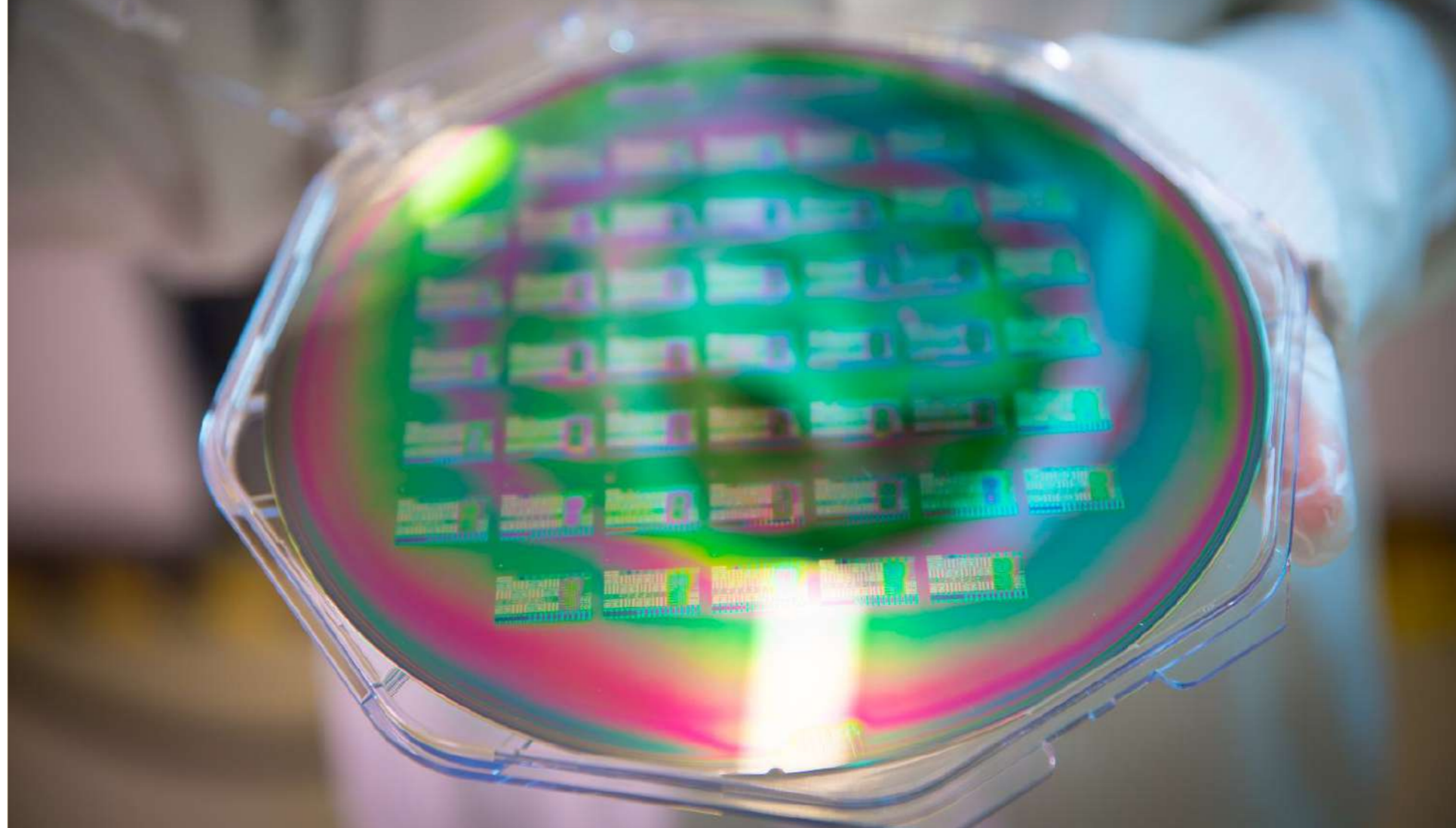
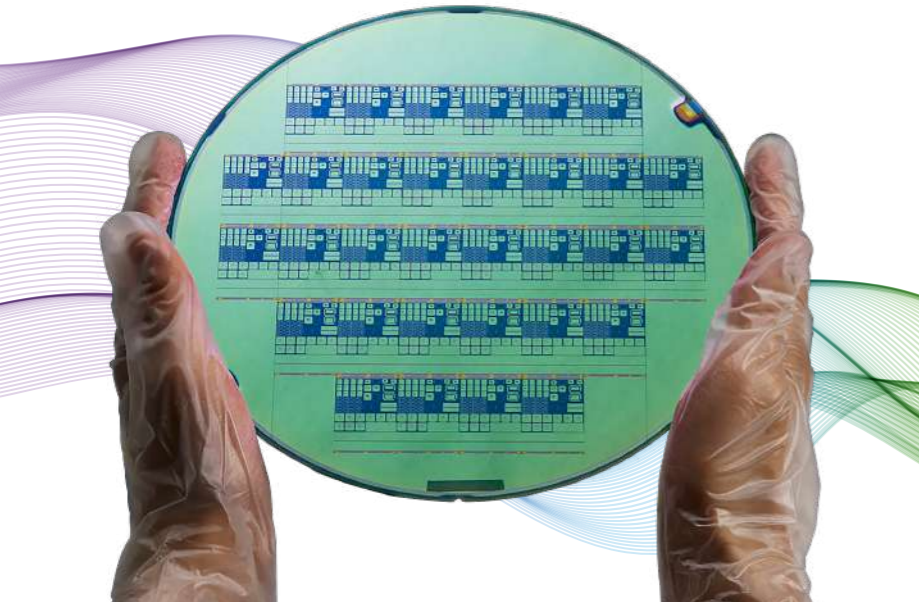
Information & Communication Technology

- 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.



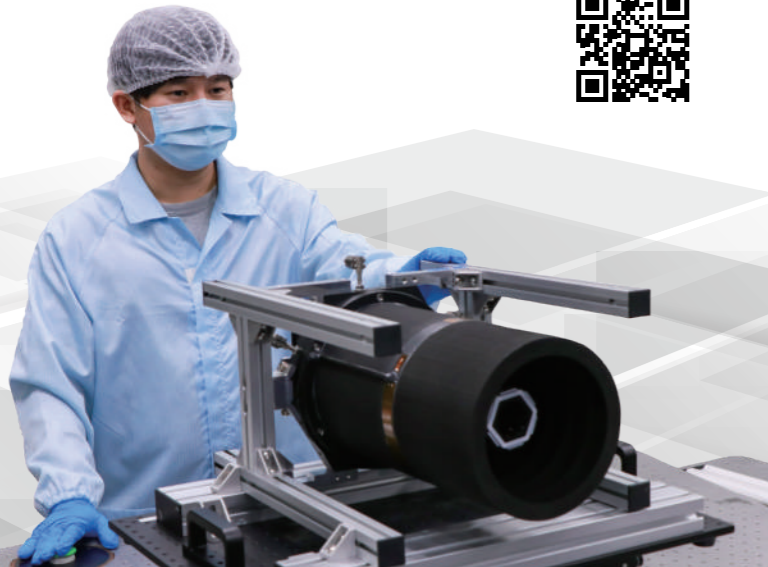
NAR Labs National Applied Research Laboratories
Taiwan Semiconductor Research Institute

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

Taiwan Instrument Research Institute A Cradle for Novel Instrument

TIRI focuses on the areas of cutting-edge optics, advanced vacuum technology, and biomedical instrument, refining its core technologies to provide complete, interdisciplinary, and integrated instrument technology R&D services. TIRI is the only organization in Taiwan that can provide advanced instrumentation research and related instrument system innovations for fields including engineering, biomedical and agricultural science, etc. TIRI assists industry, academia, and research organizations with instrument technology solutions and innovative application services. It is also the first organization to offer one-stop services for development, consultation, testing, and verification for medical devices. Serving as a national dream team, TIRI is dedicated to assisting academia in commercializing their creative ideas.



NAR Labs National Applied Research Laboratories
Taiwan Instrument Research Institute

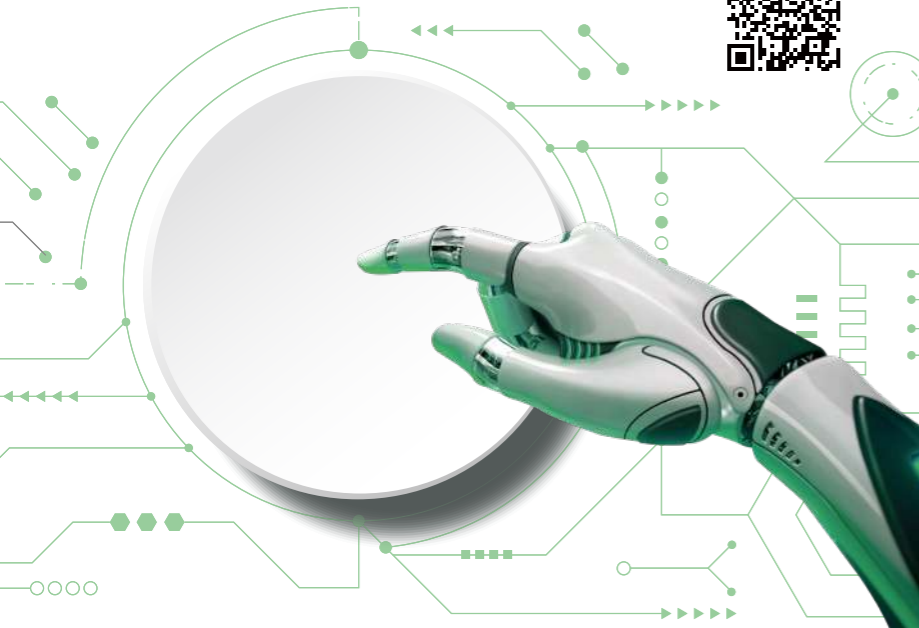
Information & Communication Technology

- 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 grasps global science and technology trends and conducts evidence-based research in S&T policy to make timely, professional, and objective recommendations in the policy formulation process. STPI's missions include supporting the government on S&T policy planning and industrial development, evaluation and program management, promoting the development of innovation ecosystems, establishing national and international S&T information systems, and providing integrated services.



NARLabs National Applied Research Laboratories
**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 **NAR Labs** National Applied Research Laboratories
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