

## HONORS



ITRI has been strengthening the development of emerging industries with its forward-looking technologies. It has won 44 R&D 100 Awards for 13 consecutive years since 2008. Most of the winning technologies have been licensed to manufacturers for commercialization, creating new value for industries. ITRI is also the winner of CES Innovation Awards, Edison Awards, the WCIT 2019 Innovative E-Health Solutions Merit Award, and the ITS World Congress 2019 Industry Award. In 2021, it was selected as a Top 100 Global Innovator for the fifth time.

### 2021

**CES Innovation Awards Honoree**

iDarlingWeaR

**Edison Awards**

AI-Based High-Density Shuttle Rack Service System  
MetabColor

**Top 100 Global Innovator**

### 2020

**R&D 100 Awards**

D-EOS

NAEPE

iSCare

**CES Innovation Awards Honoree**

PECOLA

iStimUweaR

**Edison Awards**

iKNOBEADS

Celluad™

**Judges' Choice of the SCF Awards 2020**

Athena SON – RAN Planning & Optimization Service

**Derwent Top 100 Global Innovator**

### 2019

**R&D 100 Awards**

RAIBA

iKNOBEADS

**CES Innovation Awards Honoree**

Hybrid Power Drone with High Payload and Duration

**Edison Awards**

iRoadSafe

**Derwent Top 100 Global Innovator**

**WCIT Innovative E-Health Solutions Merit Award**

ICT Innovation for Self-Service Ophthalmoscope

**ITS World Congress 2019 Industry Award**

iRoadSafe

### 2018

**R&D 100 Awards**

Functional Dyeing Synchronized with CO<sub>2</sub>  
Supercritical Technology

Portable UVC LED Water Sterilizer System

Automatic Police UAV Patrol System

**CES Innovation Awards Honoree**

Intelligent Vision System for Companion Robots

Handheld Pesticide Residue Detector

**Edison Awards**

FDER

**Judges' Choice of the SCF Awards 2018**

Self-Organizing Network

**Clarivate Analytics Top 100 Global Innovator**

### 2017

**R&D 100 Awards**

BESTAI

ChemSEI-Linker

CoolSo

CyberEpi

CINmat

LCD Waste Recycling System

(R&D 100 Special Recognition Award)

PHM

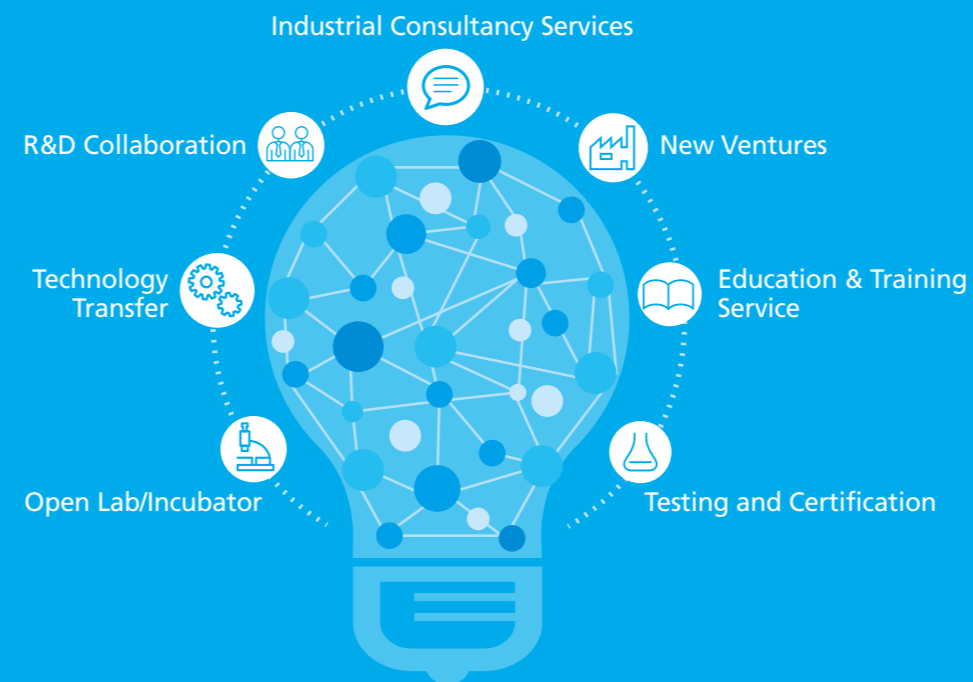
PT-ESL

**Edison Awards**

URABat

## INDUSTRIAL SERVICES

ITRI provides comprehensive industrial services. Leveraging its edge in patents and the professional assistance of the open lab and incubation center, ITRI stimulates the development of emerging technologies and service innovation, thereby increasing industrial impact and economic value.



## GLOBAL LOCATIONS

### TAIWAN OFFICES

#### ITRI Headquarters

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Fax: +886-3-5820045

#### Kuang-Fu Campus

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#### Taipei Branch

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### INTERNATIONAL OFFICES

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#### ITRI Eindhoven Office

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#### ITRI Southern Region Campus

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#### Southern Taiwan Innovation & Research Park, MOEA

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#### ITRI Berlin Office

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#### ITRI Moscow Office

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#### Green Energy Technology Demonstration Site

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#### ITRI Japan Office

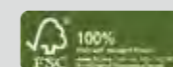
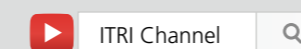
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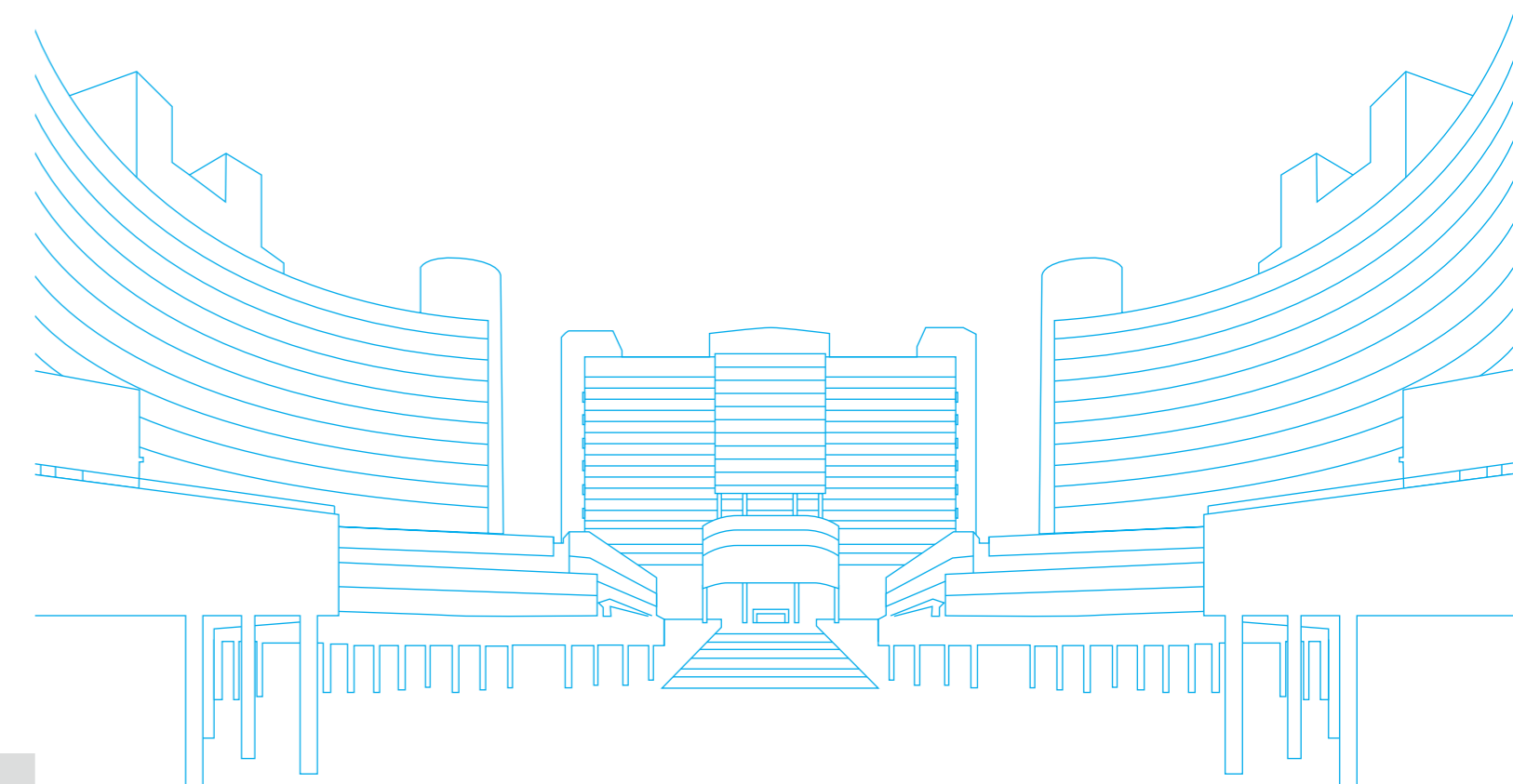
www.itri.org/eng

## GLOBAL PARTNERS

ITRI has been collaborating with more than 150 worldwide organizations and companies. Among these include Applied Materials, Corning, DuPont, NRC, Stanford University, UC Berkeley, UCLA, Arcelik, Heraeus, Catapult, Oxford Instruments, CEA, Fraunhofer, VTT, MSU, Asahi Kasei, Fujifilm, Tokyo Gas, SCG, MIDA, and NSTDA.



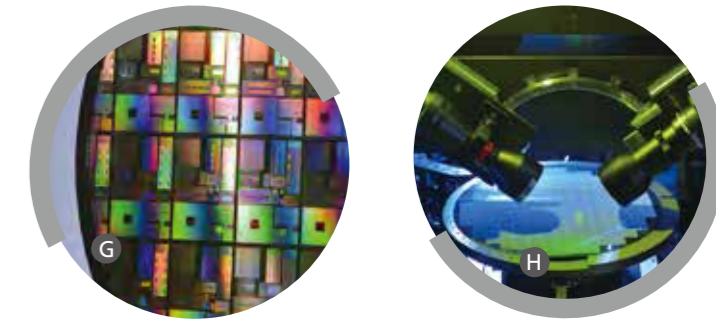
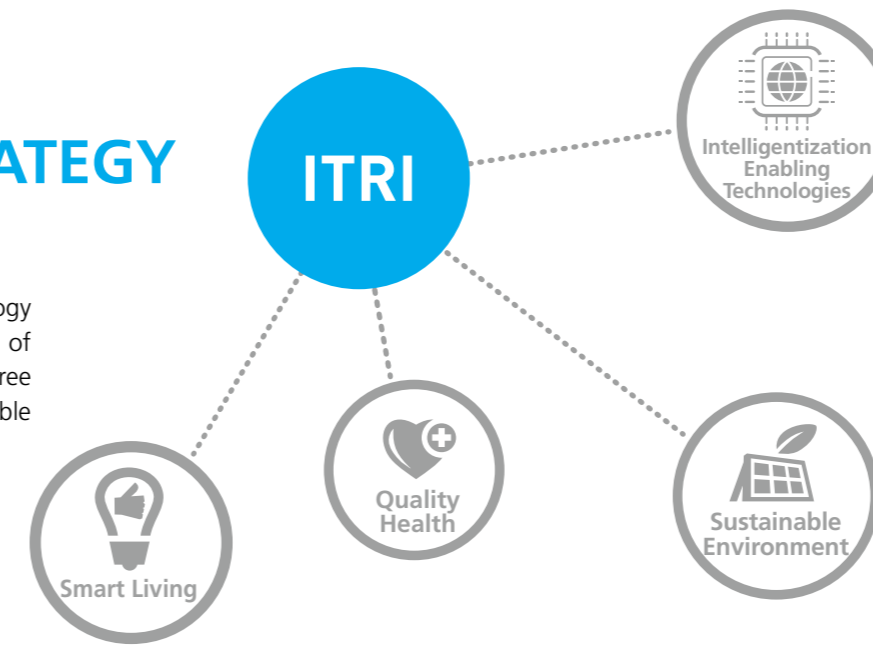
# INNOVATING A BETTER FUTURE!





## 2030 TECHNOLOGY STRATEGY & ROADMAP

To innovate a better future, ITRI has drawn up its 2030 Technology Strategy & Roadmap, in which it enhances the development of Intelligentization Enabling Technologies and focuses on three application domains: Smart Living, Quality Health, and Sustainable Environment. The Institute strives to use technological innovation to shape new lifestyles, develop market-oriented solutions, and find uncontested spaces.



### INTELLIGENTIZATION ENABLING TECHNOLOGIES

Intelligentization Enabling Technologies are the backbone supporting multiple applications in the 2030 Technology Strategy & Roadmap as they can meet computing and communications demands while ensuring data privacy and safety. As a result, ITRI turns to AI, semiconductor, communications, cybersecurity, and cloud technologies to foster technological breakthrough and innovative applications.

#### Semiconductor

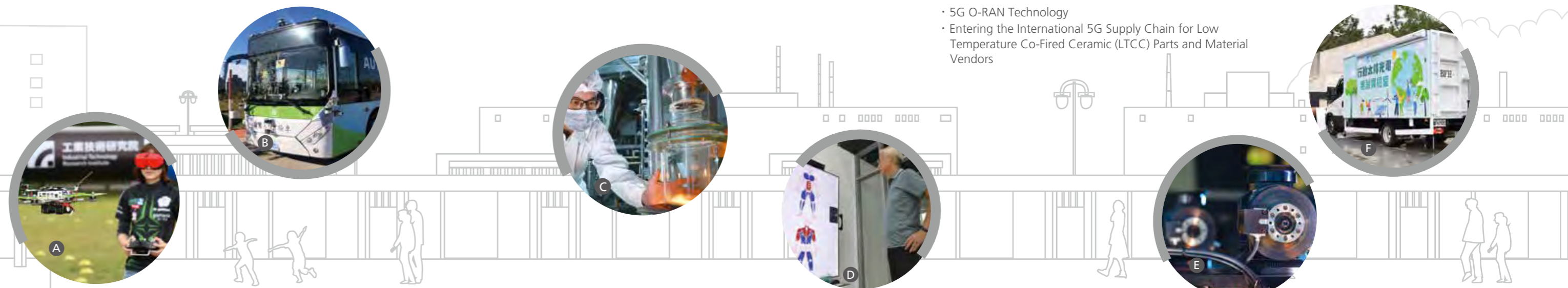
- Development for Next-Generation Memory Technology **G**
- Fringe Projection 3D Profile Measurement and Reflectometer Technology for Semiconductor Wafers **H**

#### Cybersecurity & Cloud Technology

- Privacy Enhancing Technology
- Intelligent Cloud Platform for the Machinery Industry

#### Communications

- 5G O-RAN Technology
- Entering the International 5G Supply Chain for Low Temperature Co-Fired Ceramic (LTCC) Parts and Material Vendors



## ABOUT THE INSTITUTE

Founded in 1973, Industrial Technology Research Institute (ITRI) is Taiwan's largest and one of the world's leading high-tech applied research institutions. The organization is committed to utilizing its R&D results to drive industrial development and create economic value. In response to the world's rapid changes, ITRI has launched the 2030 Technology Strategy & Roadmap to address market demands and global trends. Meanwhile, ITRI is dedicated to commercializing R&D achievements, cultivating exceptional talents, and providing comprehensive industrial services and business consultancy. Its open lab and incubator have fostered emerging industries and startups including well-known names such as UMC and TSMC.

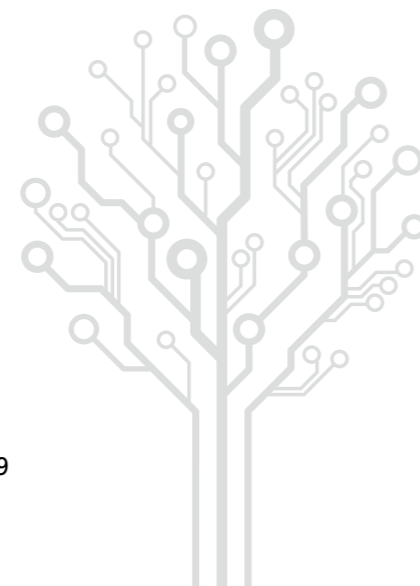


Total Staff: **6,151**  
Ph.D.: **1,362**  
Master: **3,734**  
Alumni: **26,285**

Jul. 2021



Accumulated Patents: **30,326**  
Startups & New Business Units: **151**  
Incubatees: **173**  
Annual Industry Services: **19,046**  
Transferred Technologies Per Year: **649**



### SMART LIVING

To assist industries to succeed in the smart tech revolution, ITRI is working on human-machine interaction, enhanced imaging and perception systems, autonomous decision-making and control, and smart business technologies and services. These innovations are expected to create new applications for smart living and bring opportunities for business development.

#### Personalized Devices & Services

- iDarlingWeAR
- Micro-LED Display Technology
- Advanced Transparent Display Interactive System

#### Autonomous Mobility

- AI-ADAS Solution
- 5G MR Racing Drones **A**
- Taiwan's First Self-Driving Bus Open Field Fleet Operation **B**

#### Smart Industries & Services

- Smart Cold Chain Logistics Service Solution
- National-Level SupTech Platform for Internet-Only Banks
- Track Geometry Measurement System

### QUALITY HEALTH

In the domain of Quality Health, ITRI leverages Taiwan's strengths in ICT and medical care systems to further develop smart healthcare and Medtech, hoping to help industry enter the global value chains of the biomedical market and further improve human health. ITRI's R&D scope includes intelligent medical electronics, regenerative medicine, wearable devices, digital healthcare services, and many more.

#### Smart Medtech

- Non-Steroidal Anti-Psoriatic Botanical Drug PTB323X **C**
- iKNOBEADS for Next Gen Immunotherapies

#### Healthcare

- iSCare: A Smart-Care Solution for Chronic Wounds
- PoseFit Muscular Functional Screening Mirror for Older Adults **D**

### SUSTAINABLE ENVIRONMENT

With limited energy and resources available, ITRI is enhancing the technology development in circular economy, smart manufacturing, and green energy and environment by exploring high-value circular materials, smart manufacturing systems, and supply chain management to achieve ecological symbiosis. The Institute bolsters the transformation of traditional manufacturers into sustainable industries and helps to create a low-carbon, energy-saving and circular community.

#### Circular Economy

- Bamboo Waste Reused as Mushroom Cultivation Substrate and Biofuel
- High Performance Wastewater Treatment and Biogas Generation Technology for Pig Farms

#### Smart Manufacturing

- Artificial Surface Modification (ASM) for Agile Surface Inspection
- Intelligent Composite Flexible Tooling System **E**

#### Green Energy & Environment Technology

- Networked Amide Epoxy Polymer Electrolyte (NAEPE) for Solid State Lithium-Ion Batteries
- Mass Production of Dye-Sensitized Cells (DSC) and Smart Application of Photovoltaic Energy
- PV Mobile Lab Technology **F**