iCTGC

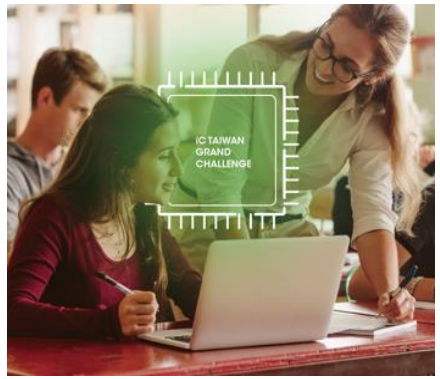
IC TAIWAN GRAND CHALLENGE

GLOBAL CALL FOR PROPOSALS

Organizer: NSTC 國家科學及技術委員會 National Science and Technology Council

Co-Organizers: semi 國際半導體產業協會 · TSIA 台灣半導體產業協會 Taiwan Semiconductor Industry Association · TCA 台北市電腦公會 TAIPEI COMPUTER ASSOCIATION · TTA TAiWAN TECH ARENA

IC Taiwan Grand Challenge



Leveraging the Strengths of Silicon Island to Attract International Talents and Investment to Taiwan

- Combine **Generative AI** and **Chips** to drive industry-wide innovation
- Facilitate local professional development and attract **Global R&D Talents**
- Accelerate **Heterogeneous Integration** and **Advanced Technology**

Areas of Focus

- Startups, legal entities, academic research teams, and persons that plan to collaborate with Taiwan's semiconductor chip design and manufacturing industry.
- Proposals should include core technology, challenges solved, business model, market development plan, etc.

Domain 1	Domain 2	Domain 3	Domain 4	Domain 5
AI Core Technologies and Chips	Smart Mobility	Smart Manufacturing	Smart Medtech	Sustainability
• AI chip design • Hardware Acceleration • AI systems • Generative Applications • Large language models • Cybersecurity	• Electric Vehicles • Autonomous Vehicles • Smart Cities • Comms/Satellite • Drone	• Intelligent Manufacturing • IC Process • Robotics	• Biometrics • Smart Monitoring • e-Health	• Sustainable Manufacturing • Energy Saving Innovation • New Energy

Criteria

40%

LOCAL CONNECTIVITY

1. Have a need of resources and concrete development plans in Taiwan
2. Offer Taiwan broader industry development
3. Focus on the business plans and the goals of the applicants

40%

VALUE CREATION

1. Able to drive technological innovation and create social welfare
2. Contribute to building new industrial links or enable industrial upgrading
3. Capable of raising funds or creating high economic value

20%

TECHNOLOGICAL INNOVATION

1. Possess innovation in emerging fields of application
2. Propel innovation in the manufacturing process, design, and use of new materials
3. Integrate diverse innovation and cross-domain knowledge

Benefits

1

Prize

US $30,000

- Upon team arrival in Taiwan
- In person exhibition of innovation at 2025 TIE Expo

* details to follow

2

Mentoring

Mentorship by Semiconductor Industry Experts

3

Platform

Prototyping to Production (EDA Tools, Wafer, etc.)

4

Resources

Multifaceted Resources and Services to Ensure Success

- Provide key resources and expert consulting support to accelerate solution development from prototyping to production through the startup acceleration platform

IC Startup Acceleration Platform

Connecting the Semiconductor Supply Chain Players

One-Stop shopping

Accelerated Incubation

Execution

- One-stop services to support startups in linking to necessary resources in Taiwan.
- Accelerating product development and fostering innovation through Taiwan's semiconductor expertise and resources.

IC Design Flow

IP Architecture Licensing → IC Design /EDA Service → Package Testing Service → Shuttle Service → PCB/ System Service → Resource Matching

EDA tools
KEYSIGHT, SYNOPSYS, cadence

IP License
GUC, M31, arm, ANDES TECHNOLOGY, eMemory 力旺電子, 晶心科技

IC Design Services
GUC, CMSC 益芯科技, brocere, VIA NEXT, FARADAY

Shuttle
tsmc, PSMC, UMC 聯華電子

Testing
KEYSIGHT, iST, 工業技術研究院 Industrial Technology Research Institute

Competition Timeline

Mar. 26th, 2025

Online Apply Open

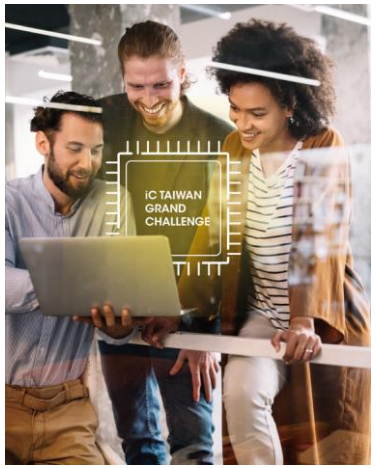
Taiwan Innotech Expo 台灣創新技術博覽會

***Winning teams will attend award ceremony and exhibit at TIE expo held on Oct 16-18 in Taiwan**

TIMELINE

Jun. 30th, 2025

Online Apply Deadline



1st Batch of Winners (August 2024 Announcement)

UNITED KINGDOM

SMART DATA & AI

QuInAs Technology

ULTRA-EFFICIENT REVOLUTIONARY QUANTUM POWERED UNIVERSAL COMPUTER MEMORY

Quinas Technology (ULTRARAM)

Pioneers a breakthrough memory that merges the speed of DRAM with the non-volatility of flash, enabling next-gen storage.

UNITED STATES

SMART MOBILITY

GALAVERSE

LARGE BANDWIDTH, LOW LATENCY, AND COMPLEMENTARY DEPLOYMENT, HIGH FREQUENCY RADIO TECHNOLOGIES

GalaVerse USA

Leverages high-frequency radio to power low-latency, high-bandwidth connectivity for the future of ubiquitous computing.

TAIWAN

SMART MOBILITY

Ranictek

IC DESIGN, 5G/6G BASE STATION CHIPS, SATELLITE COMMUNICATION CHIPS

Ranictek Inc.

Develops cost-effective, energy-saving baseband chips to accelerate 5G/6G and satellite communication deployments.

UNITED STATES

SUSTAINABILITY

POLARIS ELECTRO-OPTICS

EMPOWERING INTEGRATED PHOTONICS FOR COMMUNICATIONS AND COMPUTATION

Polaris Electro-Optics

Delivers industry-leading high-speed, energy-efficient photonics through patented materials and design innovations.

TAIWAN

SUSTAINABILITY

VOLTRAWARE SEMICONDUCTOR

WIRELESS POWER · WIRELESS FREEDOM

Voltraware Semiconductor Co. Ltd.

Enables multi-device, long-range wireless charging with advanced magnetic resonance ICs for e-mobility and consumer electronics.

2nd Batch of Winners (April 2025 Announcement)

SINGAPORE

SMART DATA & AI

TURBONEXT.AI

#AI大語言模型、#高效記憶體、#生成式AI

TurboNext.ai

Scales large language model performance with heterogeneous compute and high-memory AI accelerators.

SINGAPORE

SMART DATA & AI

JMEM TEK

#後量子密碼學、#資安韌性、#PUF、#硬體安全晶片

JMEM TEK HOLDING CO PTE. LTD.

Provides post-quantum, uncrackable chip-level security through innovative semiconductor IP and hardware design.

UNITED KINGDOM

SMART MEDTECH

GENENET TECHNOLOGY

#基因電路工程技術、#器官晶片、#OOC(ORGAN-ON-A-CHIP)

Genenet Technology (UK) Limited

Revolutionizing preclinical drug discovery with an AI- and quantum-powered multi-organoid-on-chip platform for streamlined drug screening.

FRANCE

SUSTAINABILITY

Wise integration

#氮化鎵電源元件、#大幅提高功率密度

WISE-INTEGRATION

Enabling ultra-compact, high-efficiency AC-DC power supplies with integrated GaN power ICs and proprietary digital controllers.

SWEDEN

SUSTAINABILITY

NSS WATER

#奈米純水解決方案、#提升半導體良率、#永續發展

NSS Water

Transforming semiconductor industry with cutting-edge nanopure water technology for a cleaner, sustainable future.

IC TAIWAN GRAND CHALLENGE

Play video

Website
ictaiwanchallenge.org

Contact Us

Ms. Ariel Liu
ariel_liu@mail.tca.org.tw
+886 2 25774249 Ext. 825

Mr. Jacky Chen
jacky_chen@mail.tca.org.tw
+886 2 25774249 Ext. 940