



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: **TCA** 台北市電腦公會
TAIPEI COMPUTER ASSOCIATION

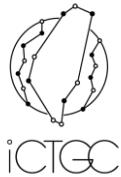
IC Taiwan Grand Challenge



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

AI Core Technologies and Chips

- AI chip design
- Hardware Acceleration
- AI systems
- Generative Applications
- Large language models
- Cybersecurity

Domain 2

Smart Mobility

- Electric Vehicles
- Autonomous Vehicles
- Smart Cities
- Comms/Satellite
- Drone

Domain 3

Smart Manufacturing

- Intelligent Manufacturing
- IC Process
- Robotics

Domain 4

Smart Medtech

- Biometrics
- Smart Monitoring
- e-Health

Domain 5

Sustainability

- Sustainable Manufacturing
- Energy Saving Innovation
- New Energy

Criteria



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



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



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

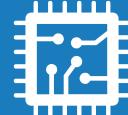
1

Prize**US \$30,000**

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**

- Upon team arrival in Taiwan
 - In person exhibition of innovation
- * details to follow

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

IC Startup Acceleration Platform

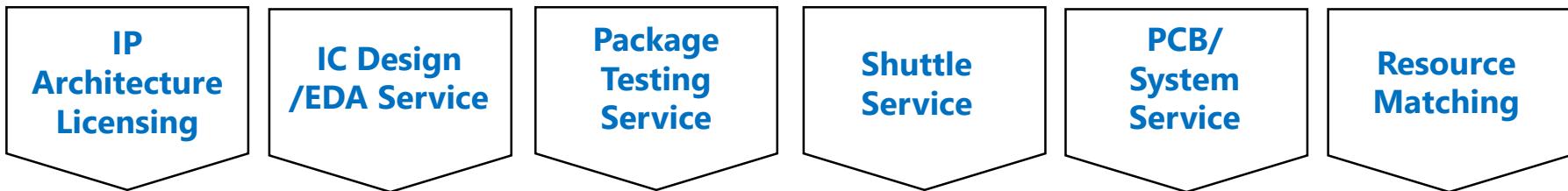


Connecting the Semiconductor Supply Chain Players

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



Competition Timeline

November 1st, 2025

Online Application **Open**



COMPUTEX
TAIPEI

InnoVEX

*Winning teams will attend award ceremony and exhibit at COMPUTEX/InnoVEX held on June 2nd-5th in Taiwan

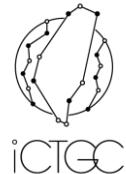
TIMELINE

February 28th, 2026

Online Application **Deadline**



1st Batch of Winners (Announced in August 2024)



UNITED KINGDOM

SMART DATA & AI



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



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



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



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



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 (Announced in April 2025)



SINGAPORE

SMART DATA & AI



#AI大語言模型、#高效記憶體、#生成式AI

TurboNext.ai

SINGAPORE

SMART DATA & AI



#後量子密碼學、#資安韌性、#PUF、#硬體安全晶片

JMEM TEK
HOLDING CO PTE.
LTD.

UNITED KINGDOM

SMART MEDTECH



#基因電路工程技術、#器官晶片、#OOC(ORGAN-ON-A-CHIP)

Genenet
Technology (UK)
Limited

FRANCE

SUSTAINABILITY



#氮化鎵電源元件、#大幅提高功率密度

WISE-
INTEGRATION

SWEDEN

SUSTAINABILITY



#奈米純水解決方案、#提升半導體良率、#永續發展

NSS Water

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

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

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

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

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

2nd Batch of Winners (Announced in April 2025)

SINGAPORE

SMART DATA & AI



TurboNext.AI

SINGAPORE

SMART DATA & AI



JMEMTEK

UNITED KINGDOM

SMART MEDTECH



Genenet
Technology

FRANCE

SUSTAINABILITY



WISE-
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3rd Batch of Winners (Announced in August 2025)

UNITED STATES

**AI CORE TECHNOLOGIES
AND CHIPS**



femtoAI

femtoAI brings intelligence to everyday devices with our Embedded AI Platform: an ultra-efficient AI accelerator, end-to-end software stack, and production-grade AI models.

REPUBLIC OF KOREA

**AI CORE TECHNOLOGIES
AND CHIPS**



HyperAccel

HyperAccel creates semiconductors and solutions for Generative AI, empowering a world where advanced technology is accessible and beneficial to all.

TAIWAN

**AI CORE TECHNOLOGIES
AND CHIPS**

DeepMentor

DeepMentor Inc.
滿拓科技

Transforming AI from software to silicon. DeepMentor miniaturizes and hardens AI models into efficient chips for secure, real-time, edge intelligence.

SWEDEN

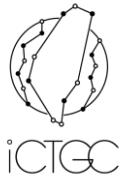
SMART MANUFACTURING



AlixLabs AB

APS, a disruptive and sustainable method for advancing semiconductor scaling — reducing cost, energy consumption, CO₂ emissions, and water usage.

3rd Batch of Winners (Announced in August 2025)



TAIWAN

SMART MOBILITY



Brilliant Silicon
Technology Co.,
Ltd.

錡暉電子有限公司

Brilliant Silicon (BSi), is a leading IC design company that has connected millions of devices on Earth through Bluetooth and IoT technologies.

TAIWAN

SMART MEDTECH



ENDOSEM!O
安德斯醫學科技

EndoSemio Co., Ltd.
安德斯醫學科技

EndoSemio is a medtech startup developing imaging platform across single-use micro endoscopes.

UNITED STATES

SUSTAINABILITY

3D Architech

3D Architech,
Inc.

3D Architech is a Caltech spin-out pioneering 10-micron resolution metal 3D printing for advanced cooling and energy components.

DENMARK

SUSTAINABILITY



PurCity ApS

PurCity's patented GapS facade panels revolutionize buildings. It is integrated with AI/ML to ensure peak performance.



iCTGC



IC TAIWAN GRAND CHALLENGE



Play video



Website

ictaiwanchallenge.org



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