



# How Does Research Institute Help Startups ? Take ITRI As a Sample

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# Flourishing Innovative Startup Ecosystem in Taiwan

Joint efforts of NDC, MOEA, and NSTC create flourishing startup environment.



- ◆ IMD 2023 ranked Taiwan #6 in Government Efficiency #4 in Corporate Efficiency
- ◆ WEF Global Competitiveness Report 2019 listed Taiwan, Germany, USA, and Switzerland as the world's four super innovators
- ◆ Global Entrepreneurship Monitor 2023 ranked Taiwan #3 #1 in policy and infrastructure

資料來源：台灣經濟研究院產業發展處《全球創業觀察—臺灣》、2020全球創業觀察(GEM)調查、國家發展委員會

# Flourishing Innovative Startup Ecosystem in Taiwan

### Accelerator

Logos of various accelerators: AppWorks, SparkLabs, Orange Fab, Mox, TEC, TXXA, NNO, Garage, StarFab, VIVE, HAO SHI, H.Spectrum, Microsoft for Startups, and others.

### Venture Capital

Logos of various venture capital firms: Sequoia, WI Harper Group, Translink Capital, TAIWANIA, 中華開發金控, CHERUBIC VENTURES, #43 VENTURES, B DASH VENTURES, and others.

### Crowdfunding

Logos of crowdfunding platforms: 群募貝果, pressplay, flyingV, 創板板, GISA, 嘖嘖, and others.

### Startups

A large grid of logos for various startups: Appier, 91APP, CoolBitX, umbo cv, BoniO, ZUVIO, ADENOVA, TWD, TMYTEK, CUBO, and many others.

### Corporate

Logos of major corporations: Mediatek, Acer, Qisda, Wistron, ASUS, Foxconn, Advantech, Trend Micro, Leofoo, PChome, UMC, and others.

### Media

Logos of media outlets: 社企流, Meet, TechNews, TechOrange, Rocket Cafe, and others.

### Startups

A large grid of logos for various startups: Gliacloud, Jarvis, Orii, FH, MyTaiwanTour, CHOCO TV, tantti, and many others.

### Co-working Space

Logos of co-working spaces: CLBC, STAR ROCKET, 濕地 venue, the Hive, JUST CO, Wework, and others.

### Government

Logos of government organizations: 國家發展委員會, MOST 科技部, 經濟部, Contact TAIWAN, and others.

### Marker Space

Logos of marker space organizations: FUTUREWARD, FabLab Taipei, metro, and others.

資料來源：國家發展委員會《亞洲矽谷計畫—精進新創投資環境2.0之規劃》

# Key Numbers in Taiwan Startup Ecosystem 2023

Startups

7,433

VC

292

Associations

49

2022 VC  
Investment

2.35  
Billion USD

Accelerators

78

Startup Hubs

93

Co-working  
spaces

259

Incubators

177

# Industrial Technology Research Institute



Non-profit organization, established in 1973.  
One of the **leading high-tech applied research institute in world.**

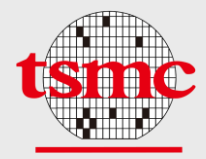
**6,417**  
Total Staff

**32,952**  
Accumulated Patents

**18,263**  
Industry Services

**566**  
Transferred Technologies

### Main off-spins



### International Recognition



Every year, ITRI is awarded by the leading global R&D organizations. Numerous honors are granted also on the national level.

## 2035 → Technology Roadmap

**Smart Living**



**Quality Health**



**Sustainable Environment**

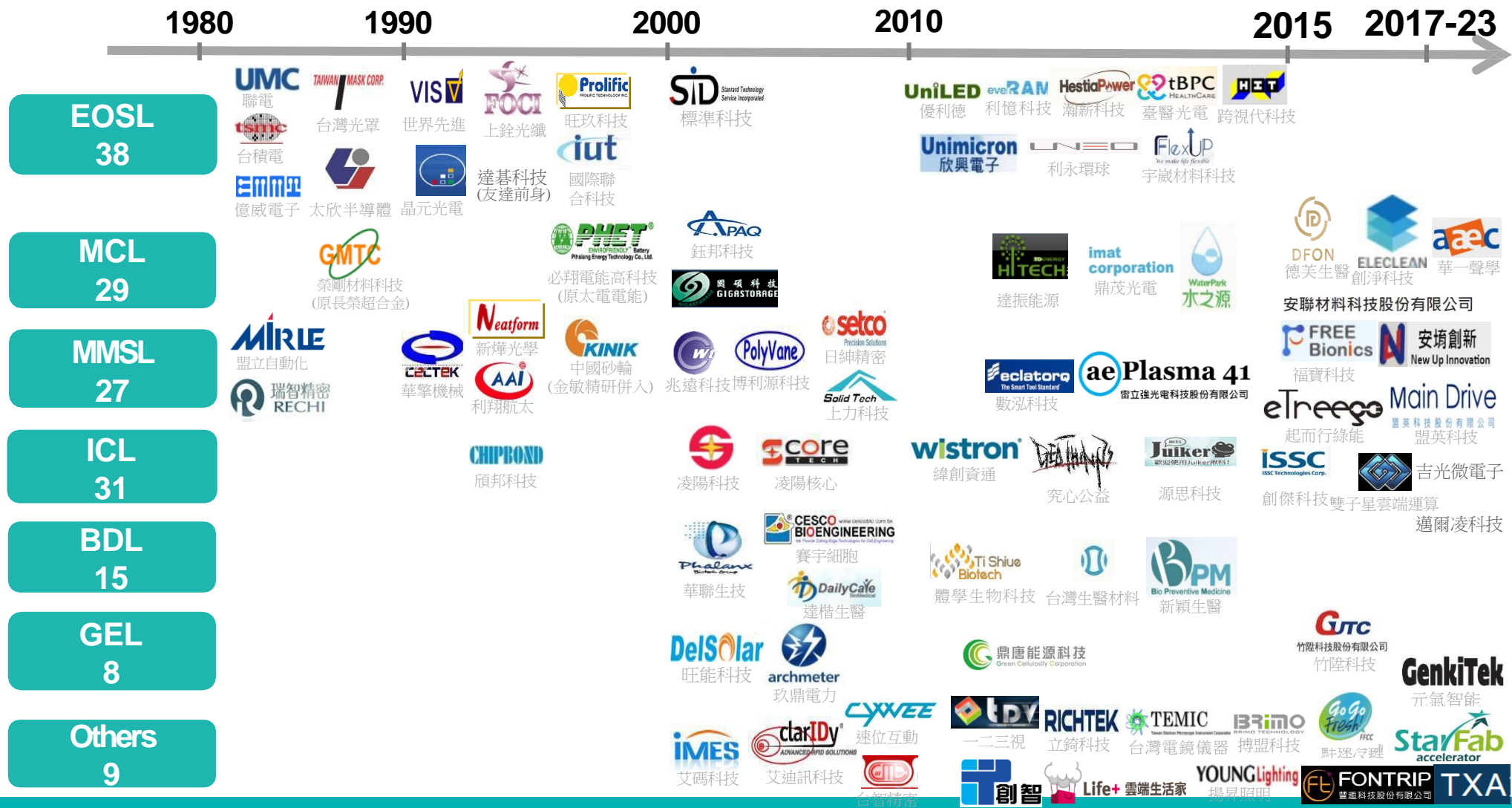


**Resilient Society**

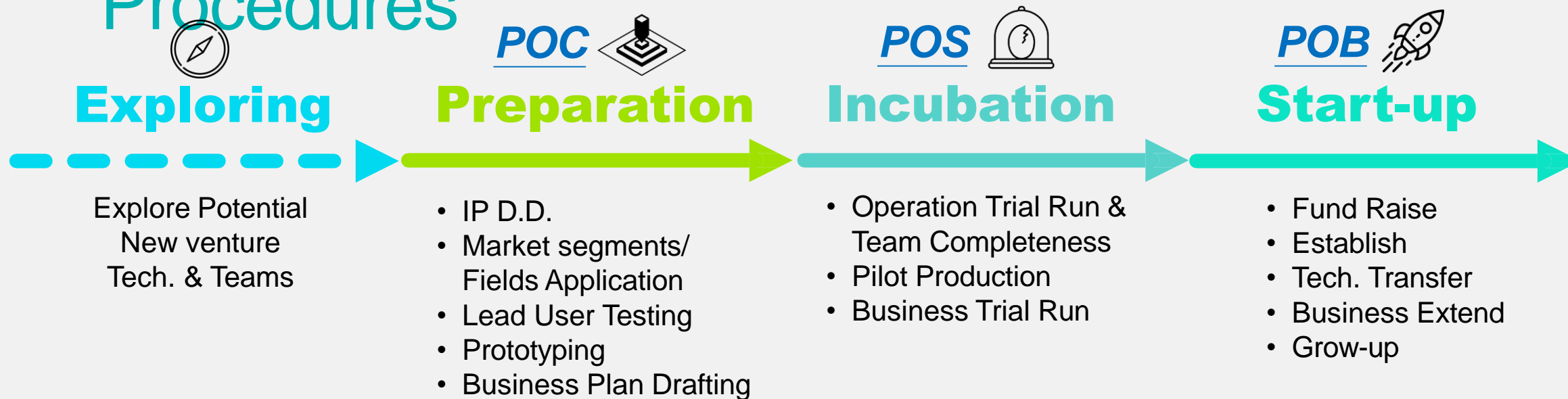


# 160 Spinoffs 39 IPOs

25% IPO Rate • Generates 16% Taiwan GDP • 85% Survival Rate

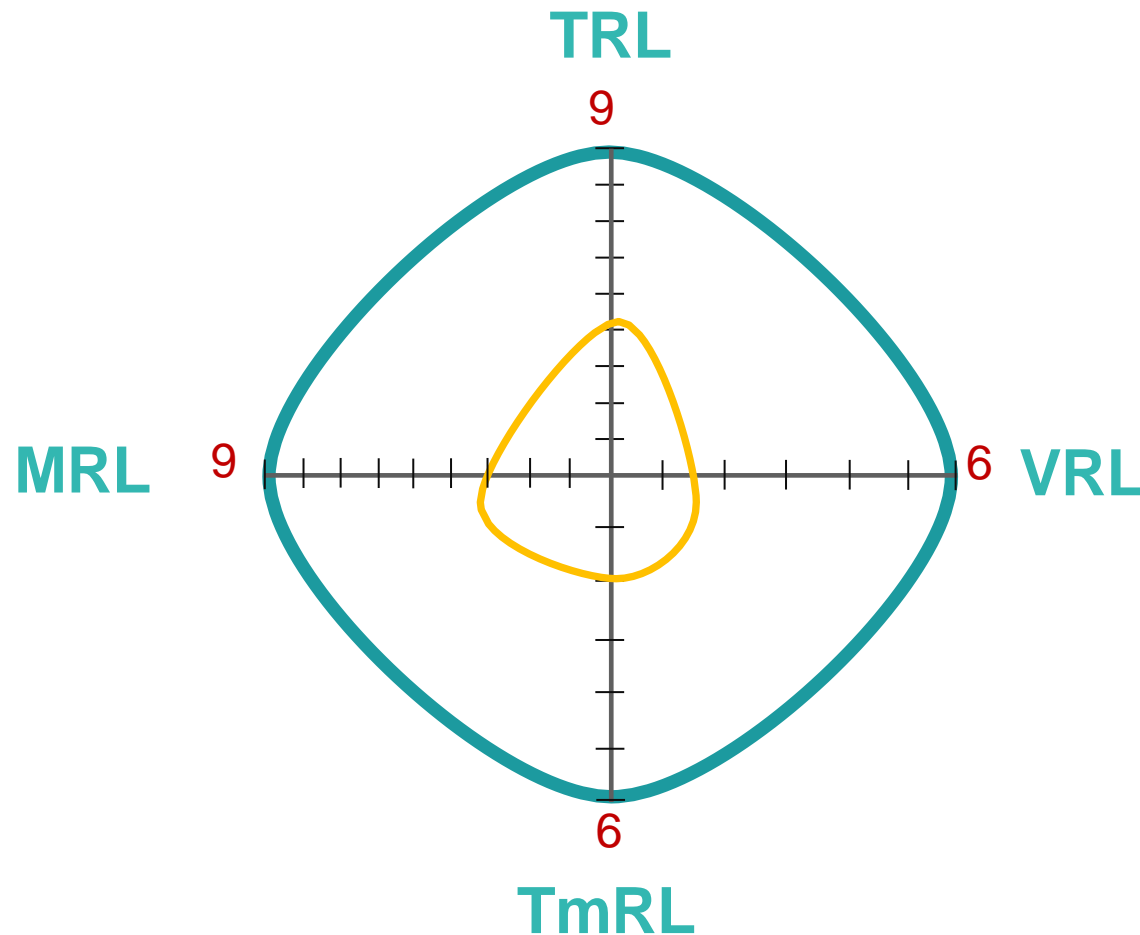


# ITRI Tech Venture Business Accelerating Procedures



- **Mentor Guidance:** Commercialization Advisory Committee (CAC), Taiwan ITRI New Venture Association (TINVA), Industrial Consultants and ITIC
- **ITRI New Venture Business Assistance**
- **Training Programs for New Venture Business & Team Up**

# Established the Startup Consensus Platform - Technology, Talent, Funding, Market -

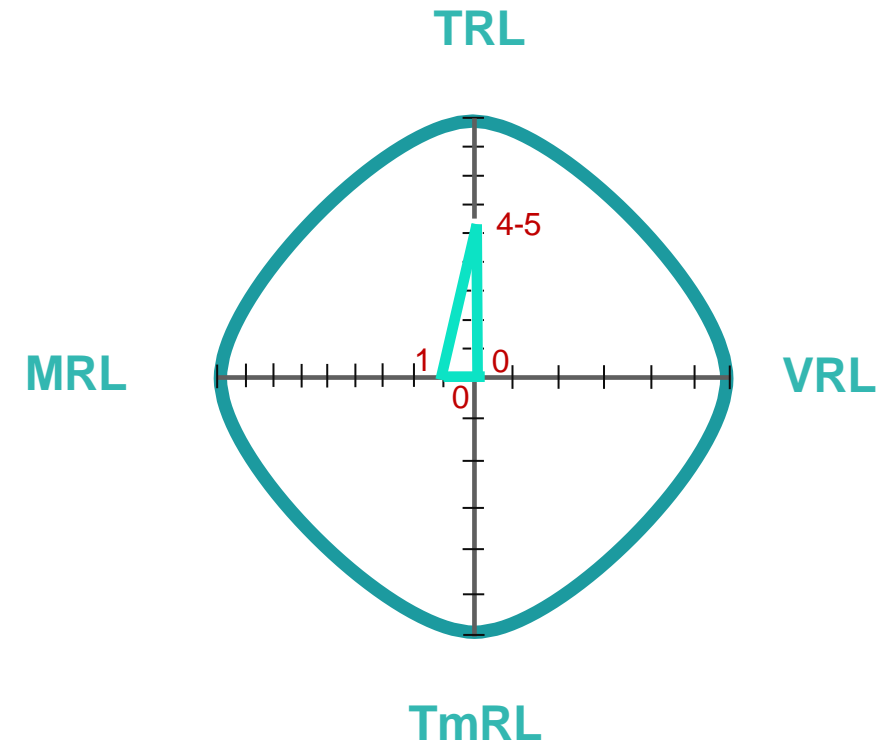


TRL: Technology Readiness Level  
MRL: Market Readiness Level  
TmRL: Team Readiness Level VRL:  
Venture Readiness Level

# Case: eTreego (Research Stage, 2010-2014)

## Original Status

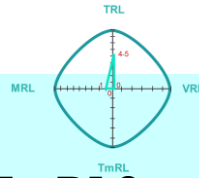
- **TRL 4-5 stage:**
  - ✓ The Ministry of Economic Affairs (MOEA)'s technology development program: "Charging System"
  - ✓ Patent application for non-uniform distribution charging technology
- **MRL 1 stage:**
  - ✓ Hypothesizing on the charging system possible need
- **TmRL 0 stage:**
  - ✓ Technology development program team assembled
- **VRL 0 stage:**
  - ✓ Not clear view on funding



eTreego

# Case: eTreego (Preparation for startup, 2015-2016)

## POC/POS



### ITRI New Venture Status

**TRL 4-5 stage; MRL1 stage; TmRL0 stage; VRL0 stage**



### ITRI Entrepreneurial Supports/Value Enhancement

- ✓ Identify potential technology transfer companies or strategic partners to explore the niche market.
- ✓ Assist in the development of the first-generation prototype
- ✓ Assist in implementing the charging system at the ITRI campus for executing field tests.
- ✓ Foster team and entrepreneurship development through the ITRI entrepreneurial training program.



### ITRI New Venture:

#### Post-Entrepreneurial Support Status

##### TRL 6-7 stage:

- ✓ Conducted field testing for the "Charger" technology at ITRI.
- ✓ Received a small batch order from lead users.

##### MRL 4 stage:

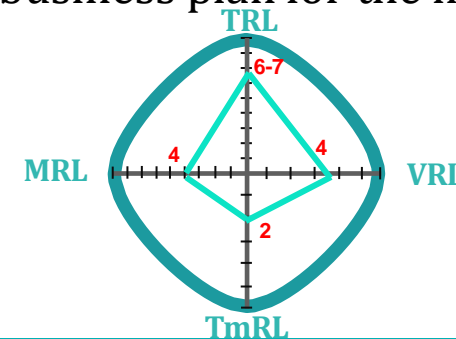
- ✓ Successfully identified the niche market for the charging system of electric cars.

##### TmRL 2 stage:

- ✓ Dr. Chien decided to launch a new venture and began recruiting members for the entrepreneurial team.

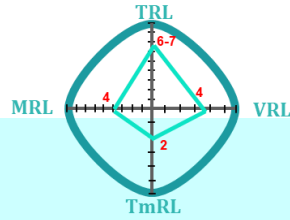
##### VRL 4 stage:

- ✓ Proposed a business plan for the investment committee of ITRI



# Case: eTreego (Start-up, 2017-2020)

## POB



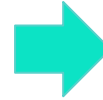
### ITRI New Venture Status

TRL 6-7 stage; MRL4 stage; TmRL2 stage; VRL4 stage



### ITRI Entrepreneurial Supports/Value Enhancement

- ✓ Collaborate with external resources (TTA) to connect with potential investments.
- ✓ Identify and refer skilled professionals and talents to support the growth of eTreego
- ✓ Assist in linking with the manufacturers



### ITRI New Venture: Post-Entrepreneurial Support Status

#### TRL 9 stage:

- ✓ Began mass production and outsource manufacturing to a third party.

#### MRL 9 stage:

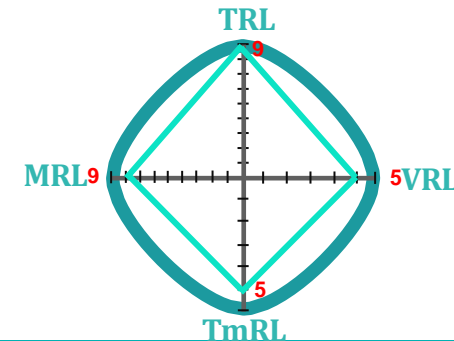
- ✓ Received orders from CPC Corporation, Taiwan, and other major car brand companies.
- ✓ Established a well-defined business model that started to earn profit in 2020.

#### TmRL 5 stage:

- ✓ Team completeness

#### VRL 5 stage:

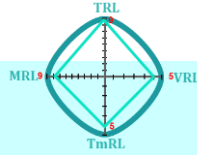
- ✓ Received A-round investment from strategic partners' CVC.



# Case: eTreego (Scale-up, 2021-2022)

## Business Model Shifts

### ITRI New Venture Status



TRL9 stage; MRL9 stage; TmRL5 stage; VRL5 stage



### ITRI Entrepreneurial Supports/Value Enhancement

- ✓ The ITRI Mentor suggests adding a software platform for scaling up.
- ✓ Collaborate with external resources (CES/TREE) to expand into the international market



### ITRI New Venture: Post-Entrepreneurial Support Status

#### TRL 9 stage:

- ✓ Began to develop next-generation technologies to enhance product diversity.
- ✓ Received investments from Hotai Group and Shihlin Electric, to establish "Gochabar," the first domestic company specializing in charging service and operation software.

#### MRL 9 stage:

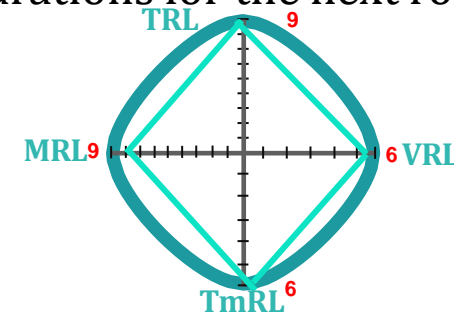
- ✓ The market share in Taiwan reached 60% in 2021.
- ✓ Decided to extend into the ASEAN market.

#### TmRL 6 stage:

- ✓ the number of employees has increased to 50-100.

#### VRL 6 stage:

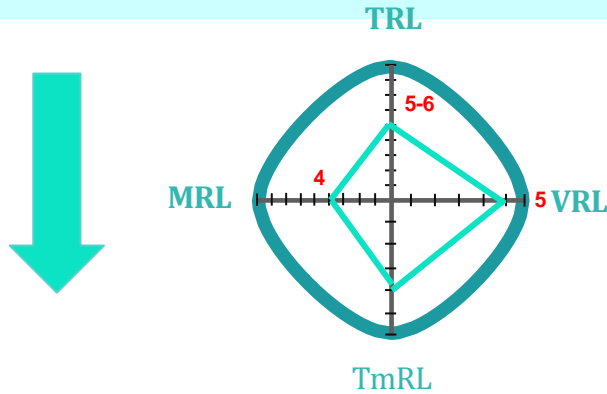
- ✓ Began preparations for the next round of fundraising.



# Case: eTreego → Gochabar (2023)

## Gochabar New Venture Status

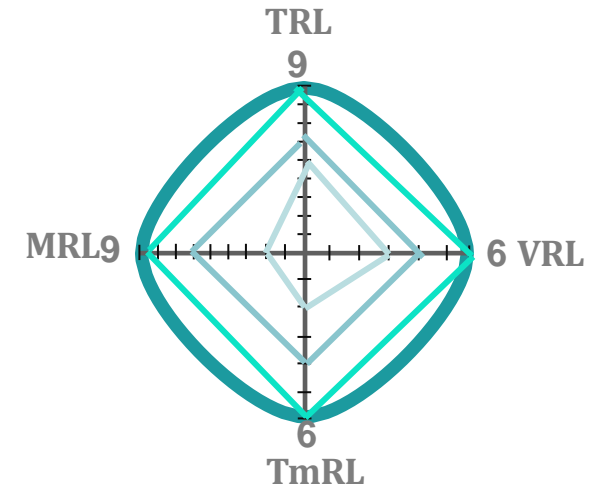
TRL5-6 stage; MRL4 stage; TmRL4 stage; VRL5 stage



## ITRI Entrepreneurial Supports/Value Enhancement

- ✓ Collaborate with external resources to achieve prototype
- ✓ Collaborate with external resources to identify the niche market
- ✓ Refer skilled talents to join the Gochabar team

## Restart Entrepreneurial Support Process

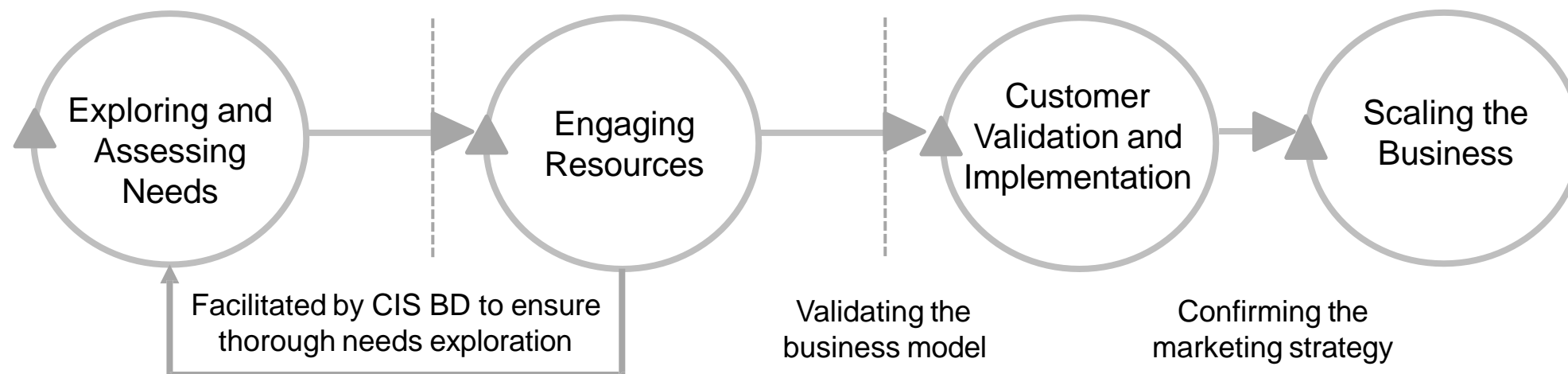


# CIS Accelerating Program

## Core Process

A **3-Stage, 1-Tool** Solution for Accelerating Your Business from Concept to Market

Offering a complete 3-stage process to guide clients through an accelerated business model:



Value Creation

Value Delivery

Value Capture

**Insights**

Technology and Market Intelligence

# Startup Ecosystem Building

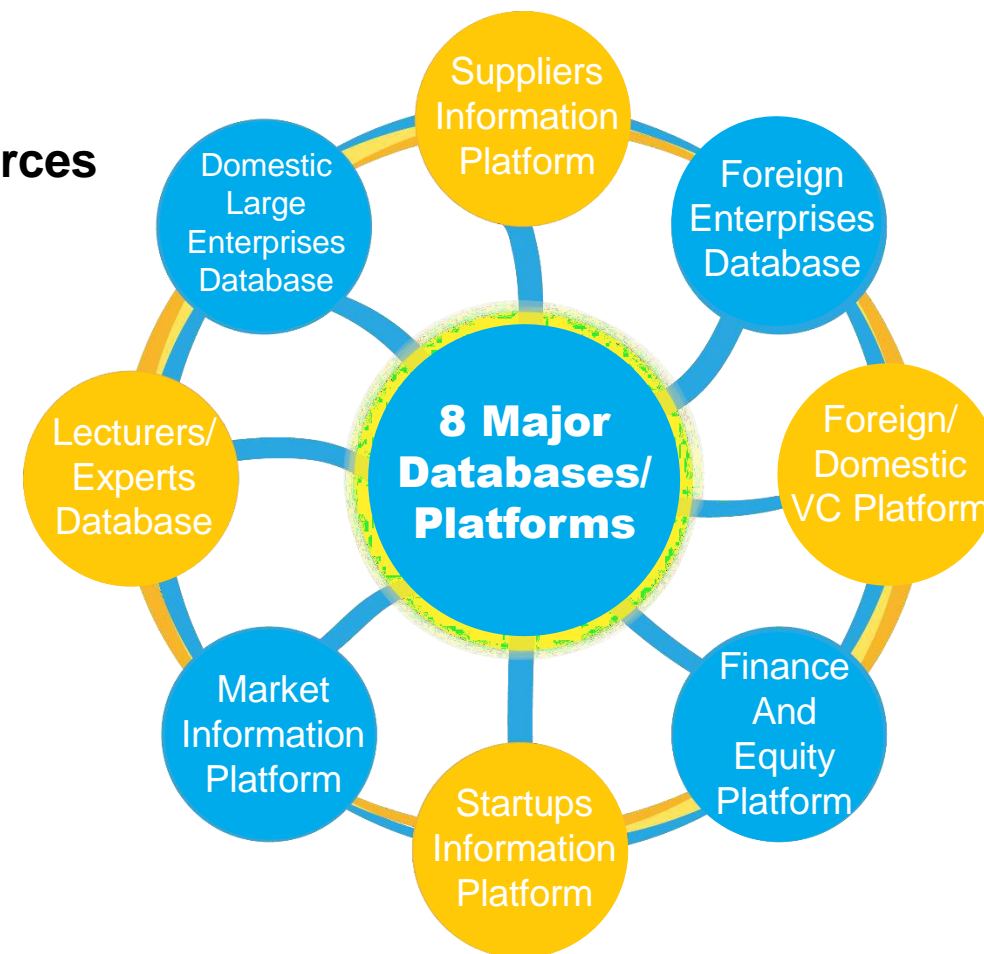
## 5 Key Strategies (1~4)

**#1: 3-Stage Support Program, Providing Comprehensive Resources**

**#2: 360° Mentorship & Integration of Government Resources**

**#3: Corporate Connections to Drive Growth and Co-Innovation**

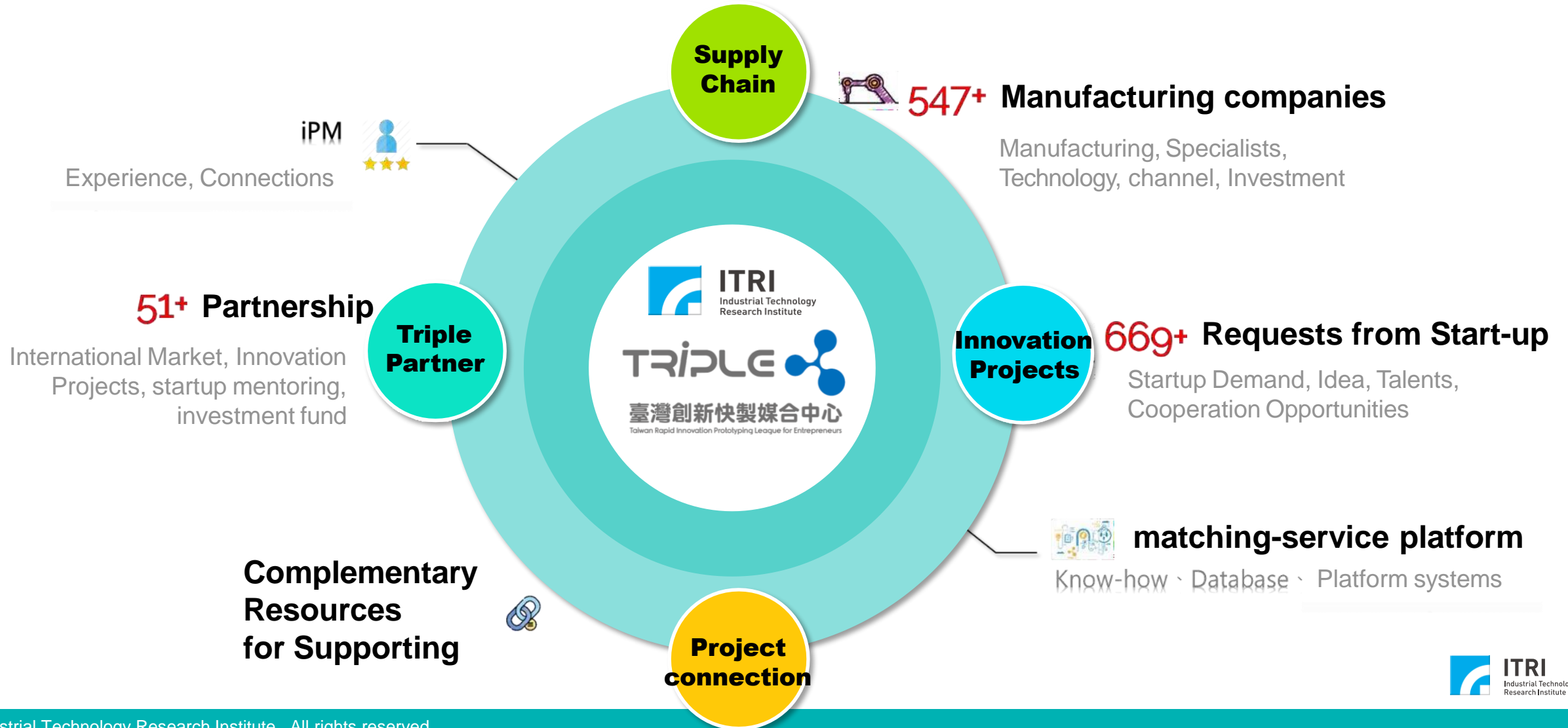
**#4: Digitization and Consolidation of Databases for Data Mining**



**Amplify resource benefits through the integration of entrepreneurial resources platforms/databases**

# Prototyping Resources Matching Platform

Connect Local & International Startups with Taiwan Prototyping & Manufacturing Resources



# Startup Ecosystem Building

## 5 Key Strategies ( 5 ) Strengthen Local Connections & Building International Networks



Silicon Valley Office Connects Government Resources Available

- Support: Mentorship, Roadshow, Business-matching, and more

**16**  
International  
Business and  
Science &  
Technology  
Communities



**21**  
International  
Startup  
Ecosystem  
Promotion Org.



**Build up**  
Multi-National  
Tech Alliances



**Establish**  
TW <> SV  
Tech Networks



**Organize**  
Startup  
Exhibitions  
& Roadshows



**Connect**  
Silicon Valley  
Resources

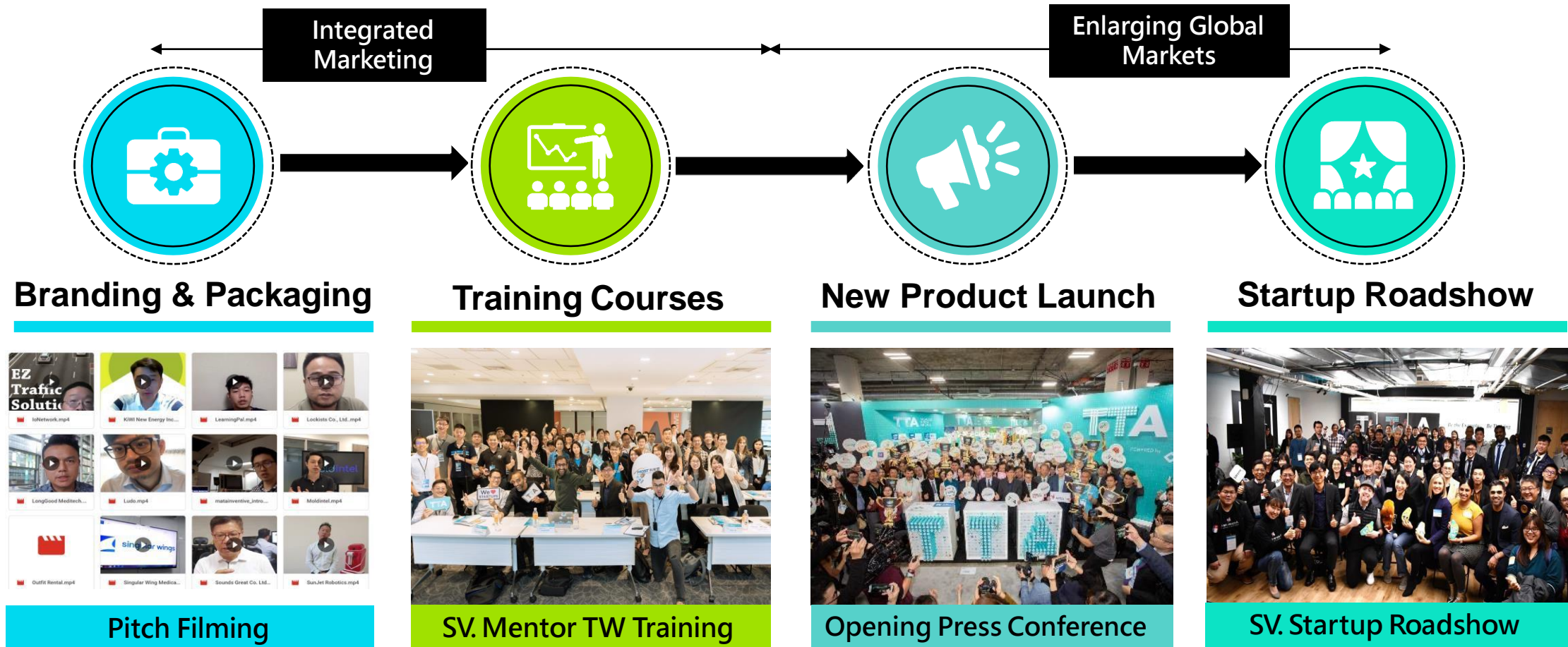


**Host**  
Mentorship  
& Networking  
Activities



# International Exhibition & Marketing Platform

Lead Startups to Participate in International Exhibitions and Provide Marketing Support to Increase International Exposure and Business Opportunities.



# Taiwan Research Institute Entrepreneur Ecosystem



## Encouragement

- **Startup Special Chapter**
- **Tech research resources** from DoIT , MOEA
- Establishing **awards** (eg. TREE award)



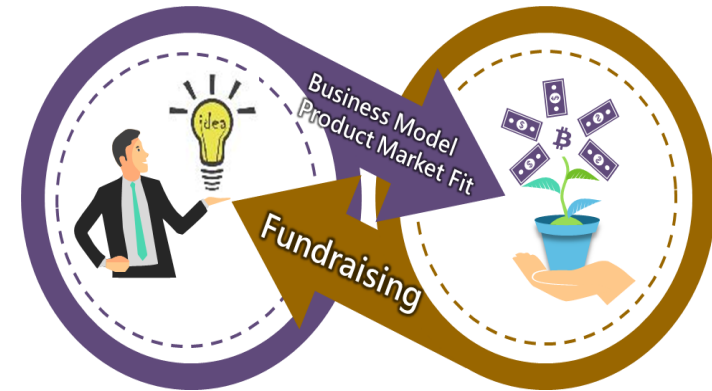
## Entrepreneurship

- **Entrepreneur School**
  - Entrepreneur workshop, mentor guidance
- **Landing program**
  - Overseas relocation training and field testing



## Engagement

- **Business model** optimization
- Assisting from PoC to **Product Market Fit**
- Connecting with VC or CVC for **fundraising**



## Ecosystem

- VC platform (over 170 active VC, both domestic and international)
- Corporation platform
- Marketing (eg. CES, InnoVEX, MGS)



# Entrepreneur School

## To deliver the mindset and skill for being an Entrepreneur

### Course Structure

Basic Courses

**Entrepreneurship:**  
Building an Entrepreneurial Mindset

**Technical Value:**  
Developing entrepreneurial skills

**Market Value:**  
Executing customer development

Advanced Courses

**Business Value:**  
Integrating Entrepreneurial Resources

**Industry Integration:**  
Developing business connections

**Global Connections:**  
Connecting with global industries

### Course outcomes

#### Online Courses

- **13** online courses

#### Mentorship

- **13** startup mentors
- **69** personalized mentorship

#### Physical Courses

- **25** training sessions

#### Class Participation

- **180** startup teams
- **530** individual attendances

#### International Courses

- **12** courses by international experts



# TREE Landing Program

## To drop an anchor to the targeted markets

### Immersive Learning of Silicon Valley Startup Skills

Select R&D teams with international potential to join a 3-month entrepreneur accelerator program in the U.S.

### Connecting with International Startup Ecosystem Resources

Utilize resources from Berkeley SkyDeck & Stanford University to connect with global industries and startup ecosystems.

### Strengthening Validation and Business Expansion in Startups

Leverage successful entrepreneurs' experience to support startups in validation and collaboration with international corporations.

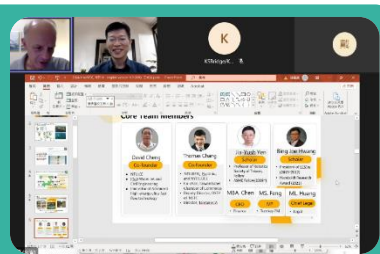


# International Exhibitions

## To give the Voice of Taiwan Startups

### Pre-exhibition

Training courses based on the characteristics of the exhibition



### During the exhibition

Collaborate with third party to facilitate networking



### Post-exhibition

Track post-exhibition outcomes, gain exposure, and connect with suitable investors



### International Innovation Exhibition

- Cross-ministry and cross-industry collaboration
- Enhance international exposure and connections

CES Innovation Award



InnoVEX Pitch Contest



SelectUSA Tech Program



APEC

## The achievements from 2021~2024

Unit: New Taiwan Dollar (NTD)

**7 Institutes** participated in the Entrepreneurship School, forming **180 teams**

- ITRI, DCB, MIRDC, TTRI, FIRDI, III, and SOIC, along with 7 Institute and academic teams, **established 180 startup teams**, nurturing a total of **530 individuals**.

Through Startups Special Chapter, **6 Institute** have established 10 startups

- 10 Startups raised NT\$3.6 billion, with a technical pricing of NT\$0.9 billion.
- 1 Startups was established in collaboration between ITRI and DCB.

**40 tech-startups** reach fundraising

- **TREE's teams** received NT\$5.3 billion in funding.

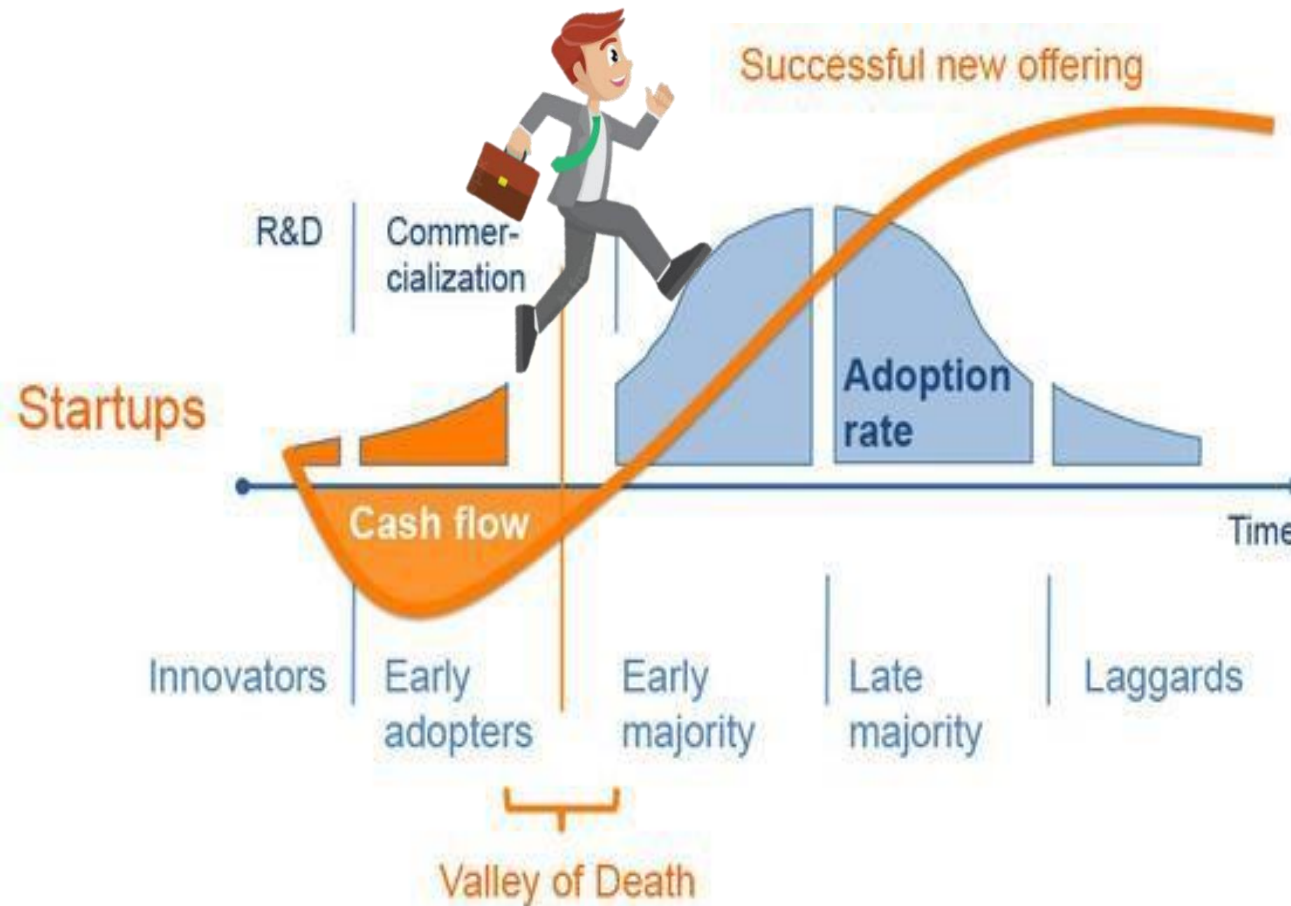
**32 teams** attended Landing Program

- **14 teams** went to Berkeley
- **15 teams** went to Stanford
- **3 teams** focused on independent business development

**161 teams** participated in the startup exhibition

- **CES:** 44 teams participated
- **SelectUSA:** 14 teams participated
- **InnoVEX:** 60 teams participated
- **MGS:** 43 teams participated

# Conclusion



1. Through **Cross-Ministerial Resources** to Create the Synergy to Transform Taiwan into a **Robust and Sustainable International Startup Ecosystem**
2. By **Connecting Taiwan Startups with the Global Ecosystem**, We are Helping our Startups to **Cross the Chasm**
3. We can not expect a standardize process to success but a humble way to minimize the potential failure. The **persistence and determination** of the team is still the final contributor for potential winner of the game.

THANK YOU FOR YOUR  
ATTENTION!



**Lewis Chen**  
**General Director**

