THE "SOCIETY-ENGAGED" COOPERATION STRATEGIES AND PRACTICES BETWEEN ACADEMIA AND INDUSTRIES IN TAIWAN

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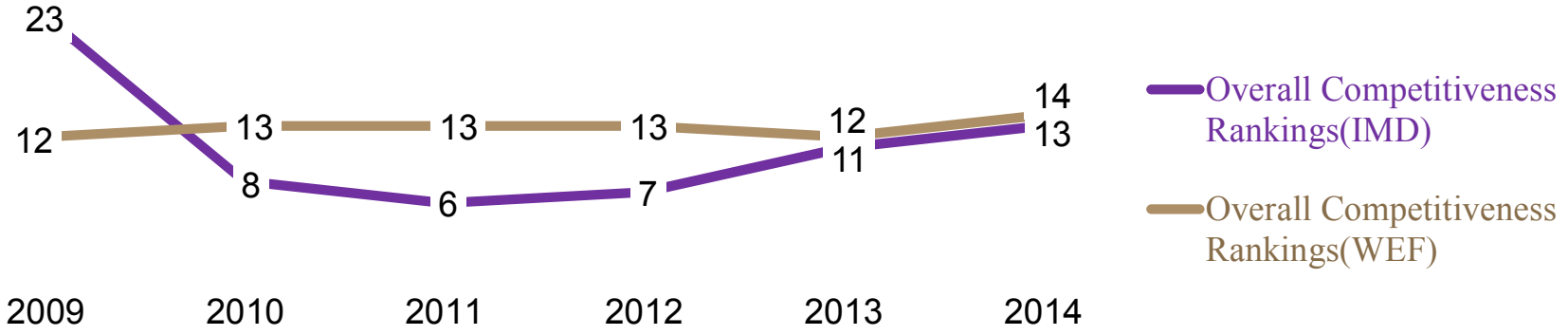
Taiwan at a Glance

- Area: 36,194 km^2
- Population: 23 millions
- GDP Growth in 2013: 2.23%
- GNP per Capita: US$22,513
- Unemployment Rate: 3.79%(2014/12)
- No. of Higher Education Institutes (University, College, Junior College): 159(2014)
- Graduates from University, College and Junior College: 311,041(2014-2015)

Taiwan: Highly Ranked in Global Standings



Technological Infrastructure -IMD (60 countries)	
1st	Hong Kong
2nd	Singapore
3rd	US
4th	Taiwan
5th	Malaysia
6th	Sweden
8th	Korea
17th	Japan
20th	China

Scientific Infrastructure -IMD (60 countries)	
1st	US
2nd	Japan
3rd	Germany
4th	Switzerland
6th	Korea
7th	China
9th	Taiwan
17th	Singapore
26th	Hong Kong

Innovation and sophistication factors -WEF (144 countries)	
1st	Switzerland
2nd	Japan
3rd	Finland
4th	Germany
5th	US
13th	Taiwan
22th	Korea
23th	Hong Kong
33th	China

Source: The World Competitiveness Yearbook 2014 (IMD); The Global Competitiveness Report 2014-2015(WEF)

Today's Presentation

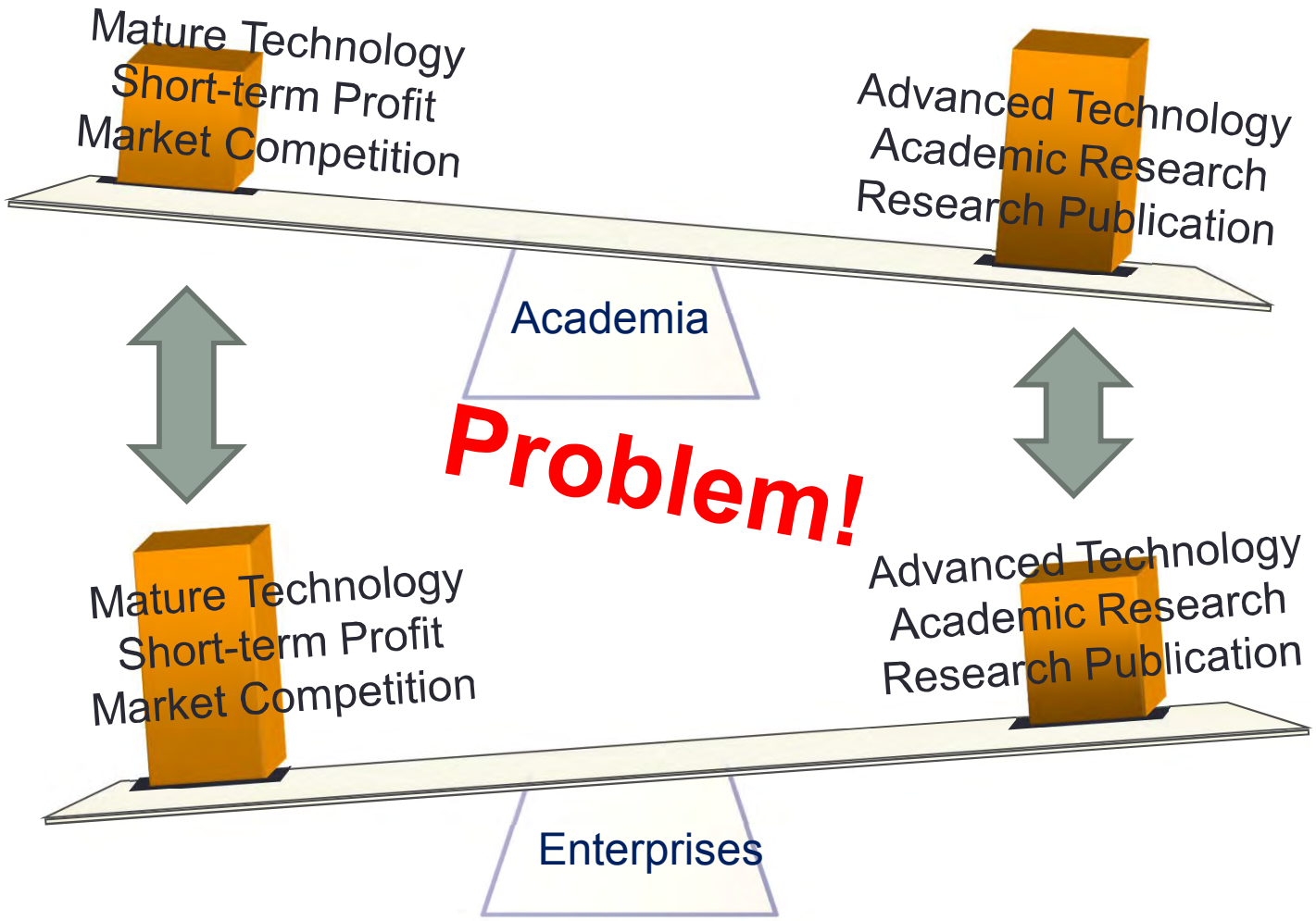
I. Introduction

II. "Society-engaged" Cooperation Strategy

1. Promoting Academia-Industry Collaboration
2. Strengthening Scientific Discoveries into New Businesses or Industries
3. Enhancing Institutional Mechanism
4. Creating Regional Innovation Clusters

III. Conclusion

I. Introduction

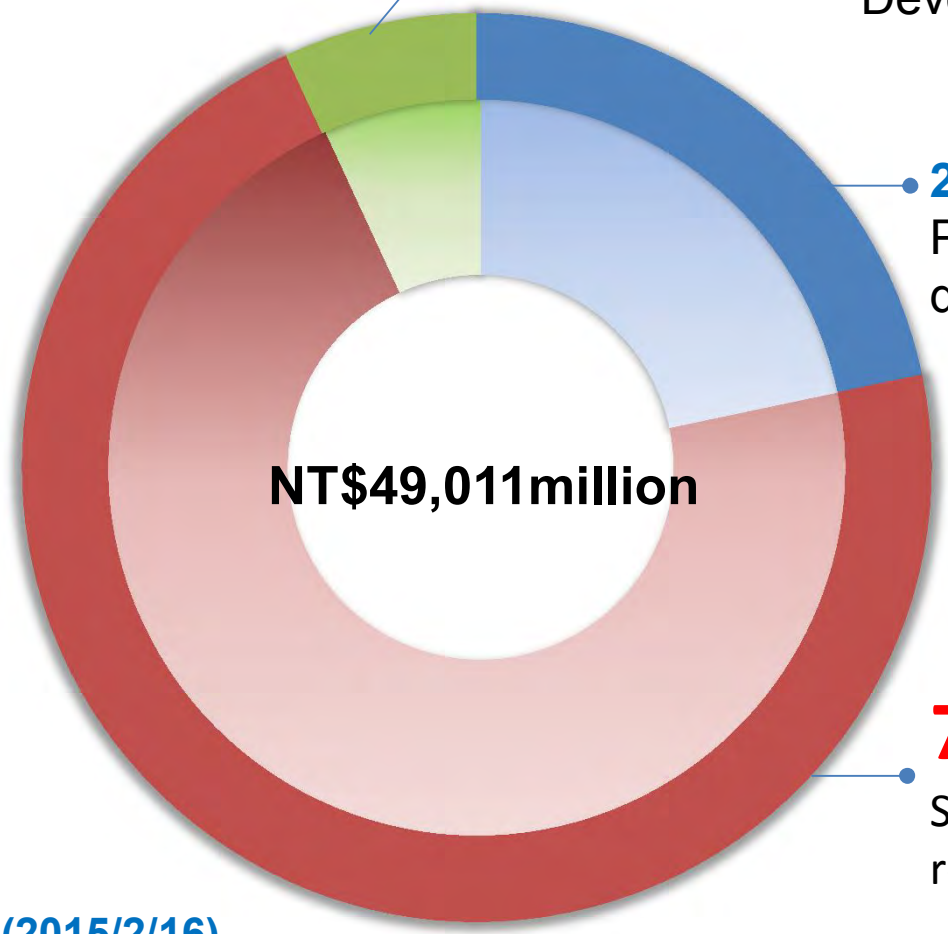


MOST Responsibilities

- **Promoting the nation's overall S&T development**
- **Supporting academic research**
- **Developing the science parks**
  - **Hsinchu SP**
  - **Central Taiwan SP**
  - **Southern Taiwan SP**

Aiming to facilitate stronger links between academic research and industrial development

Allocation of MOST Budget in 2015



6.9%
Development of science parks

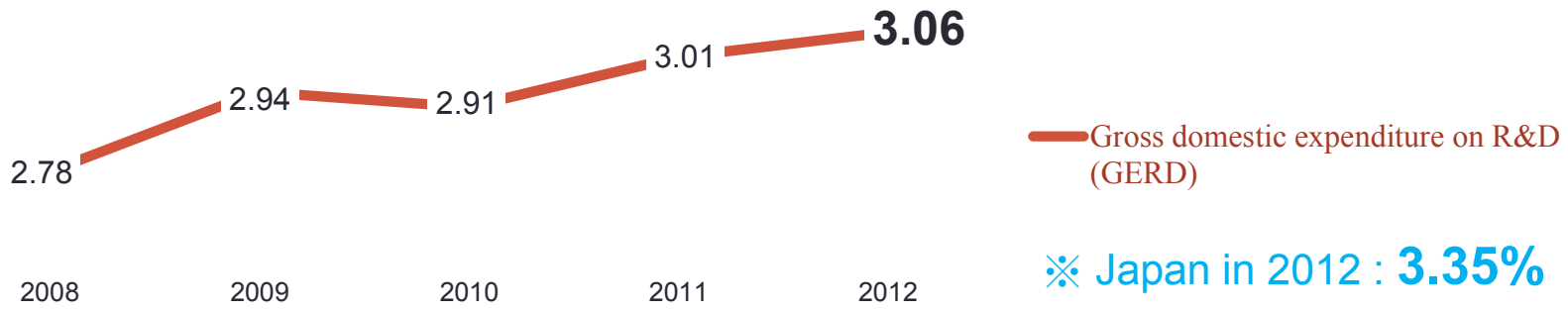
21.7%
Promotion of national S&T development

71.4%
Support for academic research

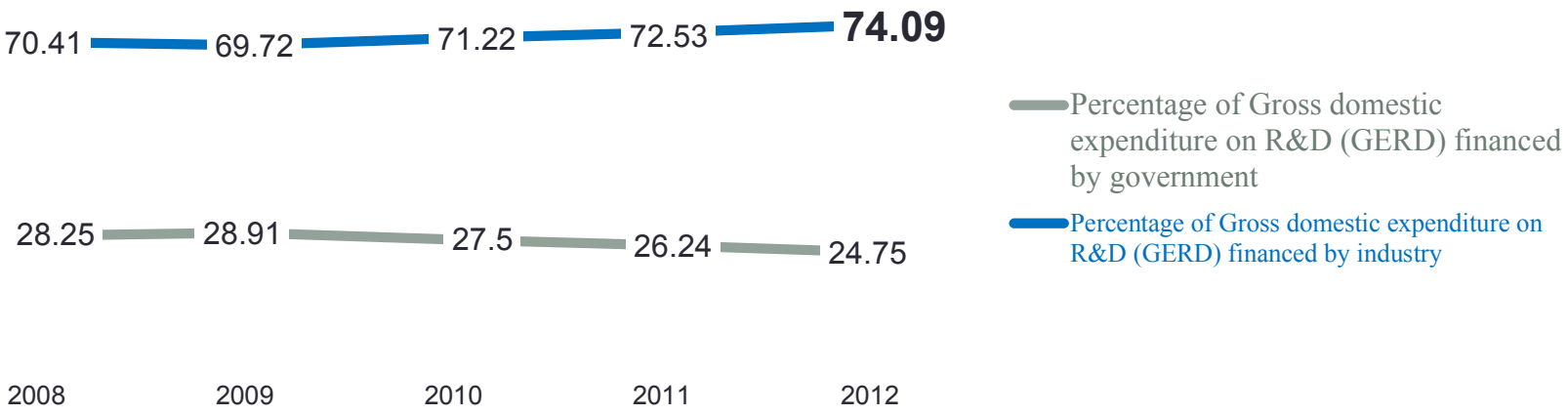
1 NTD = 3.77 JPY (2015/2/16)

R&D Expenditure

- Gross domestic expenditure on R&D (% of GDP)

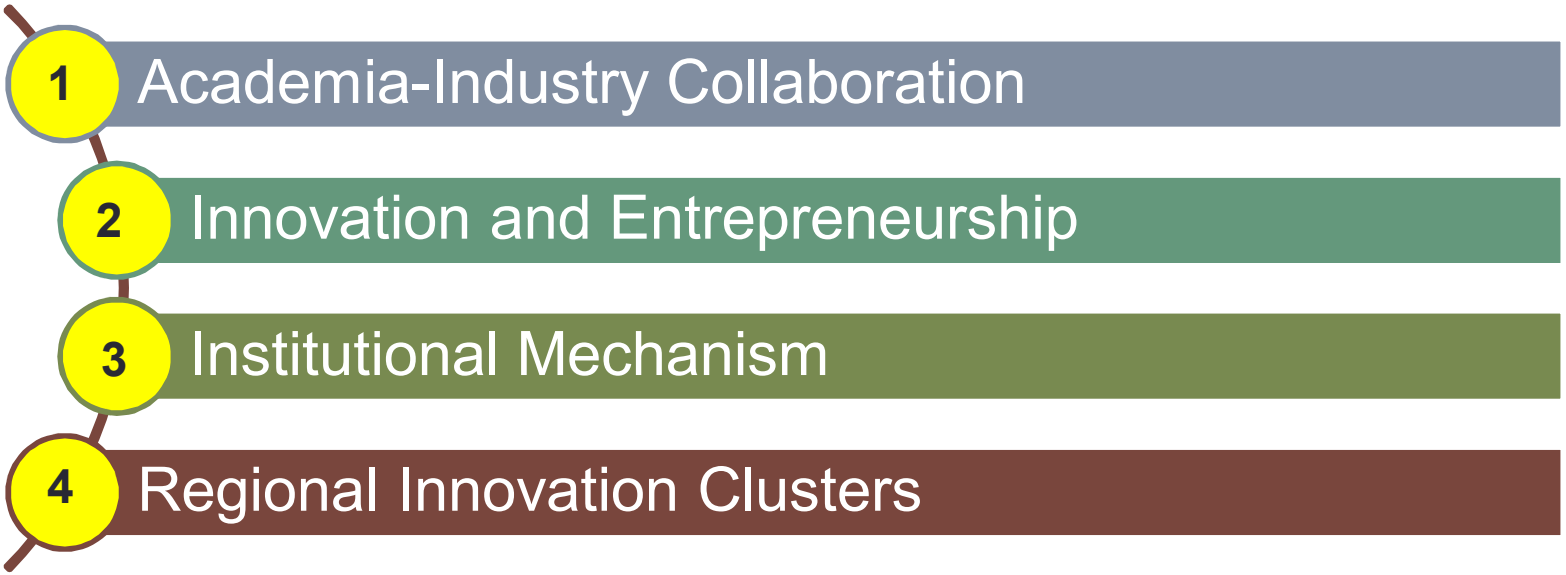


- Percentage of Gross domestic expenditure on R&D financed by government / industry



II. “Society-engaged” Cooperation Strategy

- Emphasizing on how to make research findings beneficial to society and bring positive impact to the nation and economy



1. Promoting Academia-Industry Collaboration (AIC)

(1) Industry-Academia Cooperative Research Projects

(2) Pioneer Grants for AIC (Major Alliances)

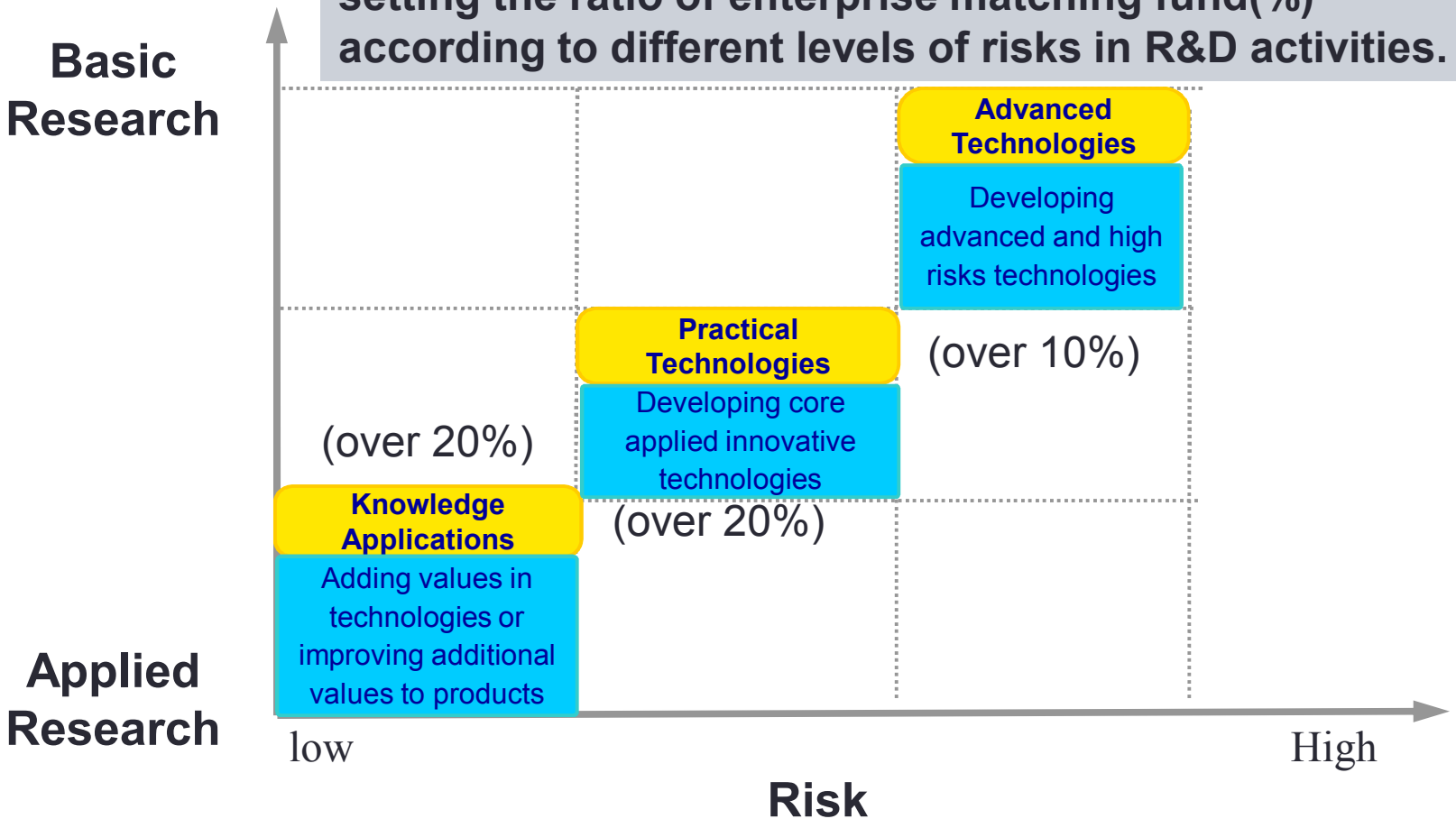
(3) Minor Alliance Projects

(4) Linking Industry and Academia by Leveraging R&D Organizational Capacities

(5) Bridging Program for Enhancing NSTPs Application in Industry

(1) Industry-Academia Cooperative Research Projects

setting the ratio of enterprise matching fund(%) according to different levels of risks in R&D activities.



(2) Pioneer Grants for AIC (Major Alliances)

- Established in 2012
- Jointly sponsored by MOST and MOEA
- Select research topics and work with universities to develop forward-looking industry technologies
- Strengthen key patent portfolios
- Grant amount:
  - 2013: NTD 125 million(2 cases)
  - 2014: NTD 315 million (5 cases)
- Encouraging R&D funding investment: ¥ 2.2 billion

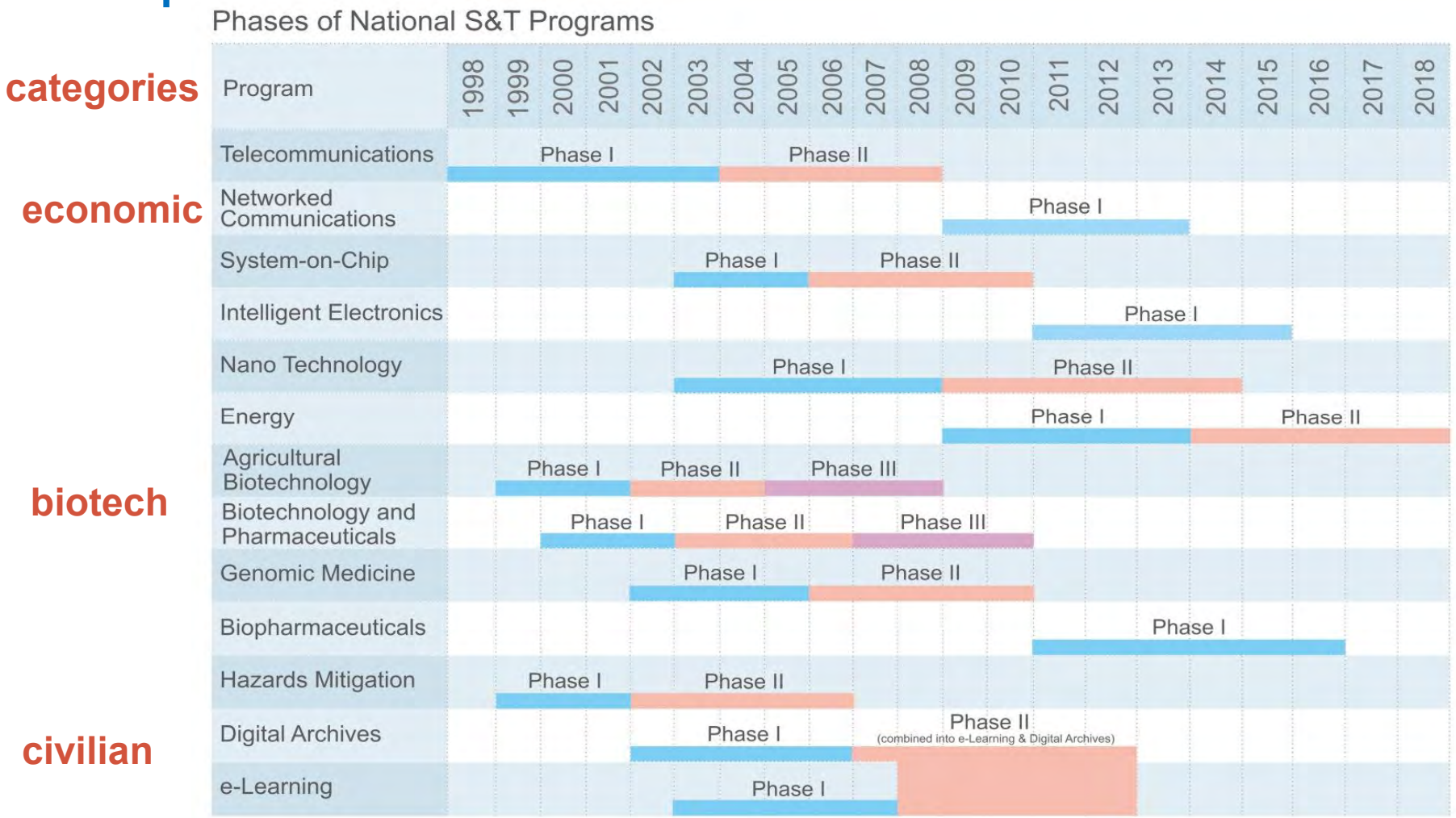
(3) Minor Alliance Projects
(Academia-Industry Technological Alliance Projects)

- Encourages professors to establish core technology laboratories for industry users
- Academic solutions for industrial problems
- Offers an innovative one-to-many model and full-scale interaction between academic researchers and their counterparts in industry
- Grant amount(case number):
  - 2013: NTD 146 million(75 cases)
  - 2014: NTD 178 million(92 cases)

(4) Linking Industry and Academia by Leveraging R&D Organizational Capacities

- Use R&D organizations as matchmakers
- Help collecting and screening research results to apply patents and commercialized
- Started this January and the first case is ITRI in ICT fields

(5) Bridging Program for Enhancing NSTPs Application in Industry



2. Strengthening Scientific Discoveries into New Businesses or Industries

(1) Germination Programs

R&D extension and utilization mechanisms
(Patents, Inventions, Solid Conceptions)

Eight germination centers established since 2011

Accelerate the diffusion of technology

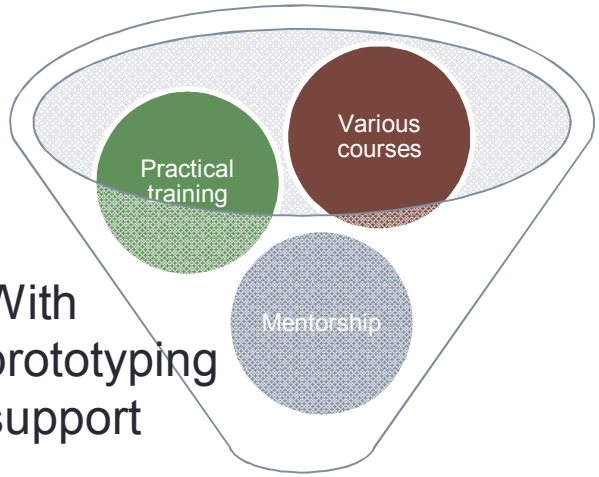
- Proof of Concept
- Applications Validation/ Systems Integration
- Engineering Model
- Minimum Viable Product

To foster an entrepreneurial culture of transforming innovations into startups within university campuses

- Grant: NTD 3 million to NTD 10 million per case
- Total Sponsored Cases: 33
- Start-up Companies: 6

(2) From IP to IPO (FITI)

Twice a year, up to 40 startup teams are selected



With prototyping support

Small business grants

+

Angel investors

Boost up entrepreneur atmosphere

- Successfully inspire 853 proposals.
- 160 selected startup teams are well-trained.
- Cultivate 964 potential entrepreneurs.
- Help to establish 34 startup companies.
- Connect 265 mentors in both Taiwan and Silicon Valley.
- More than 6,320 active members follow FITI FB community page.

Startup company

- Directly create 162 job opportunities.
- Accumulated capital: Over 425 millions.
- Help startups to raise fund: Over 88 millions.

Creating Startup Ecosystem in Taiwan

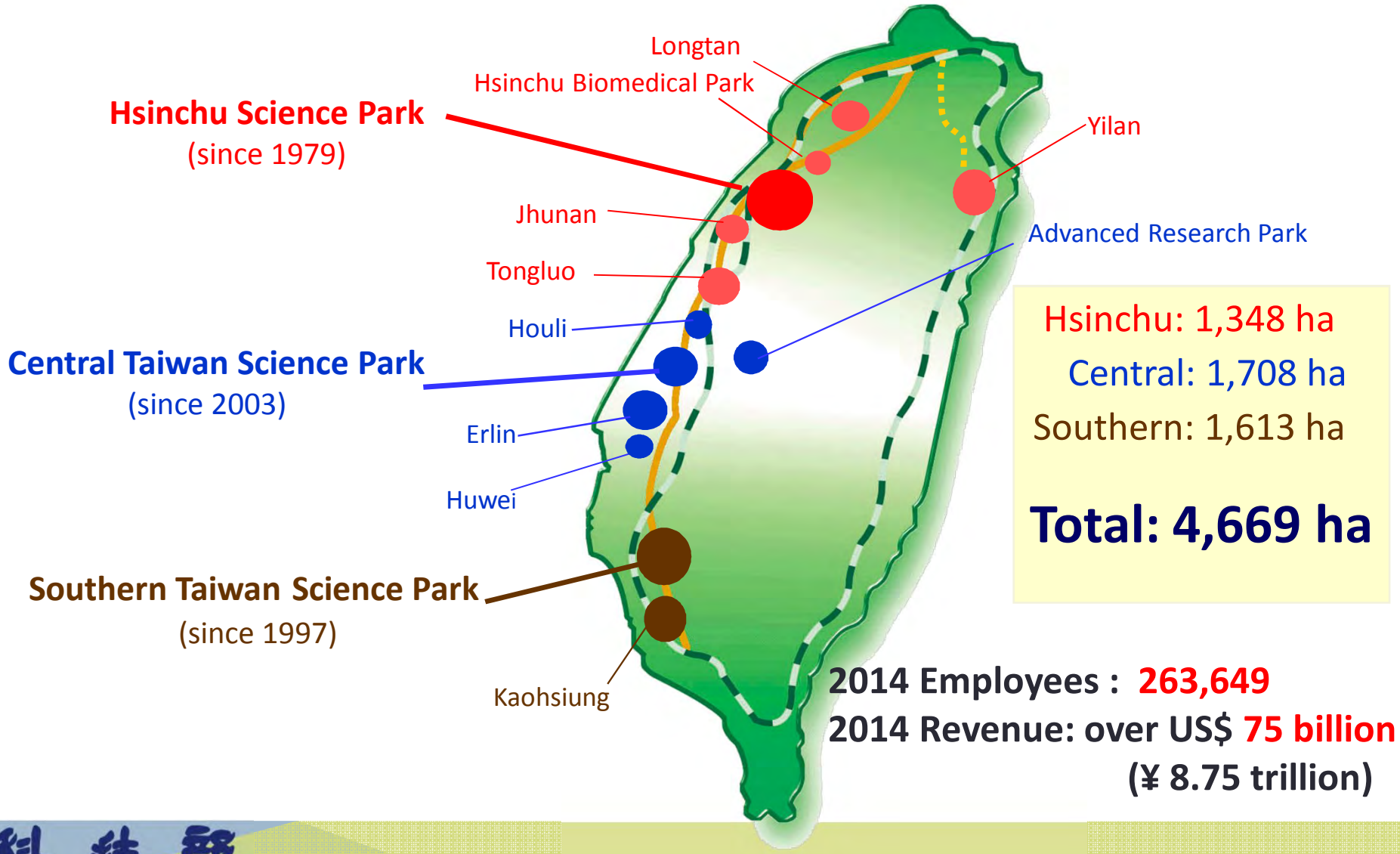
(3) Relink to Silicon Valley

- Establish "Taiwan Innovation & Entrepreneurship Center“ (TIEC) in Silicon Valley this June.
- Government, industry and research institutes jointly set up “Taiwan-Silicon Valley TechFund” to strengthen the innovation linkage.
- “Relink” the development of innovation and entrepreneurship from Silicon Valley.

3. Enhancing Institutional Mechanism

- Awards for excellent contributions in technology transfer / Outstanding research award on AIC
- Adjusting subsidy proportion for patents maintenance costs
- Pilot project for PhD students on-job training and recruiting
- Resolving taxation problems of technology shares for professors

4. Creating Regional Innovation Clusters



Hsinchu: 1,348 ha

Central: 1,708 ha

Southern: 1,613 ha

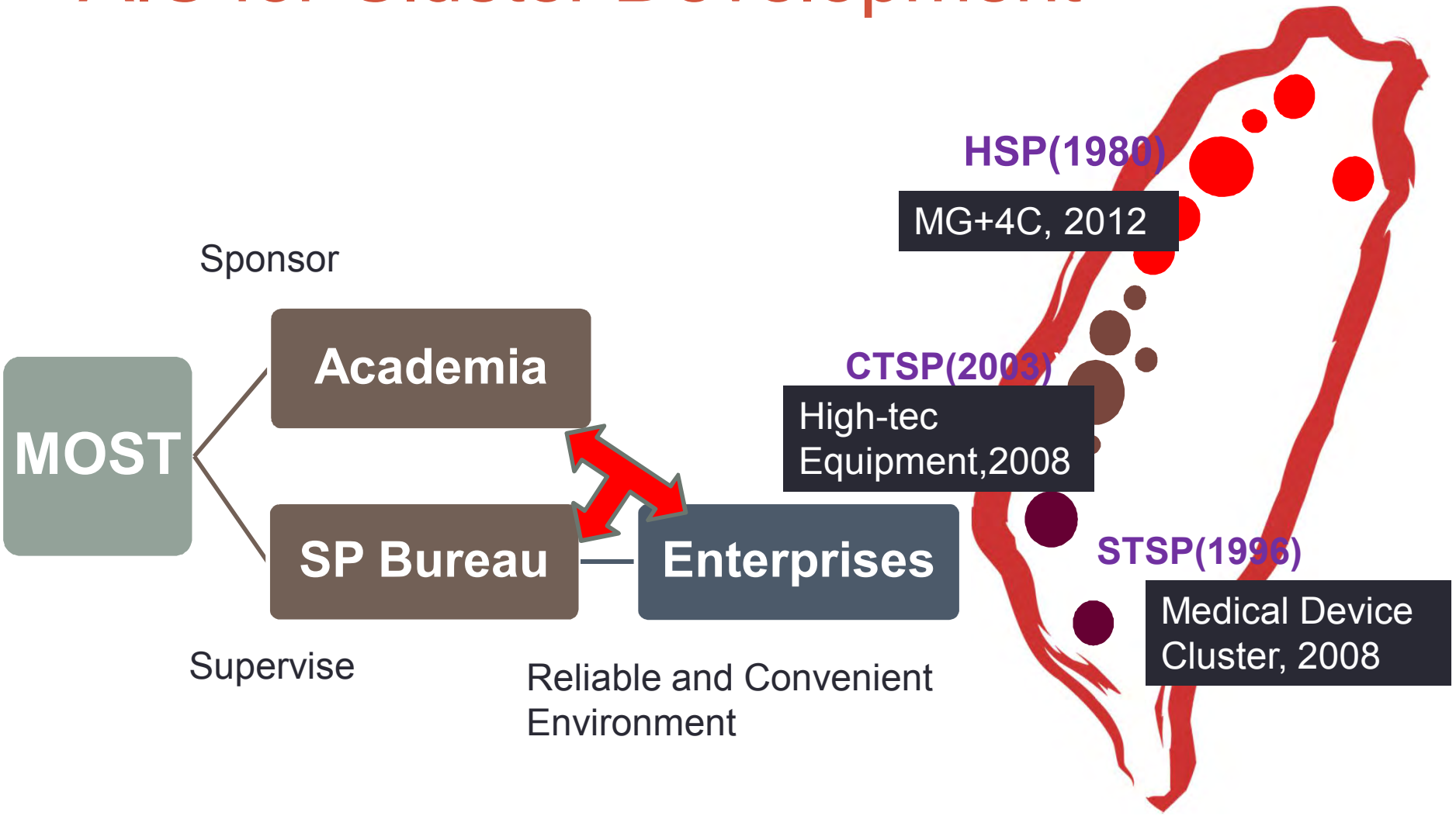
Total: 4,669 ha

2014 Employees : 263,649

2014 Revenue: over US$ 75 billion

(¥ 8.75 trillion)

AIC for Cluster Development

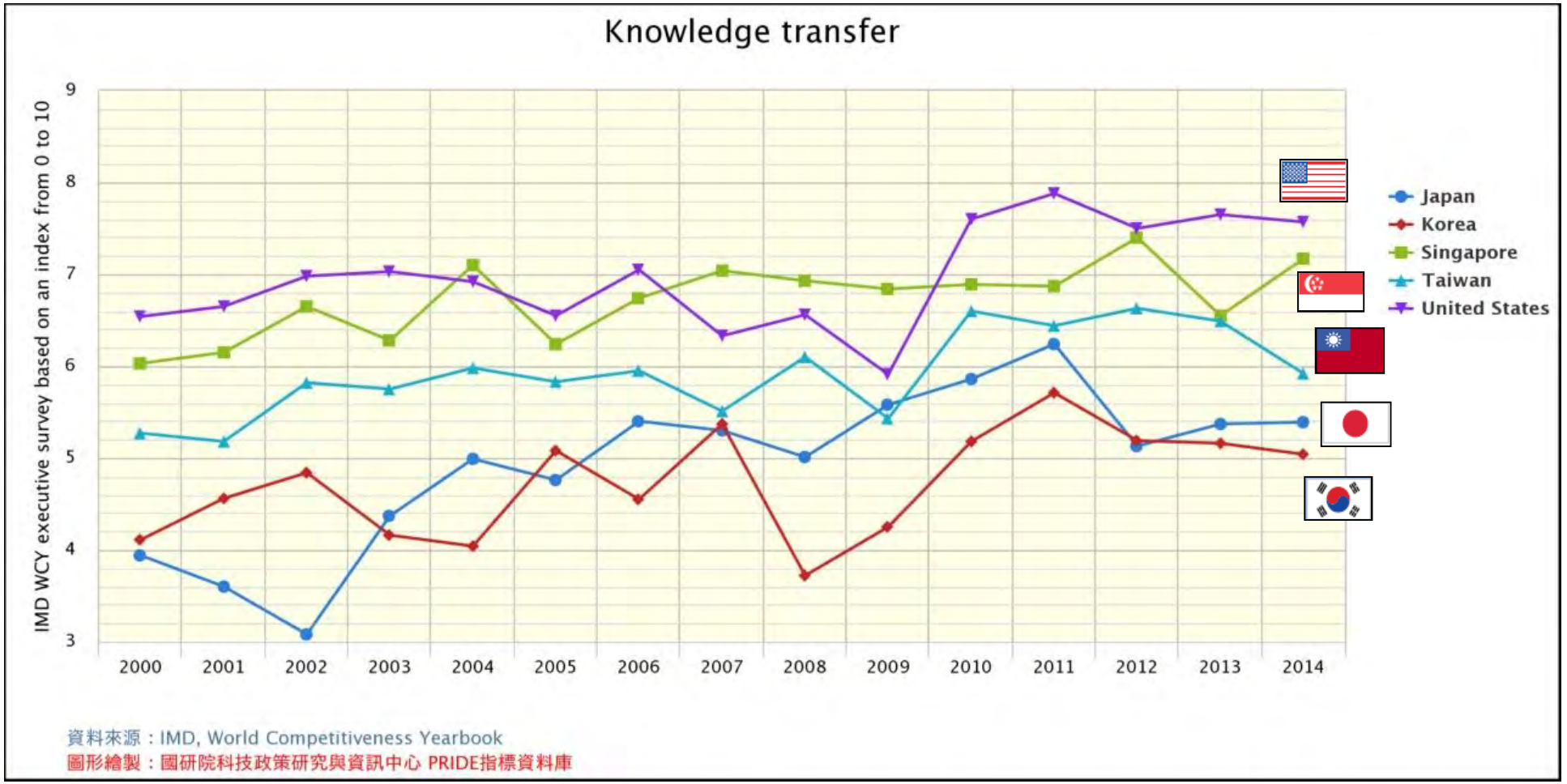


III. Conclusion

2014：Subsidy around NTD1.84 billion

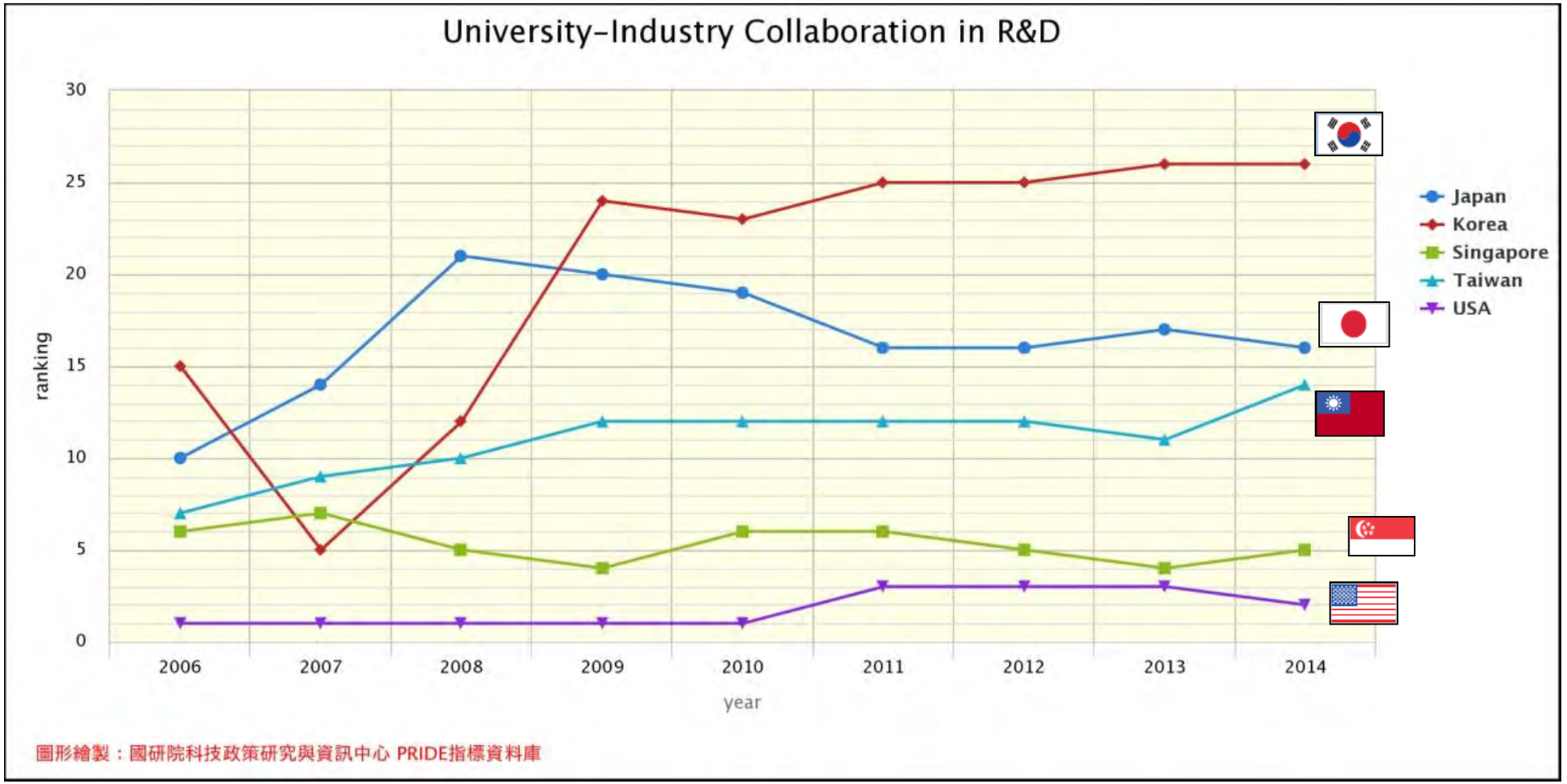
- Approved projects: 1,073
- Cultivated MS and PhD students: 3,255
- Participated enterprise employees: 2,448
- Certificated patents: 1,385
- Royalty: NTD 324 million
- Matching fund：NTD 1,068 million

IMD：Knowledge Transfer



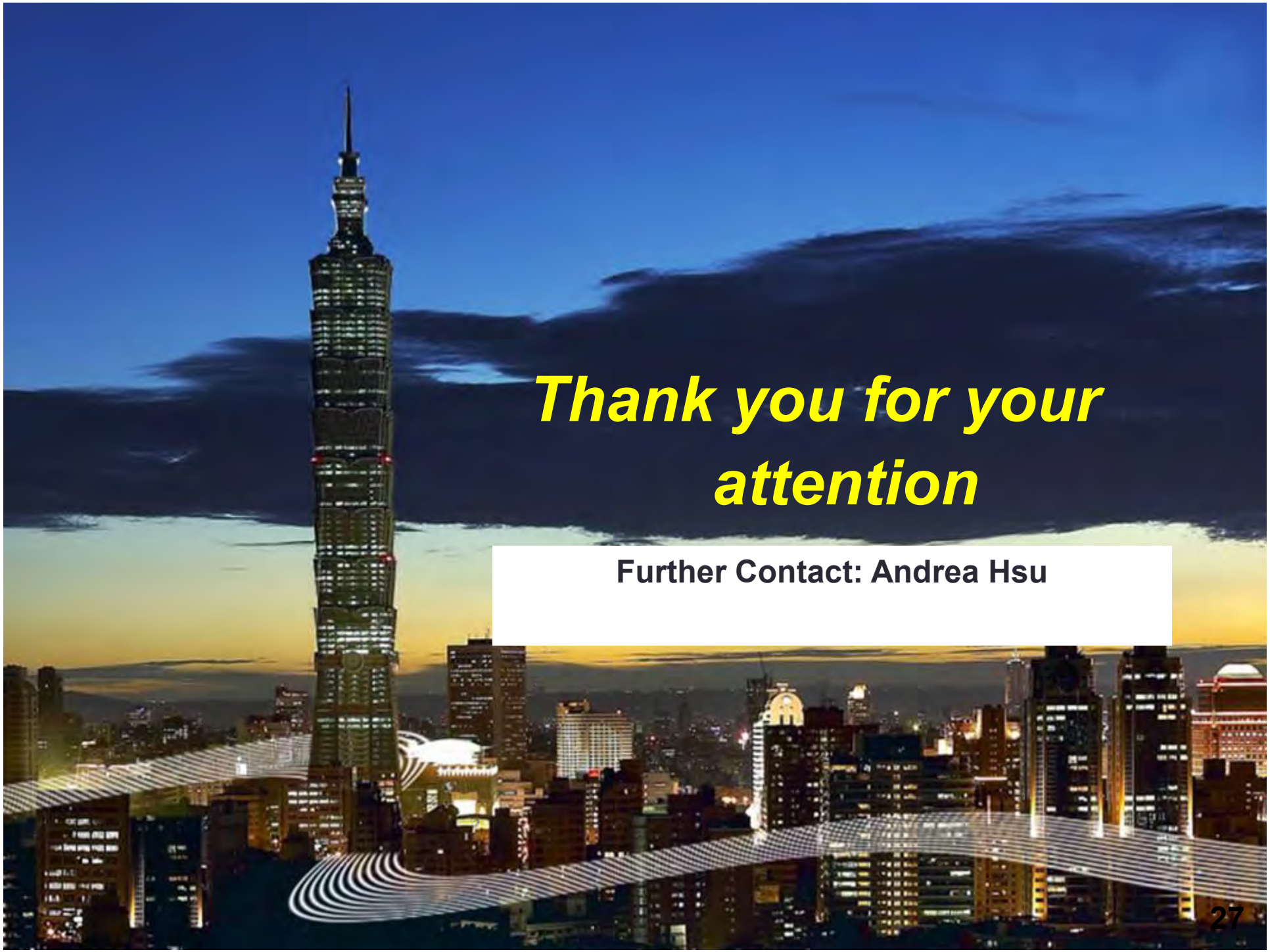
Ranking in 2014： Taiwan 21th and Japan 24th

WEF：University-Industry Research Collaboration



Ranking in 2014： Taiwan 14th and Japan 16th

- “Society-engaged” should find the extra value from academia research results
- The key points are results selection and value screening
- The function of AICs is somehow a kind of networking.
- MOST will continue to facilitate partnerships between academia & industry to build up a dynamic innovation ecosystem in Taiwan.


Thank you for your attention
Further Contact: Andrea Hsu