

# **Work session: Effective models of academia research industry cooperation**

**Title: Japanese Social Mechanism that  
enabled Rapid Growth in the past**

**Case study: “Innovation Center”**

Shinji NARUO

Naruo Research Institute, Ltd., Japan

Visiting professor, The Bucharest University, Romania

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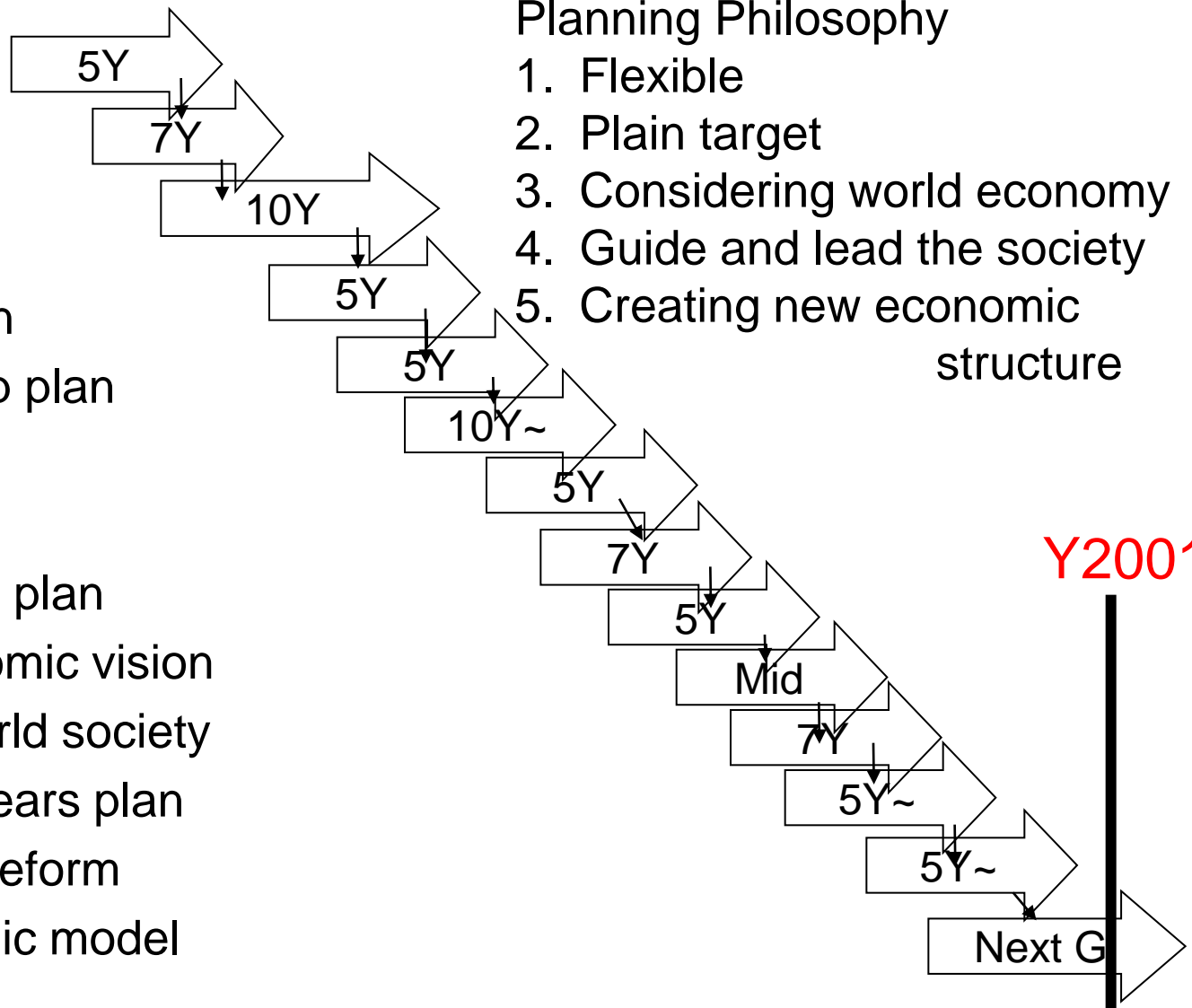
# Economic Planning in Japan

1956-----1999

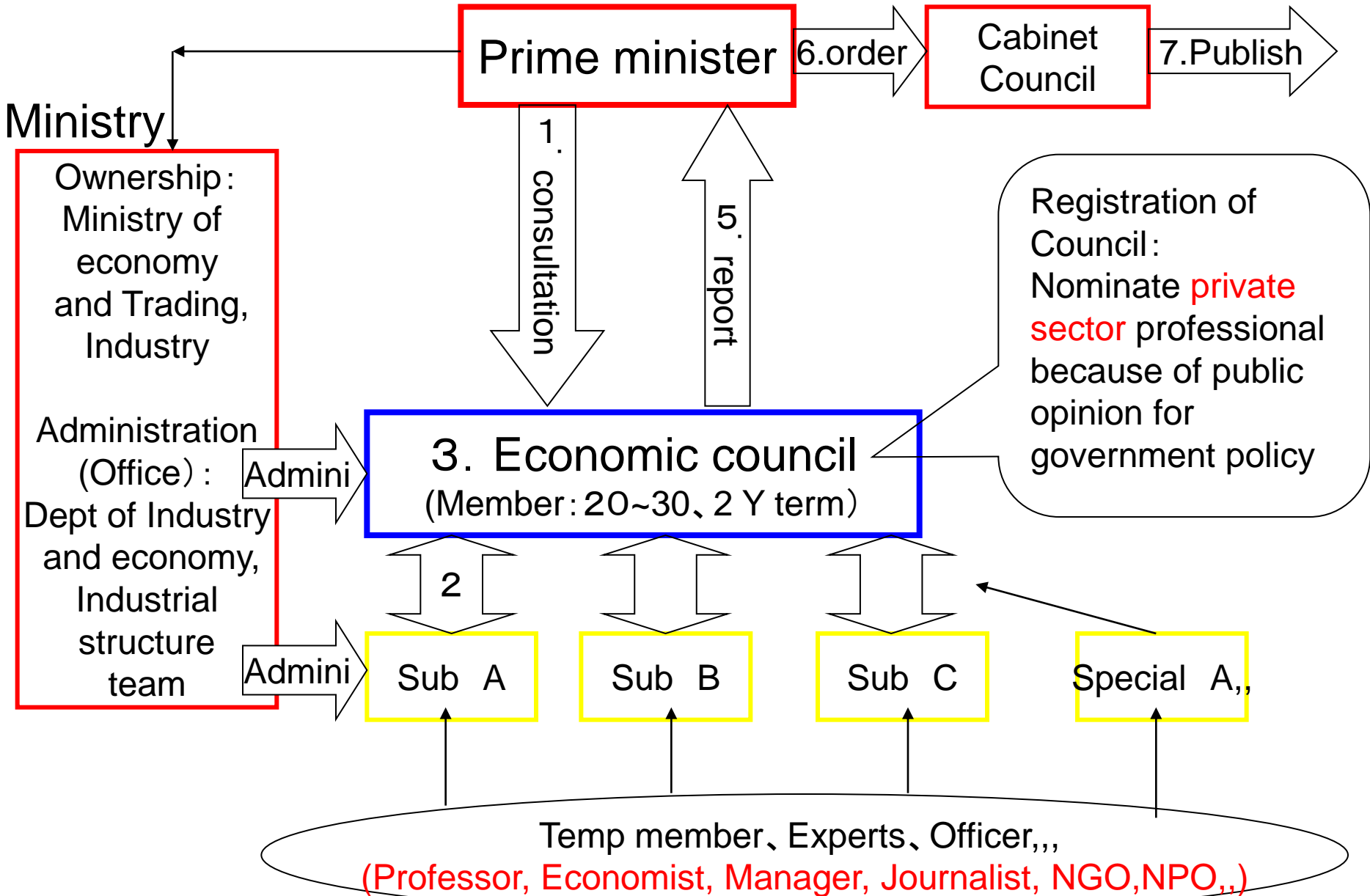
1. Independence
2. New long term
3. Income double
4. Mid term plan
5. Society develop plan
6. New society develop plan
7. Society basic plan
8. Next decade plan
9. New society 7 years plan
10. 1980s Social economic vision
11. Coexist with the world society
12. Living standard 5 years plan
13. Plan for economic reform
14. New social economic model

## Planning Philosophy

1. Flexible
2. Plain target
3. Considering world economy
4. Guide and lead the society
5. Creating new economic structure

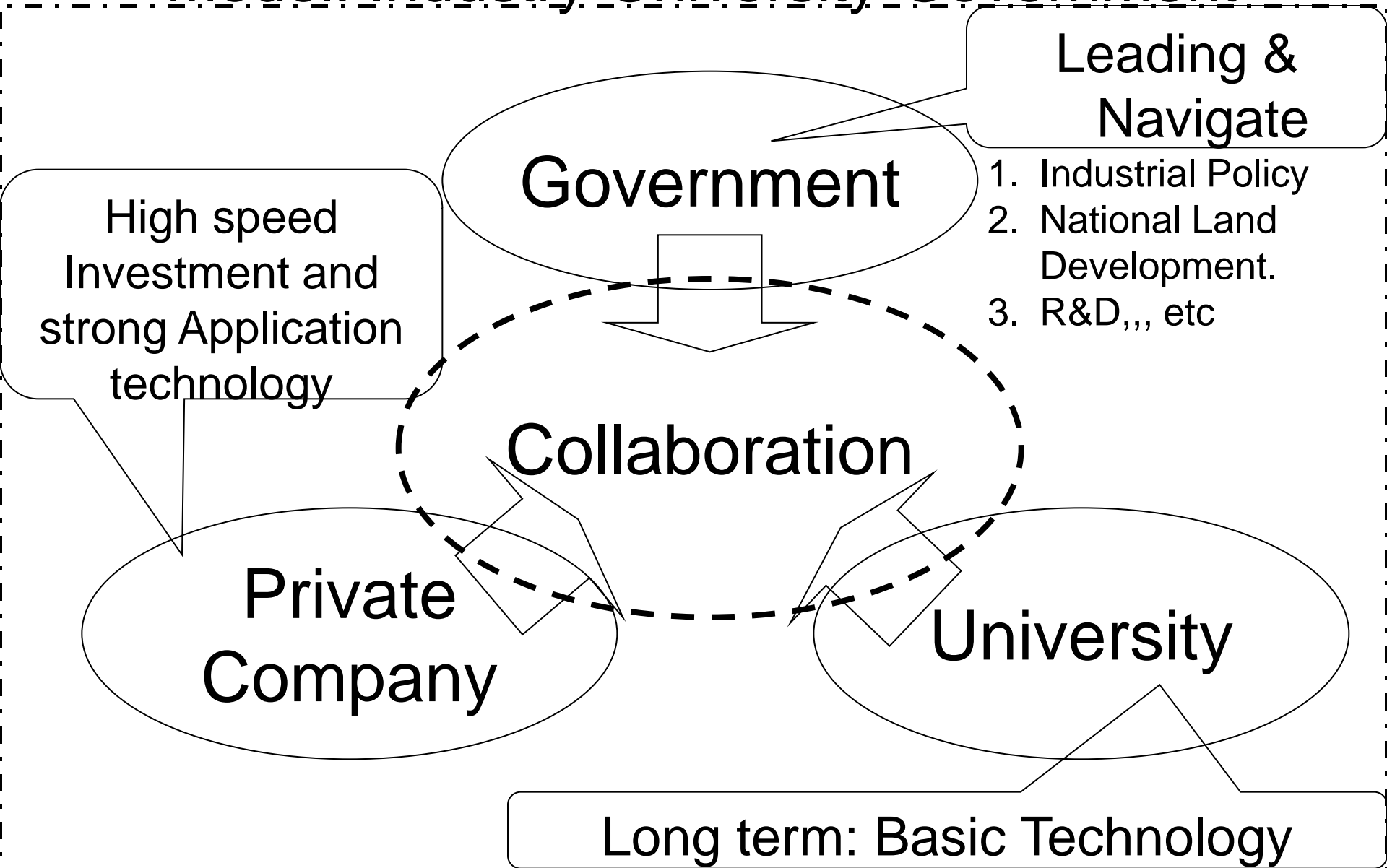


# Public Policy Making 2: The council procedure



# Traditional Japanese Framework (~Y1990)

## Model: Industry-University-Government



# GDP Growth ratio in Japan

## Long term (1960~2008)

1960s

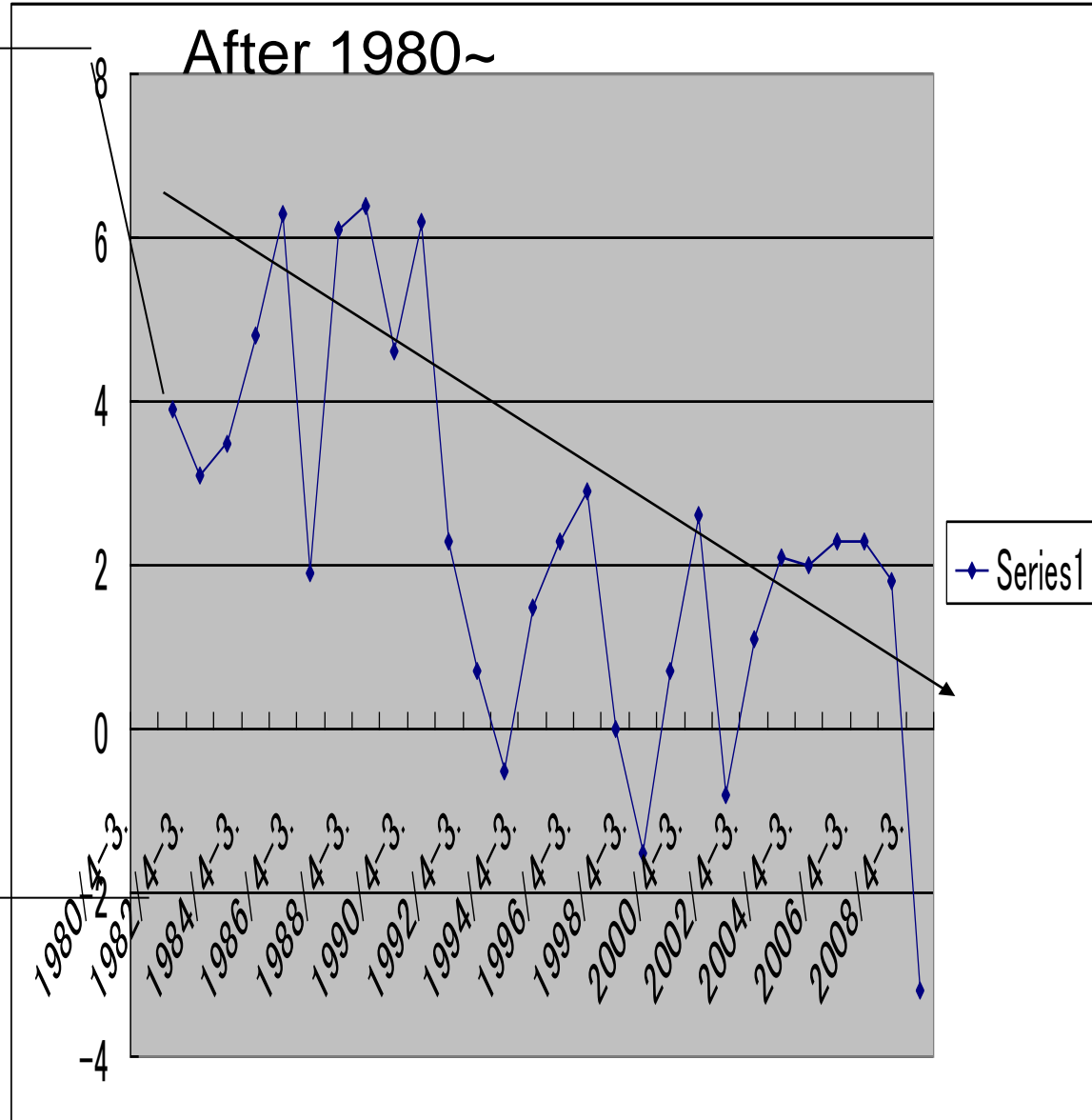
(Higher than 10%)

1970s

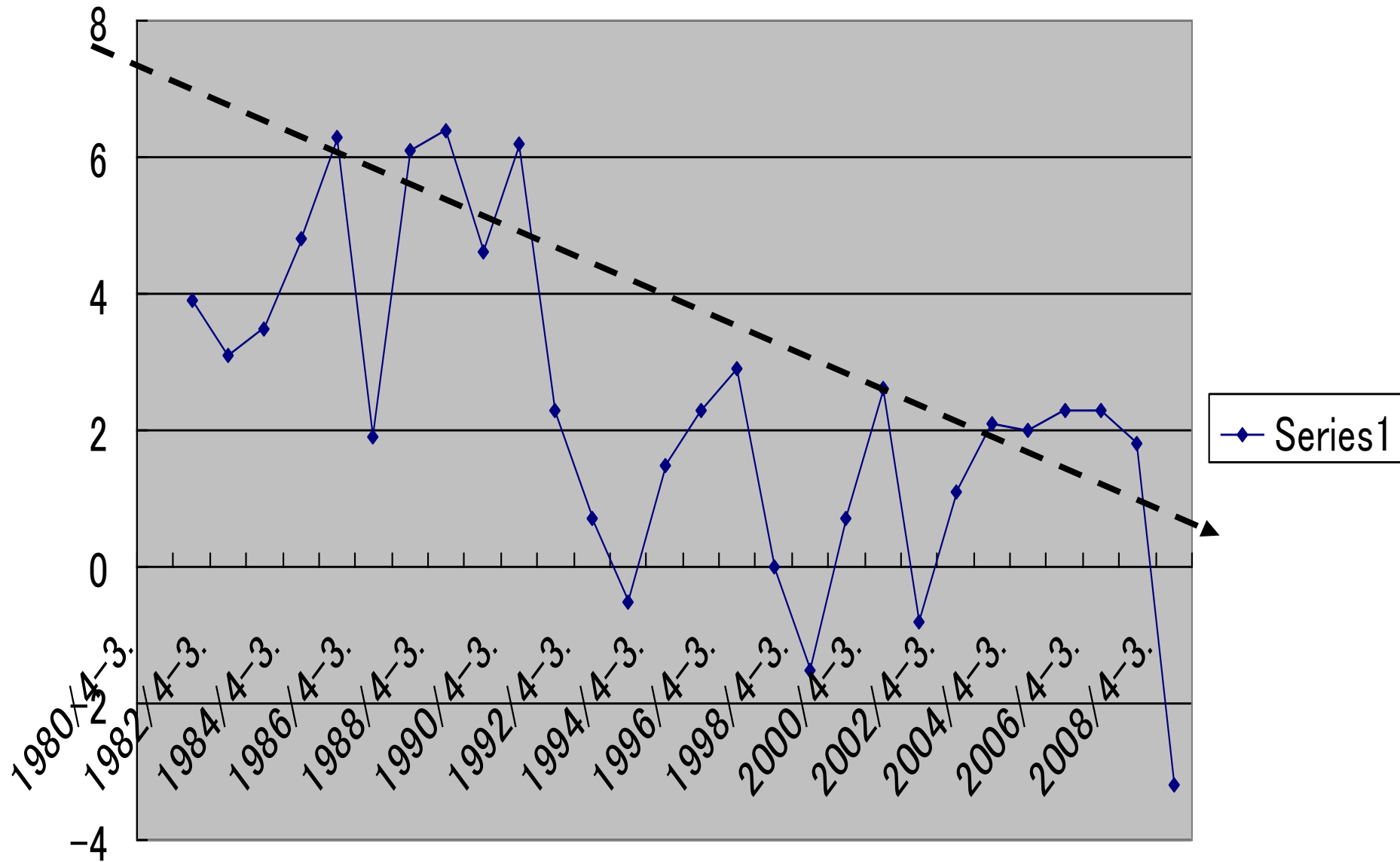
(6~9 %)

High  
economic  
growing era

2 times Oil  
crisis changed  
The growing  
gear.



# GDP Growth ratio in Japan (1980~2011)



# What happened to JAPAN?

1. Global competition environment changed  
⇒ Catch up / Challenge model to leading model  
(Create something new).
2. Japan became matured economy like Europe /  
USA (Not hungry).
3. Social Institutional Fatigue (more than 100 years  
after Meiji restoration)

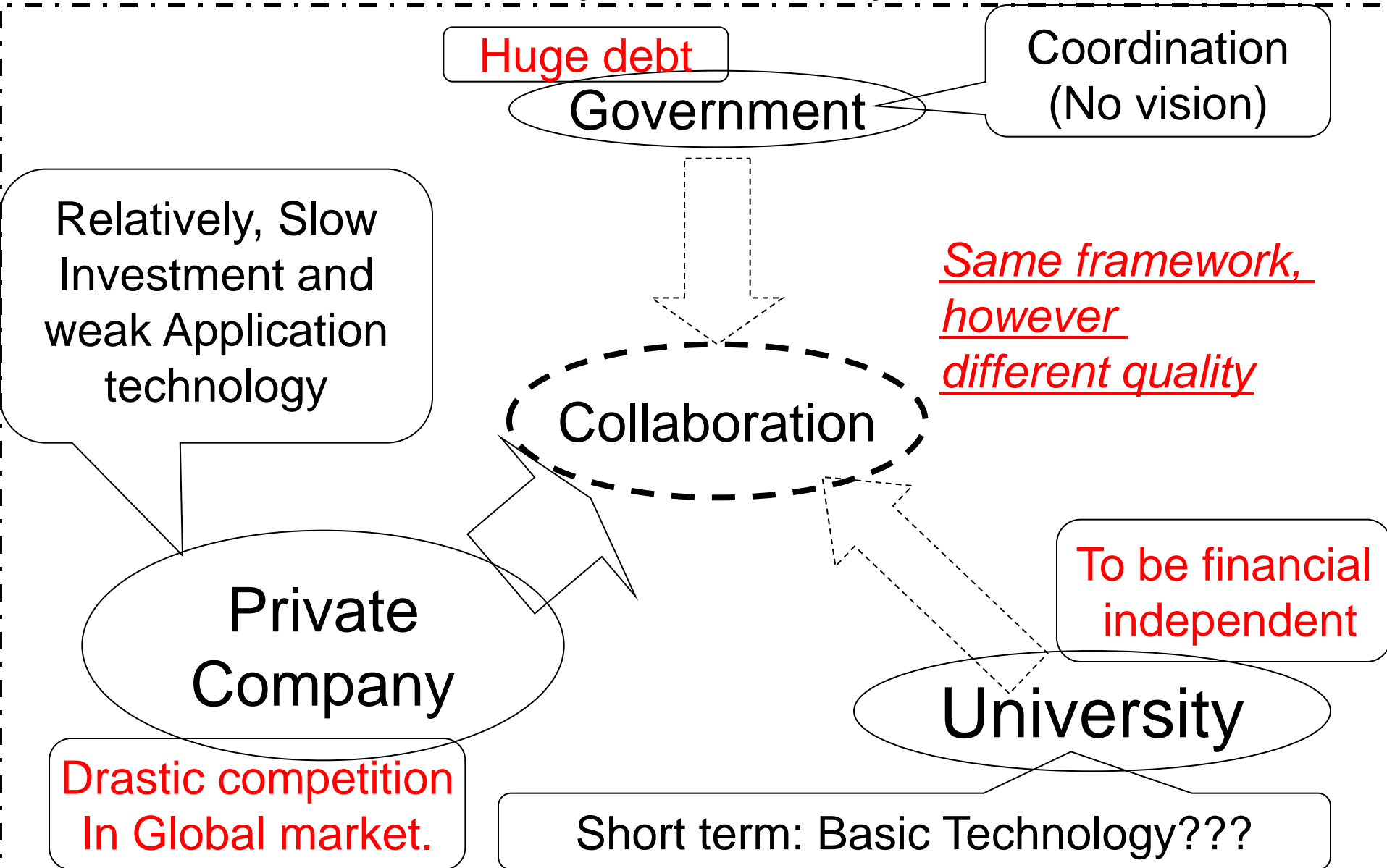
Need to renew the social economic model for next  
era. However,,,

No initiative among Government, Private sector and  
University.



# Current Japanese Framework (Y1991~)

## Model: Industry-University-Government



## 2. Case study: Innovation center model

International competitive power:

(IMD: International Institute for Management  
Development)

1989~1993: Japan was No.1 in the world.

However,、 、 、 、

Now, 2011: Japan is 27<sup>th</sup> in the world.

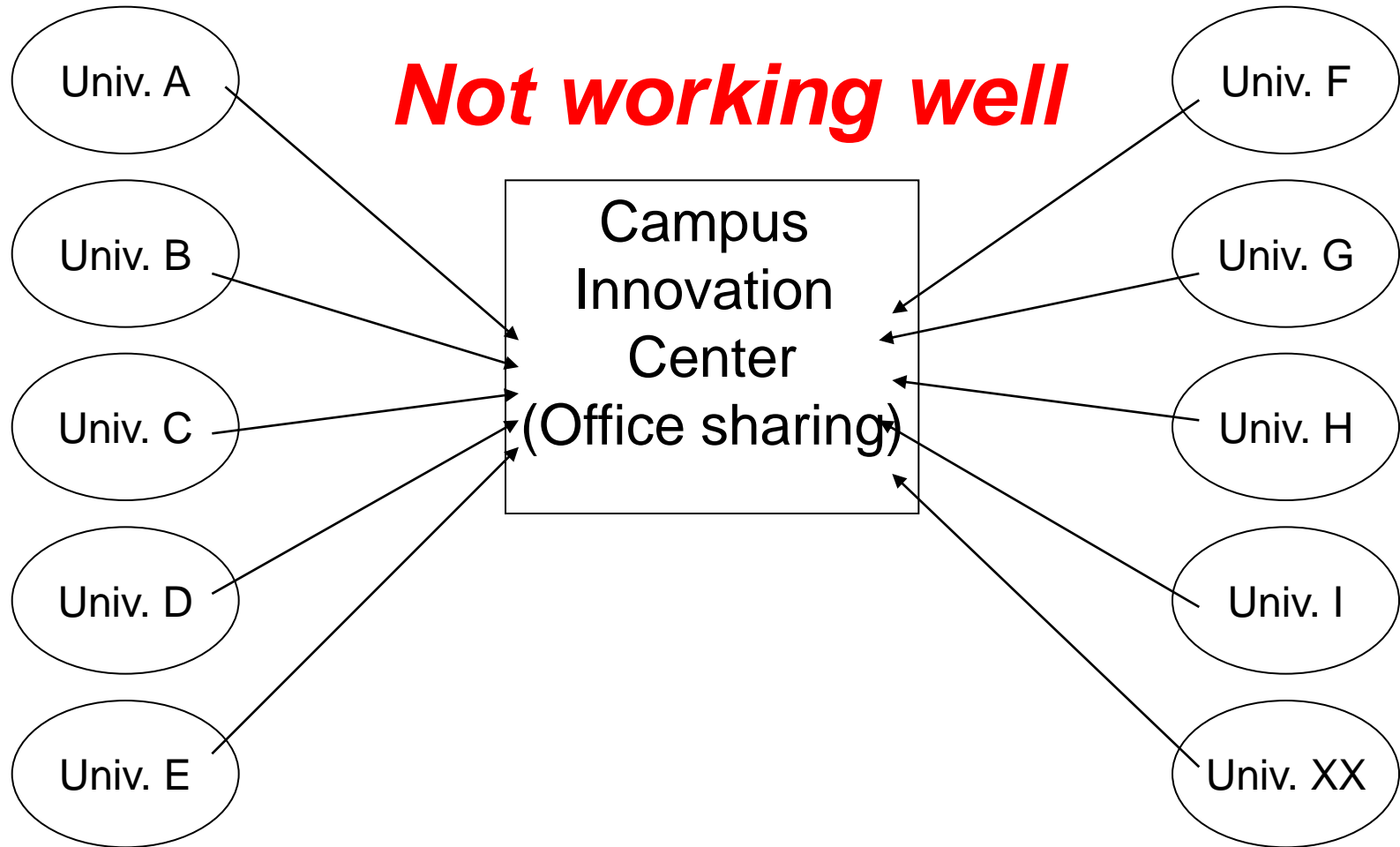
⇒Need to reconstruct Innovation power.

# Type of Innovation center

- Patent Management and Utilization type
- Working space (Office) sharing type
- Knowledge sharing network type
- Renew Science Park (Not traditional one)
- Venture capital type (Finance)
- Incubation center for the Univ.
- Specific business purpose type (Company)
- Project integration type (Gov.)
- Social Institution Development type (KEY)
- etc

# Innovation Center: Model -1

## Joint Innovation Center



# Innovation Center: Model -2

## Univ. Research Institute

**Testing,  
Some Univ. OK**

University  
(Ex; Osaka University)

Traditional Approach

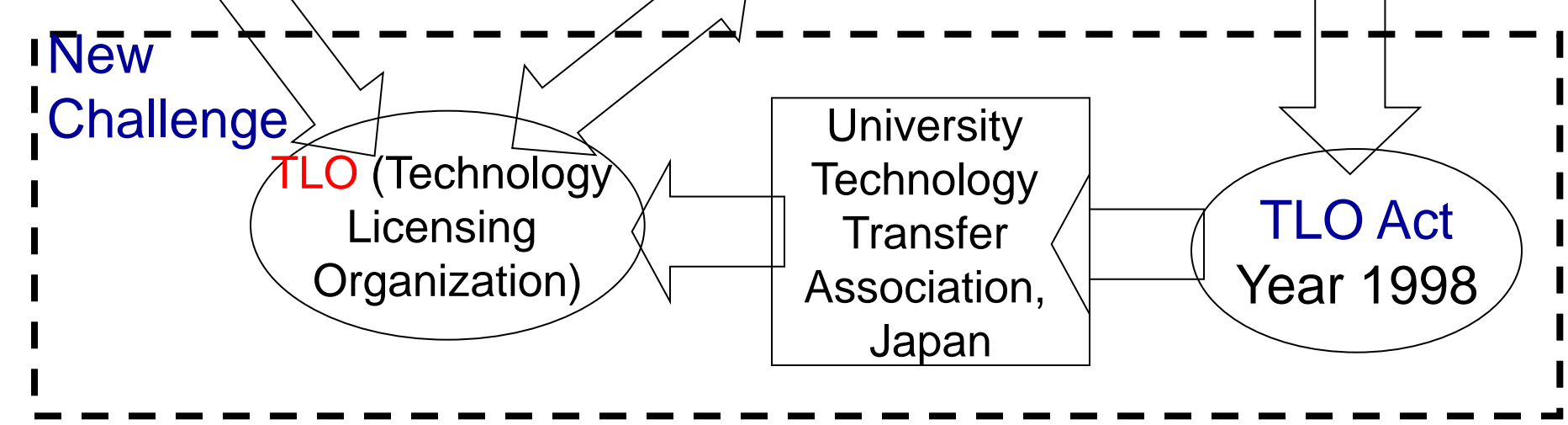


New Challenge

TLO (Technology Licensing Organization)

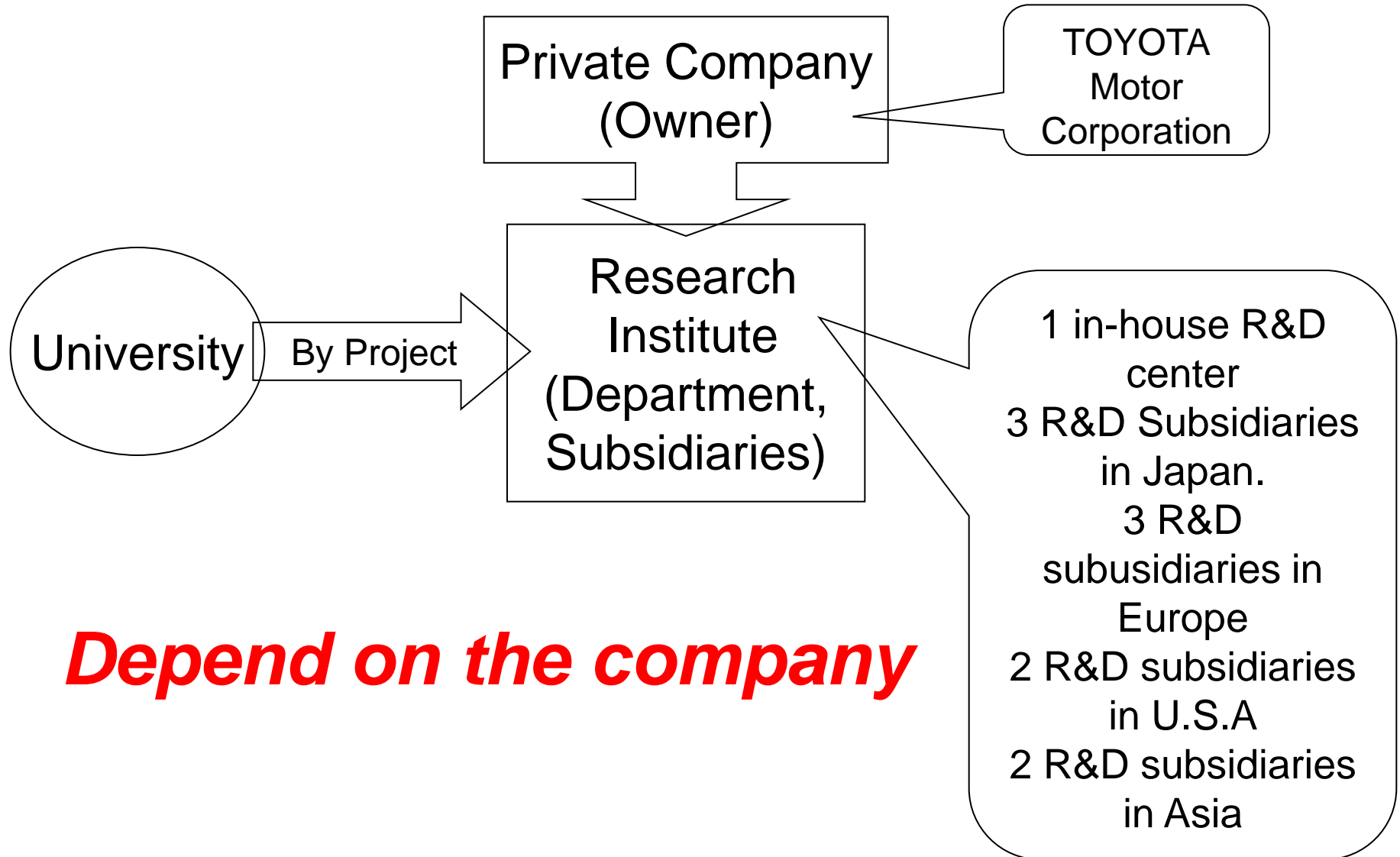
University Technology Transfer Association, Japan

TLO Act Year 1998



# Innovation Center: Model -3

## Corporate Innovation center (Private company)



# Innovation Center: Model -4

## Governmental Research Institute

NEDO (New Energy and Industrial Technology Development Organization) is Japan's largest public R&D management organization for promoting the development of advanced industrial, environmental, new energy and energy conservation technologies.

Government  
(Ex; METI, etc)

METI (Ministry of Economy, Trade and Industry & Ministry of Education, Culture, Sports, Science and Technology)

Governmental  
Research  
Institute  
(Ex; NEDO)

R&D total coordinator,  
R&D project Management  
(230 billion JPN  
(Euro1.7billion) per year)

Private  
Companies

Researcher

Researcher

Universities

***It used to work well,  
but now???***

# Innovation Center: Model -5

## Regional Gov. research institute

The Science and Research Park (KSRP) is responsible for the comprehensive management and operation of all its joint-use facilities and promotes partnerships and exchanges among the universities in the Park.

Regional Gov.  
(Kitakyusyu City)

Kitakyusyu Foundation  
for the Advancement of  
Industry, Science and  
Technology

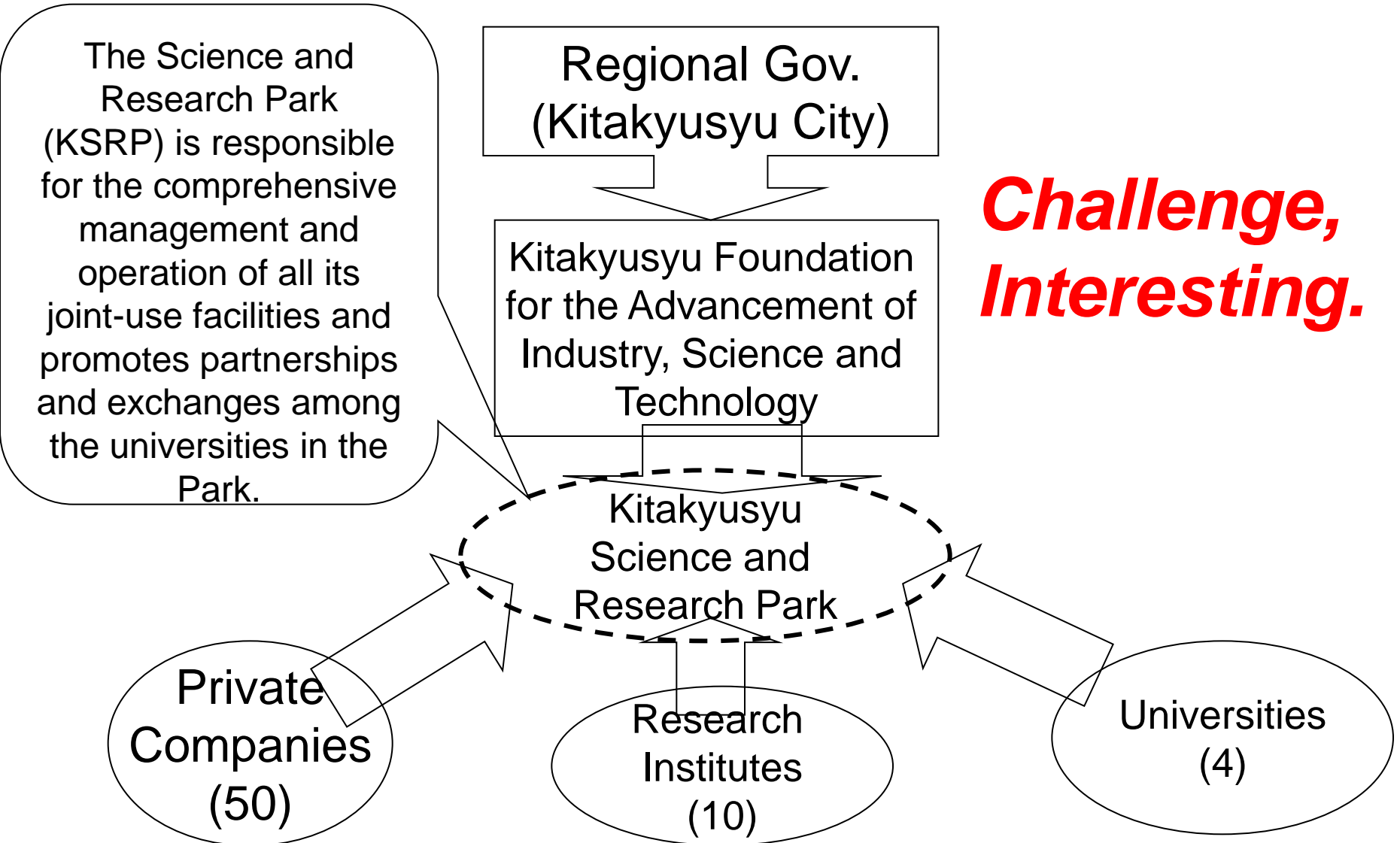
***Challenge,  
Interesting.***

Kitakyusyu  
Science and  
Research Park

Private  
Companies  
(50)

Research  
Institutes  
(10)

Universities  
(4)





# Category of Innovation

- Product and/or Services
- Financial engineering (No thank you)
- Management
- Manufacturing process (Productivity)
- Life style (Key???)
- Social system, Institution (Key???)
- Transportation
- Communication
- Environmental protection (Key ???)
- Etc,,,

⇒ Not succeeded yet.

# 3. Closing

1. Japanese system is now in “Social Institution fatigue”.  
⇒ MEIJI restoration was at 150 years ago.
2. It is necessary to redesign and develop new “Social Institution”.  
⇒ This is necessary for all advanced countries, not only Japan.
3. Market economy does not create the new Social institution.  
⇒ It is artificial output by human wisdom.