

The 2<sup>nd</sup> 'Miracle on the Han River'

---

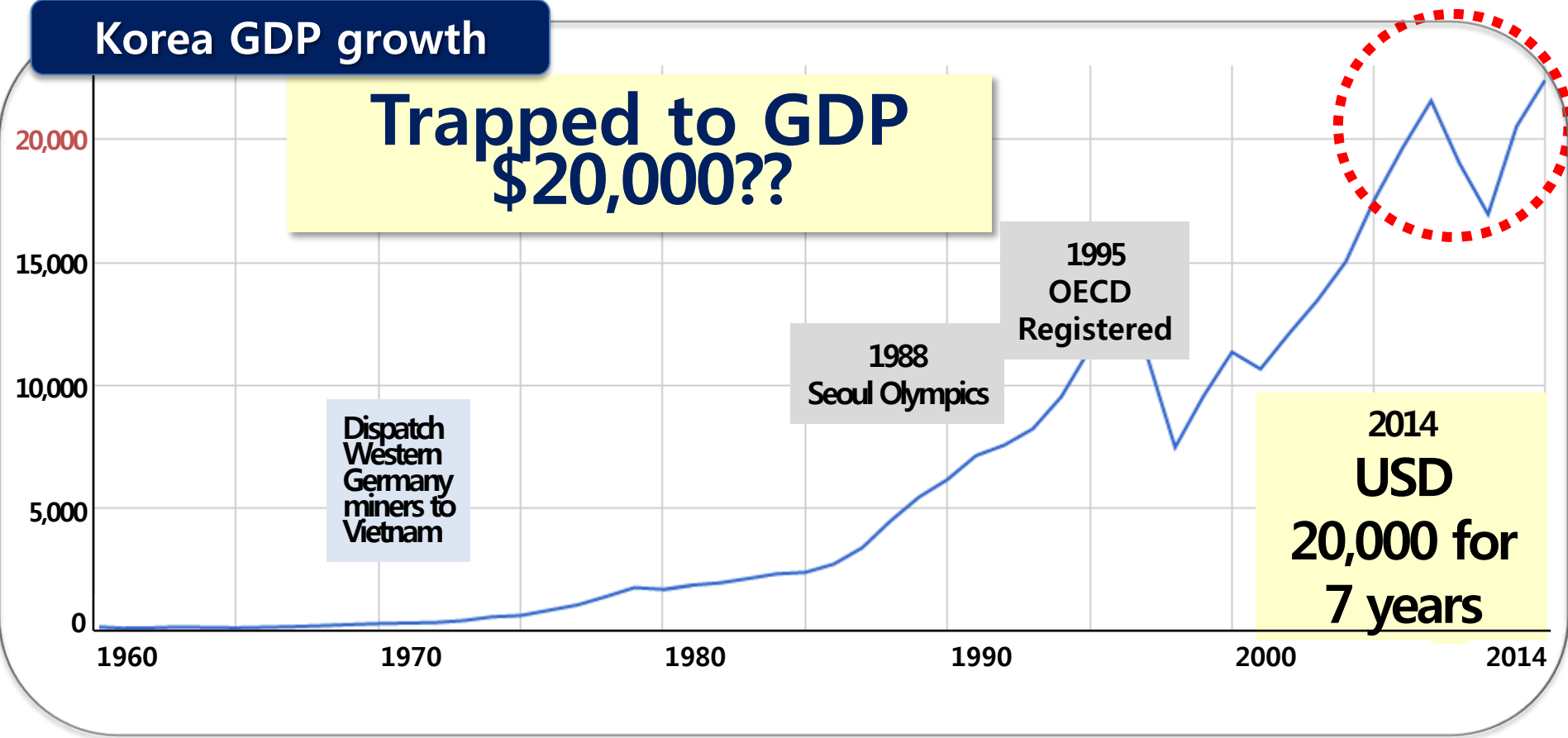
# Creative Economy and **TRIZ**

KOVA Honorary Chairman  
KAIST Professor  
KOHEA Chairman

**Lee Min Hwa**

# The Miracle on the Han River, is it sustainable?

## Korea GDP growth



1960  
Female Worker

1970  
Technician

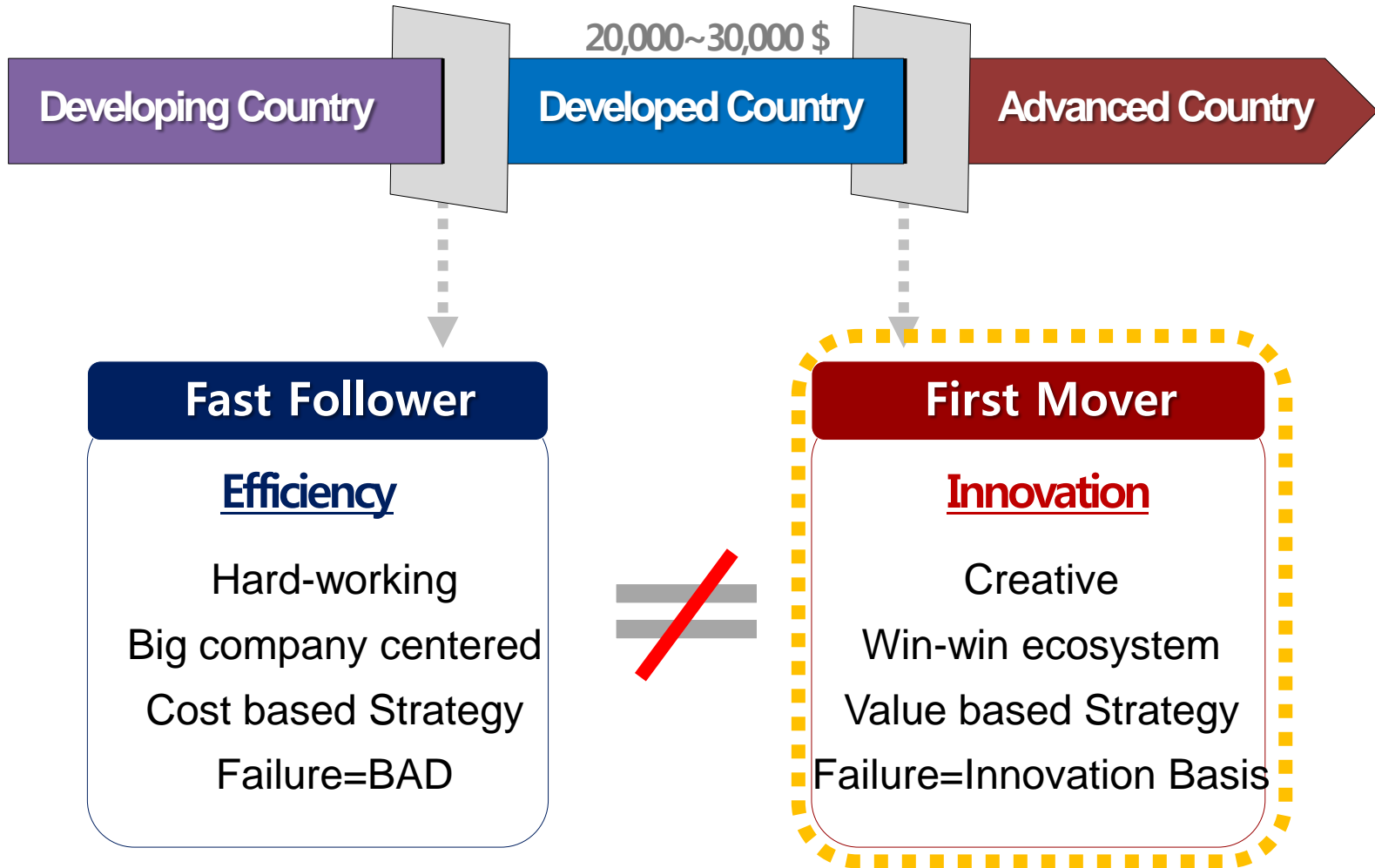
1980  
Salesman

1990  
Big Chaebol

End of 1990  
Ventures



# Success is father of failure



# Previous Story





野村総合研究所タイ  
Nomura Research Institute Thailand

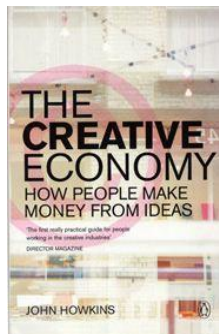
## Nomura Laboratory 'Strategy of Creation - Creation Generation Management and Know-How(1990)'

- Agricultural Society → Industrial Society → Information-oriented Society → **Creation Society**
- **낙미애진(樂美愛眞)** Generation



## Peter Coy 'Business Week(2000)'

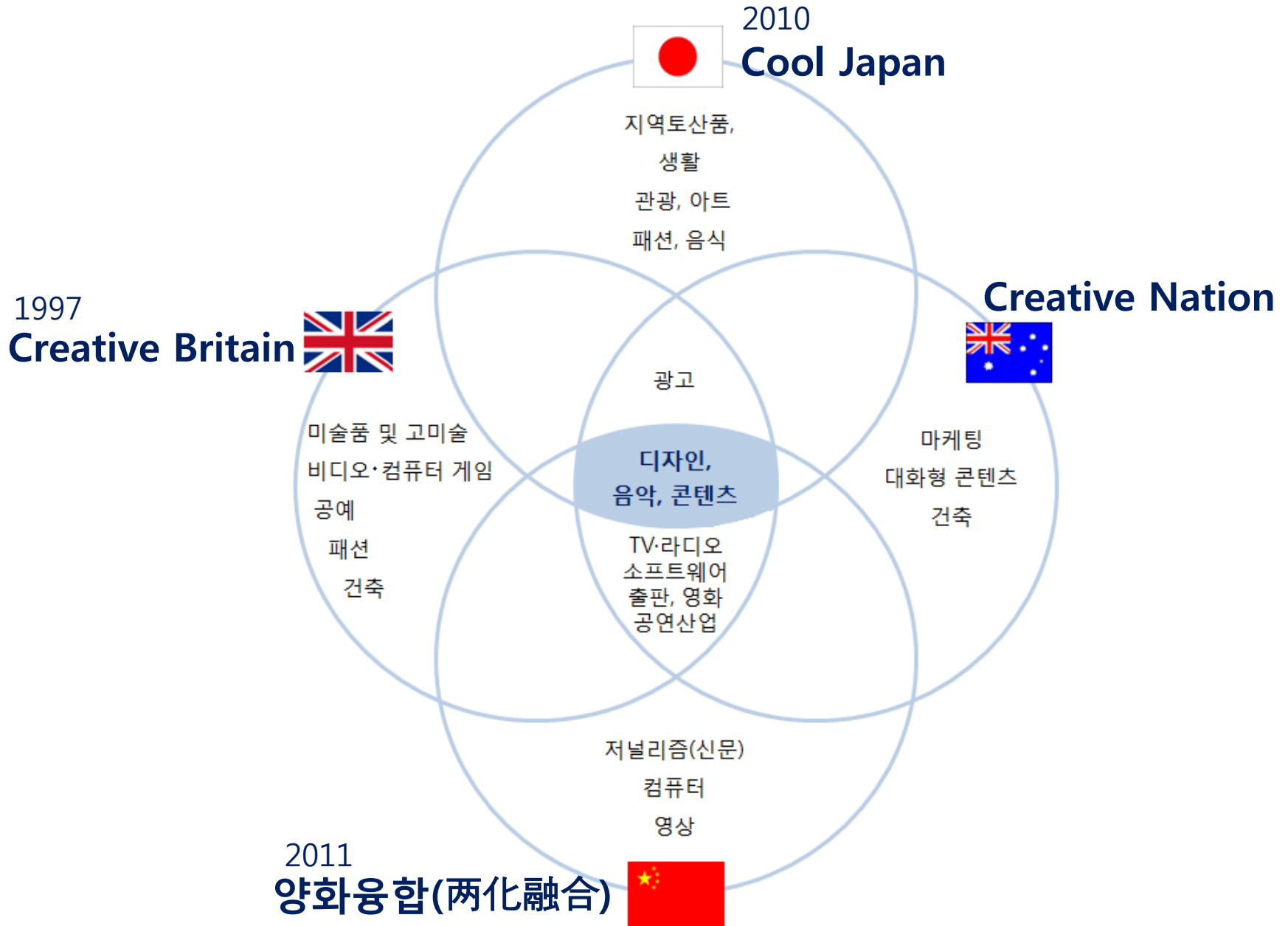
- A business that provides **intangible values** based on **ideas** can only survive
- From Hamburger **to Software**



## John Howkins 'The Creative Economy(2001)'

- Economy that deals with Creative product with Creative actions and Economical values

# Main countries' Creative Industry Strategy

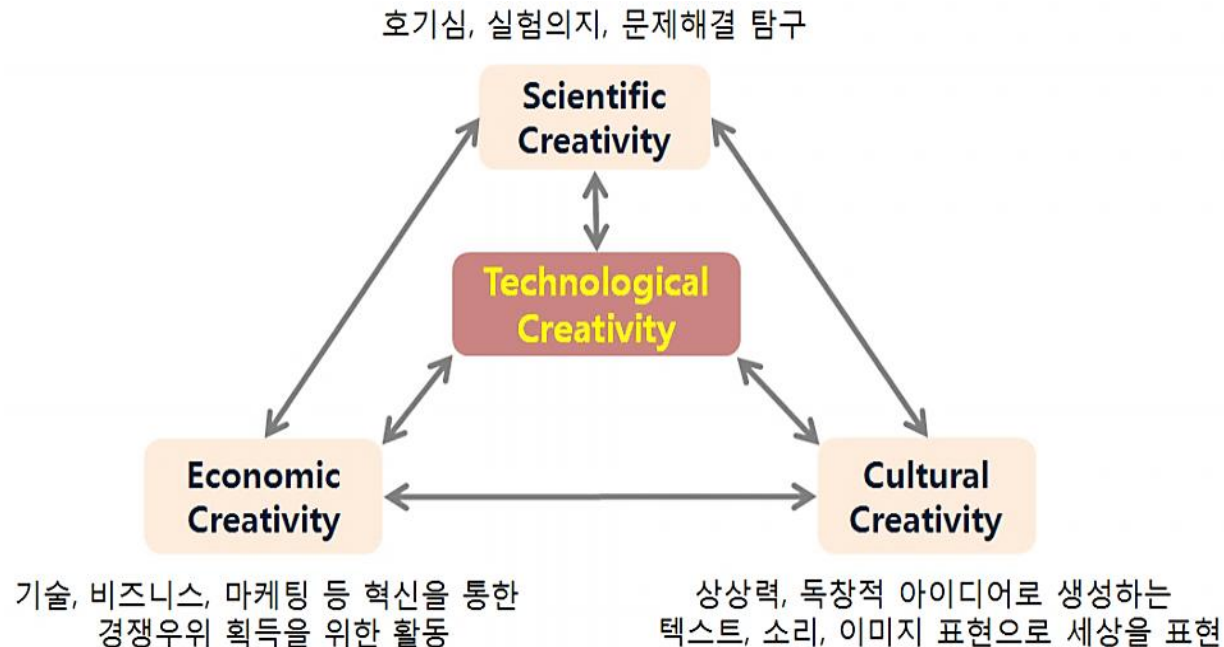


# UN's Creative Economy



## Creative Economy Report 2008, 2010

- Developing Country's development plan concept
- Contribution to Economic development based on cultural asset
- Economic and Cultural Development is Mutual Contact, not Mutual Exclusion



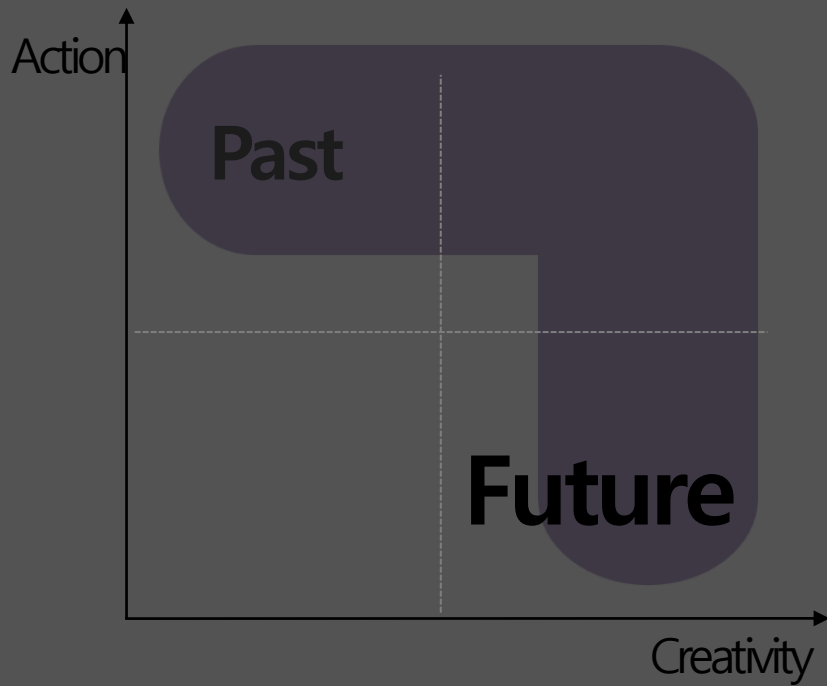
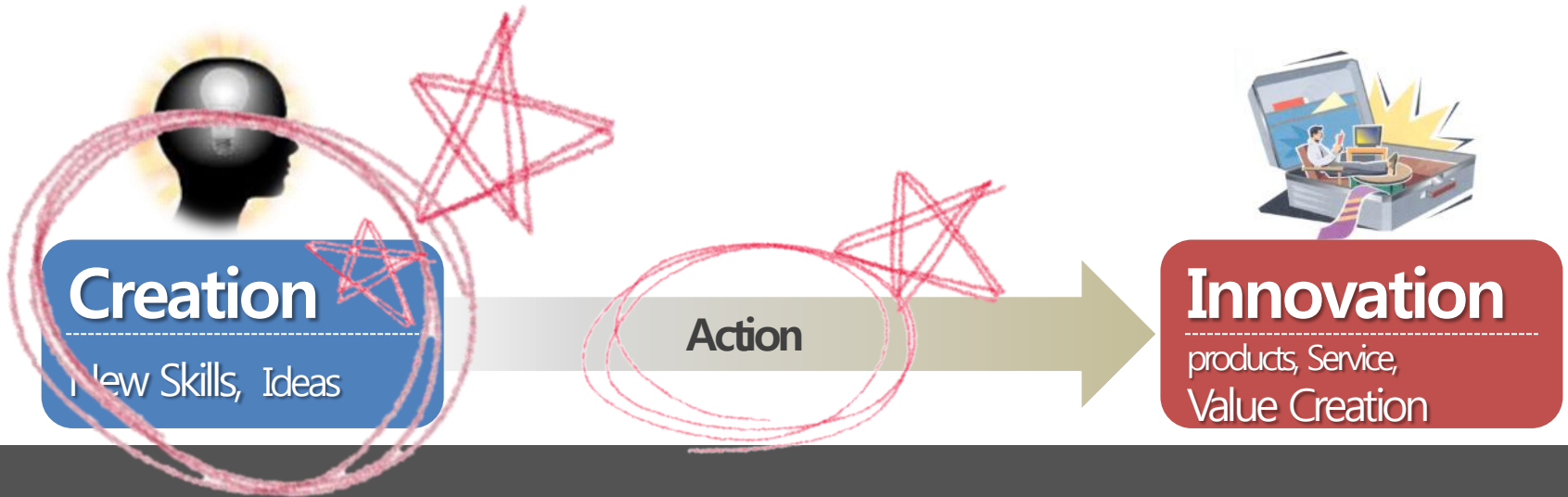
# Korea's Creative Economy

## Creative Economy 2.0





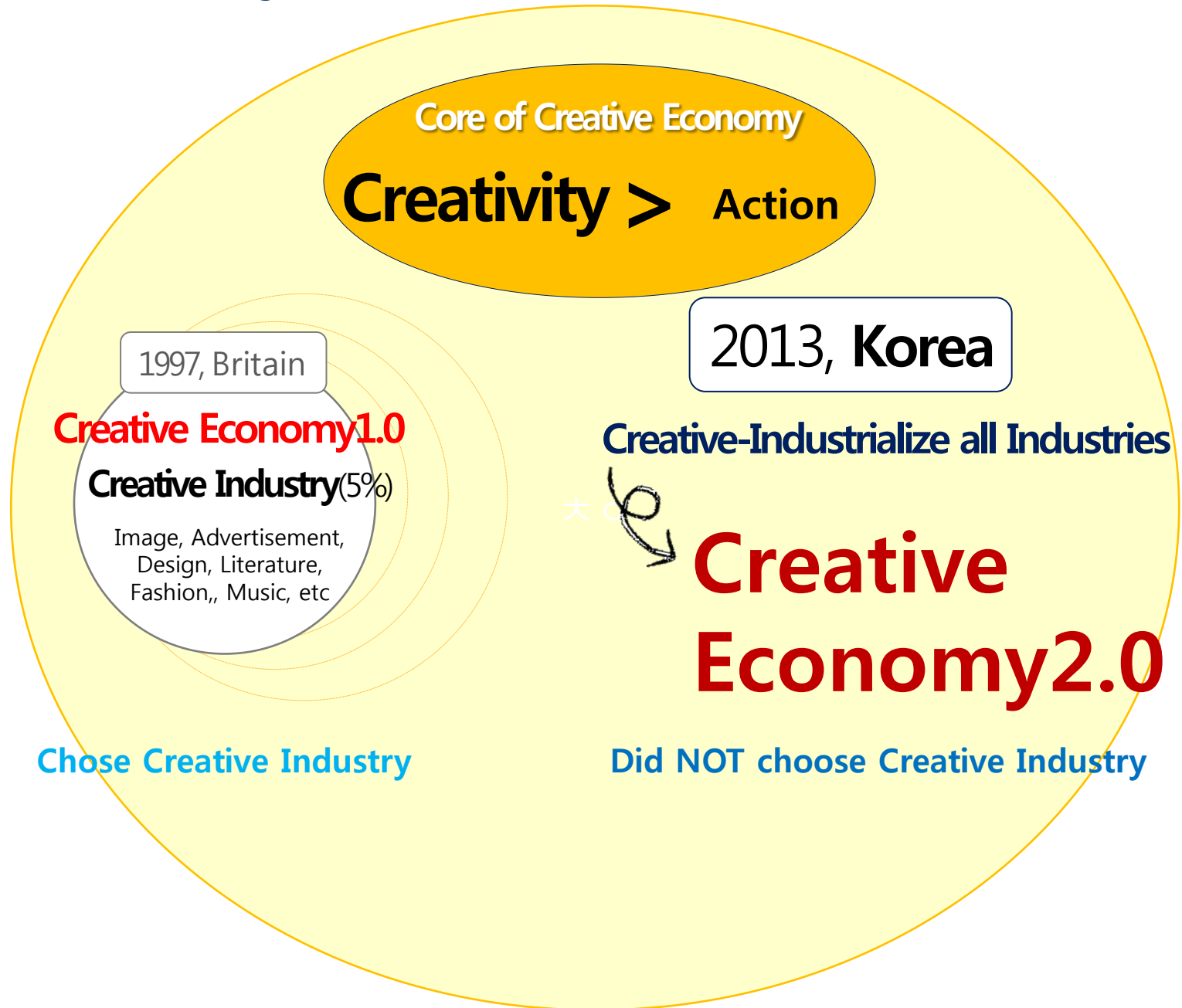
# From Action to Creation



→ **Easier Action**

**Creativity makes profits**

# Creative Economy of Britain and Korea



Core of Creative Economy

**Creativity > Action**

1997, Britain

**Creative Economy 1.0**

**Creative Industry (5%)**

Image, Advertisement,  
Design, Literature,  
Fashion,, Music, etc

Chose Creative Industry

2013, Korea

Creative-Industrialize all Industries

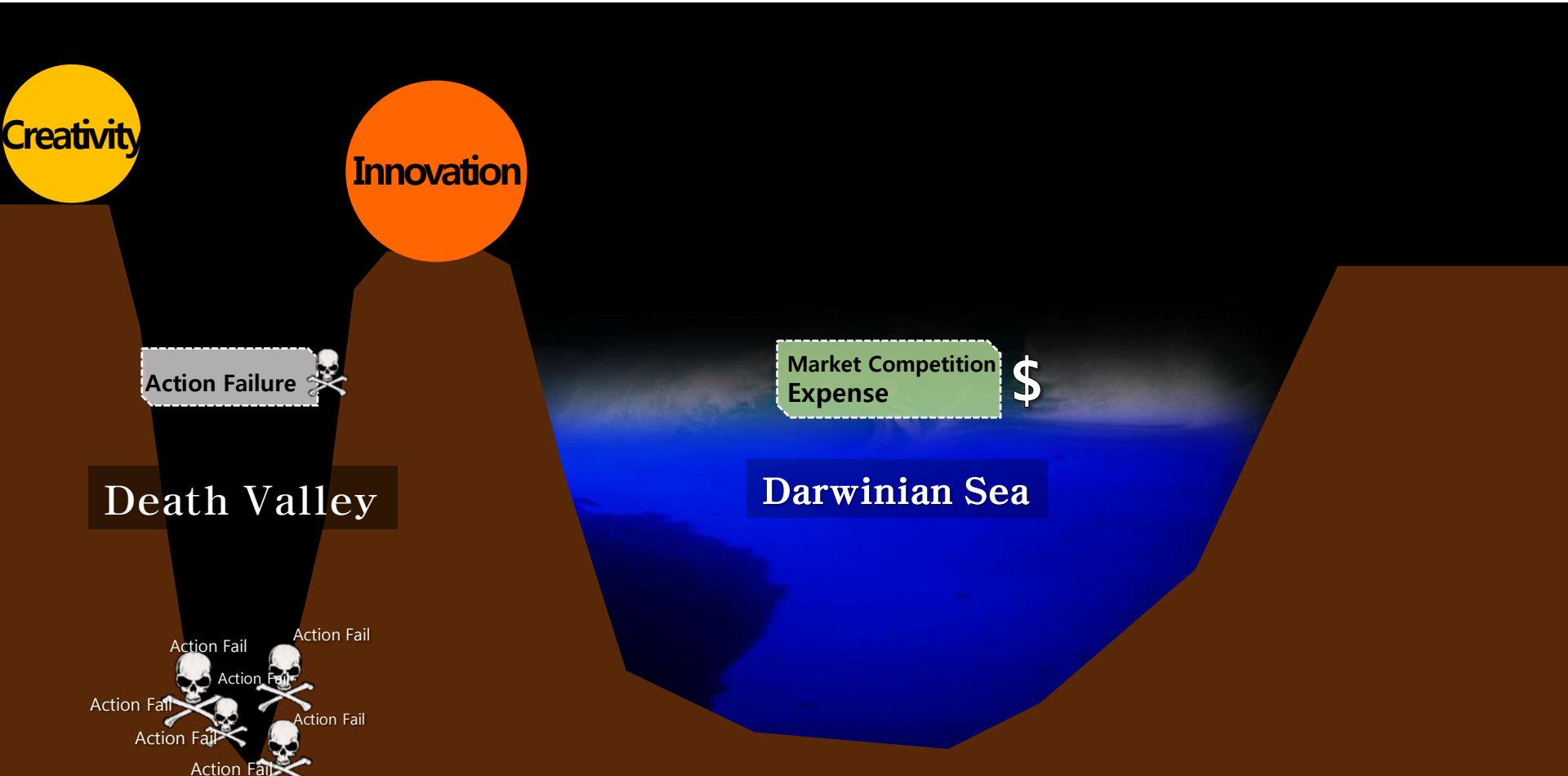
**Creative  
Economy 2.0**

Did NOT choose Creative Industry

**Meta-technology**  
**Innovation Ecosystem**  
**Open Platform**

# Valley of Death and Darwinian Sea

## Innovation Economy



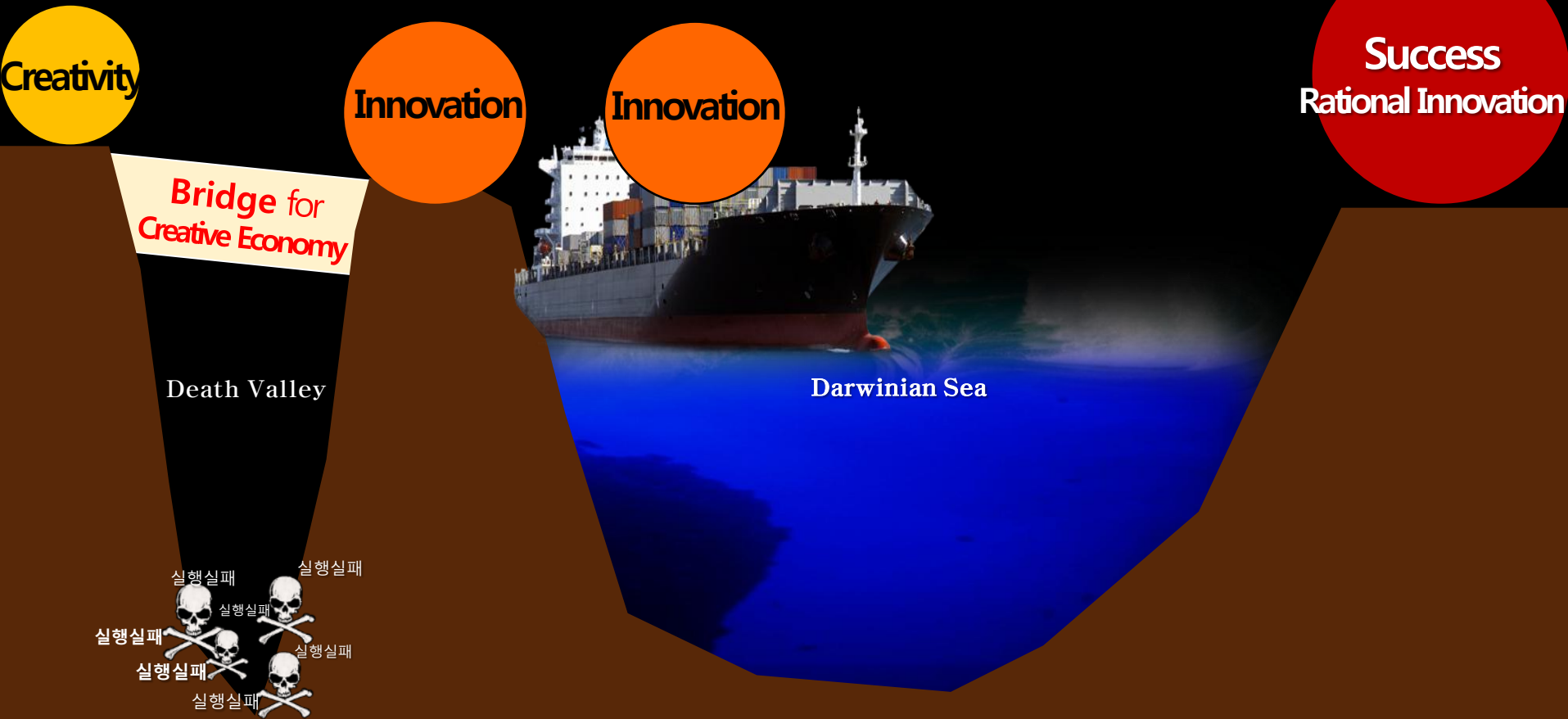
# Easy Innovation, Creative Economy

## Creative Economy's Bridge

Meta-technology and  
Innovation Ecosystem

## Creative Economy's Ship

Market Platform

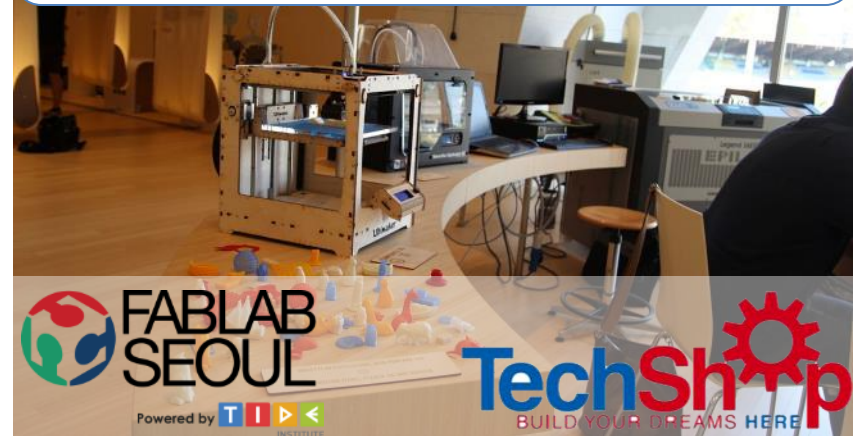


# Open Platform Cases

Social Idea Platform,  
**Quirky**



Development Platform,  
**Tech-Shop/ FABLAB**



Cloud Funding Platform,  
**Kick-Starter**



Life experiment Platform,  
**Living Lab**



# Integration of Science Technology, ICT, and Cultural Art



Science &  
Creativity  
Technology

Bridge of Creative Economy

Innovation

Ship of Creative Economy

Cultures

## Creative Society

2030 – How we think leads Creative Society

Korea's Creative Economy is  
Creative-Industrializing all Industries  
Creative Economy 2.0

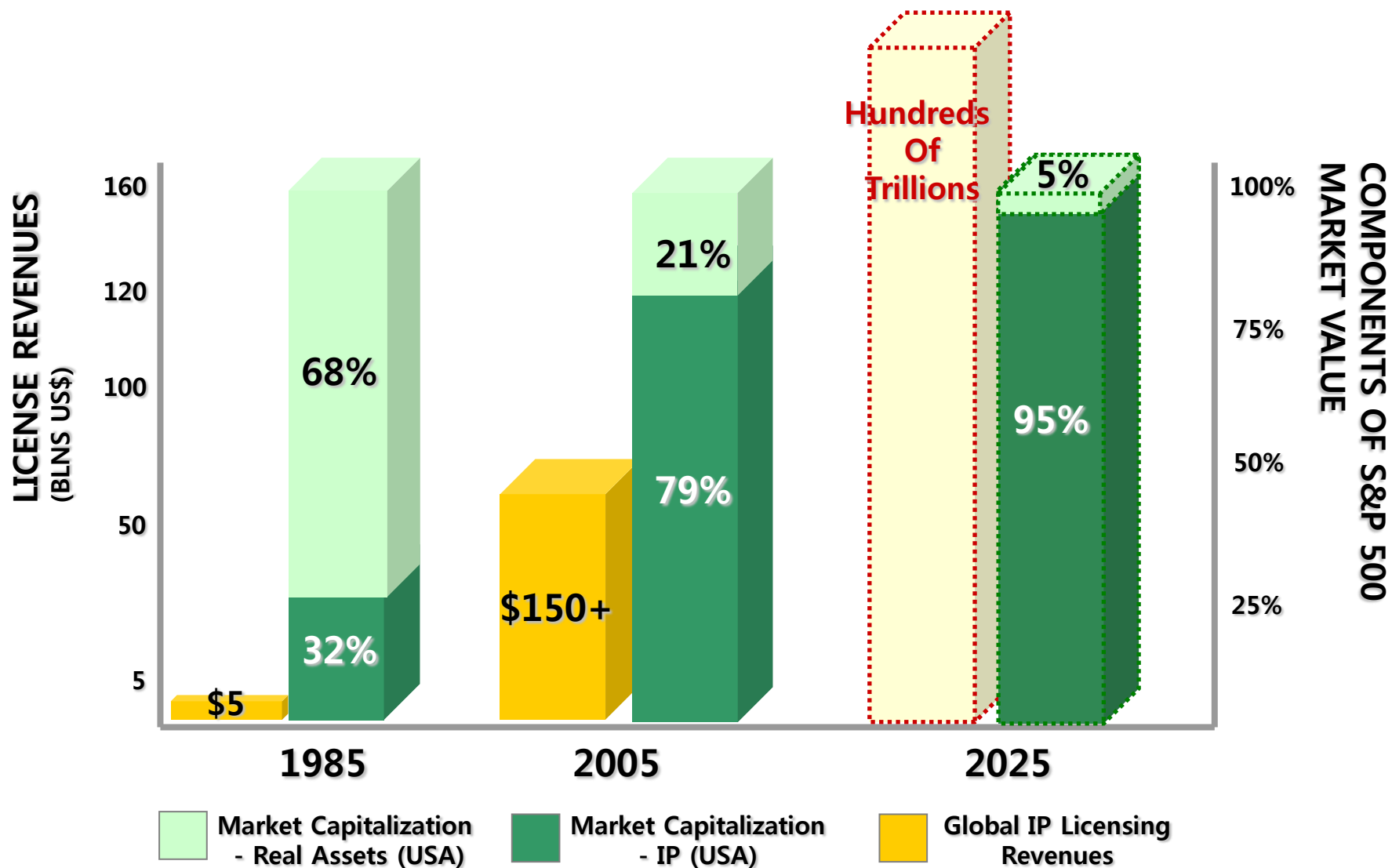
Individual Tech ▶▶▶ Meta-technology

Solo Innovation ▶▶▶ Ecosystem Innovation

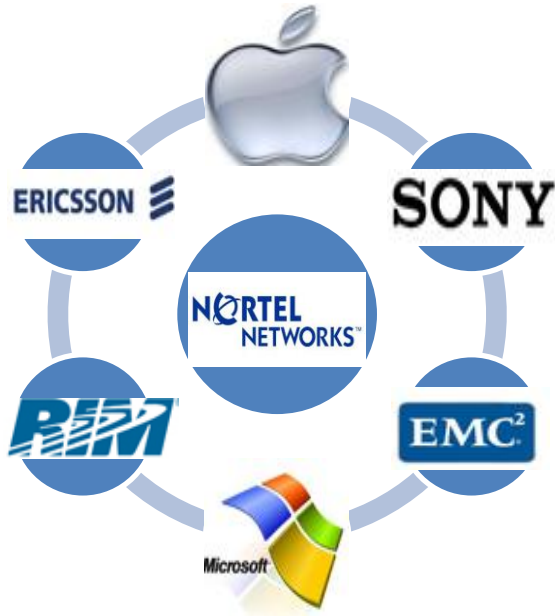
Vertical Systematization ▶▶▶ Open Platform



# Change in Corporate Value



# Creative Economy's Value Change



**\$45** bilion

Google™

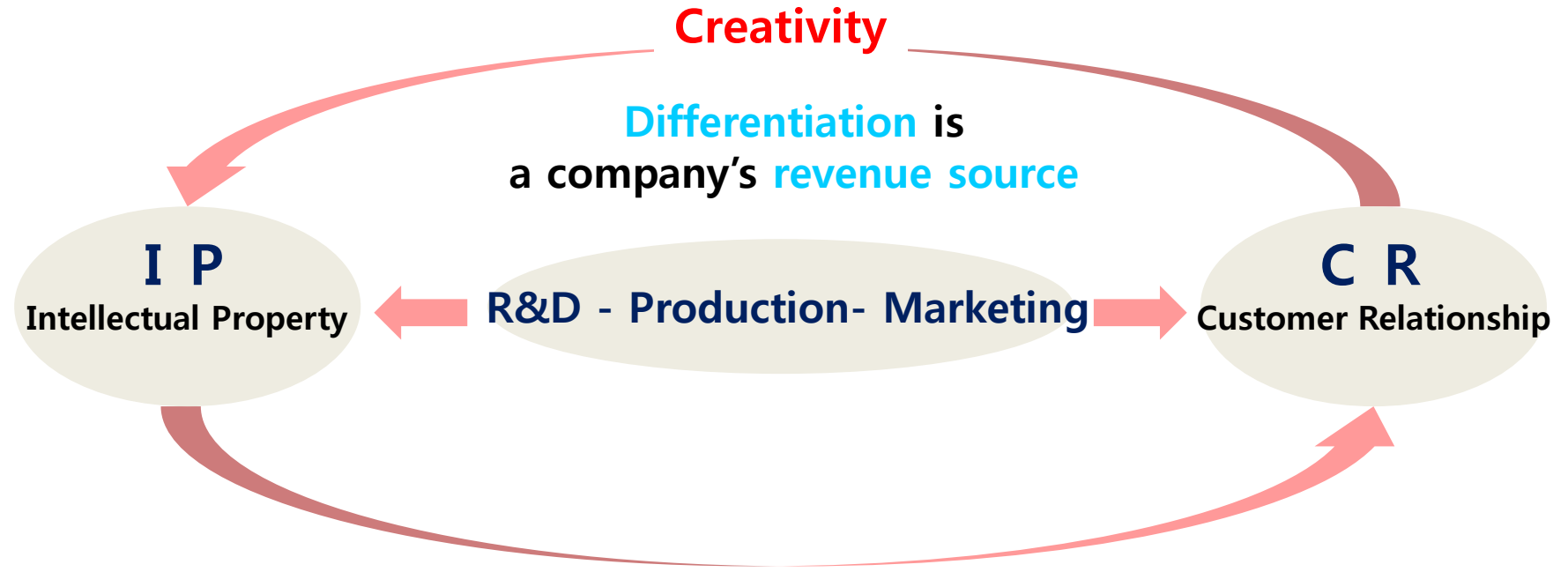


 **MOTOROLA** MOBILITY

**\$125** bilion

**80%** is Patent's Value

# VALUE CHAIN's Evolution

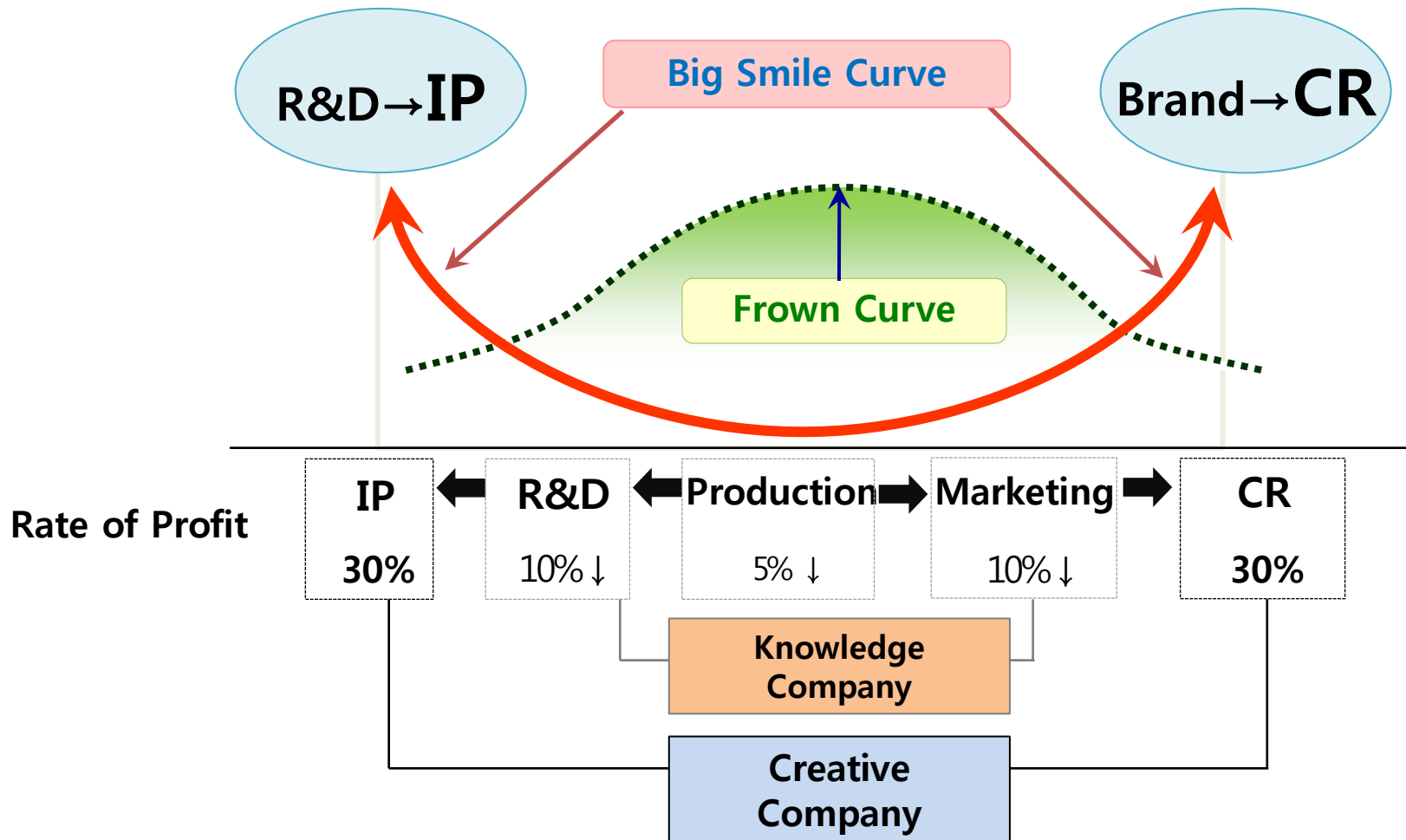


Production **Innovation** → Production **outsourcing**

R&D **Innovation** → R&D **outsourcing**

# Big Smile Curve

Frown curve → Smile Curve (Tsai, 1999) → Big Smile Curve



# Creative Economy Paradox

Industry  
Economy

$$\text{Manufacturing Cost} = \text{Labor Cost} + \text{Material Cost}$$

Creative  
Economy

$$\text{Creation cost} = \frac{\text{Innovation Capability}}{\text{Market Capability}}$$

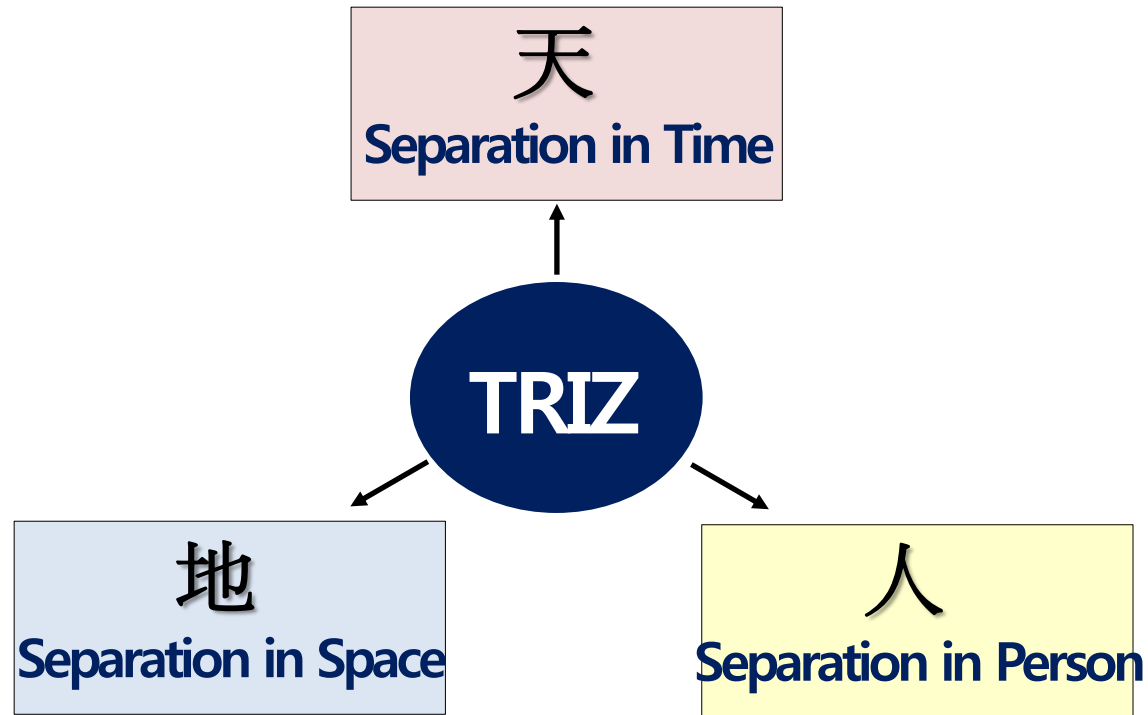
*Big and Small at the same time?!*

← Venture 大, smaller

← Big Business 大, Bigger

**Creative Economy Paradox!**

# Overcome Creative Economy Paradox and TRIZ



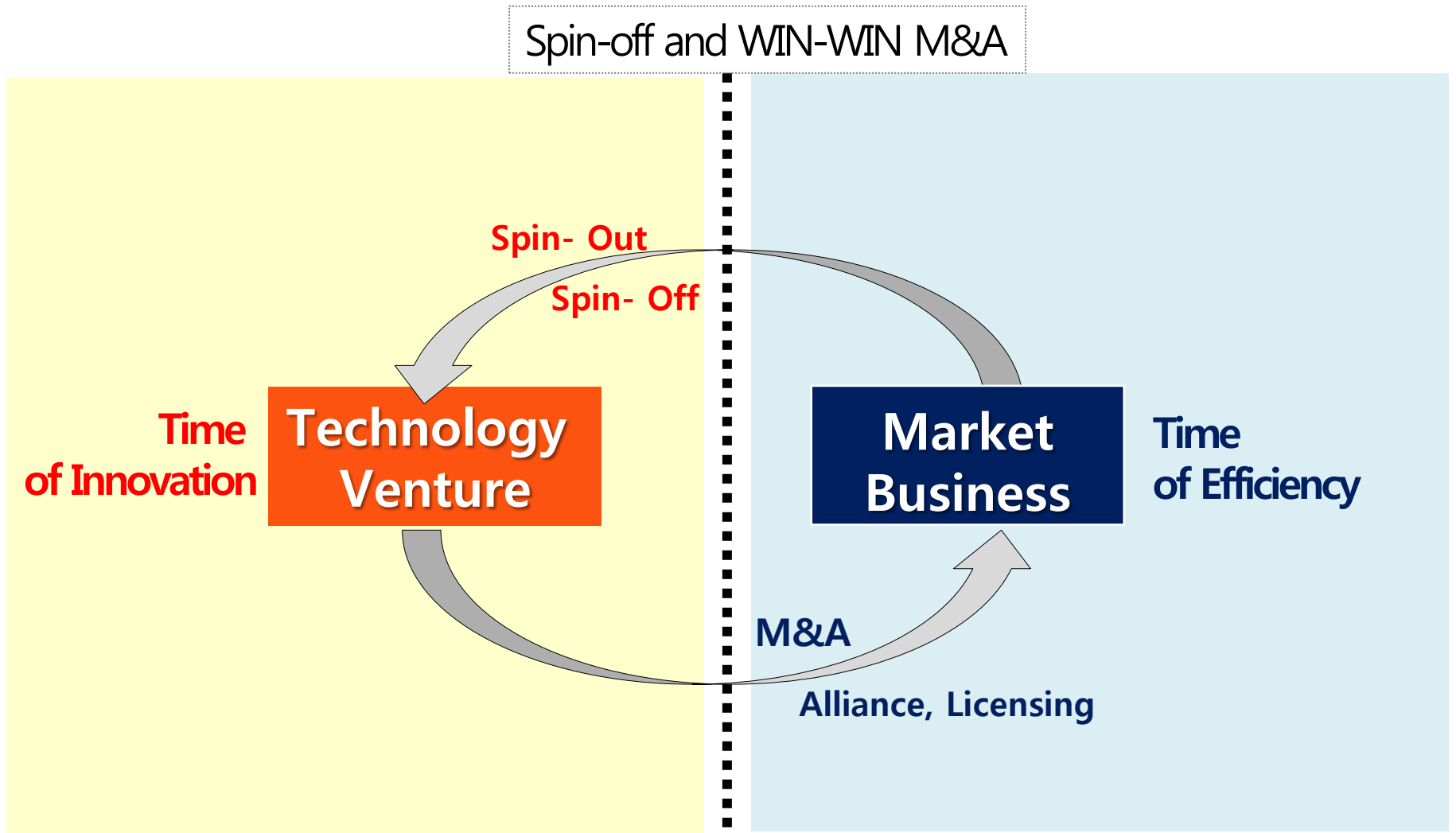
**TRIZ**

**TRIZ**

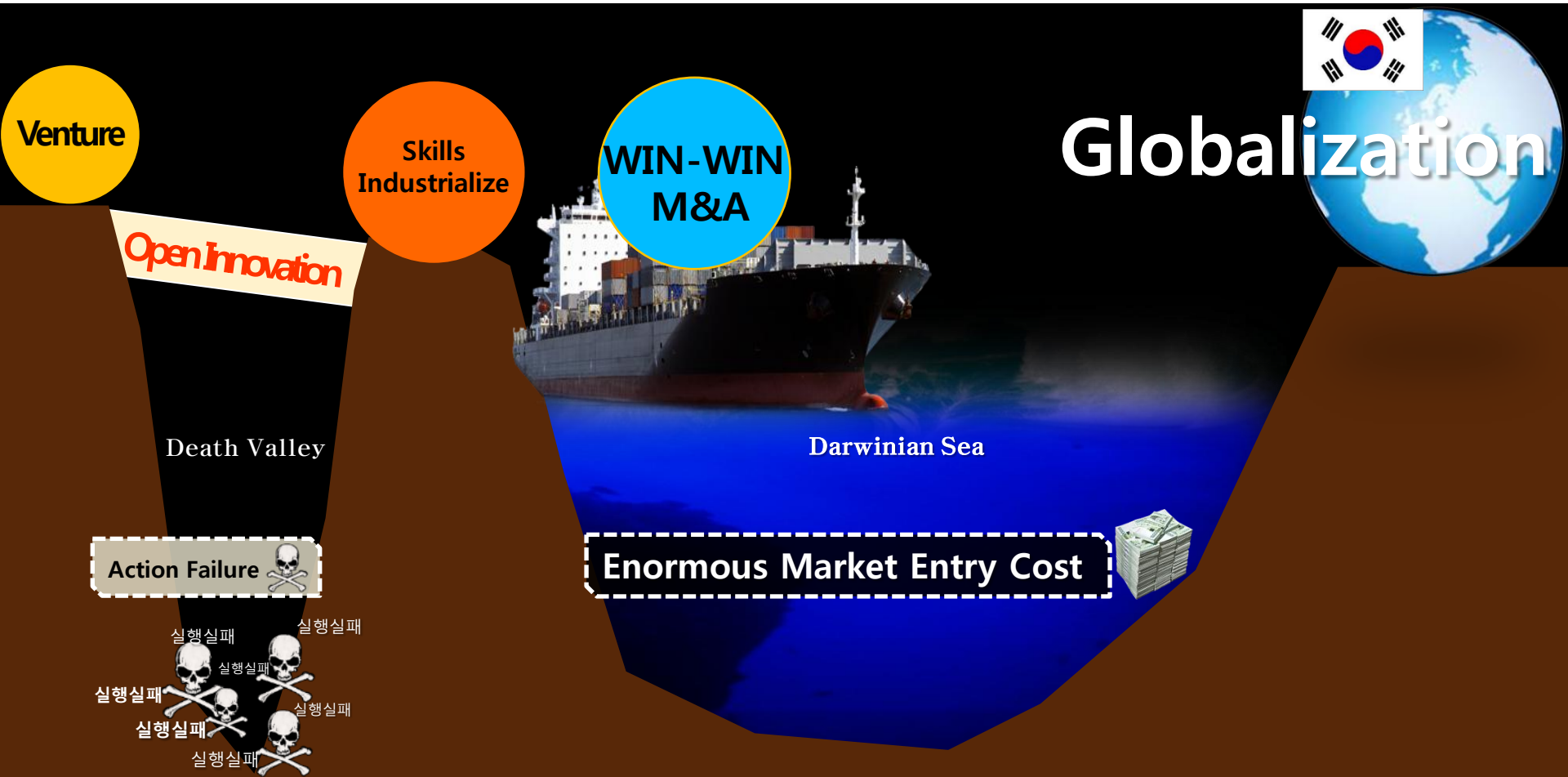
Teoriya Resheniya Izobretatelskikh Zadatch

Thinking tool for solving contradictory problems

# 天 Separation in Time : Open Innovation



# Process of Business Globalization





# Win-Win M&A 's 3 effects

## Venture Takes Market!

- ✓ Use Market Capability of Big Business
- ✓ Promote Venture Growth

## Leading company Takes Innovation

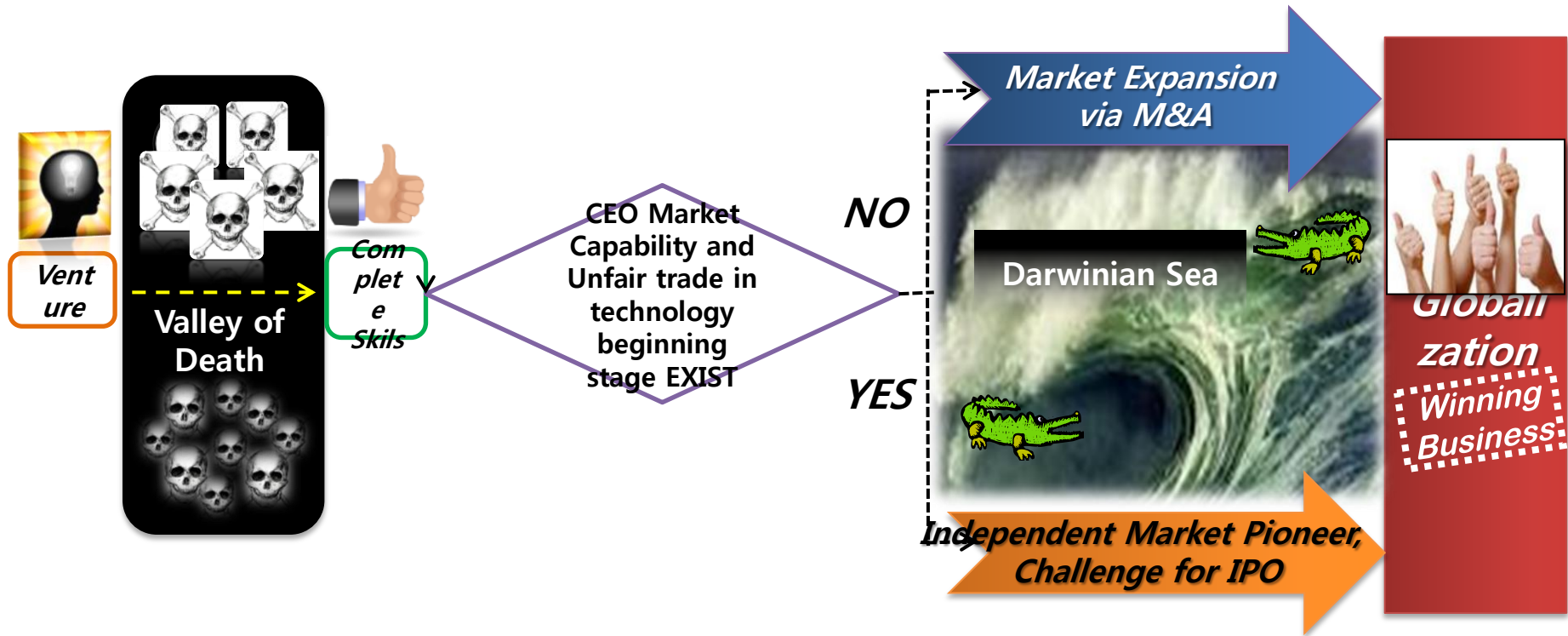
- ✓ Twentyfold difference between Venture and Big Company R&D
- ✓ Big Company's innovation capability complementation

## Angel Investing takes Recovery Market!

- ✓ Recovery Market for Angel Investor's profit actualization
- ✓ Invigoration of beginning venture investment

# Market to Venture

Choose **IPO** and **M&A** depending on conditions



# Innovation to leading Company: CISCO case

October 2012  
Buyout total 156 companies

1993

1994

1995

1996

1997

1998

1999

1999(cont)

2000

2000(cont)

2001

2001

2002

2003

2004

2005

2005(cont)

2006

2007

2008

2009

2010

2011

2012

# Google's M&A

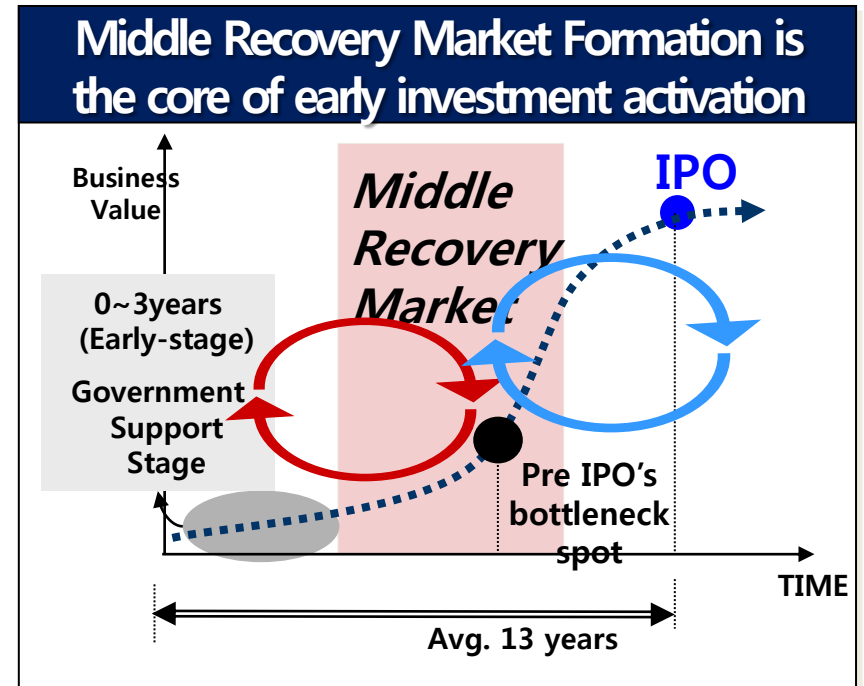
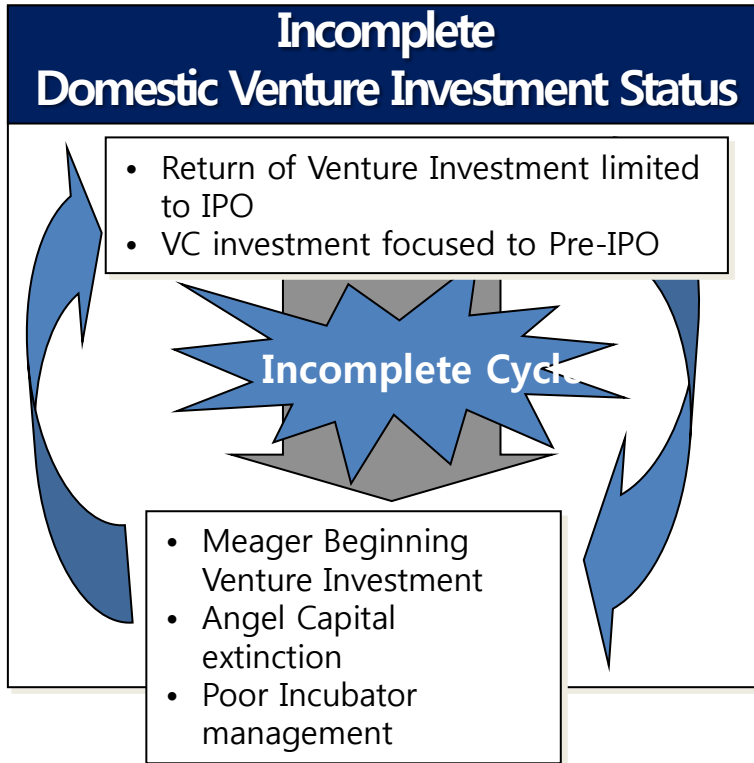
## Main History



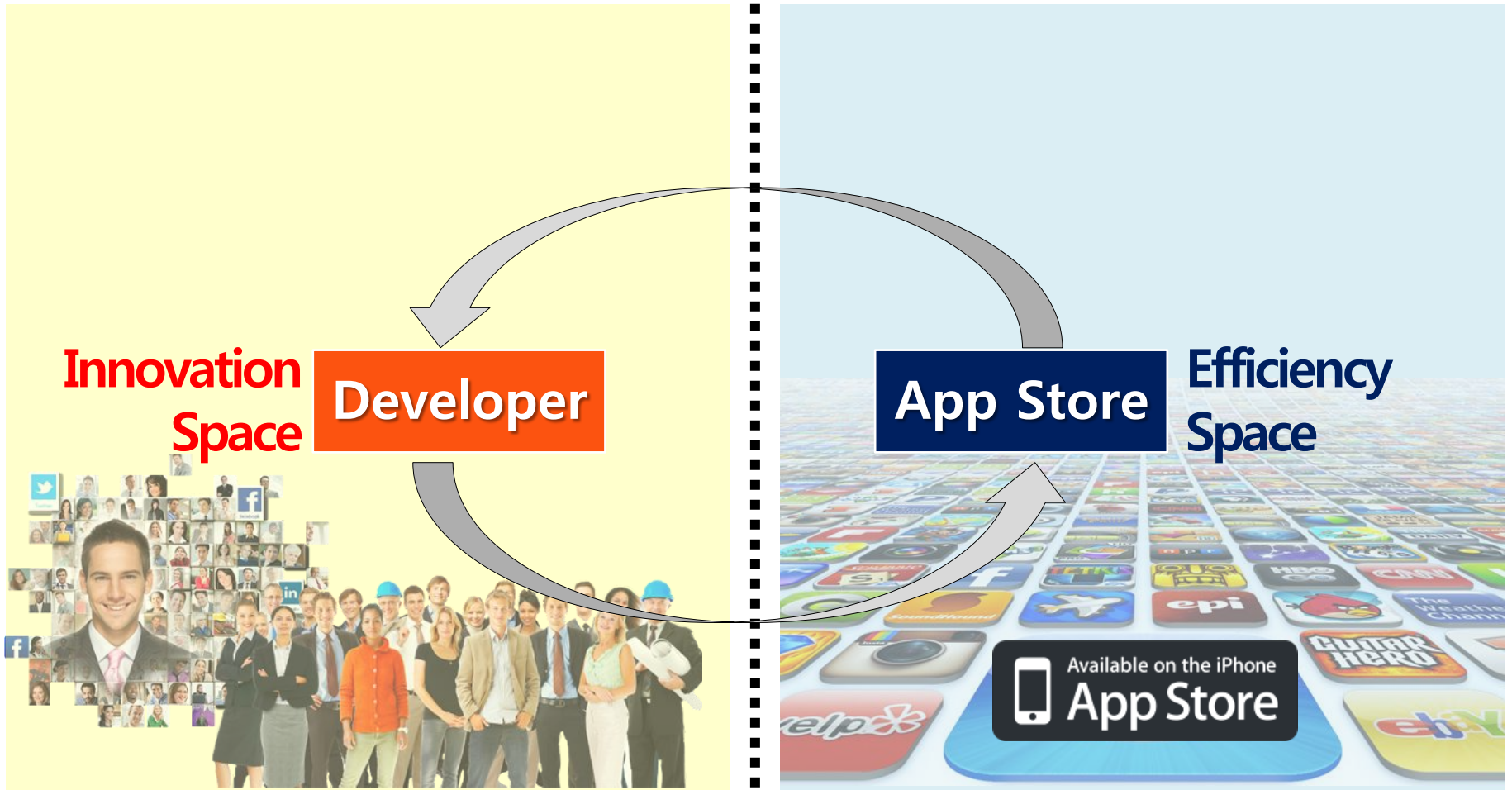
	Year	Company	Main Technology	Integrated Department
1	2001	Deja	Usenet	Google Groups
2	2001	Outride	Web search engine	Google Personalized Search
3	2003	Pyra Labs	Weblog software	Blogger
4	2003	Neotonic Software	Customer relationship management	Google Groups, Gmail
5	2003	Applied Semantics	Online advertising	AdSense, AdWords
6	2003	Kaltix	Web search engine	iGoogle
7	2003	Sprinks	Online advertising	AdSense, AdWords
8	2003	Genius Labs	Blogging	Blogger
...	...	...	...	...
125	2013	Behavio	Social Prediction	Google Now
126	2013	Wavii	Natural Language Processing	Google Knowledge Graph
127	2013	Makani Power	Airborne wind turbines	Google X
128	2013	Waze	GPS navigation software	Google Maps
129	2013	Bump	Mobile software	Android
130	2013	Flutter	Gesture recognition technology	

**Buyout 130 companies over 13 years**

# Recovery Market to Angels



# 地 Separation in Space : **Open Platform**



# Overcome Creative Economy Paradox

## → Integrated Ecosystem

### Smart Phone Industry

 <p>Single Innovation → Fell behind</p>	 <p><b>I-phone</b></p>	 <p><b>Google Android</b></p>
<p><b>Creative Company</b></p>	<p>App Developer</p>	<p>App Developer</p>
<p><b>Manufacturing Company</b></p>	<p>Manufacturing Company</p>	<p>Manufacturing Company</p>
<p>Large Scale <b>Market Leading Company</b></p>	<p>AppStore</p>	<p>GooglePlay</p>
<p><b>Supply</b></p>	<p>Communications Company</p>	<p>Communications Company</p>

# Complex Ecosystem Cases

	Film Industry	Textile Industry	Pharmaceutical	Game
Small Creative Company	Scenario	Design	University	Scenario
Medium Commercialized Company	Production	Medium-size manufacturing	Bio Venture	Game Content
Large Market-leading Company	Universal Columbia, etc. publishers	Aramani, etc.	Multi-national Enterprise	Nexon, Hangame
Retail Market	Movie Theaters	Retailers	Local Pharmaceutical Company	Sale



“from **individual company competition**  
to **company ecosystem competition**”

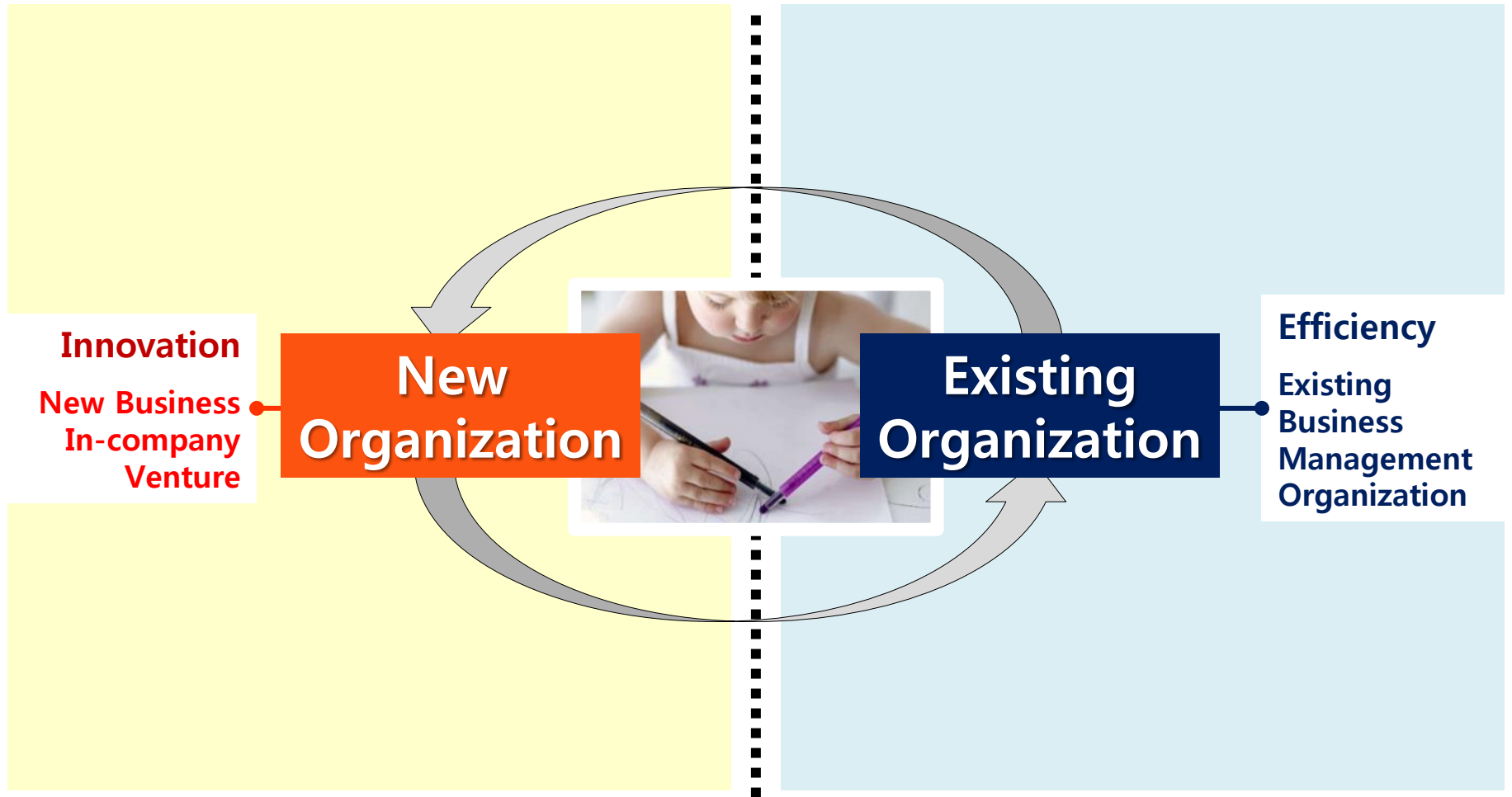
National Competitiveness = **Combination of grand platform & various innovation**

A large container ship is shown from a low angle, with its deck stacked high with colorful shipping containers in shades of red, blue, and grey. In the foreground, a smaller tugboat with a white cabin and black hull is moving through the water, leaving a white wake. The ship's name 'ACE MA' is partially visible on its side.

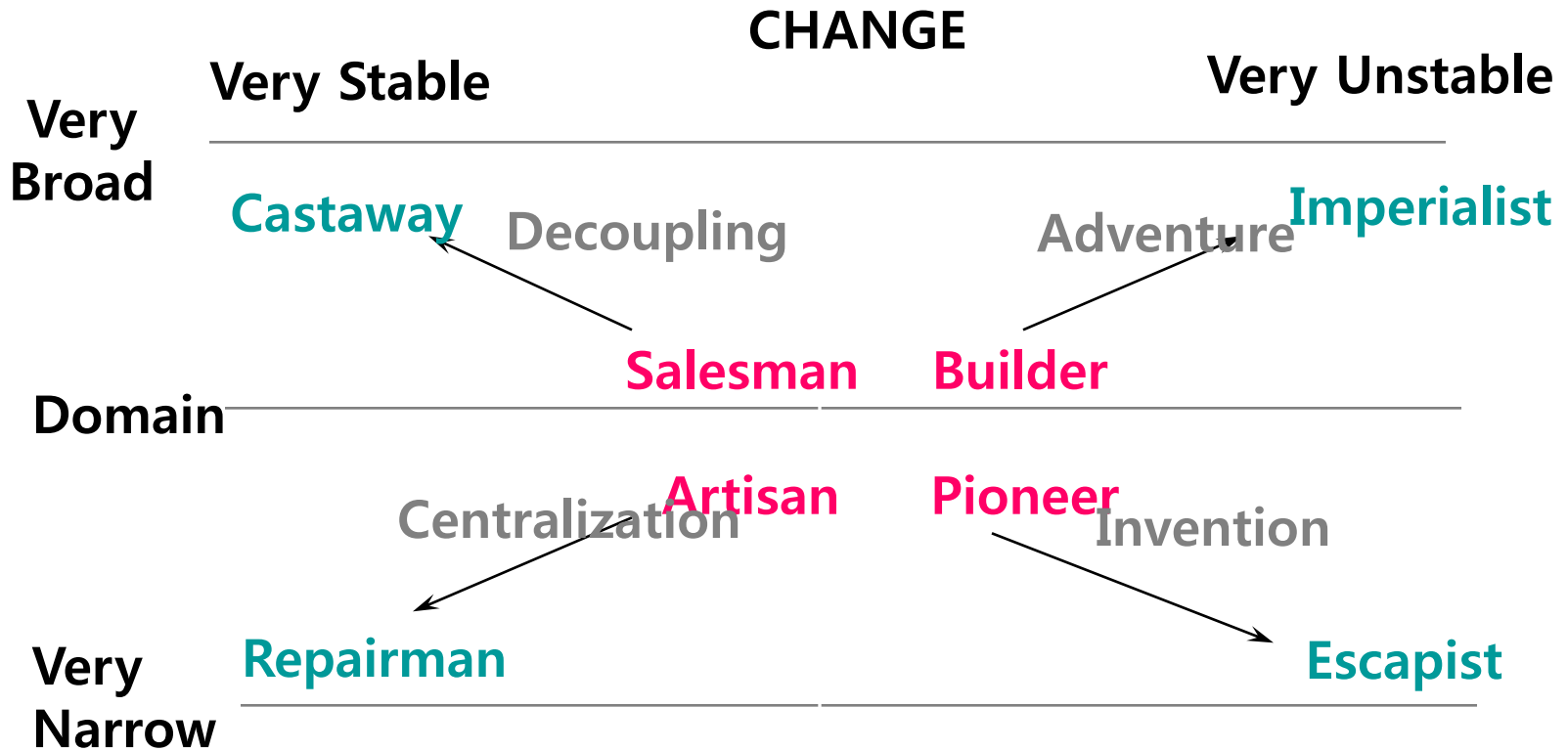
**Small & Medium Venture = Technological Innovation**

**Global Company = Market Platform**

# 人 Separation in Person : **in-company venture**



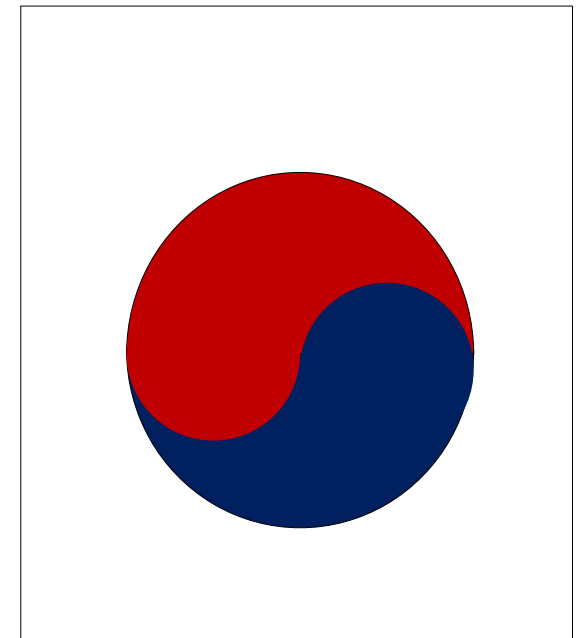
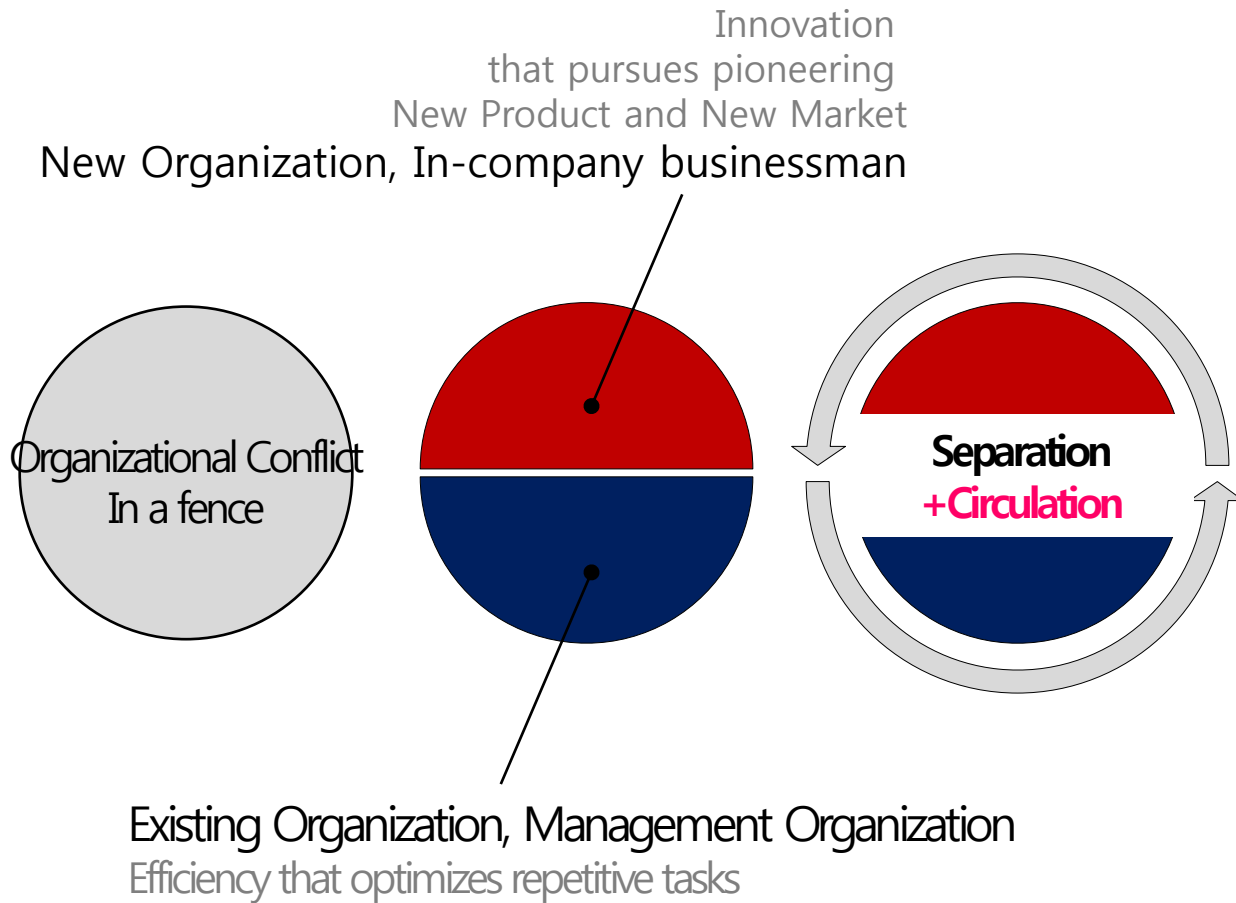
# Icarus Paradox



**Success Strategy in the past is  
Future's failure Strategy**

# In-company Venture and Existing Organization's Virtuous Cycle

## >>> Taegeuk Organization



Korean in-company Venture System

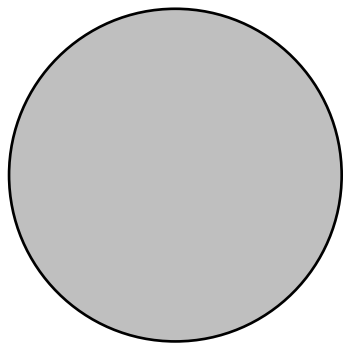
**Taegeuk Organization**

# Separation and Cycle = TRIZ + Taegeuk

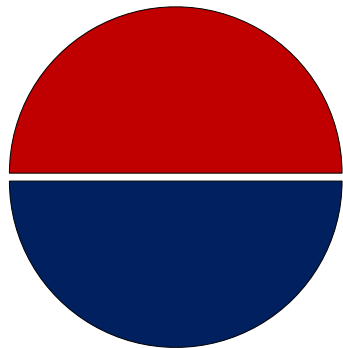
天 Time  
Open Innovation

地 Space  
Open Platform

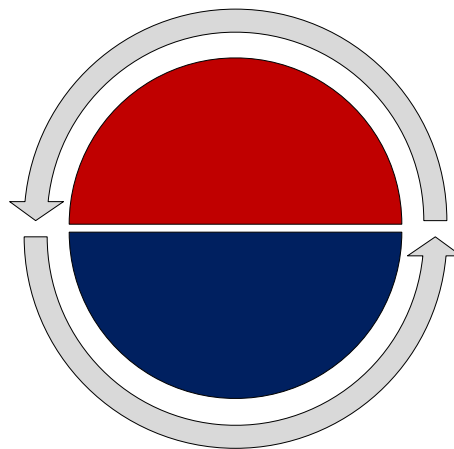
人 Person  
In-company Venture



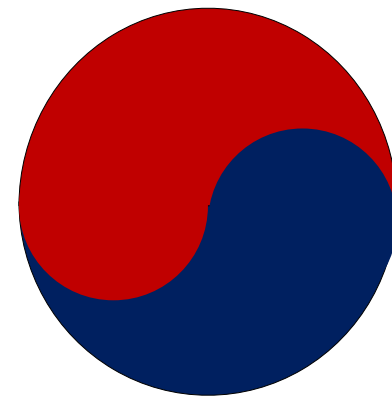
Endless 無極  
Chaos 混沌



Polar 兩極  
Opposition 對立

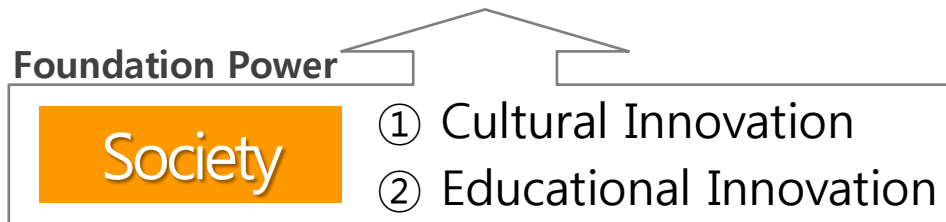
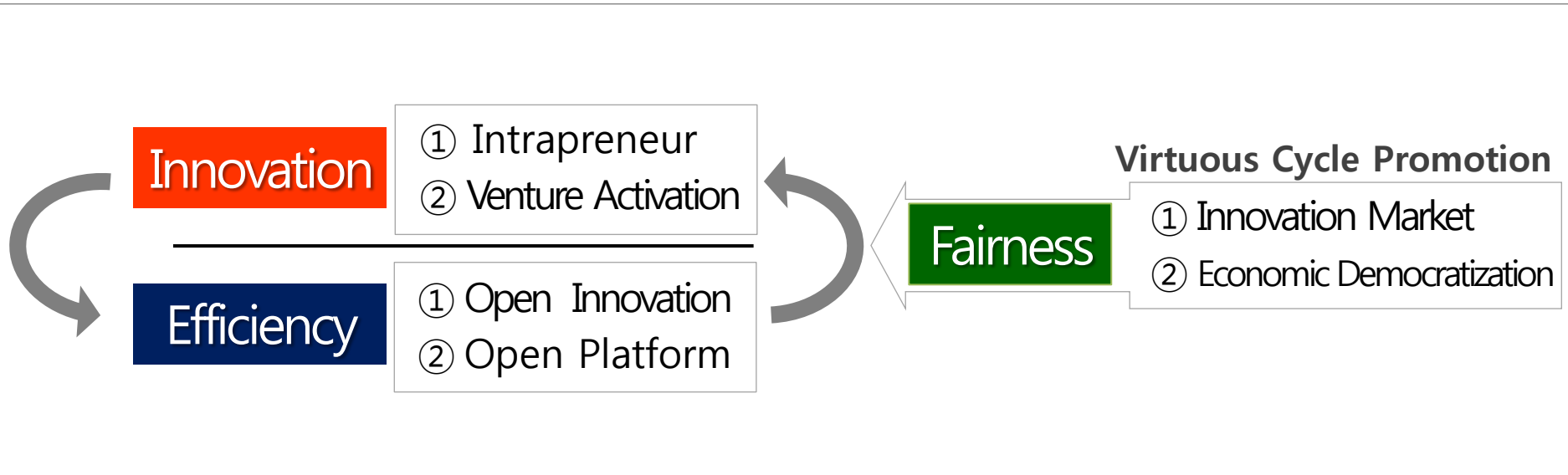


Excellency combined 妙合  
Virtuous Cycle 善循環



Life 生命  
WIN-WIN 相生

# Creative Economy 8 Strategies



# Thank you

행복한 미래 기원합니다.



## Lee Min Hwa

[minhwalee@kaist.ac.kr](mailto:minhwalee@kaist.ac.kr)

KOVA Honorary Chairman  
KAIST Professor  
KOHEA Chairman