

# **Value Creation and Smart Green City in a time of Creative Economy**

**-focused on disruptive innovation**

**April 8, 2014**

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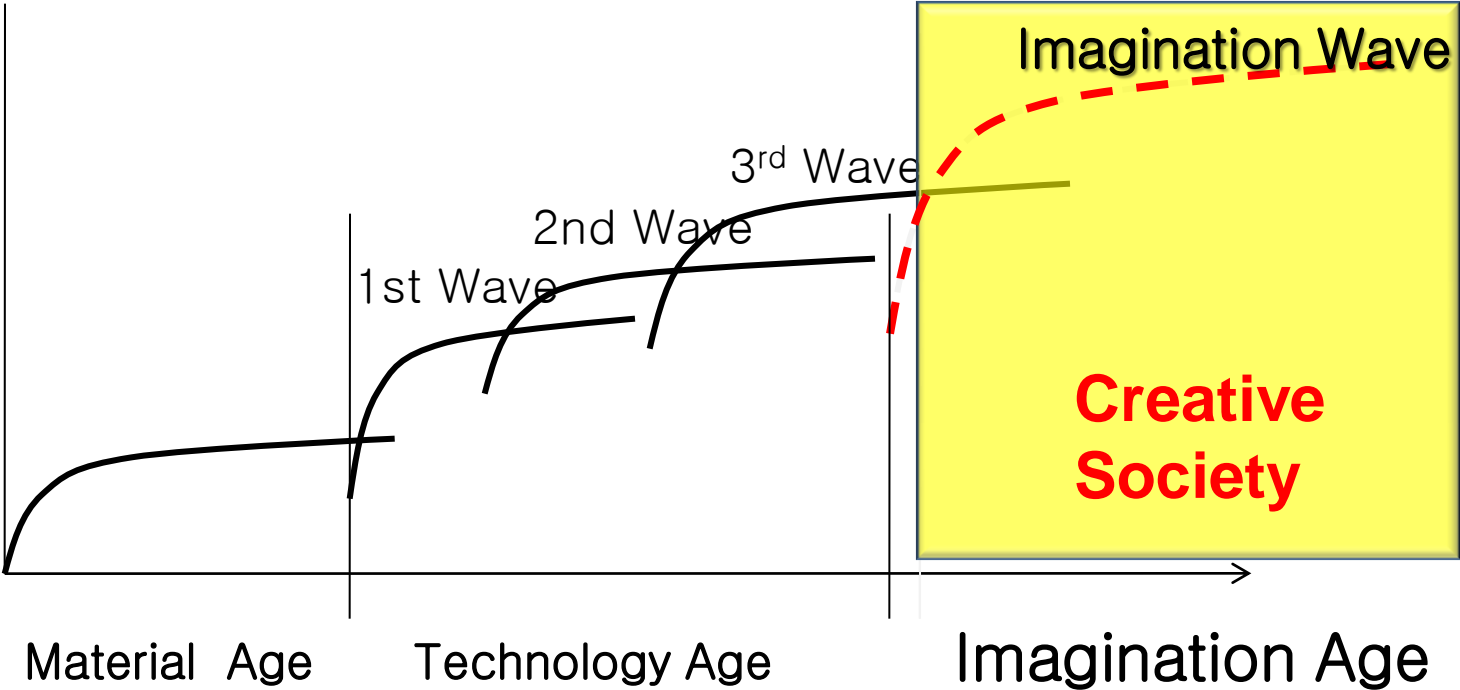
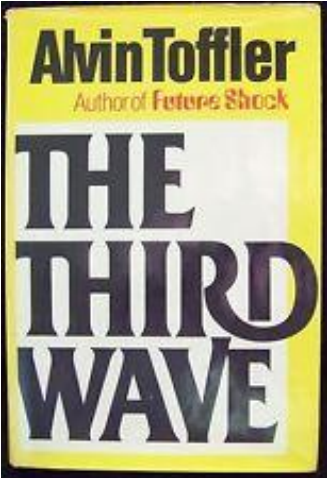
**Seoul Venture University**



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# Background



# Creative Economy

Imagination, Creativity, Technology

기다려온 변화, 박근혜가 바꿉니다

## 새로운 경제발전의 패러다임 창조경제론

상상력과 창의성, 과학기술에 기반한 경제운영을 통해  
새로운 성장동력을 창출하고, 새로운 시장, 새로운 일자리를 만들어가겠습니다.

Keywords: Imagination, Creativity and Technology



# Creative



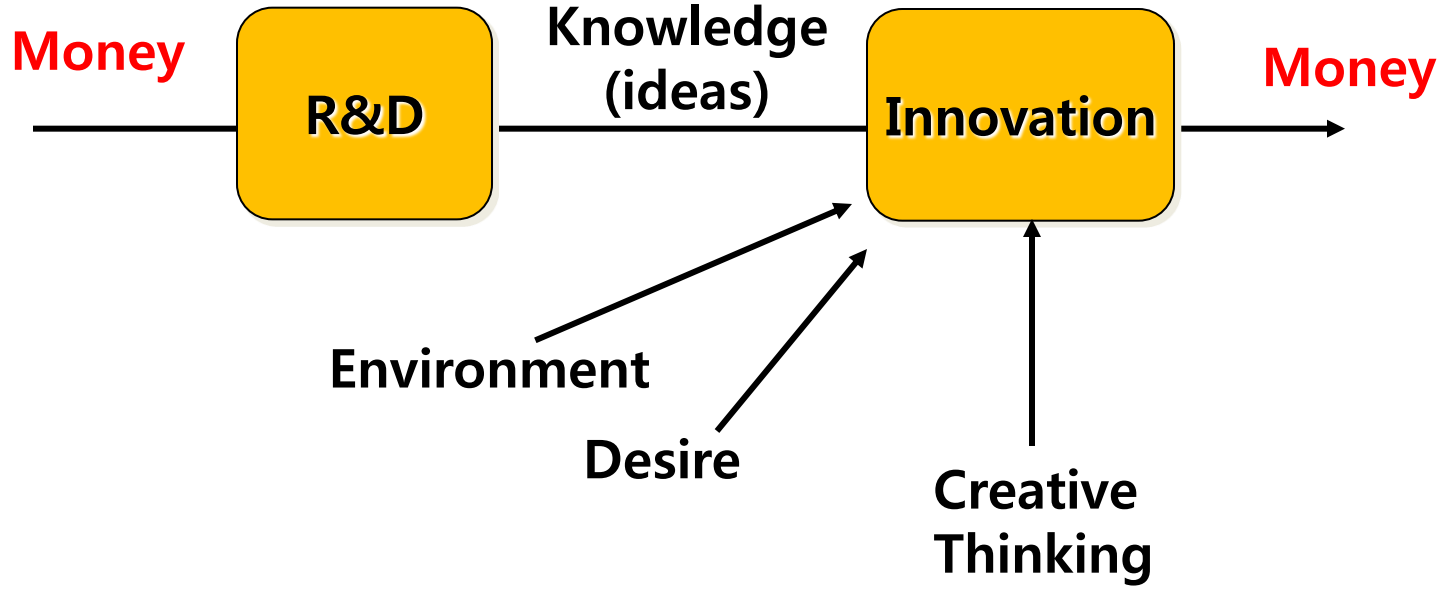
창조경제가 뭐지?  
아이디어가 돈이 되는 경제!



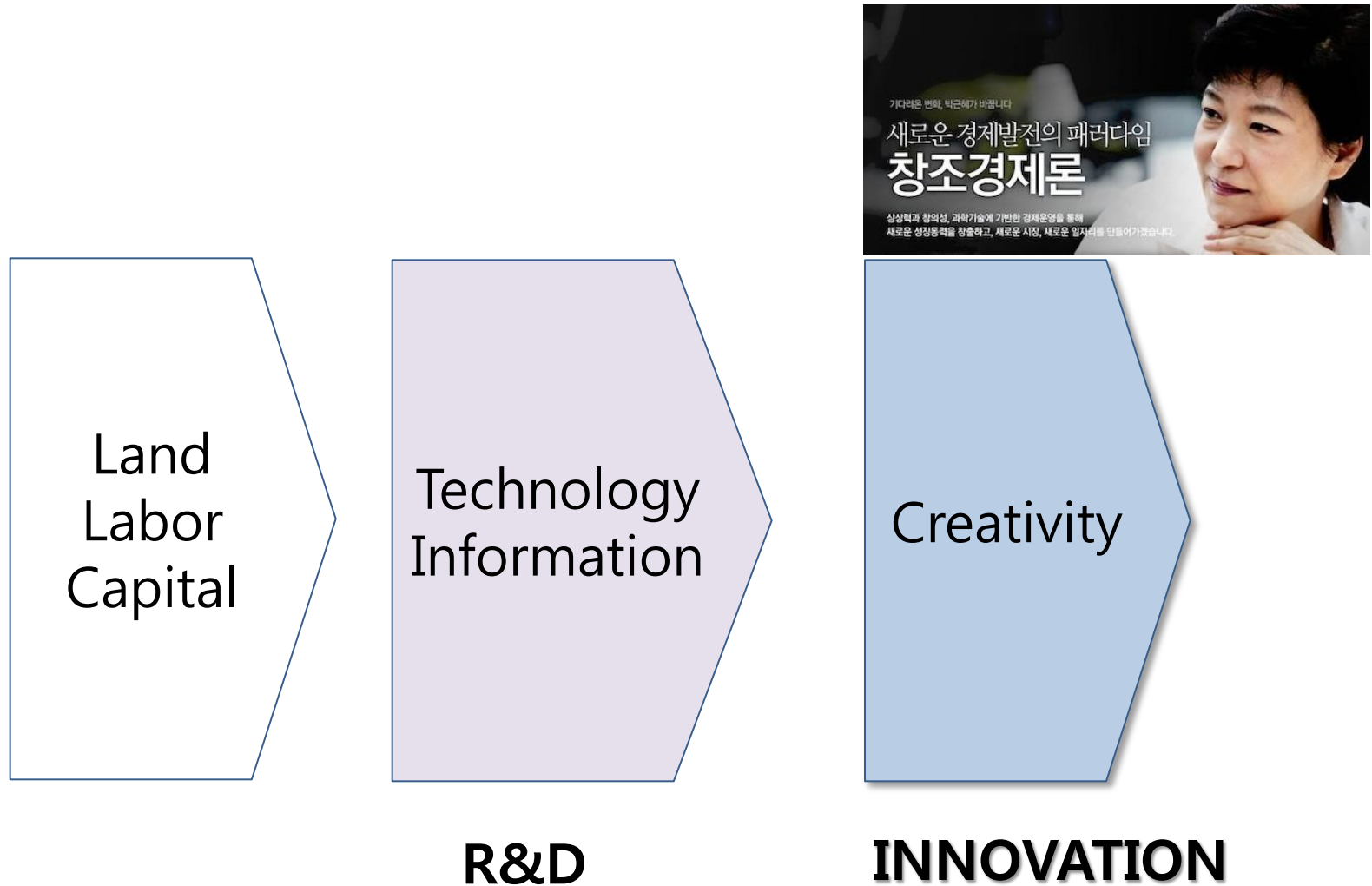
What is Creative Economy ?

**Make Money**  
with Creative Ideas

# Creative Economy is from **Innovation**..



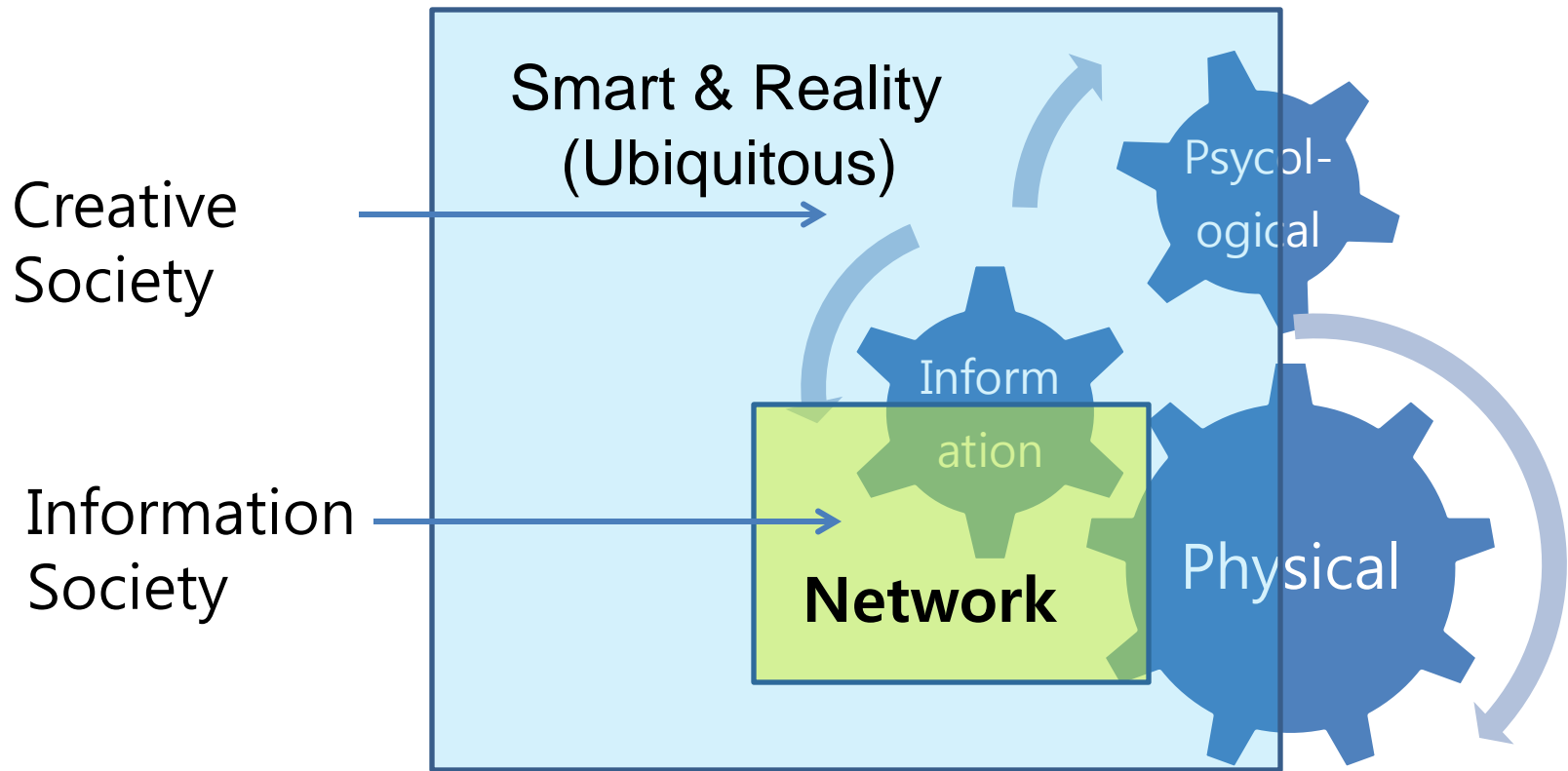
# Shift of Value Center



We want to do something which has market value.

# Expansion of Cyber Space

## Cyber Space(2014)





**A rate of change is getting high !**



**Boat racing is on a calm lake (Environment)..**



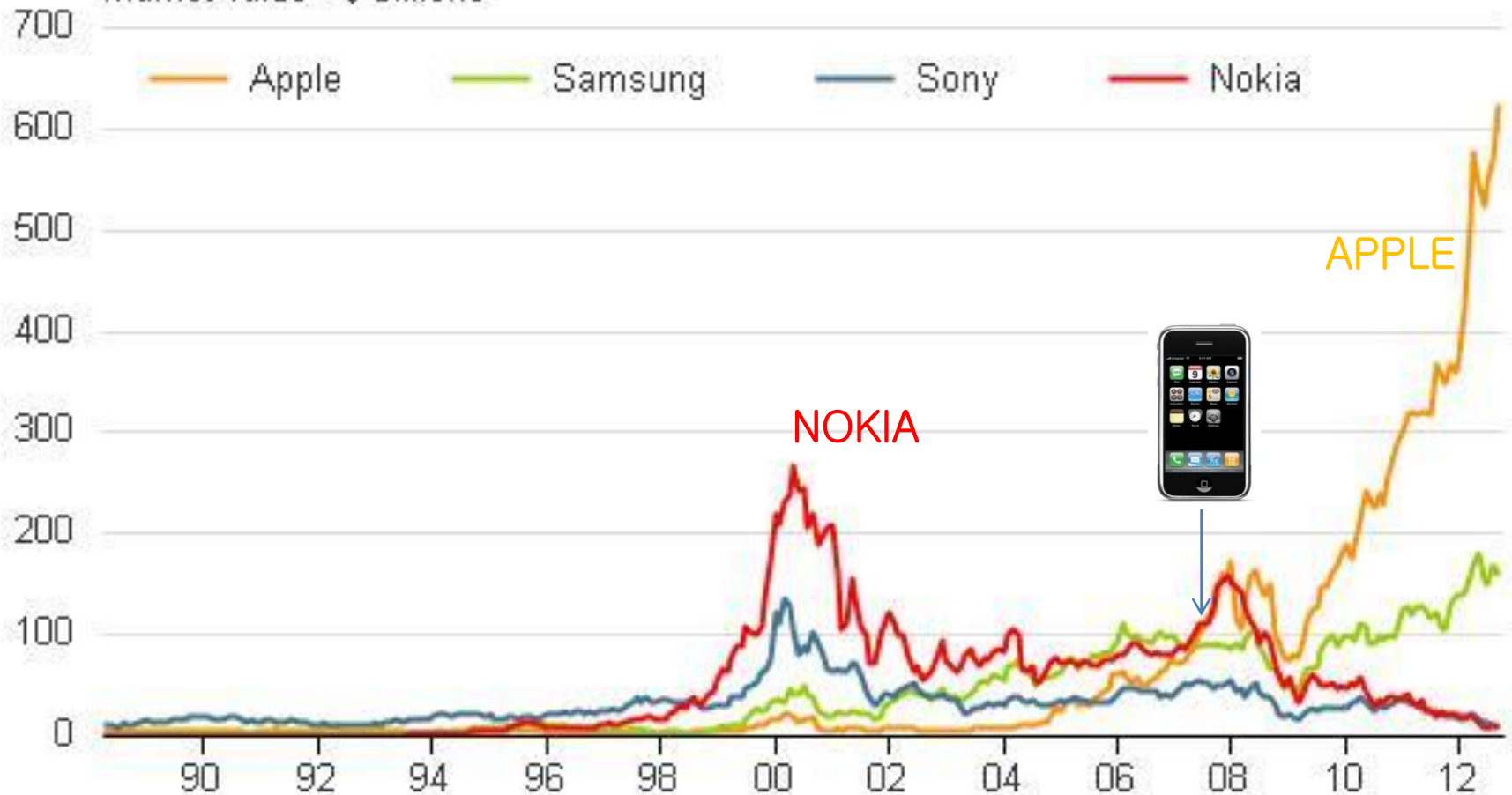
**Rafting on turbulent river**

# NOKIA, Once a king of hand-phone industry, Symbol of Finland..



# Nokia, Sony, Samsung and Apple

Market value - \$ billions

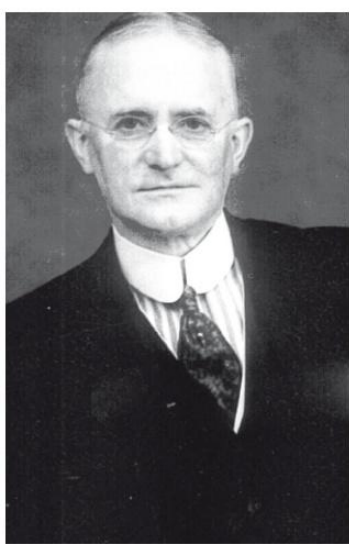


APPLE

NOKIA

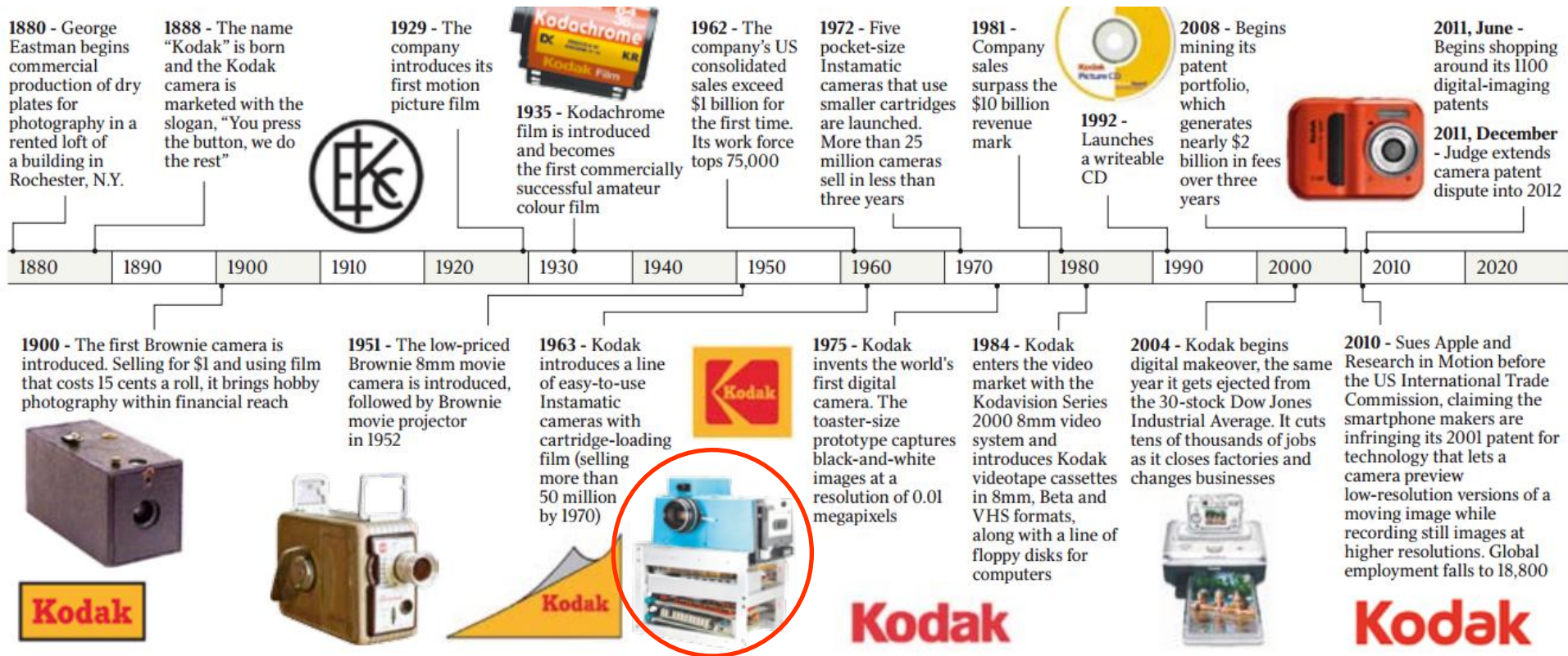


Source: Thomson Reuters Datastream Reuters graphic/Vincent Flasseur 9/11/2012



# KODAK founded (1880) Bankrupt (Jan. 2012)

George Eastman, Kodak founder



# Summary of Advance Studies

## Innovation theories

### Disruptive Innovation

Christensen (1997)

Disruptive/Sustaining Innovation

- Disrupting existing market by New Revolutionary Products.
- Creating New Market

### Blue Ocean Strategy

Kim W.C. etc(2000)

The Four Action Framework:

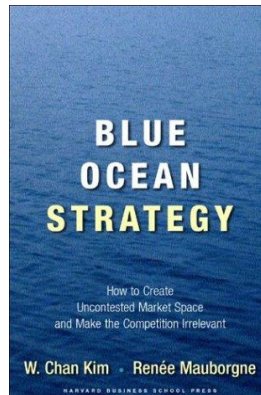
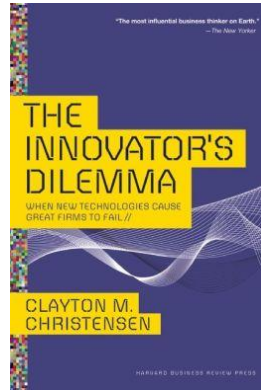
- Creating New Market by Adjusting Market Values (4-Action Frame)
- Feedbacks from Customers for New Value

### Disruption

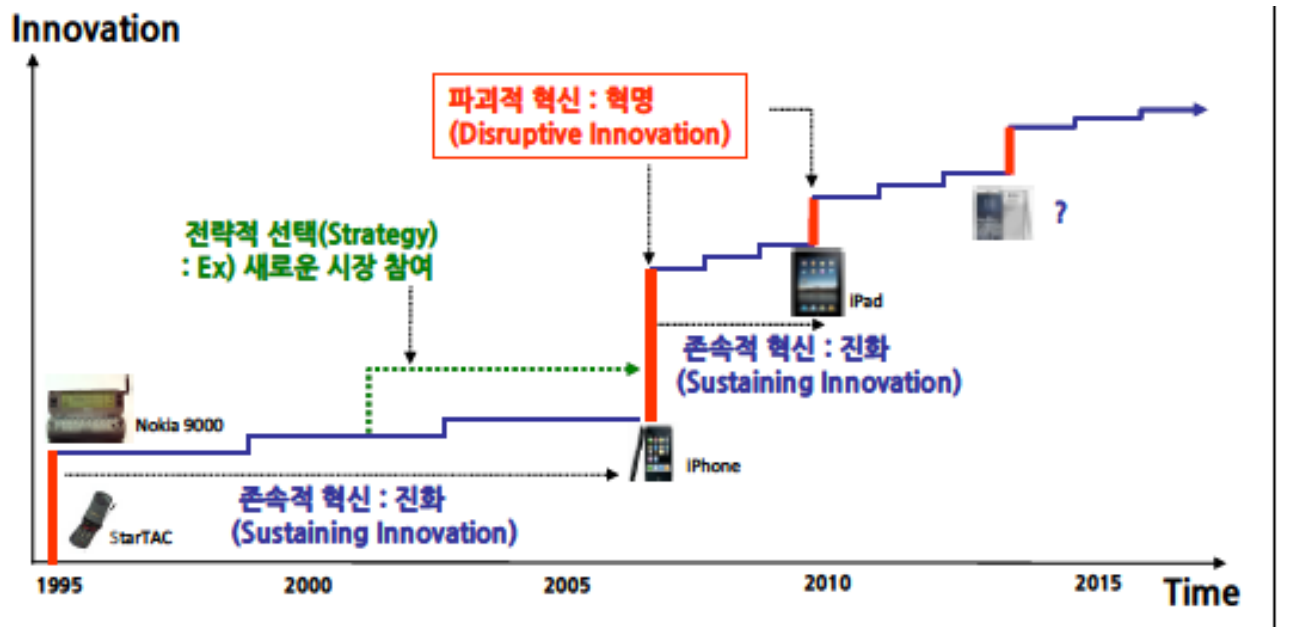
Luke(2010)

Crafting Disruptive Hypothesis

- Discover a best disruptive opportunities (Cliches),
- Creative Thinking

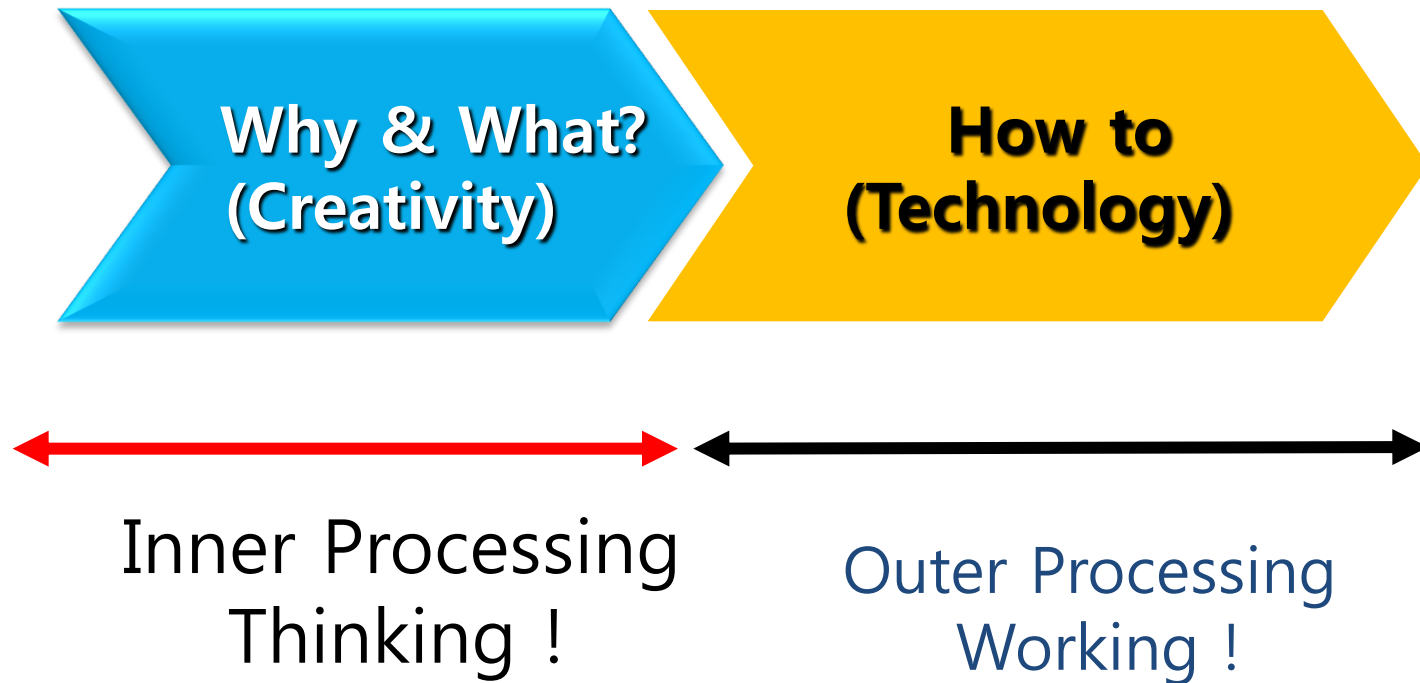


# Disruptive/Sustaining Innovation

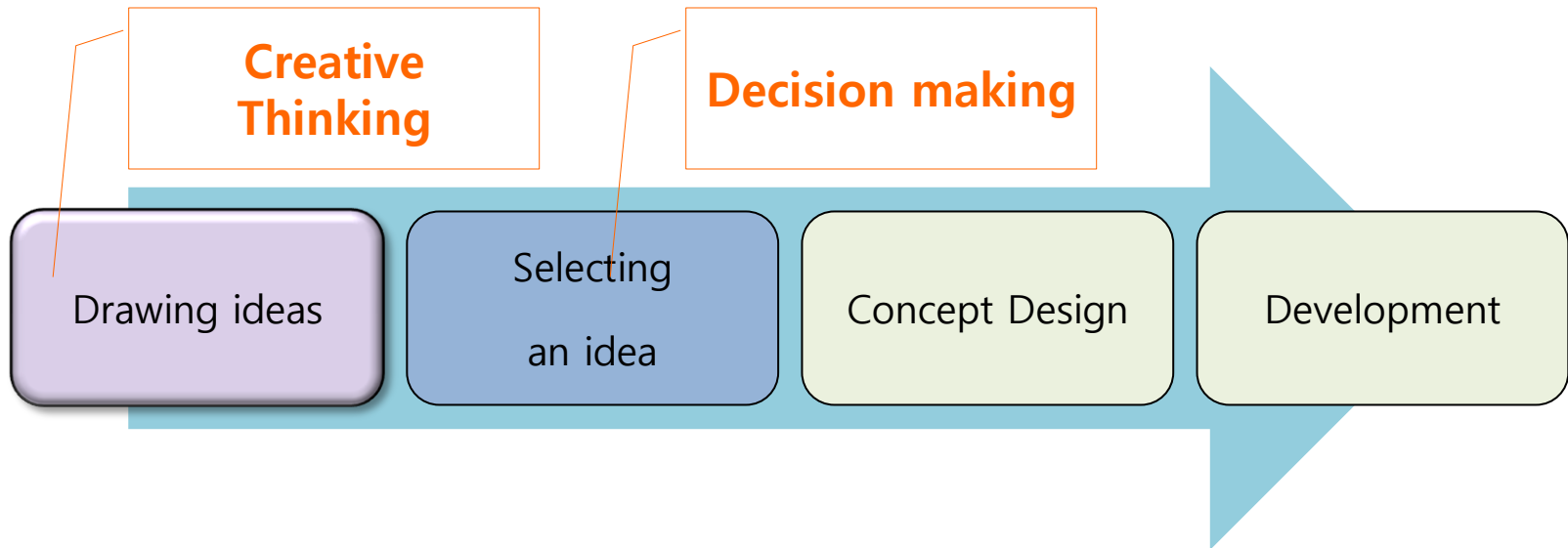


자료: KDB대우증권 리서치센터

# What we need is..



- **Dilemma in Ordinary Product Development Process**



**Assumption:**

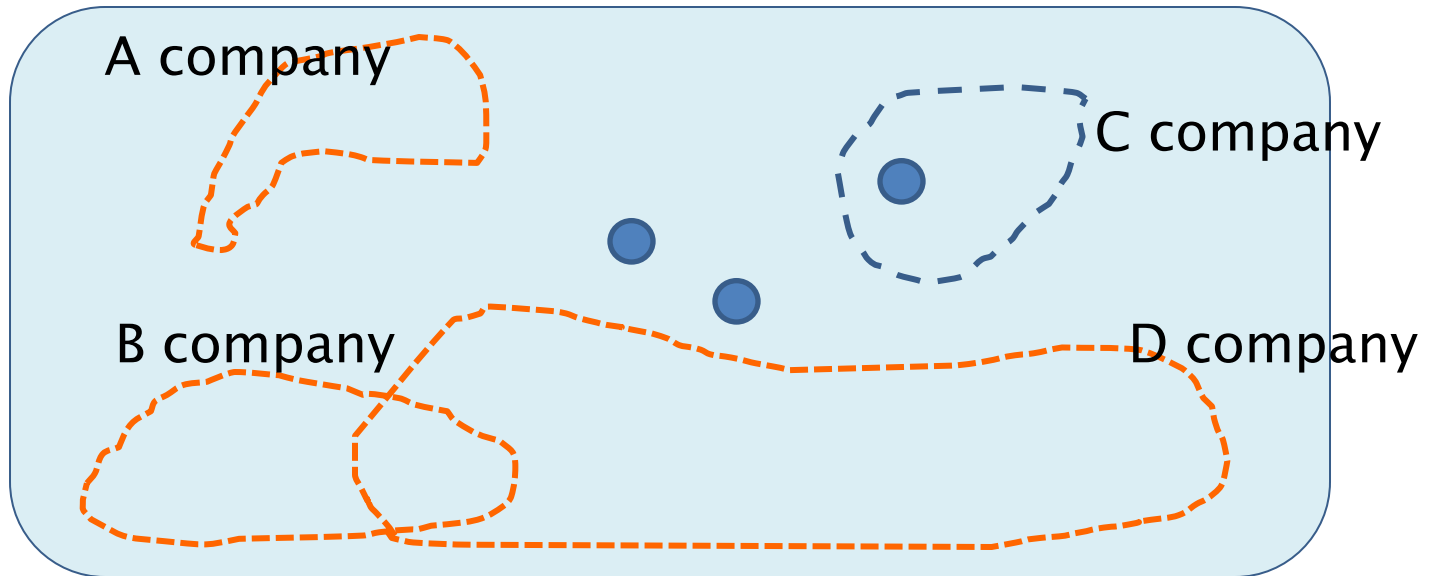
the more idea concepts there are, the higher chance a successful idea likely to be included.

**However,**

the more ideas there are, the lower chance the best idea among those ideas can be selected.



- Dilemma in Brainstorming (BS)



How many ideas are enough ?

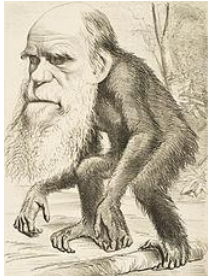
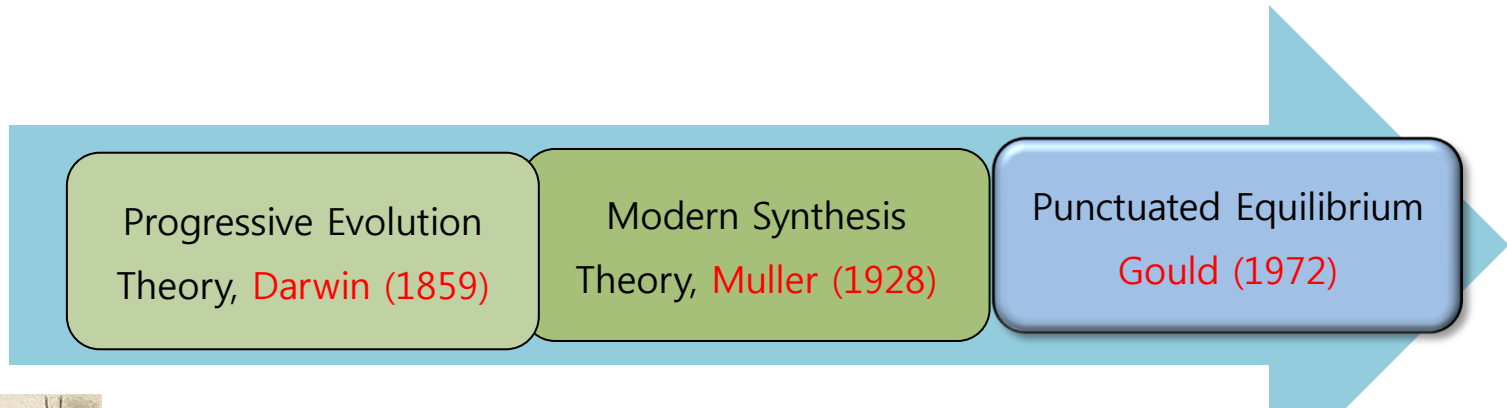
When will we stop brainstorming ?

Will the selected idea survive in a market ?

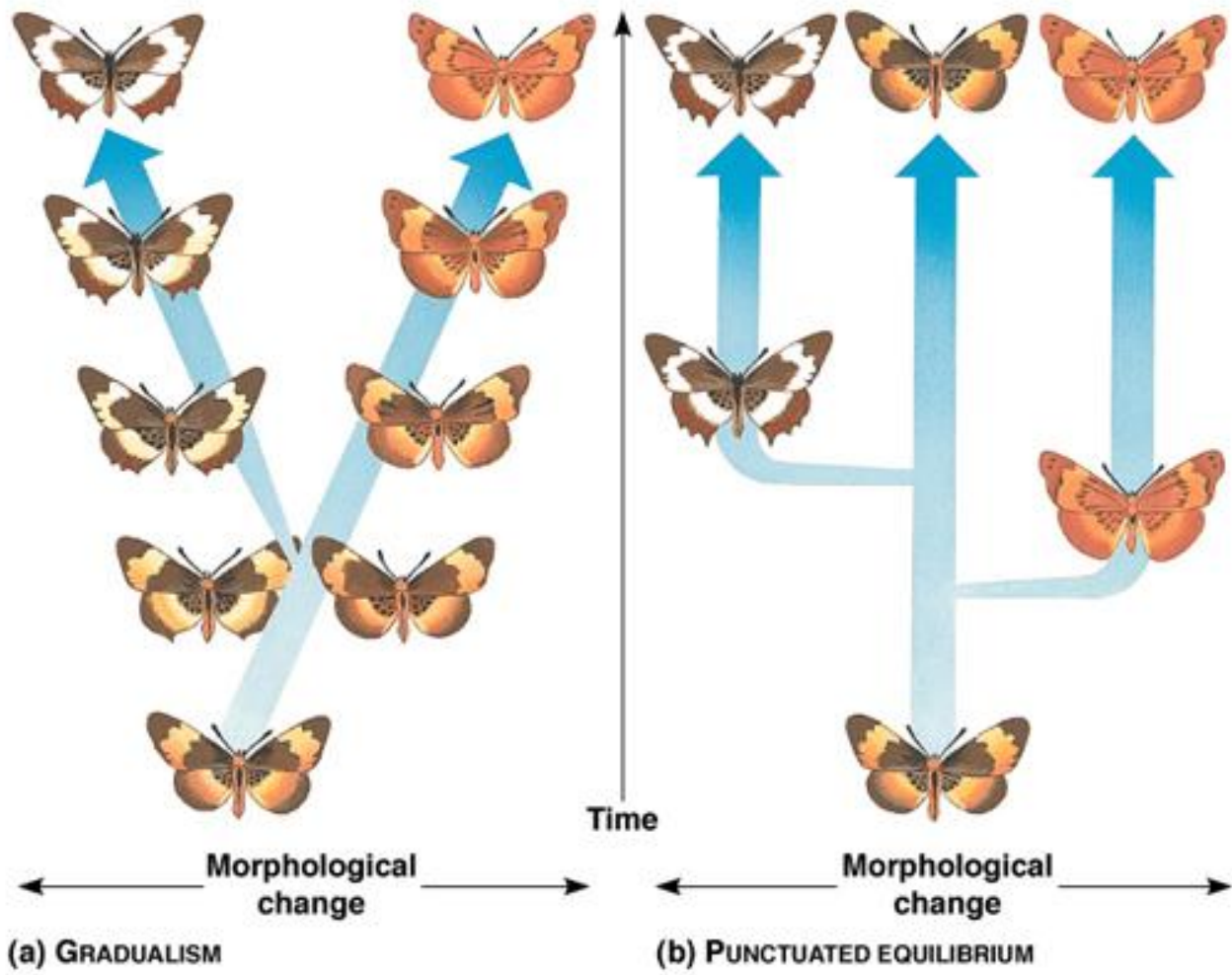
Destiny of product is determined in a BS stage.

**Due to the lack of reliable methodology, a majority of innovative products fail in the market.**

# Evolution Theories



Living things are on <b>Gradual evolution</b>	Combined with <b>Genetics</b> of Mendel	Macroevolution is not the result from accumulation of microevolution.
<b>Mechanism</b> Natural Selection	Mutants (gene mutation) selected by Nature	Disruptive variation of regulatory gene and super gene, Natural selection



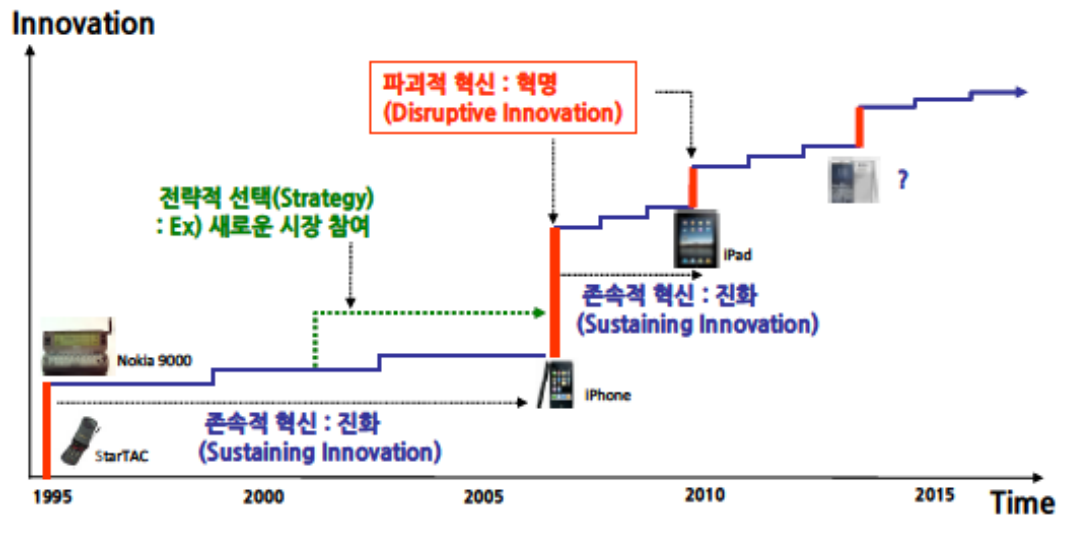
# Consilience of Evolution and Innovation Theories

- **Consilience ?**
  - The Consilience of Inductions takes place when an Induction, obtained from one class of facts, coincides with an Induction obtained from another different class.

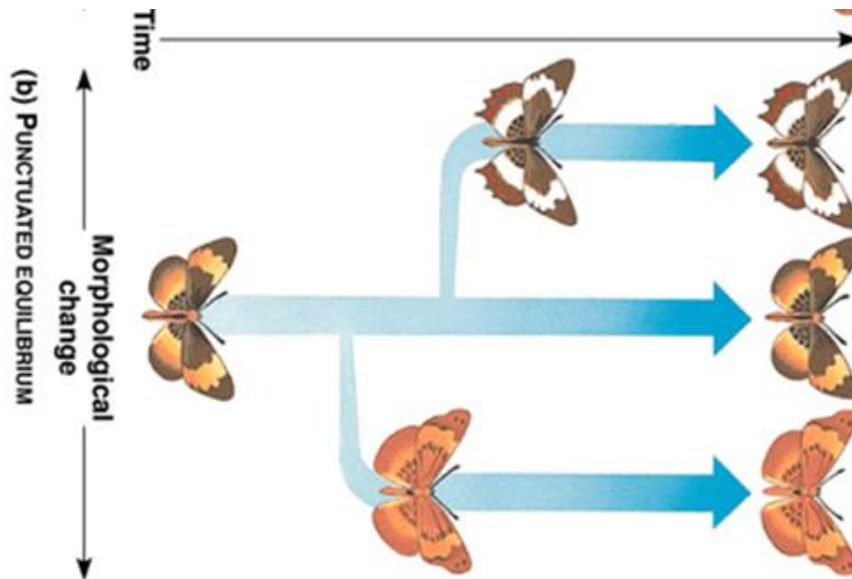
- Consistency Analysis

	<b>Evolution (Punctuated Equilibrium Theory)</b>	<b>Innovation (Disruptive Innovation Theory)</b>
<b>Objects</b>	<b>Living things</b>	<b>Product / Service</b>
<b>Survival Condition</b>	<b>Selection by Nature</b>	<b>Selection by Market</b>
<b>Process</b>	<b>Punctuated/ Gradual</b>	<b>Disruptive/Sustaining</b>
<b>Results</b>	<b>Creation of New Species (Branching)</b>	<b>New Product/Market Creation</b>
<b>Variation factor</b>	<b>Change in Natural Ecosystem</b>	<b>Change in Technology/Market Ecosystem</b>
<b>Mechanism</b>	<b>Sudden Variation of DNA</b>	<b>Replacement of Product's DNAs</b>
<b>Supervisor</b>	<b>Nature</b>	<b>Enterprise</b>

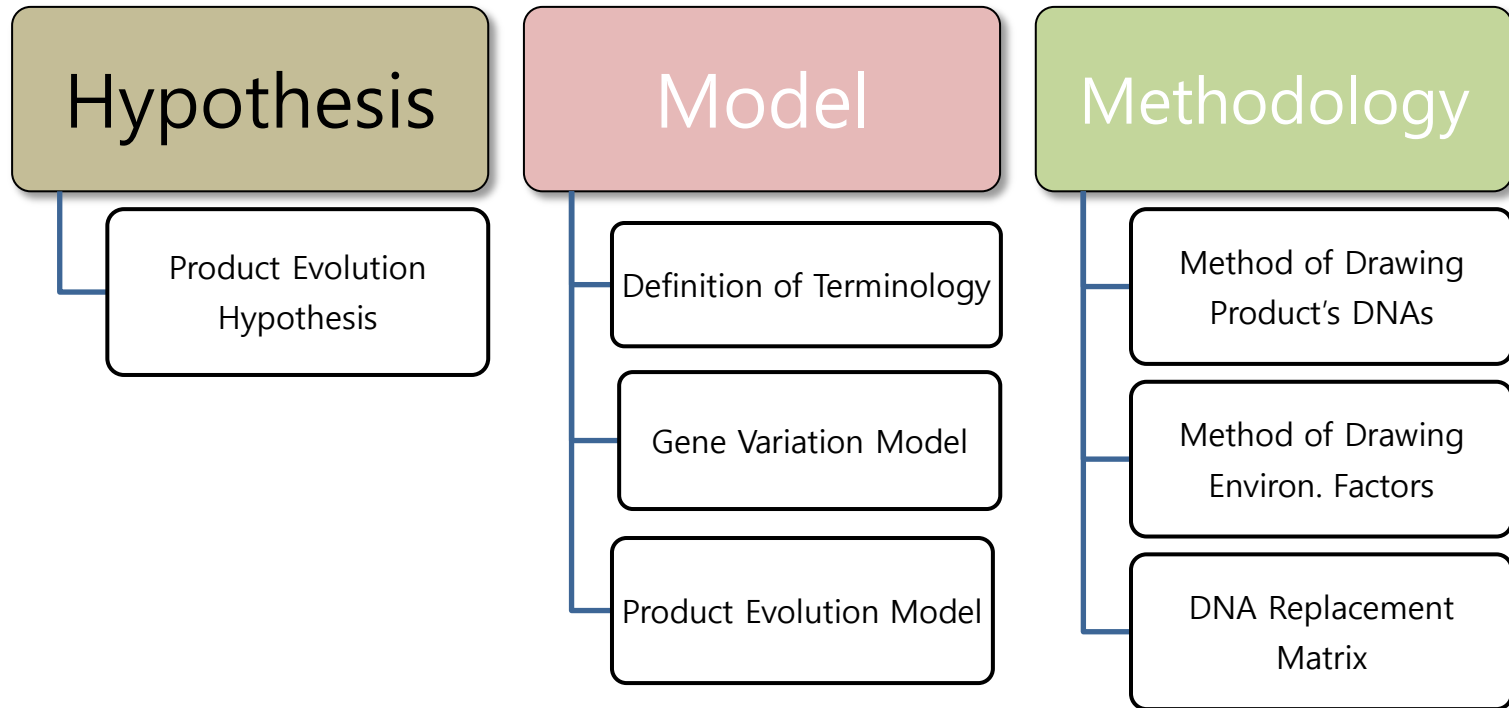
# Consilience of Evolution and Innovation Theories



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# Suggestion of Disruptive Innovation Method

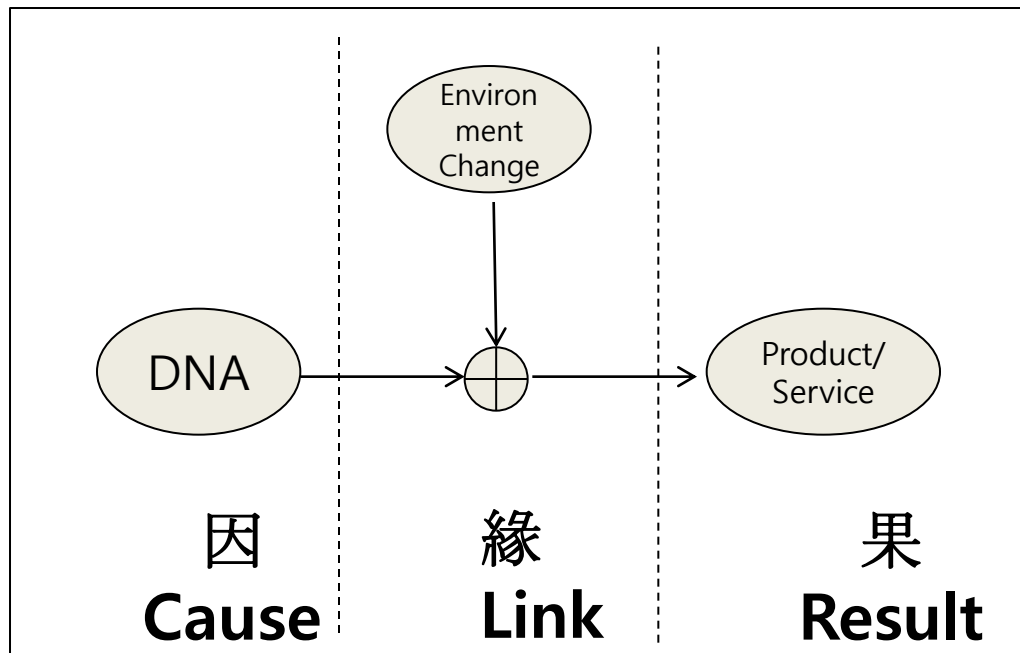




# Product/Service Evolution Hypothesis

- First, product/service evolve toward the optimum state depending on environmental changes, and a company is a supervisor of evolution.
- Second, optimum evolution comes from the selection of optimum direction due to environmental change, only the ones evolved into optimum state are selected through the market ecosystem while the rest die out gradually.
- Third, product/service follows gradual evolution of performance enhancement by demand of market. At this time, the product/service DNA, which is the fundamental property determining the species of product/service, remains unchanged.
- Fourth, only through the change of product/service DNA appropriate for environmental change, the species of product/service possessing new disruptive customer value can be born and create new markets.

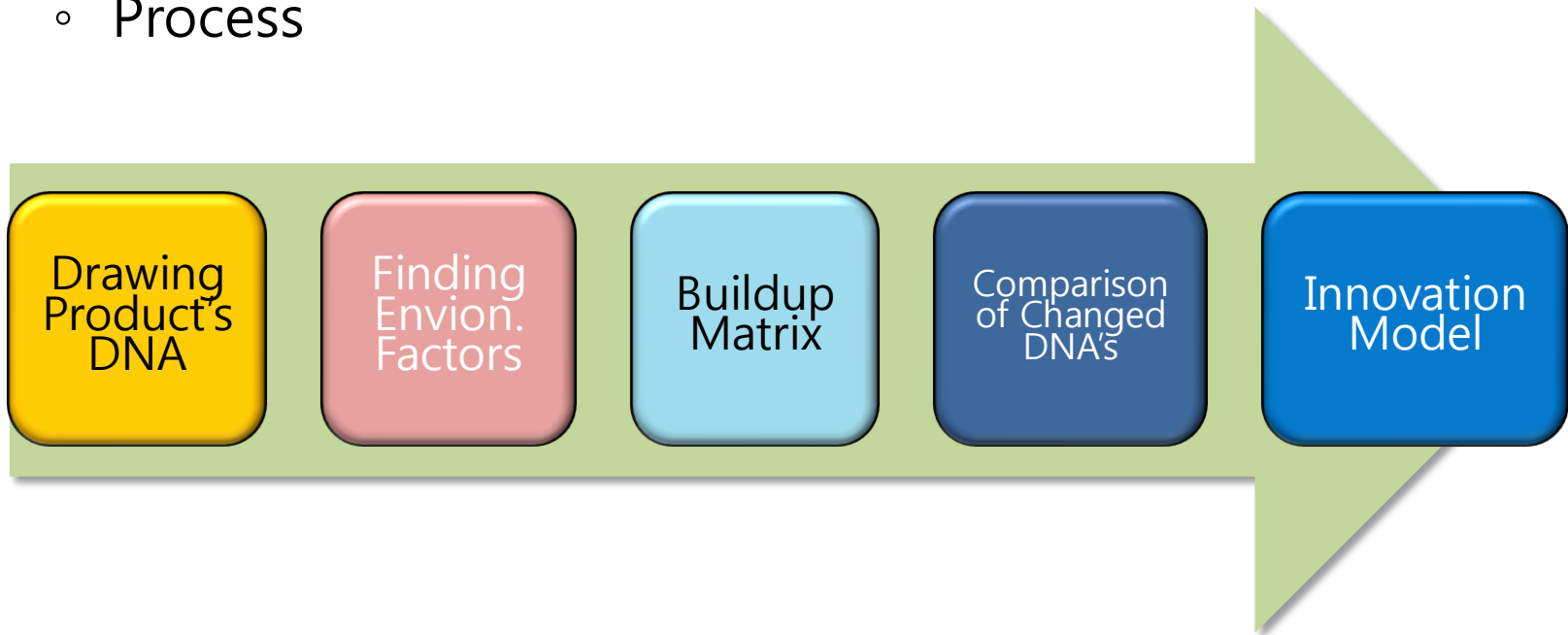
- **Product/Service Evolution Model**



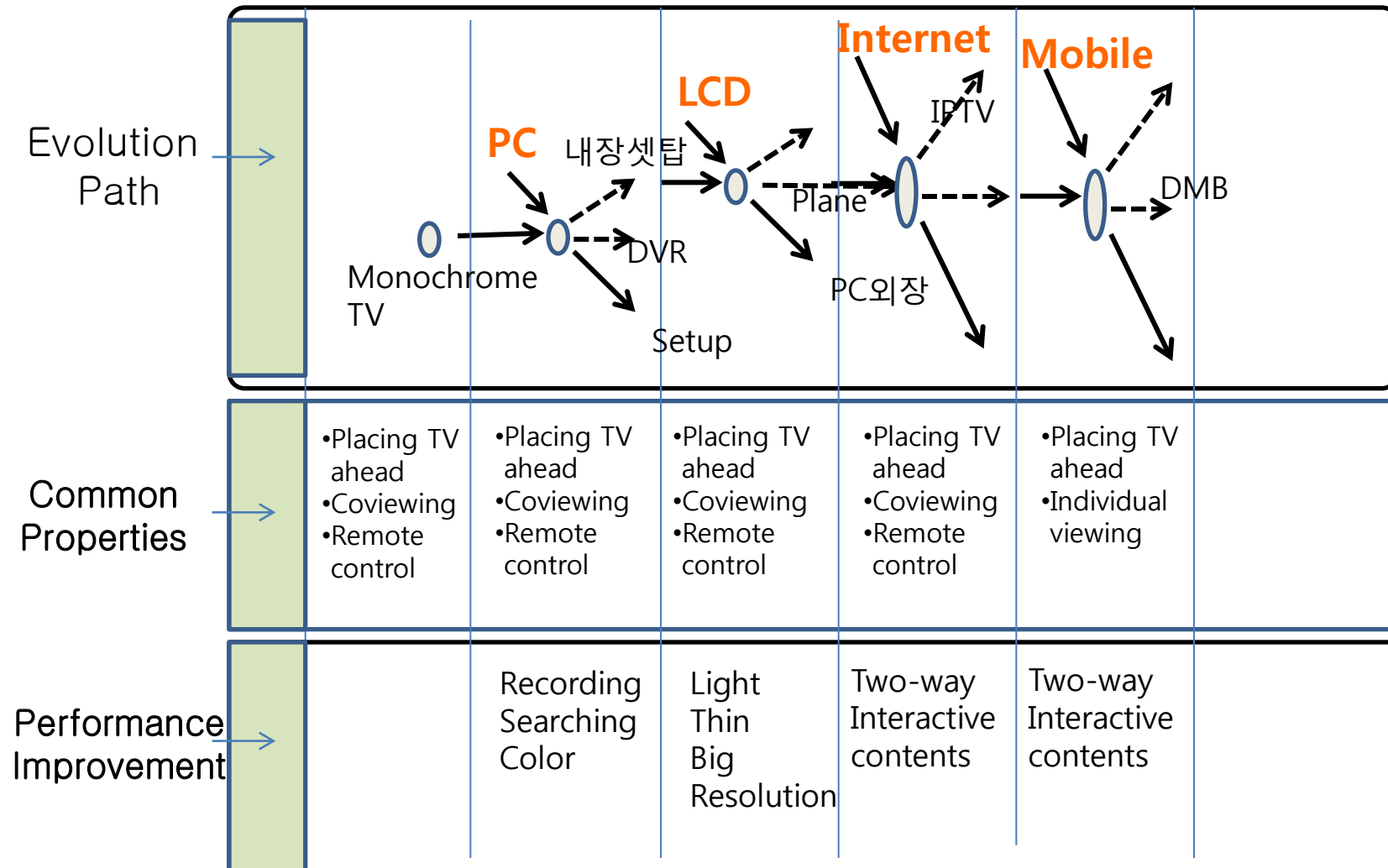
Product combines with Environment.  
Supervisor of Evolution is an Enterprise.

# Disruptive Innovation Method for Product Innovation

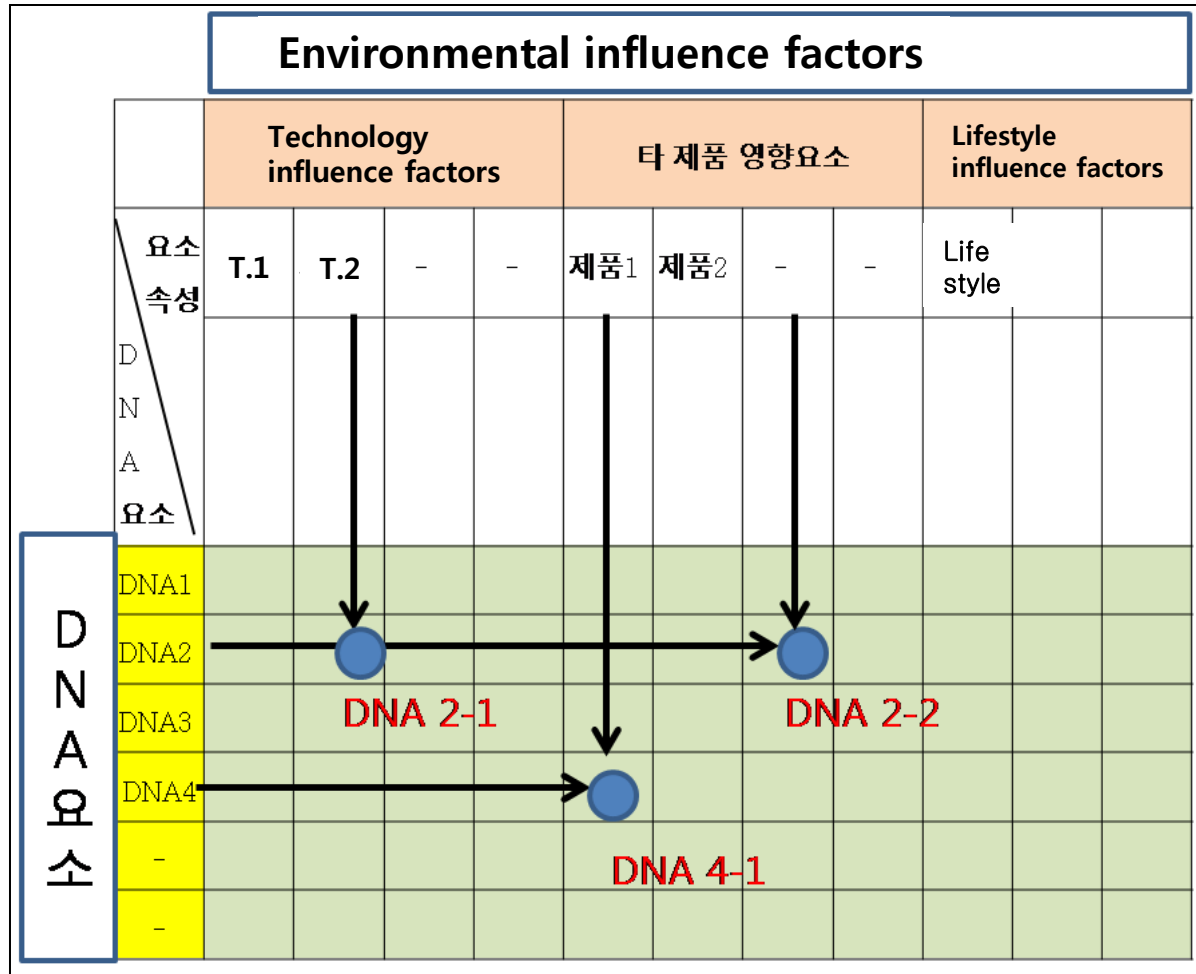
- Process



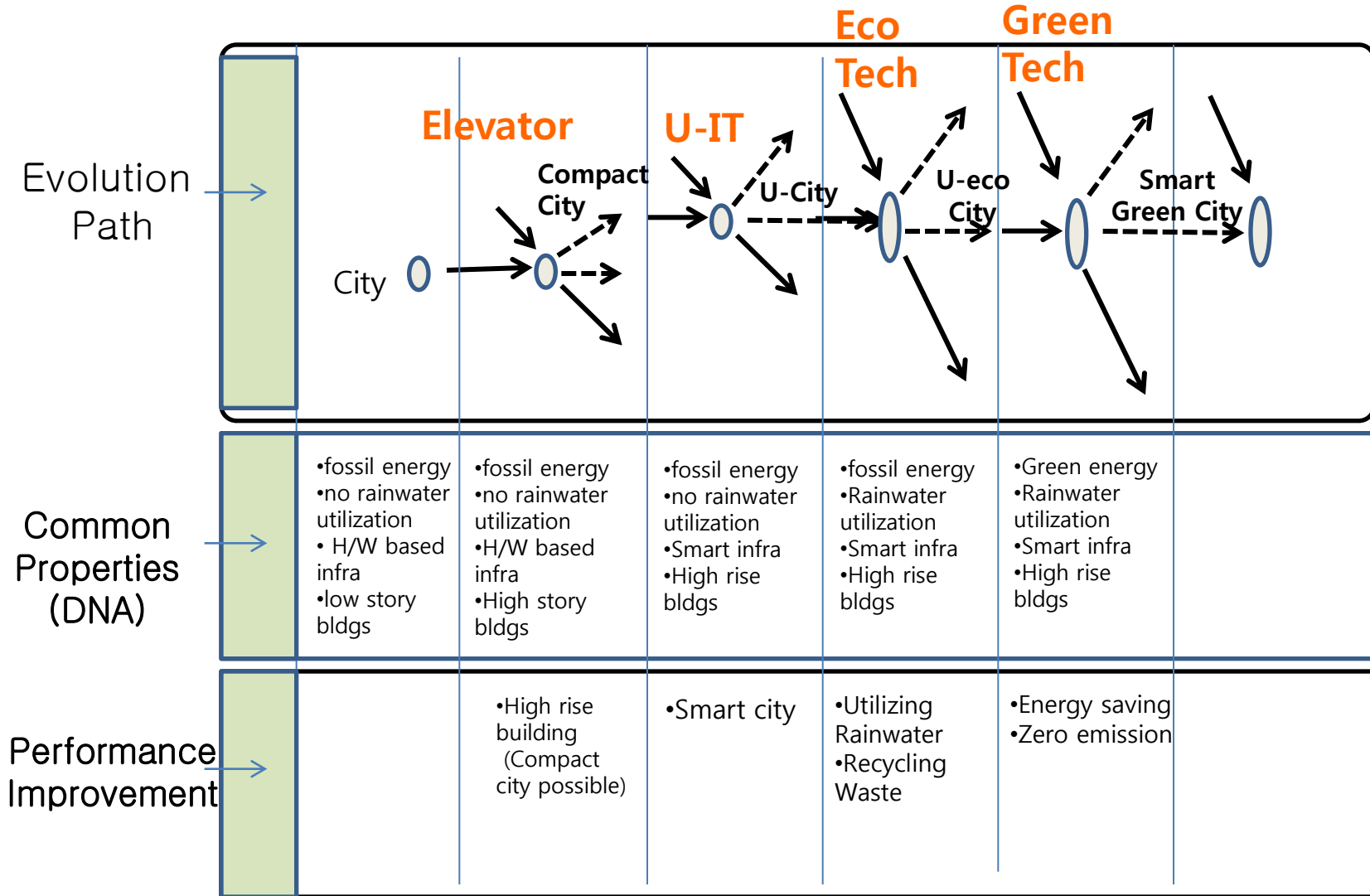
# - Derivation of DNA of Product (TV)



- DNA Replacement Matrix



# – Example: Smart Green City (Preliminary)



# Future work of my group

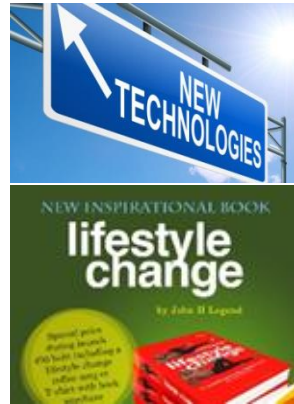
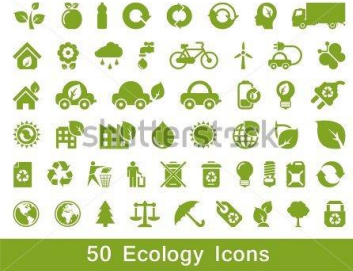
Extracting Product's DNA

Finding Environmental Factors

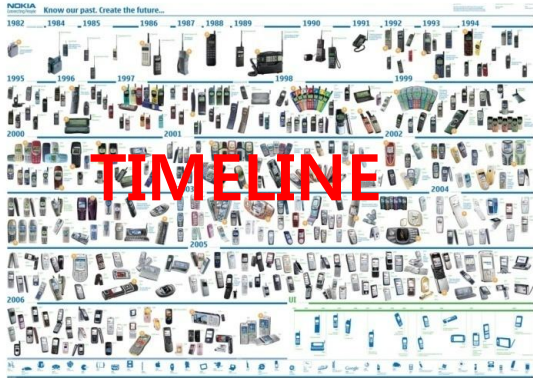
Buildup DNA Matrix

Comparison of Changed DNAs

Innovation Model

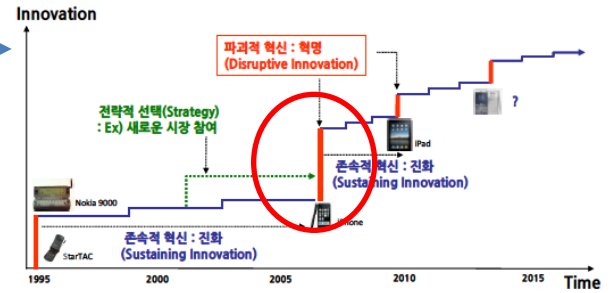


Finding Environmental Factors



		Environmental influence factors								
		Technology influence factors		타 제품 영향요소			Lifestyle influence factors			
		T.1	T.2	-	-	제품1	제품2	-	-	Life style
D N A 요 소	DNA1									
	DNA2									
	DNA3									
	DNA4									
	요소									
	속성									

Arrows indicate connections: DNA 2-1 connects T.1 and T.2; DNA 2-2 connects T.2 and Life style; DNA 4-1 connects T.1 and 제품1.



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Extracting Product's DNA

- Proposed Method ..

Add a vector of “fundamental attribution”  
to divergent thinking for innovation

