

Intangibles' Revolution

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2. Knowledge Economy. Definitions and characteristics
3. Principles and theories of wealth creation in the Knowledge Economy.
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 - 2.2 How is wealth created?
4. Methodologies and frameworks for diagnosing wealth creation potential of nations in the knowledge economy.
5. Reflections on the case of Spain.
6. Conclusions.

1.Introduction to the approach and basic definitions.

Approach to the presentation

The presentation tries to answer the following fundamental questions:

- 1) Who creates wealth in a specific country?
- 2) How is wealth created?
- 3) How to determine the wealth creation potential of a specific country?
- 4) Does knowledge economy context fundamentally change rules of wealth creation?
- 5) Are intangible assets the main drivers of wealth creation?

Wealth definitions

- **A measure of the value of all of the assets of worth owned by a person, community, company or country.**
- Wealth is the found by taking the total market value of all the physical and intangible assets of the entity and then subtracting all liabilities.
- For national wealth as measured in the national accounts the net liabilities are these owed to the rest of the world.
- **Wealth is the present value of the expected stream of future utility that an entity could hope to extract from tangible and intangible resources available, assuming these resources are and will be managed in an effective and efficient way.**

Intangible Assets Definition

•“Not tangible; incapable of being touched or perceived by touch; impalpable; imperceptible.”(Webster’s dictionary definition)

•“Intangible assets are sources of future benefits which do not have a physical embodiment”. (Baruch Lev.)

•Intangible liabilities are sources of future losses which do not have a physical embodiment.

Intellectual Capital Definitions

IC= Intangible Assets = Knowledge Assets

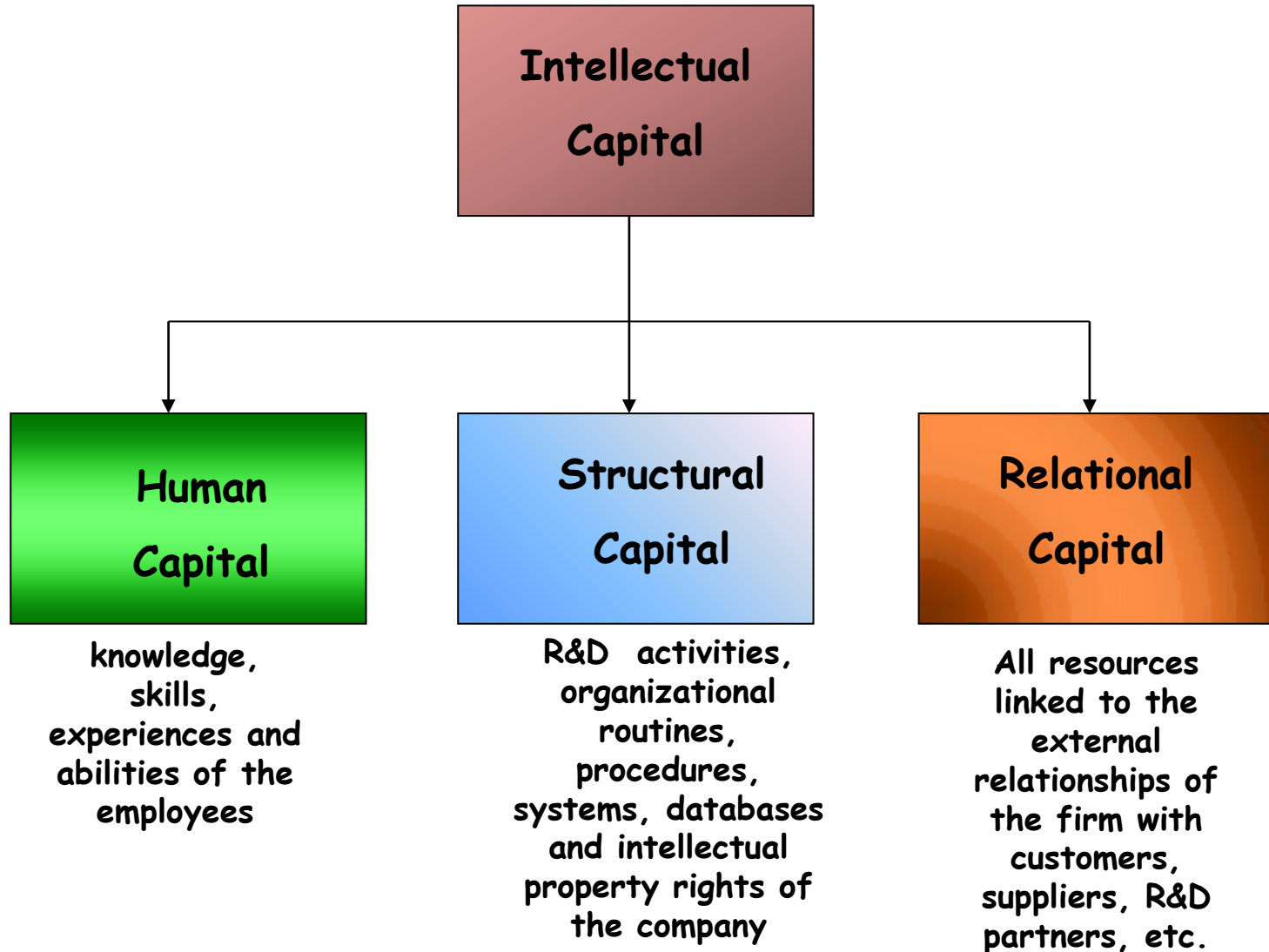
IC=Knowledge that produces value

IC = Knowledge + other intangibles that produce value or are able to produce value in the future

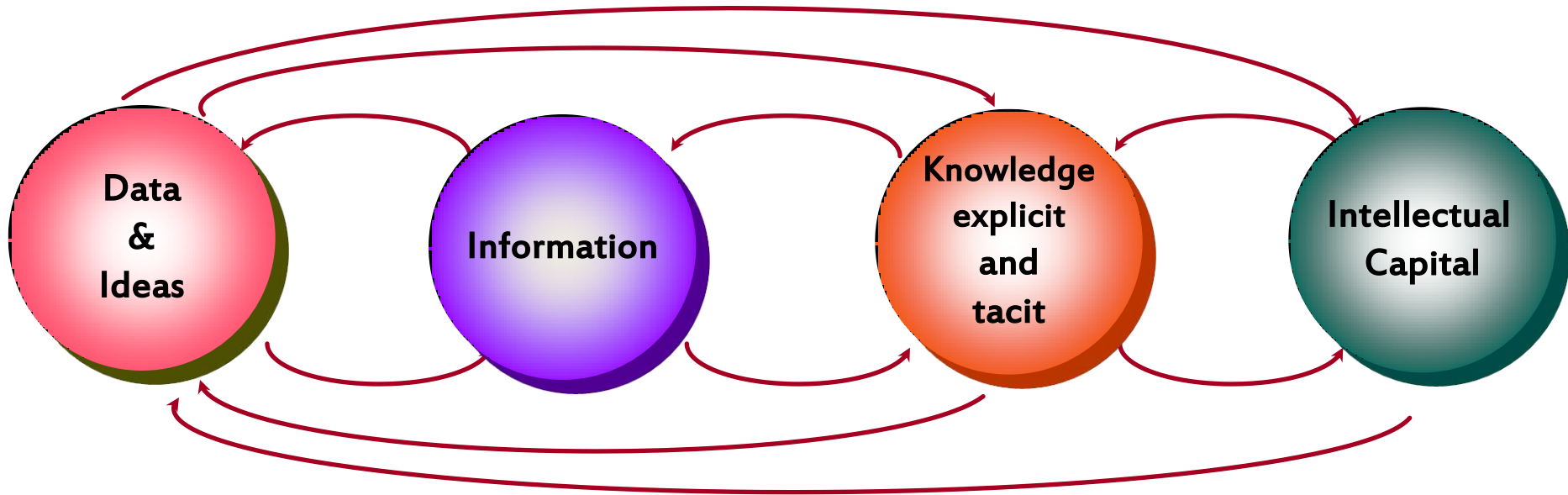
IC= core competencies or core capabilities

IC= Human capital + Structural capital + Relational capital

Intellectual Capital Content



Interrelationship among Data, Information, Knowledge and I.C.



Data

Organized
data

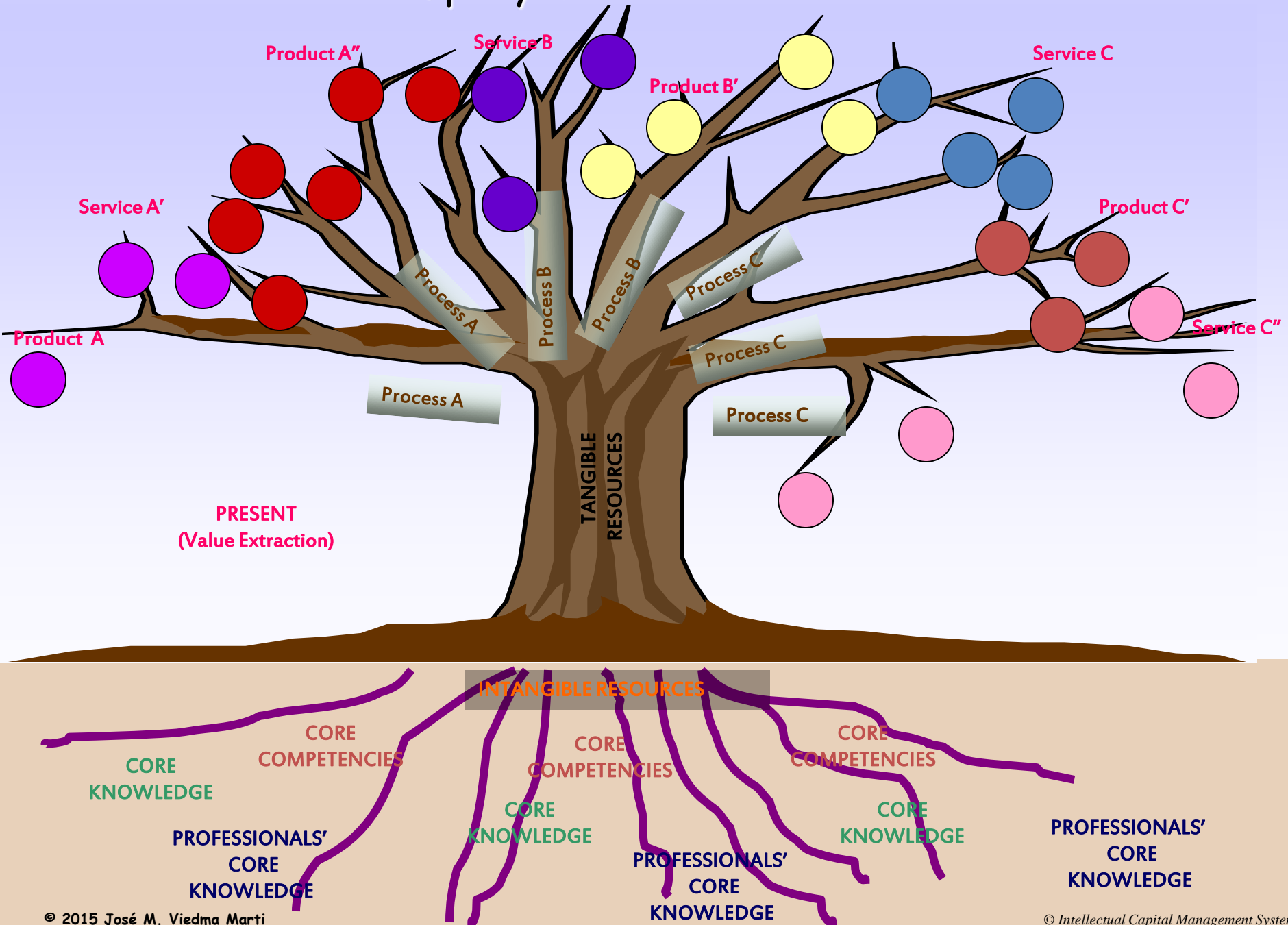
Is a set of beliefs about
casual relationships
in the world and
an organisation
Ron Sanchez

Justified personal
belief towards
the truth.
Ikujiro Nonaka

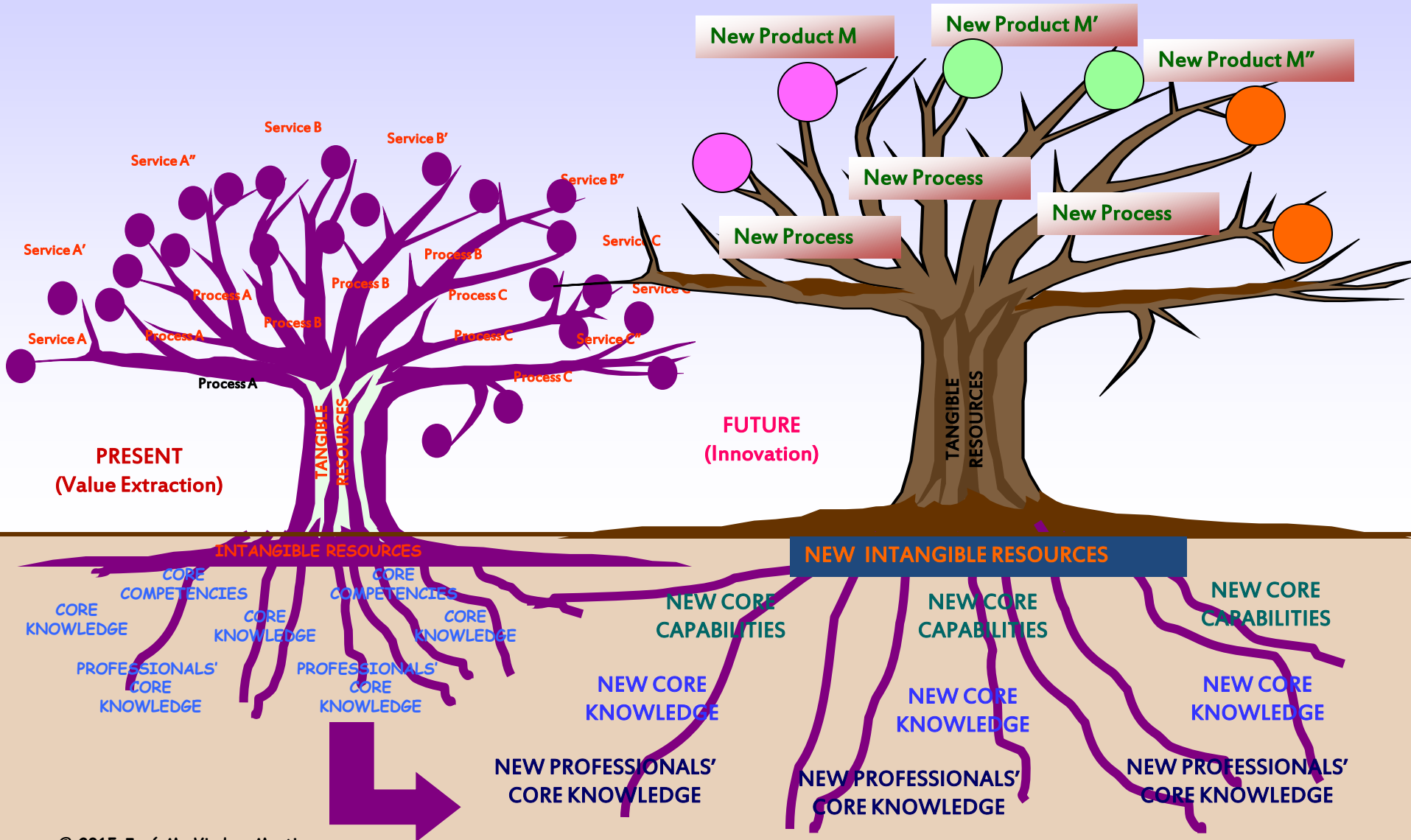
Knowledge that
produces value

Knowledge and
other intangibles
that produce
value

Company Value Creation Tree



Innovation Tree



2. Knowledge Economy. Definitions and characteristics.

“We are entering a new age, an age of knowledge, in which the key strategic resource necessary for prosperity has become knowledge itself – educated people, their ideas and innovation, and their entrepreneurial spirit.”

(Bloch, 1988)



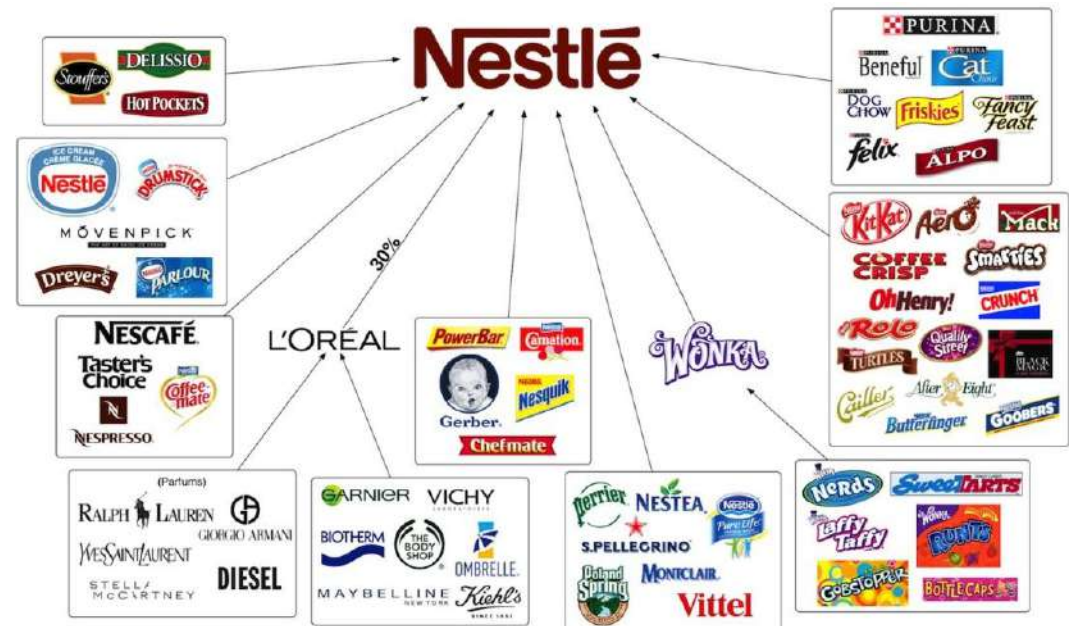
The Knowledge Content of Goods and Services



The Knowledge Content of Goods and Services



The Knowledge Content of Processes and Business Models



E-commerce

amazon.com®



Collaboration platforms

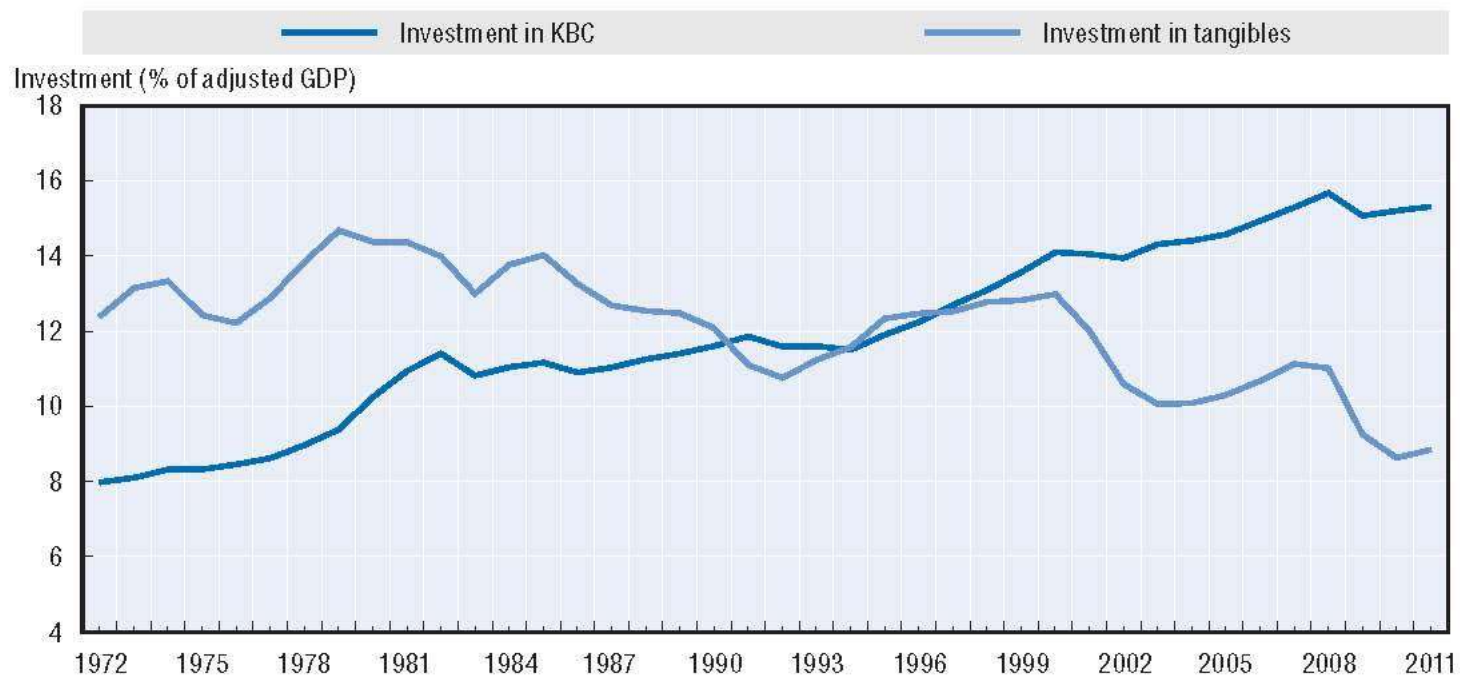


Bla Bla Car



A Revolution in Corporate Productive Resources

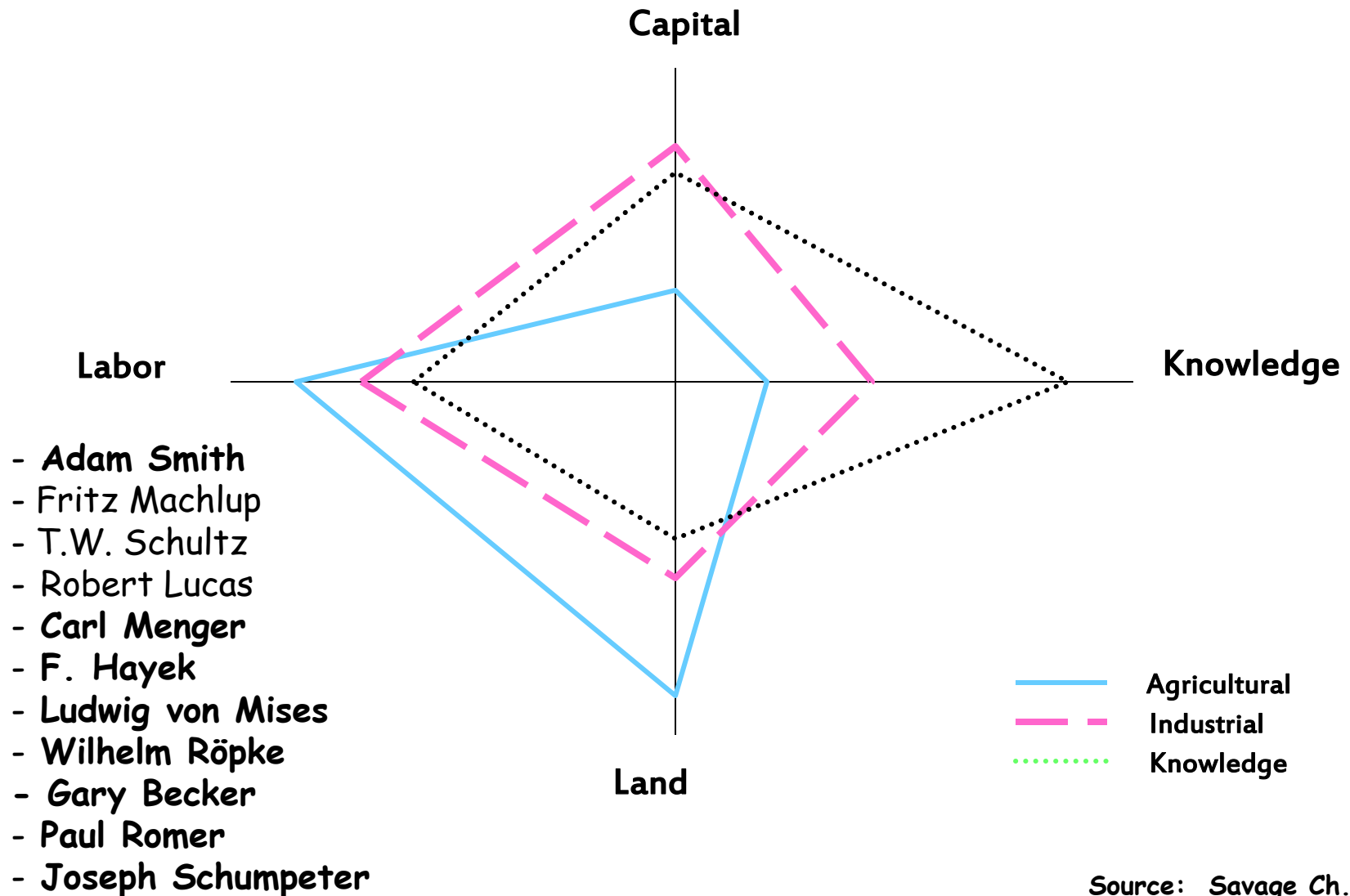
Figure 0.1. Business investment in KBC and tangible capital, United States, 1972-2011 (% of adjusted GDP)



Note: Estimates are for private industries excluding real estate, health and education.

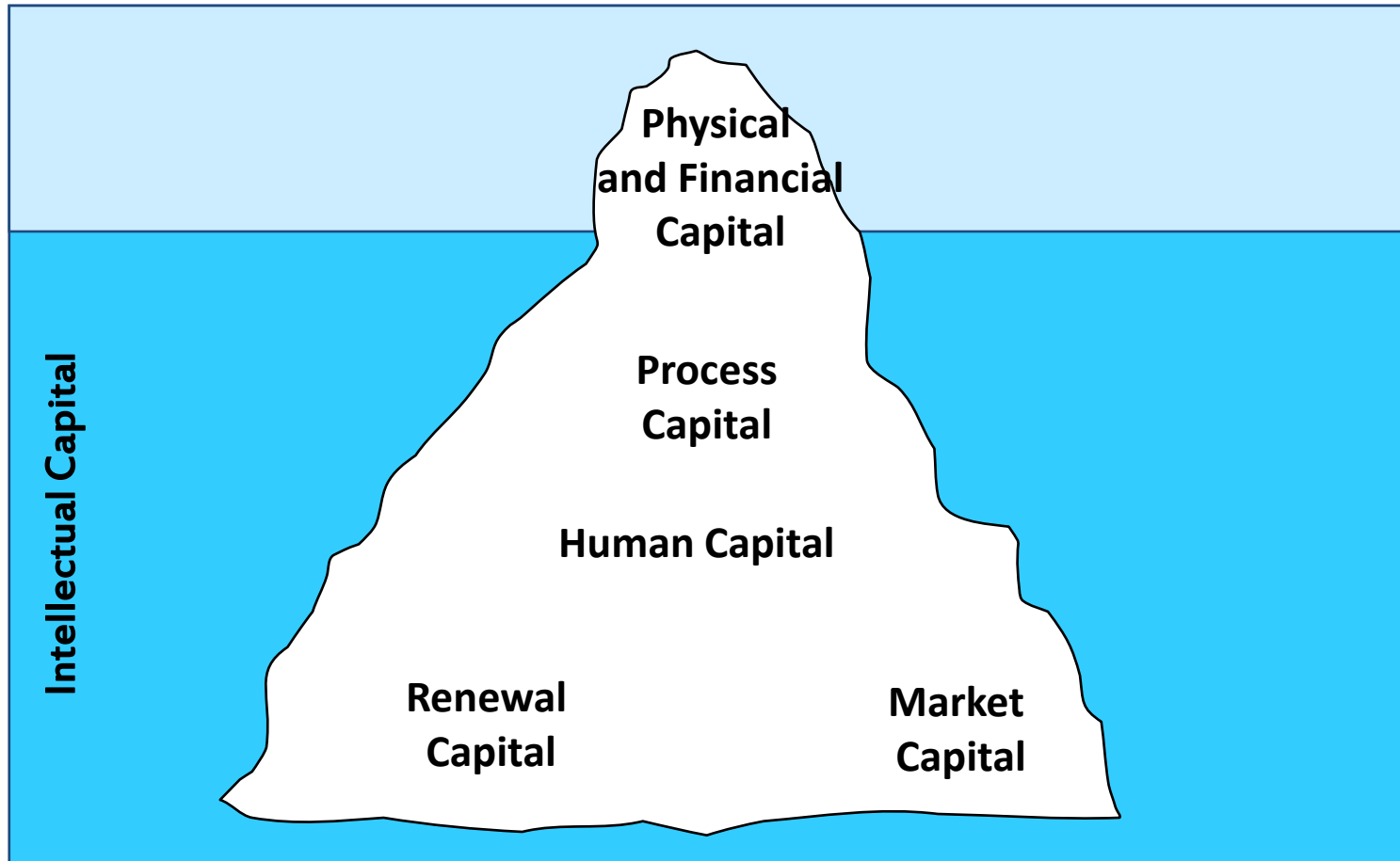
Source: Unpublished update on Corrado, C.A. and C.R. Hulten (2010), "How do you Measure a 'Technological Revolution?'," *American Economic Review: Papers & Proceedings* 100 (May 2010): 99–104.

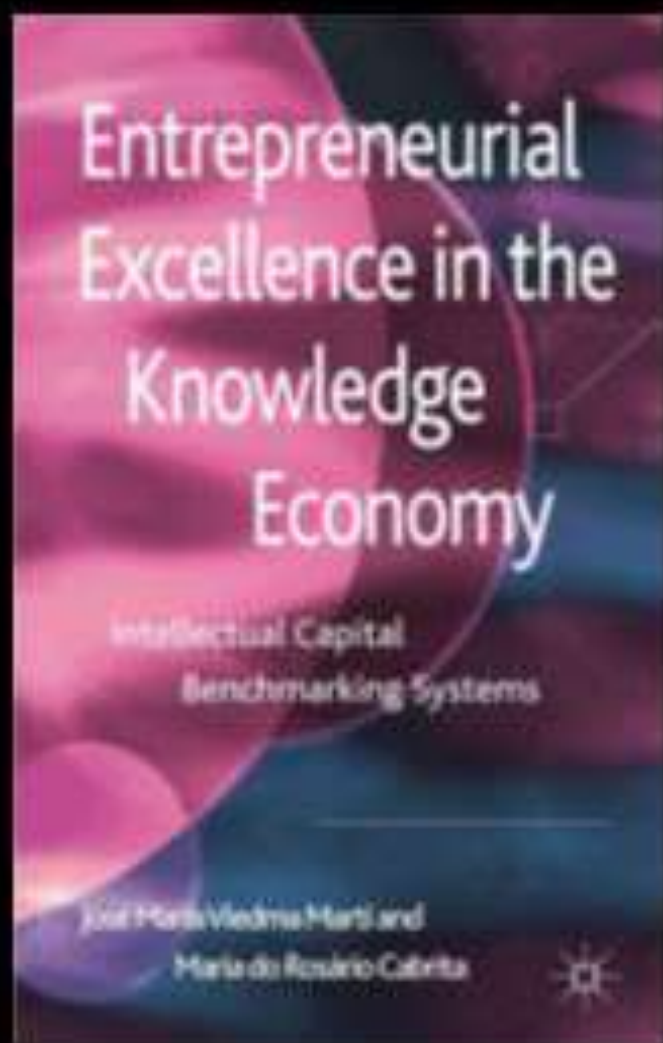
The advent of the Knowledge economy .



Source: Savage Ch. 1991.

Nation's Iceberg





Entrepreneurial Excellence in the Knowledge Economy

**Intellectual Capital Benchmarking
Systems**

**By José María Viedma Martí and
María do Rosário Cabrita**

www.palgrave.com

**palgrave
macmillan**

Knowledge Economy Definitions

"... one in which the generation and exploitation of knowledge has come to play the predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the most effective use and exploitation of all types of knowledge in all manner of economic activity"

(DTI Competitiveness White Paper 1998).

"economic success is increasingly based on upon the effective utilisation of intangible assets such as knowledge, skills and innovative potential as the key resource for competitive advantage. The term "knowledge economy" is used to describe this emerging economic structure"

Economic & Social Research Council 2005

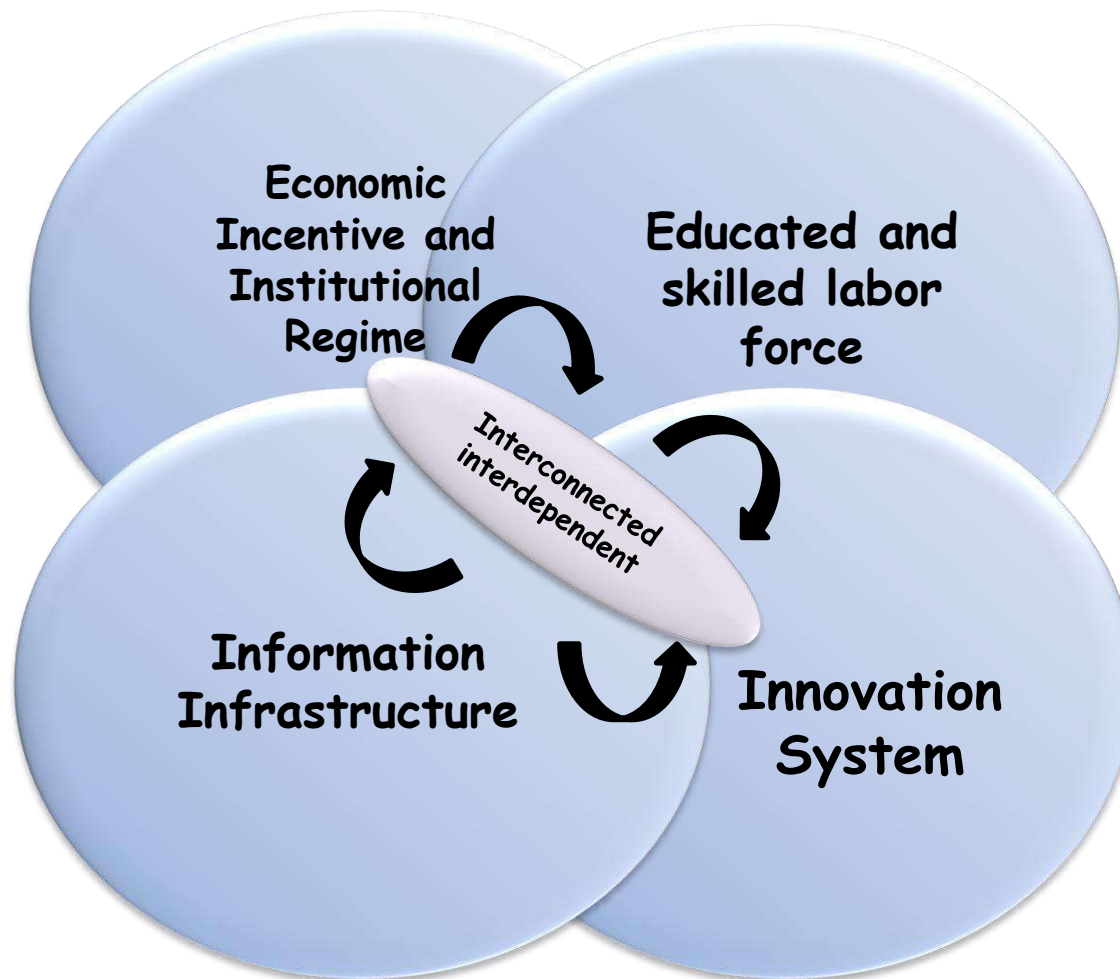
Source:

<http://www.theworkfoundation.com/Assets/Docs/I%20Brinkley%20HE,%20FE%20and%20the%20Knowledge%20Economy.pdf>

Four pillars of the KE :

1. An Economic incentive and institutional regime that provides good economic policies and institutions, which promote efficient allocation of resources and stimulate creativity and incentives for the efficient creation, dissemination, and use of existing knowledge.
2. An educated and skilled labor force that continuously upgrades and adapts skills to efficiently create and use knowledge.
3. An effective innovation system of firms, research centers, universities, consultants, and other organizations that keeps up with the knowledge revolution, taps into the growing stock of global knowledge, and assimilates and adapts new knowledge to local needs.
4. A modern and adequate information infrastructure that facilitates the effective communication, dissemination, and processing of information and knowledge.

Pillars of KBE



3. Principles and theories of wealth creation in the Knowledge Economy

The nature of human beings

Human beings strive for knowledge and its value

Curiosity and the desire for a better life are two of the most basic human instincts. Sociobiological studies of human behavior find clear and consistent evidence of spontaneous curiosity and hoarding. These are traits that arise from deep within the human genome.

The genius of a knowledge-based economy is that it lets us satisfy one of these primeval compulsions (wealth accumulation) by satisfying the other (curiosity).

Humans value ideas that improve their well-being, and that help them overcome environment constraints and other adversaries.

Markets underlay the development and spread of all innovations.

The knowledge problem: Political dimension

Three questions:

- First, how can a society optimize the use of knowledge?
- Second, how can we incentivize the creation and use of knowledge in such a way that people would be induced to create new knowledge and make their knowledge available to the others?
- Third, how can we produce the knowledge needed for people to coordinate their actions and produce economic and social progress?

Top -down and coercive systems of command-and-control don't work out so well. No person and no committee can have the information necessary to coordinate millions(or billions) of people with disparate goals and fragmentary knowledge.

We find the solution of the problem in free market economy and political democratic institutions.(Liberty and the Rule of Law)

Redefining Capitalism

Capitalism is under attack

The financial crisis of 2008, the stagnation of middle class in many developed countries, and rising income inequality are challenging some of our most deeply held beliefs about how a fair and well-functioning society should be organized

Wealth or prosperity in a society is the accumulation of solutions to human problems

Growth is an increase in the quality and availability of solutions to human problems

Genius of capitalism : An unmatched evolutionary system for finding solutions to human problems

Role of business: Solving problems through the process of converting great ideas into products and services that fulfill fast changing human needs .

Government role: Implement democracy as a political system. Creating laws and regulations (Rule of Law) to encourage economic activity that solves problems and discourages economic activities that create them (A kind of Referee) thus fostering trust and cooperation in society.

Winston Churchill: " It has been said that democracy is the worst form of government except all the others that have been tried". A same statement could be applied to capitalism.



Austrian School of Economics

Main economic factors in the Austrian School of Economics

Individual choice

Individuals and their choices active participants in the economic process.
Markets and value of things are determined by these choices.

Entrepreneurship

Economic process too much uncertain and could not be predicted by one so “out of the loop”.
Entrepreneur is the only one with the proper knowledge to predict outcomes and minimize risk.
Entrepreneur, perhaps the most important role in any economy.

Free and competitive markets

Belief in a “free and competitive markets” approach to macroeconomics.
Strong belief in a minimal role for government in our everyday lives.

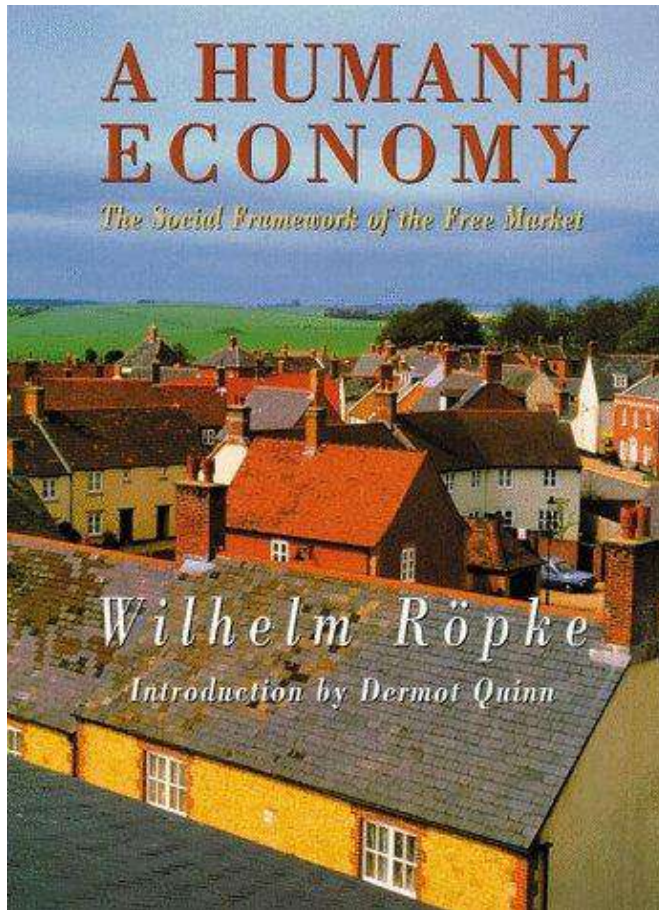
Private property

Individual property ownership is the bedrock of a healthy economy,
Without it, there is no basis for capital, for trade, for value... and free market.

A price system

A realistic price system emerges when free markets are allowed to do their work.

German Ordoliberalism



**A Humane Economy:
The Social Framework of the
Free Market**



Wilhelm Röpke

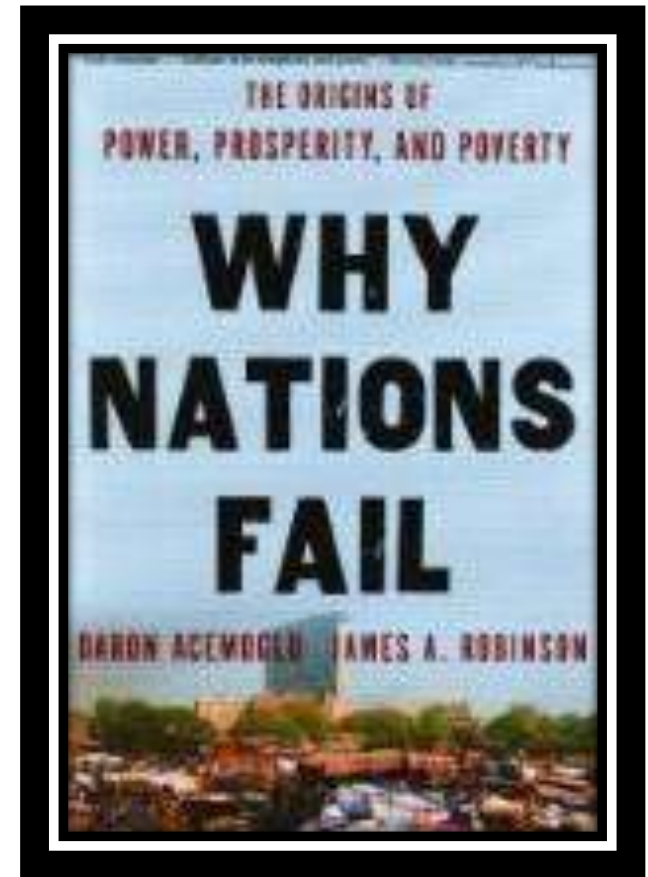
Summary of RÖPKE thoughts

"Conforming" social economic and financial policy, the task of which is to protect the weak "beyond the market" to equalize interest, set rules of the game and limit market power.

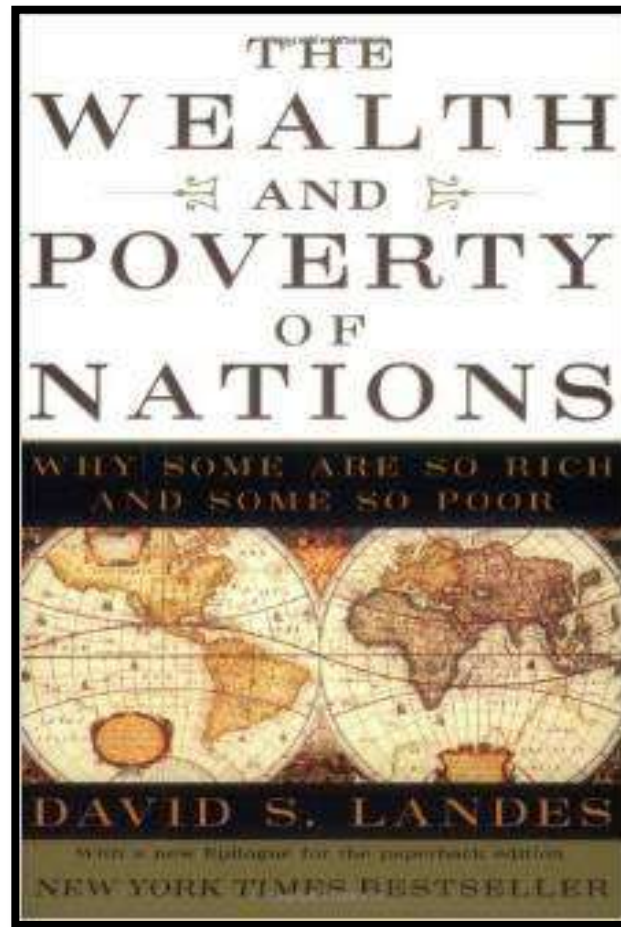
Röpke strove for an economic order of "economic humanism" that he also referred to as the "Third Way".

Why Nations Fail

Argues that the key differentiator between countries is "institutions". Nations thrive when they develop "inclusive" political and economic institutions, and they fail when those institutions become "extractive" and concentrate power and opportunity in the hands of only a few.



Source: Why Nations Fail. The origins of power prosperity and Poverty. Darom Acemoglu & James A. Robisonn . Profile Books Ltd. (2013)



The Wealth and Poverty of Nations:
Why Some Are So Rich and Some So
Poor Paperback - May 17, 1999
by [David S. Landes](#) (Author)

“Growth without technological advance is not good; it represents short-run advantage that will be paid for in long-run retardation”.

David S. Landes

Source: Neef, Dale (1998) The Knowledge Economy. No. 5 Landes, D. *“Homo Faber, Homo Sapiens: knowledge, technology, Growth, and Development”* pp 53-73 Butterworth-Heinemann, [USA](#).

Wealth creation and Nations' Competitiveness

“Nations themselves do not compete, rather, their enterprises do”

“The role of nations in shaping the environment in which enterprises operate influence their competitiveness”

“Competition among nations can be seen in the areas of education and know-how. In a modern economy, nations do not rely only on products and services, they also compete with brains”

(Stéphane Garelli-IMD 2002)

Wealth creation and Nations' Competitiveness

“It is well understood that sound fiscal and monetary policies, a trusted and efficient legal system, a stable set of democratic institutions, and progress on social conditions contribute greatly to a healthy economy

These broader conditions provide the opportunity to create wealth but do not themselves create wealth

***Wealth is actually created in the microeconomic level of the economy.
Wealth can only be created by firms***

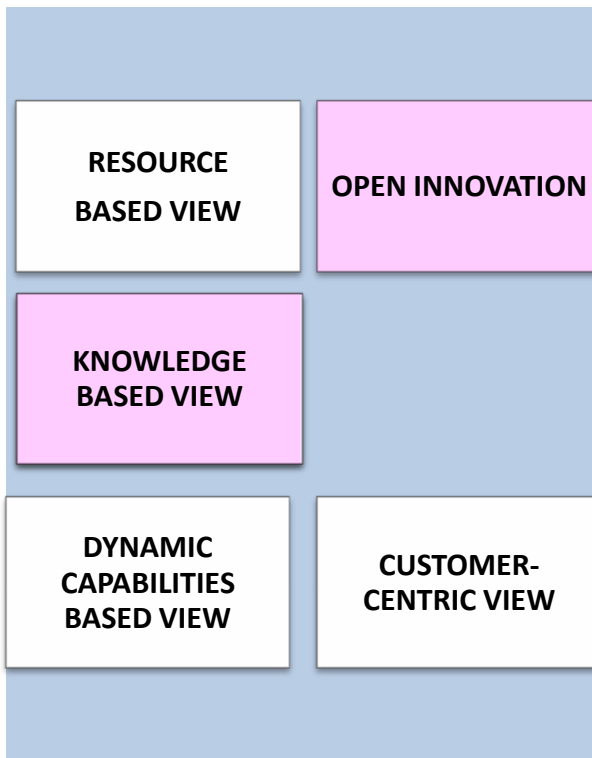
More than 80 percent of the variation of GDP per capita across countries is accounted for by microeconomic fundamentals. Unless microeconomic capabilities improve, macroeconomic, political, legal, and social reforms will not bear full fruit”

(Michael Porter 2005)

Theoretical Foundations

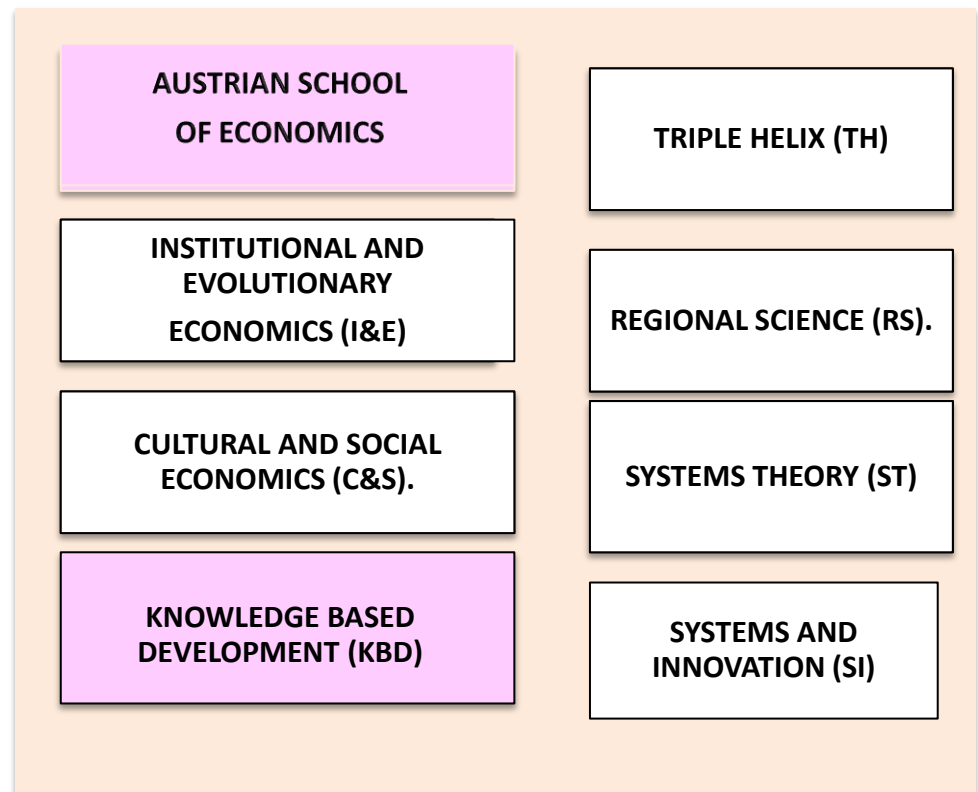
Strategic Focus

Micro Level (Enterprises)



INCAS, ICBS (OICBS, IICBS), SCBS.

Macro Level (Cities, Regions, Nations)



CADIC, CICBS, RICBS, NICBS

Wealth Creation in the Knowledge Economy

Macro dimension

Free
Market
economy

Knowledge
based
economy

Liberal
democratic
political
systems

Entrepreneurial
excellence

Inclusive political,
economic and social
institutions

High quality
people

Micro dimension

Wealth Creation in the Knowledge Economy

Macro dimension

Heritage
Foundation
Index of
economic
freedom.

**Free
Market
economy**

**Knowledge
based
economy**

**KEI
K4D
ISB**
Global
Innovation
index (GII)

**Liberal
democratic
political
systems**

Freedom House
Global democracy ranking
Democracy index

**Entrepreneurial
excellence**

Global
entrepreneurship and
development index.
GEINDEX

**Inclusive political, and
economic institutions**

WEF
Institutions
The global
competitiveness
index

**High quality
people**

WEF
The human capital report

Micro dimension

Theoretical principles

Who?

1. The main source of wealth of a nation is people. Knowledge and other types of intangibles are in the head of people. Without an educated, healthy and hardworking population there is no progress.
2. A free market economy with inclusive political and economic institutions is the sine qua non condition for sustainable economic and social development.
3. Wealth or poverty of a specific nation is strongly dependant on the number of competitive or excellent companies that the specific nation has.
4. Government does not create wealth directly but contributes to wealth creation when succeeds putting into practice a free market economy and inclusive democratic political, economical and social institutions (liberty, order and the rule of law).
5. An excellent or competitive company is the one that achieves long term extraordinary profits due to the fact that has a business model with sustainable competitive advantages.
6. In the knowledge economy sustainable competitive advantages are mainly based on intangibles. Consequently strategic management of intangibles or intellectual capital becomes a fundamental task.

Theoretical principles

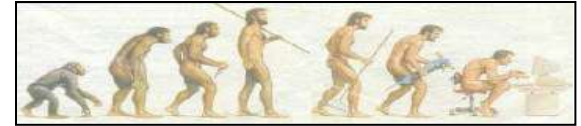
How?

7. Business excellence is always due to good strategy formulation and superior strategy implementation.
8. Good strategy formulation and superior strategy implementation is always a human task and strongly depends on the quality of leaders, top management team, key professional people and knowledge workers.
9. In a continuous changing environment business models quickly get out-of-date and as a consequence of that, innovation in business models¹ becomes an urgent need.
10. In any company the essential activity to perform is always innovation in the business model so it can be converted in an excellent or competitive business model.
11. Companies alone do not create wealth. They need the collaboration of other companies, universities and research institutes, financial institutions, government and other organisations and institutions and specially the existing ones in the cluster, region or nation where the company is located. In other words they need to be active part of a territorial open innovation system.
12. Strategic management of intangibles needs also to be applied to the government of clusters, regions in nations in order to build territorial open innovations systems.

¹ We consider, in this particular context, that innovation in business models, encompass all types of innovations, including products, services, processes, technical, management, etc.

Wealth Creation in the KE

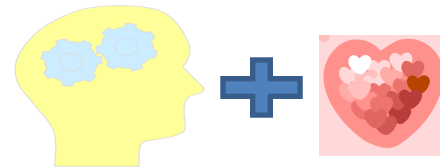
People



Knowledge



Intangibles



Competitive Enterprises

MANGO



INDITEX

Innovative Enterprises

Google



Suitable Environment



5. Methodologies and frameworks for diagnosing wealth creation potential of nations in the knowledge economy.

Two sets of frameworks

- **Competitiveness frameworks:**
 - ❖ W.E.F. Global Competitiveness Index
 - ❖ I.M.D. World Competitiveness Year Book
- **IC Community frameworks**
 - ❖ Mainly based on Skandia Navigator (Leif Edvinsson, Carol Yeh-Yun Lin)
 - ❖ Some concentrate on knowledge-creation and innovation. (Ahmed Bounfour, F.Javier Carrillo, Aino Kianto and Pirjo Stahle)
 - ❖ NICBS that tries to integrate the two sets of frameworks and considers the micro and macroeconomic dimension.

The 12 factors of competitiveness of W.E.F.

Basic requirements

- Institutions
- Infrastructure
- Macroeconomic environment
- Health and primary education

Key for
factor-driven
economies

Efficiency enhancers

- Higher education and training
- Goods market efficiency
- Labor market efficiency
- Financial market development
- Technological readiness
- Market size

Key for
efficiency-driven
economies

Innovation and sophistication factors

- Business sophistication
- Innovation

Key for
innovation-driven
economies

IC community frameworks.

IC community contributions.

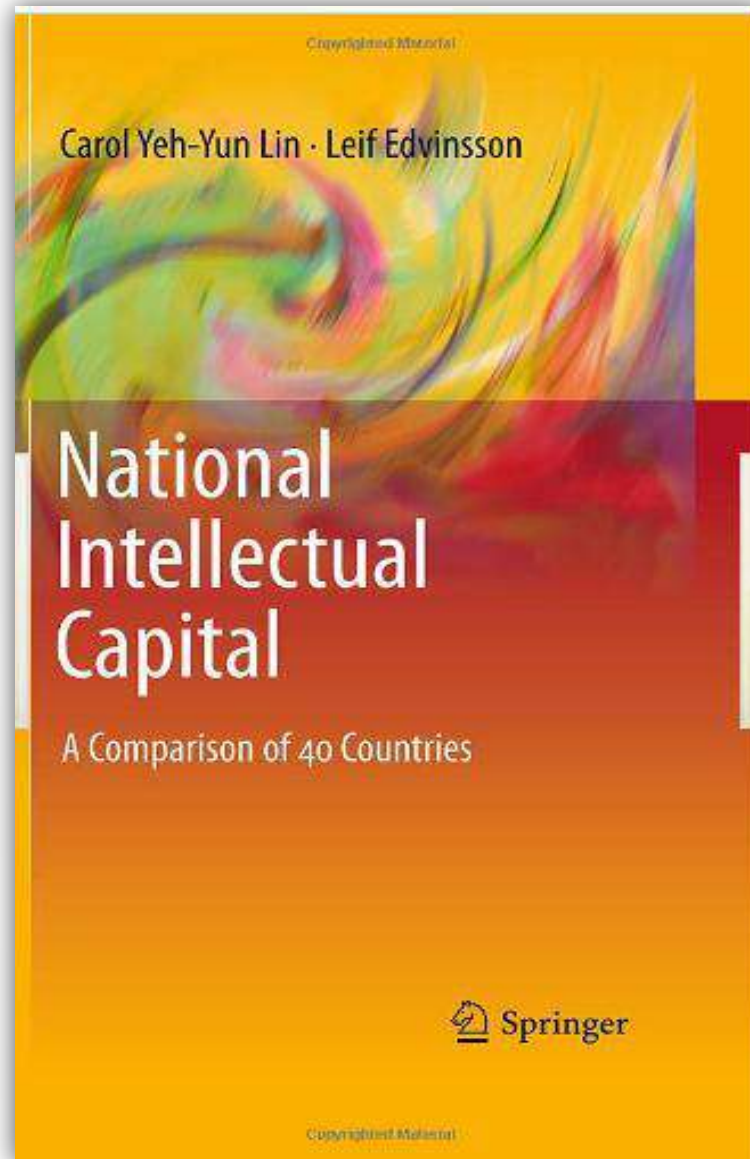
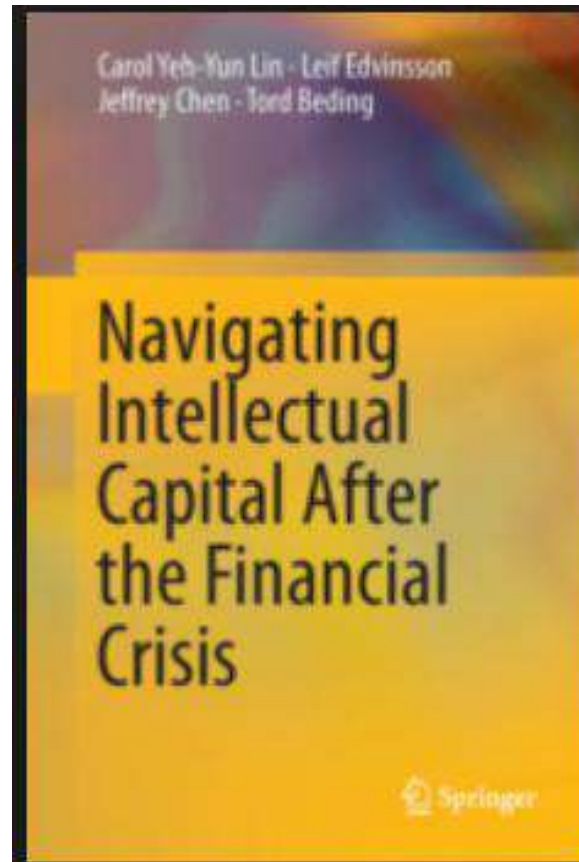


Table 3.1 Variables in each type of capital proposed by this study

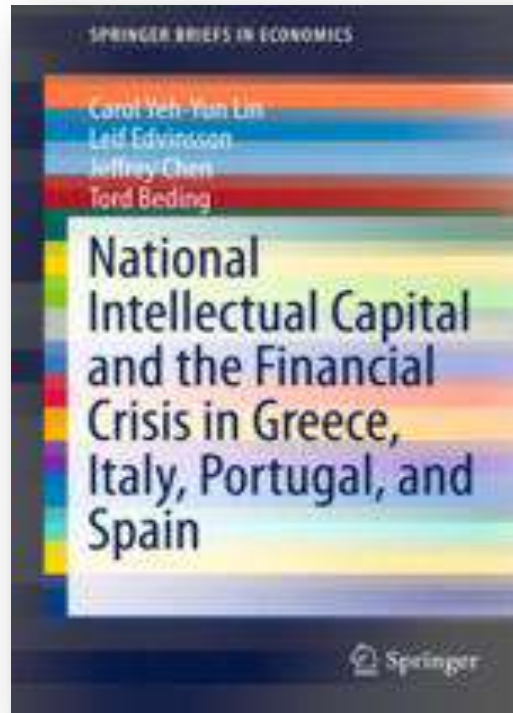
<i>Human capital index</i>	<i>Market capital index</i>
Skilled labor [#]	Corporate tax [#]
Employee training [#]	Cross-border venture [#]
Literacy rate	Openness of culture [#]
Higher education enrollment	Globalization [#]
Pupil–teacher ratio	Transparency [#]
Internet subscribers	Image of country [#]
Public expenditure on education	Exports of goods
<i>Process capital index</i>	<i>Renewal capital index</i>
Business competition environment [#]	Business R&D spending
Government efficiency [#]	Basic research [#]
Intellectual property rights protection [#]	R&D spending/GDP
Capital availability [#]	R&D researchers
Computers in use per capita	Cooperation between universities and enterprises [#]
Convenience of establishing new firms [#]	Scientific articles
Mobile phone subscribers	Patents per capita (USPTO+EPO)
Remarks: (1) Financial capital is the logarithm of GDP per capita adjusted by purchasing power parity. (2) Variables marked with # are rated qualitatively using a scale of 1–10	

Source: Yeh-Yun Lin; Edvinson (2011)
National Intellectual Capital.



Navigating Intellectual Capital After the Financial Crisis

Authors: Lin, C.Y.-Y., Edvinsson, L., Chen, J., Beding, T.

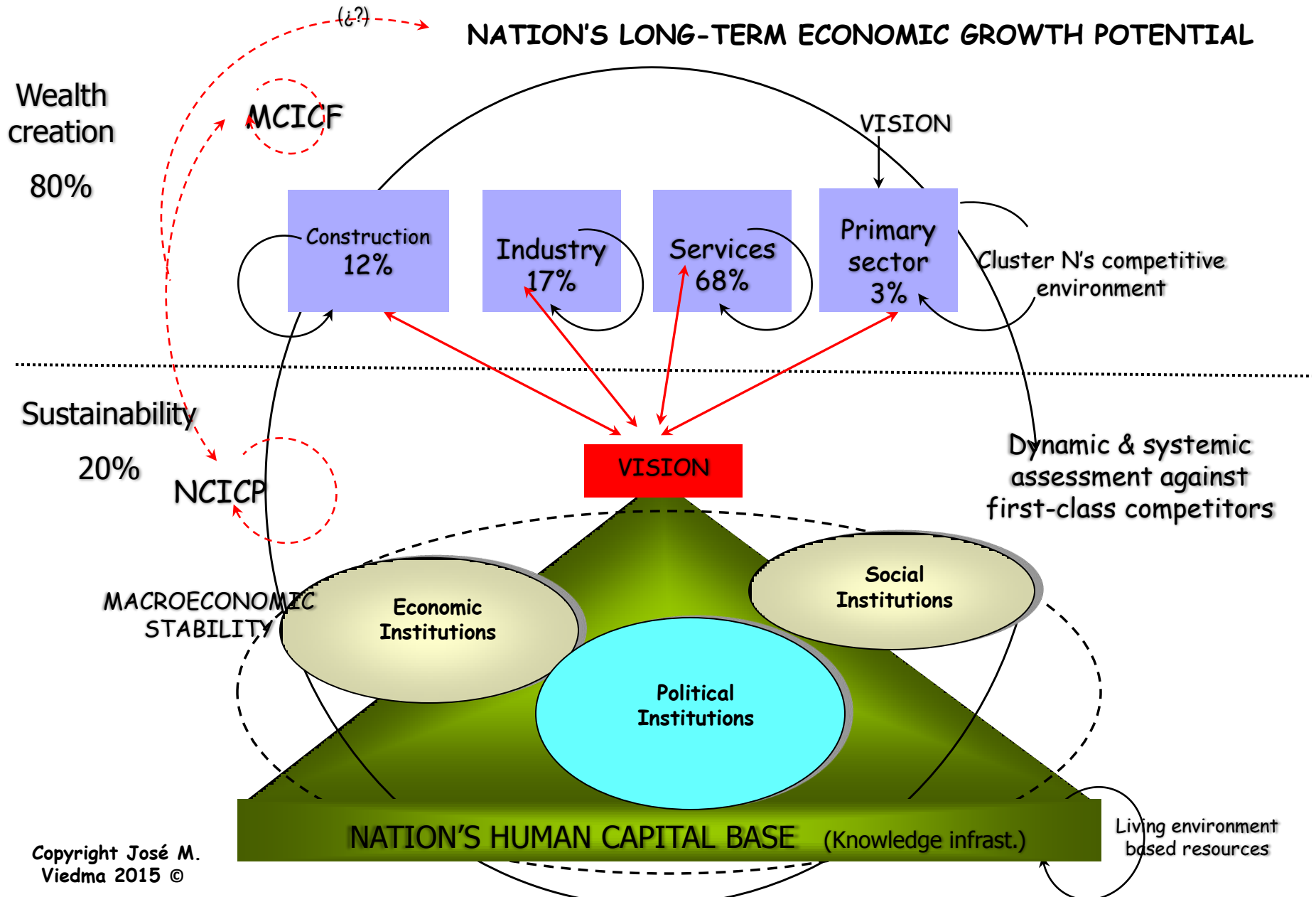


**National Intellectual Capital and the Financial Crisis in Greece,
Italy, Portugal, and Spain**

Carol Yeh-Yun Lin, Leif Edvinsson, Jeffrey Chen, Tord
Beding (häftad, 2012)

NICBS framework

NICBS: Main Structure & Key Elements



Wealth Creation in the Knowledge Economy

NATION'S ECONOMIC AND POLITICAL MODEL



The diagram illustrates the factors contributing to wealth creation in the knowledge economy, organized into a hierarchical structure. At the top is a pink oval labeled 'Entrepreneurial excellence'. Below it is a thick purple horizontal line. Underneath the line are two yellow ovals: 'Free Market economy' on the left and 'Liberal democratic political systems' on the right. Below these are two more ovals: a pink one labeled 'Knowledge based economy' on the left and a yellow one labeled 'Inclusive political, economic and social institutions' on the right. A second thick purple horizontal line follows. At the bottom is a pink oval labeled 'High quality people'.

**Entrepreneurial
excellence**

Free Market economy

**Liberal democratic
political systems**

Knowledge based economy

**Inclusive political, economic and social
institutions**

High quality people

Wealth Creation in the Knowledge Economy

MAIN AGENTS

**Entrepreneurial
excellence**

Entrepreneurial leaders.
Top Management Team and
Key Professional People.
Knowledge and skilled workers

Free Market economy

**Liberal democratic
political systems**

Political Leaders and Leaders of
Economic and Social Institutions
Knowledge and skilled workers.

Knowledge based economy

**Inclusive political, economic and social
institutions**

High quality people

Knowledge and skilled workers.
Conscientious parents (specially mothers)
Teachers in elementary and high school.
Professors in University(Not its chief
creators)

Wealth Creation in the Knowledge Economy

Intangible Capital



5. Reflections on the case of Spain.

Spain



Europe's economies

European Union countries' currency status

- Euro area
- Currency pegged to euro
- Floating currency

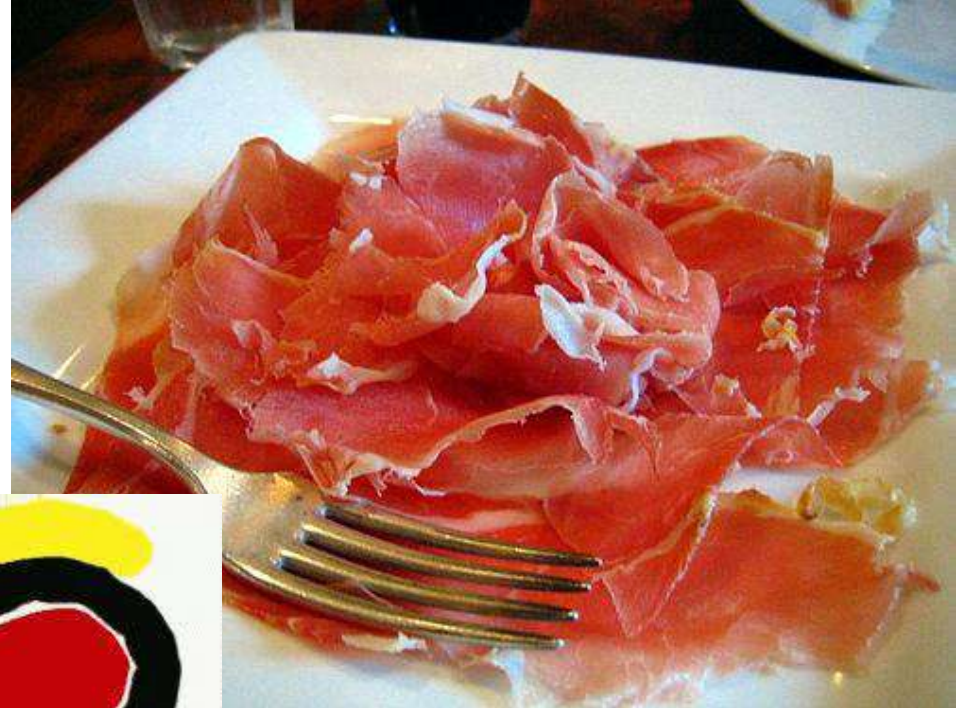


Source: *The Economist*











Turismo rural



Playa isla de la Toja, Galicia



Turismo cultural











500



© BCE ECB EZB EKT EKP 2001

Javier



500



500

500

500

500 EURO
ΕΥΡΩ

Corruption

- The urban corruption drags Spain to 40th place in the ranking of Transparency International
- Global Index of Corruption Perception ranks Spain next to Poland in 40th place out of 177 countries, with a score of 59 points, according to the Global Corruption Report by Transparency International (TI).

http://www.transparency.org/whatwedo/pub/cpi_2013

Economic Freedom

- Index of Economic Freedom ranks Spain 49 out of 178 countries. Lose 21 posts in this index. Government spending, the labor market and the protection of property rights, main drags on growth.

<http://www.heritage.org/index/>

Spain's corruption

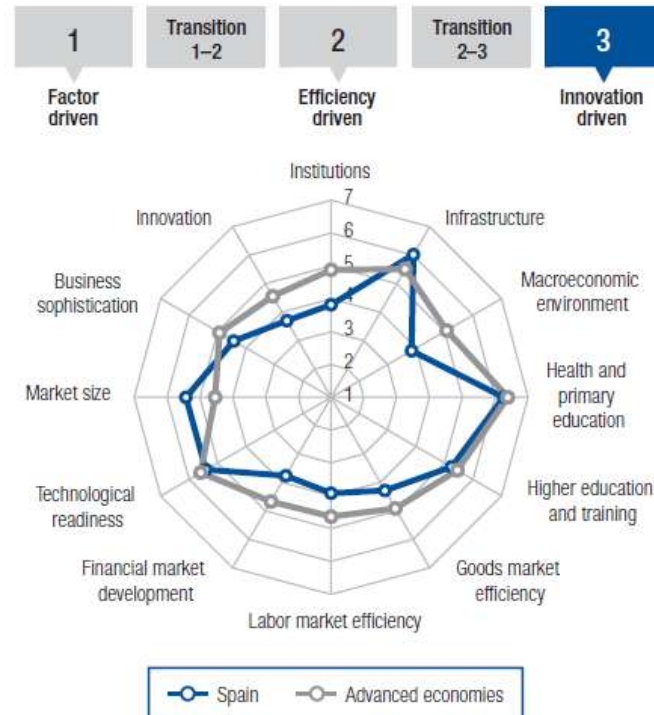


WEF.Global Competitiveness Index. Spain

Global Competitiveness Index

	Rank (out of 144)	Score (1–7)
GCI 2014–2015	35	4.5
GCI 2013–2014 (out of 148).....	35	4.6
GCI 2012–2013 (out of 144).....	36	4.6
GCI 2011–2012 (out of 142).....	36	4.5
Basic requirements (20.0%)	42	5.0
Institutions	73	3.8
Infrastructure	9	6.0
Macroeconomic environment	121	3.8
Health and primary education.....	34	6.3
Efficiency enhancers (50.0%)	31	4.7
Higher education and training.....	29	5.2
Goods market efficiency	75	4.3
Labor market efficiency	100	3.9
Financial market development	91	3.8
Technological readiness.....	27	5.4
Market size.....	14	5.4
Innovation and sophistication factors (30.0%)	39	4.1
Business sophistication	38	4.4
Innovation.....	37	3.7

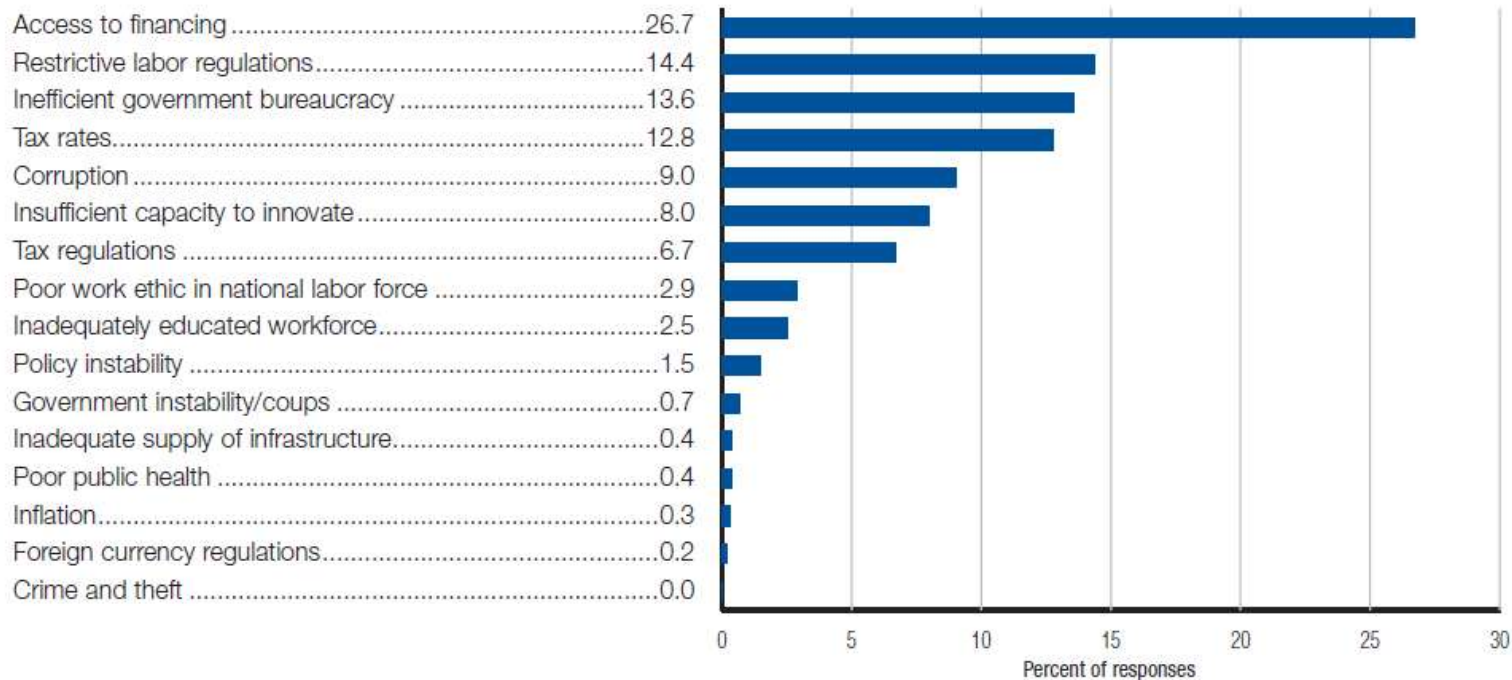
Stage of development



Source: The Global Competitiveness Report 2014–2015
World Economic Forum pp.342

WEF.Global Competitiveness Index Spain

The most problematic factors for doing business



Note: From the list of factors above, respondents were asked to select the five most problematic for doing business in their country and to rank them between 1 (most problematic) and 5. The bars in the figure show the responses weighted according to their rankings.

BALANCE SHEET SPAIN

Assets			Value	Rank/144
1st pillar: Institutions				
1.01	Property rights		4,7	47
1.02	Intellectual property protection		4,0	50
1.03	Diversion of public funds		3,2	69
1.05	Irregular payments and bribes		4,7	43
1.07	Favoritism in decisions of government officials		3,1	64
1.11	Efficiency of legal framework in challenging re		3,5	69
1.14	Business costs of crime and violence		5,5	30
1.15	Organized crime		5,7	46
1.16	Reliability of police services		5,9	18
1.17	Ethical behavior of firms		4,1	55
2nd pillar: Infrastructure				
2.01	Quality of overall infrastructure		6,0	12
2.02	Quality of roads		6,0	13
2.03	Quality of railroad infrastructure		5,9	5
2.04	Quality of port infrastructure		5,8	12
2.05	Quality of air transport infrastructure.....		6,0	12
2.06	Available airline seat kms/week, millions*	3552,0		10
2.07	Quality of electricity supply	6,4		23
2.09	Fixed telephone lines/100pop.....	41,1		25
3rd pillar: Macroeconomic environment				
3.03	Inflation, annual % change*	2,4		1
3.05	Country credit rating, 0-100 (best)*	57,8		50

Liabilities			Value	Rank/144
1st pillar: Institutions				
1.04	Public trust in politicians	1,8	2,3	101
1.06	Judicial independence	2,7	3,7	72
1.08	Wastefulness of government spending	2	2,6	113
1.09	Burden of government regulation	2,1	2,8	125
1.10	Efficiency of legal framework in settling disputes		3,7	70
1.12	Transparency of government policymaking	1	3,9	87
1.13	Business costs of terrorism	5,7	5,2	93
1.18	Strength of auditing and reporting standards	4	4,4	85
1.19	Efficacy of corporate boards		4,3	93
1.20	Protection of minority shareholders' interests	4	4,0	79
1.21	Strength of investor protection, 0-10(best)*		5,0	84
2nd pillar: Infrastructure				
2.08	Mobile telephone subscriptions/100 pop.*	109,2	108,3	76
3rd pillar: Macroeconomic environment				
3.01	Government budget balance, % GDP*	-4,	-10,3	145
3.02	Gross national savings, % GDP*	24,	18,6	78
3.04	General government debt,% GDP*		84,1	132

BALANCE SHEET SPAIN

Assets			Value	Rank/144
4th pillar: Health and primary education				
4.01 Business impact of malaria	N/A	Appl		1
4.02 Malaria cases/100,000 pop.*		(NE)		1
4.03 Business impact of tuberculosis	6,7			10
4.04 Tuberculosis cases/100,000 pop.*	15,0			35
4.05 Business impact of HIV/AIDS	6,4			15
4.07 Infant mortality, deaths/1,000 live births*	3,5			20
4.08 Life expectancy, years*	82,3			5
4.09 Quality of primary education	4,04			66
4.10 Primary education enrollment, net %*	99,7			8
5th pillar: Higher education and training				
5.01 Secondary education enrollment, gross %*	128,5			2
5.02 Tertiary education enrollment, gross %*	82,6			8
5.05 Quality of management schools	5,8			4
5.06 Internet access in schools	4,9			46
5.07 Availability of research and training service	4,8			30
6th pillar: Goods market efficiency				
6.01 Intensity of local competition	5,5			28
6.02 Extent of market dominance	4,4			27
6.03 Effectiveness of anti-monopoly policy	4,4			47
6.09 Prevalence of trade barriers	4,7			37
6.10 Trade tariffs, % duty*	0,8			4
6.11 Prevalence of foreign ownership	5,0			54
6.13 Burden of customs procedures	4,9			31
6.15 Degree of customer orientation	4,6			62
6.16 Buyer sophistication	3,5			63

Liabilities			Value	Rank/144
4th pillar: Health and primary education				
4.06 HIV prevalence, % adult pop.*	0,40			78
5th pillar: Higher education and training				
5.03 Quality of the educational system	3,6			77
5.04 Quality of math and science education	3,9			88
5.08 Extent of staff training	3,7			97
6th pillar: Goods market efficiency				
6.04 Effect of taxation on incentives to invest	3,1			118
6.05 Total tax rate, % profits*	38,7			74
6.06 No procedures to start a business*	10			116
6.07 No days to start a business*	28			105
6.08 Agricultural policy costs	3,6			101
6.12 Business impact of rules on FDI	4,3			93
6.14 Imports as a percentage of GDP*	31,2			121

BALANCE SHEET SPAIN

Assets			Value	Rank/144
7th pillar: Labor market efficiency				
7.04	Redundancy costs, weeks of salary*		8	24
7.07	Reliance on professional management		4,5	51
7.10	Women in labor force, ratio to men*		0,82	67
8th pillar: Financial market development				
8.01	Availability of financial services		5,1	37
8.02	Affordability of financial services		4,4	53
8.08	Legal rights index, 0-10 (best)*		6	65
9th pillar: Technological readiness				
9.01	Availability of latest technologies		5,8	33
9.02	Firm-level technology absorption		5,0	49
9.03	FDI and technology transfer		4,8	53
9.04	Individuals using Internet, %*		72,0	34
9.05	Broadband Internet subscriptions/100 pop.*		24,3	25
9.06	Int'l Internet bandwidth, kb/s per user*		81,3	26
9.07	Mobile broadband subscriptions/100 pop.*		53,2	24
10th pillar: Market size				
10.01	Domestic market size index, 1-7 (best)*		5,3	14
10.02	Foreign market size index, 1-7 (best)*		5,8	19
10.03	GDP (PPP\$billions)*		1410,6	14

Liabilities			Value	Rank/144
7th pillar: Labor market efficiency				
7.01	Cooperation in labor-employer relations		4,0	107
7.02	Flexibility of wage determination		4,0	131
7.03	Hiring and firing practices		3,3	123
7.05	Effect of taxation on incentives to work		3,0	121
7.06	Pay and productivity		3,1	132
7.08	Country capacity to retain talent		2,9	108
7.09	Country capacity to attract talent		2,9	102
8th pillar: Financial market development				
8.03	Financing through local equity market		2,9	101
8.04	Ease of access to loans		1,8	138
8.05	Venture capital availability		2,3	105
8.06	Soundness of banks		4,0	127
8.07	Regulation of securities exchanges		3,9	88
9th pillar: Technological readiness				
10th pillar: Market size				
10.04	Exports as a percentage of GDP*		31,9	91

Assets			Liabilities		
	Value	Rank/144		Value	Rank/144
11th pillar: Business sophistication			11th pillar: Business sophistication		
11.01 Local supplier quantity	5,3	19	11.09 Willingness to delegate authority	3,8	70
11.02 Local supplier quality	5,1	26			
11.03 State of cluster development	4,2	42			
11.04 Nature of competitive advantage	4,2	33			
11.05 Value chain breadth	4,7	23			
11.06 Control of international distribution	4,3	45			
11.07 Production process sophistication	4,5	36			
11.08 Extent of marketing	4,7	36			
12th pillar: Innovation			12th pillar: Innovation		
12.01 Capacity for innovation	3,7	57	12.05 Gov't procurement of advanced tech products ..	3,2	102
12.02 Quality of scientific research institutions ..	4,6	36			
12.03 Company spending on R&D	3,4	50			
12.04 University-industry collaboration in R&D ..	4,0	48			
12.06 Availability of scientists and engineers	5,2	11			
12.07 PCT patents, applications/million pop.*	39,2	25			

Assets			Value	Rank/144
11th pillar: Business sophistication				
11.01	Local supplier quantity		5,3	19
11.02	Local supplier quality		5,1	26
11.03	State of cluster development		4,2	42
11.04	Nature of competitive advantage		4,2	33
11.05	Value chain breadth		4,7	23
11.06	Control of international distribution		4,3	45
11.07	Production process sophistication		4,5	36
11.08	Extent of marketing		4,7	36
12th pillar: Innovation				
12.01	Capacity for innovation		3,7	57
12.02	Quality of scientific research institutions ..		4,6	36
12.03	Company spending on R&D		3,4	50
12.04	University-industry collaboration in R&D ..		4,0	48
12.06	Availability of scientists and engineers		5,2	11
12.07	PCT patents, applications/million pop.*		39,2	25

[illegible]

THE HUMAN CAPITAL INDEX: COUNTRY PROFILE

Spain

Rank/122 Score

Human Capital Index 2013

29 0.465

Pillar 1: Education

31 0.590

Pillar 2: Health and wellness

12 0.778

Pillar 3: Workforce and employment

70 -0.185

Pillar 4: Enabling environment

28 0.679

Key Indicators

Total population (1,000s)

46,182.0

Median age of population

40

GDP per capita PPP (constant 2005, international \$)

26,545

GDP growth (annual %)

-1.4

IBEX 35

Telecomunications

Telecinco
Telefónica
Amadeus

Construction infrastructure

- Abertis
- Acciona
 - ACS
- Ferrovial
 - Sacyr
 - OHL

Financial services

- BBVA
- Banco de Sabadell
- Banco Popular
- Banco Santander
 - Bankinter
 - BME
- MAPFRE
- CaixaBank

Engineering

Abengoa
Acerinox
Técnicas
Reunidas
Gamesa
Indra
Arcelor Mittal

Energy/renewal energy

Gas Natural
Iberdrola
Red Eléctrica
Repsol
Enagás
Endesa

Others

Ebro Foods
Grifols
Inditex
Día

Changing the economic model.

FROM A MODEL BASED ON THE CONSTRUCTION, TOURISM AND SERVICES TO A MORE KNOWLEDGE- INTENSIVE MODEL.

FEATURES OF THIS NEW MODEL: very selective agriculture, very important industry with low environmental costs focused on exports because their advanced technology, not too much construction, and especially many more services of high value added.

CURRENT MODEL FEATURES: weak primary production (3% of GDP), construction hypertrophy (12% of GDP), industry & energy production (17% of GDP) that basically focuses its exports on the car and its parts, but based on models of second technological level. Finally services concentrated around tourism and the public sector (68% of GDP).

Spain

M.Rajoy 

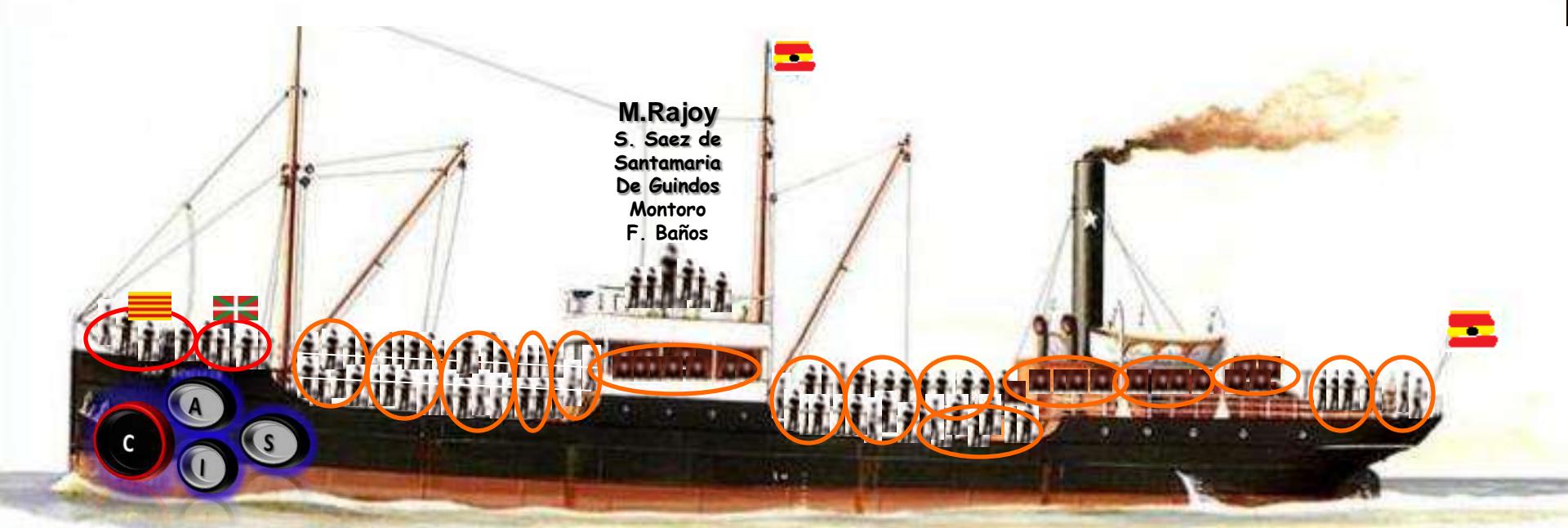
S. Saez de
Santamaria
De Guindos
Montoro
F. Baños



- Construction
- Primary Sector
- Services
- Industry

Population	
40.000.000	} 47.000.000
5.500.000	
1.500.000	

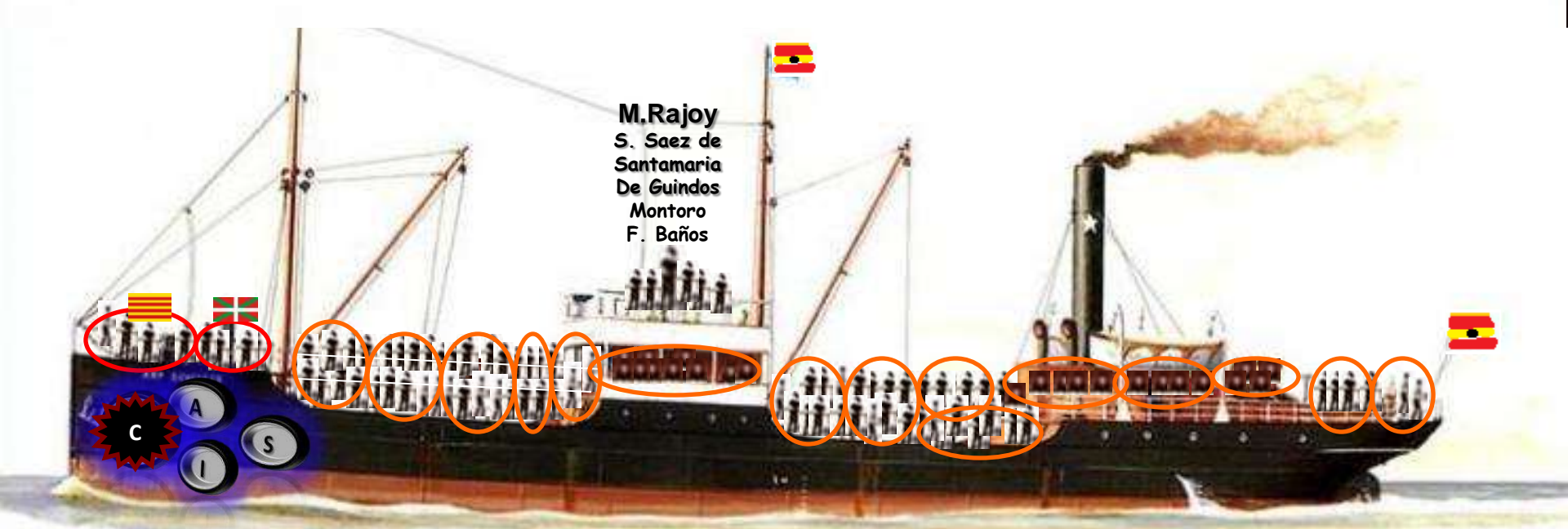
Spain



C, A, S, I
Population: 47 millions

17 autonomous regions

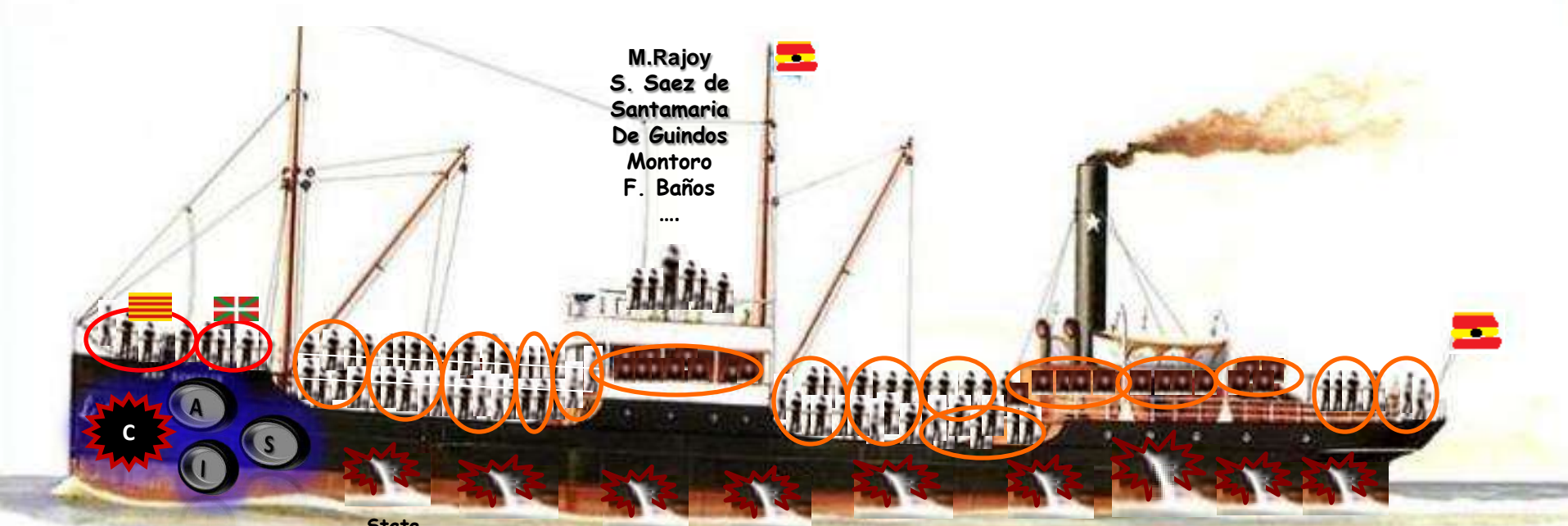
Spain



C, A, S, I
Population :47 millions
17 autonomous regions

Real state bubble

Spain



State
Model

Public
debt and
deficit

Labour
Reform

Current
account
balance
deficit

Energy
System

Educational
System

Financial
System

Justice

Retirement
Pensions

C A S I

Population: 47 millions

17 autonomous regions

Real State bubble

2008

2011

1.667.865 ltd companies

1.455.255 ltd companies
(-20%)

Underground Economy 20-25% GDP
23% Unemployment (49.6% youth unemployment)

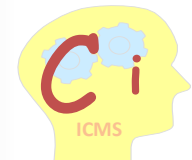
Foreign debt = ± 1.670.000 millions €

Total debt = ± 3,300,000 Millions €

Net external debt = 970.000M € (90% GDP)

Innovative companies = 13.000 (should be 40.000)

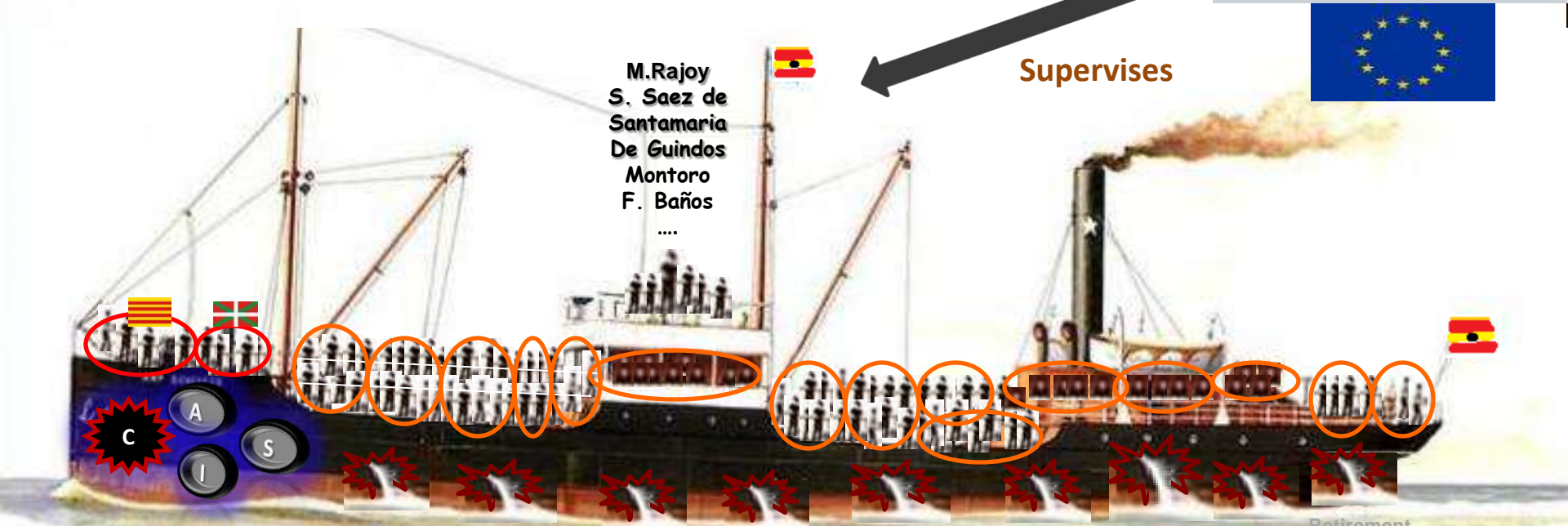
R+D Investment = 7 billions (should be 14 billions) © José María Viedma Martí 2015



Spain



Supervises



M. Rajoy
S. Saez de
Santamaria
De Guindos
Montoro
F. Baños
....

CASI

State
Model

Public
debt and
deficit

Labor
Reform

Current
account
balance
deficit

Energy
System

Educational
System

Financial
System

Justice

Retirement
Pensions

Population: 47 millions
17 autonomous regions
Real State bubble
-20% limited companies

Innovative companies 13 mil (40 mil)

R+D Investment 7 billions (14 billions)

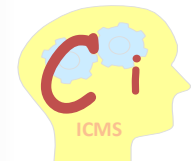
Underground economy 20-25% GDP

26% Unemployment (55% Youth unemployment)

Foreign debt \pm 1.670.000 millions € =

Total debt 4.000.000 Millions €

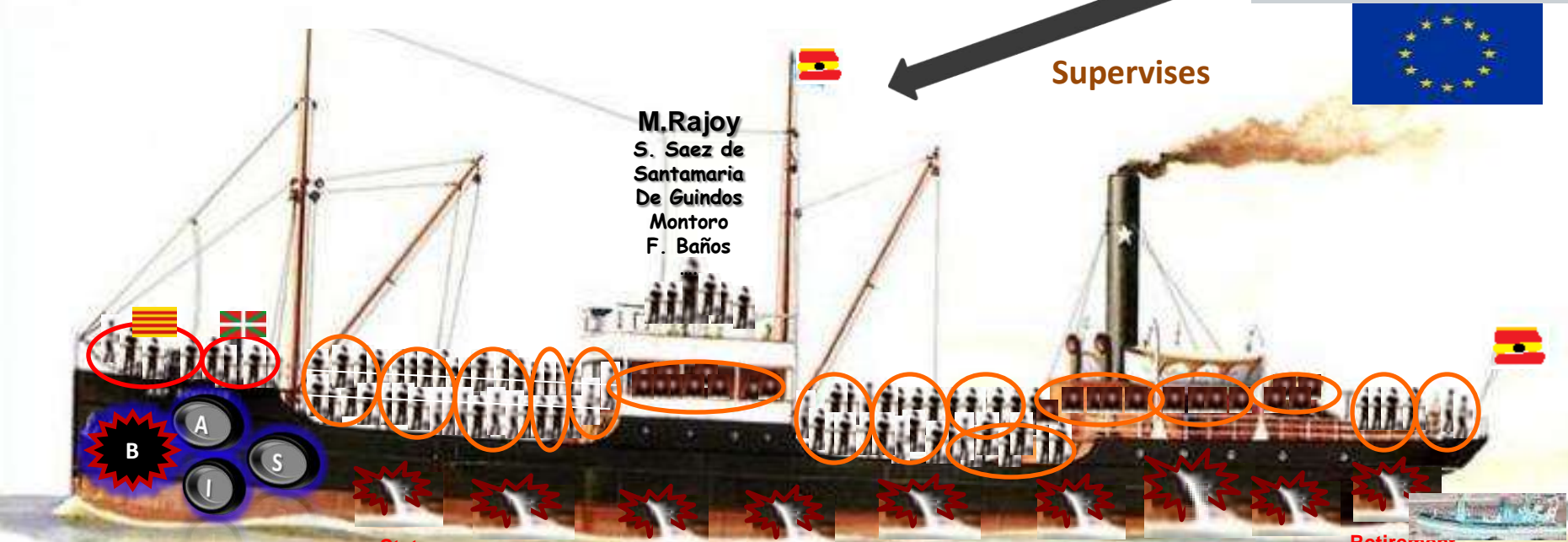
© José María Viedma Martí 2015



Spain



Supervises



C A S I

Population: 47 millions

17 autonomous regions

Real State bubble

-20% limited companies

Innovative companies 13 mil (40 mil)

R+D Investment 7 billions (14 billions)

Underground economy 20-25% PIB

26% Unemployment (55% Youth unemployment)

Foreign debt \pm 1.670.000 millions € =

Total debt 4.000.000 Millions €

State Model

Public debt and deficit

Labor Reform

Current account balance deficit

Energy System

Educational System

Financial System

Justice

Retirement Pensions



SPAIN

ASSETS

First class infrastructure
Health and primary education
Tourism economic sector (1°pillar)
Construction, real estate and infrastructure (2° pillar)
Full member of the EU and Euro zone
Some first class multinationals but not enough
Higher education and scientific system
Free market economy
Democratic political system
Financial sector reform

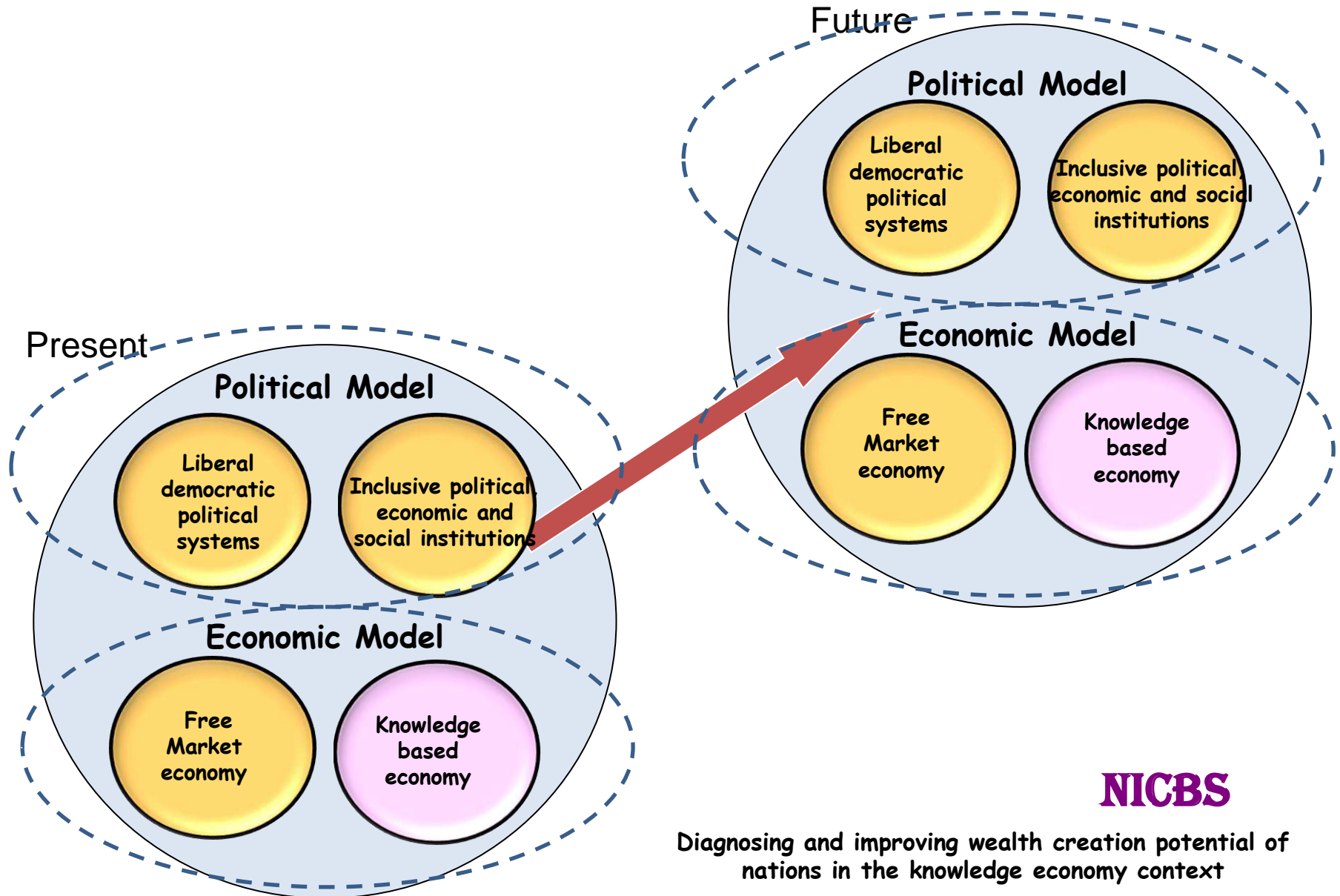
LIABILITIES

- No economic model
- Not enough competitive companies
- Not enough knowledge intensive companies.
- High rate of unemployment
- The three bubbles(financial, real estate ,and state)
- Growth without technological change
- Government budget deficit
- Government debt and private debt.
- Total debt and net debt.
- English as a second language
- Labor market reform
- State model(state bubble not yet burst)
- Innovation systems
- Public trust in politicians
- Judicial independence and efficiency.
- Wastefulness of government spending
- Corruption.(transparency international)
- Too small manufacturing sector
- Big underground economy

In summary : there is a need for transforming
Spain into a more competitive, innovative and
Knowledge intensive economy

6. Conclusions.

STRATEGY PERSPECTIVE

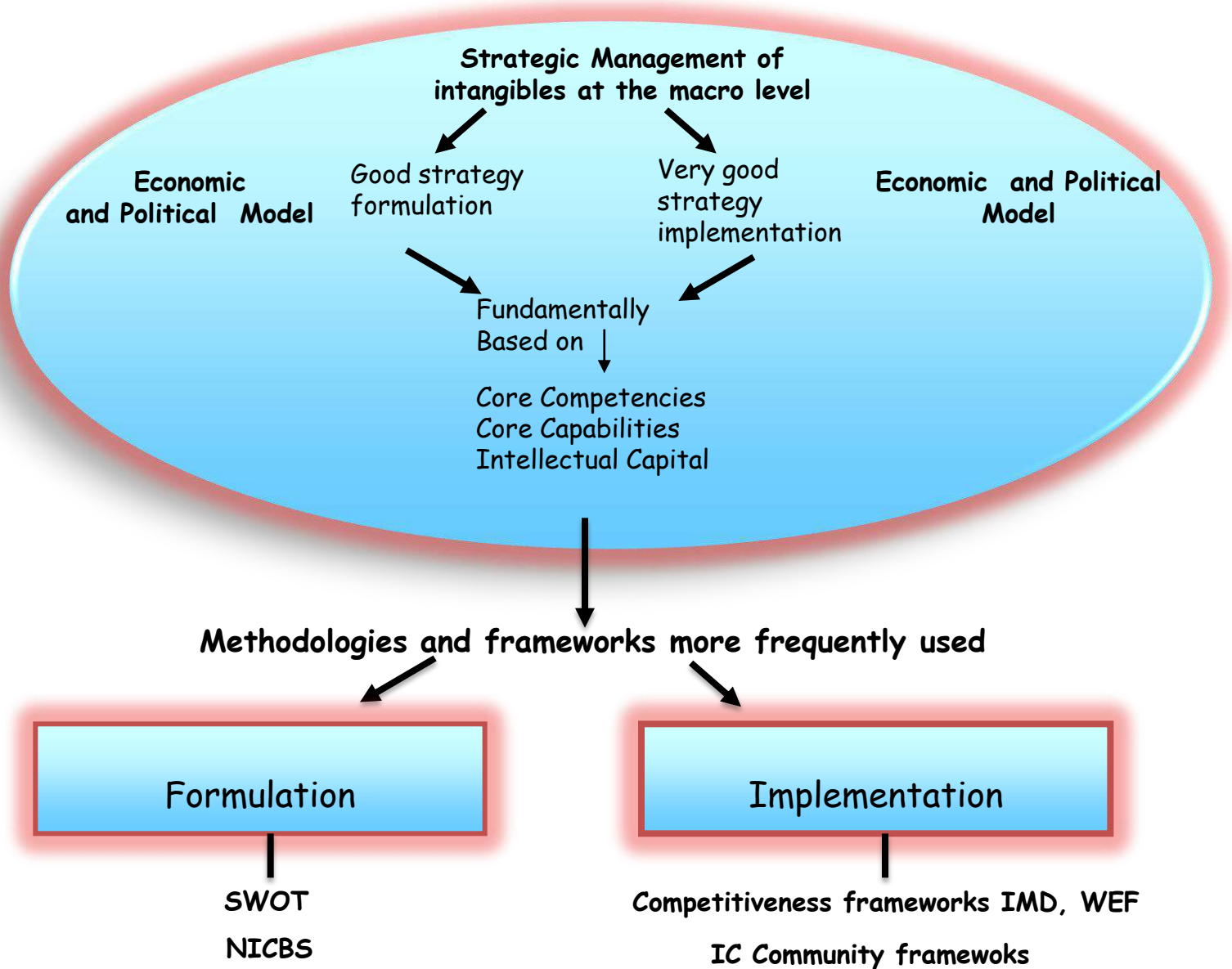


NICBS

Diagnosing and improving wealth creation potential of nations in the knowledge economy context

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Improving nation's wealth creation potential in the KE



Conclusions

1. There is no established body of wealth creation theory in the Knowledge Economy context at the macro level .
2. The existing body of theory is mainly based on the Austrian School of Economics theory, and the contributions of other relevant theories such as endogenous growth, competitiveness, and KBD (I&E,C&S,ST,SI,TH,RS).
3. Based on these bodies of theories the paper tries to formulate principles of wealth creation in the KE context. Unfinished work.
4. There are two sets of practical methodologies or frameworks for diagnosing and improving wealth creation potential of nations in the KE context:
 - a) Competitiveness frameworks
 - b) IC community frameworks
5. NICBS methodology or framework is proposed as a more suitable alternative for diagnosing and improving wealth creation potential, because it is focused on strategy formulation and is mainly inspired by the principles of wealth creation that have been mentioned in point 3.
6. Finally strategic management of intangibles or IC at the macro level is considered the best way to improve wealth creation potential of nations.