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#### RICBS: Regions' Intellectual Capital Benchmarking System

A methodology and a framework for measuring and managing intellectual capital of regions.

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#### The Context

In the past, the vision, objectives, and goals of regions have been determined mainly by considering tangible assets as the main factors of a regions' prosperity.

In the knowledge economy, the role of intangible assets in wealth creation has become fundamental

As a result a framework for intangible assets strategic management that allows navigation from the present reality to the future vision has become an urgent need for all regions.



#### Two parts of the presentation

1st. Part. -Development of RICBS a specific methodology and a framework for strategic management of intellectual capital of regions.

2<sup>nd</sup>.Part. -Practical application of RICBS in the region of Maresme.

-Providing some details of the first regions' intellectual capital report.



#### 1st. Part.

Development of RICBS a specific methodology and a framework for strategic management of intellectual capital of regions.



## Economic Growth Focus in the KE



World Core

Innovation and learning capacity. (Knowledge—sp. tacit)

Networks. (Internationalisation of global production systems)

Regions. (Industrial clustering)



#### KE DOMINANT PARADIGMS

# 1. Competitiveness = F (capacity to innovate)

The ability of an economy (country/region) to innovate does not depend only on the performance of a group of actors considered individually (firms, universities, govern institutions, etc.), but *fundamentally on how they interact as a system*. (NIS/RIS)

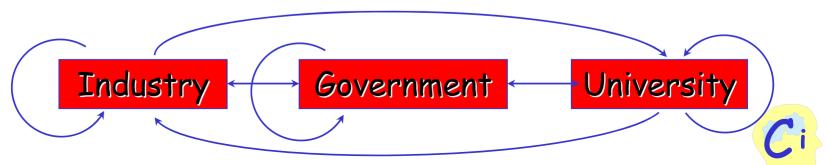


Source: B. Martins, J. M. Viedma

### KE DOMINANT PARADIGMS

- 2. Networks as a key feature of an economy's innovation capacity and dynamics.
  - Enable access to tacit knowledge.
  - Avoid potential risks of lock-in.
  - Foster collaborative culture. (*Trustworthiness*)





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### KE DOMINANT PARADIGMS

- 3. Focus on the <u>regional</u> dimension of economic growth.
  - Regional location of industrial clusters.
  - Enables and fosters interaction within the triple helix, spillovers, etc.(*Tacit knowledge*).
  - Stimulates the development of shared norms, values and beliefs consistent with innovation and collective learning.
  - A more active role of regions in innovation policy formulation. (*EU financing*).

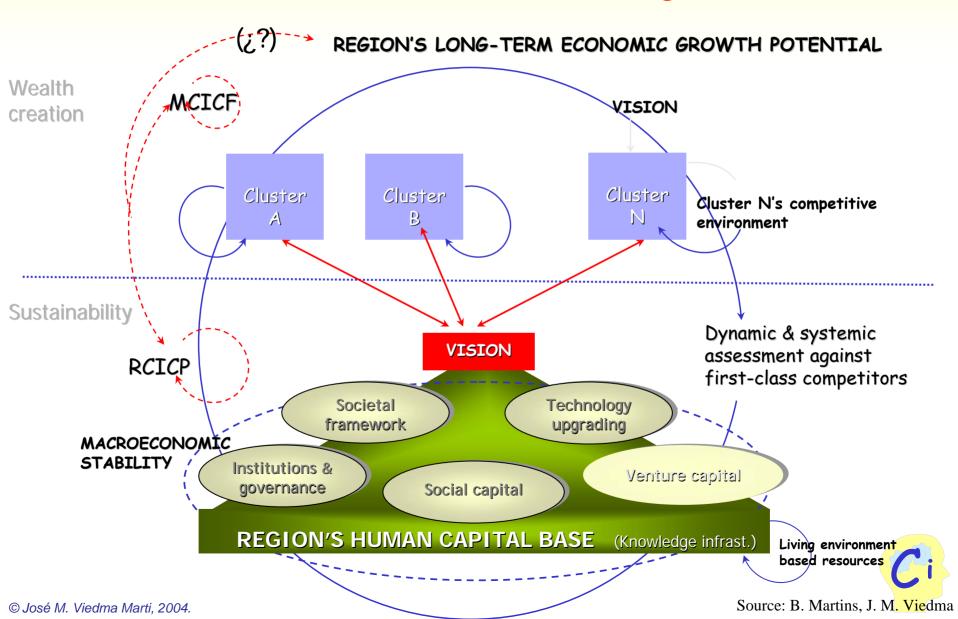
Source: B. Martins, J. M. Viedma

## Being competitive means the region ...

- Knows what it is *competing for*.
- Can develop a strategy process that <u>binds</u> together different visions and strategies.
- Can *mobilise* resources and capabilities as well as develop new ones.
- Is able to <u>link</u> itself to knowledge networks.
- Is capable of *recreating* its institutions.



## RICBS: Main Structure & Key Elements



## Region's IC Benchmarking System (RICBS)

## What is it?

A <u>learning strategy tool</u> to help regions, and the microclusters within them, lead their way to more competitive KEs. (Benchmarking).

✓ Main theoretical foundations: New economics regionalism, national/regional innovation systems, and IC.



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## What does RICBS aim at?

- ✓ Enabling <u>in-depth diagnosis</u> of the region's actual knowledge-driven competitiveness foundations.
- ✓ Aiding in the definition of the <u>possible vision</u>, objectives and lines of action to embrace <u>sustainable economic growth</u>.
- ✓ Developing awareness of a region's <u>potential</u> <u>risks and opportunities</u>.

Source: B. Martins, J. M. Viedma

# RICBS main components:

✓ RCICP (Region's Competitiveness Intellectual Capital Platform)

The bundle of intangibles that sets up the intangible platform to enabling wealth creation at microclusters. (Sustainability)

✓ MCICF(Microclusters' Competitiveness Intellectual Capital Frame)

The same conceptual framework as that of the RCICP, but *for each specific microcluster*. (Wealth creation)

✓ RCICP-MCICF linkages. (Sustainability)

Source: B. Martins, J. M. Viedma

### Table 1- RCICP Building Blocks & Indicators (Ex.)

Blocks	Indicators	Data source
Economy performance  ·Macroec. stability  ·Economic struct.& openness. Etc.  Societal framework	Inflation Real GDP growth Unemployment Resilience of the economy	Hard/soft Regional stats.
<ul> <li>Justice</li> <li>Private property</li> <li>Social cohesion</li> <li>Gender income ratio. Etc.</li> </ul> Institutions & governance	Is fairly administered Adequately protected Is a priority for the government Ratio of total estimated female to male income earned	Hard/soft IMD, WEF, etc.
<ul> <li>Business assoc., labour unions, etc.</li> <li>Consensus on policy direction</li> <li>Legal framework/business legislation</li> <li>Bribing and corruption. Etc.</li> </ul>	N°, quality of leadership, etc. Effectiveness Environment for competitiveness Does not exist in the economy	Hard/soft IMD, WEF, etc.
Human capital  ·Competencies  ·Values and attitudes	Total public expenditure on educ. Meets needs competitive econ. National culture supports business development. Etc.	Hard/soft IMD, RICBS, WVS, etc.
Technol./Social capital./Etc.	•	

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#### 2nd.Part.

Practical application of RICBS in the region of Maresme.

Providing some details of the first regions' intellectual capital report.



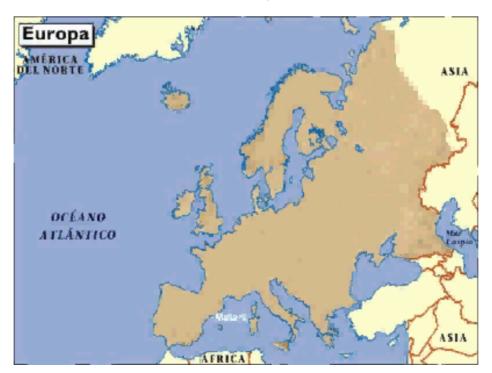
#### Practical application in the Maresme region.

- ICMM project (Intellectual Capital Management of the Maresme region).
- ICMM project objectives:
  - 1) To finalize and coordinate the different initiatives of Maresme in orientating the region towards the information and the knowledge society.
  - 2)To have a strategic planning navigation framework in the intangibles domain.



#### The Maresme region.

- > Located in the north-east of Spain.
- > The capital of the Maresme region is Mataró
- Mataró has 104.880 inhabitants and 22,6 square kilometres.
- 28 kilometres north of Barcelona.
- Part of the metropolitan region of Barcelona.
- Capital of the Maresme region (300.000 inhabitants, 397 square kilometres).
- Area of high economic and tourist development.





#### Antecedents of the ICMM project.

Macro projects

Master plan for the Information Society in Mataró 1999.

Mataró, knowledge city, January 2002.

Institutions

Tecnocampus Mataró.

Institutions strengthened.

IMPEM
PUMSA
EUPM
CETEMMSA



#### Maresme General Intellectual Capital Model.

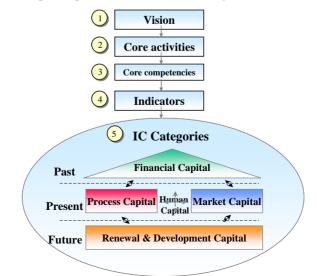
- ❖ Covers the intellectual capital platform, which is common to all the relevant economic activities of Maresme region.
- ❖ Information and data for the initiation of the I.C. platform provided by:
  - -the two macroprojects
  - -the observatory of Mataro's information society.
  - -the Municipal Institute for Economic Promotion.
- \* No benchmarking of IC indicators in the first step.
- \* Benchmarking has to be done in the future with the most advanced regions in terms of innovation, information and telecommunications technologies and knowledge management.



# RICBS Region's Intellectual Capital Benchmarking System

Regions' specific Intellectual Capital Model Microcluster Nº1 Microcluster N°2 Microcluster N°3 Microcluster No X Vision Vision Vision Vision Segment Segment Segment Segment demand demand demand demand Output Output Output Output Products and Products and Products and Products and services services services services **Processes Processes** Processes Processes Core Core Core Core competencies competencies competencies competencies Innovation Innovation Innovation Innovation infrastructure infrastucture infrastucture infrastucture

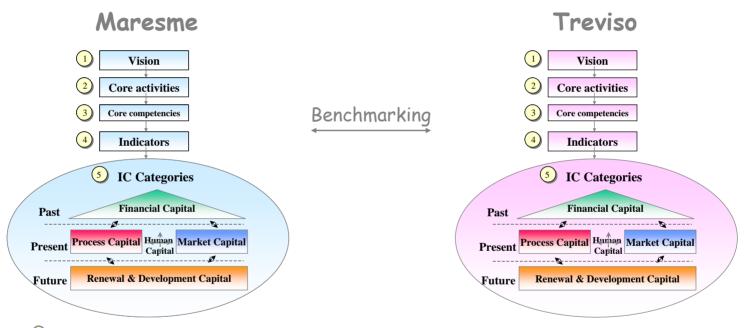
Region" general Intellectual Capital Model





#### Regions' general Intellectual Capital Model (CGICM)

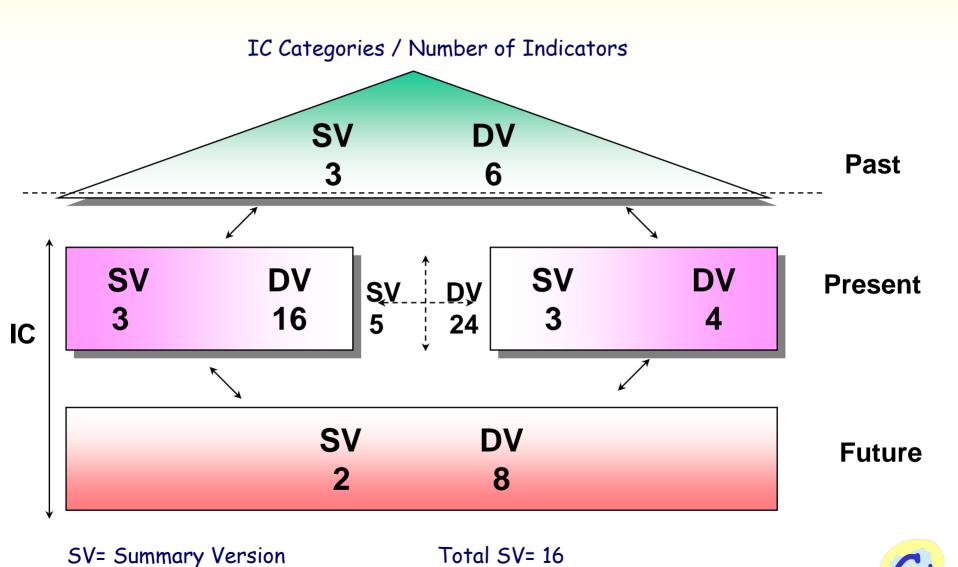
Common and general knowledge - an intellectual capital platform - that strengthens the existing microclusters of a region and nurtures the building of new ones.



- Creating the vision.
- 2. Identifying the core activities needed to realize the vision.
- 3. Identifying the core competencies needed to realize the core activities.
- 4 Identifying the indicators for each core activity and each core competence.
- 5. Assembling the indicators into different intellectual capital categories.



#### Maresme General Intellectual Capital Model.



Total DV=58

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DV= Detail Versión

#### Maresme General Intellectual Capital Balance Sheet.

RI CBS

#### Maresme General Intellectual Capital Balance sheet (summary)

DIVIGIONO	PREVIOUS	PREVIOUS	PERIOD	VALUE	MEASURE UNIT
DIVISIONS	PERIOD	VALUE			
FINANCIAL CAPITAL					
GDP (market prices)	1991	817,81	1996	1064,06	Millions of euros
Household's disposable income	1991	6.022,7	1996	8.550,6	euros per capita
GDP per capita	1991	8058	1996	10430	euros
HUMAN CAPITAL					
University/College + secondary studies	1991	17,14%	1996	22,1%	Percentage
Habitual internet users	october-1998	11%	september 2001	27,9%	Percentage
Percentage of qualified workers			1991	26,50%	Percentage
Activity rate	1991	56,98%	1996	55,67%	Percentage
Gini Index	1989	0,387	1994	0,368	Index
PROCESS CAPITAL					
Service sector development					Percentage
Salaried workers in the high knowledge sector (%)			1st quater 2002	37,7%	Percentage
Percentage of firms with internet connection	october-1998	24,1%	september 2001	66,7%	Percentage
MARKET CAPITAL					
Self-containment	1991	79,53%	1996	72,28%	Percentage
Self-sufficiency	1991	81,91%	1996	75,93%	Percentage
Exports/imports ratio			2000	0,68	Ratio
RENOVATION CAPITAL					
Youth rate	1996	16,99%	1 january 2002	14,21%	Percentage
New firms registered for taxation	1997		1r quater 2002	3.382	Firms

#### Maresme General Intellectual Capital Balance Sheet.

RI CBS

## Maresme General Intellectual Capital Balance sheet. Human Capital detail

	PREVIOUS	PREVIOUS			
DIVISIONS	PERIOD	VALUE	PERIOD	VALUE	MEASURE UNIT
HUMAN CAPITAL					
University/College + secondary studies	1991	17,14%	1996	22,1%	Percentage
Continous education (adult participation rate)					
Illiteracy rate	1991	6,34%	1996	4,73%	Percentage
Habitual computer users	october-1998	nd	september 2001	43,7%	Percentage
Habitual internet users	october-1998	11%	september 2001	27,9%	Percentage
Life expectancy	1999-1995	79,65	2001-1997	80,12	Years
Percentage of qualified workers			1991	26,50%	Percentage
Activity rate	1991	56,98%	1996	55,67%	Percentage
Activity rate. Men	1991	71,71%	1996	68,87%	Percentage
Activity rate. Women	1991	43,11%	1996	43,14%	Percentage
Activity rate. Young. 15-24	1991	61,17%	1996	53,82%	Percentage
Activity rate. Adults. 25-54	1991		1996		Percentage
Activity rate. Adults. 55-64	1991		1996		Percentage
Library visits			2000	280.040	People
Cultural entities and organizations	1999	189	2000	203	Number of entities
Cinema capacity /1000 inInhabitants	1999	36,82	2001	32,91	Seats / 1.000 inhab.
Theatre capacity/1000 inInhabitants	1999	7,78	2001	7,52	Seats / 1.000 inhab.
Cultural entities/ 1000 Inhabitants	1999	1,80	2000	1,92	Entities / 1.000 inhab.
Abstencions rate over the total electoral roll	1996	21,16%	marzo 2000	33,7%	Percentage
Gini Index	1989	0,387	1994	0,368	Index
People receiving poverty subsidy	1999	296	2002	236	People
Registered unemployment rate					Percentage
Female unemployment rate					Percentage

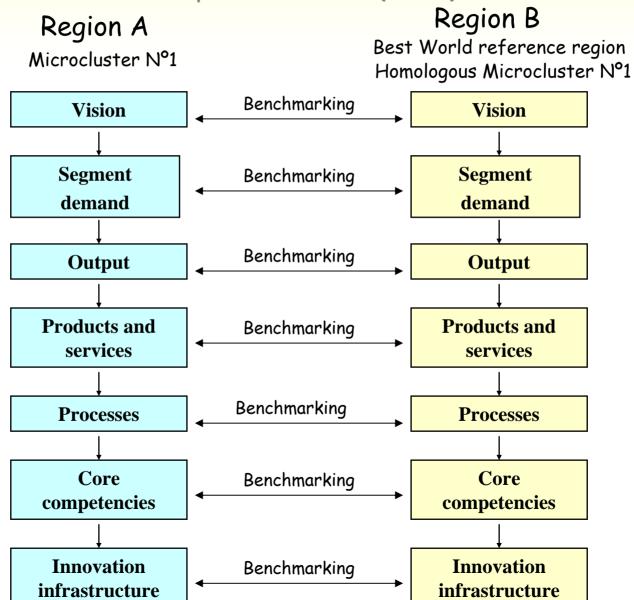
#### Maresme Specific Intellectual Capital Model.

- ✓ Identification of the relevant microclusters.
- ✓ The microclusters identified were the following:
  - -Textile (knitwear) (23% of the working population)
  - Construction.
  - Retail trade.
  - Education and training.
- ✓ Evaluation of the RSIC model factors and criteria through ad hoc questionnaires to experts and companies.
- ✓ In the best world region microcluster, evaluation of the homologous factors and criteria using the same questionnaires.
- ✓ Comparison of the corresponding results (Benchmarking).
- ✓ Reliability indexes or accuracy level indexes.



#### Regions' specific Intellectual Capital Model (RSICM)

Draws inspiration from ICBS (Viedma)





#### Regions' specific Intellectual Capital Model (RSICM)

#### Microcluster Nº 1

History (Narrative description)

Present situation (Narrative description)

Factors	Content of the factors	Indicators and sources of information
Vision	- The microcluster we would like to have in the future	Soft data
Segment demand	-Classification of the different types of demand	Soft data
Output	-Segment demand evaluation	Hard data
Products and services	-For each type of demand , functions and attributes of products and services	Soft data
Processes	-Value chain activities and competencies for each type of demand.  Customer  need  Design  Develop  Make  Market  Service  need  Satisfied  Core activities  Core competencies  Core competencies	Soft and hard data
Core competencies	-Core competencies for each value chain within each type of demand.	Soft data
Innovation infrastructure	-Specific microcluster innovation institutional infrastructure	Soft and hard data



#### Maresme Specific Intellectual Capital Balance Sheet.

Factors	Maresme	e Treviso Maresme Treviso									Maresme											
Employees per firm			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
1 a 5	2	1																				
5 a 10	2	1																				
10 a 25	3	3																				
25 a 50	2	4																				
50 a 100	1	1																				
100 o >	1	1																				
Accuracy level	82%	50%																				
Demand type			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
Final consumer	1	2																				
Distributors	2	4																				
Departamental Stores	2	1																				
Other textile producers	2	1																				
Own stores	1	2																				
Multibrand stores	3	2																				
Accuracy level	80%	50%																				
Products and services			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
Quality	7																					
Price	6	9																				
Fashion	6	9																				
Accuracy level	70%	50%																				

#### Maresme Specific Intellectual Capital Balance Sheet.

Factors	Maresme	Treviso	Maresme												•	Гre	vis	50				
Innovation			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
In the product	7	9																				
In the process	6	8																				
Accuracy level	80%	50%																				
Processes			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
Spinning	2	0																				
Finishing	1	0																				
Design	5	8																				
Wearing	5	2																				
Marketing and distribution	4	8																				
Accuracy level	80%	50%																				
Product type			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10
Men's underwear	1	0																				
Women's underwear	1	0																				
Men's outwear	2	8																				
Women's outwear	3	9																				
Children	2	2																				
Sport	1	1																				
Accuracy level	76%	50%																				

#### Maresme Specific Intellectual Capital Balance Sheet.

Factors	Maresme	Maresme Treviso Maresme					Maresme										reviso Maresme						i	Гre	vis	
Distribution channels			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10				
Own stores	1	2																								
Franchises	1	2																								
Salesmen	2	8																								
Representatives	6	9																								
Accuracy level	76%	50%																								
Core competencies			10	9	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	9	10				
Own brand development	5	8																								
Outsourcing degree	5	7																								
Local outsourcing degree	8	4																								
Labour force qualification	5	7																								
Export potential	4	7																								
IT use	5	7																								
Technological development	4	6																								
Institutional frame	7	8																								
Accuracy level	81%	50%																								
Total accuracy level	78%	50%																								



#### **CONCLUDING REMARKS**

- ✓ In the KE, regions are claimed to be the appropriate "strategy sites of intervention".
- ✓ The road to a region's <u>sustainable</u> economic growth and social welfare is contingent on its capacity to <u>innovate in a systematic way</u>.
- ✓ Attaining such competitive stage means the region builds on ...
  - ... A strong knowledge platform. (RCICP—macro-level analysis).



### CONCLUDING REMARKS

#### Cont.

- ... Competitive and innovative microclusters. (MCICF micro-level of analysis)
- ... Strong linkages between the two subsystems.
- ... And, a strategy tool to systematically and critically assess the whole against first-class competitors.
- Finally, to endure in this process requires that regional leaders be capable of mobilising and engaging the region's key stakeholders behind a shared vision and objectives.

Source: B. Martins, J. M. Viedma