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DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION

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## **Seminar**

### **Addressing Information Gaps in Business and Macro-Economic Accounts to Better Explain Economic Performance**

**New York, 23 – 24 June 2008**  
United Nations, Conference room C

**Providing better information to capital markets to improve valuation decisions**  
**Stefano Zambon**





UNITED NATIONS

United Nations Statistics Division

Seminar on  
“Addressing Information Gaps in Business and Macro-Economic Accounts to  
Better Explain Economic Performance”

*Providing Better Information to Capital Markets  
to Improve Valuation Decisions: A Technical  
View on the Reporting of Intellectual Capital*

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# AGENDA

- 1) Intangibles and the emerging notion of Intellectual Capital
- 2) The traditional measurement approach to intangibles (the “problem”)
- 3) The new approach
- 4) International initiatives
- 5) Concluding remarks



# 1. INTANGIBLES & THE EMERGING NOTION OF INTELLECTUAL CAPITAL

# The New Value Creation Process and Its Implications

- Change in company production processes
- Strategic aspects are research and innovation, marketing and know-how, customer relationship, entrepreneurial and managerial skills and not so much manufacturing à
- All phases and activities where intangibles are key
- Today, intangibles are the main drivers of sustainable value creation over time

# Re-focussing Management and Investor Attention on Intangibles

- Need for gaining increased control on/ awareness of performance and knowledge creation processes → understanding long-term value creation drivers, i.e. intangibles
- Need for transparency on long-term value creation drivers for both internal managerial purposes, and external investors and analysts



# Definitions of Intangibles

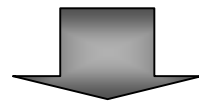
Intangible assets can be defined as a source of future benefits that is without a physical embodiment:

- Intellectual property is an intangible asset with legal rights
- Includes innovation-related intangibles (patents), but also market-related (brands), human resource (competencies and skills, training policies), & organizational intangibles (internal structures, systems and processes)
- “Hard” intangibles (tradable) vs. “Soft” intangibles



## A working definition of IC

Intellectual Capital – IC – is the internal (competencies, skills, capabilities, procedures, know-how, etc.) and external (image, brands, alliances, customer satisfaction, etc.) stock of intangibles “available” to an organisation, which allows the latter to transform a set of tangible, financial and human resources into a system capable of creating stakeholder value through the pursuit of sustainable competitive advantages (Zambon, 2001)



Intangibles become IC only when they are durably and effectively internalised or appropriated by an organisation



# IC Composition

## Relational Capital

- Clients
- Suppliers
- Business Partners
- Image / Reputation on the market
- Communication Effectiveness

## Organisational Capital

- Know-How
- Innovation
- Organisation
- Management Control Systems
- R&D
- Corporate Governance

## Human Capital

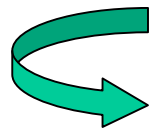
- Skills & Competencies
- Staff Turnover
- Human Resource Educational level
- Management Leadership
- Employee Satisfaction / Engagement

## 2. THE TRADITIONAL MEASUREMENT APPROACH TO INTANGIBLES (THE “PROBLEM”)

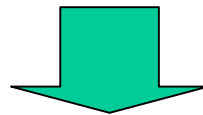
# THE PROBLEM

**Companies need to manage their intangibles in order to manage in a conscious way their value creation processes**

**Investors and analysts need to know more on company intangibles in order to make rational decisions in the financial markets**



**Information on Intangibles is necessary**



**There is a lack of structured, systematic, reliable, and comparable information on company intangibles à information deficiency**

# Reporting on Intangibles: The Accounting Status Quo



However, accounting is quite parsimonious with “the truth of intangibles”:

- Value recognition linked to transactions
- Stress on reliability rather than on relevance
- Poor information on long term growth drivers
- No recognition of internally generated intangibles à vague idea of company value
- Goodwill emerges only in business combinations
- Anchorage essentially to financial figures, and virtually no recognition of risks



# Reporting on Intangibles: The Accounting Status Quo (2)



What are then the objectives of the financial statements:

- Representing Value of the Business?
- Predicting Future Cash Flows (cf. U.S. Conceptual Framework)?
- Stewardship?
- Understanding Capital Invested?
- Value Created?

# Economic Consequences

This situation induces many adverse consequences:

- Today accounting information easily produces short-termism, behavioral myopia, wrong decisions, market volatility, information asymmetry, insider information, credit crunch for SMEs, etc.
- Long-term sustainability is out of focus
- Innovation becomes only a financial issue
- Strategy is amenable merely to financial rationality
- If perceived at all, risk is seen only in monetary terms

# The Reporting Explosion

Other reporting documents by companies do not fill this information gap:

- Corporate social responsibility reports
- Environmental reports
- Sustainability reports (triple bottom line reports)
- Corporate governance reports

However, in these reports there is already much information on intellectual capital, but not organized in such a way to become relevant to management, investors and infomediaries' decision making



# Accounting and Intangibles: A Glance at the Future

- On December 2007 IASB decided not to further pursue its project aimed at including certain intangibles measures on the face of the balance sheet
- IASB is now moving along the direction of studying the possibility of disclosing information on intangibles in the notes of company annual report
- Intangibles seem not to be a priority in the accountancy world at the moment, even though their relevance is unanimously recognised



# 3. THE NEW APPROACH

# Towards a New Reporting Tool

In Europe/Japan/India → Intellectual Capital (IC) Statements or Report on Intangibles → based on indicators → many of a non-financial nature

Human Capital, Organizational Capital (including Innovation Capital), and Relational Capital are visualised/measured through *lead indicators and parameters (KPIs)*, and accompanied by a narrative that links these parameters with company strategy



# Aim

To help companies – and especially those that operate in highly innovative contexts – :

Identify  
Measure  
Valorise  
Document  
Manage

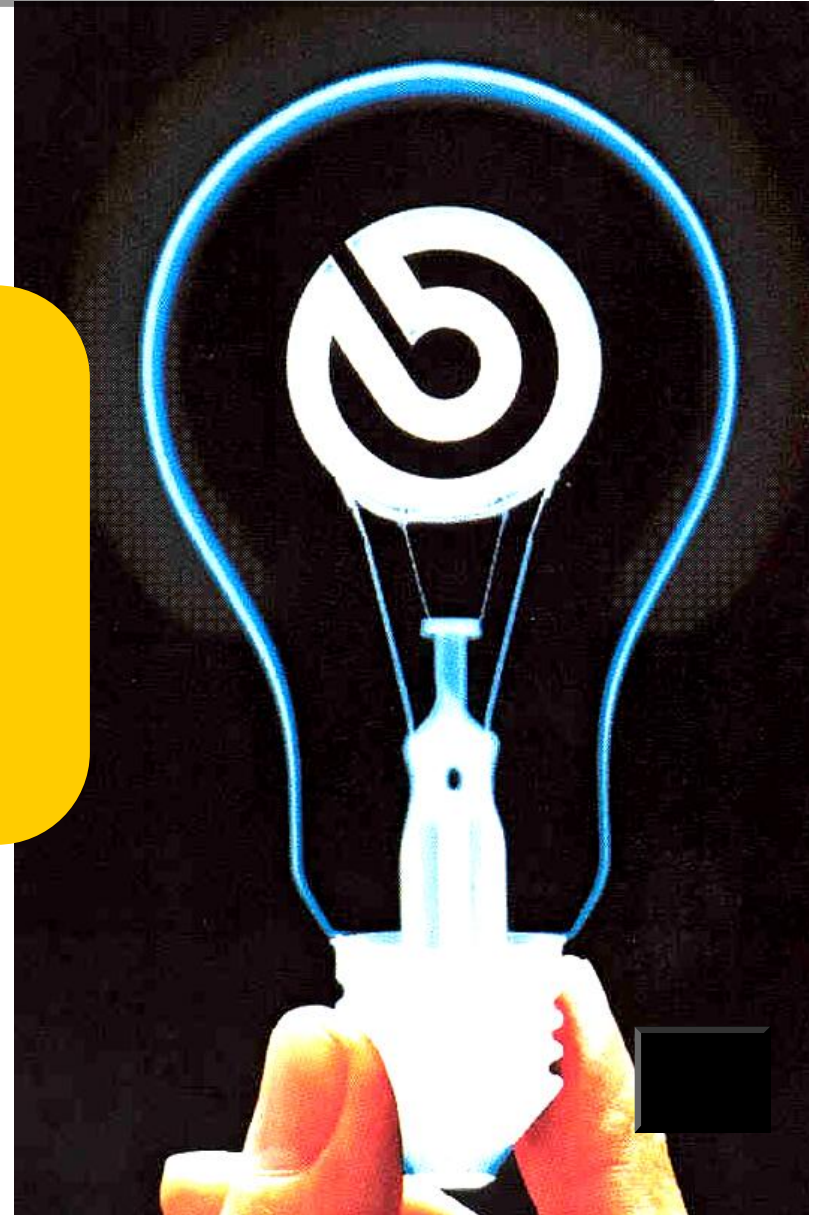
their intangible resources, that are the “true” sources of sustainable value creation over time

**Company value is directly linked to its IC, and therefore to the value of its intangibles**



**a simple business idea**

**Produce the most  
performing brakes  
in the world**



# Relational Capital

## *Performance*

- Revenues acquisition Index (existing customers)
- Revenues acquisition Index (new customers)
- % revenues from products developed in the last 5 years
- Market share
- Customer satisfaction Index

## *Sustainability*

- Corporate image (external)
- Revenues concentration index
- Most relevant Customer penetration index
- % revenues invested in Marketing & Ext.  
Communication

# Human Capital



## *Performance*

- % position coverage with internal growth
- Index of multi-competence
- Average level of leadership management
- Level of trust
- Management average age
- People Education/School Index

## *Sustainability*

- % revenues invested in training
- People satisfaction index
- Multi-valence index
- % female representation within management
- Turnover (management)
- Turnover (employees)
- Turnover (blue collars)
- Average seniority (management)
- Average seniority (employees)



# Structural Capital



## *Performance*

- N° patents (licensed/active)
- Projects (Gate 7ok) / Technical Workforce
- Global Productivity
- Global TRS
- Grievances severity index
- PPM customers at km 0
- Internal scrap
- % non-conformance costs/revenues

## *Sustainability*

- % revenues invested in R& D
- Change proposals//active projects
- Customer satisfaction (technical area)
- % conformity (internal audits)
- Corporate Image (internal)
- Value Alignment
- % revenues invested in internal communication

# Infosys

## Intangible asset score sheet

### Intangible assets score sheet

*We caution investors that this data is provided only as additional information to investors. We are not responsible for any direct, indirect or consequential losses suffered by any person using this data.*

From 1840s to early 1990s, a corporate's value was mainly driven by its tangible assets – values presented in the corporate balance sheet. The managements of companies valued those resources and linked all their performance goals and matrices to those assets – Return on Investment, capital turnover ratio, etc. The market capitalization of companies also followed the value of tangible assets shown in the balance sheet with the difference being seldom above 25%. In the latter half of the 1990s, the relationship between market value and tangible asset value changed dramatically. By early 2000, the book value of the assets represented less than 15% of the total market value. So, what are the key drivers of the market value in this new economy? It is the intangible assets.

A knowledge-intensive company leverages know-how, innovation and reputation to achieve success in the marketplace. Hence, these attributes should be measured and improved upon year after year to ensure continual success. Managing a knowledge organization necessitates a focus on the critical issues of organizational adoption, survival, and competence in the face of ever-increasing, discontinuous environmental change. The profitability of a knowledge firm depends on its ability to leverage the learnability of its professionals, and to enhance the reusability of their knowledge and expertise. The intangible assets of a company include its brand, its ability to attract, develop and nurture a cadre of competent professionals, and its ability to attract and retain marquée clients.

#### Intangible assets

The intangible assets of a company can be classified into four major categories: human resources, intellectual property assets, internal assets and external assets.

##### Human resources

Human resources represent the collective expertise, innovation, leadership, entrepreneurship and managerial skills in the employees of an organization.

##### Intellectual property assets

Intellectual property assets include know-how, copyrights, patents, products and tools that are owned by a corporation. These assets are valued based on their commercial potential. A corporation can derive its revenues from licensing these assets to outside users.

assets provides a tool to our investors for evaluating our market-worthiness.

##### Clients

The growth in revenue is 44% this year, compared to 35% in the previous year (in US \$). Our most valuable intangible asset is our client base. Marquée clients or image-enhancing clients contributed 44% of revenues during the year. They give stability to our revenues and also reduce our marketing costs.

The high percentage (95%) of revenues from repeat orders during the current year is an indication of the satisfaction and loyalty of our clients. The largest client contributed 7.0% to our revenue as compared to 4.4% during the previous year. The top five and 10 clients contributed around 19.4% and 31.4%, of our revenue respectively, as compared to 17.8% and 30.3%, respectively, during the previous year. Our strategy is to increase our client base, and, thereby, reduce the risk of depending on a few large clients. During the year, we added 160 new clients compared to 144 in the previous year. We derived revenue from customers located in 54 countries against 51 countries in the previous year. Sales per client grew by around 32% from \$ 4.7 million in the previous year to \$ 6.2 million this year. Days Sales Outstanding (DSO) was 64 days this year compared to 62 in the previous year.

##### Organization

During the current year, we invested around 4.01% of the value-added (3.44% of revenues) on technology infrastructure, and around 1.40% of the value-added (1.20% of revenues) on R&D activities.

A young, fast-growing organization requires efficiency in the area of support services. The average age of support employees is 30.9 years, as against the previous year average age of 30.8 years. The sales per support staff, as well as the proportion of support staff to the total organizational staff, have improved over the previous year.

##### People

We are in a people-oriented business. We added 30,946 employees this year on gross basis (net – 19,526) from 22,868 (net – 15,965) in the previous year. We added 8,023 laterals this year against 4,842 the previous year. The education index of employees has gone up substantially to 2,03,270 from 1,48,499. This reflects the quality of our employees. Our employee strength comprises people from 65 nationalities. The average age of employees as of March 31, 2007 was 26, the same as in the previous year. Attrition was 13.7% for this year compared to 11.2% in the previous year (excluding subsidiaries).

# Infosys

## Intangible assets score sheet

### Intangible assets score sheet

External structure – our clients		Internal structure – our organization		Competence – our people				
	2007	2006		2007	2006	2007	2006	
<b>Growth / renewal</b>								
Revenue growth (%)			R&D			Total employees	72,241	52,715
– in US Dollar terms	44	35	– R&D / total revenue (%)	1.20	1.07	Added during the year		
– in Rupees terms	46	34	– R&D / value-added (%)	1.40	1.28	– Gross	30,946	22,868
Exports / total revenue (%)	98	98	Technology investment			– Net	19,526	15,965
Clients			– Investment / revenue (%)	3.44	3.78	Laterals added	8,023	4,842
– Total	500	460	– Investment / value-added (%)	4.01	4.48	Staff education index	2,03,270	1,48,499
– Added during the year	160	144	Total investment			Employees – No. of nationalities	65	59
Marque clients			– Total investment / total revenue (%)	10.87	11.45	Gender classification (%)		
– Total	114	101	– Total investment / value-added (%)	12.71	13.58	– Male	69.1	72.4
– Added during the year	26	26				– Female	30.9	27.6
– Revenue contribution (%)	44	48						
Revenue derived – No. of countries	54	51						
<b>Efficiency</b>								
Sales / Client			Sales per support staff			Value added / employee (Rs. crore)		
– US\$ million	6.18	4.68	– US\$ million	0.92	0.85	– Software professionals	0.19	0.19
– Rs. crore	27.79	20.70	– Rs. crore	4.14	3.76	– Total employees	0.18	0.18
Sales & marketing expenses / revenue (%)	6.69	6.30	General & admin expenses / revenue (%)	8.03	8.02	Value-added / employee (\$ million)		
DSO (days)	64	62	Average proportion of support staff (%)	5.18	5.60	– Software professionals	0.04	0.04
						– Total employees	0.04	0.04
<b>Stability</b>								
Repeat business (%)	95	95	Average age of support staff (years)	30.87	30.76	Average age of employees (years)	26.0	26.0
No. of clients accounting > 5% of revenue	1	–				Attrition – excluding subsidiaries (%)	13.7	11.2
<b>Client concentration</b>								
Top client (%)	7.0	4.4						
Top five clients (%)	19.4	17.8						
Top 10 clients (%)	31.4	30.3						
<b>Client distribution</b>								
1-million-dollar +	275	221						
5-million-dollar +	107	81						
10-million-dollar +	71	54						

# Reporting of Intangibles: The “Inverted Pyramid” approach

- Indicators should be articulated in three levels: General, Industry, Company Specific. à the “inverted pyramid concept”

Only the first two levels are to be agreed upon in the future



Enterprise  
level

Company-Specific  
Intangibles Indicators  
(no limit)

Sector  
level

Industry-Specific  
Intangibles Indicators  
(10-20 max.)

General  
level

Basic Intangibles Indicators  
(4-6 max.)



**Reporting on Intangibles: combining comparability & specificity**



## 4. INTERNATIONAL INITIATIVES

# A Rising Global Concern

What is at the stake here is the rethinking of the information set available to management, investors, and intermediaries

This situation is perceived as being problematic in many countries and by many institutions and associations (OECD, European Commission, World Bank, WIPO, U.N., national governments)

Array of relevant and interesting initiatives internationally

# Principal Guidelines on IC Reporting

- International Federation of Accountants (IFAC) – Study no. 7 (1998)
- Danish Agency for Trade and Industry (DATI) Guidelines (2000; latest edition 2003)
- Nordika Project Guidelines (2001)
- Meritum Project Guidelines (2002)
- German Ministry of Labour (2004)
- Japanese Ministry of Economy (METI) (2005)
- Australian IC Guidelines (2002 e 2005)
- Putting IC into Practice Guidelines (PIP) by Nordic countries (2006)





# A series of European initiatives at an institutional level (cont'd)

- 2002-2003: Official Study for the European Commission (DG Enterprise) on “The Measurement of Intangible Assets and Associated Reporting Practices”

Partners:

- University of Ferrara (lead partner)
- New York University (Prof. Baruch Lev)
- Melbourne University (Prof. Margaret Abernethy)

[http://ec.europa.eu/enterprise/services/business\\_related\\_services/policy\\_papers\\_brs/intangiblesstudy.pdf](http://ec.europa.eu/enterprise/services/business_related_services/policy_papers_brs/intangiblesstudy.pdf)



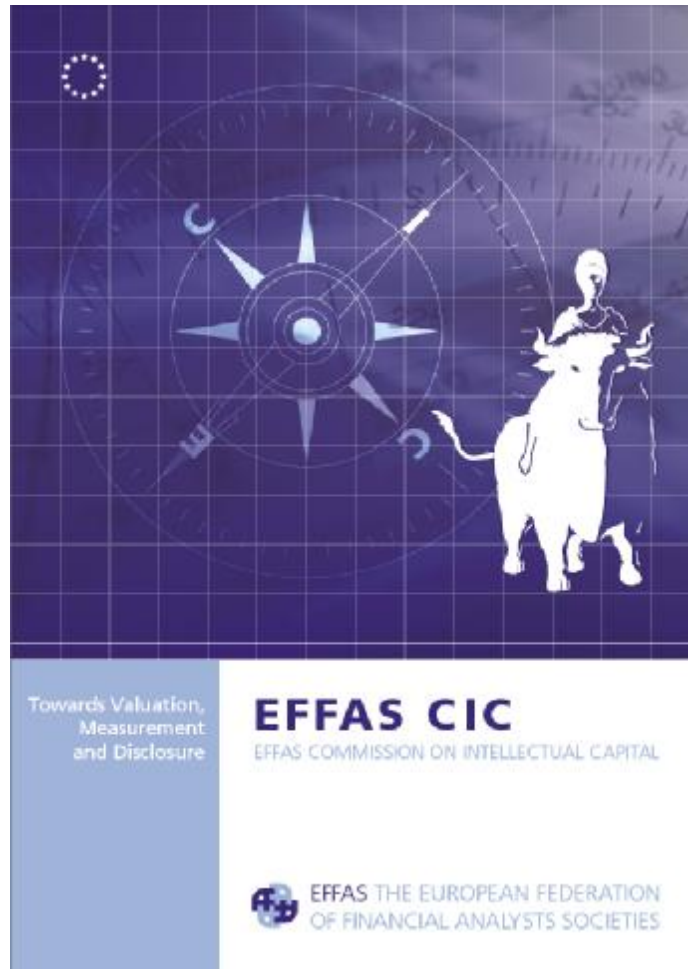
# A series of European initiatives at an institutional level (cont'd)

- 2005: European Commission's (DG Research) study on IC reporting to increase R&D in SMEs and help these companies to access bank credit (RICARDIS) à published in June 2006

“Reporting Intellectual Capital to Augment Research, Development and Innovation in SMEs (RICARDIS)”, Report to the European Commission by the "High Level Expert Group on RICARDIS“, Research Directorate General, Luxembourg, Office for Official Publications of the European Communities, June 2006, pp. 1-164 (cf.

[http://ec.europa.eu/invest-in-research/pdf/download\\_en/2006-2977\\_web1.pdf](http://ec.europa.eu/invest-in-research/pdf/download_en/2006-2977_web1.pdf))

# Ten principles for effective communication of IC



**Why and how  
the financial community  
should tackle intangibles  
– now**

# Four conclusions of OECD work on corporate reporting (2008)

1. Necessity to provide taxonomies value-relevant for investors and managers
2. Necessity to develop *global* business reporting frameworks that are sector-specific, supported by KPIs and related XBRL taxonomies
3. Necessity to improve incentives for financial analysts to follow small IA-based companies
4. Necessity to consider the risks of managing IA & to systematically and specifically disclose risk issues (no more “boilerplate disclosures”)

# A Rising Global Concern (2)



Basically, there are three approaches to the representation of intangibles at the moment worldwide:

- Intellectual Assets-Based Management (IAbM) in Japan
- Intellectual Capital Statements in Europe
- Enhanced Business Reporting (by EBRC) in the US

The risk is that fragmentation is high, and thus the possibility of establishing a new company information platform can be lost or delayed

## A Rising Global Concern (3)

Fortunately, it is possible to identify numerous aspects of convergence in these approaches:

Similar focus on:

- Intangible Resources
- Long-term / Sustainability
- Mapping of the Value Creation Drivers
- Key Performance Indicators
- Groupings of Information

# The Harmonising Role of XBRL vis-à-vis information on intangibles

eXtensible Business Reporting Language (XBRL)  
needs taxonomies in order to operate

Taxonomies are dictionaries of tags/labels logically  
structured

The tags can refer to both quantitative and  
qualitative company and non-profit organisation  
information **à** they can also be used for labelling  
information on intangibles/intellectual capital



# WICI



## (World Intellectual Capital Initiative)

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The following organisations adhere to the Network “World Intellectual Capital Initiative” (WICI):

- Japanese Government – Ministry of Economy (METI)
- OECD
- European Financial Analysts (EFFAS) à Commission on Intellectual Capital
- U.S. Enhanced Business Reporting Consortium (Microsoft, PwC, Grant Thornton, AICPA)
- Society for the Knowledge Economy in Australia (SKE)
- European Commission (observer)
- Waseda University of Tokyo
- University of Ferrara



# WICI Objectives

The main purposes of the WICI Network are:

- a) to promote the management and reporting of intellectual capital/assets at company level throughout the world through cooperation amongst members, and, where appropriate, in collaboration with any other national and international organisation as well as through the proposal of specific concepts, models, frameworks, taxonomies, and so on;
- b) to promote international dialogue on the management and reporting of intellectual capital/assets with other organisations and interested parties such as investors, companies and their representative bodies, policy makers, regulatory authorities, stock exchanges, standard setters.



# WICI Activities

- ① Develop a framework on management and reporting of business
- ② Create a set of KPIs commonly and universally used by each company, and another for each industry
- ③ Evolve a taxonomy to disclose business strategy and related intellectual assets/capital as non-financial information
- ④ Study and stock-take examples on actual IA/IC based management and its disclosure
- ⑤ Study how to guarantee the reliability of the new business reporting
- ⑥ Establish a cooperative relationship with the domestic and international organizations concerned, as well as exchanging information with them

# WICI Reporting Framework version 0.0 (base for XBRL taxonomy)



<b>Business Landscape</b>	<b>Strategies</b>	<b>Resources and Processes</b>	<b>Achievements</b>
<b>summary</b>	<b>summary</b>	<b>summary</b>	<b>summary</b>
economics	Vision and mission	Resource forms	GAAP based
Industry analysis	strengths	- financial	GAAP derived
Technology trends	weaknesses	- material	Industry based
political	opportunities	- relational (social)	Company specific
legal	threats	- organizational (structural)	Capital market based
environmental	Goals and objectives	- human	
social	Corporate strategy	Key processes	
	Business unit strategies	- setting of vision and strategies	
	Business portfolio	- internal resources management	
		- product/service management	
		- external relation management	
		- governance/risk management	

# WICI Business Reporting Framework ver. 0 (DRAFT)



0. Corporate Profile & Business Attributes		
0-1. industry overview 0-2. duration and results per business unit 0-3. business cycle per business unit 0-4. competitive analysis		
past	current	future
a. Business Landscape a-1. business landscape summary	d. performance d-1. performance summary (results of operation) d-2. GAAP based d-3. GAAP derived d-4. Industry based d-5. Company specific d-6. Capital market-based	A. Business Landscape A-1. business landscape summary A-2. economics A-3. industry analysis A-4. technology trends A-5. political A-6. legal A-7. environmental A-8. social
b. Strategies b-1. corporate strategy summary b-2. vision and mission b-3. strengths b-4. weakness b-7. goals and objectives b-8. corporate strategy b-9. business unit strategies b-10. business portfolio		B. Strategies B-1. corporate strategy summary B-2. vision and mission B-5. opportunities B-6. threats B-7. goals and objectives B-8. corporate strategy B-9. business unit strategies B-10. business portfolio
c. Resources and Processes c-1. resources and processes summary c-2. resources forms c-3. key processes c-4. value drivers		C. Resources and Processes C-1. resources and processes summary (C-99.)Resources and processes summary especially with changes in resource forms, key performance and main process from that described in c-2 and c-3 D. performance D-1. financial prospects (summary)



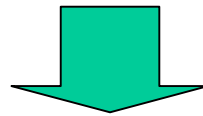
## 6. CONCLUDING REMARKS

# The Challenge of Intangibles

- Intangibles question the role and objectives of current financial statements
- Resistances to change by companies, accountants and financial analysts
- Relevance also for SMEs à the “VALI Project” in Italy and the EC “RICARDIS” study
- Increasing role of non-financial information (KPIs) à non-financial indicators for understanding and predicting financials
- Still issues of consistency, comprehensiveness, comparability, and auditability

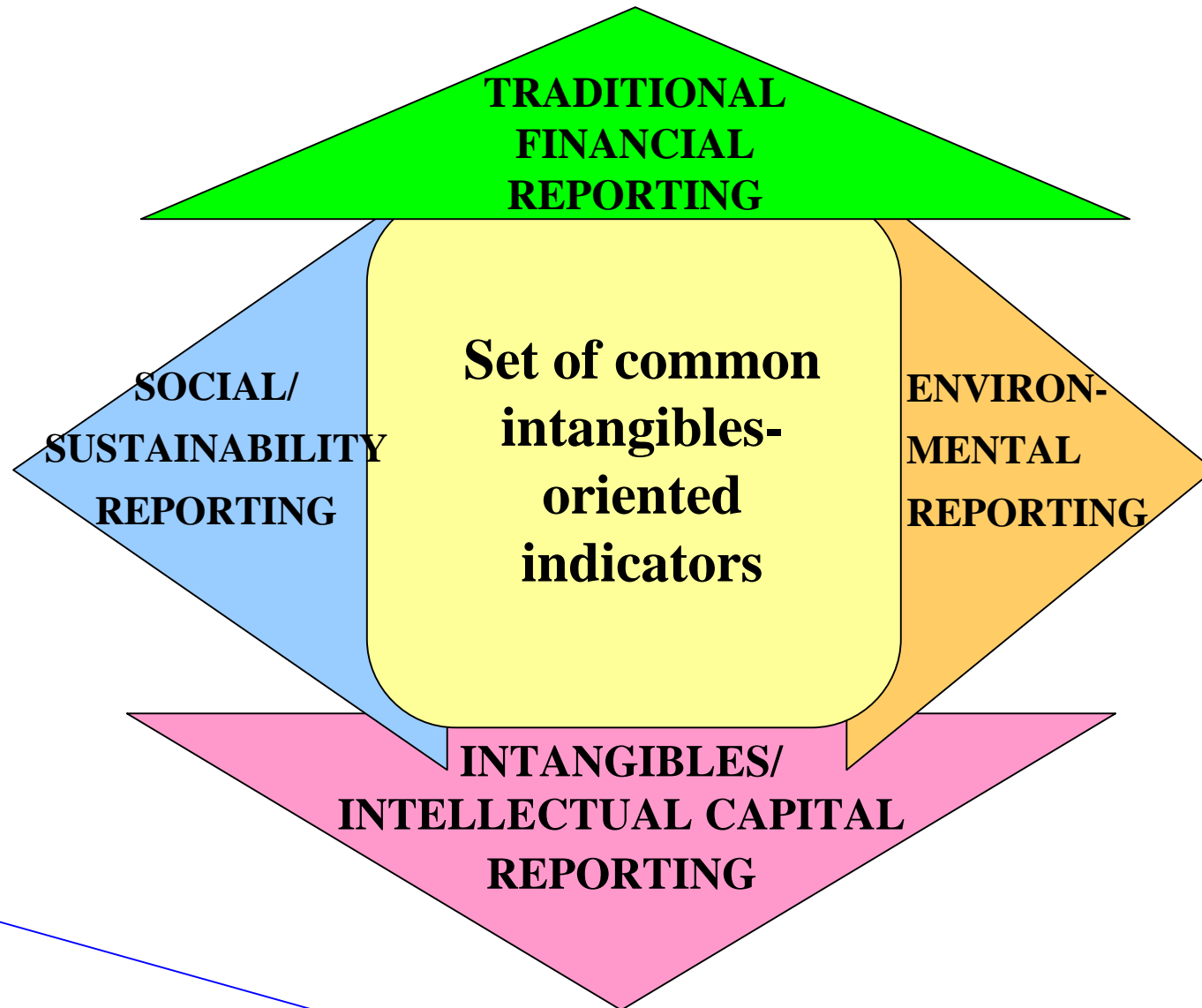
# An Intangible Perspective on CSR and Stakeholder Value

A simple idea



Social Capital & Environmental Capital as particular intangibles to be managed by companies for achieving sustainability (exploiting the overlappings between “business intangibles” & “E.S.G. intangibles”)

# The Integrated Reporting System





# Final consideration

Accounting and reporting are centuries old

Accounting has evolved over time to respond to the new challenges posed by the evolution of the economic system and practices

There is no logical reason to think that this will not happen again...