



EFFAS THE EUROPEAN FEDERATION
OF FINANCIAL ANALYSTS SOCIETIES

The EFFAS Principles for Effective Communication of Intellectual Capital – a Guideline for Investment Professionals

IC 5 Conference, Paris

World Bank

May 28, 2009

Alexander G. Welzl
Chairman, EFFAS CIC

About EFFAS - a standard setter in terms of investment professionals' requirements



- Set up in 1962 as a professional association for nationally-based investment professionals associations in Europe
- Umbrella organisation: 25 member organisations, representing more than 14,000 investment professionals
- Head Office: Frankfurt am Main
- EFFAS executive bodies: AGM and Executive Management Committee (EMC)

Chairman: Giampaolo Trasi
Deputy Chairman: René Willemsen

EFFAS

– setting standards with a global footprint

EFFAS has 6 permanent commissions

- EFFAS Commission on Intellectual Capital (CIC)
- EFFAS European Bond Commission (EBC)
- EFFAS Commission on ESG (ESG)
- EFFAS Financial Accounting Commission (FAC)
- EFFAS Market Structure Commission (MSC)
- EFFAS Training and Qualification Commission (TQC)

Association of Certified International Investment Analysts (ACIIA®)

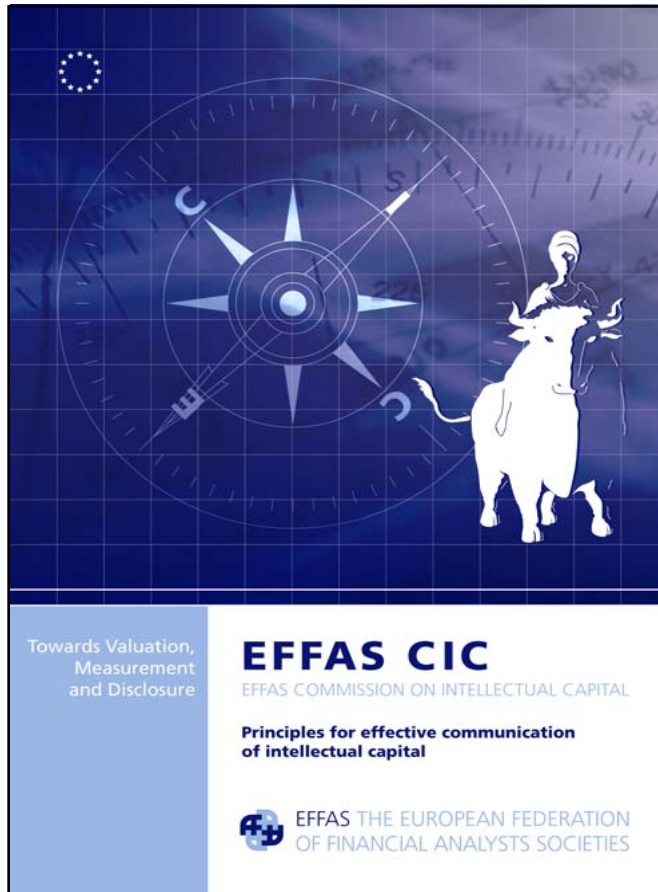
As a founding member of the global training association (ACIIA®), EFFAS offers the Certified International Investment Analyst (CIIA®) designation. The CIIA® ensures tailor-made professional qualification by offering global, as well as local market knowledge within its examination structure.

ACIIA® represents over 30,000 investment professionals world-wide.



Intellectual Capital

– disclosure and valuation in the 21st century



EFFAS Commission on Intellectual Capital (EFFAS CIC)

- Founded in 2006
- Chairman: Alexander G. Welzl
Vice Chairman: Giampaolo Trasi
- Global pioneers in investment professionals community
- Ten commandments of intellectual capital measurement, disclosure and valuation
- Sector specific approach: development of industry specific intellectual capital indicators

EFFAS 'Principles for Effective Communication of Intellectual Capital', 2008

http://www.effas.com/pdf/EFFAS_CIC_web.pdf

Harvard Business School Centennial Lecture on Intellectual Capital (by EFFAS) – April 2008



Alexander G. Welzl, Chairman EFFAS CIC at Harvard Business School (Hawes Hall), Boston, April 9th 2008

Lecture: http://www.hbs.edu/units/am/pdf/HBS_AGW_final_090408.pdf

Source: HBS 2008

- main trends in global development of intellectual capital measurement, reporting, valuation and longterm value creation
- perspective of EFFAS and the investment professionals community
- IC-report structure, goals and implementation experiences of corporations
- global best practice business cases (corporate, institutional)
- start of longterm cooperation with HBS

EFFAS CIC global outreach: highlights 2008

The Americas

- **OECD expert workshop on 'Knowledge Markets in Life Sciences', October 2008 at US National Academy of Sciences, Washington DC**

CIC panel contribution: 'Measurement, Reporting and Valuation of Intellectual Assets - the Investor View' http://www.oecd.org/document/54/0,3343,en_2649_34537_41596214_1_1_1_1,00.html

- **18th international XBRL conference 'Business Reporting for Better Decisions – by Managers, Investors, Governments and Citizens', October 2008, Washington DC**

CIC panel contribution: 'Values with a meaning - towards reporting of the 21st century'

<http://18thconference.xbrl.org/sites/18thconference.xbrl.org/files/Consumer-KeyPerformanceIndicators-AlexanderWelzl.pdf>

Asia

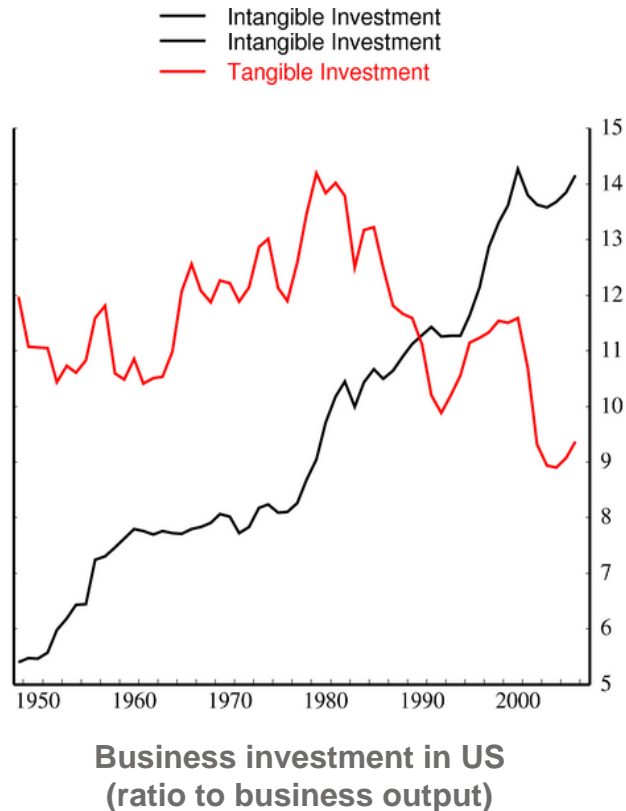
- **WICI Symposium 2008, November 2008, Tokyo**

CIC panel contribution: 'Valuing corporate Value Creation in the 21st Century – Yes we can!'

<http://www.nikkeipr.co.jp/wici/img/alex.pdf>

20th Century

- Growing Importance of Intellectual Assets



■ Reflected in corporate expenditure:

- Investments in intellectual assets are matching to those in tangible capital
- U.S. intangible business investment was more than \$1 trillion in the late 1990s: software, innovation (R&D, design, etc.) and firm competitiveness (brand, human capital, organisation)
- In first 6 years of this decade: intangible business investment 40% larger than tangible investment

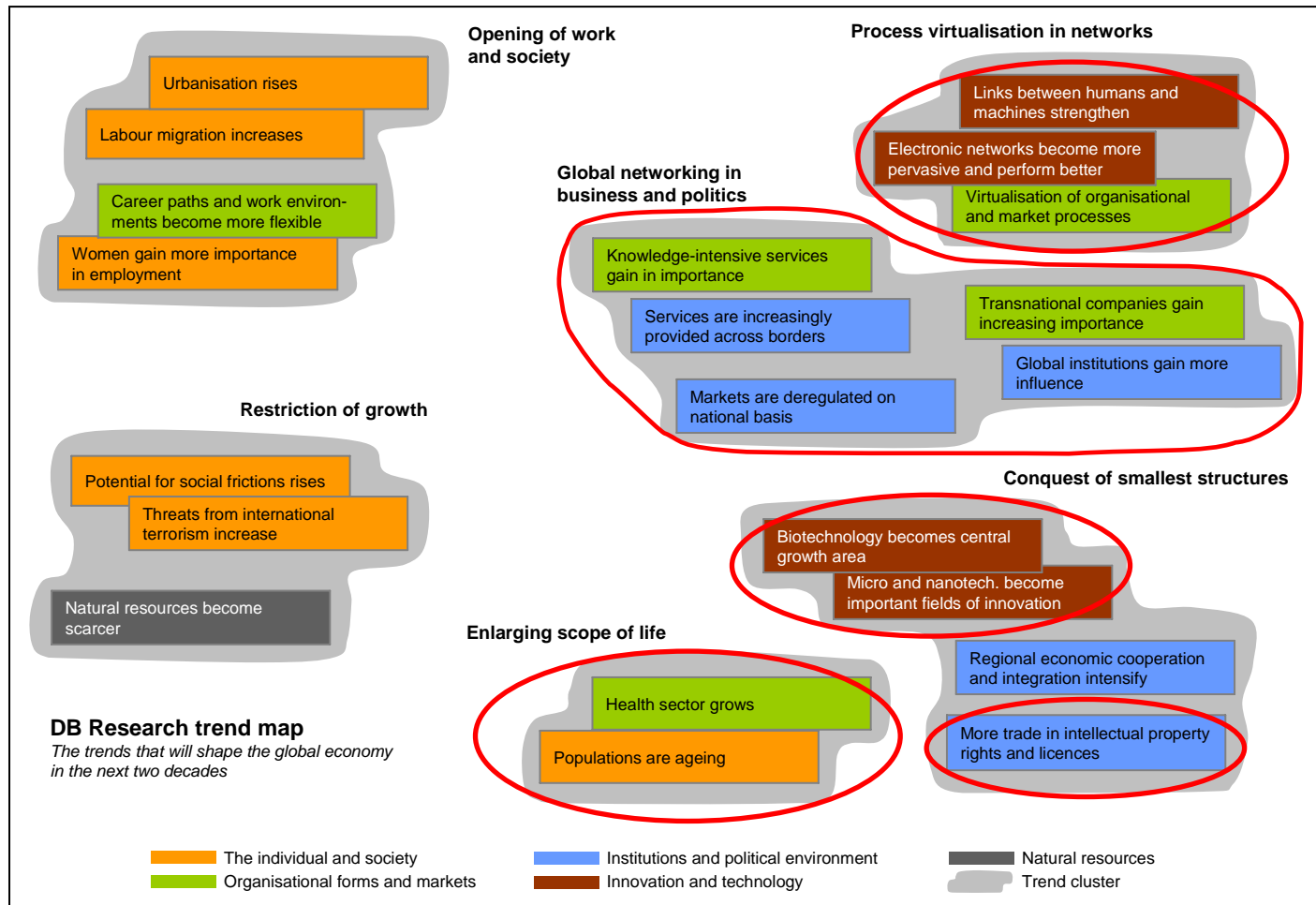
■ G6 and EU-15:

- R&D-intensive producers and knowledge-intensive service providers in 2002 made up one third of economic output in G6 and EU-15

Sources: Corrado, US Federal Reserve Board (2007);
Hofmann, DB Research (2006); Tojo, OECD (2008)



2020 - Trends in the global knowledge economy



Source:
Hofmann,
Deutsche Bank
Research (2006)

Intellectual assets

– The fourth Production Factor

OECD Definition of Intellectual Capital/Intellectual Assets (2008):

‘Resource utilised in future value creation without a physical embodiment’. It includes

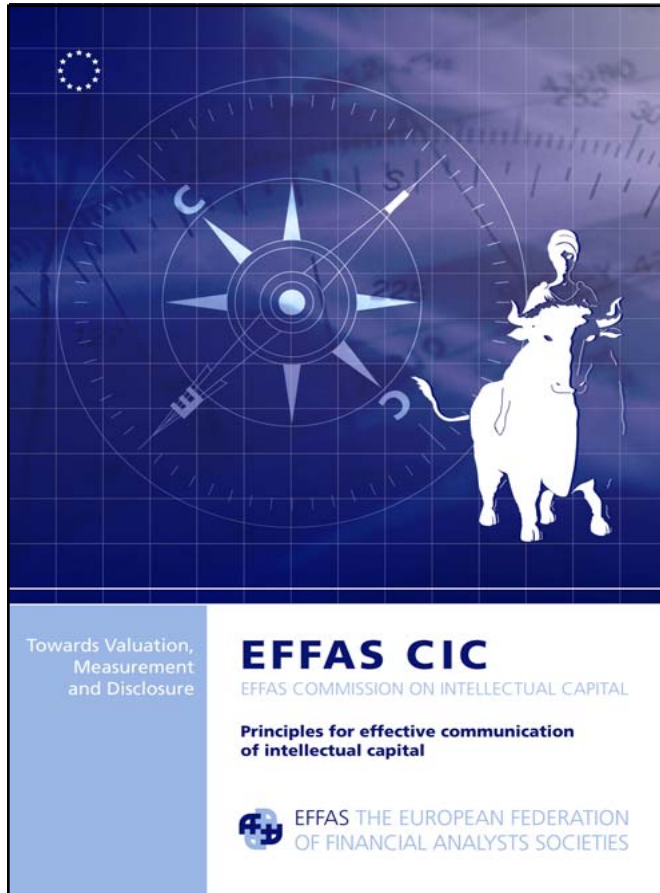
- **Proprietary Knowledge**
- **Human Capital**
- **Relational Capital**
- **Organisational Capital**

EFFAS Definition of Intellectual Capital/Intellectual Assets (2008):

- **Staff and management skills, human capital**
- **Software**
- **R&D, Innovation and innovation capacity**
- **Brands and patents**
- **Strategies**
- **Processes**
- **Relationships with suppliers, partners and customers**



The 10 EFFAS Principles for Intellectual Capital-Disclosure



1. Clear link to future value creation
2. Transparency of methodology
3. Standardisation
4. Consistency over time
5. Balanced trade-off between disclosure and privacy
6. Alignment of interests between company and investors
7. Prevention of information overflow
8. Reliability and responsibility
9. Risk assessment
10. Effective disclosure placement and timing



EFFAS Recommendation of IC-Disclosure Instruments

Corporate Intellectual Capital and IC-based value creation should be disclosed:

As a separate Intellectual Capital Report:

- In the context of the whole corporate reporting system
- Best practice case: Infineon Technologies Austria AG, Austria/Europe

As part of the Annual Report:

- Included in the 'Management Commentary' (or 'Management Discussion and Analysis')
- Best practice case: Infosys Technologies Ltd., India



Corporate best practice case

for a separate Intellectual Capital Report:

Infineon Technologies Austria AG, Austria/Europe

The Intellectual Capital Report 2005:

http://www.meti.go.jp/policy/intellectual_assets/oecd/8th-1/Infineon-Austria-IC-Report-05-abstr-Tokyo.pdf



Infineon Technologies Austria's Intellectual Capital Reporting – 2009 and beyond



- **Triennial publication of IFAT Intellectual Capital Report**

- Publication date of ICR business year 07/08: Q3 2009

- **Consistent indicator framework**

- Majority of indicators of ICR 05 published again 2008
- Internal benchmarking: time series and interpretation on aggregated level (IFAT)

- **Strategic and process focus**

- Strategic long-term and mid-term goals ('knowledge goals') as in ICR 05
- ICR model of corporate IC-based value creation processes as introduced in 2005



Infineon's IC-Report – Structure and Content

Table of contents

Trust your brain

2	Preface
	The General Framework
8	Brain Port Infineon – regional touch with global reach
10	The Fourth Production Factor – knowledge as a future oriented investment
13	Capitalizing on Brain Power – measure and manage the untouchable
15	The Infineon Austria Approach – innovation based value creation
	The Corporate Strategy
20	Infineon Austria's goals and objectives – a roadmap to the future
	The Intellectual Capital
28	Human Capital – the main source of our future success
43	Structural Capital – inspiring conditions for talented people
47	Relational Capital – global connections for combined brainpower
53	Location Capital – Austria, a home for global players
	The Core Processes
58	Production – leading edge products for ambitious customers
69	Research and Development – pushing the limits
82	Managing Complexity – global Infineon business responsibility in Villach
91	Advanced Services – strong support for powerful performance
	The Results
104	Output and Impact – creating added value for our stakeholders
	The Future Prospects
110	Building the Future – Infineon Austria looks ahead
119	The Balance

I

II

III

IV

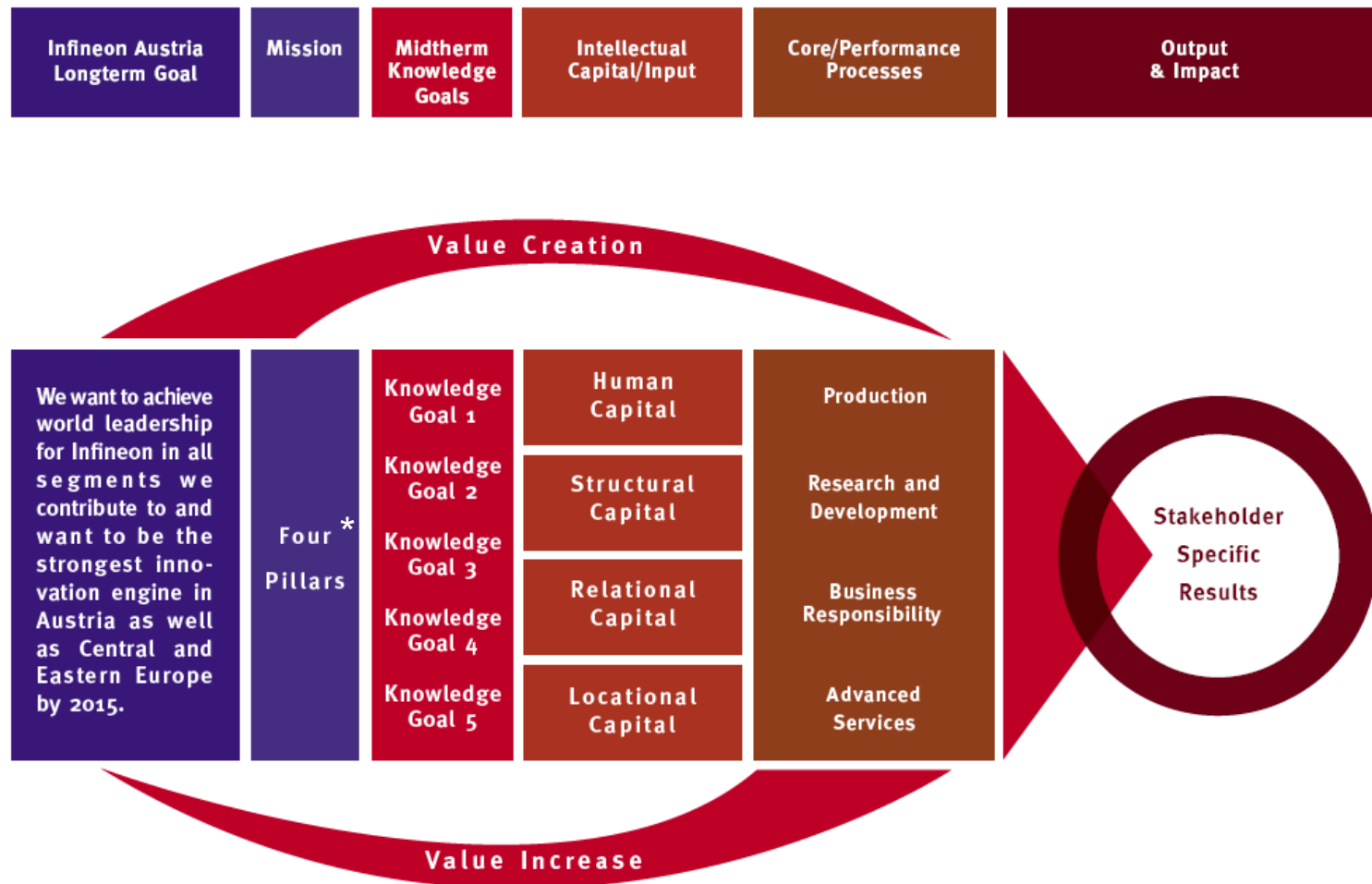
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VI

VII



Infineon's Intellectual Capital Report Model



* Infineon's Four Pillars: Profitable Growth / Customer Focus / Collaborative Leadership / Operational Excellence



Practical Example - Measurement of IC-based Value Creation

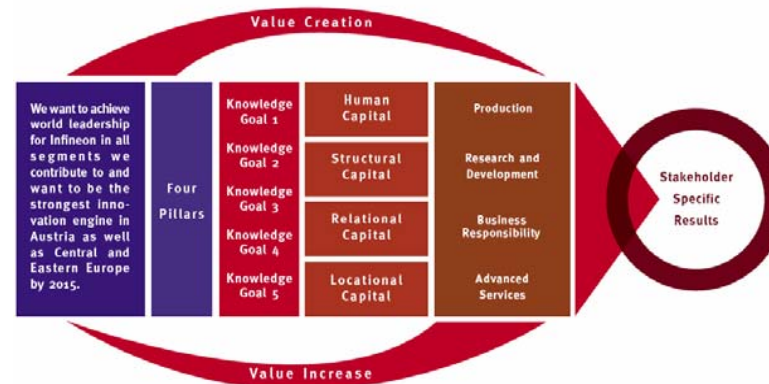
STEP 2 Input: Human & Relational Capital indicators

- International employees:	13,9% (35 nationalities)
- Employees changing locations within corporation:	15
- Ratio of female employees:	11,0%
- Female employees in management functions:	3,3%
- Short and long term delegates at Infineon Austria:	25
- Cooperation partners in R&D projects:	77

STEP 1

Knowledge Goal 2 'Life is a network':

As a regionally based and globally networked 'Brainport' we strive to become a hub for development and application of leading-edge knowledge.



STEP 4

Output and Impact Indicators

- Participations at Centers of competence:	10
- Austrian SMEs involved in R&D cooperations:	15

STEP 3 Indicators of core processes

- New R&D-projects:	26
- finalised R&D-projects:	23
- New products (business unit Power Management & Supply PS):	98
- Share of new products (< 3 years) from turnover (business unit PS):	65%



**Corporate best practice case
for a IC-Report as part of the Annual Report:**

Infosys Technologies Ltd. , India

The Intellectual Capital Report in the Annual Report 2008/2009 (p. 129-136):

<http://www.infosys.com/investors/reports-filings/annual-report/annual/Infosys-AR-09.pdf>



Infosys Technologies - leading edge disclosure for intellectual capital

- **Infosys Technologies Ltd. (NASDAQ: INFY, all data from 2008):**
 - Revenues: over US\$ 4 billion.
 - Infosys defines, designs and delivers technology-enabled business solutions: amongst others business and technology consulting, application services, product engineering
 - Global footprint: over 40 offices and development centers in Asia, Europe and the Americas
 - Workforce: over 91,000 employees.
- **Infosys business model and reporting – ,Value Reporting’:**
 - Covered as business case in 2007 by INSEAD and HBS business schools
- **Intellectual assets disclosure as part of Annual Group Report since FY 1995/96**



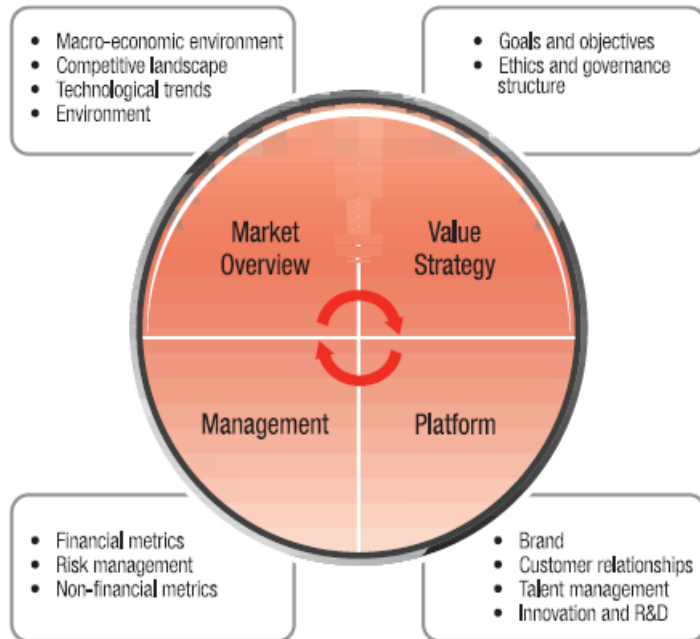
Infosys Technologies

– Value Reporting Key Facts

- Data collected division wise as well as for subsidiaries worldwide
- Publication: annually (not included in internal quarterly reporting)
- Responsibility for this report: Corporate Finance Team headed by the Chief Financial Controller of the Corporation
- Intangible metrics are co-related to employee data but not directly related to executive compensation model
- Internally similar measures are adopted to evaluate business performance, employees are adjudged based on metrics that are additional to the financials



Infosys Technologies' Value Reporting Disclosure Model



The following sets of metrics are included in Infosys' Corporate Value Reporting :

- Brand valuation
- Balance sheet including intangible assets
- Economic Value-Added (EVA®) statement
- Intangible asset score sheet
- Human resource accounting and value-added statement

Infosys' Intangible Assets Score Sheet

External structure – our clients			Internal structure – our organization			Competence – our people		
	2008	2007		2008	2007		2008	2007
			Growth / renewal					
Revenue growth (%)			R&D			Total employees	91,187	72,241
In US Dollar terms	35	44	R&D / total revenue (%)	1.20	1.20	Added during the year		
In Rupee terms	20	46	R&D / value-added (%)	1.36	1.40	Gross	33,177	30,946
Exports / total revenue (%)	99	98	Technology investment			Net	18,946	19,526
Clients			Investment / revenue (%)	2.67	3.44	Laterals added	8,523	8,023
Total	538	500	Investment / value-added (%)	3.00	4.01	Staff education index	2,51,970	2,03,270
Added during the year	170	160	Total investment			Employees – No. of nationalities	70	65
Marqué clients			Total investment / total revenue (%)	8.95	10.87	Gender classification (%)		
Total	113	114	Total investment / value-added (%)	10.08	12.71	Male	67.5	69.1
Added during the year	24	26				Female	32.5	30.9
Revenue contribution (%)	46	44				No. of non-Indian national employees	3,678	2,028
Revenue Derived – No. of countries	58	54						
			Efficiency					
Sales / Client			Sales per support staff			Value-added / employee (Rs. crore)		
US \$ million	7.76	6.18	US \$ million	1.08	0.92	Software professionals	0.19	0.19
Rs. crore	31.03	27.79	Rs. crore	4.32	4.14	Total employees	0.18	0.18
Sales & marketing expenses / revenue (%)	5.49	6.69	General & admin expenses / revenue (%)	7.97	8.03	Value-added / employee (\$ million)		
DSO (days)	72	64	Average proportion of support staff (%)	4.71	5.18	Software professionals	0.05	0.04
Provision for debts / revenues (%)	0.26	0.19				Total employees	0.05	0.04
			Stability					
Repeat business (%)	97.0	95.3	Average age of support staff (years)	29.4	30.9	Average age of employees (years)	26	26
No. of clients accounting > 5% of revenue	1	1				Attrition %		
Client concentration						Excluding subsidiaries	13.4	13.7
Top client (%)	9.1	7.0				Excluding involuntary separation	12.1	12.2
Top 5 clients (%)	20.9	19.4						
Top 10 clients (%)	31.4	31.4						
Client distribution								
1 million dollar+	310	275						
5 million dollar+	141	107						
10 million dollar+	89	71						
20 million dollar+	47	36						
30 million dollar+	32	25						
40 million dollar+	22	16						
50 million dollar+	18	12						
60 million dollar+	13	11						
70 million dollar+	12	9						
80 million dollar+	10	4						
90 million dollar+	6	4						
100 million dollar+	6	3						
200 million dollar+	1	1						
300 million dollar+	1	–						

The above figures are based on Indian GAAP consolidated financial statement



EFFAS CIC 's sector specific Approach

- Towards a new Analysis and Valuation Scheme

„Accurate financial accounting data are neither inherently right nor wrong, they are only more or less useful for the questions that people want answered.“

Charles Hulten, 2008

**Professor of Economics, University of Maryland and NBER and
Senior Fellow to The Conference Board (USA)**



EFFAS IC Business Case: Telecom Industry

- The data presented in the following slides is based on research conducted during 2008 in Europe and the US by ODDO Securities, France.
- The results were published by ODDO in a research paper in October 2008.
- This research is part of and contributes to EFFAS' Commission on Intellectual Capital (CIC) sector specific approach in collaboration with Harvard Business School.
- EFFAS CIC aims to understand IC-driven corporate value creation and to develop sector specific intellectual capital metrics to be used by analysts and investment professionals for their recommendations and investment decisions.

The Telecom Sector

- an Intellectual Capital driven Industry

- The weight of intangible assets in the valuation of the Telecom sector is 71% vs only 26% for tangible assets.
- Long considered to be highly capital-intensive, the sector is now among those whose principal valuation driver is intellectual capital.
- The sound management of intellectual capital plays a key role in value creation for a telecom operator
- Given growth constraints (regulation, subscriber saturation, fierce competition, etc.) and changes in communication methods, an approach based on the analysis of operators' intellectual capital permits the identification of numerous strengths and weaknesses that are revealed much later in companies' financial accounts.
- Innovation is a major opportunity for Telecom equipment makers and a double edged sword for Telecom operators

Three main Components of Intellectual Capital

- **The Human Capital (at individual level and throughout organisation)**

- 10 of 21 HR criteria account for 70% of the HR analysis model for the Telecom sector
- 10 criteria: growth model, age pyramid management, size-related attractiveness, employee share ownership, management or reorganisational/restructuring measures, departure/arrival of key personnel, workplace climate and dialogue, quality of local management, operating margin per employee and social liabilities

- **Structural/Organisational Capital (internal/company level)**

- technological capital, intellectual property, innovation capacity, explicit and implicit internal processes, corporate culture and language, the ability to adapt operating rules rapidly to changes in conditions, etc.;

- **Relational Capital (external/networking level)**

- interrelationships woven between a company and its customers, suppliers and partners



Human Capital Criteria for the Telecom Sector

HR focuses	Rank 1 criteria	Weighting	Nature of criterion
Governance and HR profile	Growth model	10.0%	Quantitative and qualitative
	Age pyramid management	6.0%	Quantitative and qualitative
	HR representation on Executive Committee	4.0%	Qualitative
	HR transparency	2.0%	Quantitative and qualitative
Attractiveness and recruitment	Size-related attractiveness	5.0%	Quantitative (relative to sector)
	International presence-related attractiveness	4.0%	Quantitative
	Economic attractiveness	2.0%	Quantitative
	Average wage costs	2.0%	Quantitative (relative to sector)
	Employee share ownership	5.0%	Quantitative
Career integration and planning	Growth in headcount	2.0%	Quantitative (relative to sector)
	Integration, annual review rate, career planning	4.0%	Quantitative and qualitative
	Training quality and effectiveness	2.0%	Quantitative and qualitative
Motivation and satisfaction	Management of reorganisational/restructuring measures	10.0%	Mainly qualitative
	Departure/arrival of key personnel	5.0%	Qualitative
	Staff turnover	3.0%	Quantitative
	Absenteeism	3.0%	Quantitative
	Workplace climate and dialogue	10.0%	Mainly qualitative
Operational HR management	Payroll management	2.0%	Quantitative
	Quality of local management	5.0%	Qualitative
	Operating margin per employee	5.0%	Quantitative
	Social liabilities (pension funds, healthcare, class actions)	9.0%	Quantitative
Total	21 criteria	100.0%	

TABLE 21 | SOURCE : ODDO SECURITIES



Corporate 'Ecosystem' – Organisational Capital and external Relational Capital in Telcos

Ecosystem criteria	Equipment makers	Operators	Nature of criterion
Corporate culture, internal organisation	4.0%	2.0%	Qualitative
Innovation/R&D/patents	11.0%	4.0%	Quantitative and qualitative
Brand	2.0%	3.0%	Quantitative and qualitative
Supply chain, logistics, industrial partnerships	4.0%	2.0%	Qualitative
Distribution network	2.0%	5.0%	Qualitative
Product and service quality	3.0%	3.0%	Quantitative and qualitative
Customer satisfaction	3.0%	4.0%	Quantitative and qualitative
Total	29.0%	23.0%	

TABLE 22 SOURCE : ODDO SECURITIES



Intellectual Capital based Value Creation

– Value Creation Drivers in Telecom Corporations

Value creation driver	Intellectual capital constituent	Key performance indicator
Number of customers	Brand capital	Brand financial value, market share, spontaneous recognition, transfer price for brand utilisation, internationalisation capacity, etc.
ARPU	Customer capital, brand capital	ARPU, standard deviation in ARPU, quality and quantity of available information on individual customers, etc.
Subscriber mix	Customer capital	% of EBITDA generated with customers representing the top 20% of sales, etc.
Addition of new services	Technological capital, innovation culture	New-service development cycle, % of sales generated by offerings launched less than 12, 24 and 36 months earlier, etc.
Churn rate	Customer capital, brand capital	Number of bundled offerings, Δ (selling & marketing expenses/sales)/ Δ churn rate, service quality measurement, satisfaction index, etc.
Subscriber acquisition costs	Brand capital, partner capital	Selling & marketing expenses/subscriber, number of handsets offered, cost of handsets, % of customers acquired online, % of sales generated by in-house distribution channels, etc.
Subscriber retention costs	Customer capital	Churn rate, service quality, capacity to provide bundled offerings, "club effect", average customer support costs per subscriber, etc.
Network operating costs	Technological capital, supplier capital	Number of technologies deployed (X25, ATM, IP, 2G, 2G+, 3G, 3G+, etc.), number of suppliers, etc.
R&D spend	Technological capital	R&D spend as a % of sales, number of internally-developed services/offerings, internally-developed services/offerings as a % of sales, R&D organisation and R&D integration at other divisions, etc.
Capex	Supplier capital, technological capital	Capex/sales, Δ capex/ Δ sales, etc.

TABLE 17 SOURCE : ODDO SECURITIES



Assessment of corporate Intellectual Capital

- Telecom Operators/Equipment Manufacturers

Dominant positioning	Stock	Human resources	Licence to operate	Ecosystem	Intellectual capital	Ranking
Telecom equipment manufacturers	Alcatel-Lucent:	7.9	0.5	14.9	23.3	7
	Cisco	10.1	0.5	23.8	34.4	2
	Ericsson	9.8	1.0	18.9	29.7	5
	Gemalto	7.8	1.0	20.8	29.6	4
	Motorola	5.9	0.5	11.6	18.0	8
	Nokia	11.1	1.0	22.7	34.8	1
	Oberthur	7.7	1.0	19.0	27.7	6
	Tandberg	10.3	1.0	19.2	30.5	3
Telecom operators	AT&T	8.5	1.0	16.0	25.2	4
	Belgacom	7.1	1.0	12.5	20.2	13
	Bouygues	10.2	1.0	10.9	21.1	12
	British Telecom	8.8	1.5	15.5	25.1	5
	Deutsche Telekom	7.2	1.0	11.2	19.1	14
	France Telecom	8.4	0.5	15.4	24.1	9
	Iliad	8.6	1.5	17.9	27.0	1
	KPN	7.5	1.0	14.5	22.5	11
	Maroc Telecom	9.4	1.5	14.7	25.0	7
	Mobistar	8.9	1.0	14.9	24.5	8
	OTE	6.1	1.0	12.3	18.7	15
	Sprint	4.9	0.5	6.0	11.3	17
	Telecom Italia	7.3	1.0	10.8	18.5	16
	Telefonica	10.0	0.5	15.3	25.1	6
	Verizon	8.7	1.5	14.3	23.9	10
	Vivendi	9.8	1.0	15.9	26.2	3
	Vodafone	10.3	1.0	15.3	26.3	2
Average - telecom equipment manufacturers		8.8	0.8	18.9	28.5	
Maximum possible score – equipment manufacturers		15.0	1.0	29.0	45.0	
Average telecom operators		8.3	1.0	13.7	23.0	
Maximum possible score – telecom operators		15.0	2.0	23.0	40.0	

TABLE 35 SOURCES: ODDO SECURITIES



The midterm Goal and final Result

– Sector specific Analyst IC Recommendations

AEROSPACE-DEFENCE – SUMMARY OF HR SCORING, HUMAN RESOURCES
RECOMMENDATIONS AND FINANCIAL RECOMMENDATIONS

Dominant positioning	Company	Evaluation	Ranking	Human resources recommendations	Financial recommendations
Prime contractors	Boeing	48.0	13	High risk (4)	Not covered
	Dassault Aviation	64.5	2	Opportunity (2)	Not covered
	EADS	47.8	14	High risk (4)	Reduce (3)
	Lockheed Martin	61.0	6	Opportunity (2)	Not covered
	Northrop Grumman	57.5	10	Moderate risk (3)	Not covered
Systems manufacturers	Bae Systems	60.3	8	Opportunity (2)	Not covered
	Finmeccanica	56.1	12	Moderate risk (3)	Buy (1)
	Raytheon	58.2	9	Moderate risk (3)	Not covered
	Thales	62.4	4	Opportunity (2)	Add (2)
Equipment makers	Goodrich	57.1	11	Moderate risk (3)	Not covered
	Honeywell	63.0	3	Opportunity (2)	Not covered
	Latécoère	61.3	5	Opportunity (2)	Reduce (3)
	Rolls-Royce	60.8	7	Opportunity (2)	Not covered
	Safran	47.7	15	High risk (4)	Buy (1)
	Zodiac	73.0	1	Strong opportunity (1)	Buy (1)
Sector average		58.6			
Prime contractors average		55.8			
Systems manufacturers average		59.2			
Equipment makers average		60.5			

TABLE 2 | SOURCE: ODDO SECURITIES



Intellectual Capital - the road ahead

Progress in the disclosure of Intellectual Capital may only be achieved by clearly aligning interests between the company, asked to provide a higher quantity of better quality information to the outside world (with associated costs), and the investor, who will use this information within his valuation framework.

The virtuous circle that we hope to see is one whereby:

- the company first of all becomes used to managing and measuring its intangible value drivers
- it subsequently raises their visibility by reporting such drivers to the market
- thereby triggering a greater valuation in respect of competitors
- this will reduce the cost of capital, forcing out and justifying further efforts in terms of communication and transparency in respect of this fundamental component of enterprise value.



Thank you!



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