Slide 1

**Intellectual Capital -
successfully measuring, managing
and reporting intangibles in „Brain Organisations"**

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The Contract Research Organisation ARC / Seibersdorf research (Sr)

- Limited company as the holding, same for shareholded companies
- Owner: 51% Republic of Austria, 49% Industry
- > 1100 employees, > 50% scientific, > 120 students
- Budget: 66% external = competitive income, 33% basic funds
- Structural organisation of Sr:
  ⇨ Intelligent Materials and Engineering
  ⇨ Systems & Information Technology
  ⇨ Life Sciences & Bio-Infornmatics
  ⇨ Radiological & Medical Services
  ⇨ Systems Research
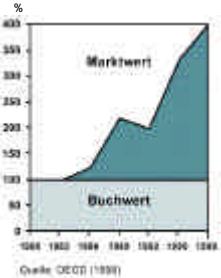
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Slide 3

The Knowledge-based Economy

- **New patterns** of investment: increased investment in **intangible assets** as R&D, innovation, training, software,…
- Fast growing markets for **knowledge intensive products**
- Over-average demand for **talents** and skilled workers
- **New competition rules** (e.g. on electronic / internet markets)
- **Lack of methods** and instruments for measuring and valueing intangibles and knowledge-based processes

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Slide 4

**THE VALUATION OF ENTERPRISES
FROM INVESTORS' POINT OF VIEW**

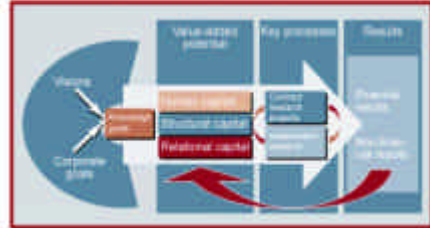Development of book value versus market value

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Slide 5

The ARC IC Report, now published the 4th year has the following objectives …

1. To create transparency about the use of research investments
2. To explain the achievements of research and its benefits to all stakeholders
3. To illustrate the development of intangible assets over periods (usually one year)
4. To point out the promising areas for strategically planning the future and to track and to post-evaluate the benefits foreseen
5. To reveal the leverage effects and externalities which are part of the performance potential of an R&D organisation (as is ARC)

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The ARC IC Reporting Model

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Slide 7

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Survey on types of "i-assets"

Assets				
Traditional Accounting Assets		Intellectual Capital Assets		

Tangible Assets

- Cash
- Investments
- Receivables/Debtors
- Payables/Creditors

- Property
- Plant
- Equipment
- Inventory –
  ➢ Finished Goods
  ➢ WIP
  ➢ Parts/Raw Materials

- Customer Contracts
- Formal Alliances (JVs, Supply Agreements)

- Systems
- Formalized Processes
- Codified Knowledge
- Patents
- Brands
- Mastheads

- Acknowledged Skill Sets
- Experience
- Employee Loyalty

Intangible Assets

- Credit Rating/s
- Undrawn Facilities
- Borrowing Capacity (relative to like companies – based on character)
- Borrowing Covenant Slack
- Receivables and Accruals Certainty
- Quality of Earnings
- Balance Sheet Strength

- Plant Flexibility
- Plant Modernity
- Infrastructure Surrounding Plant/s
- Stranded Assets/ Tradability of Facilities/
- Access Rights
- Plant Regard ("Can Do", "Will Do")
- Inventory Good, Obsolete, Redundant)

- Customer Loyalty
  ➢ Behavioral
  ➢ Attitudinal
- Quality of Supply Contracts
- Right to Tender; Right to Compete; "Right to Design"
- Strength of Stakeholder Support (including Opinion Leaders)
- Networks
- Regulatory Imposts

- Structural Appropriateness
- Informal Processes
- Organizational Reputation
- Brand Meaning (Strength, Stature)
- Productivity of R&D Process
- Quality of Corporate Governance
- Know How
- Tacit Knowledge

- Top Management Quality
- Top Management Experience
- Ability to Execute on Strategy
- Capabilities
- Problem Solving Ability
- Employee Loyalty –
  ➢ Behavioral
  ➢ Attitudinal
- Personnel Reputation

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Human Capital

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Structural Capital

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Relational Capital

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Results I

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Lessons learned

- **Corporate goals and strategies** must be defined first as an overall framework
- Definition of own indicators and gathering of data first time is a cumbersome process, but: it has huge learning effects for all employees
- Project and innovation management is a precondition to ICR
- Bevor IC Reporting is introduced, strategy management methods such as Balanced Scorecard should already be known and established
- IC Report serves excellently for external and internal communication

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The IC Report as a medium of communication

- „ Reading" the IC Report mainly means interpreting indicators , which is both an individual and a **collective learning process**
- Interpretation could be made (a) over periods, (b) as benchmarks and (c) w.r.t. to the achievements of corporate (strategic) goals
- With the IC Report new values are communicated and novel results can be evaluated
- Besides the highly esteemed external communication the internal communication is of even higher importance
- Information provided by the IC Report definitely supports decision making on investments in intangibles and in knowledge

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International Development

- OECD: Concept of „ Knowledge based Economy", propagation by Conferences, Workshops etc.
- EU: (a) claim of Barcelona goals, (b) Study on „ The Intangible Economy" (c) concrete projects such as MERITUM
- Initial discussions already have been provoked in different relevant associations and groups
- Specific national initiatives in NL, UK, DK and NO (Industrial Sector)
- Austria:
  IC Reports by universities is a legal requirement from on 2004 !

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Outlook

- Future IC Reporting at ARC: Stronger integration of non-financial and financial data
- Transfer of ICR know-how to other organisations: currently industry takes it up (Germany: DLR; Austria/Sweden : Böhler-Uddeholm)
- Research and development are requested to contribute to the establishment of an international standard for IC Reporting for different kinds of organisations: industrial & service firms, research organisations, universities, finance companies …
  -> National programmes and international projects currently are initiated

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IC Reporting is at its beginning – join the pioneers !

- Everybody thinks that it is necessary – nobody knows how to do
- Auditors', consulting & rating firms show strongest interest
- Standardisation is followed both by the accounting and by the R&D community
- The largest R&D organisations of each European country have commonly decided to invest in ICR methodology
- An international working group, mandated by the biggest European R&D companies, currently is moderated by the author
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- THANK YOU FOR YOUR ATTENTION !!!

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