Integrated Benchmarking for SMEs
A method for collecting and using Best-Practice-Process-Information

Global Benchmarking Network
2nd International BENCHMARKING Conference
06th December 2007
Dubai

Dr.-Ing. Holger Kohl
Dipl.-Kfm. Ronald Orth
Fraunhofer IPK
Division Corporate Management

Fraunhofer Institut Produktionsanlagen und Konstruktionstechnik
Partnerships for Innovation
 Fraunhofer Profile

58 Institutes
13 500 employees
€ 1.2 billion research budget

7 Alliances
- Microelectronics
- Production
- Information and Communication Technology
- Materials and Components
- Life Sciences
- Surface Technology and Photonics
- Defence and Security Research
Examples for Fraunhofer Activities in Europe

- Fraunhofer-Chalmers Research Centre for Industrial Mathematics (FCC), Göteborg
- Fraunhofer ISST Project Group Information Engineering Jönköping
- Fraunhofer-Gesellschaft Bureau Brussels
- Fraunhofer ILT Coopération Laser Franco-Allemande CLFA
- Fraunhofer Representative Office Moskau
- German-Polish Research Alliance INCREASE Katowice
- Fraunhofer IPA Slovakia Zilina
- Fraunhofer FIRST Joint Project Office Belgrad
Fraunhofer Representative Offices in Asia

- Fraunhofer Representative Office Korea
- Fraunhofer Representative Office Japan (with IZM, ISE, IPA, ISC, IOF)
- Fraunhofer Representative Office Beijing (with IITB)
- Fraunhofer Representative Office Indonesia
Fraunhofer USA Centers and Partner Institutions
Headquarters: Plymouth, Michigan

Coatings and Laser Applications
Boston University, Boston
Manufacturing Innovation
University of Delaware, Newark
Molecular Biotechnology
University of Maryland, College Park
Experimental Software Engineering
Laser Technology
(cooperates with University of Michigan, Ann Arbor)

Digital Media Technologies

San José
Microsoft State University, East Lansing
Plymouth

Fraunhofer USA Centers and Partner Institutions
Headquarters: Plymouth, Michigan

Fraunhofer Institut Produktionsanlagen und Konstruktionstechnik
Division Corporate Management
Prof. Dr.-Ing. Kai Mertins
Since April 2007, the "Fraunhofer Representative Office Middle East" has been supporting Fraunhofer Institutes and their partners in building up business relations and cooperations in the Middle East.

The current activities are focused on the following fields of technology: energy, construction and logistics.

At present, strategic priority regions are the United Arab Emirates and Egypt.
Examples of Fraunhofer Activities in the Middle East

- Feasibility studies in the areas of energy and robotics by order of S.S. Lootah
- Joint marketing activities with Siemens LCC Middle East
- Development and setup of a Digital Media Campus at the German University Cairo
- Participation in the Science Fair GETS and in the German Science Day in Cairo
- Strategic cooperation with the Arab Science & Technology Foundation (ASTF)
Facts and Figures

Fraunhofer IPK

- 262 employees
- More than 70 test areas and 7 special laboratories on ca. 7100 m²
- Founded in 1976
- Budget of 14.3 Mio. Euro in 2003
- Spin-offs and start-ups by 12% of former staff members
R&D Areas

Fraunhofer IPK

Customer-oriented research

- Corporate Management
- Virtual Product Creation
- Production Systems
- Automation Technology
- Medical Technology
Fraunhofer IPK

Spectrum of Services

- Feasibility studies and calculation of profitability
- Project planning and engineering
- Management of bi- and multilateral projects
- Industrial projects to prototypical implementation
- Development of technologies, tools and software systems
- Testing with state-of-the-art equipment
- Training, seminars, coaching
Production Technology Centre Berlin

Division Corporate Management

- Benchmarking
- Knowledge Management
- Management Systems
- Environment and Quality Management
- Business Process Management
- Supply Chain Management
Information Centre Benchmarking (ICB)

Some Facts

Established in 1994 as first Benchmarking Centre in Germany

Partnership with numerous companies

Founding member of the Global Benchmarking Network (GBN)

Founding member of the European SME Benchmarking Network (ESBN)

Experience through initiating and conducting BM-Projects in industry, the service sector and the public sector

Please visit www.benchmarking.fhg.de for further information
Information Centre Benchmarking (ICB) Benchmarking Networks

- CBN Global Benchmarking Network
- ICB Enterprise Network
- ESBN SME Development Network
Development of Economy

National Wealth

Innovation

- World standard products
- Competitive production processes
- Intellectual Capital
  - Human Capital
    - Use technology
  - Structural Capital
    - Manage technology
  - Relational Capital
    - Communicate technology
- Benchmarking

Intellectual Capital Statements

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stepwise approach towards Best Practice

First level question → Identified Gaps → Identification of causes → Action plan

- Figure I
- Figure II
- Figure III
the balanced scorecard used in the BenchmarkIndex

- Financials
- Customers
- Processes
- Learning & Growth

Business....
Current performance?
Vision & goals?
Strategy?
Plans?
> 80.000 Financial Data
> 19.000 Benchmarking-Data
the comparison stage – chart layout (example)

**Customers Perspective**

<table>
<thead>
<tr>
<th>Metric</th>
<th>weak</th>
<th>average</th>
<th>strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complaints/Orders (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export Turnover/Total Turnover (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Expenditure/Total Turnover (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Customers/Total Customers (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orders Not Delivered When Promised/Total Orders (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total New Turnover/Total Turnover (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Always:** weak……………………strong

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Customers Scorecard

<table>
<thead>
<tr>
<th>Performance measure ( )</th>
<th>Actual score</th>
<th>v. weak</th>
<th>weak</th>
<th>average</th>
<th>strong</th>
<th>v. strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complaints/Orders (%)</td>
<td>1.14</td>
<td>1.96</td>
<td>0.80</td>
<td>0.17</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Export Turnover/ Total Turnover (%)</td>
<td>4.95</td>
<td>3.75</td>
<td>4.64</td>
<td>5.09</td>
<td>7.88</td>
<td>16.25</td>
</tr>
<tr>
<td>Marketing Expenditure/ Total Turnover (%)</td>
<td>2.93</td>
<td>0.03</td>
<td>0.16</td>
<td>0.45</td>
<td>1.18</td>
<td>3.37</td>
</tr>
<tr>
<td>New Customers/ Total Customers (%)</td>
<td></td>
<td>0.00</td>
<td>11.47</td>
<td>20.00</td>
<td>35.67</td>
<td>88.14</td>
</tr>
<tr>
<td>Orders Not Delivered When Promised/ Total Orders (%)</td>
<td>2.78</td>
<td>3.36</td>
<td>2.55</td>
<td>0.63</td>
<td>0.42</td>
<td>0.00</td>
</tr>
<tr>
<td>Total New Turnover/ Total Turnover (%)</td>
<td>4.03</td>
<td>0.00</td>
<td>0.56</td>
<td>2.11</td>
<td>6.09</td>
<td>25.34</td>
</tr>
</tbody>
</table>

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Prof. Dr.-Ing. Kai Mertins

Fraunhofer Institut Produktionsanlagen und Konstruktionstechnik
Not Financially Stable?

<table>
<thead>
<tr>
<th>Ratios</th>
<th>Relative</th>
<th>Your actual</th>
<th>Weakest</th>
<th>Weak</th>
<th>Median</th>
<th>Strong</th>
<th>Strongest</th>
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<tbody>
<tr>
<td>9    Current Ratio (#)</td>
<td>40</td>
<td>0.15</td>
<td>0.00</td>
<td>3.26</td>
<td>10.52</td>
<td>39.44</td>
<td>225</td>
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<tr>
<td>10   Acid Test (#)</td>
<td>30</td>
<td>0.06</td>
<td>-21.70</td>
<td>0.14</td>
<td>3.45</td>
<td>9.00</td>
<td>20.86</td>
</tr>
<tr>
<td>11   Creditor Days (#)</td>
<td>24</td>
<td>0.07</td>
<td>-7.55</td>
<td>0.08</td>
<td>2.42</td>
<td>5.65</td>
<td>14.58</td>
</tr>
<tr>
<td>12   Debtor Days (#)</td>
<td>10</td>
<td>0.54</td>
<td>0.36</td>
<td>2.64</td>
<td>3.89</td>
<td>10.52</td>
<td>39.44</td>
</tr>
<tr>
<td>13   Working Capital Turnover</td>
<td>40</td>
<td>0.15</td>
<td>0.00</td>
<td>3.26</td>
<td>10.52</td>
<td>39.44</td>
<td>225</td>
</tr>
<tr>
<td>14   Cash in Bank to Turnover (%)</td>
<td>30</td>
<td>0.06</td>
<td>-21.70</td>
<td>0.14</td>
<td>3.45</td>
<td>9.00</td>
<td>20.86</td>
</tr>
<tr>
<td>15   Interest Cover (#)</td>
<td>24</td>
<td>0.07</td>
<td>-7.55</td>
<td>0.08</td>
<td>2.42</td>
<td>5.65</td>
<td>14.58</td>
</tr>
<tr>
<td>16   Gross Gearing (%)</td>
<td>10</td>
<td>0.54</td>
<td>0.36</td>
<td>2.64</td>
<td>3.89</td>
<td>10.52</td>
<td>39.44</td>
</tr>
</tbody>
</table>
financial perspective

- Short of Cash?
  - Cash in bank / Total turnover (%)
  - Credit payment days (#)
  - Debtor days (#)

- Too highly Geared?
  - Gross gearing (%)

- Interest Cover too low?
  - Interest cover (€)

- Liquidity poor?
  - Acid test (%)
  - Short term assets / Current liabilities (%)

Not Financially Stable
Not getting the Best out of its Processes?

<table>
<thead>
<tr>
<th>Ratios</th>
<th>Relative</th>
<th>Your actual</th>
<th>Weakest</th>
<th>Weak</th>
<th>Median</th>
<th>Strong</th>
<th>Strongest</th>
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</thead>
<tbody>
<tr>
<td>Average Order Value (#)</td>
<td>40</td>
<td>0.15</td>
<td>0.00</td>
<td>3.26</td>
<td>10.52</td>
<td>39.44</td>
<td>225</td>
</tr>
<tr>
<td>Customer Growth (%)</td>
<td>30</td>
<td>0.06</td>
<td>-21.70</td>
<td>0.14</td>
<td>3.45</td>
<td>9.00</td>
<td>20.86</td>
</tr>
<tr>
<td>Complaints Per Customer (#)</td>
<td>24</td>
<td>0.07</td>
<td>-7.55</td>
<td>0.08</td>
<td>2.42</td>
<td>5.65</td>
<td>14.58</td>
</tr>
<tr>
<td>Complaints Per Order (%)</td>
<td>10</td>
<td>0.54</td>
<td>0.36</td>
<td>2.64</td>
<td>3.89</td>
<td>10.52</td>
<td>39.44</td>
</tr>
<tr>
<td>Delivery Schedule Adherence (%)</td>
<td>27</td>
<td>36.37</td>
<td>-3.71</td>
<td>36.36</td>
<td>1176</td>
<td>3280</td>
<td>11460</td>
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<tr>
<td>Percentage of Orders Rejected During Warranty Period (%)</td>
<td>40</td>
<td>0.15</td>
<td>0.00</td>
<td>3.26</td>
<td>10.52</td>
<td>39.44</td>
<td>225</td>
</tr>
</tbody>
</table>
process perspective

Production Planning / - Process Problems?

- Orders not delivered when promised / Orders (%)
- Orders rejected during warranty period / Orders (%)
- Scrap or yield loss rate (%)
- Time spent on rework / reprocessing / No. of FTE employees (hrs.)
- Orders failed before delivery / Orders (%)

Quality and Delivery Time Problems?

Not getting the Best out of its Processes

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Cause and Effect Analysis for identifying relevant Business Processes

- **Finance-perspective**: Turnover Growth (%)
- **Customer-perspective**: New Turnover (%), Customers Growth (%)
- **Process-perspective**: Time to Market (m)
- **Learning- and growth perspective**: New Products and Services (%), R&D-Intensity (%)
Integrated Benchmarking for SMEs for collecting and using Best-Practice-Process-Information
Development of Economy

National Wealth

Innovation

- World standard products
- Competitive production processes

Benchmarking

Intellectual Capital
- Human Capital
  - Use technology
- Structural Capital
  - Manage technology
- Relational Capital
  - Communicate technology

Intellectual Capital Statements
Competition on Productivity and Cost Efficiency is rather short-term oriented than Innovation by Research.

Not just for European Companies, Innovation becomes more important than Cost Leadership.
The Way to the Third Millennium

1. Production of „high“ added value products and services

2. The involvement and systematic development of more participants in the process of added value.

   a) job division - standardization
   b) specialization
   c) competitiveness
   d) growth
   e) assurance for growth

The challenge to build a knowledge driven industrial society

Transformation from an industrial community into a knowledge based industrial community

Fraunhofer Institut Produktionsanlagen und Konstruktionstechnik

Division Corporate Management Prof. Dr.-Ing. Kai Mertins
What are the needs for the Industry?

Product and Production **Process Optimization**, including equipment!

Stronger Focus on **Research and Development**!

Establishment of **Supplier Networks** for joint development!

Creation of **Knowledge** in terms of Market and Customer Needs!

Systematic Development of **Intellectual Capital**!
Why Measuring Intellectual Capital (IC) in SMEs?

- The **organizational value** consists of tangible and intangible assets, which are mostly undocumented in traditional accounting systems.

- **Investors** (Rating according to Basel II) demand plausible evidence of corporate values. Companies in knowledge-intensive fields have difficulties in proving their value to investors.

- **Legal regulations** commit organisations to legitimate their intangible assets. (Austrian UOG, IAS 38, DRS 12 and 5)
Two Basic Fields of Use for Intellectual Capital Statements (ICS) in SMEs

Methods for Description and Analysis of Intellectual Capital/IC Factors

to be used for...

Internal Management/Development of Intangible/Intellectual Resources

Individualisation:
Support specific business strategy

External Reporting of Intangible/Intellectual Assets

Standardisation:
Comparability (Benchmarking, Rating)

require...

vs.

General SME requirement: economic procedure (costs-benefit)!

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Range for use: internal before external

<table>
<thead>
<tr>
<th>Category</th>
<th>in use (%)</th>
<th>planned (%)</th>
<th>not planned (%)</th>
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</thead>
<tbody>
<tr>
<td>Internal Management</td>
<td>64</td>
<td>36</td>
<td>0</td>
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<tr>
<td>Internal communication</td>
<td>45</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>Comm. To Partner</td>
<td>45</td>
<td>18</td>
<td>36</td>
</tr>
<tr>
<td>Comm. to customers</td>
<td>40</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Comm. to other Stakeholder</td>
<td>11</td>
<td>33</td>
<td>56</td>
</tr>
<tr>
<td>Communication to investors</td>
<td>18</td>
<td>27</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: Befragung der deutschen Wissensbilanz-Pilotanwender (2005), Fraunhofer IPK (n=11)
# Overview: Existing Non Financial ICS Frameworks and Guidelines

<table>
<thead>
<tr>
<th>Institution / Country</th>
<th>Initiative</th>
<th>Scope</th>
<th>Application</th>
<th>Year</th>
<th>Reference</th>
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<td>European Union</td>
<td>Public</td>
<td>All companies</td>
<td>Mandatory</td>
<td>2003</td>
<td>Modernisation Directive</td>
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<tr>
<td></td>
<td></td>
<td>Listed Companies</td>
<td>Mandatory</td>
<td>2004</td>
<td>Transaparency Directive</td>
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<tr>
<td>Australia</td>
<td>Public</td>
<td>Listed Companies</td>
<td>Mandatory</td>
<td>2003</td>
<td>ASX Listing Rule 4.10.17, Australien Stock Exchange</td>
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<tr>
<td>Canada</td>
<td>Public</td>
<td>Listed Companies</td>
<td>Mandatory</td>
<td>2003</td>
<td>Management Discussion and Analysis under NI 51-102, Continuous Disclosure</td>
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<td></td>
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<td></td>
<td></td>
<td>Obligations, Securities Administrator</td>
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<tr>
<td>Germany</td>
<td>Public</td>
<td>All companies</td>
<td>Mandatory</td>
<td>2004</td>
<td>GAS 15 Management Reporting, DRSC</td>
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<td>United Kingdom</td>
<td>Public</td>
<td>Quoted companies</td>
<td>UnderDiscussion</td>
<td>2005</td>
<td>Operating and Financial Review, Department of Trade and Industry</td>
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<tr>
<td>United States</td>
<td>Public</td>
<td>Listed Companies</td>
<td>Mandatory</td>
<td>2003</td>
<td>Management Discussion and Analysis, Securities and Exchange Commission</td>
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<tr>
<td>European Union</td>
<td>Public</td>
<td>All companies</td>
<td>Voluntary</td>
<td>2002</td>
<td>Guidelines for Managing and Reporting on Intangibles, MERITUM Project</td>
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<tr>
<td>Australia</td>
<td>Public</td>
<td>All companies</td>
<td>Voluntary</td>
<td>2002</td>
<td>Australian guiding principles on Extended Performance Management, Society and Culture</td>
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<tr>
<td>Austria</td>
<td>Public</td>
<td>Public Universities</td>
<td>Mandatory</td>
<td>2002</td>
<td>Austrian Universities Act, Federal Ministry of Education, Science and Culture</td>
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<tr>
<td>Denmark</td>
<td>Public</td>
<td>All companies</td>
<td>Voluntary</td>
<td>2003</td>
<td>Intellectual Capital Statements - The new guideline, Ministry of Science, Technology and Innovation</td>
</tr>
</tbody>
</table>

**Source:** OECD Preliminary Report, March 2006
Motivation and Benefits on the macro-economic and political level in Germany

- Development of the Intellectual Capital in Germany to secure and enhance the capability to compete on international level.

- Motivate German SME by time to use knowledge as a strategic resource.

- Preparation for coming legal chances in accounting rules (see more Qualitative Factors in International Accounting Standard Board (IASB).

- Visualize the Intellectual Capital of German SME and their innovation and future potential for government decision making to support selected industry

- Enhance productivity and competitiveness of SME by activation unused potentials.
History and result of the German pilot project
Supported by the BMWA within the initiative "Fit for the knowledge competition!"

- Summer 2003 Foundation of the Intellectual Capital Statement Project Group as international consortium.

- Review of international experiences and adaptation to the requirements of German SMEs.

- In January 60 companies could be inspired for this idea. Finally 14 were chosen to be involved as pilot companies.

- Maximum efficiency at the realisation of the project:
  Within 3 months the project was set up and a model for Intellectual Capital Statements was developed. The project consortium could successfully implement Intellectual Capital Statements in 14 SMEs within only 6 months (from February till July 2004).
The Framework: ICS Structural Model

Commercial environment
(Possibilities & risks)

Organization

Initial situation
Vision
Business-Strategy knowledge
Measures

Intellectual capital
Human capital
Structural capital
Relational capital
Other resources

Business processes
Knowledge processes

External impact
Business success

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Prof. Dr.-Ing.Kai Mertins
What is an Intellectual Capital Statement in the German Definition?

Definition Intellectual Capital Statement: An Intellectual Capital Statement is an instrument for the focused description and development of the Intellectual Capital in an organisation.

It shows the interdependencies between the organisational aims, the business processes, the Intellectual Capital (IC) and the business success and describes these elements by means of indicators.

Main Elements of Intellectual Capital (IC Factors)

Human Capital
- Employee qualification and experience
- Leadership and social skills
- Employee motivation

Structural Capital
- Corporate culture
- Internal co-operation and organisation
- Product innovation
- Process innovation and optimisation
- Knowledge transfer and storage

Relational Capital
- Relations to customers, suppliers and investors
- External co-operation and knowledge acquisitions
- Social commitment and public relations
Assessment portfolio

- Prozess- und Verfahrensinnovationen entwickeln und umsetzen
- Kooperation und Kommunikation innerhalb der Organisation / Wissenstransfer
- Mitarbeiter motivieren, Führungskompetenz aufbauen
- Mitarbeiteraus- und Weiterbildung
- Image/Marken
- Umsatzwachstum
- Finanzieller Erfolg

- Informationenstechnik und exkl. Wissen bereitstellen
- Beziehungsmanagement zu Kunden
- Marketing/Marktzugang und Marktbeobachtung (Networking)
- Produktinnovation entwickeln
- Unternehmenskultur entwickeln
- Kooperation und Kommunikation innerhalb der Organisation / Wissenstransfer
- Mitarbeitermotivation und Weiterbildung
- Mitarbeitermotivation und -entwicklung
- Mitarbeitererfahrung aufbauen
- Externe Kooperation und exkl. Wissenstransfer
- Mitarbeitererfahrung aufbauen
- Mitarbeitererfahrung aufbauen

- Soziale Kompetenzen aufbauen
- Prozess- und Verfahrensinnovationen entwickeln und umsetzen
- Beziehungsmanagement zu Kunden
- Informationenstechnik und exkl. Wissen bereitstellen
- Mitarbeiter motivieren, Führungskompetenz aufbauen
- Mitarbeitererfahrung aufbauen
- Mitarbeitererfahrung aufbauen
- Externe Kooperation und exkl. Wissensübertragung

- Marketing/Marktzugang und Marktbeobachtung (Networking)
- Produktinnovation entwickeln
- Unternehmenskultur entwickeln
- Kooperation und Kommunikation innerhalb der Organisation / Wissenstransfer
- Mitarbeiter motivieren, Führungskompetenz aufbauen
- Mitarbeitererfahrung aufbauen
- Externe Kooperation und exkl. Wissensübertragung

- Beziehungsmanagement zu Kapitalgebern
- Informationstechnik und exkl. Wissen bereitstellen
- Mitarbeiter motivieren, Führungskompetenz aufbauen
- Mitarbeitererfahrung aufbauen
- Externe Kooperation und exkl. Wissensübertragung

- Führungsprozess
- Leistungsprozesse
- Mitarbeitermotivation und -entwicklung
- Mitarbeitermotivation und -entwicklung
- Mitarbeitererfahrung aufbauen
- Externe Kooperation und exkl. Wissensübertragung

- Finanzieller Erfolg
- Umsatzwachstum
- Image/Marken
- Umsatzwachstum
- Finanzieller Erfolg
- Umsatzwachstum
The 14 pilots

- **Bürgel GmbH**, Craftsmen
  - Ca. 40 employees
  - Nienburg

- **Blumenbecker Group**
  - Indudustrial engineering
  - 650 employees
  - approx. 70 MEUR

- **SØR Rusche GmbH**
  - Retail
  - 150 employees
  - approx. 29 MEUR

- **VR Bank Südpfalz e.V.**
  - Financial services
  - 472 employees
  - Total B.S of 1.314 MEUR

- **Reinisch AG**
  - Services/Documentation
  - 290 employees
  - approx. 18,5 MEUR

- **Xcc Software AG**
  - IT
  - 50 employees
  - approx. 5,4 MEUR

- **Deutscher Caritasverband**
  - NPO
  - 300 employees in the HQ

- **Domino World**
  - Health Care
  - 400 employees
  - approx. 14 MEUR

- **aap Implantate AG**
  - Biotech
  - 110 employees
  - approx. 13.3 MEUR

- **SSL Maschinenbau GmbH**
  - Engineering
  - 85 employees
  - approx. 8,5 MEUR

- **ACTech GmbH**
  - Engineering (Rapid prototyping)
  - 140 employees
  - approx. 10 MEUR

- **Craftsmen-network (all over Germany): Bad Heizung Concept AG**
  - Housing technology with 32 partners and approx. 600 employees (incl. Bürgel GmbH)

- **Schneider Bau GmbH**
  - Building & Construction
  - 235 employees
  - approx. 38 MEUR

- **KGM Geräte- u. Maschinenbau GmbH**
  - Engineering
  - 158 employees
  - approx. 12 MEUR
Main Results of the German ICS Pilot Project

www.akwissensbilanz.org

- **Efficient method** to start IC Management in SMEs.
- **Intellectual Capital Statements** were implemented in 50 SMEs from different regions and sectors.
- **Guideline for the implementation** of an ICS in German and English language published (more than 50,000 copies distributed)
- **Software “Wissensbilanz-Toolbox”** available since July 2006, more than 15,000 copies distributed.
- **Financial Times and Commerzbank Award 2005** for one of the first 14 Pilot-Partners
- **25 Roadshows** for entrepreneurs with more than 500 participants.
- More than **200 users and trainers** trained
Results: Identify Strengths & Weaknesses

Example:

Human Capital Factors evaluated regarding their potential to support achievement of strategic objectives.

Dimensions:

• Quantity:  
  *Do we have enough of the factor to achieve our strategic objectives?*

• Quality:  
  *Is the factor good enough to achieve our strategic objectives?*

• Systematic:  
  *Do we manage this factor systematically to ensure its future quality and quantity?*

HC-4 Leadership Ability
HC-3 Employee Motivation
HC-2 Social Competence
HC-1 Professional Competence

QQS-Bar-Chart: Human Capital (HC)
Monitoring Success of KM Measures in Cause-and-Effect-Chains by the means of ICS
Result: Defining Major Areas for Intervention

QQS-Bar-Chart: Human Capital (HC)

Systematic (%) Quality (%) Quantity (%)

HC-1 Professional Competence
HC-2 Social Competence
HC-3 Employee Motivation
HC-4 Leadership Ability

Internal Co-operation & Knowledge Transfer

Leadership Ability

IC Management Portfolio
Human Capital Structural Capital Relational Capital

Develop
Stabilise

Analyse
No need for action

Average Assessment

1% 20% 55% 90%

Leadership Ability

HC-1 Professional Competence
HC-2 Social Competence
HC-3 Employee Motivation
HC-4 Leadership Ability

SC-1 Internal Co-operation & Knowledge Transfer
SC-2 Management Instruments
SC-3 Information Technology & Explicit Knowledge
SC-4 Process Innovation

RC-1 Customer Relationships
RC-2 Public Relationships
RC-3 Relationships to investors/providers of capital/owners
RC-4 Relationship to co-operation partners

Division Corporate Management
Prof. Dr.-Ing. Kai Mertins

Fraunhofer Institut Produktionsanlagen und Konstruktionstechnik
The most important intellectual capital drivers within German SME

Ranking of the most important intellectual capital factors according their influence
(aggregated for all 14 Pilot-SME)

IV  V  XVI  XV  XIII  X  I  XI  VI  III  XVII  XIV  II  XII  VII  VIII  IX

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Summary and Experiences

- Step-by-step process with distinct quick-wins is important
- A bottom-up approach is best to achieve a sustained impact in the organization
- Second step is usually external communication to banks and customers
- External reporting to stakeholders without links to internal management is not considered credible in most of the firms
- Pull (from SME) instead of Push (from investors) is recommended
Benefits of Intellectual Capital Statement—Summary of companies` experiences

Improved management

- Increases transparency according to knowledge and competences
- Well-founded basis for decision making and organisational development
- Discovers improvement opportunities and innovation potentials.
- Supports the well-directed development of high potential components of intellectual capital

Improved external communication

- Improved relationship to stakeholders by higher transparency about the sources of organisation's performance
- Improved negotiating basis with investors and customers
Questions and Answers

Thanks for Attention

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