

# Measuring and Learning: The Impact of a Bottom Up Implementation of an Intellectual Capital Account on Individual and Organizational Learning Processes

**E.C.L.O. CONFERENCE**

*Transformation – the Ultimate Learning Process*

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- **Part I: Warming Up**
- **Part II: Introduction**
- **Part III: Organizational Learning and Transformation**
- **Part IV: Case Study**
- **Part V: Analysis of Case Study**
- **Part VI: Conclusion**

## Part I

# Warming Up

- **Can „transformation processes“ or „transformative learning“ be prescribed – or at least be taught?**
- **If not, what are adequate organizational settings in order to support individual and organizational learning processes?**

# Warming Up

## The Impact of Controlling

- **We see what our culture teaches us to see.**
- **We see what we have been told to see.**
- **We see what we have agreed upon to see.**
- **We do not see what we do not see.**
- **We do not know what we do not see.**
- **We cannot act on a reality which we do not see.**

**In business organizations controlling teaches us what to see.**

# Warming Up

## Controlling & Transformation

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- We see what we have been told to see.
- We see what we have agreed upon to see.
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- We do not know what we do not see.
- We cannot act on a reality which we do not see.
- **Action-related drivers have been transformed due to the application of a balanced scorecard, intellectual capital accounts, the EFQM-system etc.**

**In business organizations controlling teaches us what to see.**

**Controlling started to look beyond monetary facts and figures.**

# Warming Up

## Management & Transformation (?)

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- We see what we have been told to see.
- We see what we have agreed upon to see.
- We do not see what we do not see.
- We do not know what we do not see.
- We cannot act on a reality which we do not see.
- **Action-related drivers have been transformed due to the application of a balanced scorecard, intellectual capital accounts, the EFQM-system etc.**
- **How successful are we *really*?**

**In business organizations controlling teaches us what to see.**

**Controlling started to look beyond monetary facts and figures.**

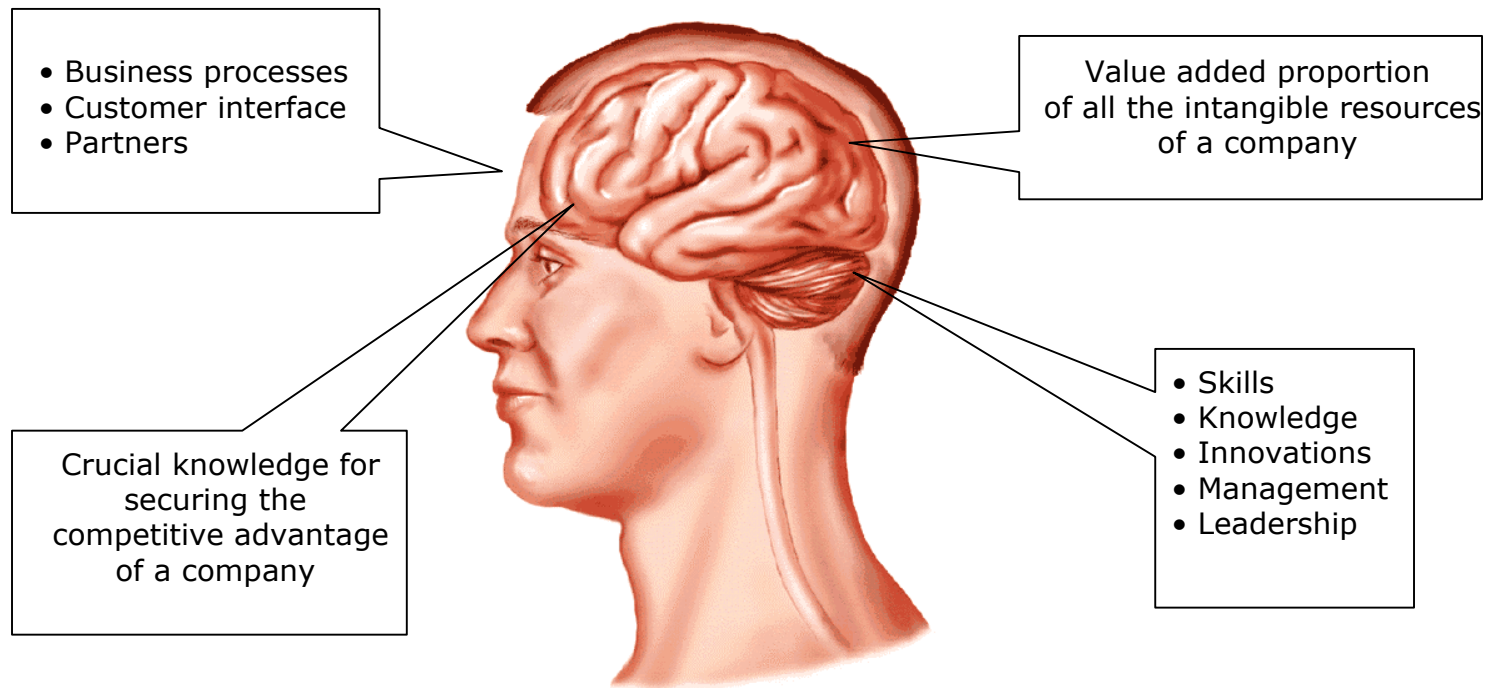
**Management did not learn that transformation processes *cannot* be prescribed**

## Part II

# Introduction

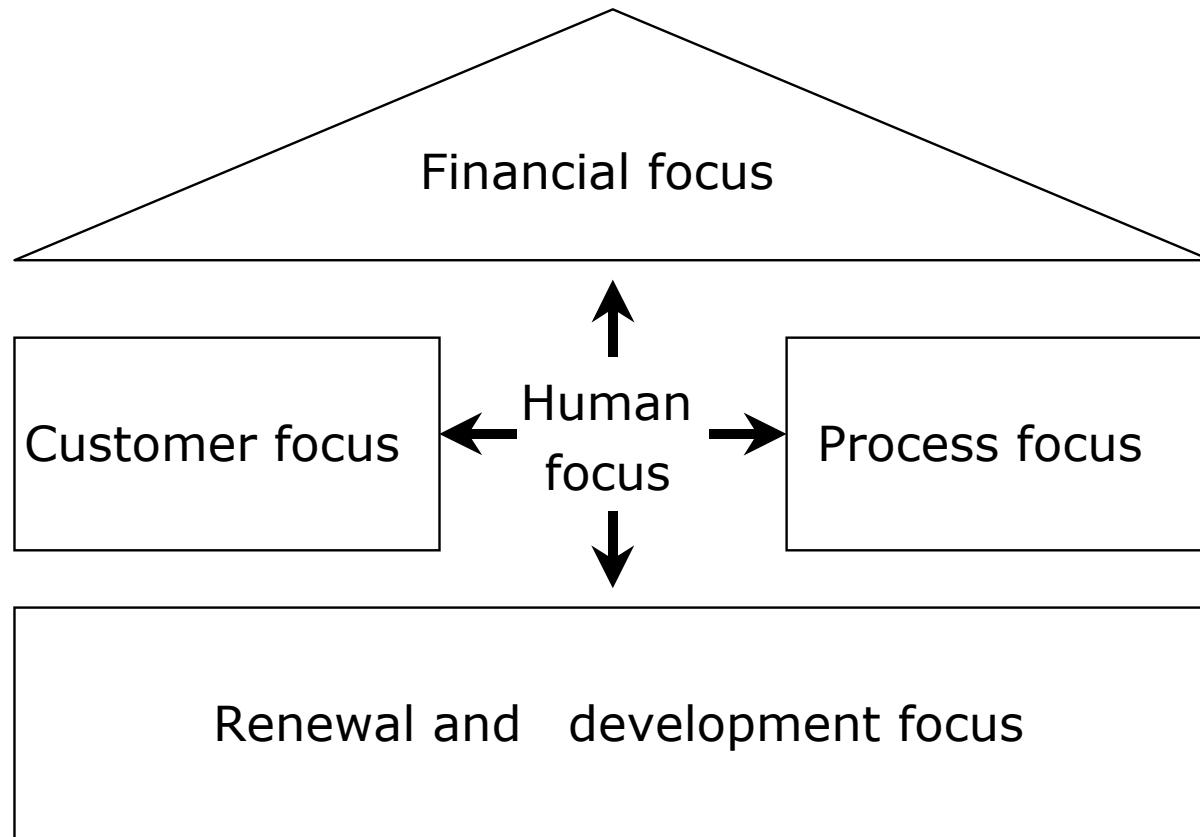
**The Intellectual Capital of a company can be defined as “the sum of the knowledge of its members and the practical translation of this knowledge into organizational action”.**

Source: Roos et al. (1997, p. 27)



# IC Measurement System

## Components - Example: Skandia Navigator



# IC Measurement System

## IC Accounting: Skandia Navigator

	1997	1996	1995	1994
<b>Financial Focus</b>				
• Return on capital employed	21,9	27,1	28,7	12,2
• Operating result (Mio. SKr.)	1.027	579	355	115
• Value added/employee (Tsd. Skr.)	2.616	2.206	1.904	1.666
<b>Customer Focus</b>				
• Number of contracts	189.104	133.641	87.836	59.089
• Savings/contract (Tsd. Skr.)	499	396	360	333
• Surrender ratio (%)	4,4	4,4	4,1	4,2
• Points of sale	45.881	33.287	18.012	11.573
<b>Human Focus</b>				
• Number of employees (fulltime)	599	418	300	220
• Number of managers	88	86	81	62
• Of whom, women	50	27	28	13
• Training expense/employee (Tsd. Skr.)	2,7	15,4	2,5	9,8
<b>Process Focus</b>				
• Number of contracts/employee	316	320	293	269
• Adm. exp./gross premiums written (%)	3,5	2,9	3,3	2,9
• IT-expense/admin. expense (%)	8,1	12,5	13,1	8,8
<b>Renewal-/Development-Focus</b>				
• Share of gross premiums written from new launches (%)	0,9	23,7	49,2	11,1
• Increase in net premiums written (%)	31,9	113,7	29,9	17,8
• Development expense/adm. exp. (%)	9,8	9,9	10,1	11,6
• Share of staff under 40 years (%)	76	78	81	72

- **Major problems of the implementation of IC accounts / BSC approaches**
  - **Missing link between strategic and operational perspective → Lack of alignment between measurement system and operational needs**
  - **Lack of involvement and thus commitment of middle management levels → Lacking commitment of “lower” level managers and staff**
  - **Identification of “wrong”/inadequate indicators → Agreed actions are not actionable, do not help to achieve goals or lead to missing focus**
  - **Lack of communication of the benefits of the IC-system → Lack of expectations regarding “quick wins” of the IC system**

**Σ The probability of a successful IC implementation is low**

## Solution: Organizational Learning Perspective

- **What are the implications of an IC system for organizational members?**
- **They have to change**
  - their **knowledge** in order to understand the new indicators
  - their **behavior** in order to achieve the goals that are measured by IC indicators
  - their **emotions** in order to be able to accept the new indicators
- **Implications**
  - These three perspectives represent three existential stances that man/woman can take with respect to the human condition: Knowing, feeling, and acting.
  - Rather than excluding one of these views, or harmonizing the differences between these perspectives on organizational learning, it can be assumed that all three components—knowledge, culture and action—have to be considered complementarily if organizational learning is to be promoted.
  - Management of learning makes it necessary to understand learning , not only as a matter of cognitive learning, but also of values, emotions and behavior.

## Organizational Learning Perspective: Consequences

- **All three learning modes - knowing, feeling, and acting – should be considered in the context of IC implementation.**
- **Hence, a theoretical perspective should be identified that allows us to take all three learning modes into consideration**

**$\Sigma$  Organizational learning  $\sim$  cultural learning**

- **To transform =**

**to change completely the appearance or character of something or someone, especially so that they are improved**

Source: [Cambridge Advanced Learner's Dictionary](#)

- **Implications**

- IC implementation should take into account the three learning modes

- knowing
- feeling
- acting

in order to achieve its full potential

## Part III

# Organizational Learning And Transformation

### Sonja Sackmann (1991) distinguishes between four classes of cultural knowledge:

1. *Dictionary knowledge* describes organizational reality that is considered to be relevant in a given cultural setting by its members, for example the strategy of a firm. The descriptive dictionary knowledge can be elicited by '**what?**'- questions.
2. *Directory knowledge* represents commonly held theories of actions, which contain causal-analytical attributions. The directory knowledge can be elicited by '**how?**'-questions.
3. *Recipe knowledge* consists of normative prescriptions or causal-normative attributions. Recipe knowledge can be elicited by '**what should be?**'- questions.
4. *Axiomatic knowledge* consists of causes, assumptions, and beliefs. Axiomatic knowledge can be elicited by '**why are things done the way they are?**'- questions.

# Organizational Learning

## Implications of Cultural Learning

Cultural Learning and Knowledge Types	Implications for IC management
<p><b>Dictionary knowledge</b> ("what?") is strongly related to functional domains, e.g. the change of incentive and reward systems.</p>	<p>IC indicators can be interpreted as a <b>transformation</b> of an organization's reward system, since the increasing transparency helps to focus the organizational member's behavior.</p>
<p>Changing <b>directory knowledge</b> ("how?") can be interpreted as an organization wide learning process, e.g. the change of organizational control mechanisms.</p>	<p>The implementation of an IC system can be interpreted as a <b>transformation</b> of organizational control mechanisms: Due to the higher level of transparency it becomes evident for each organizational member what is important for the organization – and what not</p>
<p>A change in <b>recipe knowledge</b> ("what should be?") can be triggered by the degree of autonomy and selection procedures, e.g. by the</p>	<p>IC implementation is often linked to a strategic perspective, i.e. to an organizational mission or vision.</p>
<p>Changing <b>axiomatic knowledge</b> ("why are things done the way they are?") is strongly related to the learning of (management) teams, e.g. by sharing beliefs of the dominant group.</p>	<p><b><i>IC implementation procedures often neglect this issue.</i></b></p> <p><b><i>The core assumption is, that top management "knows the truth" and the method "to capture it".</i></b></p>

- **Problems**

- Implementation of IC systems do not follow the complete range of cultural learning processes
- Changing axiomatic knowledge can be identified as an underestimated aspect of IC implementation

- **Consequences**

- IC projects should be implemented in such a way that all four layers of cultural learning can be taken into account

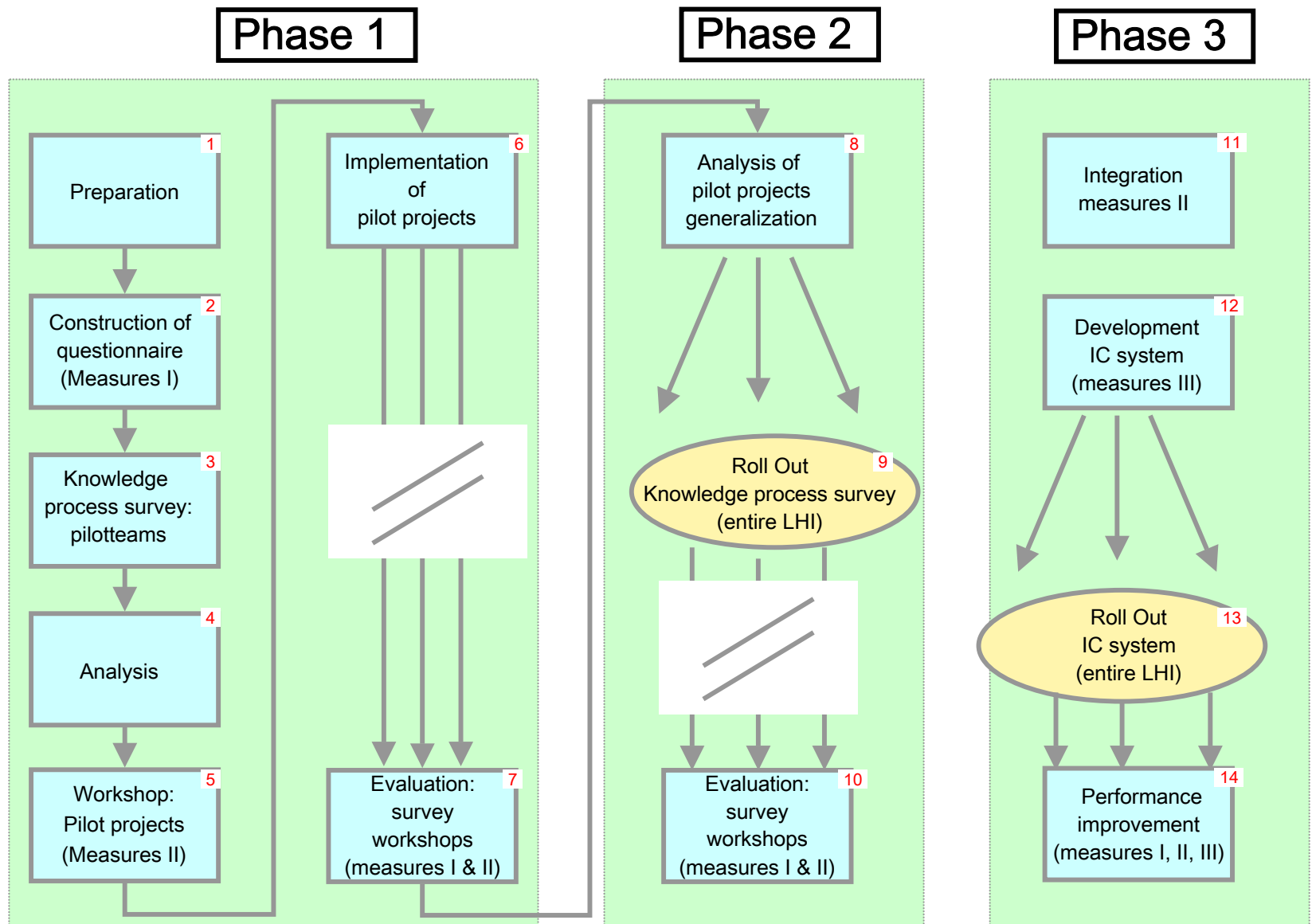
## Part III

# Case Study

- **Improving of knowledge management capabilities**
- **Development, implementation and evaluation of a knowledge-related measurement approach that provides information on impact of knowledge management activities**
- **Focus on bottom-up approach**
  - Learning & generalization
  - Resources
- **Implications**
  - IC system comes last – and is not part of initial activities

# Case Study

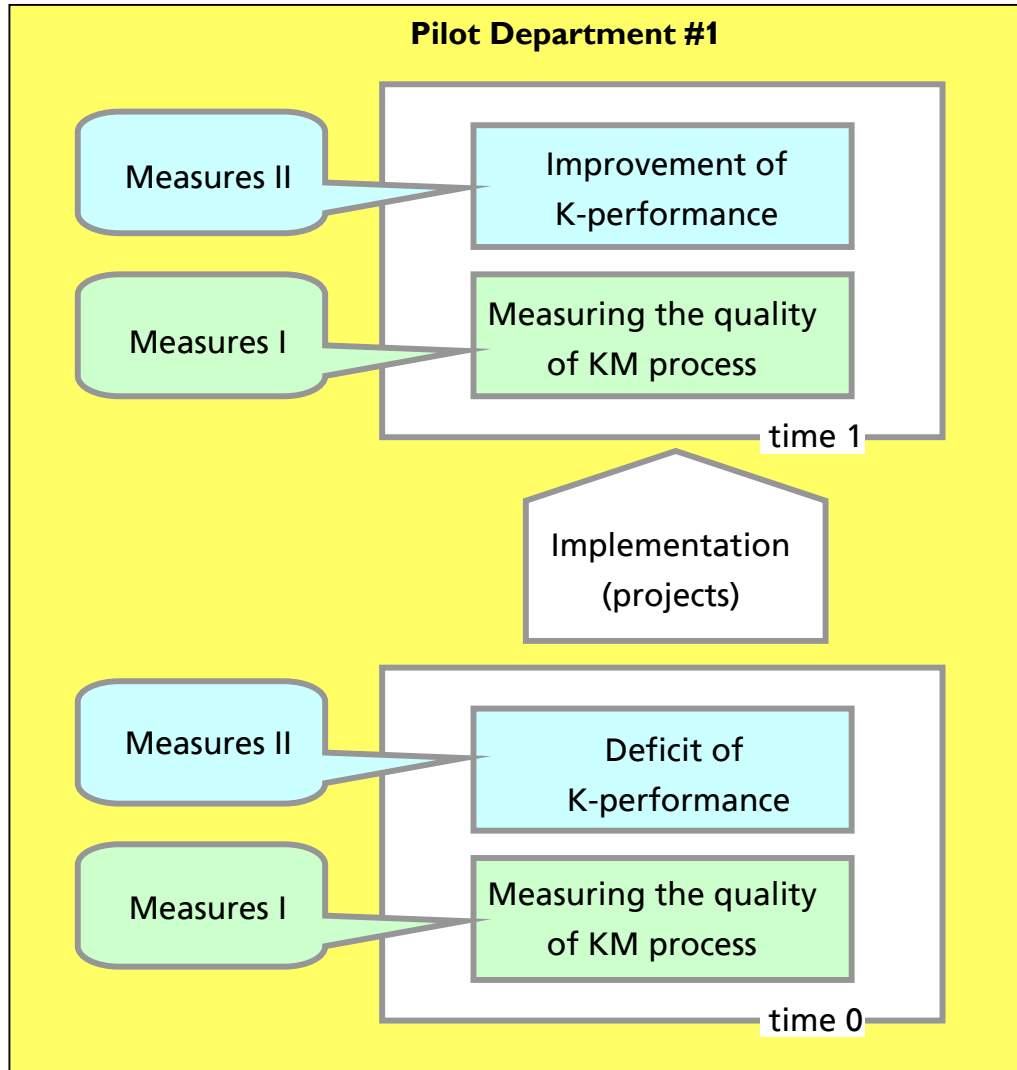
## Project Plan: Overview



- 1. Provide participants with knowledge-process-related measures that are self-explaining and show high relevance for the participant's benefits (measures I)**
- 2. Let participants interpret their own knowledge-process-related data regarding strengths and weaknesses. Enable them to identify projects and help them to develop very specific actions plans especially with regard to knowledge performance or project results (measures II)**
- 3. The definition of an IC account should consider both a strategic framework defined by top management and accepted type II-measures (measures III)**

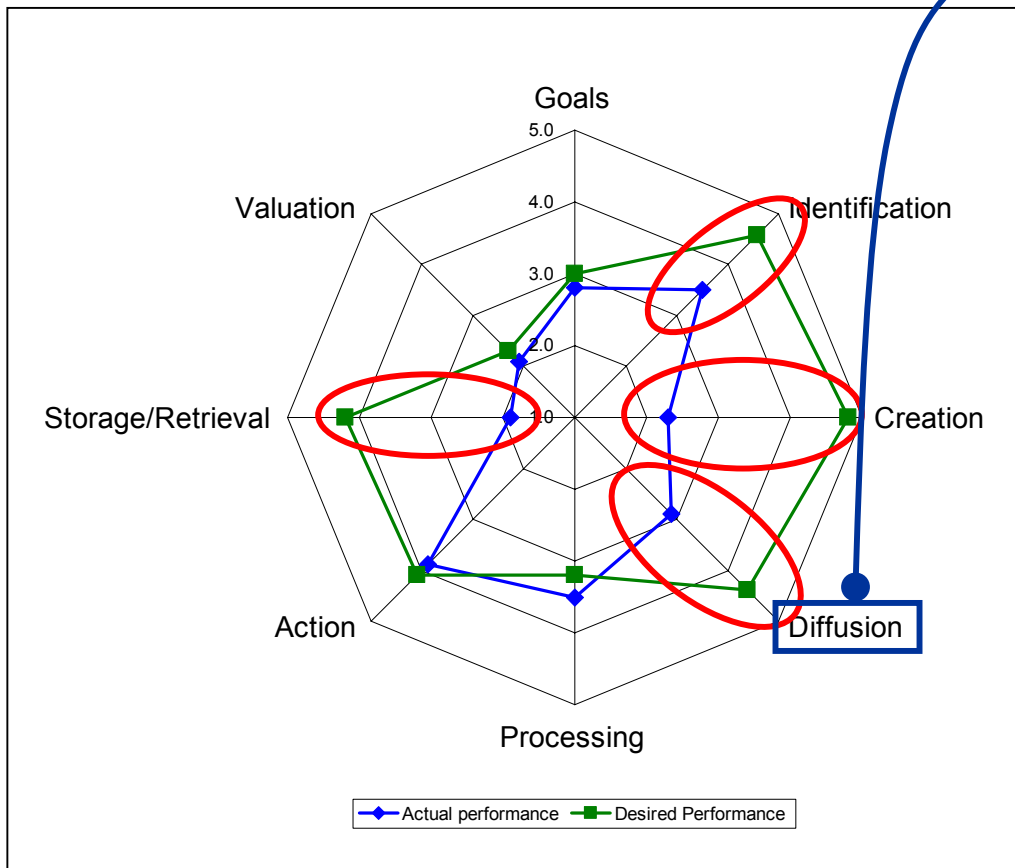
# Case Study

## Implications: Linking process and IC measures



# Case Study

## Example: Measures I & II



**Project (Ex.):**  
„Increase expertise transfer from sales professionals to rookies“

### Measures II

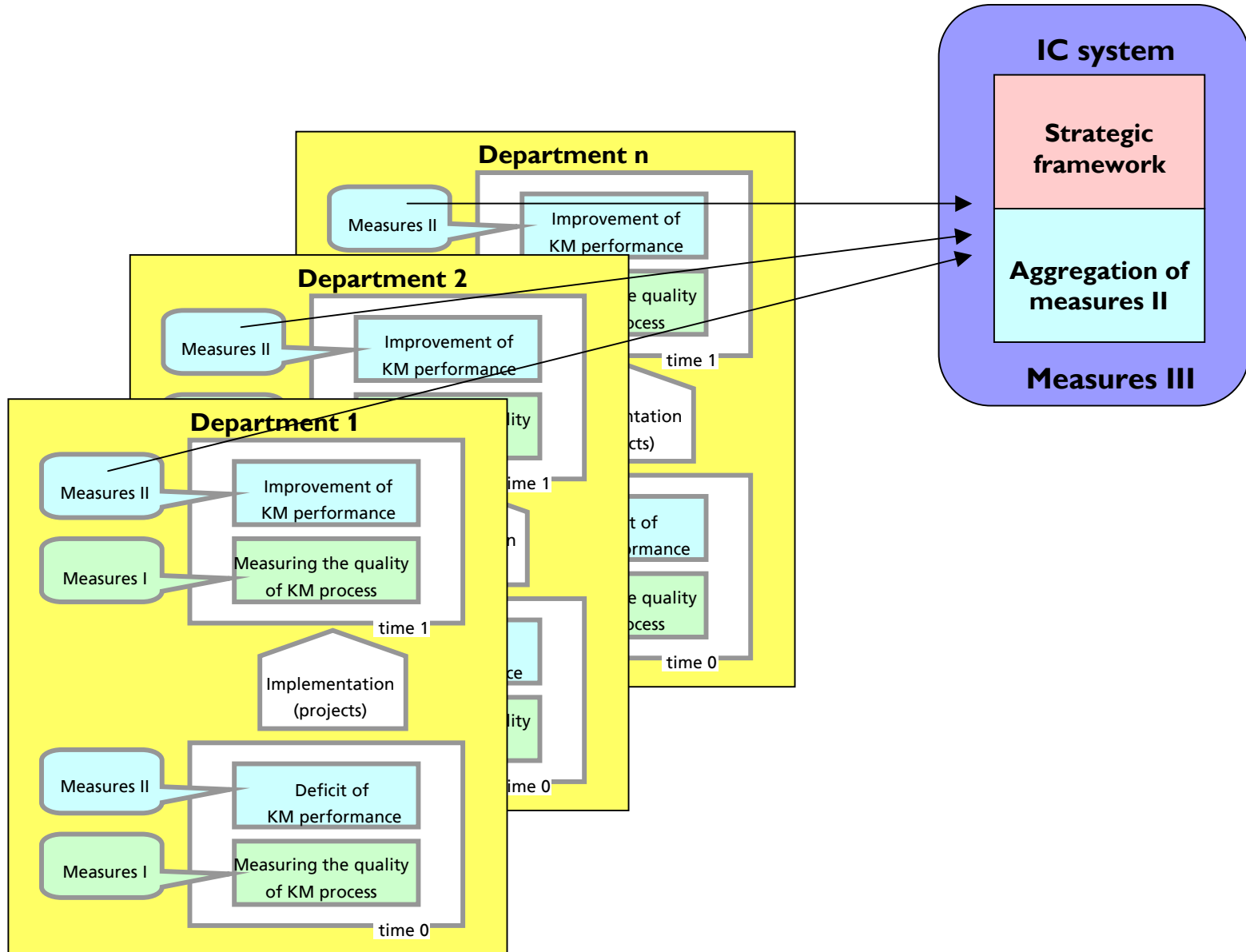
- Customer satisfaction
- Number of new contracts
- Turnover through new contracts
- Self esteem of rookies
- Time spent by „new intervention“
- Reduction of training time

### Measures I

- Actual vs. desired performance of k-related processes

# Case Study

## Implications: Linking process and IC measures



# Phase 1: Piloting an IC System (1)

Step	Brief description
1. Preparation	<p>A KM project team was established as well as top management commitment was realized</p> <p>The design of the overall project was developed.</p>
2. Construction of questionnaire (measures I)	<p>A questionnaire was developed in order to measure the quality of knowledge processes; the questionnaire included the following dimensions</p> <ul style="list-style-type: none"><li>• Knowledge related problems</li><li>• Quality of the knowledge management process (measures I)</li><li>• Drivers of knowledge management (knowledge potentials)</li><li>• Knowledge management related experiences</li></ul>
3. Piloting of knowledge survey	<p>There were two rules that have been applied in order to identify relevant pilot teams:</p> <ul style="list-style-type: none"><li>• High level of motivation regarding KM issues</li><li>• Strong relation to core processes of the company</li></ul>

# Phase 1: Piloting an IC System (2)

Step	Brief description
4. Data analysis	<p>The data were analyzed regarding the core dimensions of the questionnaire</p> <ul style="list-style-type: none"><li>• Knowledge related problems</li><li>• Quality of the knowledge management process (measures I)</li><li>• Drivers of knowledge management</li><li>• Knowledge management related experiences</li></ul>
5. Pilot workshops (Measures II)	<p>One day workshops with each of the two departments have been conducted; the design had the following structure:</p> <ol style="list-style-type: none"><li>1. Introduction</li><li>2. Conceptual basics of knowledge management</li><li>3. Analysis of results: Overview</li><li>4. Detailed results and implications for action areas</li><li>5. Action planning: Pilot projects in order to improve knowledge related performance (measures II)</li><li>6. Follow Up: The next steps of the project</li></ol>

# Phase 1: Piloting an IC System (3)

Step	Brief description
6. Implementation of pilot projects	<p>Both departments started with the implementation of the pilot projects, e.g.</p> <ul style="list-style-type: none"><li>• Improving meeting management</li><li>• Improving interdepartmental knowledge transfer</li><li>• Identifying and storing knowledge of leaving employees</li></ul> <p>Additionally, the following ideas for projects have been reported to top management:</p> <ul style="list-style-type: none"><li>• Implementation of an training concept for the entire company</li><li>• Implementation of a e-mail-standardization and –classification system</li><li>• Implementation of a yellow pages system</li></ul>
7. Evaluation of pilot projects	<p>After having accomplished the pilot project, both pilot teams run through an evaluation phase, including</p> <ul style="list-style-type: none"><li>• 2<sup>nd</sup> measurement of the quality of the knowledge management process (measures I)</li><li>• comparison between actual and targeted goals regarding measures II (project performance)</li></ul>

# Phase 2: Roll Out of an IC System

Step	Brief description
8. Analysis of pilot projects and improvement of design	<p>After having implemented the pilot projects it is important to learn from the previous experiences in order to improve the complete approach.</p> <p>Hence, the KM project team and the two pilot teams will identify strengths and weaknesses of the complete pilot phase within a half-day workshop.</p>
9. Roll Out of measurement system	<p>After having developed an improved version of the total measurement approach, this version will be rolled out throughout the entire company.</p> <p>Hence, this means, that steps 3 to 7 will be realized in the entire company.</p>
10. Evaluation of entire measurement system	<p>Finally, the complete approach will be continuously evaluated with regard to two perspectives (cf. step 7):</p> <ul style="list-style-type: none"><li>• 2<sup>nd</sup> measurement of the quality of the knowledge management process (measures I)</li><li>• comparison between actual and targeted goals regarding measures II (project performance)</li></ul>

# Phase 3: The strategic perspective

Step	Brief description
11. Aggregation of project related measures (measures II)	<p>On the basis of the implemented projects the company has learned to deal with performance measures II. This means that the company developed an accepted set resp. an universe of type II performance measures – measures, that are strongly linked with the improvement of knowledge related processes.</p> <p>Hence, the KM project team will aggregate these type II measures in order to develop a sound, accepted and approved set of measures for the operational aspects of the intellectual capital account subsequently to be developed.</p>
12. Development of the intellectual capital account system	<p>The top management team will first develop the strategic framework of the intellectual capital account. Additionally, the aggregated set of type II measures will be evaluated to their level of fit regarding the strategic context.</p>
13. Roll Out of the intellectual capital account system	<p>The IC system will be rolled out within the entire company.</p>
14. Continuous improvement of performance	<p>The IC system is the backbone to improve strategic and operational performance.</p>

## Part V

# Analysis of Case Study

- **On the basis of workshop (measures I) there have been 10 business projects identified that jointly can be described in terms of „increasing customer satisfaction“ by „improving processes & quality“**
- **For all of these projects, type II measures have also been identified**
- **Additionally, there has been also a high level of shared understanding that internal communication should be improved in order to achieve the business projects' goals.**
- **Unfortunately, there was no shared understanding on how to improve internal communication.**

- **The department (the manager and her employees) started lots of attempts to improve formal and informal communication style**
- **They did not ask for any team development activities**

**... and suffered from their lacking communication competence**

**... as well as from the increasing time pressure regarding business projects 1-10**

**... until**

**... until**

**... the manager detected that she is the most relevant obstacle to communication**

- **To put it in her own words:**
- ***„As long as I was not able to understand that I am just one part of the department – which means that I am not positioned above the department – so long the communication processes has been – and obviously had to be – suboptimal“.***

- **The manager was able to transform her own understanding or her own assumptions of what it does mean to be a manager.**
- **Interpretation**
  - axiomatic knowledge (Sackmann) has changed
  - „deutero learning“ and „double loop learning“-processes occurred (Argyris & Schön)
- **Implications: Such processes**
  - are based on insight
  - deal with the organization`s values
  - and can hardly be prescribed

- Identified knowledge problems chosen to be improved
  - Lack of transparency within the team
  - Lack of using knowledge and experiences of other team members
  - In return: double work
  - suboptimal problem solving
- Communication related KM projects
  - Improving meeting management  
(new established „Knowledge circle“ meetings)
  - Improving feedback and (knowledge) communication within the team
  - Identification and storage of team members´ expertise as well as of leaving employees´ knowledge

- Measures II – Input perspective
  - Existence of an agenda for the new kind of meeting („knowledge circle“)
  - Agenda was developed together and is agreed upon by the team-members
  - Agenda is flexible to team ´s needs
  - Team set up rules for the knowledge circle-meetings
  - In every meeting, every team-member reports about his/her current situation (topic of the week, problems, questions, etc.)
  - In every meeting, the team deals with its own feedback-culture
  - Every meeting gives time for self-reflexion
  - Documentation of shared knowledge is prepared

- Measures II – Output perspective
  - Number of knowledge circles in relation to all team meetings
  - Quality-aspects
    - Employees' satisfaction
    - Degree of using the transferred knowledge
    - Satisfaction with identification of experts
    - Improved learning
    - Mistakes avoided
  - Quantity-aspects
    - Efficiency
    - Saved time

- Measures II – Output perspective
  - After-effects
    - Improvement of communication in general
    - Application of rules also outside the knowledge circles
    - Experience in other situations
    - Transfer of positive experience to other departments
    - Documentation in knowledge-database

- **Status quo**

- Far better understanding and „team-culture“
- Far more transparency (knowing about the team mates, their daily work, current problems etc.)
- Far more knowledge transfer during (and outside!) the meetings (more questions asked, more answers given)
- Reduction of time needed for problem solving and individual creation of knowledge
- Improved identification and motivation of team members
- Highly positive estimation of top management

## Part VI

# Conclusion

- **Individual Learning**

- Focus on agreed goals and an adequate environment for self organization are key to the occurrence of higher-level learning or transformational learning processes
- Co-operation, trust and willingness of the others affect the transformational learning processes in a positive way

- **Organizational Learning**

- The initial idea not to focus on a strategic implementation of the IC system has been advantageous
- The development of measures II provide the context for involvement, commitment, and long-term success.

# Transformation

## Generalization

Old Paradigm	New Paradigm
Managers are not part of the system, they are outside (on the top) and know best	Managers are part of the system and have also relatively little information
Organizations/employees can be controlled	Organizations/employees control themselves by self organization
Leadership relates to few persons	Everybody is a leader in the company
Goal of management is maximizing profit	Goal of management is long term survival by self transformation capability
reality can be objectively observed, hence there exists just one valid interpretation of reality	reality is a product of communication/shared interpretation of reality; hence there exist as many realities as persons and groups are existing
concept of resistance is adequate	concept of resistance is meaningless because this concept implies the superiority of manager's or consultant's point of view/reality

- **Need for transformation in IC system implementation**
  - by creating a fundamental shift in the way organizations do business, and creating cultures that support that change.
  - by making sure that the organization's purpose is clear, and that goals and values are consistent with reality.
  - by ensuring that employees are valued in an inclusive culture, and that they are committed to their company's success.
  - by designing processes that get the work done, and are monitored and managed for quality.
  - by cementing structures that support the new behaviors, and spread your message both inside and outside the organization.

**Thank you very much!!!**