



## **SEFI European CEE Forum 2009**

# **Quality Plenary: Theory & Practice & Experiences of Implementation in TKK Dipoli**

**Moderator Markku Markkula**



**This Forum looks for practical results.  
The work is very much based on:  
DAETE & UNI-QM**



**EFQM Self-assessment Model for  
Continuing Engineering Education**

Development of Accreditation in Engineering  
Training and Education

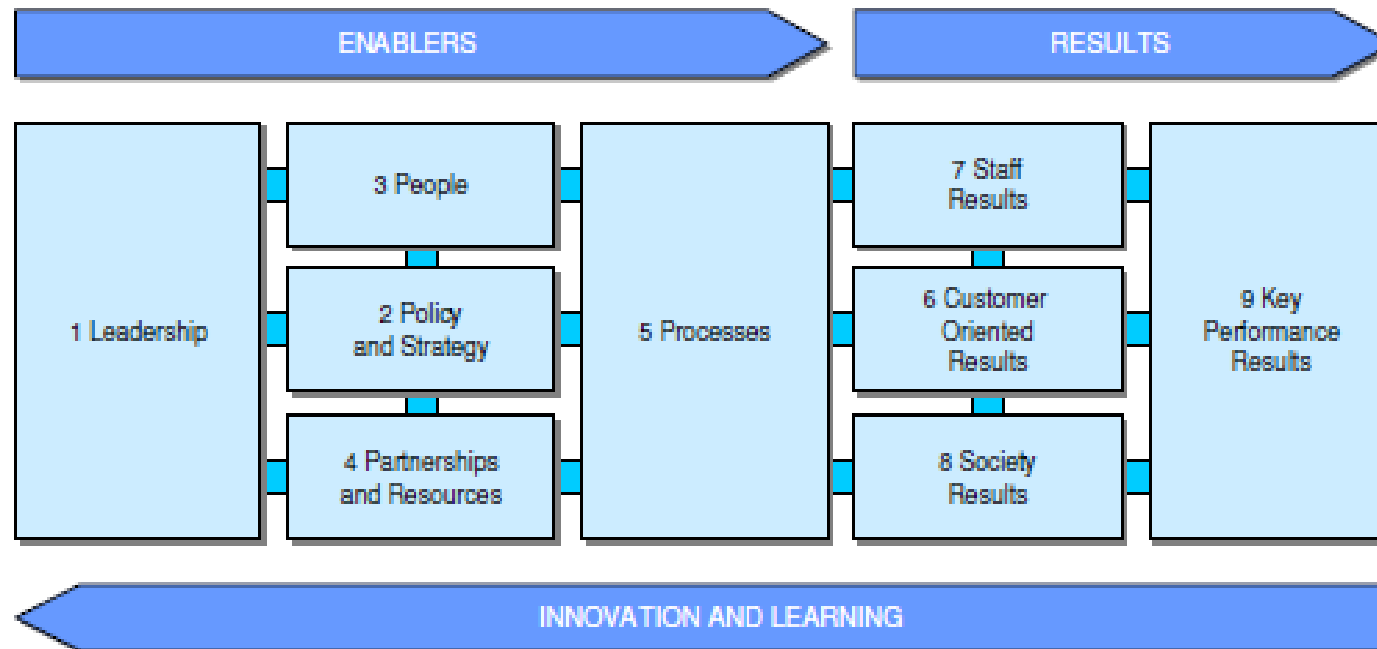
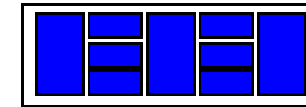
Reference number: 2006-4589-004-001-OPT-USA  
Supported by: European Commission, FPSE

BETA TEST 3  
September 2008



# IACEE /DAETE: EFQM Self-Assessment Model for CEE

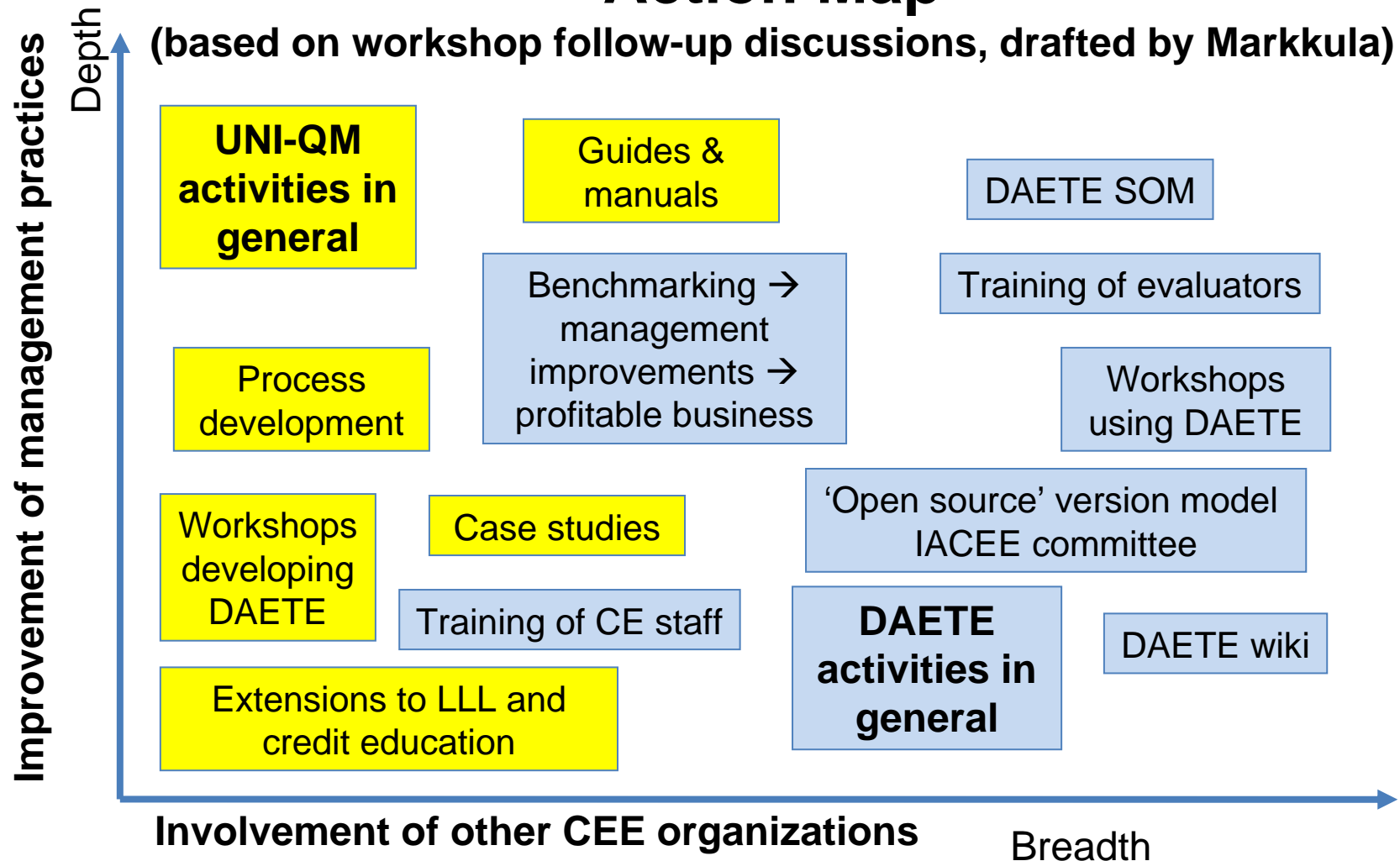
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The development is done by the EU-US Atlantis programme DAETE - Development of Accreditation in Engineering Training and Education. Four EU universities (Helsinki University of Technology TKK, Imperial College London ICL, University of Porto UP, Universidad Politécnica de Valencia UPV) and four US Universities (Georgia Institute of Technology GT, Rensselaer Polytechnic Institute RPI, University of Michigan - Ann Arbor UMich, University of Wisconsin - Madison UW) are benchmarking their CEE processes, management and results. All of them have done the self-assessment and scoring of the 9 criteria which are divided altogether to 39 sub-criteria. The next step is organized as a part of the IACEE World Conference in Atlanta in May 2007.

## IACEE & DAETE Workshop in Dipoli 10 Sept 2008:

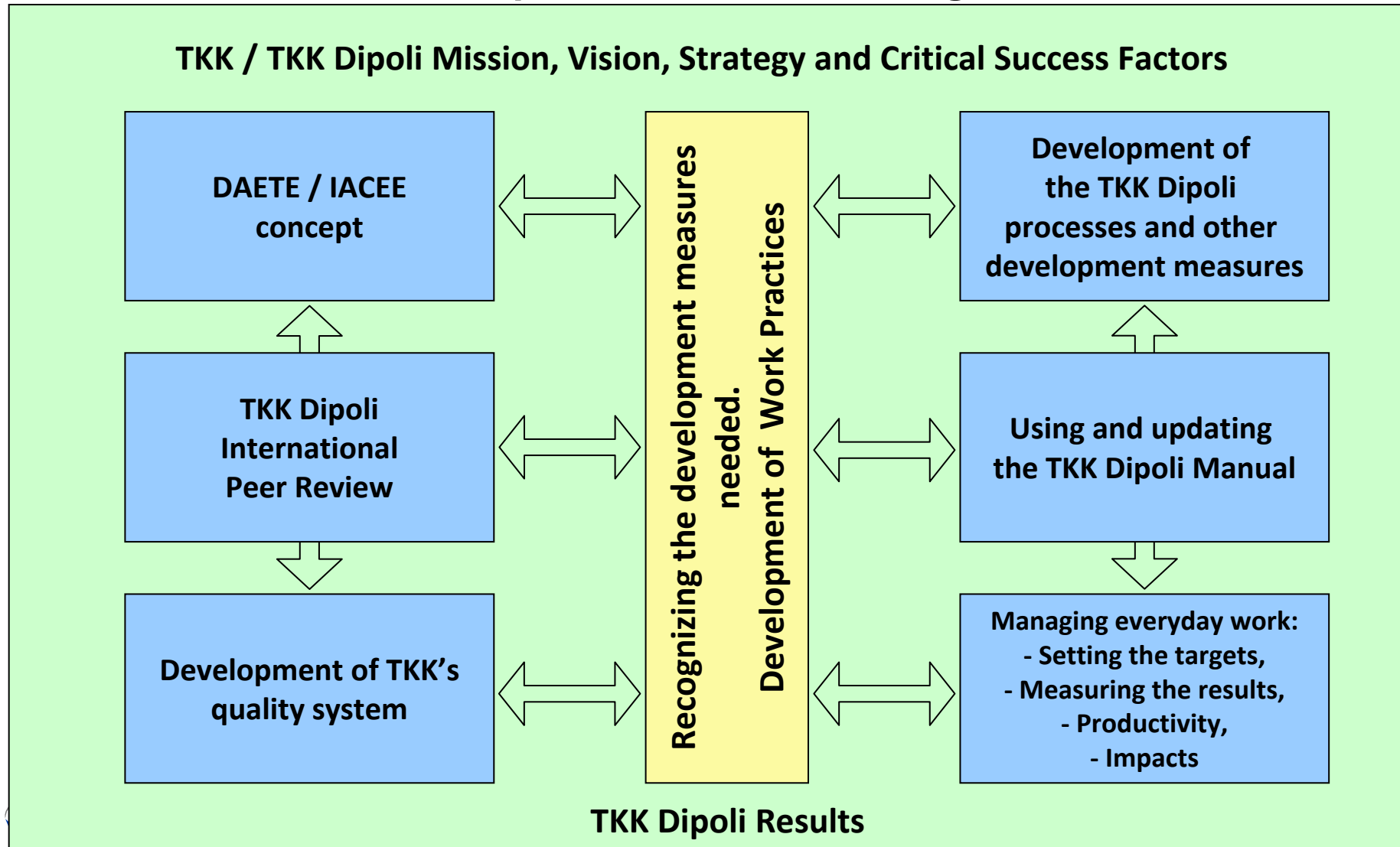
# Action Map



TKK Dipoli Markku Markkula

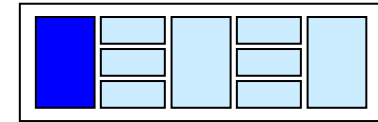
DAETE & UNI-QM & IACEE need to make decisions: What directions first and what order, for example benchmarking prior to open source models or more training, when to extend for new universities, etc?

## Understanding the big picture: Managing and linking everyday work and development activities to tangible results

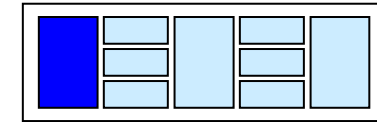


## Special Development Tasks Done Due to Use of DAETE/EFQM Matrix in TKK Dipoli 2007-2008

Navigation Panel



- International Peer Review 2007 was a good impulse to use of DAETE/EFQM Matrix as a quality tool
- One day workshop of the management group was held in the summer of 2007
  - Self Assessment was done using the DAETE/EFQM Matrix
  - Special development actions was recognized and prioritized
  - Strategic plan was outlined and development tasks were assigned
- Several actions were conducted after the workshop, e.g.
  - Clear goals were set for all processes as well as production and support teams conducting the processes
  - More responsibility was transferred downwards (heads of production groups)
  - The work distribution in management group was clarified and the group cohesion and collaboration was significantly improved
  - Supervisors group meetings once a week, which also Improved collaboration between different teams
  - R&D process was systemized and the marketing process was further developed
  - HR processes were updated and leadership was developed
  - The financial reporting was made "online" and some of the silos were ripped down
  - **SOME OF THE RESULTS FOR YEAR 2008 ARE SHOWN ON THESE SLIDES**



# DAETE EFQM Model as a Practical Management Tool in TKK Dipoli

**EFQM /DAETE Criteria**

**1.Enablers (Criteria 1-5)**

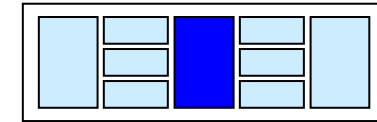
**2. Results & impact (criteria 6-9)**

**A. Managing present**

**B. Managing future**

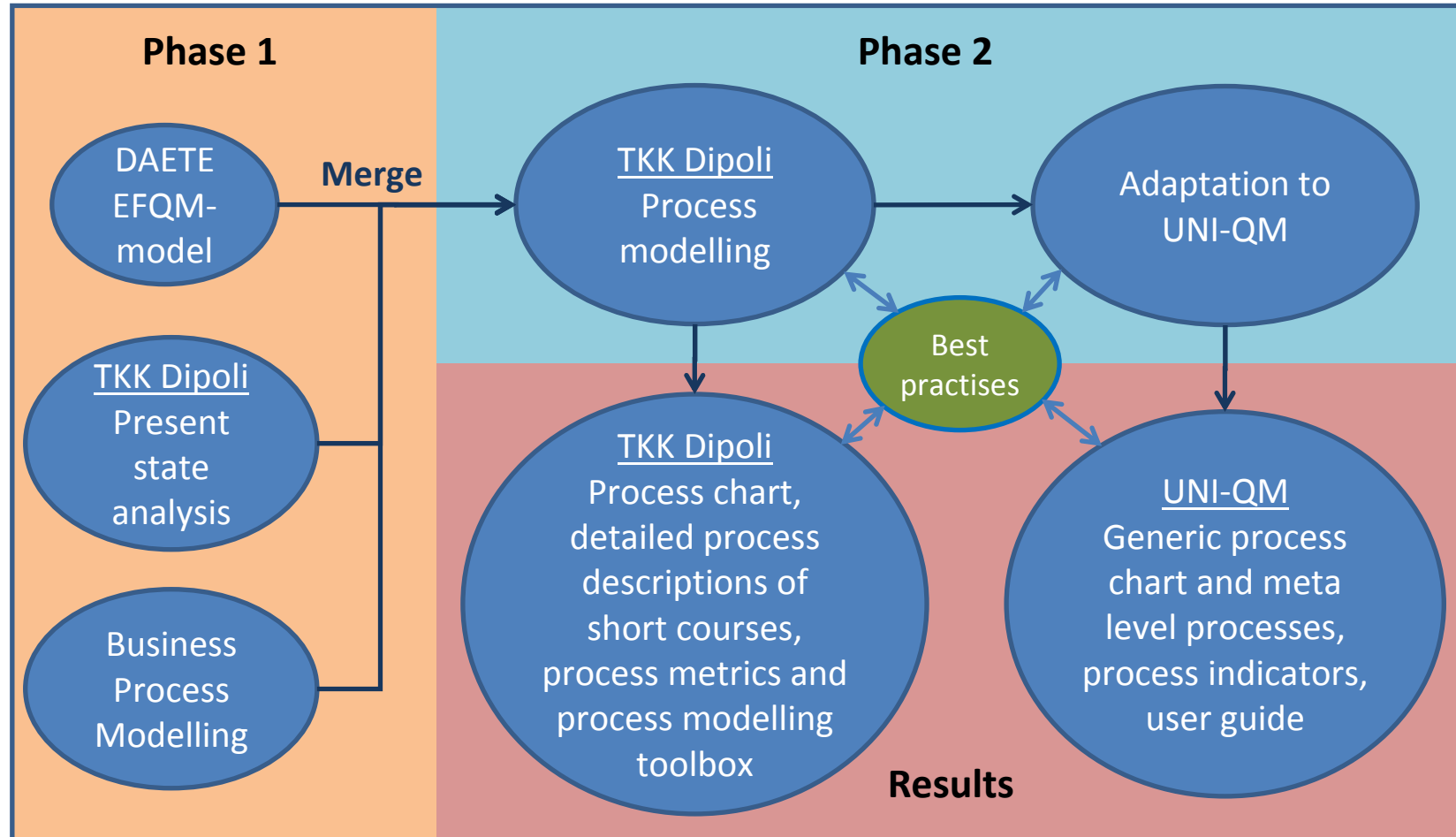
<p><b>Defining and arranging enablers (processes) “what we have”</b> and making these easily available for all in the centre. This means:</p> <ul style="list-style-type: none"> <li>• Collecting and arranging present practises, process documents, etc.</li> <li>• Creating and promoting a common framework / “language” for dialogues within the centre</li> <li>• Finding and communicating best practises amongst the practises already in use</li> <li>• Increasing “doing together” between different processes and teams</li> <li>• Helping everybody to understand better the business we are in and what possibilities we have</li> <li>• Involving and motivating management and staff</li> </ul>	<p><b>Defining development areas to improve defined activities to the chosen level</b></p> <ul style="list-style-type: none"> <li>• TKK Dipoli Balanced Score Card (BSC) is used as framework to prioritise and planning of improvement actions which includes internal and external improvements</li> <li>• The dialogue between the management and the staff is an essential part in the planning the development as well as in learning and implementation of changes</li> <li>• Development steps are scheduled for the years                         <ul style="list-style-type: none"> <li>•2007</li> <li>•2008</li> <li>•2009</li> </ul> </li> <li>• The results and impacts of the chosen development activities are systematically monitored and discussed</li> </ul>
<p><b>Defining and understanding what we have achieved and how</b> and making the results and reasons clearly visible all over the centre. This means:</p> <ul style="list-style-type: none"> <li>• Collecting the result data from the whole centre</li> <li>• Involving everyone in inspecting his/her own results and the underlying strategies, facts and believes</li> <li>• Helping us to understand what depends on what and how to use our critical success factors</li> <li>• Helping to choose the right measures and abandon wrong ones</li> <li>• Getting everyone to focus his/her work on the most important targets of his/her role and responsibilities</li> <li>• Making basis for communicating and managing every-day productivity and innovativeness</li> <li>• Increasing our strategic abilities to manage the future</li> </ul>	<p><b>Defining new goals and measures</b></p> <ul style="list-style-type: none"> <li>• The BSC framework is used to ensure the goals and measures are in balance with the mission, vision and strategy as well as with the stakeholders expectations</li> <li>• The goals and measures are defined and communicated transparently in the whole organisation and everybody is involved in the goal setting process</li> <li>• Every staff member has his/her role and responsibilities and he/she should focus on that i.e. not to try to understand and do the work of the others for example the work of managers</li> <li>• The results are transparent to the staff and improvement actions are made on the basis of the results measures</li> <li>• The strategy is updated frequently as described in the strategy process document</li> </ul>



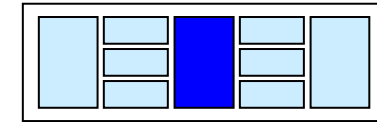


# Process Development Project Work Concept

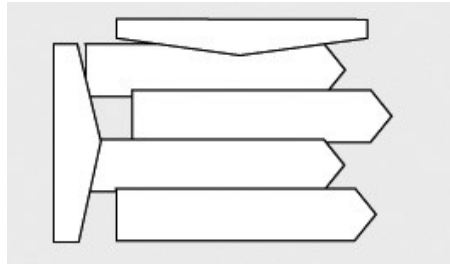
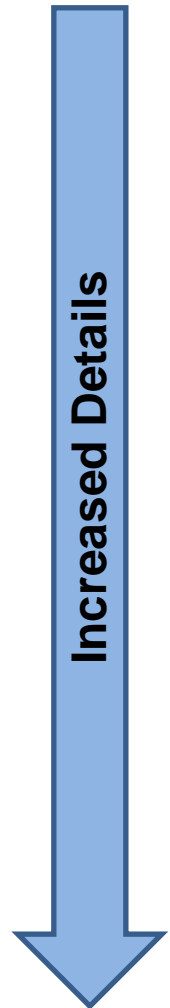
## Case: Development of TKK Dipoli's Short Course Delivery Process





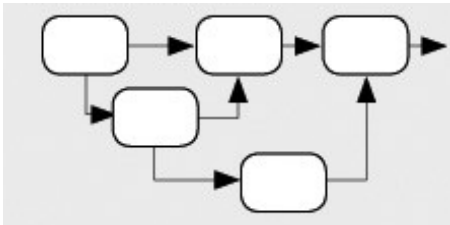


## Process Description Levels



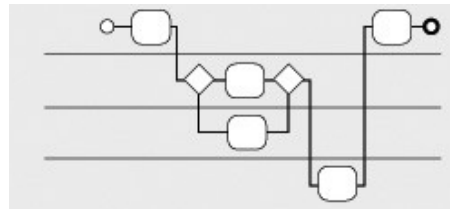
### Process Chart

- Gives the big picture of the organization



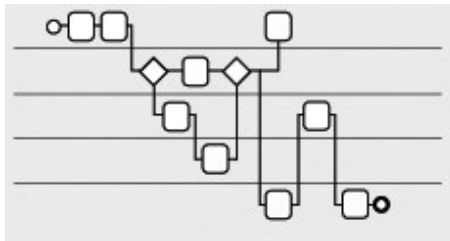
### Operational Model

- Shows process hierarchy
- Integrates processes



### Process Flow

- Describes actions, the principles of actions, and responsibilities



### Work Flow

- Detailed task descriptions, shows individual work

## In CEE Management We Should Use the Best Business Life Theory and Practices: **Strategy Maps**

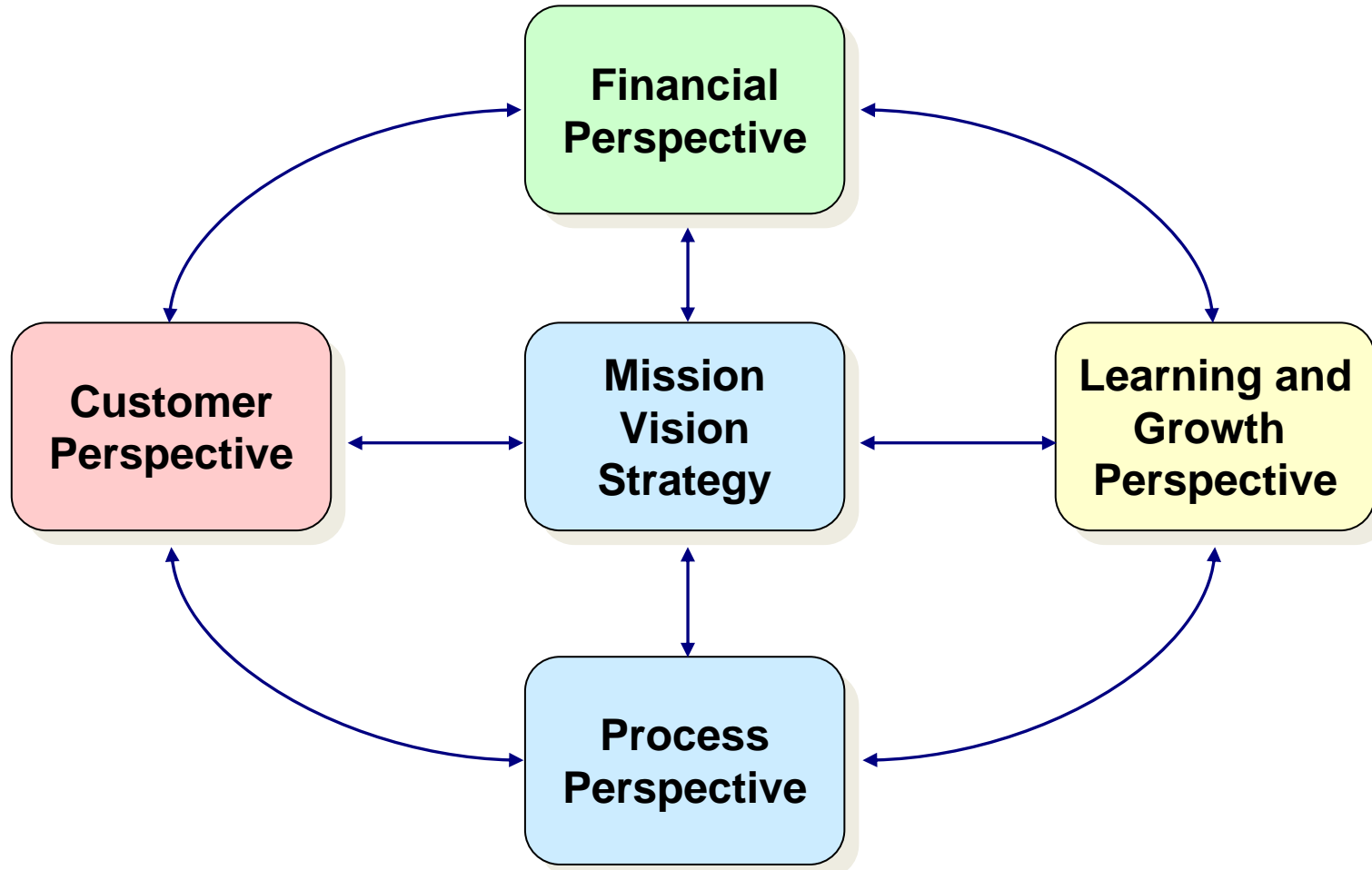
Norton & Kaplan, 2008: A strategy map describes the process of value creation through a series of cause-and-effect linkages among objectives in the four Balanced Scorecard perspectives

- The ultimate goal of an organization is to create long-term value for shareholders (private sector) or stakeholders (public sector).
- Organization value is created by satisfying customer value proposition.
- Internal processes create and deliver the value that satisfies customers, and they also contribute to the financial perspective's productivity objectives.
- Intangible assets (people, technology, and culture) drive performance improvements in the critical processes that deliver value to customers and shareholders.

*Robert S. Kaplan and David P. Norton, The Execution Premium – Linking Strategy to Operations for Competitive Advantage, Harvard Business Press 2008.*



# Generic Balanced Scorecard Perspectives by Kaplan and Norton



# Value Creation Process

by Systemizing the Development of the Organization and its Processes

Development measures need to be systemized from 4 different perspectives:

1. Financial Perspective,
2. Customer Perspective,
3. Process Perspective,
4. Learning and Growth Perspective



That meet our shareholder (stakeholder) expectations



That provide a satisfying customer experience



To deliver the strategic processes

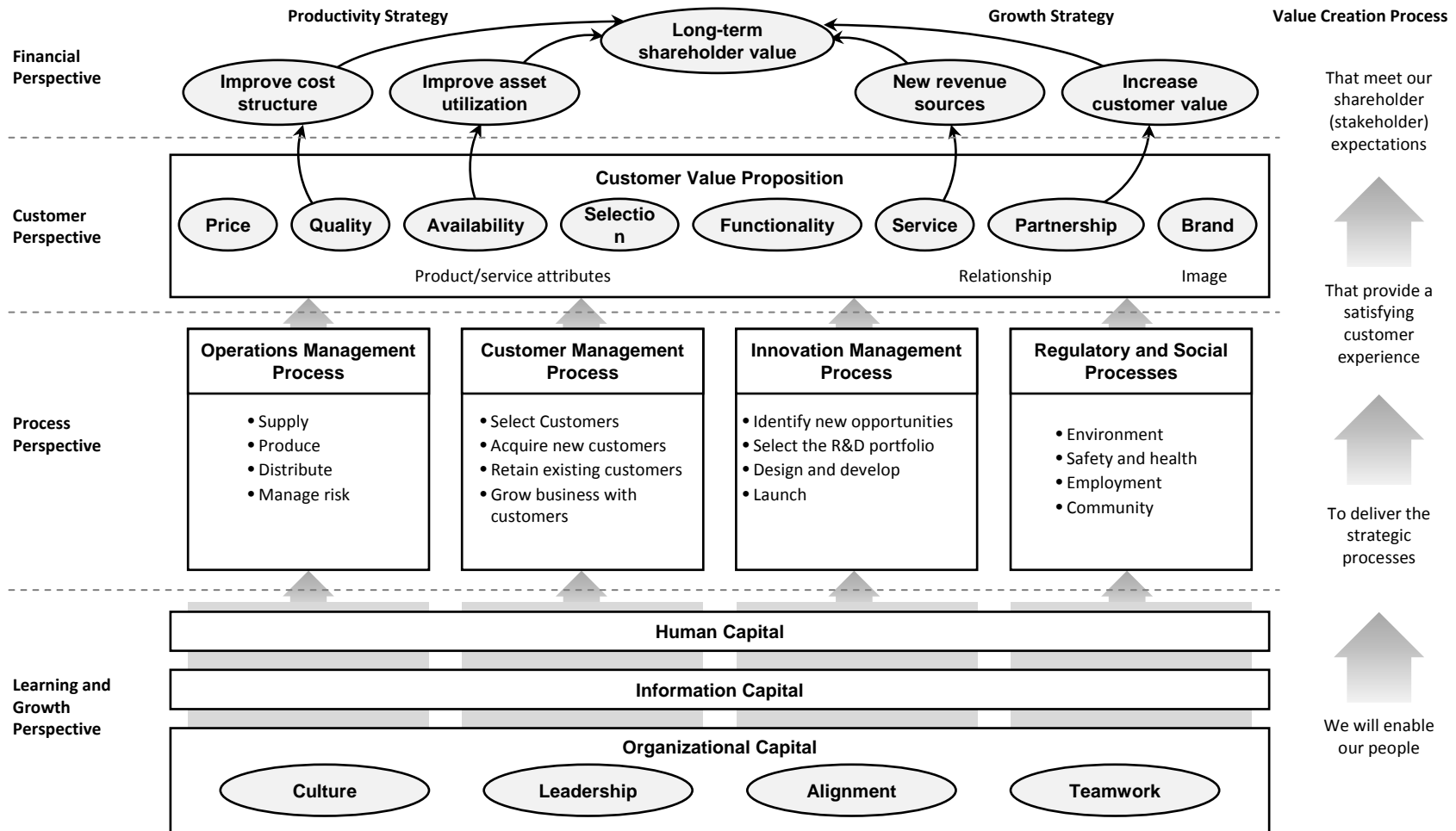


We will enable our people

**What do we want to achieve? The outcomes are:**



# Kaplan & Norton 2008: The strategy map describes the way the organization intends to create value for its stakeholders



Robert S. Kaplan and David P. Norton, *The Execution Premium – Linking Strategy to Operations for Competitive Advantage*, Harvard Business Press 2008.



# University Strategy Map Framework Development

The Generic Balanced Scorecard and Strategy Map frameworks may be used as such as the basis for the development of the University's Strategy Map.

The University's basic strategic models are integrated to enable a systemic formulation of strategic cause-and-effect relations. This enables the definition of strategic outcomes, value propositions, themes objectives, performance indicators, target values etc. resulting in action plans with initiatives and budgets.

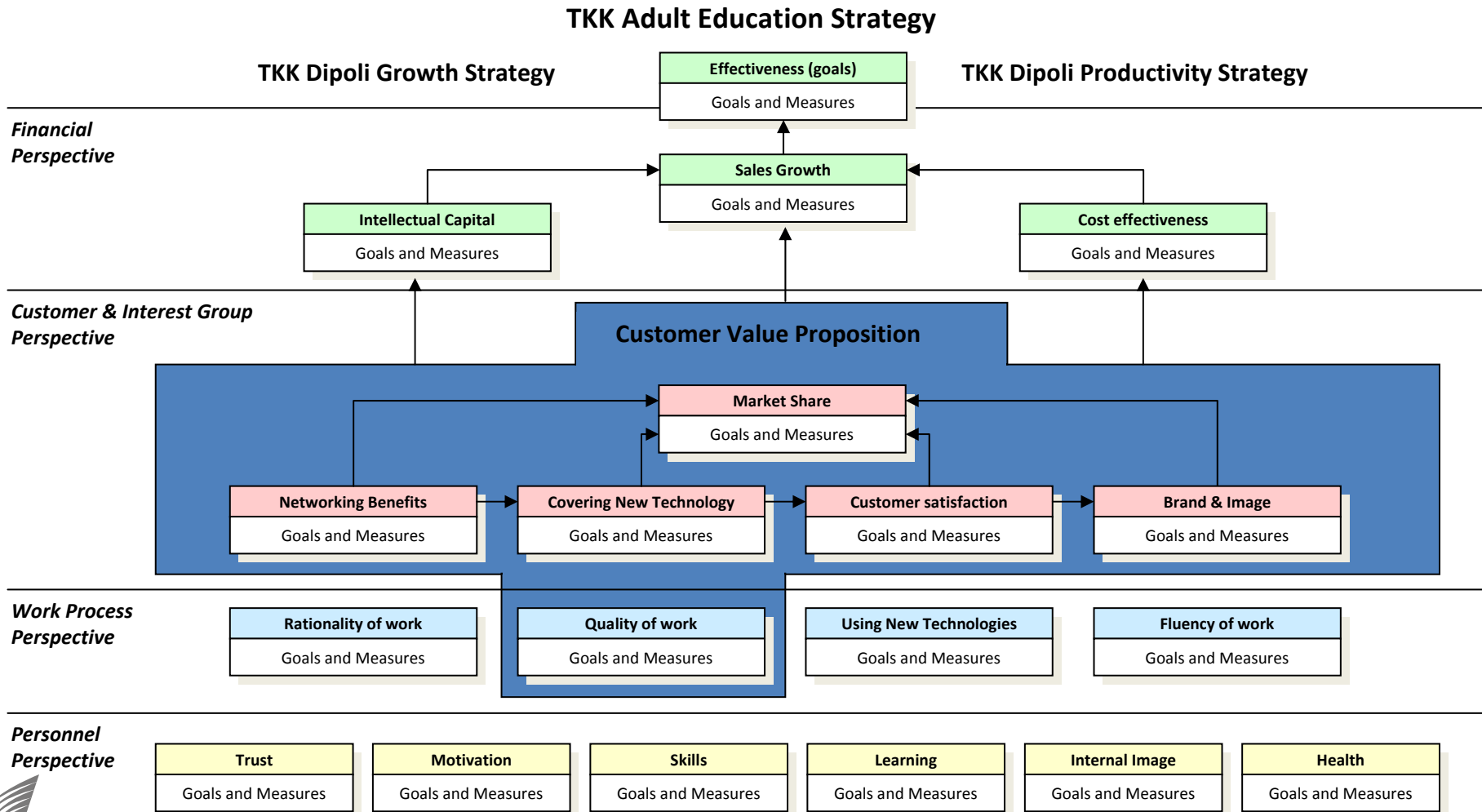
The strength of linking Strategy map, Balanced Scorecard and action plans is consistency. Instead of a fragmented approach everyone uses the same overall strategy. The strategy can also be more easily visualized on different levels of the organization to inspire people to actions leading to the same direction. EFQM-based Quality Systems are totally compatible with this approach.

In this case following models have been chosen as frameworks in the different perspectives

- Mission, vision and strategy: University's three missions
- Financial / Stakeholder perspective: Triple Helix Model
- Customer perspective: Competence Triangle
- Process perspective: Knowledge Triangle
- Learning and growth perspective: Innovative Environments Triangle



# Example: TKK Dipoli Strategy Map & CSF:s Model



# Good Practice: University of Leeds Strategy Map

