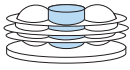
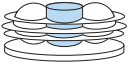




DHC Vision

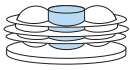
Integrated Process Management,
Balanced Scorecard, Document-
and Project Management





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1 | What is Business Process Management?

Cost pressure, transparency in the light of legal requirements, quality, globalization and innovation are buzzwords often associated with business process management. What is behind all this?

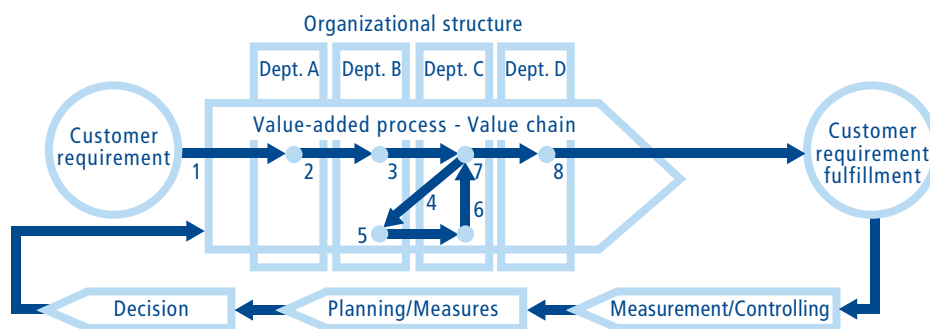
Usually business processes are associated with modern management methods, allowing a company to adapt its organization flexibly to meet market requirements. In fact, a company's process-oriented focus leads to decisive strategic advantages:

- ♦ shorter innovation cycles, i.e. accelerated time to market of products and services,
- ♦ expeditious response to market changes,
- ♦ productivity increase due to increased efficiency

These result in the fact that tasks and functions within a company are not task related on an isolated basis but are seen from an integrated point of view and thus focusing on actual targets.

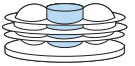
At its core, a business process is the organizational process between customer requirements and customer requirement fulfillment. The consequential focus on the customer's processes guarantees that production does not completely miss the market and essentially aims at satisfying customer needs. All other management, support or "research and development" processes focus on just this one process.

Business process management refers to the control cycle governing the individual business processes. A control cycle always consists of measuring, planning and corrective actions and thus supports the continual improvement of business processes. Illustration 1 depicts this context.



„Process management closes the control cycle from customer requirements to fulfillment of customer requirements.“

Illustration 1: Business process management control cycle



For business process management it is therefore important to not only know ones processes but have defined and documented them in order to facilitate their measurement and improvement. For this purpose, a process structure is needed resulting from the company's business strategy. The Balanced Scorecard thus constitutes a suitable instrument to convey a company's business strategy comprehensibly. The Balanced Scorecard provides information on which skills; qualifications and systems employees require in order to design the right capacities and resources strategically for an optimum in designing the process of customer requirement fulfillment. Thus, corporate strategy and process management and accordingly process design and Balanced Scorecard closely relate as strategy directly influences the business processes, with process measurement delivering vital information in respect to the success of initiated measures!

Ultimately, all this is finalized by one further dimension being that of the IT system support of business processes.

When designing business processes, not only business process management requirements but also all organizational and technical aspects of Compliance, Risk and Change Management need to be observed as well. These represent the key potentials for optimization: cost reduction, transparency, quality improvement and compliance. Thus, it is necessary to standardize and harmonize processes (for example via implementation of an ERP system such as SAP). The benefit is evident: standardized processes lead to a transparent organization, defined roles and responsibilities, less ERP system induced maintenance cost and greater security due to improved transparency.

Organizational and technical changes are an iterative, continuous process, which runs in four phases (See Illustration 2):

- ♦ Strategy: Determination of the corporate or partial strategy, the Balanced Scorecard, process landscape and main processes
- ♦ Design: Design as well as documentation of standardized and harmonized business processes including the necessary key performance indicators and critical success factors for performance measurement
- ♦ Implementation: Organizational and technical implementation of business processes, performance indicators and critical success factors
- ♦ Monitoring: Business process measurement, processing of measurement results, comparison with the targets set down in the Balanced Scorecard, identification of the necessary organizational and technical measures, decision support

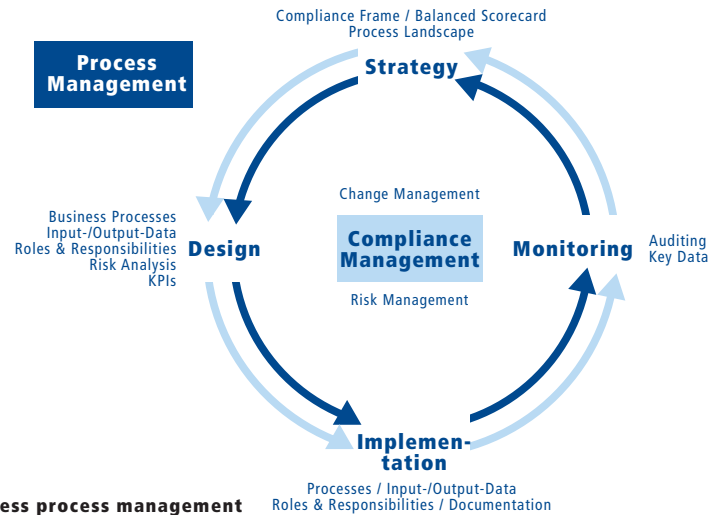
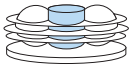


Illustration 2:
Holistic business process management

Business processes are optimized on account of consequent standardization and harmonization of management, main and support processes across all corporate functions. Process management closely links to Compliance Management. Thus, business processes are not only optimized but also made more secure; meaning their compliance to corresponding regulations is ensured. DHC Vision has been developed to provide optimal support for process management.

2 | What is DHC Vision?

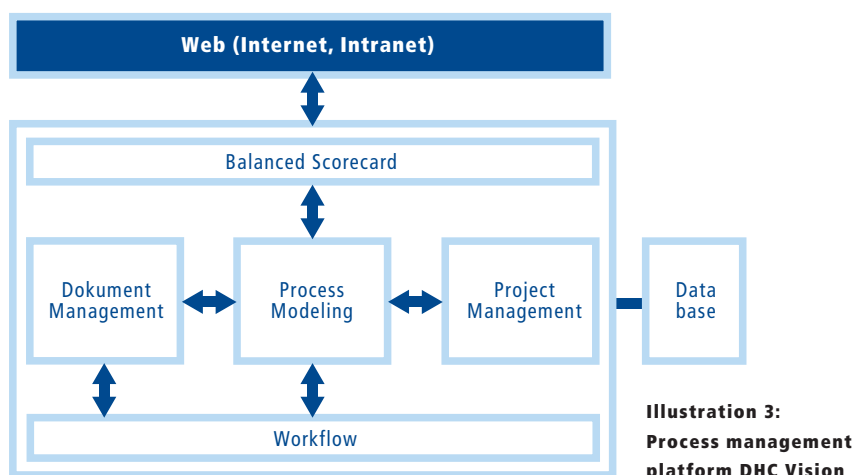
DHC Vision is process management software offering the following features
(See illustration 3):

- ♦ database-driven process modeling on the basis of Microsoft Visio,
- ♦ Balanced Scorecard,
- ♦ Document management,
- ♦ Workflow for document control and information distribution as well as
- ♦ Project management

DHC Vision supports the four above described components of business process management:

- ♦ Strategy: Definition of corporate goals in the Balanced Scorecard and process map creation
- ♦ Design: Modeling, analysis and optimization of business processes as well as process to goal allocation in the Balanced Scorecard

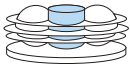
- ♦ Implementation: Process, key performance indicator and Balanced Scorecard implementation
- ♦ Monitoring: Process performance control and corporate goal achievement in the Balanced Scorecard



3 | DHC Vision Features

3.1. | Process Modeling

For process modeling, Microsoft Office Visio has been integrated into DHC Vision. DHC Vision's database connectivity and comprehensive additional features turn MS Visio into a high end modeling tool. The DHC Vision database (with methods, types, symbols ...) is used for redundancy-free and multi-user enabled modeling of business, system processes, etc. DHC Vision modeling objects can be retrieved in MS Visio and be arranged as "shapes" via drag & drop. The objects associated attributes and references to other information objects (for example MS Office documents, SAP transactions) are managed in DHC Vision. By default, DHC Vision already comes with numerous pre-defined methods as well as a modeling workbench, allowing for the definition of proprietary model types and customized model layouts. The method-based concept ensures that only specified information types can be



associated with one another. DHC Vision supports all available modeling methods, for example process maps and diagrams, swim lanes, event-driven process chains, flowcharts, function trees, organizational charts, value chains, etc. Models can be linked hierarchically over multiple levels. All process models created in DHC Vision are converted online into HTML and PDF.

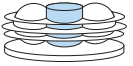
Database connectivity ensures that objects in Vision can be reused so that two objects with the same name always represent the same object in the database. Renaming an object automatically leads to renaming of the object in all modes in which it is used. Object translation is also simplified considerably as only the objects in the database have to be translated (without having to open Visio) and thus models are automatically adapted. An interface to SAP allows for remote function call of SAP transactions from out of the models. Via an interface to SAP DMS (Document Management System), the models can be stored and retrieved in SAP. In addition, it is possible to initiate process customization from SAP directly from out of the models.

3.2. | Balanced Scorecard

The Balanced Scorecard available in DHC Vision facilitates the allocation of corporate goal to processes. This makes the process's contributions to goal achievement transparent. In the Balanced Scorecard, the perspectives with their goals and measures (performance indicators) are defined. Target values are allocated to the goals as well. Via allocation of processes to the goals, the actual values (for example process costs) from the corresponding processes can be extracted and compared with their target values. A traffic light is used to display the comparison results. In the event of actual and target value deviation, it is possible to drill down to the respective responsible process and initiate corrective measures.

3.3. | Document Management

DHC Vision maintains documents in multiple formats in a relational database. For the purpose of efficient document management, DHC Vision supplies the necessary basic features such as versioning, status and link management, reporting as well as multilingual document management. For document creation and editing, the respective application (for example Microsoft Office



Word) is used, allowing the documents to be edited in their respective source formats. DHC Vision also comes with an intelligent link management feature, which allocates freely definable information to the links between documents. Office products additionally come with the capability of creating links from out of document to other documents. During processing, the document is locked for other users. After processing completion, the MS Office documents are automatically converted into a web-enabled format (HTML or PDF). After publication, the document is directly available to all authorized users. Via an interface to SAP DMS (Document Management System), documents can be stored in and retrieved from SAP.

3.4. | Workflow

A workflow with electronic signature function is implemented for the control of document (model and document) and information distribution (for example, release of model changes). Workflow configuration is facilitated via MS Visio. Basic workflows such as document review and release can be created independent of specific document or document type. Per workflow step, any number of workflow steps with multiple users (workflow participants) can be defined. Freely definable rules can be used for linking individual workflow steps. The author allocates the document/model to the respective workflow and initiates it. Every workflow participant is informed of the pending activity via email allowing him to view and process the queued work items. An electronic signature feature is available for release of reviewed documents (for example model release). The author can access status information with the aid of the workflow worklist at any time. In addition, DHC Vision stores a history of already completed workflows, thus allowing for comprehensive traceability.

3.5. | Project Management

MS Project is integrated into DHC Vision in order to rapidly plan and control Change Management or implementation projects. The project phases are created as folders in DHC Vision. Models, documents and other important information can be linked to the project phases. Results can be allocated to the project phases in which they were created. Project plan changes also lead to folder structure changes, thus supporting and simplifying the project leader's work. MS

Project attributes such as starting date, duration, resources are likewise transferred to DHC Vision. Project plan publication in a web-enabled format occurs automatically. Project members can access the automatically created folders in the intra- or Internet dependent upon their privileges. Via DHC Vision integration, MS Project turns into a web-enabled tool allowing project results to be processed and exchanged worldwide independent of system architectures.

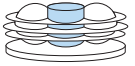
4 | Business Process Management with DHC Vision

4.1. | Business Process Strategy

In correspondence to the above described control cycle model, the objective is to prepare the corporate strategy in such a way so that it can be projected on to business processes. Often enough, the corporate strategy implementation, as described in the Balanced Scorecard (BSC) is not ambiguous. That is why the BSC has a direct reference to the business processes and thus closes the gap between corporate strategy and operative implementation. The complete configuration of the BSC with targets, perspectives, performance indicators and measures occurs via MS Visio. The strategic targets are displayed in four perspectives: the finance, customer, process and potentials perspectives. Measures, which are used for measurement of the degree of target achievement, are allocated to the individual targets. The degree of target achievement is displayed with the aid of traffic lights (See illustration 4).



Illustration 4: Balanced Scorecard in DHC Vision



In the next step, the business processes are allocated to the individual targets. Thus, it becomes transparent, which processes contribute to which achieved goal. Processes, which require optimization, become evident very quickly on account of the recorded actual values (See section: Controlling).

4.2. | Business Process Design

The design determines the structure and content of the business processes whereas the division into four levels of detail has proven suitable as illustration 5 shows. It makes sense to describe the business processes using a top-down approach. The business process architecture is comprised of graphical process models and the respective documentation. The structure of the process architecture and the content depend on the targets process management intends to achieve: process optimization and management, compliance to regulatory requirements (e.g. GxP, Sarbanes Oxley), implementation of Quality Management according to ISO 9001:2000 or TS 16949, implementation of an IT-Service Management (ITIL) or a service-oriented architecture (SOA) for example on the basis of SAP NetWeaver.

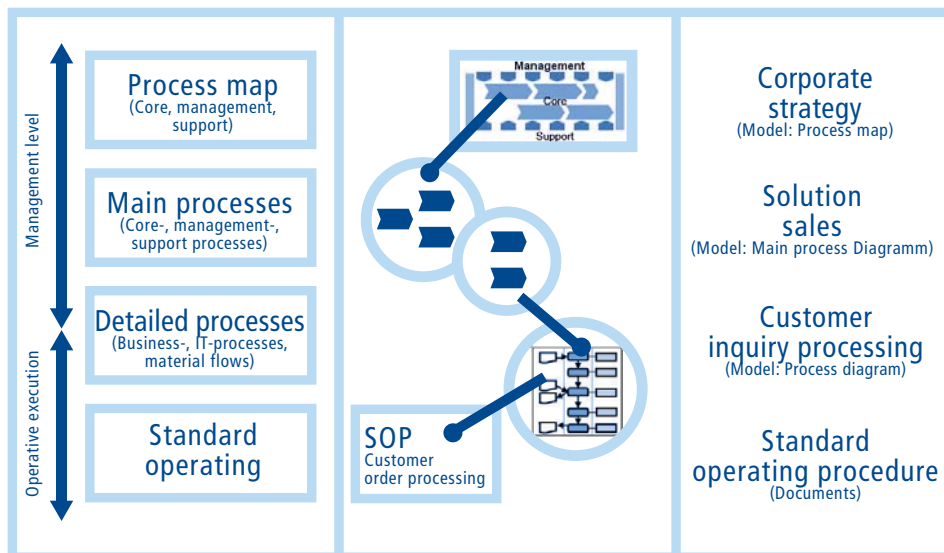
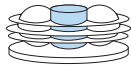


Illustration 5: Business Process Design



Which employee is responsible for a certain business process can be explicitly defined in DHC Vision. Thus the process owner can check which business process contributes to achieving the corporate strategy. The processes are graphically modeled and optimization potential determined in cooperation with the process owners. After which, key performance indicators for process management are defined. In terms of business process IT-support the implementation of the respective systems is defined (ERP, Workflow, etc.) and modeled as well.

For process design, database-driven process modeling based on MS Visio is available in DHC Vision (See illustration 6). Associated documentation (process descriptions, templates) can be linked to the process and stored in the process database. The process modeling method can be freely configured in DHC Vision. All of the graphical process objects (functions, organizational units, input/output) are stored in the database, are reusable and can be analyzed and interpreted. The performance indicators with their target and actual values are freely definable (for example lead times, process costs). Via allocation of the processes to the Balanced Scorecard goals, the degree of goal achievement of individual processes can be measured. For process analysis, comprehensive reporting features are available. In addition to the process models and the objects contained in these, all associated documentation (for example process instructions) is stored in the database.

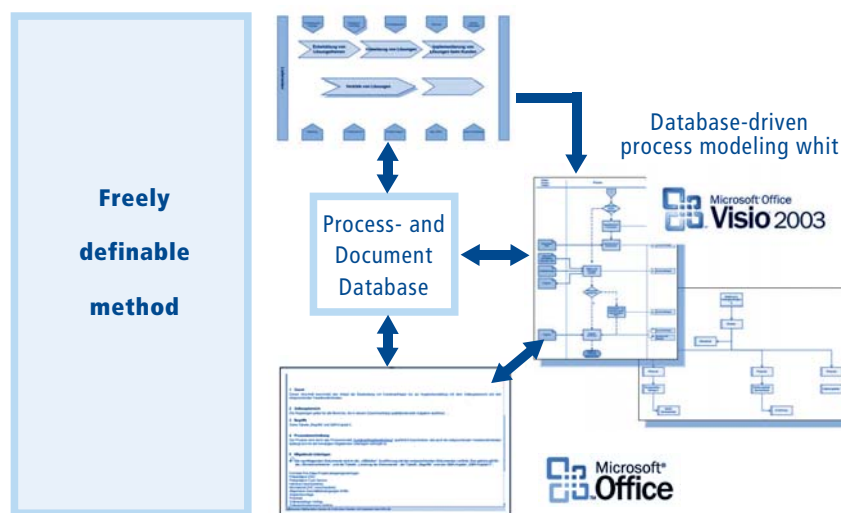
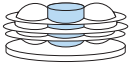


Abbildung 6: Process Modeling and -Documentation in DHC Vision



4.3. | Business Process Implementation

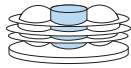
The implementation of the process architecture and the allocation to the respective strategic targets comprises:

- ♦ The actual determination of process owners: This implicates the requirement of comprehensive Change Management, as process management has to be transferred from functional-related organizational units to process-oriented management.
- ♦ The search for the suitable partners when outsourcing processes: The processes are then outsourced to the identified partner.
- ♦ Process implementation in the respective IT-systems: The focus of modern IT-systems on the Service-Oriented Architecture (SOA) enables efficient implementation of process management in the corresponding software systems. Such systems being for example SAP NetWeaver and Microsoft BizTalkServer.
- ♦ The implementation of performance indicators for process management.
- ♦ The implementation of Balanced Scorecard as management instrument at various levels.
- ♦ Finally the initiation of a continuous improvement process.

DHC Vision supports process implementation via online delivery of process documentation via the web and task control as well as information distribution via a freely customizable workflow (See illustration 7). The workflow is employed in both change management as well as in the scope of the continuous improvement process. Appropriate detailed process models can be created for implementation of the business processes in the respective IT systems. The configuration of the respective system (for example SAP R/3 and NetWeaver, Microsoft Navision, Axapta and BizTalkServer) can be conducted based on these models.



Illustration 7: Online Process Documentation and Workflow



4.4. | Business Process Controlling

In controlling, the actual data of the individual processes is collected and compared to the target data. In dependency on the degree of target achievement, measures are derived and the continuous improvement of initiated processes. Process optimization is not a one-time task, but a permanent process.

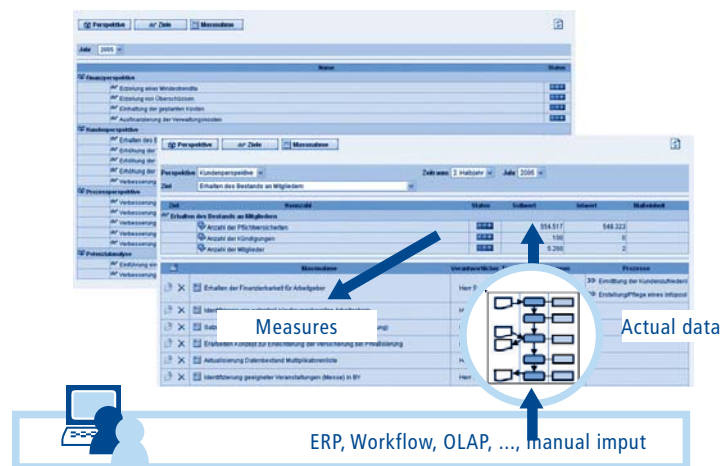


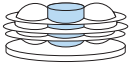
Illustration 8: Controlling via Balanced Scorecard

The degree of target achievement is displayed in the Balanced Scorecard with the aid of traffic lights (See illustration 8). For every process, respective reports can be generated.

The strategic-oriented BSC in combination with the process architecture allows the direct allocation of performance indicators to processes to the targets and vice versa. The harmonization of the performance indicators in the direction of the strategic targets as well as in the direction of business processes leads to the decisive advantage because the decision makers can always have the target and the associated operative measure displayed in conjunction with the respective business process.

5. | Business Process Management Benefits

The following illustration no. 9 displays frequent results gained from a survey of advantages realized through the implementation of business process management in the respective companies.



A business process management implementation should allow for achievement of a tenfold positive effect of the project costs within a years time.

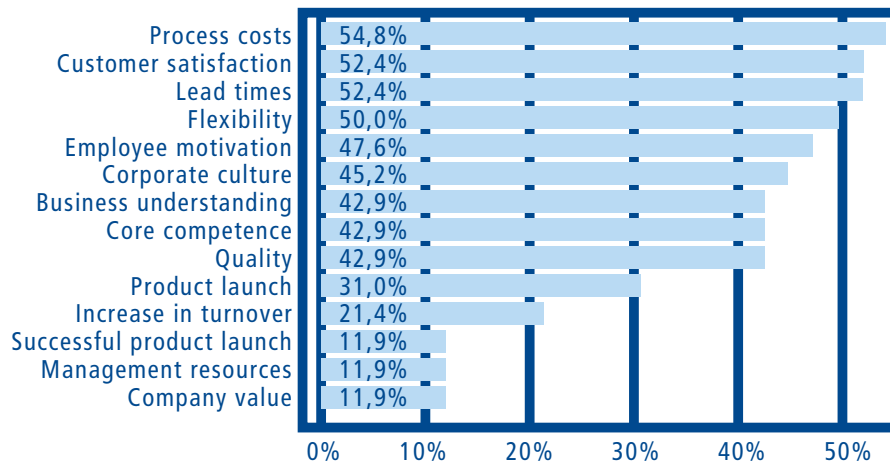


Illustration 9: Benefits from Business process management

Source: Survey Gadatch et al. 2004
(Stated frequency of actual benefits arising from business process management projects)

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