

# Controlling Process Model

A Guideline for  
Describing and Designing  
Controlling Processes

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**ANSCHRIFT**

Haufe-Lexware GmbH & Co. KG  
Munzinger Straße 9, 79111 Freiburg  
Telefon: 0761 898-0, Fax: 0761 898-3990  
E-Mail: [online@haufe.de](mailto:online@haufe.de)  
Internet: <http://www.haufe.de>

Kommanditgesellschaft, Sitz Freiburg  
Registergericht Freiburg, HRA 4408  
Komplementäre: Haufe-Lexware Verwaltungs GmbH,  
Sitz Freiburg, Registergericht Freiburg, HRB 5557;  
Martin Laqua

Geschäftsführung: Isabel Blank, Markus Dränert, Jörg Frey, Birte Hackenjos, Jens Köhler,  
Matthias Mühe, Markus Reithwiesner, Joachim Rotzinger, Dr. Carsten Thies  
Beiratsvorsitzende: Andrea Haufe

USt-IdNr. DE812398835

**REDAKTION**

Dipl.-Betriebswirt (FH) Günther Lehmann (v. i.S.d. P.)  
Haufe-Lexware GmbH & Co. KG  
Munzinger Straße 9, 79111 Freiburg

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# Preface

Since 1995, the International Group of Controlling (IGC) has had the aim to promote the function and role of the controller and to establish and develop further a commonly accepted concept of controlling, as well as a unified controlling terminology.

The Mission of the Controller, published by IGC as early as 1996, says:

Controllers design and accompany the management process of defining goals, planning and controlling and thus have a joint responsibility with the management to reach the objectives.

The controlling process model at hand contains a framework for the logical and temporal order of activities in the

## MANAGEMENT PROCESS OF SETTING OBJECTIVES, PLANNING AND CONTROL.

It defines both the inputs required for proceeding and the output expected as a result of the activities and can be used for analysing, designing and documenting controlling processes and establishing responsibilities.

In this publication, the processes in controlling and for good controlling work are drawn up. The descriptions of the process steps, on the one hand, serve as templates for process design and, on the other hand, support managers and controllers in checking their concepts. The IGC sees this as an important basis for defining future controlling standards. Such standards are required for ensuring the quality of controlling work. In addition, they can significantly influence all forms of education for controllers and the enhancement of controlling software.

In order to make controlling terminology more uniform, the IGC has, apart from the Mission of the Controller, already published the Controller Dictionary, written by renowned practitioners and academics from all over the German-speaking world, which has become an international standard for defining controlling terms and in controlling in general. Furthermore, the IGC has developed DINSPEC 1086, a framework for good controlling practice, together with the International Controller Association (ICV) and the German Society for Quality (DGQ).

The Managing Committee of IGC would like to thank all members of the „controlling process model“ working group.

Dipl.-Kfm. Dr. Wolfgang Berger-Vogel

President and Chairman of the Board, International Group of Controlling (IGC), Member of the Board of Trustees of the International Controller Association (ICV)



# Welcome Note

The controlling process model described in this brochure, which was developed for the International Group of Controlling (IGC), is a model that shows for the first time how controlling processes are structured and how they can effectively support the process of setting objectives, planning and control. The working group's results focus on the needs of and benefits for the users. The overview of controlling processes created can so serve users as a guideline for designing and checking their own concepts.

The controlling process model contributes to the IGC's aim of providing a platform for establishing and developing further a commonly accepted concept of controlling, as well as a unified controlling terminology. This aim, and the ambition of developing a process model, can be a positive signal also for other areas. Therefore, these efforts are also supported by the German Society for Quality (Deutsche Gesellschaft für Qualität e.V. –DGQ).

The IGC's initiative and the controlling process model described in this brochure are in the interest of both controlling and quality experts and provide inspiration and motivation for further cooperation.

The DIN SPEC 1086 „Quality Standards in Controlling“ – developed in less than two years by a broad range of controllers – has already set an example and highlights the benefits that both disciplines derive from cooperating. The controlling process model follows this path and provides a further foundation for creating a common understanding of business excellence for both professions, which is not always easily achieved.

All in all, a brochure has been created that combines the commonalities of both disciplines in a structured manner without being constrained by normative requirements. Controllers and quality experts alike are delighted to present these results, which prove they can together claim opinion leadership on this subject.

Dr. rer. nat. Jürgen Varwig  
President of DGQ, formerly Director Quality Management BASF SE,  
Ludwigshafen



# Members of the IGC working group „Controlling Process Model“ and authors of this brochure

The controlling process model was developed and this brochure was written by the members of the IGC working group „Controlling Process Model“ during a period of just under a year. In several one-day workshops, and based on the experience and expert knowledge of the working-group members, content was generated, discussed and together transformed into the end result. Time between workshops was used in order to work out more specific content and fine-tune it in talks with experts from outside the working group. The members of the working group all have many years of experience in the area of controlling in industry, management consulting and the practise-oriented education of controllers and managers in controlling matters.

The members of the IGC working group „Controlling Process Model“ and authors of this brochure are:

**Dipl.-Kffr. Jana Heimel**

Horváth & Partners Management Consultants, Managing Consultant,  
Project Leader CFO Panel

**Dipl.-Betriebsw. Peter Löhnert**

Sick AG, Member of the Management Board and Head of Controlling

**Dr. Uwe Michel**

Horváth & Partners Management Consultants, Senior Partner,  
Head of Competence Centre Controlling and Finance,  
Head of Working Group Controlling Process Model

**Dipl.-Kfm. Jens Ropers**

CA Controller Akademie AG, Trainer and Partner

**Mag. Hubert Tretter**

Brau Union Österreich AG, Member of the Management Board and CFO

**Mag. Mirko Waniczek**

Contrast Management-Consulting, Senior Manager in Corporations and  
Family Business



# Contents

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Preface .....	3
Welcome Note .....	5
Members of the IGC working group „Controlling Process Model“ and authors of this brochure .....	7
Management Summary .....	11
1 <b>Aim and Structure of the Brochure</b> .....	12
2 <b>Mission of the Controller and Controlling Process Model</b>	13
2.1    The IGC's Mission of the Controller .....	13
2.2    Positioning Controlling in the Company .....	15
2.3    The Controlling Process Model .....	16
3 <b>Main Controlling Processes</b> .....	19
3.1    Strategic Planning .....	19
3.2    Operational Planning and Budgeting .....	22
3.3    Forecasting .....	24
3.4    Cost Accounting .....	27
3.5    Management Reporting .....	30
3.6    Project and Investment Controlling .....	32
3.7    Risk Management .....	35
3.8    Function Controlling .....	37
3.9    Management Support .....	41
3.10   Enhancement of Organisation, Processes, Instruments and Systems .....	42
4 <b>Management of Controlling Processes – Specifics</b> .....	45
4.1    Summary, Controlling Year Planner .....	45
4.2    Performance Measurement of Controlling Processes .....	47
4.3    Illustrating the Activities Level (Process Level 4) – the Example of Management Reporting .....	48
5 <b>Conclusion</b> .....	52
6 <b>Abbreviations</b> .....	53
7 <b>Literature</b> .....	55
Subject Index .....	59

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## Management Summary

The aim of the brochure is to present and describe a Process Model for Controlling. This model should serve to analyze, shape and document controlling processes, as well as to support communication about them.

The process model is based on the IGC definition of controlling and the range of tasks and responsibilities of a controller laid down in the IGC's mission of the controller. Consequently, this brochure describes controlling as the entire business process of identifying goals, planning and control within the company. Furthermore, the Controlling Process Model applies terminology from the controller dictionary of the IGC and adheres to the quality standards for controlling formulated by the IGC and ICV (DIN SPEC 1086).

The Controlling Process Model has a hierarchical structure. Controlling as a process on Level One within the process landscape of a company comprises ten main controlling processes (Process Level Two). Generally, Level One processes are known as business processes or corporate processes. In this brochure, the ten main controlling processes are described in a standardized way down to sub-process level (Process Level Three) and also portrayed graphically. The next level of detail down (Process Level Four, activities) is shown by example using the process of management reporting. The model is constructed in such a way that a fifth level can also be added; normally, this level would describe transactions and the link to IT-systems. This would be necessary or useful if the respective controlling processes were to be standardized and implemented in IT-systems. There is no description of Process Level Five as this would go beyond the scope of this brochure and it is not necessary in order to achieve the brochure's objectives.

The Controlling Process Model can be used as a standard map for controlling processes in a company. In general it is not specific to either industry or company size but focuses more on mid-sized to large manufacturing companies and service providers. Additionally, it does not deal with the specifics of financial service providers (banks and insurance companies) or public organizations. The Controlling Process Model helps to explain controlling processes in a quick and uncomplicated way and as such is very suitable for use as a template for both designing and analyzing processes. Moreover, it is helpful if you are a controller or a manager and need to evaluate your concepts. Finally, as a standard controlling process model it can form the basis for striving towards a uniform perception of what controlling is.

## 1 Aim and Structure of the Brochure

Background and motivation of this brochure	The International Group of Controlling (IGC) has the aim to establish a commonly accepted concept of controlling, as well as a unified controlling terminology. Its foundation is the IGC's definition of controlling: „Controlling is the whole process of defining objectives, of planning and controlling (in the sense of steering and regulating) and includes all relevant financial and commercial aspects“.
Relevance of processes for controlling	Thus, as in many other functions of the company, thinking in processes is also applied in controlling and the controller's work. Companies have realised that they can improve their productivity by adopting a procedural point of view and control system. Process management, for example, makes it possible to raise efficiency and effectiveness of processes, by e.g. reducing long lead times and improving insufficient flexibility. For many areas of the company, particularly where value added is generated, process models such as the SCOR model have been developed. Processes in logistics, marketing, and distribution, for instance, have been identified and documented and can be analysed and controlled. Controlling processes should be no exception. Until now, however, no such standardised process model existed.
Aim of the brochure	<p>Based on the IGC's definition of controlling, this brochure aims at formulating a standard controlling process model. Controlling processes are to be determined, described in a uniform manner, graphically depicted and supplemented with specific hints for practice.</p> <p>This brochure is intended to</p> <ul style="list-style-type: none"><li>• serve as a standard map of controlling processes,</li><li>• provide a guideline for designing processes in the company,</li><li>• explain controlling processes quickly,</li><li>• help controllers and managers in checking their concepts and</li><li>• build another foundation for a uniform understanding of controlling in theory and practice.</li></ul>
Target group of the brochure	The brochure targets both controllers as the „process owners“ and people outside controlling services, particularly those that provide the input for controlling processes and those that receive controlling services: the managers. It is to provide the reader with a guideline how to design and monitor controlling. It also addresses everybody dealing with controlling theory.

Following the introductory chapter, this brochure includes three further chapters. Chapter 2 forms the basis for all further descriptions and depictions. For this purpose, the IGC's mission of the controller is briefly outlined in chapter 2.1. Chapter 2.2 shows the function controlling is assigned in the company and how it can be integrated into the map of corporate processes. In chapter 2.3, the controlling process model designed by the IGC working group is presented.

Structure of the brochure

Chapter 3 describes the main controlling processes underlying the process model, generally down to the level of the sub-processes. The main process „management reporting“ serves as an example of the level of activities (process level 4).

In chapter 4 it is shown how the controlling process model could be expanded in more detail in order to enable the adequate control of controlling processes. For this purpose, the controlling processes are analysed in connection with a controlling year planner. Finally, the brochure provides an outlook on how the performance of controlling processes can be measured.

## 2 Mission of the Controller and Controlling Process Model

### 2.1 The IGC's Mission of the Controller

According to the IGC's mission of the controller, controllers design and accompany the management process of defining goals, planning and controlling and thus have a joint responsibility with the management to reach the objectives.<sup>1</sup> Thus, they assume the role of internal consultants of the management, and they are responsible for procuring and checking the accuracy of all information relevant for decision-making. From this mission, the following characteristic core tasks of the controller can be derived:

Range of tasks of the controller

- ensuring the transparency of strategy, business results, finance and processes,
- coordinating sub-targets and sub-plans in a holistic way,
- organising a reporting system that is oriented towards the future and covers the enterprise as a whole,
- moderating and designing the management process of goal-finding, planning and management control so that every decision-maker can act in accordance with agreed objectives,

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<sup>1</sup> The IGC's mission of the controller is available at [http://www.igc-controlling.org/DE/\\_leitbild/leitbild.php](http://www.igc-controlling.org/DE/_leitbild/leitbild.php).

- safeguarding the provision of all relevant controlling information to managers,
- developing and maintaining the controlling systems.

From this task profile it becomes clear that controllers mainly assume two roles within the company: on the one hand they are internal consultants and partners of the management and thus co-responsible for achieving objectives. On the other hand, controllers are service providers in that they are responsible for providing accurate and relevant information for consulting.

Controller and  
controlling

The distinction between controller and controlling also becomes clear: controllers are service providers for different units. They support and advise other functions and people in the company. In this context, the term controller service is used. Controlling, on the other hand, is concerned with defining objectives, planning and managing a business and is the task of the managers. It is the management's responsibility and the controller contributes to this task and shares this responsibility in his role as a sparring partner. The cooperation of controller and manager results in the controlling intersection (see Fig. 1).

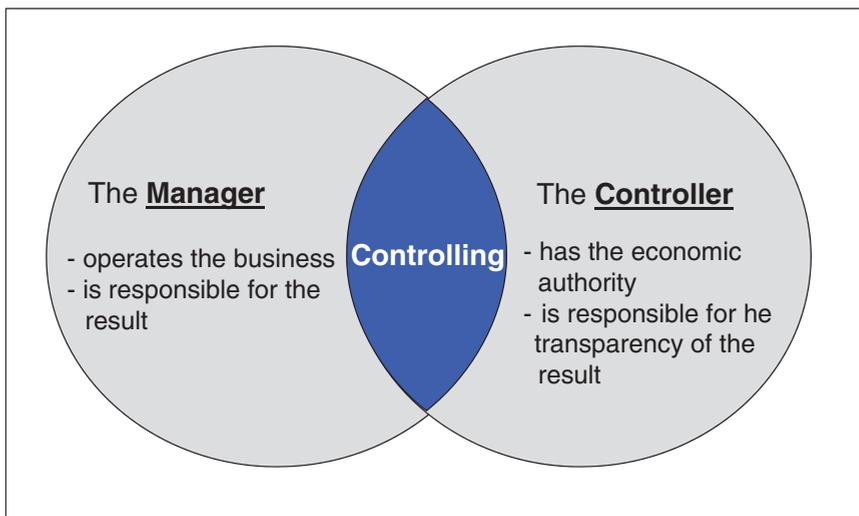


Fig. 1: Controller and Controlling<sup>2</sup>

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<sup>2</sup> Adapted from IGC (ed.), Controller-Wörterbuch, Stuttgart (2005), p. 58.

## 2.2 Positioning Controlling in the Company

As shown in chapter 2.1, controlling is integrated into the management process and thus part of modern management. A process is a sequence of activities whose output is a service for an (internal or external) customer. The total of all processes within a company can be depicted in a corporate process model or process map and broken down into the categories of management, core and support processes. Accordingly, controlling can be positioned in this map as a management process. The structure shown in Fig. 2, the categories used and the definitions and names of the processes are one option used in this or a similar manner in many companies, but need not be generally valid.

Process map of the company

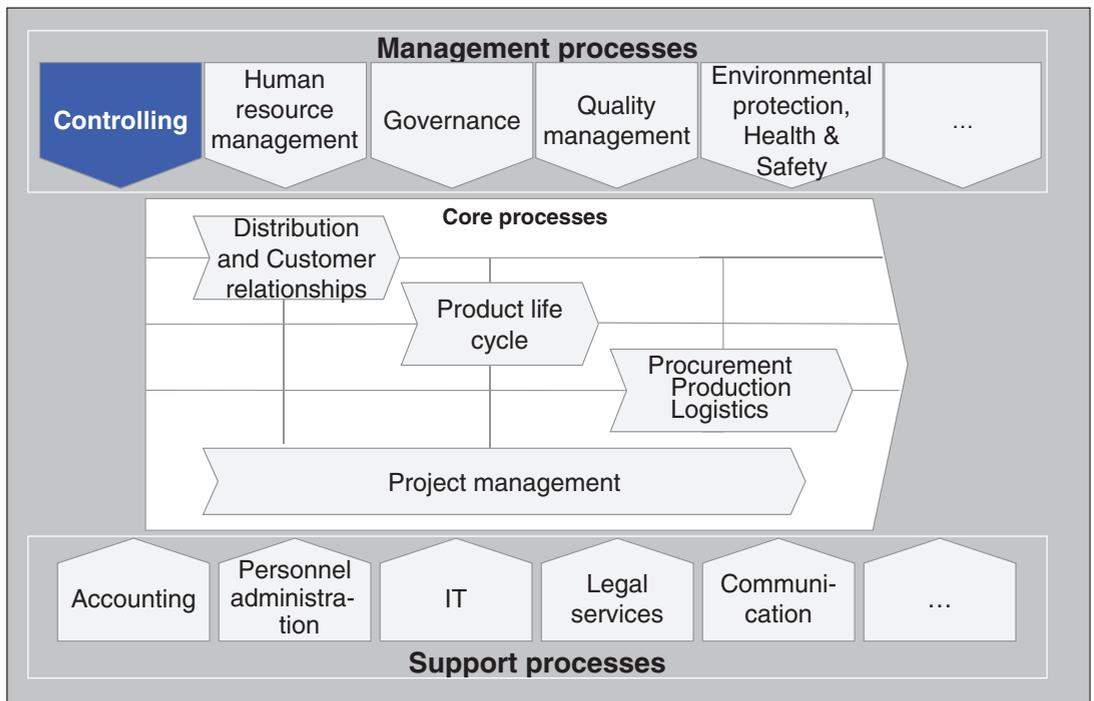


Fig. 2: Positioning controlling in the company's process map

In core processes, the actual value added is generated in the company. They are defined as directly fulfilling the customers' needs and include, for instance, research & development, production and sales.

Core processes

Support processes	Support processes, in contrast, provide no direct benefit for the customer but assist and enable core and management processes. They are responsible for providing all resources required for implementation and management processes. These support processes include accounting and IT.
Management processes	Management processes serve to orientate and coordinate core and support processes in companies. Particular focus is put on structuring the organisational roles and their tasks, as well as safeguarding the quality of processes and results.
Controlling as a management process	Controlling is the process of setting objectives, planning and managing, all oriented towards sustainable productivity, and hence an essential part of a company's management processes. From this perspective, the controlling process's description can include the issue of company development. In how far the controller service assumes these tasks as an organisational unit or department, or whether other units or departments are responsible, differs from company to company. Alternatively, company development can be shown as a separate management process.

### 2.3 The Controlling Process Model

Objectives and requirements	The controlling process model is intended to document, analyse and design controlling processes, as well as to aid the communication on controlling processes. Its aim is to contribute substantially to further a unified understanding of controlling. Therefore, it has to fulfil the criteria of completeness and general applicability.
Quality standard controlling	Additionally, the model is to follow the guidelines established by the International Controller Association (ICV) and the quality standards for controlling set by the International Group of Controlling (IGC) (DIN SPEC 1086). More details on this matter can be found in DIN SPEC 1086 itself. It is important to use the definition of controlling as a process there as a starting point. IGC and ICV define and describe the controlling process as follows:
The controlling process	Controlling is the overall process of setting objectives, planning and controlling a business. It aims at safeguarding a sustainable economic development of the business and relies on the interrelatedness of a variety of control systems all involving setting objectives, planning, implementing, measuring and improving. <sup>3</sup>
Process hierarchy	This brochure describes the processes that actually make up controlling. The controlling process model is a standard model that can analyse and

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<sup>3</sup> DIN SPEC 1086, Qualitätsstandard Controlling, Berlin 2009, p. 5.

describe the different areas of controlling. It is based on a hierarchic process model and looks at processes on different levels (see Fig. 3). The process hierarchy creates transparency and clarity regarding processes and structures by systematically depicting the connections between higher-level processes and details, as well as details within the higher-level processes. It not only furthers process participants' understanding of their contributions, but also serves as the basis for allocating tasks, competences and responsibilities and so creates the prerequisites for the IT implementation of controlling processes.

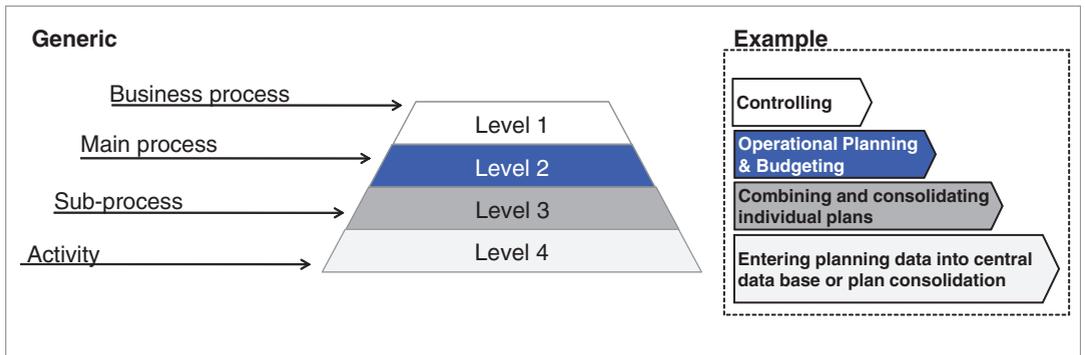


Fig. 3: Overview of process levels

Based on the business process „controlling“ on level 1 of the company's process map, the controlling process model in this brochure distinguishes four levels of detail. As shown in Fig.4, level 2 includes ten main controlling processes. The processes from strategic planning to risk management form the core of controlling. The remaining three main processes hold a special position due to their specific content. In function controlling (e.g. controlling for subsidiaries, R&D controlling etc.) mainly the controlling processes of planning, analysing and controlling are found, specific to the respective functions. „Management support“ is to be seen as an important main process of controlling in its function of anchoring controlling-oriented thinking and behaviour in the business, as well as supporting other areas. The main process „enhancement of the organisation, processes, instruments and systems“ includes the permanent quality control and improvement of structures and processes in controlling.

Main controlling processes (process level 2)

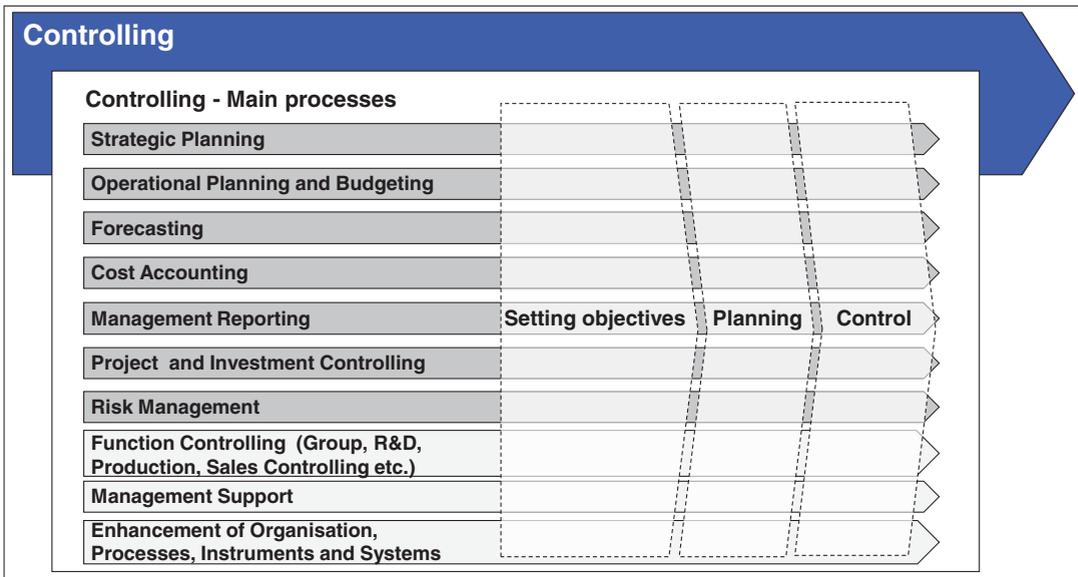


Fig. 4: The controlling process model (levels 1 and 2)

Controlling sub-processes (process level 3) For each main controlling process, the sub-processes are defined on level 3. These are described in the chapter on the respective main process. For the description of main and sub-processes, templates have been developed that document objectives, content and process interfaces – Input, Output, Start, End – for each process.

Controlling activities (process level 4) Generally processes exist for as long as the company exists, which thus determines their beginning and end. Taking a look at process start and end has, however, further importance in practice. The example of the annual planning and budgeting process shows that it starts at a particular date – in most companies in summer – (process start) and ends at a particular date – in most companies in late autumn – (process end). The same thing holds true for core processes. The process of order processing, for instance, in many enterprises starts and ends many hundreds and thousands of times and in many cases mainly runs parallel. In this context, the term „process start“ is to be seen as the event triggering the process implementation. The term „process end“ refers to the event defining the end of process implementation. In this brochure, the terms process start and process end are used without further explicitly referring to these events. There are process descriptions, the so-called event-driven process chains, where these events are a very important element of process description. Event-driven process chains are normally used for depicting process level 4. These events are,

amongst other things, again referred to on process level 5, as they are important elements in the IT implementation of processes.

Process level 4 – activities – is too extensive for a detailed discussion here. An example, for management reporting, is given in chapter 4.3. Normally processes are described on level 5 (transaction level), in order to be able to describe IT implementation. However, this is not the task of this brochure.

**The controlling process model is a purpose-oriented, simplified depiction of the activities in the processes of setting objectives, planning and control. It defines the input required for running the processes and the output transferred to other processes (interfaces). It is used for documenting, analysing, designing and communicating the controlling processes, as well as for allocating roles and responsibilities.**

In the following section, all main controlling processes are outlined based on a uniform pattern. For better readability, objectives, content, process start, process end, process input, process output and sub-processes are shown for each main process, based on the same pattern. The colour scheme follows the hierarchical levels of the process model shown in Fig.3. The process description following for each main process summarises the major content of the sub-processes and concludes with useful recommendations for practice.

Description of the controlling processes

## 3 Main Controlling Processes

### 3.1 Strategic Planning

The aim of strategic planning is to support the management in safeguarding the company's existence and increasing its value on a long-term basis. Existing success potentials are to be secured and developed further and new success potentials have to be identified and created.

Objectives

Strategic planning (see Fig. 5) establishes the basic organisational framework for central corporate decisions. It defines objectives and measures and determines important elements in all major areas. It always moves inside the overall parameters of company policy. Subjects of strategic planning include markets, products, portfolio, competition, innovations, technology, core competences, and resources.

Content

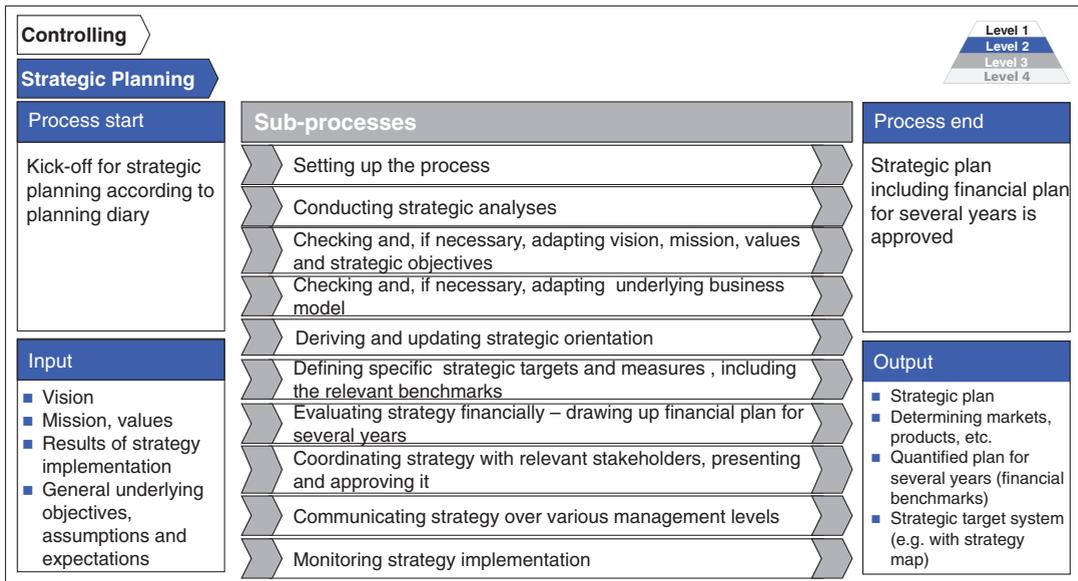


Fig. 5: Structure of the main process „Strategic planning“

**Moderation** Within strategic planning, the controller has a major moderating role. Controlling itself does not determine the strategy, but supports the people responsible (management and company development) by moderating the whole strategic planning process, e.g. by providing tools, analyses and systems.

**Setting up the process** Strategic planning starts with setting up the process. In this preparatory phase, responsibilities, tools and specific content have to be established or adapted. Furthermore, a timeframe with milestones has to be set up that must be adhered to. The time horizon of strategic planning depends on the individual company (in most enterprises, between three and five years) and provides the framework for subsequent operational planning. Thus it is crucial to define an interface management that secures the link to operational planning.

**Strategic analyses** The set-up is followed by the stage of strategic analyses. Market and competition analyses are used e.g. to analyse the firm's environment. Also needed is a realistic self-evaluation, e.g. in the form of value-chain, portfolio and business model analyses, in order to detect the firm's own strengths and weaknesses. By combining internal company analysis with an analysis of the external environment (e.g. through a SWOT analysis, an instrument to analyse the situations regarding the dimensions of „strengths, weaknesses, opportunities and threats“), strategic gaps can be identified from both a quantitative and a qualitative angle.

<p>The pressure for change thus detected provides the input for the phase of strategy development. Vision, mission, strategy and business model are checked for market potential regarding the core competences and value-creation processes identified and, if required, adapted. Based on the updates, strategic orientations have to be defined.</p>	Strategic orientation
<p>From the strategic orientation, strategic targets have to be derived and visualised by means of a strategy map or other suitable methods. For each strategic target, variables with specific target values must be defined and required measures have to be planned that have a clear timeframe. The measures planned are to be evaluated (e.g. by means of a quantified plan for several years) financially (e.g. with costs, revenues, in- and outflows of money) and aligned with the funds available. If necessary, different strategy scenarios can be evaluated financially and compared.</p>	Strategic map
<p>After coordinating the strategy with the stakeholders, the strategy agreed upon is to be documented and communicated all over the company during the strategy anchoring phase. Here the concept of the balanced scorecard (BSC) has been found useful. The BSC is a ratio-based management system that translates strategy into strategic targets for various perspectives.</p>	Strategy implementation and anchoring
<p>For strategy implementation, the use of a performance measurement system is absolutely essential. Performance measurement provides insights into whether the targets agreed upon were met and the measures were implemented successfully. For this purpose, key performance indicators (KPIs) have to be defined and continuously monitored. Through continuous monitoring and regular strategy reviews, e.g. in the form of institutionalised strategy meetings, variances can be detected in time and countermeasures can be taken early on. Because a variety of feedback loops, the sequence of sub-processes and activities outlined here is not relevant. Especially for the purpose of continuous control, any particular phase can be entered at any given time.</p>	Strategic monitoring
<p><b>Recommendations for a successful strategic planning process</b></p> <ul style="list-style-type: none"><li>● Keep the number of strategic targets within limits, following the motto of „twenty is plenty“.</li><li>● Break down strategic targets to one to five years and evaluate them financially.</li><li>● Coordinate the strategy with everybody involved and communicate it all over the company.</li><li>● Tie the employees' incentive system to strategic targets.</li></ul>	

### 3.2 Operational Planning and Budgeting

- Objectives** The aim of operational planning and budgeting is to promote the active and systematic examination of objectives, measures and budgets in the organisational units. It is to make a substantial contribution towards supporting management in meeting the long- and medium-term targets derived from the strategic objectives, as well as in controlling the company and its individual units from a revenue and liquidity-oriented point of view.
- Content** Operational planning creates an orientation framework for activities and decisions in the short and medium run based on strategic objectives. Targets and measures are determined, resources are allocated and, both for the overall company and its individual units, financial parameters are quantified. Elements involved include profit and loss account, balance sheet, cash flow, sales, costs, result, investment, projects, volumes, capacities and employees (see Fig. 6).

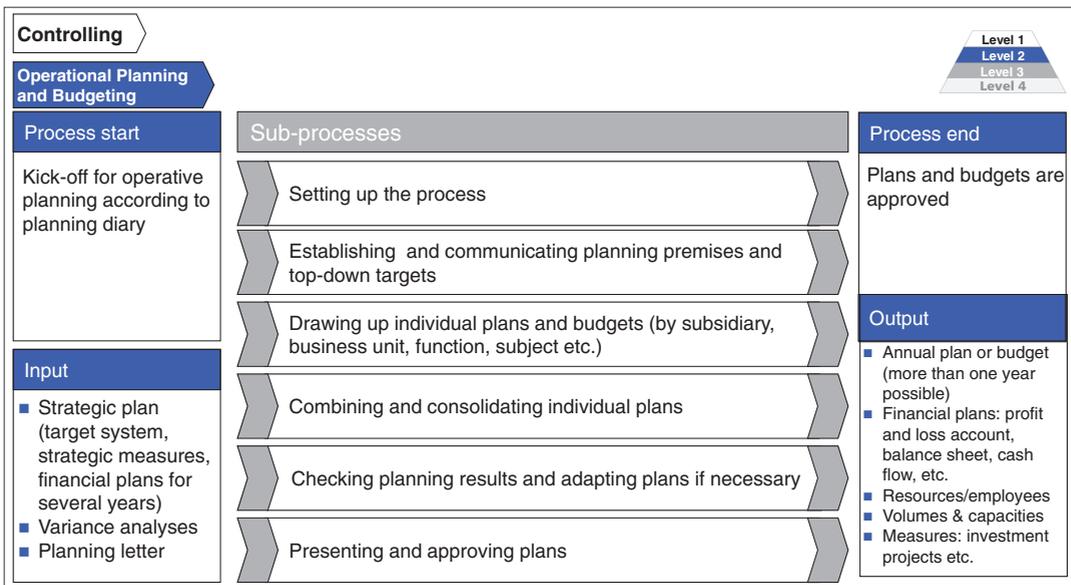


Fig. 6: Structure of the main process „Operational planning and budgeting“

**Setting up the process** Operational planning starts with setting up the process. In this preparatory phase, all organisational aspects of planning (drawing up the planning diary, preparing the planning templates and forms, establishing and adapting the level of detail of planning) are to be handled. The preparatory activities can mostly be handled by the controller service;

the milestones in the planning diaries are to be coordinated with the management.

What is critical for a planning process that uses resources efficiently and is based on the strategic objectives is the establishment of planning premises and objectives at the start of the planning process. Premises are necessary assumptions regarding conditions that cannot be influenced but are relevant for planning (e.g. development of crude oil price). The premises are to be established centrally, i.e. by a relevant department, and parallel assumptions are not advisable. Planning objectives are the specific targets and milestones in line with company strategy (e.g. increase in sales, funds available for investment). Targets are to be made transparent in order to dissolve potential target conflicts (e.g. growth vs. debt reduction) and to be able to break down the targets to operational planning levels. Only a well-managed top-down start of planning provides orientation for the following levels.

Planning premises and objectives

On the basis of the targets communicated at the start of planning, the planning process takes place both in centralised and decentralised units. Plans „close to business“ are normally drawn up in a decentralised manner (e.g. functions along the value chain, such as distribution, production, purchasing), but for the sake of simplicity or competence, budgets are also managed centrally and thus planned centrally (e.g. training budget by the personnel department). Hence it is important for planning to be based on specific measures.

Centralised vs. decentralised planning process

The controller service – apart from continuously supporting the planners – has the task of calling in these individual plans in time, to summarise them and to make them plausible. Making them plausible not only ensures the quality of an individual plan's content, but also helps identify gaps (e.g. increase in sales in distribution planning without taking into account the need to expand capacity in the distribution team) or overlaps (e.g. similar investments at two locations) so these can be tackled properly.

Making plans plausible

A central alignment of the plans towards a desired result is to be avoided, as this in most cases results in the planners losing their commitment to the targets to be reached. Planning, in addressing the open issues, has hence to be seen as a cyclical process that might require two to three planning loops. The time needed for this is to be taken into account in the – generally tight – planning diary. The results of planning thus established are discussed with the top management and approved. Experience has shown that the need for reworking plans usually arises shortly before these are to be approved. Controllers have to be prepared for this and must be able to deal with short-notice changes in final planning quickly and flawlessly with the use of planning tools.

Planning as a cyclical process

### Recommendations for a successful operational planning process

- Set up a controller service-internal kick-off in order to prepare planning.
- Draw up a new planning diary and communicate it to everybody involved.
- Take last-minute changes and necessary planning loops into account in the planning diary.
- Put down planning-relevant objectives and premises in a central document („planning letter“) and communicate the planning letter at the beginning of planning.
- Start planning top-down and break down targets as early as possible in order to provide orientation for the planners right from the start.
- Differentiate planning into „running business“ and change/development measures.

### 3.3 Forecasting

Objectives	The aim of forecasting is to provide information early on on deviations and variances expected in the future, to develop focused measures to close gaps in targets and, if necessary, to initiate fast adaptations of the sales, cost and investment budgets etc. under changing conditions.
Content	In the forecast, the future economic development and the effects on targets, plans and budgets are estimated, always taking into consideration countermeasures and resource adaptations. A forecast is hence more than just a simple prognosis. It deals with financial and non-financial information as well as looking at simulations and scenarios. A forecast can be conducted on both a regular (standard forecast) and an irregular basis (ad-hoc forecast), for the overall enterprise or for individual topics, units or products.

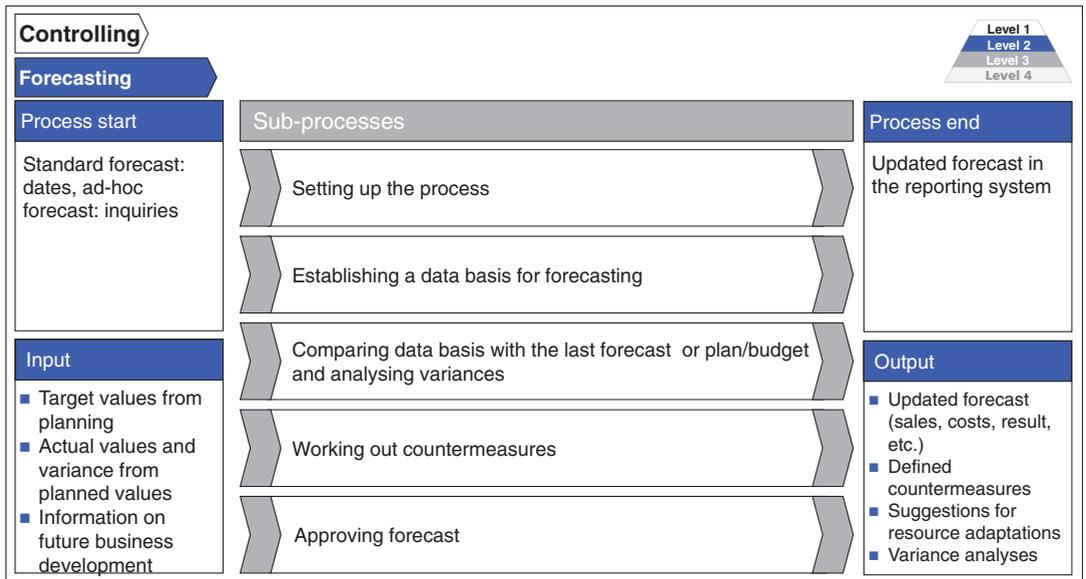


Fig. 7: Structure of the main process „Forecast“

Forecasting is a planning activity. The expected value is made up of the realised actual value and the future value, the qualified new estimate on a defined period in the future, e.g. the rest of the year. Via a forecast it is thus possible to utilise the improved state of knowledge during the year for controlling the company without changing the original plan.

State of knowledge during the year

A forecast is usually made at least quarterly. As it takes the actual data as a starting point, fairly recent monthly or quarterly statements are important. The development of actual values compared to the previous forecast has to be analysed and the effect on the full year is to be determined.

Variance analyses

Based on this analysis, the most important result drivers (e.g. sales volumes and sales prices, prices of raw materials, deviations from the investment plan) are to be reworked together with the management and measures for improving the result have to be defined. These measures, which have to be included in the forecast (i.e. subsequently to be implemented), must be coordinated with the management and pursued in a measures controlling system. Going over the overhead costs on a cost-centre basis frequently does not make much sense, particularly in the case of monthly forecasts. Reworking the result drivers can, for reasons of time and resources, be effected on a more centralised basis, with a more active role of the controller, than this is the case in operational planning.

Reworking result drivers

Increasing validity vs. decreasing room to manoeuvre	<p>With the year-end forecast, the validity of the forecast keeps increasing with every instance during the year, but at the same time the room to manoeuvre keeps decreasing. In dynamic industries, the first forecast can be used to analyse the budget in view of new insights and quickly identify areas for action. This does not change the obligatory nature of the original plan. The half-year and third-quarter forecasts are particularly important, as at these dates the current business year can already be assessed quite well and measures for optimisation can be determined with some accuracy. Towards the end of the year, the focus is only on including measures to influence the result and the balance sheet, and therefore a passive prognosis of the result („profit warning“). Depending on the industry and the company's autonomy, it might be useful to move away from quarterly forecasts, e.g. if there is a strong seasonal element. Forecast dates could then be set in off-season (e.g. by 31<sup>st</sup> August after the end of the summer season).</p>
Standard vs.ad-hoc analysis	<p>The forecast, with the exception of an event-driven forecast, is strongly intertwined with the standard reporting process. The comparison of planned values with actual values and the comparison of planned values and future values are reported and commented on at the same time. An explicit preparation of the forecast process is only necessary if changes in the process (e.g. stronger centralisation) or the content (e.g. increased use of third-party services, simplification of material costs) are made or event-driven forecasts are to be conducted. Event-driven forecasts are ad-hoc analyses, which depending on the requirements call for cooperation between controller and line functions or other departments.</p>

### Recommendations for a successful forecast process

- Reduce the resources required, such as material and personnel costs, by critically estimating the level of detail required and the people/organisational units to be involved.
- Define the frequency of forecasts individually and on demand.
- Support the management's assessment of the forecast by providing relevant information such as extrapolations.
- Focus on measures that improve the result and establish a measures controlling system.

### 3.4 Cost Accounting

The aim of cost, output and result accounting, or simply cost accounting, is to create transparency by correctly allocating costs, outputs and revenues to the relevant objects (e.g. products or business units) in order to support decisions and responsibilities with a view on costs, output and results. The process aims at providing a responsibility-related management result accounting as its output. Additionally, cost accounting aids in complying with legal stipulations (e.g. transfer price calculations).

It is concerned with costs, outputs or results relating to products or services, or, on an aggregated level, product groups or units responsible for results such as business units. Cost accounting deals with recording, distributing, allocating, analysing and checking costs, outputs and results that emerge when goods are used up or produced in a company.

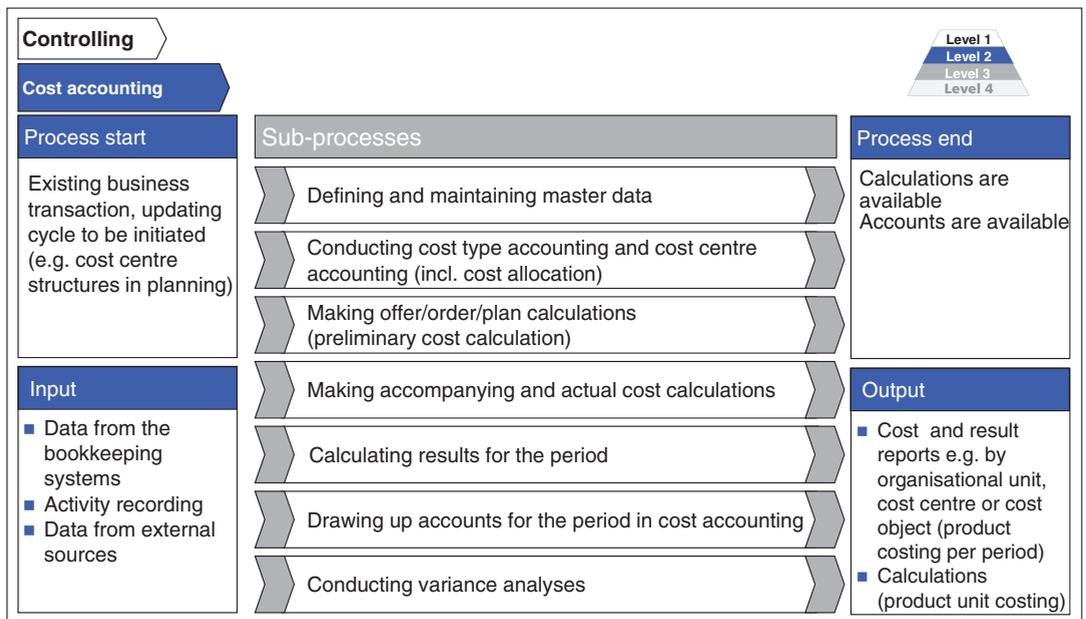


Fig. 8: Structure of the main process „Cost accounting“

Cost accounting, building on external accounting, is the core of managerial accounting. It starts with the process of defining and maintaining the master data (amongst other things, cost types in close coordination with account charts from financial accounting, cost centres or cost centre structures), which have to be adapted constantly to the respective company structure and the business model. The defined data Master data and alignment of IT systems

models are to be put in the respective IT systems. To ensure the control effects, the structures of cost accounting have to match the existing management structures and responsibilities.

Cost type accounting, account assignment rules

Cost type and cost centre accounting is based on the defined master data of cost accounting. Cost type accounting includes recording and structuring the costs and outputs in the firm based on a uniform chart of cost types or accounts, as well as the allocation of primary costs to the cost centres actually responsible for incurring these costs. To ensure uniform recording and allocation of costs and outputs, obligatory account assignment rules have to be defined and documented in an account assignment handbook. As a preliminary activity for cost centre accounting and calculation, cost types can be split into fixed and proportional components.

Cost centre accounting

Cost centre accounting includes internal cost allocation of services exchanged based on allocation rates and is a prerequisite for product unit costing (costing) and product costing per period (short-term result calculation). For doing so, the cost centres rendering services are to define appropriate output processes or outputs and at the cost centres receiving services the outputs consumed have to be recorded. The aim is to allocate the costs of internal services transparently to the unit consuming the output. After cost centre accounting, all costs are recorded in the final cost centres as primary and secondary costs. On this basis, the final cost centres determine the allocation rates for product unit costing.

Preliminary cost calculation

The sub-process of offer/order/plan calculation (as a preliminary calculation) includes determining the cost of goods sold for individual products or orders as planned costs or standard costs. Apart from the mere establishing and allocation of costs, this information can also be used to determine sales prices. Preliminary cost calculation depends on the respective business model. A producer of standard goods with a very stable production programme, for instance, can conduct the preliminary cost calculation on the basis of standard or planned costs at the product level during the planning process. Results of the calculation are normally fixed for a particular period. Companies with customer-specific production, on the other hand, generally pre-cost each order. If the respective cost accounting system is based on standard costing, the results from the preliminary costing can be used to value inventory or calculate transfer prices (this is in line with e.g. IFRS). It is essential to take legal stipulations (e.g. tax laws) into account here.

In contrast to preliminary cost calculation, accompanying or actual cost calculation is used to record and allocate the actual costs to the cost object. Normally this is done at the level of individual production or customer orders. By comparing preliminary and actual cost calculations, important information can be provided for variance analysis. As in the case of preliminary cost calculation, the results of the actual cost calculation can be used to value inventory or calculate transfer prices (if the cost accounting system is designed as an actual cost accounting system). Again, the norms of external accounting have to be complied with.

Accompanying/actual cost calculation

Following a period, accounts for the period for cost accounting have to be drawn up. These include the calculation of the operating result and the correct allocation of costs and outputs to the units (e.g. business fields). When determining the result for the period, both the cost of sales method and the period costing method can be used. As the calculation of the result is designed as a multi-step contribution accounting method, and because of the stepwise allocation of fixed costs, for certain levels of contribution margins, more detailed dimensions of analysis than the units of the company, such as customer or product groups, can be defined.

Accounts for the period

To support the management in defining measures, cost accounting provides variance analyses as a preparatory activity for deriving measures. At various levels, standard or planned costs are compared to actual costs. The most common variance categories are price and volume variance, both on the sales and the purchase side. In addition, production cost centres calculate usage and capacity variances.

Variance analysis

### Recommendations for a successful cost accounting process

- Make sure there are clear and uniform definitions of all terms in cost accounting.
- Try to integrate internal and external accounting, e.g. by using uniform value concepts.
- Regularly analyse all products, customers, units, etc. regarding their profitability.
- Make use of the transparency gained in cost accounting, in order to initiate measures that improve the result.
- Critically question the details required (e.g. number of cost centres).
- In internal cost allocation, take care of transparency and simplicity and critically analyse the necessity of allocations.

### 3.5 Management Reporting

- Objectives** The aim of management reporting is to produce and deliver information relevant for decision-making in the sense of relation to objective/degree of goal attainment, in a recipient-oriented and timely manner for the control of the company. With the information and documentation task, reporting is to ensure company-wide transparency.
- Content** As a rule, financial and non-financial information in the dimensions Actual, Actual previous year, Planned, Target and Forecast is provided in the form of regular standard reports as well as ad-hoc reports. Based on identified and explained variances and prognoses on goal attainment (comments), specific recommendations for countermeasures are worked out and coordinated with the management. Relevant elements include, amongst other things, profit and loss account, balance sheet, cash flow, sales, costs, result, investment, projects, volumes, capacities and employees, related to the management units in the company.



Fig. 9: Structure of the main process „Management Reporting“

- Control concept and set-up** An important prerequisite for successful management reporting is a clear business control concept for the company, which establishes how the different organisational units in the company are controlled. From this, it can be derived which information reporting has to provide for which recipients. Similarly, the structure of management reporting is derived

from this. Specifically, dimensions of analysis, report structures and ratios are defined and responsibilities and the circle of recipients are established.

The control concept leads to a business data model, which is implemented by appropriate IT systems that are integrated into the overall IT architecture of the company. Supervising the reporting systems is a major cross-sectional task in the management reporting process. This includes maintaining the systems and tools for reporting, providing structured data processes (data collection, maintenance, processing, distribution), maintaining interfaces to the preceding systems, preparing and maintaining reports in the system, and supporting the users (management & controllers) in using the report systems.

IT architecture  
and data  
processes

In the report preparation process proper, first data are collected (automatically/manually – from preceding systems or via report forms). This is then made plausible on a technical and a business level and the data are combined, including aggregation and consolidation according to the data model defined. As a result, the business data are then available in the form of the defined reports as tables and graphs. They compare the values currently achieved with the respective values from comparable periods, the target, planned and also the benchmark values and thus illustrate variances and changes.

Drawing up  
reports – figures  
section

After approval (and possibly also distribution) of the „figures section“ of the report, the report analysis is conducted. It includes a discussion of the values achieved in the light of relevant comparative values, the addition of qualitative information, such as e.g. following up measures, projects, special situations etc., a prognosis on goal attainment and a comment on and interpretation of the results. Ideally the comments already include specific suggestions for measures to be taken. With the conclusion of the analysis and the full distribution of and approved access to the reports, the report preparation process is finished.

Report analyses –  
adding qualitative  
information

The final step in management reporting is the active discussion of the report contents in management. This can be done individually, between manager and controller, or in supervisory or management board meetings. Here, reports are presented and discussed, suggestions for measures to be taken are considered, actions are initiated and the progress of measures taken is monitored.

Management,  
discussion,  
measures

### Recommendations for a successful management reporting process

- Make use of management reporting as a central anchor point in controlling and management meetings.
- Proceed according to the motto of „less is more“ and so ensure recipient-orientation, readability and comprehensibility of reports.
- Prepare a one-page „management summary“ as an introduction to the report.
- Include non-monetary values.
- Implement business intelligence systems outside the ERP system (but integrated into it) and keep reporting structures and processes flexible and controllable.
- Automate report processes as much as possible in order to save time for analyses, comments and measures.
- Prepare a binding reporting diary to support a professional process management of the reporting process.

### 3.6 Project and Investment Controlling

Objectives	Project and investment controlling aims at creating transparency regarding benefit, results and profitability, as well as adherence to quality, time and cost targets, of projects and investments and at supporting the project management actively, e.g. by establishing appropriate standards.
Content	Project and investment controlling supports in evaluating prioritising and selecting, in planning, in implementing and controlling, as well as in finishing projects and investment schemes. This also includes checking goal attainment once a project is finished.

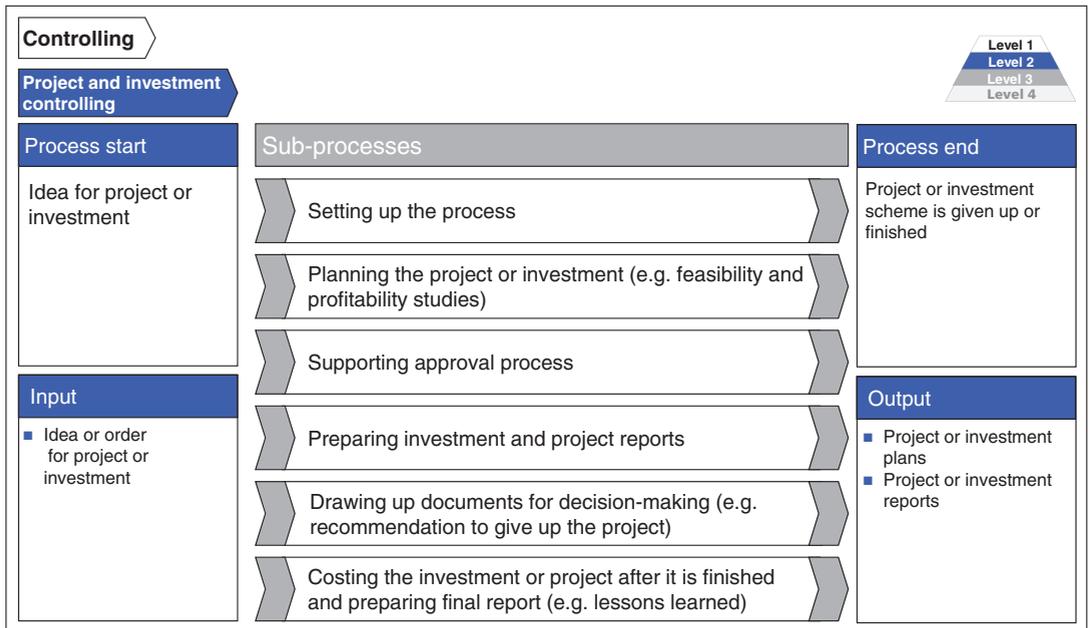


Fig. 10: Structure of the main process „Project and investment controlling“

A set-up process for approaches and conditions of investment and project controlling in the company should come first. Initially it is important to find out which criteria have to be fulfilled in the firm for an investment or project to be called an investment or project and so investment or project controlling are called for. Investment refers to both capital investment, i.e. acquiring long-term usable means of production that are included in the balance sheet as non-current assets and are depreciated over their useful life, and intangible investments, such as research and development for new technologies. Typical features of a project include a task that is limited in its extent, both content- and time-wise, with a defined start and end, the uniqueness of conditions in their totality, generally cooperation across business areas (interdisciplinarity) and the specific organisation. Both investments and projects require clear targets regarding content, date, budget and benefit, as well as results. Investment schemes (and in particular large ones) can be seen as projects or be defined as such. However, not all projects are investments. From now on, the term project is used for both instances. For both – investments and projects – project phases such as study, definition, planning, realisation and final phase, as well as criteria for progressing from one phase to another, should be established. Depending on length and priority of the project, as well as in line with the

Criteria and characteristics of projects

processes of corporate controlling, methods for prioritising the project, contents and frequency of reports, desired returns and the process of risk detection and evaluation are defined.

From project idea to project application	The path from project idea to project application is accompanied by the project controller, who supports the project management in defining specific project targets, evaluating the project's benefit and estimating costs and outflows. With the evaluation of investments, various methods of capital investment analysis are used, depending on the type of investment. Earlier, costed projects can be used as a comparison here. After preparing a project structure plan, and once sub-processes, work packages and milestones have been fixed, a bottom-up project and budget plan, as well as a risk analysis follow.
Examination and decision	The project application thus resulting is checked for compliance with the company's specifications and presented to the management, or another decision-making body, for a decision. The project should be integrated into the overall project portfolio and budget of the firm. In case of budget or capacity bottlenecks, measures to improve efficiency or the prioritisation of projects are suggested and their effects are made transparent.
Project control	Once the project is approved, project planning starts and project control is supported by comparing planned with actual values. Project reports with comments and variance analyses create the transparency required for countermeasures and a forecast at project end. If the conditions change significantly or the forecast looks unfavourable, alternative actions are worked out, evaluated from the point of view of the project's and the company's objectives and a recommendation for action is prepared for the decision-makers. The exact documentation of project changes and additions facilitates variance analyses and costing the project using actual values. This should be done in any case once the project is finished (or abandoned). Comparing planned and actual values, as well as variance analyses, makes it possible to draw conclusions for follow-up projects (lessons learned) and should be summarised in a final report. Apart from variances relating to content, dates or budget, it is also advisable to evaluate the cooperation in the project team.

### Recommendations for a successful project and investment controlling process

- Make sure there is a simple project handbook that provides a project method and a certain framework for project work.
- Integrate project budgets into the annual budget and planning for several years.
- Fix clear criteria for abandoning the project.

- Document any project additions and changes without exception (through change requests).
- Provide regular status reports regarding the project's progress.
- Cost projects and investments at actual values after they are finished, for comparison and lessons learned.
- Set standards for investment evaluation and criteria for deciding on the investment.

### 3.7 Risk Management

The aim of risk management is to safeguard the firm's long-term existence and to improve the quality of planning by identifying and controlling early on positive and negative influences on the company value in a continuous process. Objectives

Risk management includes identifying, recording, analysing, evaluating and checking risks, as well as deriving and implementing suitable risk prevention measures. This is to be achieved within the framework of established risk policy and strategic orientation. Content

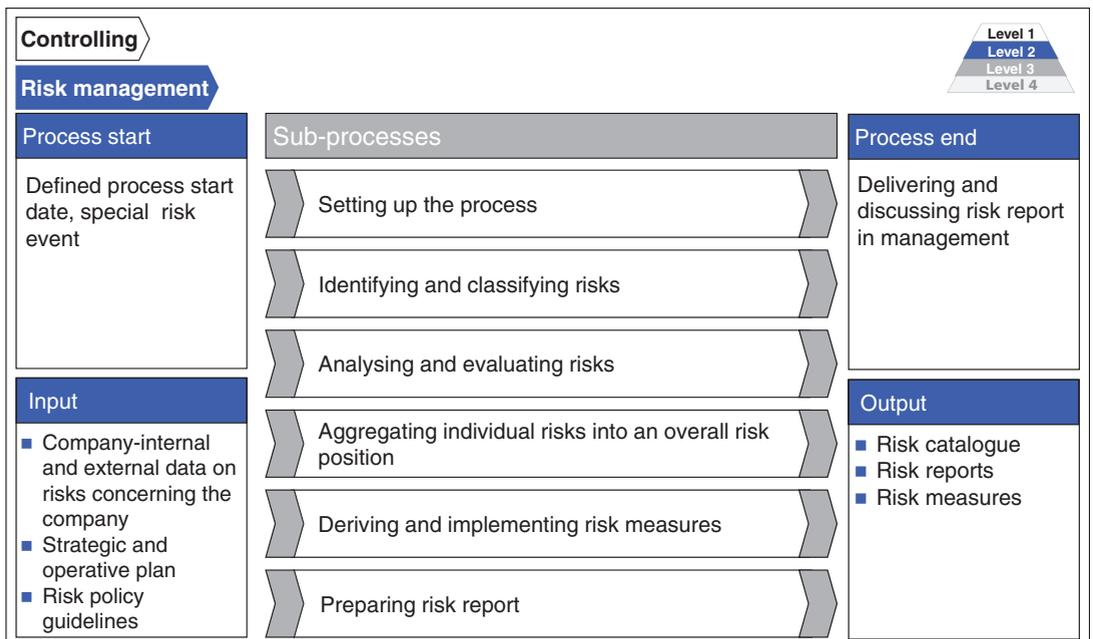


Fig. 11: Structure of the main process „Risk management“

Risks and opportunities Every management activity, and therefore also controlling, is confronted with the fact that the future cannot be foreseen and hence with risks and opportunities. They are included in operative and strategic planning mostly in the form of an expected value, derived from the average expected probability of the event occurring. Possible results are condensed into one value, which results in the loss of the information on distribution, which is valuable information on planning uncertainty. This knowledge about opportunities and risks connected with individual planned values exists implicitly with the respective planner, but is rarely formulated explicitly. Apart from the expected value, it is also common to show risks in the form of surcharge rates in various controlling instruments, e.g. risk costing or risk surcharges when determining the cost of capital and evaluating an investment. Risk management makes it possible to integrate opportunities and risks explicitly into controlling by showing the distribution or distribution function of important plan assumptions, resulting in planning that is closer to reality. It might also be useful to determine the resilience of important plan parameters by means of marginal scenarios.

Identification, quantification and aggregation For an opportunity and risk management suitable for controlling, it is necessary to, as fully as possible, identify, classify (risk inventory, risk catalogue) and, if required, quantify the relevant risks on the basis of the company's risk-policy guidelines. This means that the distribution functions of the individual risks have to be established either subjectively or on the basis of historical data. The evaluated individual risks are then aggregated into one companywide overall risk position, taking into account any interdependencies. Only aggregation enables the analysis of the opportunities and risks connected with planning on a company level. This approach is relevant for all planning tools (forecast, operative, medium-term and strategic planning, balanced scorecard). The risk-management process requires a set-up mainly in all those cycles in which the risk catalogue is reworked. This happens at least once a year; in between, additions are made if there is reason to do so.

Integration into reporting As the risk-management process cannot be anchored with the controllers compulsorily, it is important from a company-control point of view to integrate information on opportunities and risk into reporting. For this purpose, either the top ratio of risk management is integrated into management reporting (e.g. a „risk-adjusted EBIT“ as an addition to EBIT as an operative measure of result) or a comprehensive risk report is integrated into the controlling report quarterly. This also furthers the harmonisation of reporting dates and the discussion in meeting routines. Recognising risk-induced ranges, i.e. the distribution around a target value of a company, has to result in the derivation of target-oriented (risk) control measures. These control measures are to be included in a

measures controlling system, analogous to the measures derived from the monthly variance analysis of planned and actual values and the quarterly analysis of planned and future values, in order to make sure they are binding and effective.

**Recommendations for a successful risk management process**

- Identify plan assumptions that are particularly risk-prone.
- Draw up and maintain a catalogue of the risks identified.
- Quantify and aggregate the risks fully.
- Integrate the risk information into the controlling reports.

**3.8 Function Controlling**

Function controlling is the controlling of the individual functions in the value-creation chain, such as R&D, production, sales (primary activities) or human resources and IT (support activities). Basically the controlling processes such as planning, reporting, etc. described above can be found here again. Yet the particular requirements of an industry, on the one hand, can make it useful or even compulsory to show specifically the controlling process of a function. This is true, for instance, for R&D controlling in research and development intensive companies where significant resources are tied up. On the other hand, the importance a company ascribes to a subject area can justify the treatment as a separate controlling process. This can, for example, be the case for personnel controlling. A selection of possible functional subject areas is shown in Fig.12.

Subject areas

■ R&D Controlling	■ Human Resource Controlling
■ Procurement Controlling	■ Service Controlling
■ Production Controlling	■ IT Controlling
■ Logistics Controlling	■ Quality Controlling
■ Sales Controlling	■ Group Controlling
■ Marketing Controlling	■ ...

Fig. 12: Possible areas of function controlling

**Content** The contents of the respective function-controlling processes describe, amongst other things, function-specific characteristics of the main processes and sub-processes of controlling described above (see chapters 3.1. to 3.7.), the application of function-specific tools and the use of function-specific IT systems in running processes, or the function-specific required cooperation with other organisational units in individual sub-processes. The content of the function-controlling processes generally varies significantly. In order to keep the length of this brochure within reason, not all of these function-controlling processes are described individually. One of these function-controlling processes, the functional area „research and development (R&D), will be used as an example of these function-controlling processes in the following section.

### Recommendations for a successful function-controlling process

- Use process standards from main controlling processes (planning, reporting, cost accounting etc.), in order „not to reinvent the wheel" and to avoid isolated solutions.
- Integrate topic-specific content into standard plans/reports etc.
- Define and describe the function-specific sub-processes, activities, methods and systems.

**Objectives** The aim of R&D controlling is to secure both the short-term and the long-term result-orientation of R&D activities and the area of R&D. Research and development activities have to meet short-term efficiency criteria on the one hand and create long-term success potential on the other.

**Content** R&D controlling includes the major controlling processes, each adapted to the specific requirements and conditions of research and development. It includes the business process of setting objectives, planning and control of research and development activities.

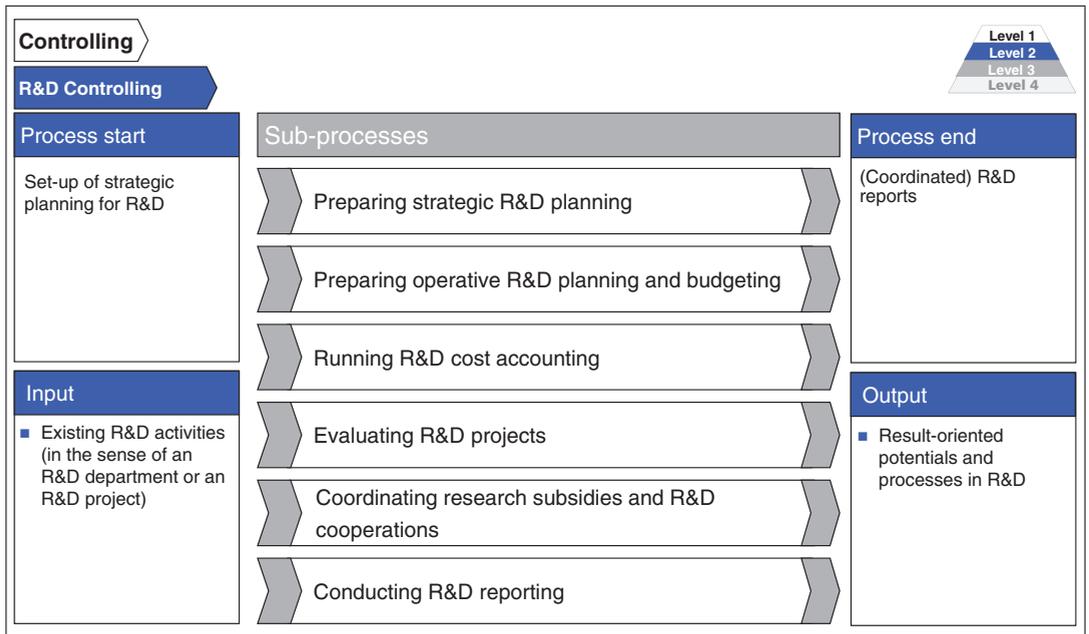


Fig. 13: Structure of the main process „Function controlling“, shown in the example of R&D controlling

R&D controllers support the R&D management in cooperation, as described earlier. One particularity is that in many sub-processes both R&D as an organisational unit and the R&D activities, which are generally cross-departmental (R&D programme, R&D projects), have to be depicted. Other special features are the use of specific evaluation methods or of special financial reporting standards.

R&D specifics

Within strategic R&D planning, the long-term programme of R&D activities (R&D programme, totality of all projects) is prepared and evaluated. A decision is made which projects will or will not be run. From this, the strategic planning of the R&D area is derived, for instance, at which locations R&D services will be rendered, what staff resources (quantitative and qualitative) are needed in the planning period and what major financial benchmarks are to be defined. In operative R&D planning and budgeting, the same topics are dealt with on an annual basis and with the appropriate degree of commitment.

R&D planning

R&D cost accounting records all costs to be taken into account for R&D activities or caused by R&D activities on a business-unit or project basis and processes them in subsequent activities of this sub-process, e.g. in preliminary project calculations or in the regular project evaluation of the period's accounts and accruals and deferrals. With integrated financial reporting, in many companies IFRS reporting standards are

R&D cost accounting

relevant here. According to IAS 38.54f., development costs must be capitalised under certain circumstances. Expenditure on research has to be recognised as expense, as its future economic benefit cannot be proven. For R&D controlling this means that R&D projects and activities have to be checked for possible or required capitalisation and depreciation according to IFRS on a regular basis. Moreover, it must be checked whether and how the percentage-of-completion (POC) method should or must be applied in this sub-process.

**R&D reporting and project evaluation** R&D reporting provides – unit-, project- and programme-related – all information on R&D activities that is relevant for control on a regular basis. Amongst other things, it uses information from the R&D project evaluation process. R&D project evaluation is a specific sub-process that regularly evaluates current R&D projects on their major success criteria. These mainly include sticking to the budget, sticking to the time schedule and achieving the main objectives and results. Several success criteria are evaluated when using the earned-value approach. The results of R&D project evaluation are used in the so-called stage-gate method in order to decide on continuing or abandoning projects at certain points in time or on reaching certain milestones.

**Coordination** Furthermore, the R&D controller has original tasks such as coordinating R&D cooperations and research promotion, which can be shown in an appropriate sub-process. This sub-process has interfaces with R&D cost accounting, as e.g. costs incurred are passed on to cooperation partners or appropriate proof of incurred costs has to be submitted for receiving research subsidies.

### Recommendations for a successful R&D controlling process

- Align the processes of R&D controlling with the company's R&D strategy.
- In planning the R&D programme and selecting projects, always focus on the important criteria that are in line with the strategy.
- Define clear standards for evaluating R&D projects.
- Design R&D cost accounting in line with the company's cost, output and result accounting standards.
- Align R&D reporting with the requirements of the respective persons responsible and integrate it into management reporting.
- Regularly check R&D projects and activities for the option or obligation to capitalise and depreciate assets according to IFRS.

### 3.9 Management Support

The aim of management support by controllers is coordinating across departments and ensuring the rationality of decisions within the management process of setting objectives, planning and control. Business-related thinking and behaviour is to be anchored in all management levels. Objectives

Controllers, as service providers with a regulating function, make sure that the main controlling processes are used in the company and design them in the process of setting objectives, planning and control. They support the management with useful tools and information relevant for decisions, show the effects of alternative actions and create transparency across departments relating to strategy, result, finances and processes. They are the management's „sparring partners“ and „business conscience“. Content

The sub-processes listed in Fig. 14 are examples.



Fig. 14: Structure of the main process „Management support“ (example)

Besides expert competence, including extensive method knowledge, focused and target-oriented consulting requires a high degree of business competence, for example knowledge on relationships and processes regarding the operative area, the market and the products. In order to Target-oriented consulting

recognise holistic relationships and to make them transparent for management decisions, hierarchical and departmental interfaces have to be bridged. This in turn requires the appropriate social competence.

Controllers as  
sparring partners  
and business  
conscience

Consulting supports the company's managers in managing. At the same time, the controller himself has a managing function. Through his regulatory function, the controller, for instance, determines what is planned and how this is done. Management support can be found in all processes of the controlling process model. Controllers, by means of internal communication, exemplary behaviour and trainings, infuse all management levels with business-related thinking and behaviour. They support the manager as „sparring partners“ and „business conscience“. The sub-processes of management support are designed company-specifically in the main processes.

### Recommendations for a successful management support process

- Make yourself knowledgeable in the business model, the business processes, products, markets, competitors and customers.
- Make yourself familiar with objectives, processes and general conditions in the individual areas.
- Provide the departments with orientation on the company goals, the holistic view of the company and the relationships between subordinated goals.
- Explain the controlling instruments and methods and use them in the context of the subject area.
- Contribute pro-actively in the day-to-day business, in projects and in company and organisational development.
- Make sure there is a controller as a contact /person responsible for each area.

### 3.10 Enhancement of Organisation, Processes, Instruments and Systems

Objectives The aim is to further develop the controlling processes, instruments and systems used in the company continuously. In particular, it has to be examined which processes have to be adapted, which processes could be dropped and which areas have to be developed in general. By designing new and further developing existing controlling processes, structures, instruments and systems, the effectiveness and efficiency of controlling, after all, are to be improved.

The process of enhancement of organisation, processes, instruments and systems also includes moderation, knowledge transfer, support and training/qualification of employees inside and outside the controller service. This also includes the introduction of standards and guidelines. Controllers have the task of making quality standards measurable, as well as to permanently communicate quality and quality standards in order to achieve, and ideally exceed, higher quality standards.

Content

The sub-processes listed in Fig. 15 are examples.

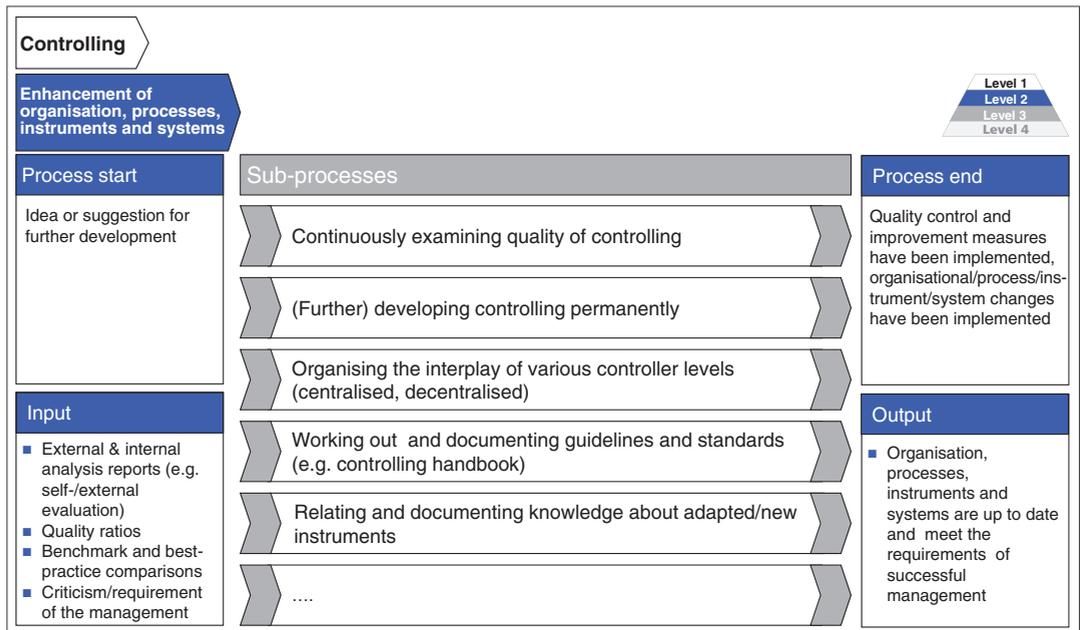


Fig. 15: Structure of the main process „Enhancement of organisation, processes, instruments and systems“

In order to safeguard a sustainably efficient and effective management through controlling, organisation, processes, instruments and systems have to meet the current and expected future requirements of holistic management. Therefore controllers should always inquire whether there are options for further development in the sense of improving performance and quality. Possible measures of further development might be the introduction of a BSC as an instrument to find a new strategy as well as for strategy control, a reduction in the planning process and the introduction of a new consolidation method or tool.

Quality control

Self- and external evaluation	For the continuous examination of the quality of controlling, benchmark- and best-practice comparisons with other companies are the main options. Besides external analyses, a company-internal objective self-analysis and an analysis by others are also required, for example, by means of a survey on how satisfied people are with the controllers' work and their customers. Suitable suggestions for further development and the new introduction of structures and processes in controlling hence have to be taken up from all areas of the firm – including the controller service itself.
Feed forward thinking	It is important that due to the feedback process systemic and procedural changes are initiated and so suggestions for improvements are actually implemented in a suitable manner. Controllers can ensure, e.g. by means of (method/process/system) trainings, that in other functional and business units leading methods and instruments of management are always available and that users know how to use these and are aware of the benefits. It is thus useful to subject also controllers to regular qualification measures, so that they are always up-to-date. A controlling-specific knowledge management system can come in handy.
Total quality management	Finally, the effectiveness of the measures initiated has to be evaluated and possible improvements for the controlling process are to be derived. Thus, quality control and improvement work turns into a permanent task for controllers. As an integrated quality management system, the concept of total quality management (TQM) is very suitable for quality control and management up to company-wide quality improvement. It goes far beyond the mere measurement of efficiency and effectiveness and can, for instance through monthly quality cost reporting, record and follow every planned and current project.
Change management	If major changes are imminent, such as a shift of production abroad, organisational structures and processes often have to be broken up and redesigned completely. Also in so-called „change projects“, support and advice from controllers are welcome. Particularly soft skills are of importance here, as, in order to set up new processes and make organisational changes, employees have to be mobilised and motivated accordingly.

**Recommendations for a successful controlling process „Enhancement of organisation, processes, instruments and systems“**

- Conduct regular benchmark analyses.
- Hold a regular controller jour-fixe.
- Set up method development teams.
- Introduce a suggestion scheme for improving controlling methods and processes.
- Introduce a specific incentive system in order to safeguard the successful introduction and application of the suggestions.
- Introduce a knowledge-management system for controlling.

## **4 Management of Controlling Processes – Specifics**

### **4.1 Summary, Controlling Year Planner**

As a rule, processes are tied to each other, i.e. output and input data of a process are generated and used in other processes. The controlling processes shown have also to be seen as interconnected in practice. They must be synchronised both on a time and a content level. The challenge is to coordinate and align all controlling processes in such a way that deadlines and agreements are kept to the management's satisfaction. More exactly, for successful management all relevant information must be given to the decision-makers in time and in the format desired. In practice, keeping deadlines often turns out to be extremely problematic, as the schedules of everybody involved are often difficult to coordinate. In order to avoid time bottlenecks and discrepancies, the preparation of a controlling year planner is advisable (see Fig. 16). This also helps in explaining and communicating the controlling processes in the company.

Holistic view of  
controlling  
processes

## Controlling process model

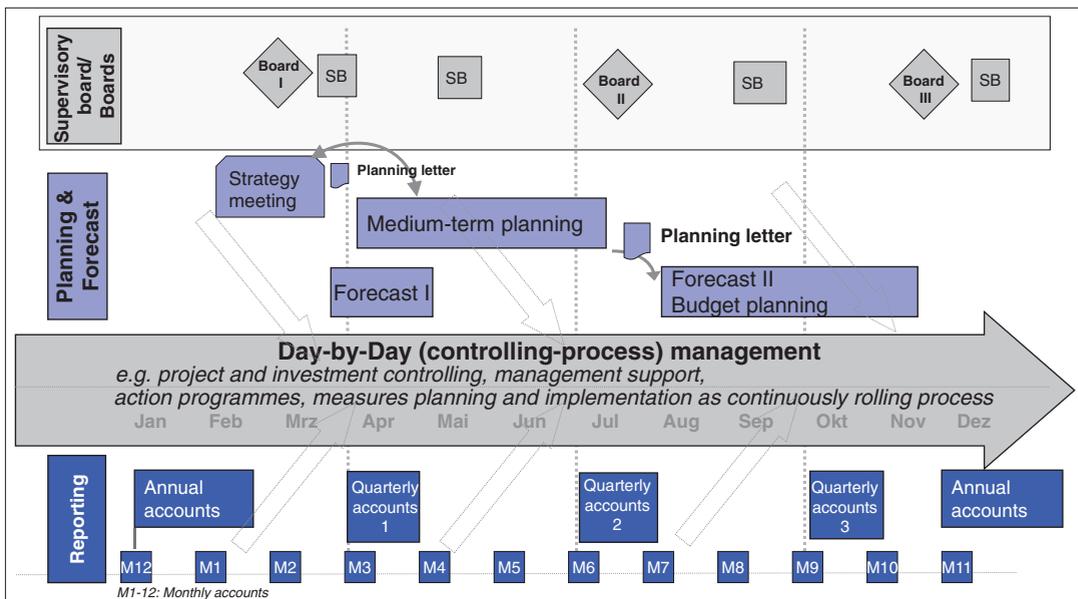


Fig. 16: Controlling year planner, example of an industrial company

Company-specific procedural cycle

What such a controlling sequence chart looks like is shown in the example of an industrial firm in Fig. 16. This example does not cover all the controlling processes described earlier, but focuses on the controllers' main challenges in their interaction with the management. Tasks such as monthly or quarterly reporting, permanent forecasting or drawing up the annual accounts are definitely to be scheduled by every company. When, and how often, tasks come up, and how detailed they are, is (also depending on the business model, industry, season, economic situation etc.) different from company to company. Thus it is advisable to have a separate controlling year planner for each company with an individual cycle of the controlling processes.

Structured project plan

The year planner shown serves as a pattern or template to adapt an individual sequence plan according to company-specific characteristics. This results in a work plan with a clear structure as regards time and content, which is aimed at managers and, mainly, the controllers.

## 4.2 Performance Measurement of Controlling Processes

As the process owner, the head controller in the company has the management responsibility for the controlling processes. From this point of view, he is responsible for the performance of these processes and should pursue an active process management.

Process Performance

In order to support this, the performance of the controlling processes should be measured and an appropriate performance measurement system for these processes should be installed. It focuses not on a single ratio, but on measuring and controlling performance multi-dimensionally based on key performance indicators in the categories of quality, time, costs, volumes, staff resources and resource utilisation.

Categories of performance indicators

Measuring all dimensions is not absolutely necessary for each and every process. As process goals can be conflicting, though, (e.g. improving quality and reducing costs at the same time), a performance measurement system for controlling processes logically goes beyond measuring purely financial ratios. Figure 17 provides an overview of potential cross-process performance benchmarks.

Benchmark values

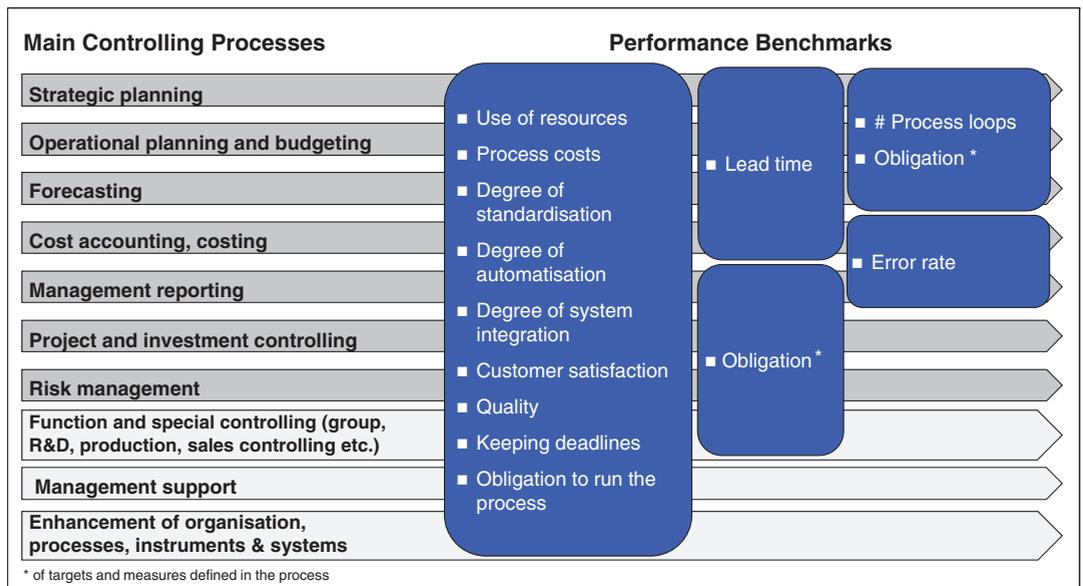


Fig. 17: Cross-process performance benchmarks

**Method** The performance indicators mentioned here must be defined in detail, specific to the company. On the one hand, this concerns the input data and the options available to record them. On the other hand, there are various ways to calculate, evaluate and illustrate the data, such as presenting the raw data, calculating ratios or transferring the data to scales, such as school grades or polarity profiles. Apart from the general performance indicators mentioned above, process-specific performance indicators can be defined (see Fig. 18). Based on such performance indicators, comparisons can be made (company-internally and externally), targets for improving performance can be set and the success of the improvements desired can be monitored. Common comparable values are, for example, the number of controllers for a main process in relation to employees in thousands or the duration of the reporting process from the accounts date to the presentation and discussion in the board of directors.

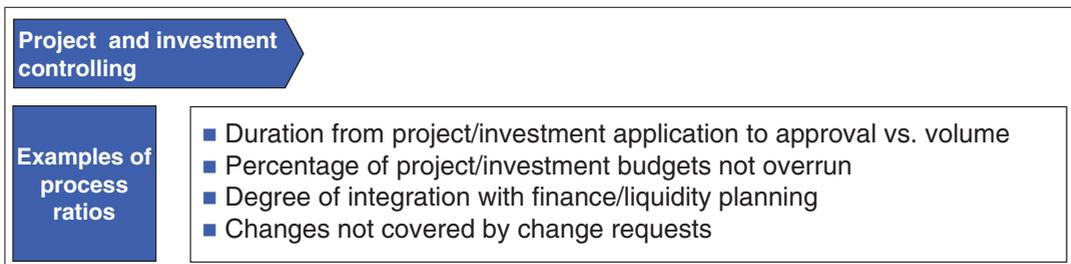


Fig. 18: Examples of process-specific performance benchmarks for project and investment controlling

The topic of performance measurement of controlling processes could be discussed in much greater detail than here and be extended to the topic of „performance management of controlling processes“. This is not the aim of this brochure, though, and would go far beyond the space available. IGC will deal with performance management of controlling processes in a separate initiative.

### 4.3 Illustrating the Activities Level (Process Level 4) – the Example of Management Reporting

In this brochure, the controlling processes are generally described on the level of main processes (process level 2), including the sub-processes (process level 3), as explained in chapter 2.3. A detailed discussion of the next level of activities (process level 4) is left out, in order to keep the analysis concise and the overall length of this brochure manageable.

Level 4 is exemplarily described for the process of „management reporting“ (see Fig. 19). The description here is based on the „SIPOC (Supplier-Input-Process-Output-Customer) principle“ (see Fig. 20). According to this, preceding and subsequent interfaces are established for each process. Such documentation is useful to design and control processes optimally. Above all, it gives excellent support in process analysis. If there are interruptions or other disturbances in processes, the specific mention of the supplier or customer makes it easy to identify the weaknesses. However, for this, performance parameters for each process are required so that the comparability of actual and target values is given in the first place.

SIPOC principle

# Controlling process model

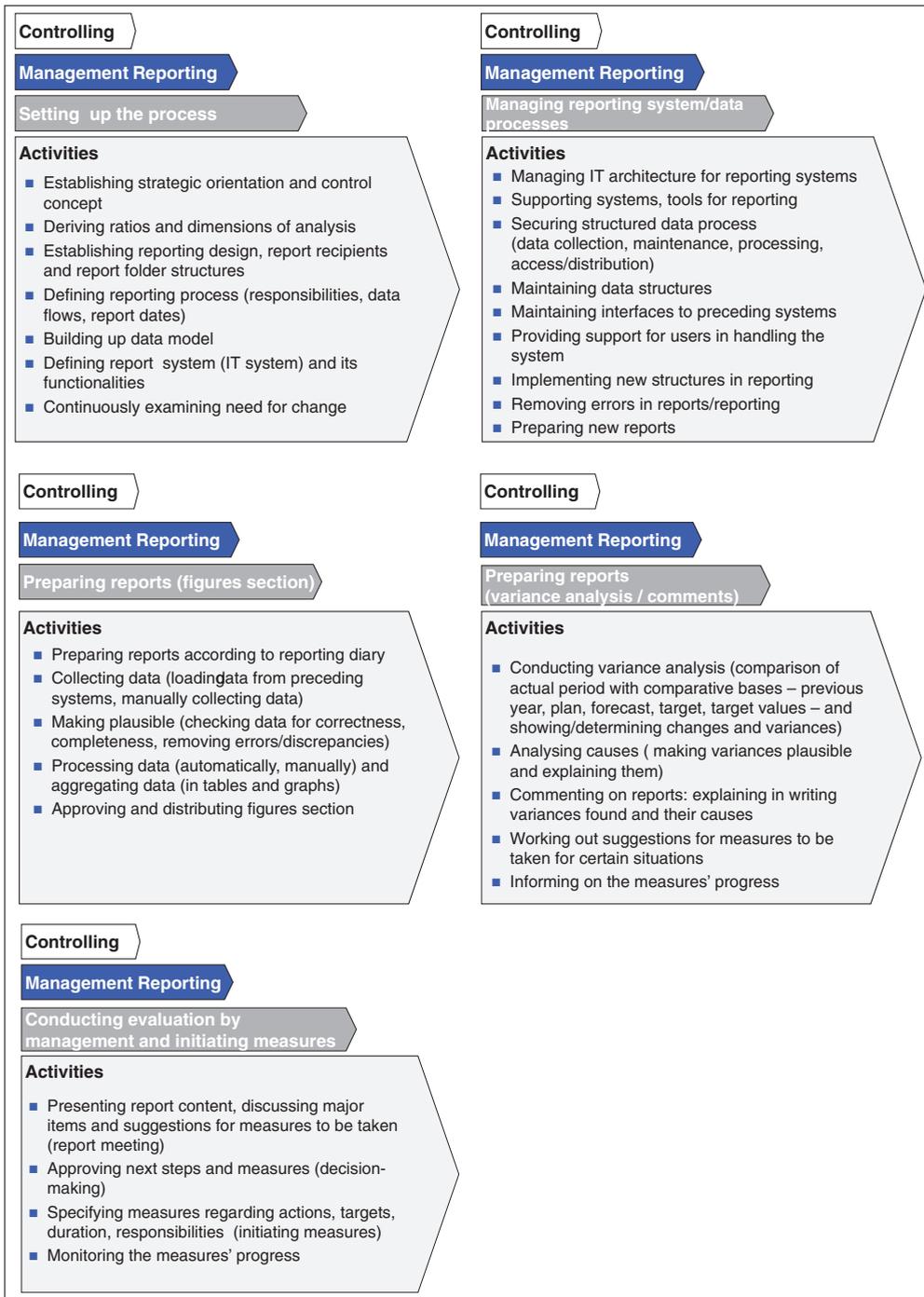


Fig. 19: Process level 4 Management Reporting

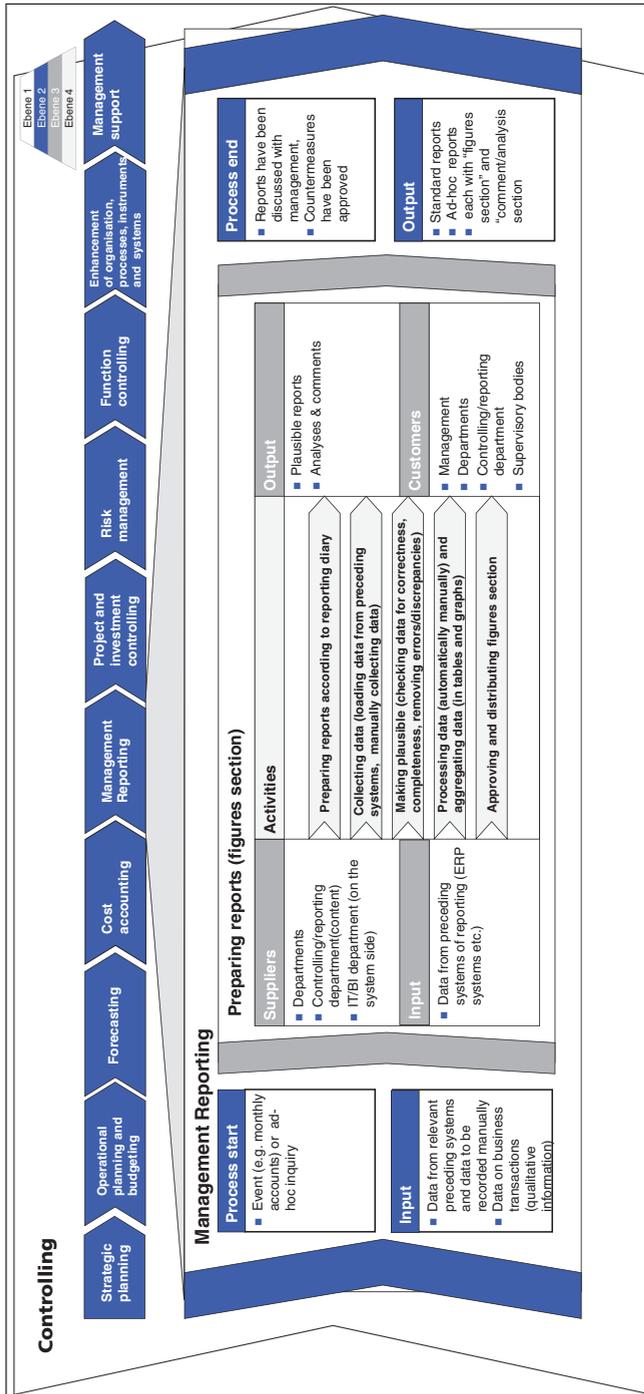


Fig. 20: Process level 4 according to the SIPOC principle

## 5 Conclusion

This brochure has shown how „controlling“ can be described in a process model. The controlling process model includes ten main processes that are described here on a uniform basis, including their sub-processes. They are also shown graphically and specific recommendations for practice have been added.

- Process design This booklet can be used as a guideline for describing and designing processes in controlling. The process descriptions and illustrations shown here can, for instance, be very useful as templates for the standardised inclusion of processes and their uniform documentation. Additionally, they can help in analysing process sequences. If these are to be improved, process inclusion should continue right up to the level of activities. For doing so, following the example of management reporting outlined in chapter 4.3 can serve as a guideline.
- Process optimisation Process improvements, however, also require a solid basis for comparison. For each process, as described in chapter 4.2, performance indicators have to be defined that help to measure the actual situation that can then be compared to the target. Only so potentials can be detected and appropriate measures for optimising controlling processes can be initiated.
- IT implementation Equally, the controlling process model can provide support with implementing IT systems, such as business intelligence systems for management. Starting from the interfaces defined according to the SIPOC principle, data/information flows can be shown, analysed and, if required, adapted. Because of its general validity, the controlling process model can be used in any company irrespective of the actual system structure.
- Controlling process model as standard The controlling process model is to be seen as a standard (map) that helps companies to install and run processes. If companies design their controlling processes according to the documentation suggested here, this should provide the foundation for a mostly standardised procedure in controlling. The controlling process model thus enables not just controllers to record their own processes, but makes controlling also more tangible in other areas of the company and promotes the role of the controller as an internal business partner of the company's management.
- Benefit In summary, it can be said that this brochure provides a solid basis for standardisation, the allocation of tasks, competences and responsibilities, as well as the IT implementation of controlling processes. Thus the brochure supplies the foundation for establishing a holistic under-

standing of controlling and fulfils the required criterion of process orientation in controlling.

## 6 Abbreviations

BI	Business Intelligence
BSC	Balanced Scorecard
CFO	Chief Financial Officer
DIN SPEC	Deutsches Institut für Normung Specification
EBIT	Earnings Before Interest and Taxes
ERP	Enterprise Resource Planning
IAS	International Accounting Standards
ICV	Internationaler Controller Verein
IFRS	International Financial Reporting Standards
IGC	International Group of Controlling
KPI	Key Performance Indicators
R&D	Research and development
SB	Supervisory Board
SCOR	Supply Chain Operations Reference
SIPOC	Supplier-Input-Process-Output-Customer
SWOT	Strengths-Weaknesses-Opportunities-Threats
TQM	Total Quality Management



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# Subject Index

## A

- Activities Level
- Process Level 4 48

## B

- Balanced Scorecard
- for Strategy Communication 21
- Benchmark
- Establishing –s 44
- Budgeting
- Process Design 22

## C

- Calculation
- in the Main Process Cost Accounting 29
- Change Management
- Support through Controlling 44
- Control Concept
- for Management Reporting 31
- Controllers 14
- Task Description 14
- Controlling
- Definition 12
- Controlling Main Process
- Cost Accounting 27
- Forecasting 24
- Function Controlling 37
- Management Reporting 30
- Management Support 41
- Operational Planning and Budgeting 22
- Project and Investment Controlling 32
- Risk Management 35
- Strategic Planning 19

## Controlling Process

- Characteristics 16
- Description 16
- Controlling Process Model
- Definition 19
- Overview 16
- Core Process
- Characteristics 16
- Cost Accounting
- Process Design 27

## E

- Enhancement of Organisation, Processes, Instruments und Systems
- Process Design 42

## F

- Feedback
- in the Consulting Process 44
- Forecasting
- Process Design 24

## G

- Group Controlling
- Part of Function Controlling 38

## I

- International Group of Controlling
- Aim 12
- Investment Controlling
- Process Design 32
- IT Controlling
- Part of Function Controlling 38

## Subject Index

---

### L

- Logistics Controlling
- Part of Function Controlling 38

### M

- Main Process
- in Controlling 17
- Management Process
- Characteristics 16
- Management Reporting
- Process Design 30
- Management Support
- Process Design 41
- Marketing Controlling
- Part of Function Controlling 38
- Mission of the Controller 13

### O

- Operational Planning and Budgeting
- Process Design 22
- Organisation
- with Controlling Year Planner 45

### P

- Performance Benchmarks
- for Controlling Processes 47
- Performance Measurement
- of Controlling Processes 47
- Performance Measurement 21
- Personnel Controlling
- Part of Function Controlling 37
- Planning Process
- Fixing Premises 23
- Process End
- Definition 18
- Process Map in Companies 15

### Process Start

- Definition 18
- Procurement Controlling
- Part of Function Controlling 38
- Production Controlling
- Part of Function Controlling 38
- Project Controlling
- Process Design 32

### Q

- Quality Controlling
- Part of Function Controlling 38
- Quality Standard
- for Controlling 16

### R

- Report Analysis
- in Management Reporting 31
- Report Preparation Process
- in Management Reporting 31
- Risk Management
- Process Design 35

### S

- Sales Controlling
- Part of Function Controlling 38
- Service Controlling
- Part of Function Controlling 38
- Strategic Analysis
- Tools 20
- Strategic Planning
- Process Design 19
- Support Process
- Characteristics 16

### T

- Total Quality Management
- for Process Improvement 44