HERMES 5.1
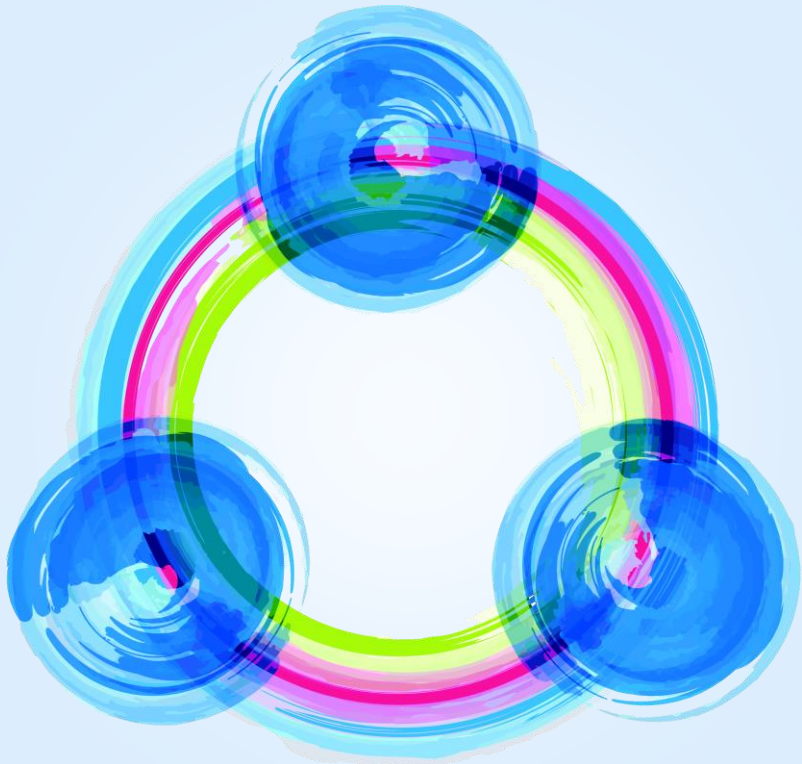
Project management method for all projects
Including agility

REFERENCE MANUAL

4th newly revised edition

HErmES 5©

HERMES AT A GLANCE:

Method
- This reference manual documents the method and is both printed and available online
- It forms the reference basis for certification
- It is used in training and is also suitable for self-study

HERMES online
- Scenarios form the basis for project planning
- Document templates and the checklist allow for swift
- application
- Individual scenarios cover the organization's special features

Training and certification
- Courses help with becoming familiar with HERMES and being able to use it
- Subject-specific advanced courses support professionalization
- Certificates from an independent body attest to skills

Exchange of experiences
- Events encourage exchange and networking
- Newsletters and social media provide information on the latest news
- HERMES users' experience and wishes are incorporated into further development

Standardization
- New developments are standardized by eCH
- eCH is the standardization body for eGovernment
- Users are represented in the HERMES group of experts

Foreword – HERMES Method Officer

The evolution of HERMES

This newly revised edition of the reference manual for project management with HERMES has been developed and continuously improved with the help of countless valuable feedback messages from users. It was important to us to document various topics even more precisely and to include new aspects, but without changing the now widely used method.

This document, both in hard copy and online, has been produced using the latest technologies for the publication of the HERMES method. Both products, together with the associated document templates and the checklist, not only are new from a methodology viewpoint, but also immensely simplify the previous publication process.

We were able to apply this entire process successfully already when creating the new reference manual entitled "Program management with HERMES". This enabled us to create a new method for the implementation of programs based on the existing HERMES ideology. We developed a manual and a web solution for this. The reference manual for program management extends this project management method and, together with it, forms a complete work covering the implementation of all types of projects and programs.

Projects in all conceivable disciplines can thus be implemented with HERMES. The manifold applications of HERMES result again and again in new user needs. We pursue this concern and developments in the area of project management with great interest and incorporate them into the further development of our method so that our users can always receive up-to-date and professional support.

I hope that our revised method will serve you well. Feedback and experience reports are always welcome.

I would like to thank everyone who continuously helps to support this easy to use method and to spread the good spirit of this idea.

André Bürki
HERMES Method Officer,
Federal IT Steering Unit FITSU

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Authors

André Bürki, FITSU Hermes, overall responsibility; Hélène Mourgue d'Algue; Guido Eicher; Bernhard Kruschitz, BKI AG; Libor F. Stoupa, Stoupa & Partners AG, revision of the edition

Copyright and reservation

Document templates / checklist

Libor F. Stoupa, Stoupa & Partners AG, complete revision

Quality assurance

Libor F. Stoupa, Stoupa & Partners AG, structure and context

Note on gender equality in language

To make it more readable and comprehensible, this manual refers to roles and people in forms which are independent of a person's gender and positions in an organization. These formulations explicitly include women in their respective function.

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Preface

"What remains is change; what changes remains."
(Michael Richter, German contemporary historian)

In organizations, it is not only a matter of carrying out daily business with the requisite quality, but also of shaping and securing the organization's future. This change process must be mastered successfully. Projects to implement changes are an essential component of business activities in all organizations.

There are no benefits without risks – those who launch projects take risks and invest significant human and financial resources. Responsible corporate governance thus includes the overarching steering and monitoring of projects. This focuses on both the quality of the project outcomes and the quality of project implementation. Examples of quality criteria include:

- Support for the core organization's strategies and objectives
- Consideration of the interests of all stakeholders
- Conscious approach to risks
- Efficient and sustainable use of resources
- Clear responsibilities for steering and management roles
- Transparency and comprehensibility of project implementation
- Quality assurance with regard to project outcomes and compliance with standards and specifications

HERMES is a set of instruments that can contribute to the successful completion of a project with consistent use. HERMES supports the achievement of the quality criteria. HERMES creates the methodological prerequisites for implementing projects successfully and efficiently. Use of HERMES significantly supports overarching steering and monitoring by management. HERMES can be adapted to the characteristics and complexity of the projects and the requirements of the organization.

The Swiss Federal Audit Office recommends that HERMES should be used not only for IT projects but also for organizational projects. It will consider HERMES as a reference method when auditing projects.

For professional project management, one method alone does not guarantee success. Dedicated, responsible project sponsors, trained and capable project managers, as well as motivated project teams are needed to implement HERMES consistently.

Swiss Federal Audit Office SFAO

www.efk.admin.ch

SCENARIOS

PHASES AND MILESTONES

MODULES

ROLES

TASKS

OUTCOMES

USER INFORMATION

A   Method overview

A.1   Definition of the HERMES method

HERMES is the project management method for projects in the area of IT, service and product development, and business organization adjustment. HERMES supports the steering, management and execution of projects with various levels of complexity and different features. As a method, HERMES has a clear, easy-to-understand structure, has a modular design and can be expanded. The main method components and how they interact are described below.

A.2   Scenarios

Various projects are carried out within an organization. Projects can vary considerably in terms of content and complexity. HERMES provides scenarios to satisfy the diversity of projects.

A scenario is oriented towards the implementation of projects of a specific nature. The scenario contains precisely those HERMES method components that are important for the project. Consequently, HERMES is quick and easy to use. Figure 1 shows a sample portfolio with the appropriate scenarios for the projects.
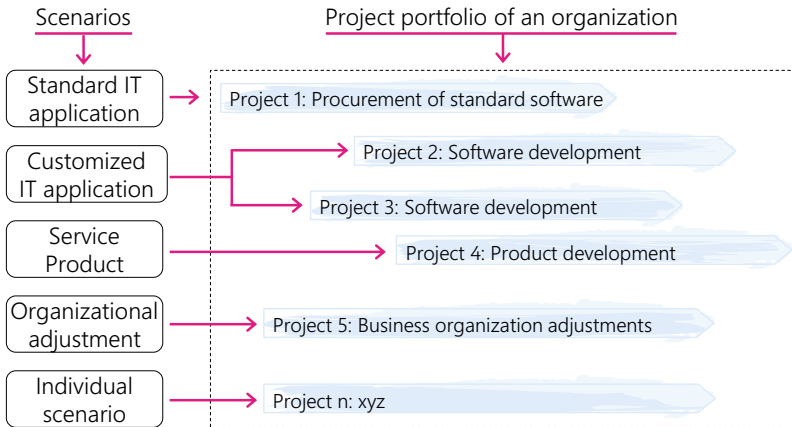

Figure 1:   **Scenarios and project portfolio of an organization**

The project manager selects the appropriate scenario for his project. He plans the project on that basis. HERMES offers a range of standard scenarios, e.g. for the procurement and integration of a standard IT application, the development of IT infrastructure and the development of a service/product.

HERMES users can adapt standard scenarios to the needs of their organization and create further, individual scenarios. Individual scenarios can be officially made available to other HERMES users by being proposed to the eCH association for validation.

A.3 Phases and milestones

The phase model forms the backbone of the project, irrespective of the scenario. It creates the conditions for the project participants' common understanding of the course of the project. This is an important prerequisite for the successful cross-organizational handling of projects.

Projects are carried out in four phases according to a uniform phase model. The project starts with the initiation phase with the project initiation order milestone and ends with the end of the deployment phase with the project closure milestone. The phases start and finish with milestones. Tasks that lead to a decision also end with a milestone. Depending on the scenario, there are various milestones. Figure 2 shows the phases of a possible project with some milestones.
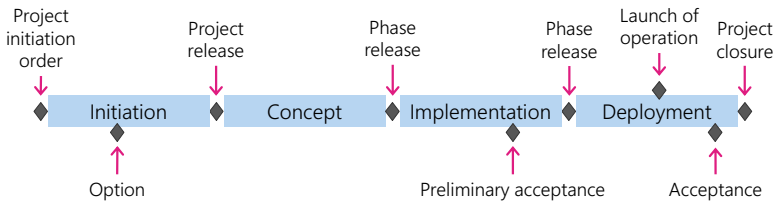
Figure 2: **Project implementation in phases and with the help of milestones**

Milestones correspond to quality gates when the outcomes and the procedure are decided. This also involves coordination with the strategic objectives and specifications of the core organization.

Reporting is carried out periodically throughout the phases in accordance with the specifications of the core organization.

A.4 Modules

Modules are reusable building blocks for creating scenarios. A module contains the thematically related tasks, outcomes and roles (see Figure 3). They are assigned to phases and milestones.

Figure 3: **Tasks, roles and outcomes of a module**

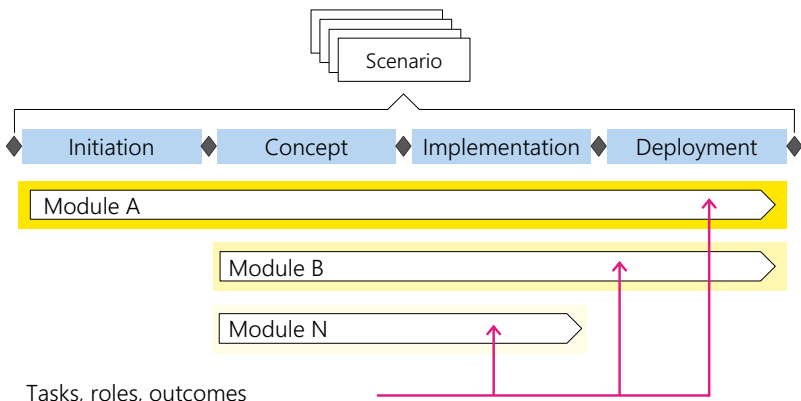For example, HERMES groups the project steering tasks and outcomes in the project steering module. This makes it easy for project sponsors to see the tasks and outcomes for which they are responsible.

HERMES users can create additional modules that they can integrate into their individual scenarios.

A.5   Roles

HERMES distinguishes between core organization roles and project organization roles, and defines how they are related. There is a role description for each project organization role. It defines the responsibility, powers and required skills for the role. Each project organization role is assigned to one of the hierarchy levels of steering, management or execution.

Partners in the project organization are users, creators and operators. Each role is assigned to one or more partners. Figure 4 shows the minimum project organization with the roles of project sponsor, project manager and specialist. Many other roles that can be used as required are defined in HERMES.
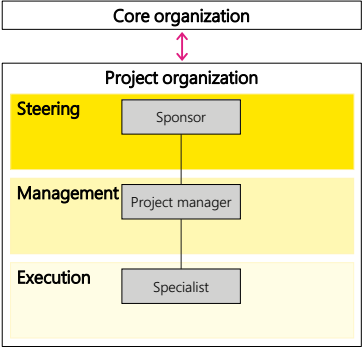
Figure 4:   Relationship between the core and project organization

A.6   Tasks

Tasks are used to develop outcomes.

There is a task description for each task. It defines the general approach and the activities that are undertaken to produce the outcomes. Each task is assigned a responsible role. Thematically related tasks are grouped into modules and assigned to phases (see Figure 5).
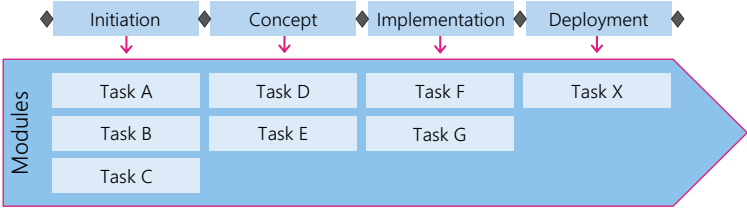
Figure 5:   Tasks are grouped into modules and assigned to phases

A.7   Outcomes

As shown in Figure 6, outcomes are at the heart of HERMES.
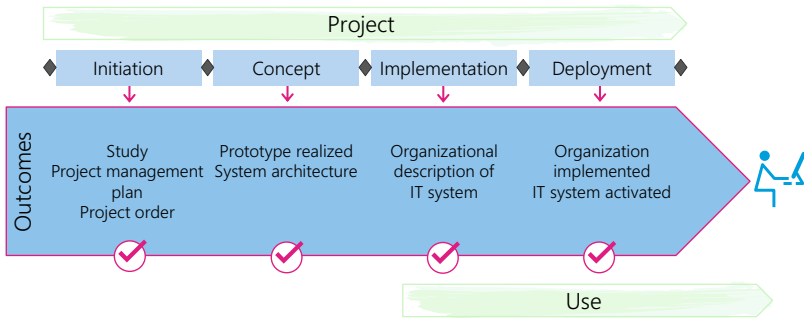
Figure 6:   **Outcomes are at the heart of HERMES**

For each outcome, there is a description of the outcome. For many outcomes, there are document templates that describe the content in the outcomes in more detail. Roles are assigned to each outcome. These give an indication of the involvement in the production of outcomes. Minimum outcomes are defined to meet project governance requirements. Thematically related outcomes are grouped into modules and assigned to tasks and phases.

A.8   User information

The user information describes specific aspects of HERMES. It forms the basis for a deeper understanding of methods, for example with regard to governance and sustainability. It also shows how HERMES should be used in specific situations and helps to reduce the scope for interpretation, for example in agile development or the application of HERMES in programs.

B   HERMES data model

The HERMES data model is a conceptual data model that describes the data and information from a methodology viewpoint and formulates its structure. It was developed on the basis of the current HERMES project and program management using INTERLIS, a conceptual data description language of the Confederation.

HERMES coherence, i.e. the uniform structure of the data in a method component, is determined with this data model (e.g. each task is assigned to just one module). Implementing the HERMES data model means being able to save, display and generate data with the appropriate level of detail.

Figure 7 shows the UML diagram of the HERMES data model.
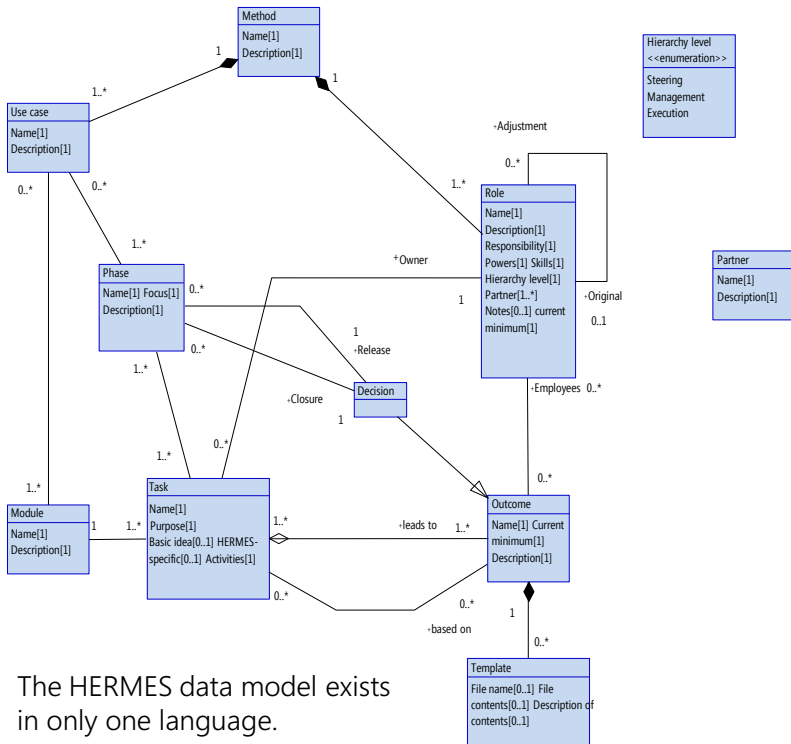
The HERMES data model exists in only one language.

Figure 7:   **UML diagram of the HERMES data model**

With the help of the HERMES data model and the description language INTERLIS, the desired further development of new method components is to be promoted, as is the expansion of existing method components, e.g. this project management.

C   Project perspectives

C.1   Overview of the perspectives

Due to the clear structure of HERMES with roles, tasks and outcomes, various project perspectives can be taken (see Figure 8).

- Timing perspective
- Partner perspective
- Hierarchy perspective

Timing

Initiation	Concept	Implementation	Deployment

Scenarios

Modules

Outcomes

Tasks   Roles

Modules

Scenarios

Partner

User

Developer   Operator

Hierarchy

Steering

Management

Execution
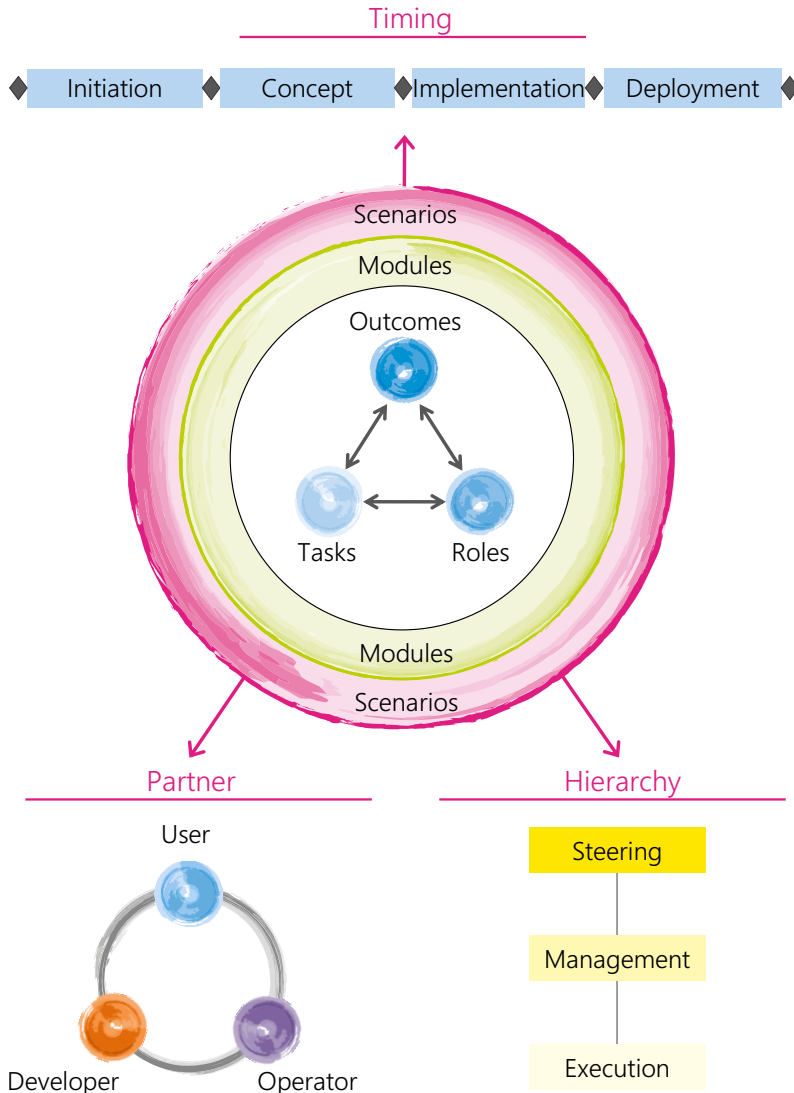
Figure 8:   Project perspectives

C.2   Timing perspective

The phase model subdivides the life cycle of the project and creates the conditions for the project participants' common understanding of the course of the project.

The timing perspective shows

- which tasks and outcomes are processed in which phase;
- which milestones lie in which phase and which decisions are made in the process.

C.3   Partner perspective

A role is assigned to one or more project partners (user, creator or operator). The role holder represents the view of his organization in the project.

Based on the assignment of roles to a partner, each partner sees

- which roles he typically has to occupy in the project;
- the tasks for which he is responsible;
- the outcomes on which he collaborates.

C.4   Hierarchy perspective

The hierarchy levels regulate responsibility in a project. They support governance compliance.

The hierarchy perspective shows

- which decision-making tasks are located at which hierarchy level;
- which outcomes occur at which hierarchy level;
- to which hierarchy level the roles are assigned.

1 Scenarios

1.1 Introduction

Various projects are carried out within an organization. Projects can vary significantly in terms of content and complexity.

HERMES provides various scenarios to satisfy the diversity of projects. A scenario is oriented towards the implementation of projects with a specific characteristic, e.g. for the procurement and integration of a standard IT application, the development of IT infrastructure and the development of a service or product.

The scenario portrays the entire life cycle of a project. As standard, it contains those HERMES method components that are usually of importance for projects with the respective characteristics. Consequently, HERMES is quick and easy to use.

Scenarios consist of modules that group together thematically related tasks and outcomes. Several modules together form a scenario.

HERMES provides a series of standard scenarios. HERMES users can adapt standard scenarios to the needs of their organization and the project at hand, and create further, individual scenarios (see Figure 9).
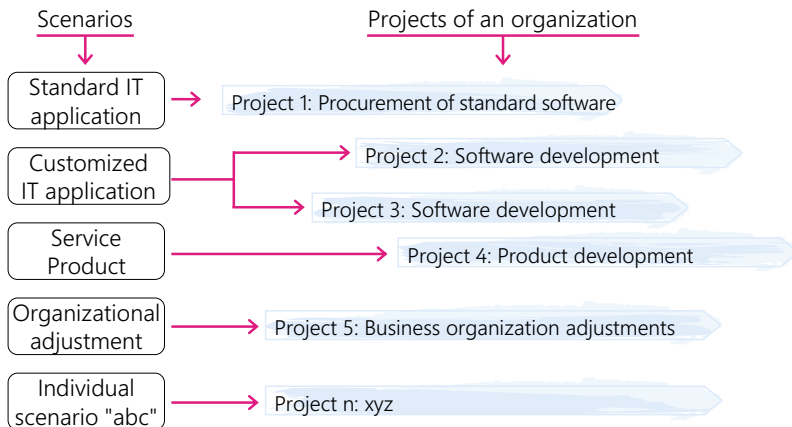
Figure 9: **Application of standard and user-defined scenarios**

The scenario supports the project manager during project planning. He selects the suitable scenario for his project in HERMES online and adapts it to his specific project. He then generates his project structure plan as well as the relevant document templates and the checklist. The project management plan is drawn up based on the project structure plan.

The procedure for planning based on scenarios is described in more detail in section "7 User information".

1.2   Scenario overview

1.2.1   Standard scenarios

HERMES offers eight standard scenarios for projects with different characteristics:

- Service/product
- Customized IT application
- Standard IT application
- Further development of IT application
- IT infrastructure
- Organizational adjustment
- Service/product (agile)
- Customized IT application (agile)

The table shows the modules used in each scenario according to their context.

Scenario / Module	Service/product	Customized IT application	Standard IT application	Further development of IT application	IT infrastructure	Organizational adjustment	Service/product (agile)	Customized IT application (agile)
Project steering	X	X	X	X	X	X	X	X
Project management	X	X	X	X	X	X	X	X
Agile development							X	X
Project foundations	X	X	X	X	X	X	X	X
Business organization	X	X	X	X			X	X
Product	X						X	
IT system		X	X	X				X
Procurement		X	X					X
Deployment organization	X	X	X	X	X	X	X	X
Testing		X	X	X			X	X
IT migration		X	X		X			X
IT operation		X	X	X	X			X
Information security and data protection		X	X					X

Table 1:   Standard scenarios for projects with different characteristics, including modules

1.2.2   Individual scenarios

It is possible to adapt an existing scenario or to create your own individual scenario. To do so, there are four basic options that can be used in combination:

1. Remove modules from an existing scenario:
    Unnecessary modules are removed.
    → Example:
      In a scenario with the procurement module, deactivate the procurement module.

2. Remove tasks and outcomes:
    The content of a module can be reduced. Outcomes, with the exception of minimum outcomes, and associated tasks can be optionally removed.

3. Integrate an additional subject-specific module into the existing scenario:
    A separate module with subject-specific content is created and integrated into the scenario.

4. Add tasks and outcomes:
    The content of a module can be extended. New tasks and outcomes can be created.

These options enable users to simply model additional, individual, project- or organization-specific scenarios.

Section "7.3.9.3 Adapting the method" (page 191), describes the options for adjusting the method in more detail.

Individual scenarios can be officially made available to other HERMES users by being proposed to the eCH association for validation. Further information can be found on the HERMES website.

1.3   Scenario descriptions

1.3.1   Explanation regarding the scenario description

Both this reference manual and HERMES online contain a rudimentary scenario description for each scenario regarding its usefulness:

• Applicability
  Description of projects with concrete characteristics for which the scenario is suitable

For each of the following two standard scenarios detailed as examples
• Service/product and
• Customized IT application
• there is an extended scenario description structured as follows in addition to the applicability already described above:

• Phases and milestones
  Graphical representation of the project phases with all milestones

- **Modules**
  Graphical compilation of all modules along the project phases
- **Tasks**
  Tabular division of tasks according to project phases, with the decision tasks highlighted in pink
- **Outcomes**
  Project flow chart according to project phases with outcomes

1.3.2   Scenario directory

1.3.2.1   Service/product

Applicability

The service/product scenario supports the execution of those projects where a service or product is developed and provided for the specific needs of one or more specialist areas (user needs).

Examples:
- Preparing and carrying out a major event
- Developing a method, a standard
- Procuring and implementing a SaaS (software as a service/cloud) solution without technical integration

Phases and milestones

The service/product scenario comprises the phases and milestones shown in Figure 10:
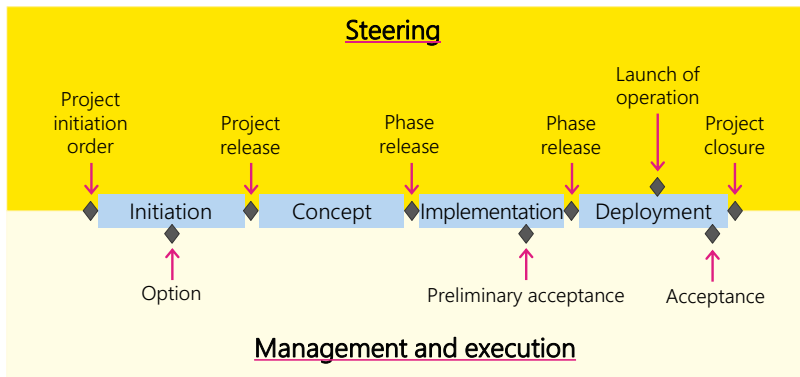

Figure 10:   Phases and milestones of the service/product scenario

The milestones are assigned to the hierarchy levels of steering, management and execution.

Modules

The service/product scenario consists of the modules shown in Figure 11:

The scenario can be further adapted to the specific project. For example, if it is not necessary to adjust the business organization, the business organization module can simply be removed.
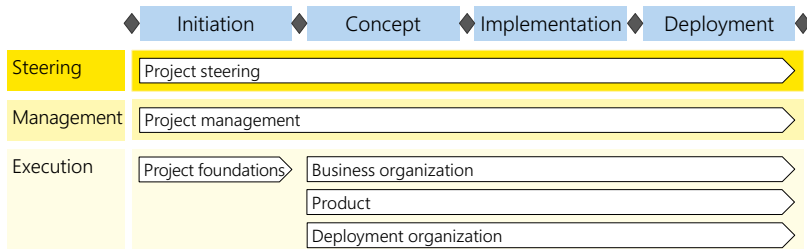
	Initiation	Concept	Implementation	Deployment
Steering	Project steering			
Management	Project management			
Execution	Project foundations	Business organization		
		Product		
		Deployment organization		

Figure 11: **Modules in the context of the service/product scenario**

Tasks

The modules of the service/product scenario comprise the following tasks:

Module	Initiation	Concept	Implementation	Deployment
Project steering	Commission and steer initiation Decide on project release	Steer project Decide on phase release	Steer project Decide on phase release	Steer project Decide on project closure
Project management	Manage and control initiation Decide on an option Draw up project order	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience Manage stakeholders and communication Perform quality assurance Manage risks Lead change management Prepare phase release	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience Manage stakeholders and communication Perform quality assurance Manage risks Lead change management Prepare phase release	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience Manage stakeholders and communication Perform quality assurance Manage risks Lead change management Prepare project closure

Module	Initiation	Concept	Implementation	Deployment
Project foundations	Conduct a study Analyze the legal basis Analyze protection needs			
Business organization		Draw up business organization concept	Realize business organization	Activate business organization
Product		Design a product concept	Realize product	Activate product
Deployment organization		Design a deployment concept	Prepare deployment Decide on preliminary acceptance	Execute deployment Decide on launch of operation Decide on acceptance

Table 2:   Tasks of the service/product scenario modules

Outcomes

The modules of the service/product scenario comprise the outcomes listed in the outcome diagram.

The outcome diagram (Figure 12) shows the outcomes of the scenario throughout the phases and the rough logical interdependencies. Aside from the logical interdependencies, there are also content-related interdependencies. These are not shown in the outcome diagram.
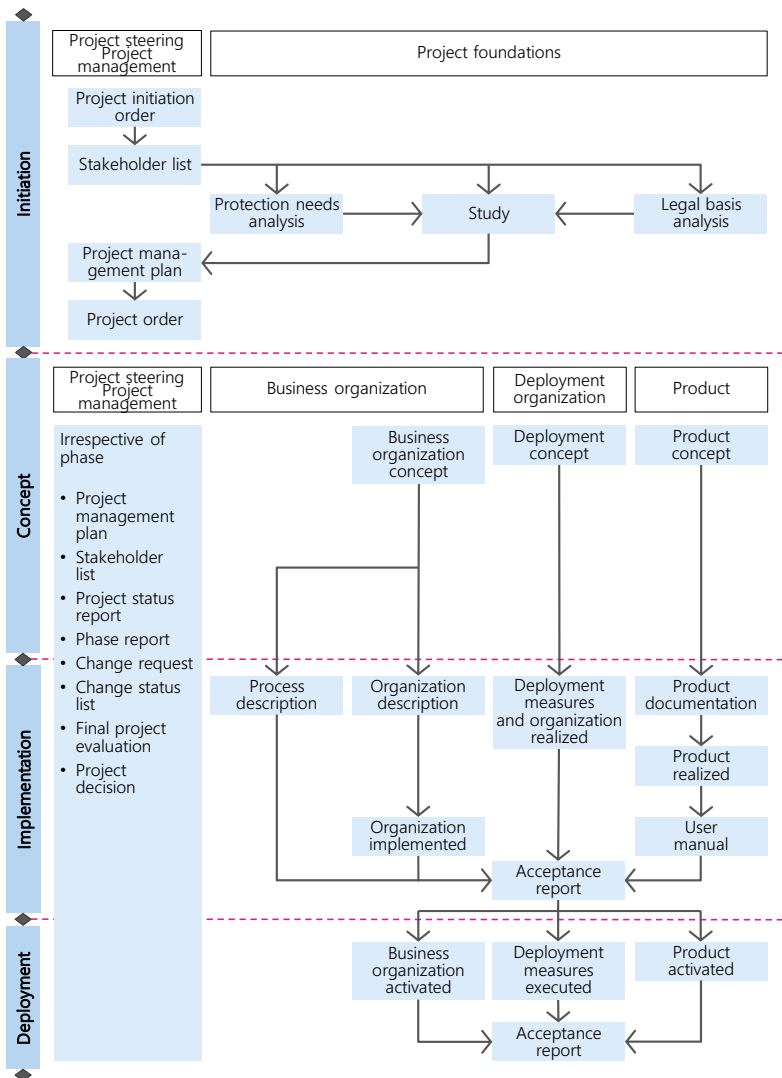
Figure 12: **Outcomes of the service/product scenario modules**

1.3.2.2   Customized IT application

Applicability

The customized IT application scenario supports the execution of those projects where an IT application is developed for the specific needs of one or more specialist areas (user needs) and is integrated both technically and organizationally.

Phases and milestones

The customized IT application scenario comprises the phases and milestones shown in Figure 13:
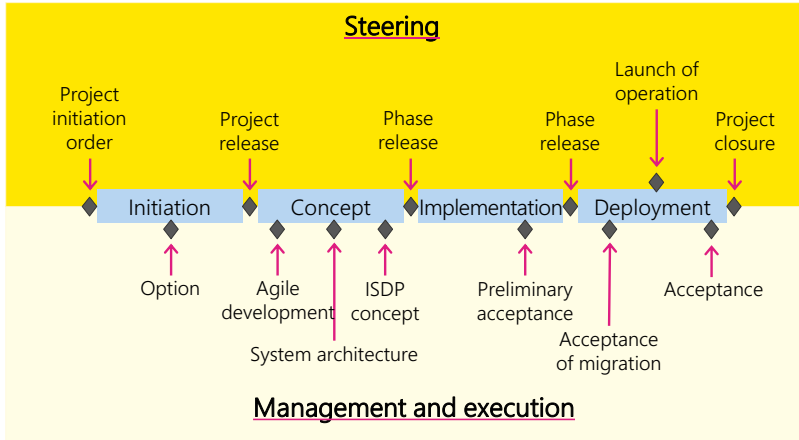
Figure 13:   Phases and milestones of the customized IT application scenario

The milestones are assigned to the hierarchy levels of steering, management and execution.

Call for tender and award decisions made within the framework of procurement depend on the requirements of the project and the project's progression, and are basically possible whatever the phase, assuming necessary outcomes (project foundations).

Modules

The customized IT application scenario consists of the modules shown in Figure 14:

The scenario can be further adapted to the specific project. For example, if it is not necessary to replace a legacy system, the IT migration module can simply be removed.

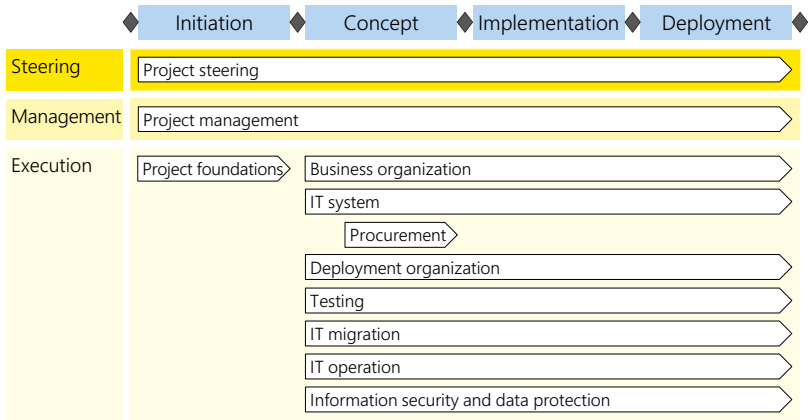|	Initiation	Concept	Implementation	Deployment	

Steering	Project steering

Management	Project management

Execution	Project foundations	Business organization
		IT system
		Procurement
		Deployment organization
		Testing
		IT migration
		IT operation
		Information security and data protection

Figure 14: **Modules in the context of the customized IT application scenario**

Tasks

The modules of the customized IT application scenario comprise the following tasks:

Module	Initiation	Concept	Implementation	Deployment
Project steering	Commission and steer initiation Decide on project release	Steer project Decide on phase release	Steer project Decide on phase release	Steer project Decide on project closure
Project management	Manage and control initiation Decide on an option Draw up project order	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience	Manage and control project Agree on and steer goods/services Deal with problems and benefit from experience

Module	Initiation	Concept	Implementation	Deployment
		Manage stakeholders and communication	Manage stakeholders and communication	Manage stakeholders and communication
		Perform quality assurance	Perform quality assurance	Perform quality assurance
		Manage risks	Manage risks	Manage risks
		Lead change management	Lead change management	Lead change management
		Prepare phase release	Prepare phase release	Prepare project closure
Project foundations	Conduct a study Analyze the legal basis Analyze protection needs			
Business organization		Draw up business organization concept	Realize business organization	Activate business organization
IT system		Design a system concept Realize prototype Design an integration concept Decide on system architecture	Realize prototype Realize system Prepare system integration	Activate system
Procurement		Draw up a procurement plan Prepare a call for tenders Decide on call for tenders Issue a call for tenders Evaluate tenders Decide on contract award Draw up agreement		

Module	Initiation	Concept	Implementation	Deployment
Deployment organization		Design a deployment concept	Prepare deployment Decide on preliminary acceptance	Execute deployment Decide on launch of operation Decide on acceptance
Testing		Design a test concept	Realize test infrastructure Conduct test	Conduct test Transfer test concept and infrastructure
IT migration		Design a migration concept	Realize migration procedure	Conduct migration Decide on acceptance of migration Decommission legacy system
IT operation		Design an operating concept	Realize operation Integrate system in operation	Activate operation
Information security and data protection		Design ISDP concept Decide on ISDP concept	Implement ISDP concept	Transfer ISDP concept

Table 3:   Tasks of the customized IT application scenario

Outcomes

The modules of the customized IT application scenario comprise the outcomes listed in the outcome diagram.
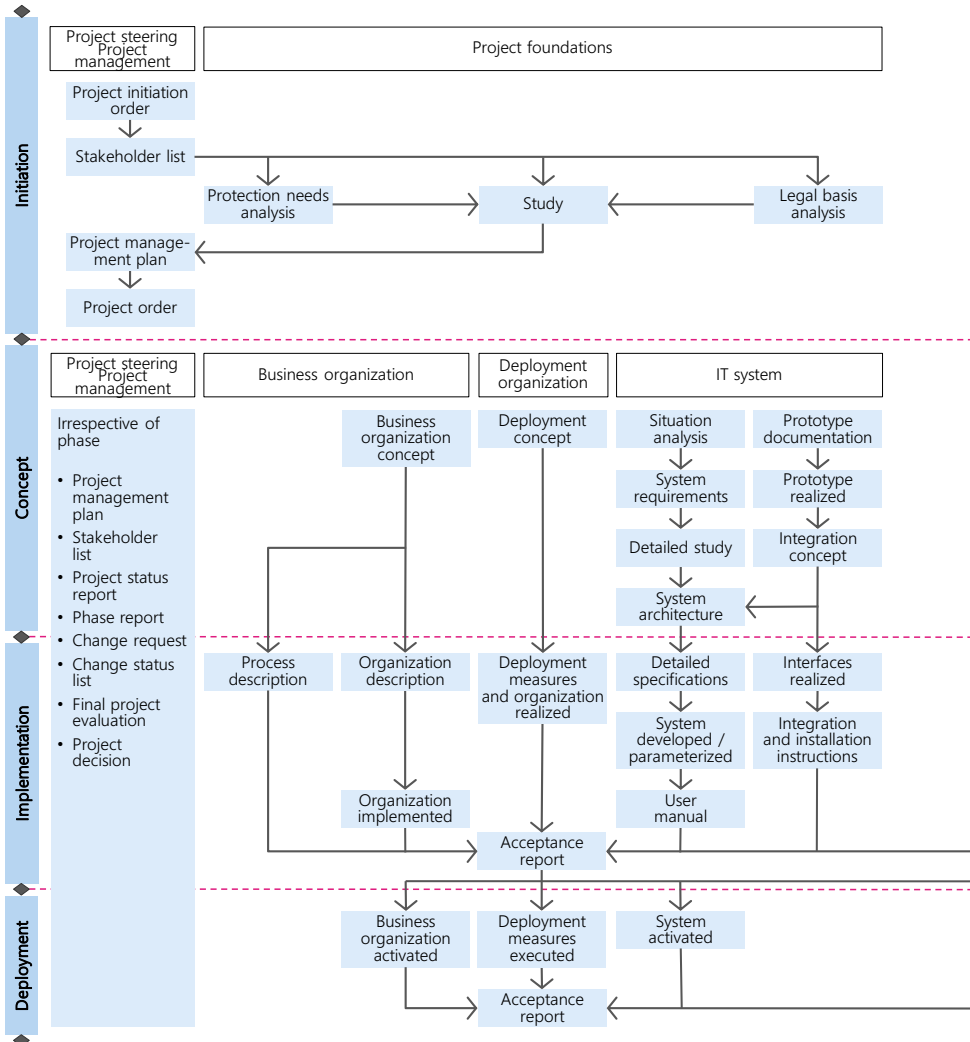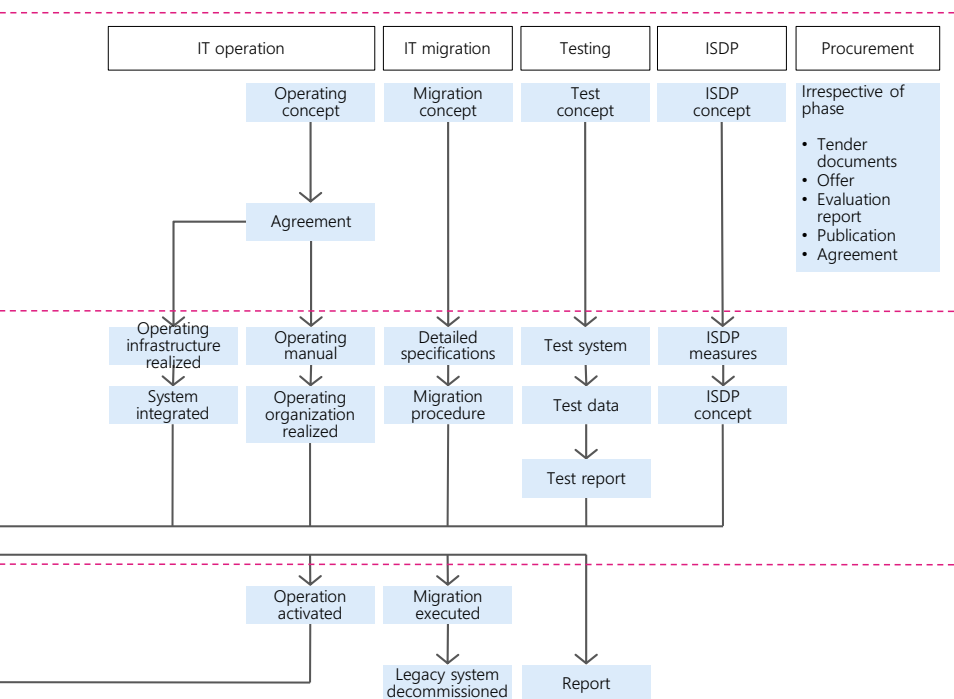

Figure 15:   Outcomes of the customized IT application scenario modules

The outcome diagram in Figure 15 shows the outcomes of the scenario throughout the phases and the rough logical interdependencies. Aside from the logical interdependencies, there are also content-related interdependencies. These are not shown in the outcome diagram.

IT operation	IT migration	Testing	ISDP	Procurement
Operating concept	Migration concept	Test concept	ISDP concept	Irrespective of phase

Irrespective of phase

• Tender documents
• Offer
• Evaluation report
• Publication
• Agreement

Agreement

Operating infrastructure realized | Operating manual | Detailed specifications | Test system | ISDP measures

System integrated | Operating organization realized | Migration procedure | Test data | ISDP concept

Test report

Operation activated | Migration executed

Legacy system decommissioned | Report

1.3.2.3 Standard IT application

Applicability

The standard IT application scenario supports the execution of those projects where an IT application available on the market is procured and integrated both technically and organizationally.

1.3.2.4 Further development of IT application

Applicability

The further development of IT applications scenario supports the execution of those projects where an existing IT application is further developed.

1.3.2.5 IT infrastructure

Applicability

The IT Infrastructure scenario supports the execution of those projects where existing IT infrastructure is extended without adapting business and support processes.

Examples:
- Extension of a server farm
- Expansion of an IT network

1.3.2.6 Organizational adjustment

Applicability

The organizational adjustment scenario supports the execution of those projects where the development and process structure of an organizational unit is adjusted.

Examples:
- Relocation, adjustment or creation of an organization
- Merger of organizations
- Outsourcing of services to a service center

1.3.2.7 Service/product (agile)

Applicability

The agile service/product scenario supports the implementation of those projects where a service or product is agilely developed and provided for the specific needs of one or more specialist areas (user needs).

1.3.2.8   Customized IT application (agile)

Applicability

The agile customized IT application scenario supports the execution of those projects where an IT application is agilely developed for the specific needs of one or more specialist areas (user needs) and is integrated both technically and organizationally.

2 Phases and milestones

2.1 Introduction

The phase model forms the backbone of the project. It subdivides the life cycle of the project and creates the conditions for the project participants' common understanding of the course of the project. The HERMES phase model in Figure 16 consists of four phases:

1. Initiation
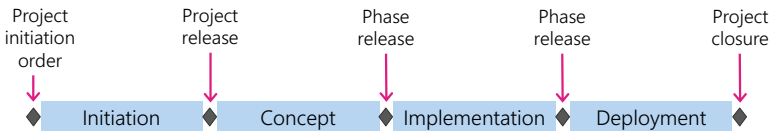2. Concept
3. Implementation
4. Deployment

Figure 16:   **The four phases of the HERMES phase model**

The project starts with the initiation phase with the project initiation order milestone and ends with the end of the deployment phase with the project closure milestone.

The end of each phase is defined by a milestone which highlights the decision on how to proceed. These milestones correspond to quality gates where the project status and the quality of project planning and execution are checked. This also involves coordination with the overarching strategies and objectives of the core organization. The achievement of the milestones is checked with the checklist, which is supplemented with project-specific criteria. In addition to the milestones at the end of each phase, there are scenario-specific milestones as further quality gates, e.g. for architecture and security.

Throughout the phases and milestones, reporting is carried out according to the core organization's specifications with regard to content and frequency.

The phase model also forms a basis for the financial steering of the project. In the case of phase release, the resources (financial, personnel, infrastructure) are released by the project sponsor for the next phase.

The next section describes the phases and their respective focus.

2.2   Description of the phases

2.2.1   Initiation

Initiation sets the scene for the project and ensures that the project objectives are aligned with the objectives and strategies of the organization. The project foundations and the project order are drawn up and the decision on project release is made.

- Based on the project initiation order, the project sponsor releases the resources for the initiation phase. He commissions a project manager to carry out the initiation phase.
- The study with a situation analysis, objectives and rough requirements as well as the options are compiled. The options are described in such detail that they can be evaluated in a comprehensible and transparent manner. Among other things, the project and operational risks are determined, and the legal basis analysis and the protection requirements analysis are drawn up and included in the decision. The option decision is made.
- Based on the chosen option, the project management plan and project order are drawn up and compared with the strategies, specifications and overriding objectives of the core organization. Stakeholder interests are analyzed and conflicts of interest are resolved.
- The decision on project release is made and the project order is signed. The release is carried out by the core organization and the project sponsor.

At the end of the initiation phase, a check is carried out to see whether it is wise to release the project. Possible reasons for termination include economic inefficiency, excessive risks, infeasibility, lack of alignment with the objectives and strategies of the organization.

2.2.2   Concept

The option chosen in the initiation phase is fleshed out. The outcomes are drawn up in such detail that those involved in the project can plan, offer and realize the product or the IT system based on reliable foundations.

- The requirements are fleshed out and completed. The concept is designed on the basis of the chosen option. Feasibility is tested with prototypes, for example.
- The deployment concept is designed in preparation for deployment.
- Depending on the scenario, a test concept and migration concept are designed.
- In IT projects, the business organization concept, the system concept and the operating concept are designed. The system architecture decision is made.
- If a product or IT system is procured, procurement is carried out in this phase. The integration concept is then designed.
- The implementation release decision is made. The resources for the next phase are released based on the fleshed out project management plan and the offers available. The project and operational risks must be identified, analyzed and evaluated. Feasibility must be demonstrated.

At the end of the concept phase, a check is carried out to see whether it is wise to implement the project. Possible reasons for termination include economic inefficiency, excessive risks, infeasibility, lack of alignment with the objectives and strategies of the organization.

2.2.3 Implementation

The product or IT system is realized and tested. The necessary preparatory work is done to minimize the deployment risks.

- The product or IT system is realized. The business organization and operating organization are realized and the documentation is prepared.
- In IT projects, the IT system is integrated into the operating infrastructure and preliminary acceptance is carried out.
- Deployment is prepared on the basis of the deployment concept.
- Depending on the scenario, tests are carried out and migration is prepared.
- The deployment release decision is made. It is based on the preliminary acceptance decision. The resources for the next phase are released based on the fleshed out project management plan.

At the end of the implementation phase, the deployment risks must be assessed and be acceptable. Otherwise, deployment cannot take place.

2.2.4 Deployment

The safe transition from the old to the new state is ensured. Operation is launched and is supported by the project until it is stable.

- The deployment measures such as user training, etc. are carried out.
- Operation is prepared and the product or IT system, business organization and operating organization are activated.
- During the initial period of operation, the project supports problem analysis and resolution.
- Depending on the scenario, a migration is performed and the legacy system is decommissioned.
- In IT projects, the project outcomes, test systems and supporting materials are transferred to the operating and maintenance organization.

At the end of the deployment phase, the project is closed once the operation has been launched successfully and after it has been decided to grant acceptance. The final project evaluation is prepared. Outstanding items are transferred to the core organization.

The project is closed and the project organization is dissolved.

2.3   Phase model and requirements

The definition of requirements and system development are carried out throughout the phases.

The requirements are roughly worked out for the first time as part of the study in the initiation phase. They are fleshed out in the subsequent phases according to the principle "from rough to detailed".

Figure 17 provides a schematic view of the outcomes of the definition of requirements and system development for an IT system as the project unfolds.
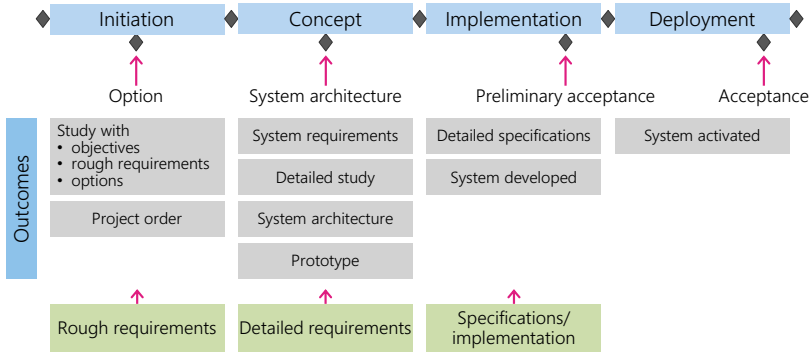
Figure 17:   IT system outcomes as the project unfolds

- During the initiation phase, the objectives are defined in the study and the requirements are worked out in sufficient detail for options to be developed and evaluated. The project order is created on the basis of the option selected.

- In the concept phase, the rough requirements documented in the study are fleshed out and completed as system requirements. Project-specific solution concepts are designed in detailed studies. They form part of the system architecture. This describes the system with its processes, functionality, system components and their integration into the system environment via interfaces.

- Based on the system architecture, the detailed specifications are created and the system is developed according to those. This also includes testing as a prerequisite for the decision on preliminary acceptance.

- In the deployment phase, the system is activated and then the decision on acceptance is made.

The specification and implementation of the IT system can be flexibly steered with the agile development module.

This process also applies in a similar way to service/product development.

2.4   Decision-making process

2.4.1   Decision-making process in general

Decisions have to be made when carrying out projects. Decisions are defined as tasks in the modules. Tasks that lead to a decision end with a milestone.

HERMES distinguishes between decisions made at the steering level and decisions made by the project management and specialists. For example, phase release is carried out by the project sponsor (steering), while acceptance of the system architecture is carried out by someone responsible for the architecture (compliance specialist in the core organization).

At the end of a phase, steering checks whether the necessary specialist decisions have been made. If this is not the case, the next phase is not released. Consequently, steering never makes any decisions for which it lacks the necessary expertise.

The decision-making tasks in HERMES and the decision-making processes are supported by the checklist.

Figure 18 shows as an example the decisions made at the steering level and at the management and execution level in the customized IT application scenario.
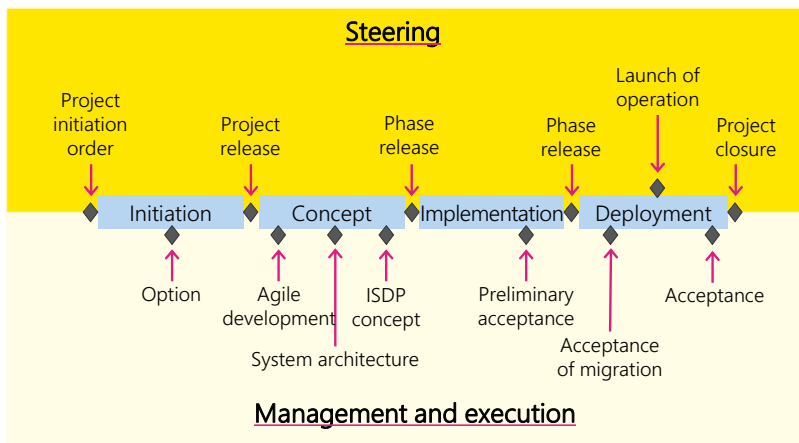
Figure 18:   **Decisions in the customized IT application scenario**

2.4.2   Steering decisions

At the steering hierarchy level, decisions are made by the project sponsor, who decides on project release, phase releases and project closure. If necessary, he is supported by other roles such as the steering committee, which provide guidance.

2.4.2.1   Project release decision

Project release takes place at the end of the initiation phase. The decision is made jointly by the project sponsor and the core organization within the framework of project portfolio management.

It is decided if

- the initiation phase is completed or whether further outcomes need to be achieved
- the project is to be released
- the project is not to be released for the time being and is to be requested again at a later date
- the project is not to be released and is terminated

2.4.2.2   Phase release decision

For each phase release, the objectives of the project are coordinated with the organization's strategies and specifications, and the project's objective orientation and economic efficiency are checked.

It is decided if

- the phase is completed or whether further outcomes need to be achieved before the phase can be completed
- the next phase is to be released
- the project is to be terminated

At the end of the phase, the project sponsor checks whether the necessary acceptance of the outcomes has been provided by the controlling and compliance bodies and technical specialists, and whether the outcomes of the phase meet his expectations.

Figure 19 shows a typical decision-making process using the example of the release of the implementation phase.
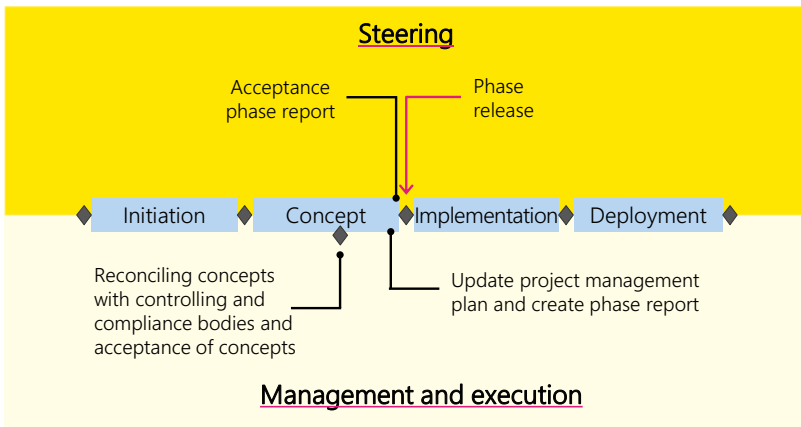
Figure 19:   **Example of a typical decision-making process**

Figure 19 also shows that the phase report is accepted at the steering hierarchy level and the concept phase is completed. Prior to this, the project outcomes are aligned with and checked by the controlling and compliance bodies at the management and execution hierarchy level. If the prerequisites are met, the project sponsor releases the implementation phase.

2.4.2.3   Project closure decision

At the end of the deployment phase, the project sponsor makes the decision to close the project.

It is decided if

- the project is completed or whether further outcomes need to be achieved before the project can be closed
- the project organization is to be dissolved

2.4.3   Management and execution decisions

2.4.3.1   Decisions on project outcomes

The review and acceptance of technical outcomes are carried out at the management and execution level, i.e. by the respective specialists for the corresponding topic.

The project manager plans the decision-making tasks, taking into account the specifications of the controlling and compliance bodies of the core organization.

3 Modules

3.1 Introduction

Modules are reusable building blocks for creating scenarios. A scenario consists of several modules. A module can be used in several scenarios.

A module contains the thematically related tasks and outcomes, as well as the roles involved.

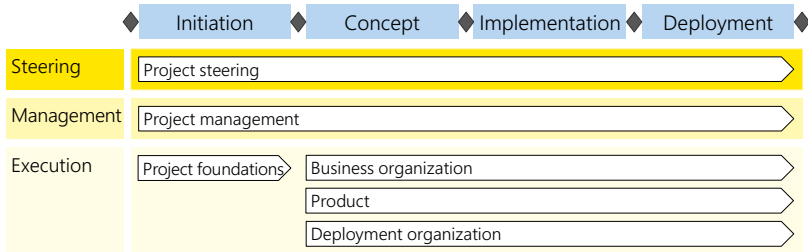Figure 20 shows the modules in the context of the service/product scenario.

Figure 20: **Modules of the service/product scenario**

HERMES contains all modules required for standard scenarios. In addition, users can create organization-specific modules to form individual scenarios.

3.2 Module overview

3.2.1 Standard modules

The following modules are available as standard with HERMES 5. The table lists all modules according to their context and shows in which project phases they can occur.

Module	Initiation	Concept	Implementation	Deployment
Project steering	X	X	X	X
Project management	X	X	X	X
Agile development		X	X	X
Project foundations	X			
Business organization		X	X	X
Product		X	X	X
IT system		X	X	X
Procurement		X		
Deployment organization		X	X	X

Module	Initiation	Concept	Implementation	Deployment
Testing		X	X	X
IT migration		X	X	X
IT operation		X	X	X
Information security and data protection		X	X	X

Table 4:   Modules available as standard with HERMES 5

3.2.2   Customized modules

Aside from the modules available as standard, it is possible to develop your own subject-specific modules and integrate them into a scenario. This is supported by HERMES online. Examples of subject-specific, customized modules that can be developed by users:

- Marketing
- Communication
- Personnel development
- Training
- Strategy development
- Business administration deployment

3.3   Module descriptions

3.3.1   Explanation regarding the module description

For each module, there is a module description that is always structured in the same way:

- What has to be done
  Description of the module tasks in the overall context of the module
- Tasks
  Tabular division of tasks according to project phases, with the decision tasks highlighted in pink
- Outcomes
  Tabular breakdown of the outcomes according to project phases, whereby the outcomes documenting the decision are highlighted in pink

Section 5.3 provides detailed information on the various tasks, and section 6.3 does the same for the outcomes.

3.3.2   Module directory

3.3.2.1   Project steering

What has to be done

- Initiate the project, steer it continuously and keep it in line with the core organization's overarching objectives and specifications
- Consider and integrate stakeholder concerns, manage risks and make decisions
- Close the project

MODULES

Tasks

Initiation	Concept	Implementation	Deployment
Commission and steer initiation	Steer project	Steer project	Steer project
Decide on project release	Decide on phase release	Decide on phase release	Decide on project closure

Table 5:   Project steering module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
Project initiation order	QA and risk report	QA and risk report	QA and risk report
Checklist	Project decision steering	Project decision steering	Project decision steering
Project order	Checklist	Checklist	Checklist
Project decision steering			

Table 6:   Project steering module outcomes

3.3.2.2   Project management

What has to be done

- Plan and manage the project and complete it with the required outcome within the defined framework in terms of time and costs
- Know stakeholder interests, manage communication and ensure decisions are taken
- Manage risks, overcome problems and take lessons learned into account
- Agree and steer goods/services, manage change management and quality assurance

Tasks

Initiation	Concept	Implementation	Deployment
Manage and control initiation	Manage and control project	Manage and control project	Manage and control project
Decide on an option	Agree on and steer goods/services	Agree on and steer goods/services	Agree on and steer goods/services
Draw up project order	Deal with problems and benefit from experience	Deal with problems and benefit from experience	Deal with problems and benefit from experience
	Manage stakeholders and communication	Manage stakeholders and communication	Manage stakeholders and communication
	Perform quality assurance	Perform quality assurance	Perform quality assurance
	Manage risks	Manage risks	Manage risks
	Lead change management	Lead change management	Lead change management
	Prepare phase release	Prepare phase release	Prepare project closure

Table 7:   Project management module tasks

Initiation	Concept	Implementation	Deployment
Work order	Project management plan	Project management plan	Project management plan
Project status report	Work order	Work order	Work order
Minutes	Project status report	Project status report	Project status report
Stakeholder list	Minutes	Minutes	Minutes
Stakeholder interests	Quote request	Quote request	Quote request
Checklist	Evaluation report	Evaluation report	Evaluation report
Project decision management & execution	Agreement	Agreement	Agreement
Project management plan	Lessons learned	Lessons learned	Lessons learned
Project order	Stakeholder list	Stakeholder list	Stakeholder list
	Stakeholder interests	Stakeholder interests	Stakeholder interests
	Review report	Review report	Review report
	Change request	Change request	Change request
	Change status list	Change status list	Change status list
	Phase report	Phase report	Final project evaluation

Table 8:   Project management module outcomes

3.3.2.3   Agile development

What has to be done

* Steer agile development with SCRUM
* This module complements the project management module

Tasks

Initiation	Concept	Implementation	Deployment
	Decide on agile development using SCRUM	Keep a product backlog	Keep a product backlog
	Introduce SCRUM	Design release plan	Design release plan
	Keep a product backlog	Conduct sprints	Conduct sprints
	Design release plan		
	Conduct sprints		

Table 9:   Agile development module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Checklist	Product backlog	Product backlog
	Project decision management & execution	Release plan	Release plan
	Project management plan	Sprint backlog	Sprint backlog
		Increment	Increment

MODULES

Initiation	Concept	Implementation	Deployment
	Product backlog	Minutes	Minutes
	Release plan		
	Sprint backlog		
	Increment		
	Minutes		

Table 10:   Agile development module outcomes

3.3.2.4   Project foundations

What has to be done

- Conduct the study so that the option decision can be made
- Clarify the legal basis and analyze the need for protection
- Create the prerequisites for drawing up the project management plan and project order

Tasks

Initiation	Concept	Implementation	Deployment
Conduct a study			
Analyze the legal basis			
Analyze protection needs			

Table 11:   Project foundations module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
Study			
Legal basis analysis			
Protection needs analysis			

Table 12:   Project foundations module outcomes

3.3.2.5   Business organization

What has to be done

- Redesign or change, realize and deploy a business organization with a development and process structure

Tasks

Initiation	Concept	Implementation	Deployment
	Draw up business organization concept	Realize business organization	Activate business organization

Table 13:   Business organization module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Business organization concept	Process description Organization description Organization implemented	Business organization activated

Table 14:   Business organization module outcomes

3.3.2.6   Product

What has to be done

- Design the concept and create or procure the product
- IT systems are realized and integrated using the IT system module

Tasks

Initiation	Concept	Implementation	Deployment
	Design a product concept	Realize product	Activate product

Table 15:   Product module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Product concept	Product realized Product documentation User manual	Product activated

Table 16:   Product module outcomes

3.3.2.7   IT system

What has to be done

- Realize and/or integrate and document the IT system
- Refine the system requirements, develop the system architecture and check feasibility (proof of concept, using prototypes if necessary)
- Create detailed specifications and realize the system and integration

Tasks

Initiation	Concept	Implementation	Deployment
	Design a system concept Realize prototype Design an integration concept Decide on system architecture	Realize prototype Realize system Prepare system integration	Activate system

Table 17:   IT system module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Situation analysis	Prototype realized	System activated
	System requirements	Prototype documentation	
	Detailed study	Detailed specifications	
	System architecture	System developed or parameterized	
	Prototype realized	System architecture	
	Prototype documentation	User manual	
	Integration concept	Interfaces realized	
	Checklist	Integration and installation instructions	
	Project decision management & execution		

Table 18: IT system module outcomes

3.3.2.8 Procurement

What has to be done

- Procurement by means of an open or selective procedure and public tender
- All other procurement is handled with the project management module
- Procurement takes place in the concept phase. Procurement can also be carried out in other phases if necessary

Tasks

Initiation	Concept	Implementation	Deployment
	Draw up a procurement plan		
	Prepare a call for tenders		
	Decide on call for tenders		
	Issue a call for tenders		
	Evaluate tenders		
	Decide on contract award		
	Draw up agreement		

Table 19: Procurement module tasks

MODULES

Outcomes

Initiation	Concept	Implementation	Deployment
	Project management plan		
	Tender documentation		
	Checklist		
	Project decision steering		
	Offer		
	Evaluation report		
	Minutes		
	Publication		
	Agreement		

Table 20:   Procurement module outcomes

3.3.2.9   Deployment organization

What has to be done

- Perform organizational tasks and take measures to support the transition from the old to the new state
- Includes organizational change management
- Contains the preliminary acceptance and acceptance

Tasks

Initiation	Concept	Implementation	Deployment
	Design a deployment concept	Prepare deployment	Execute deployment
		Decide on preliminary acceptance	Decide on launch of operation
			Decide on acceptance

Table 21:   Deployment organization module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Deployment concept	Deployment measures and organization realized	Deployment measures carried out
		Acceptance report	Checklist
		Checklist	Project decision steering
		Project decision management & execution	Acceptance report
			Project decision management & execution

Table 22:   Deployment organization module outcomes

3.3.2.10 Testing

What has to be done

- Design, prepare, conduct and document testing

Tasks

Initiation	Concept	Implementation	Deployment
	Design a test concept	Realize test infrastructure Conduct test	Conduct test Transfer test concept and infrastructure

Table 23: Testing module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Test concept	Test system Test data Test protocol Test concept	Test protocol Test concept Minutes

Table 24: Testing module outcomes

3.3.2.11 IT migration

What has to be done

- Replace an IT system
- Design, plan, prepare and conduct IT migration
- Decommission the legacy system

Tasks

Initiation	Concept	Implementation	Deployment
	Design a migration concept	Realize migration procedure	Conduct migration Decide on acceptance of migration Decommission the legacy system

Table 25: IT migration module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Migration concept	Detailed specifications Migration procedure	Migration carried out Acceptance report Checklist Project decision management & execution Legacy system decommissioned

Table 26: IT migration module outcomes

MODULES

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3.3.2.10 Testing

What has to be done

- Design, prepare, conduct and document testing

Tasks

Initiation	Concept	Implementation	Deployment
	Design a test concept	Realize test infrastructure Conduct test	Conduct test Transfer test concept and infrastructure

Table 23: Testing module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Test concept	Test system Test data Test protocol Test concept	Test protocol Test concept Minutes

Table 24: Testing module outcomes

3.3.2.11 IT migration

What has to be done

- Replace an IT system
- Design, plan, prepare and conduct IT migration
- Decommission the legacy system

Tasks

Initiation	Concept	Implementation	Deployment
	Design a migration concept	Realize migration procedure	Conduct migration Decide on acceptance of migration Decommission the legacy system

Table 25: IT migration module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Migration concept	Detailed specifications Migration procedure	Migration carried out Acceptance report Checklist Project decision management & execution Legacy system decommissioned

Table 26: IT migration module outcomes

MODULES

3.3.2.12 IT operation

What has to be done

* Design and realize operation with infrastructure and operating organization
* Integrate and activate the IT system

Tasks

Initiation	Concept	Implementation	Deployment
	Design an operating concept	Realize operation Integrate system in operation	Activate operation

Table 27: IT operation module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	Operating concept Agreement	Operating infrastructure realized Operating manual Operating organization realized System integrated	Operating manual Operation activated

Table 28: IT operation module outcomes

3.3.2.13 Information security and data protection

What has to be done

* Identify security and data protection requirements, assess risks and design and implement measures to meet the requirements
* Design the ISDP concept and document the outcomes on an ongoing basis

Tasks

Initiation	Concept	Implementation	Deployment
	Design ISDP concept Decide on ISDP concept	Implement ISDP concept	Transfer ISDP concept

Table 29: Information security and data protection module tasks

Outcomes

Initiation	Concept	Implementation	Deployment
	ISDP concept Checklist Project decision management & execution	ISDP measures ISDP concept	ISDP concept Checklist

Table 30: Information security and data protection module outcomes

MODULES

4 Roles

4.1 Introduction

4.1.1 Role model

HERMES defines a role model and describes standardized roles in order to create a uniform understanding across the whole organization.

The role model distinguishes between the roles of the core organization and the roles of the project organization. Figure 21 shows a minimum project organization with the roles of project sponsor, project manager and specialist. Additional roles are used as required.
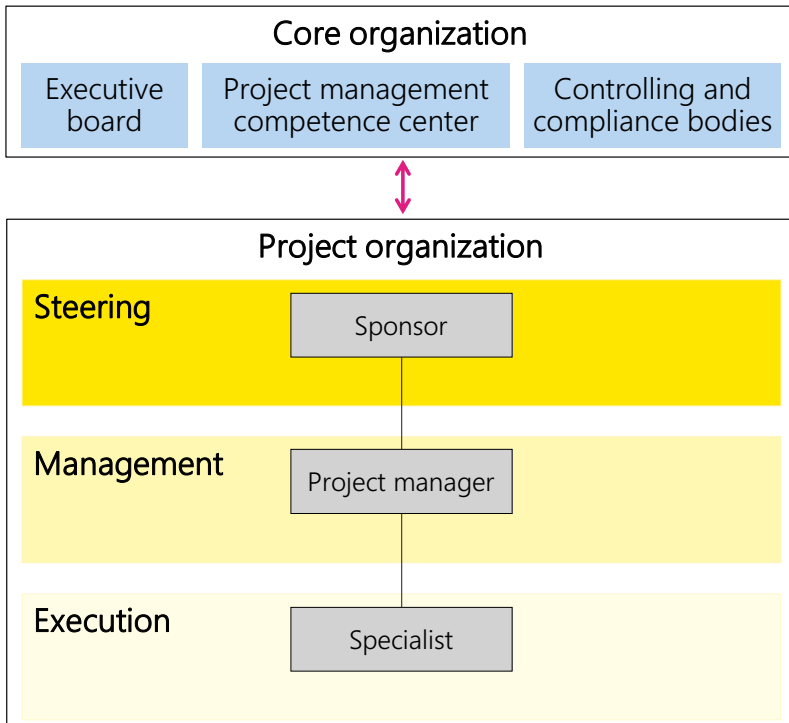
Figure 21: **Example of a minimum project organization**

4.1.2 Core organization

The core organization is the organization to which the project sponsor and user belong. It is a legal entity that defines strategies and requirements for projects. The core organization provides the necessary resources (infrastructure, finances and personnel) for the project. Examples of core organizations include the Federal Administration, a cantonal administration, a city administration, an association, an enterprise.

As shown in Figure 21, three role groups are relevant for the project in the core organization:

- Executive board
  Steers the project portfolio from a strategic perspective, prioritizes projects and allocates infrastructure as well as human and financial resources to the specific project.
- Project management competence center
  Provides methods, tools, coaching and other services for project management and project portfolio management. This function is also called the project management office (PMO).
- Controlling and compliance bodies
  Define requirements and check compliance from an organization-wide perspective. Such bodies include financial control, auditing, IT controlling, architecture and information security and data protection bodies, for example.

The roles of the role groups listed vary depending on the core organization. Consequently, they are not described further in HERMES.

4.1.3 Project organization

The project organization is a temporary organization that is closely linked to the core organization. It is put into effect with the project initiation order and dissolved with the decision to close the project.

The project organization is continuously adapted to the needs of the project in the course of project execution. As the project unfolds, additional partners may join the project organization. For example, an external provider of a product is not defined until after procurement and then becomes part of the project organization.

The project organization consists of various roles (see Figure 22). They regulate the tasks, powers and responsibilities of those involved in the project. Each role is specified with a role description.

A role is assigned to one of the hierarchy levels of steering, management or execution.

- Steering
  Steers the project as a whole across the organization and ensures that the project objectives are achieved.
- Management
  Draws up project foundations, leads project and employees, closes project.
- Execution
  Develops project outcomes and implements quality assurance measures.

Partners in the project organization are users, creators and operators. Each role is assigned to one or more partners.
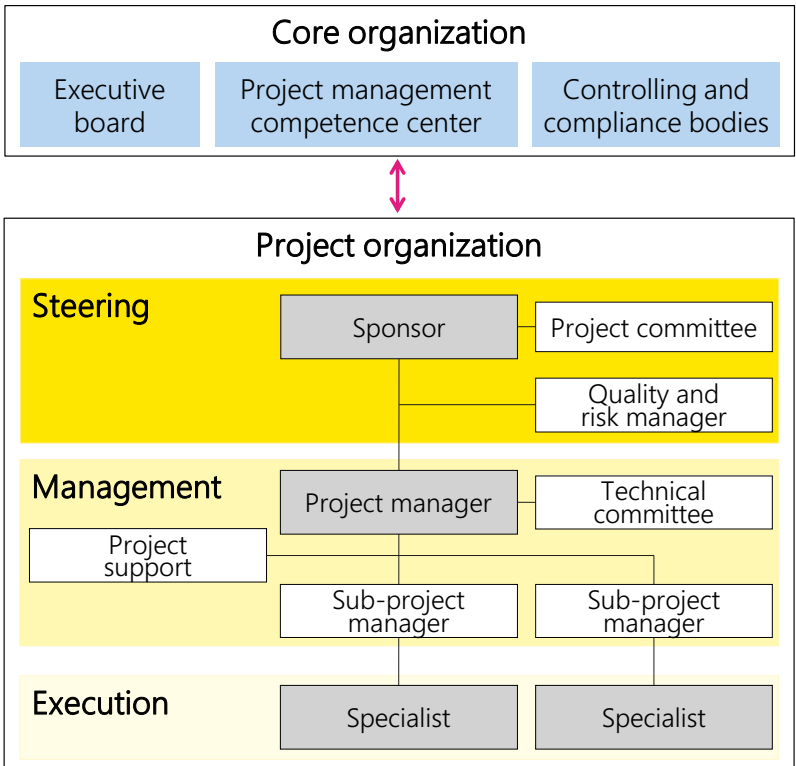
Figure 22: Example of a project organization with various roles

4.2 Role overview

The table gives an overview of the roles in the project organization. It also shows the assignment of each role to the hierarchy level and to the partner, and indicates the minimum roles to be filled in a project organization.

Hierarchy level	Role	User	Developer	Operator
			* = minimum roles to be filled	
Steering	**Steering roles**	**X**	**X**	**X**
	Project sponsor *	X		
	Project committee member	X	X	X
	Quality and risk manager	X		
Management	**Management roles**	**X**	**X**	**X**
	Project manager *	X		
	Sub-project manager	X	X	X
	Project support	X	X	
	Technical committee member	X	X	X

Hierarchy level	Role	User	Developer	Operator
		* = minimum roles to be filled		
Execution	Specialists *	X*	X*	X*
	User representative	X		
	Application owner	X		
	Operations manager			X
	Business analyst	X	X	
	Developer		X	
	Business process owner	X		
	ISDP manager	X		
	IT architect	X	X	X
	Tester	X	X	X
	Test manager	X	X	X

Table 31: Overview of roles and their allocation to the hierarchy level and to the partner

In HERMES, the role designation specialist is used as a collective term for the roles of the execution hierarchy level. The roles of specialists are numerous and not all are included in the general organization chart. HERMES describes the roles of the specialists to the extent that they can serve as a basis for a common understanding.

The role holder represents the view of his organization in the project (see Figure 23).

User

Developer   Operator
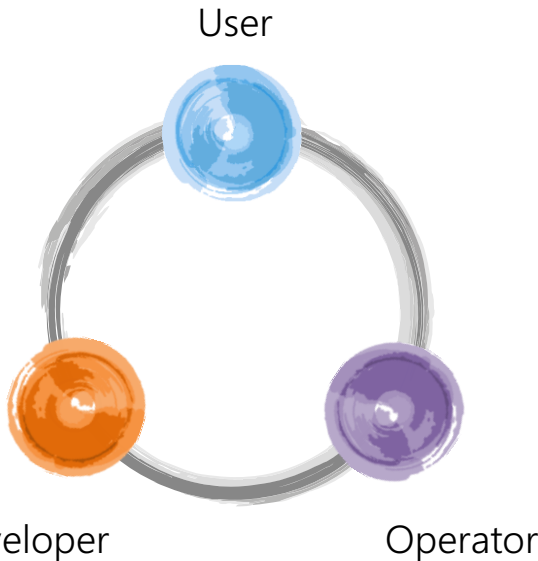
Figure 23:   Role holders' view in the project

- User
  The user is a person who utilizes the product or IT system to handle business processes. He is responsible for defining his requirements and tests and accepts the product/IT system.

- Developer
  The developer either develops or supplies and integrates the project/IT system. He is responsible for development or delivery and integration according to the specifications in terms of quality, time and costs.
- Operator
  The operator integrates the technical solution into the operating environment, ensures the operating organization, and operates the system. He is responsible for the provision of the operating infrastructure, operational integration, the operating organization and operation in accordance with the agreements.

The partners involved in the project are often supported by suppliers or external service providers. The organization to which the user, developer or operator belongs is responsible for the procurement of goods and services and integration into the project.

4.3   Role assignment

4.3.1   Explanations regarding role assignment

The role assignment is defined for each role required in the project.

Role assignment is based on the requirements of the project. It takes into account the experience required in the project, the capacity needed and the availability of the role holder. The concrete project organization and role assignment are recorded in the project management plan.

In order to comply with governance, the following principles must be observed when assigning the roles:

- Every project must have a project sponsor and project manager, as well as at least one specialist (see Table 31). Other roles are assigned according to the requirements of the project.
- A person can take on several roles, provided that no conflicts of interest arise as a result
- A role can be held by several people, provided that the role allows multiple holders
  (e.g. there are usually several testers in a project, but only one project sponsor)

Information on role assignment for selected roles is provided below.

4.3.2   Information on role assignment

4.3.2.1   Steering

Project sponsor

- The project sponsor must be located with the user
- The project sponsor is the project's representative with regard to the executive board of the core organization and the controlling and compliance bodies, and must be located at a correspondingly high hierarchy level in the core organization
- The project sponsor ensures that the stakeholders who are important to the success of the project are represented in the project

- The roles of project sponsor and project manager may not be held by the same person

Project committee

- The project sponsor appoints the members of the project committee
- Organizations relevant to the success of the project are represented in the project committee
- The project sponsor determines the voting rights of the project committee members

Quality and risk manager

- Depending on the size of the project and the risks, the project sponsor appoints a quality and risk management body, which reports directly to the project sponsor
- The independent organization providing the quality and risk manager does not assume any further roles in the project and must ensure the independence of the mandate

4.3.2.2   Management

Project manager

- The project sponsor appoints the project manager
- The project manager is located with the user
- If the project manager additionally takes on tasks of a specialist, the project sponsor must ensure that sufficient capacity is still available for project management

Sub-project manager

- Each partner (user, developer, operator) appoints a person responsible for planning and managing the work in his area. This person can take on the role of sub-project manager.
- The user's sub-project manager can also be project manager

4.3.2.3   Execution

Business analyst

- In smaller projects, the business analyst can also assume the role of project manager or user sub-project manager, provided he fits the requirement profile and has the necessary capacity

Tester

- Each partner (user, developer, operator) tests in his area of responsibility

Test manager

- Each partner (user, developer, operator) can appoint a test manager in his area of responsibility
- The user can delegate test management to one of the project partners. However, overall responsibility for the project outcome remains with him.

4.4   Role descriptions

4.4.1   Explanation regarding role description

The roles describe the responsibility, powers and required skills of those involved in the project. They form the basis for a common understanding. The roles are assigned to tasks and outcomes.

- A competent role is always listed for tasks.
- The role responsible for the task is also responsible for achieving the outcomes and for the outcomes themselves.
- The outcomes list the other roles involved in achieving them. They are not conclusive and have to be defined according to the specific project.

The role of specialist is not listed separately. However, if a role belongs to specialists, this is indicated in the description. For each role, there is a role description, which is always structured in the same way:

- Description
  conveys an understanding of the role
- Responsibility
  describes the responsibility of the role
- Powers
  describe the powers of the role
- Skills
  describe what knowledge a person needs in order to perform the role. When describing skills, no distinction is made between knowledge and experience, as the level of skills required is highly dependent on the project.
- Relationships
  show how the role is linked to modules, outcomes and tasks

4.4.2   Role directory

4.4.2.1   User representative

Description

Specialist
The user representative represents the interests of his user group in the project. He ensures that clear and coordinated technical requirements exist as a stable basis for implementation, offers specialist support for provision, participates in acceptance and carries out training and deployment measures.

Responsibility
- Provides the complete technical requirements agreed with the specialist areas
- Handles preliminary acceptance and acceptance

Powers
- Can access all required information

Skills

- In-depth knowledge of the specialist area
- Basic knowledge of business administration
- Ability to formulate requirements and change requests
- Knowledge of HERMES
- Good writing skills, e.g. to create user documentation
- Abstraction and simplification ability
- Ability to work in a team, to communicate and to resolve conflicts

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project management	Lead change management	Project manager	Change request	Business analyst, user representative
Project foundations	Conduct a study	Project manager	Study	Business analyst, user representative, business process owner, IT architect
Business organization	Activate business organization	Business analyst	Business organization activated	User representative, business process owner
	Realize business organization	Business analyst	Organization description	User representative, business process owner
			Process description	User representative, business process owner
	Draw up business organization concept	Business analyst	Business organization concept	User representative, business process owner
Product	Realize product	Developer	User manual	User representative
			Product realized	User representative
	Design a product concept	Business analyst	Product concept	User representative
IT system	Realize system	Developer	User manual	User representative
	Design a system concept	IT architect	Detailed study	Business analyst, user representative, developer
			Situation analysis	Business analyst, user representative, business process owner
			System requirements	Business analyst, user representative, business process owner

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Deployment organization	Design a deployment concept	Project manager	Deployment concept	Business analyst, user representative, business process owner
	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
IT migration	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager

Table 32:   User representative relationships

4.4.2.2   Application owner

Description

Specialist

The application owner ensures maintenance and further development, as well as safe and economical operation in accordance with the corresponding requirements and agreements.

Responsibility

- Optimum support of the business process by the application
- Maintenance of the benefit (economic efficiency) of an IT application
- Support of the business process owner in IT matters
- Compliance with the IT security and data protection requirements
- Planning and support of application optimization projects
- Verification of the contracting parties' compliance with the SLA (service level agreement)

Powers

- Decision on the application's release planning
- Decision on access rights in relation to the application
- Participation in defining requirements and concluding SLAs

Skills

- In-depth knowledge of the specialist area
- In-depth knowledge of the application specifications or application

ROLES

- Knowledge of the project and operation requirements of the core organization (e.g. for procurement, financing, controlling, security)
- Knowledge of HERMES
- Knowledge of business organization and change and release management
- Communication and collaboration with users and developers in the project organization
- Ability to work in a team, to communicate and to resolve conflicts

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
IT system	Activate system	Developer	System activated	Operations manager, business analyst, application owner
Deployment organization	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
IT migration	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Conduct migration	Developer	Migration carried out	Operations manager, business analyst, application owner
IT operation	Activate operation	Operations manager	Operation activated	Application owner, developer
	Realize operation	Operations manager	Operating organization realized	Application owner
	Design an operating concept	Operations manager	Operating concept	Application owner, IT architect
Information security and data protection	Design ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect
	Implement ISDP concept	Project manager	ISDP concept	Operations manager, ISDP manager, application owner, IT architect
	Transfer ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect

Table 33:   Application owner relationships

4.4.2.3   Project sponsor

Description

The project sponsor is responsible for the outcomes of the project and the achievement of the objectives within the set budget and timeframe. The project sponsor is always a single individual from the core organization.

Responsibility

- Initiation and controlling of the project
- Overall responsibility for the project and objective achievement
- Reconciliation of the project objectives with the overarching strategies, specifications and objectives of the core organization
- Provision of resources (financial, personnel, infrastructure) and assurance that they are used efficiently
- Timely decisions on requests and measures
- Appointment of members and leadership of the project committee
- Appointment of the project manager
- Assurance of sufficient participation by the specialist area

Powers

- Decision-making power within the framework of the allocation of powers by the core organization
- Allocation of financial and human resources, as well as infrastructure to the project
- Escalation to the core organization

Skills

- Business understanding and knowledge of the specialist area
- Knowledge of the project and operation requirements of the core organization (e.g. for procurement, financing, controlling, security)
- Business administration knowledge to ensure the efficient and effective use of financial and human resources
- In-depth knowledge of project initiation and project management
- Knowledge of HERMES, attested to by course attendance
- Communication skills to represent the project internally and externally, manage stakeholders and resolve conflicts
- Decisiveness and assertiveness

ROLES

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project steering	Decide on project closure	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
	Decide on phase release	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
	Decide on project release	Project sponsor	Checklist	Project manager
			Project order	Project manager, business process owner
			Project decision steering	Project manager, project committee member, quality and risk manager
	Commission and steer initiation	Project sponsor	Project initiation order	Project manager
	Steer project	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
Project management	Manage and control initiation	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner
	Agree on and steer goods/services	Project manager	Agreement	Project sponsor
	Manage stakeholders and communication	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner
Procurement	Decide on contract award	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
			Publication	Project manager

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
	Decide on call for tenders	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
	Draw up agreement	Project manager	Agreement	Project sponsor
Deployment organization	Decide on launch of operation	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
IT operation	Design an operating concept	Operations manager	Agreement	Project sponsor, project manager

Table 34:   Project sponsor relationships

4.4.2.4   Operations manager

Description

Specialist

The operations manager is responsible for setting up operation with the operating platforms and operating organization. He ensures the technical and organizational integration and operation of the IT system on the various system platforms during the project phases and operation.

Responsibility

- Provision of the goods and services agreed with the operator while adhering to the set deadlines and budgets
- Consideration of the operator's requirements
- Assurance of the operator's compliance with the IT security and data protection requirements

Powers

- Can access all required information
- Authority to give instructions to the operator with regard to his specialist areas

Skills

- In-depth knowledge of operation
- Knowledge of the specifications of the core organization for the project and the operation of the application (e.g. technical and organizational specifications)
- Ability to develop requirements, specifications, concepts and operating documentation

ROLES

- Business administration knowledge for assessing options and cost-effectiveness
- In-depth knowledge of HERMES, attested to by a certificate
- Good writing skills, e.g. to create operating documentation
- Ability to work in a team, to communicate and to resolve conflicts
- Management of specialists in his area of responsibility

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Agile development	Design release plan	Developer	Release plan	Operations manager, business analyst
Product	Activate product	Developer	Product activated	Operations manager
IT system	Design an integration concept	IT architect	Integration concept	Operations manager, business analyst, developer
	Activate system	Developer	System activated	Operations manager, business analyst, application owner
	Realize system	Developer	System architecture	Operations manager, IT architect
	Prepare system integration	Developer	Integration and installation instructions	Operations manager
			System architecture	Operations manager, IT architect
	Design a system concept	IT architect	System architecture	Operations manager, developer
Procurement	Issue a call for tenders	Project manager	Offer	Operations manager, developer
Deployment organization	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
Testing	Conduct test	Test manager	Test concept	Tester, operations manager, business analyst, developer
	Realize test infrastructure	Operations manager	Test data	Business analyst, test manager
			Test system	Test manager
	Design a test concept	Test manager	Test concept	Tester, operations manager, business analyst, developer

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
IT migration	Decommission the legacy system	IT architect	Legacy system decommissioned	Operations manager, business analyst
	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Conduct migration	Developer	Migration carried out	Operations manager, business analyst, application owner
	Realize migration procedure	Developer	Migration procedure	Operations manager
IT operation	Activate operation	Operations manager	Operation activated	Application owner, developer
			Operating manual	
	Realize operation	Operations manager	Operating manual	
			Operating infrastructure realized	
			Operating organization realized	Application owner
	Design an operating concept	Operations manager	Operating concept	Application owner, IT architect
			Agreement	Project sponsor, project manager
	Integrate system in operation	Operations manager	Operating manual	
			System integrated	Developer
Information security and data protection	Design ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect
	Implement ISDP concept	Project manager	ISDP concept	Operations manager, ISDP manager, application owner, IT architect
			ISDP measures	Operations manager, ISDP manager, developer
	Transfer ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect

Table 35:   Operations manager relationships

4.4.2.5   Business analyst

Description

Specialist

The business analyst forms the interface between the user and the developer/operator. He establishes and prioritizes user requirements based on business processes and transforms them into system requirements. These are used by the developer and operator as a basis for the design and operation of the product, service or IT system.

Responsibility

- Definition of business processes, establishment of complete requirements and assurance of the involvement of specialists, user representatives and business process owners
- Systematic documentation of the outcomes with suitable methods
- Transfer of the requirements to those responsible for further processing

Powers

- Can access all required information

Skills

- In-depth knowledge of the specialist area
- Knowledge of the specifications of the core organization for the project and the operation of the application (e.g. for procurement, financing, controlling, security)
- In-depth knowledge of business analysis and the associated methods and techniques
- Business administration knowledge for evaluating options and cost-effectiveness
- Ability to establish, evaluate and prioritize requirements
- Project management knowledge
- In-depth knowledge of HERMES, attested to by a certificate
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills, e.g. to document requirements
- Management of specialists in his area of responsibility

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project management	Manage and control initiation	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner
	Manage stakeholders and communication	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner
	Lead change management	Project manager	Change request	Business analyst, user representative

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Agile development	Keep a product backlog	Project manager	Product backlog	Business analyst, developer
	Design release plan	Developer	Release plan	Operations manager, business analyst
	Conduct sprints	Developer	Sprint backlog	Business analyst
Project foundations	Conduct a study	Project manager	Study	Business analyst, user representative, business process owner, IT architect
Business organization	Activate business organization	Business analyst	Business organization activated	User representative, business process owner
	Realize business organization	Business analyst	Organization implemented	Business process owner
			Organization description	User representative, business process owner
			Process description	User representative, business process owner
	Draw up business organization concept	Business analyst	Business organization concept	User representative, business process owner
Product	Design a product concept	Business analyst	Product concept	User representative
IT system	Design an integration concept	IT architect	Integration concept	Operations manager, business analyst, developer
	Activate system	Developer	System activated	Operations manager, business analyst, application owner
	Realize system	Developer	Detailed specifications	Business analyst, IT architect
	Prepare system integration	Developer	Detailed specifications	Business analyst, IT architect
	Design a system concept	IT architect	Detailed study	Business analyst, user representative, developer
			Situation analysis	Business analyst, user representative, business process owner
			System requirements	Business analyst, user representative, business process owner
Deployment organization	Execute deployment	Project manager	Deployment measures carried out	Business analyst, business process owner
	Prepare deployment	Project manager	Deployment measures and organization realized	Business analyst, business process owner
	Design a deployment concept	Project manager	Deployment concept	Business analyst, user representative, business process owner

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Testing	Conduct test	Test manager	Test concept	Tester, operations manager, business analyst, developer
	Realize test infrastructure	Operations manager	Test data	Business analyst, test manager
	Design a test concept	Test manager	Test concept	Tester, operations manager, business analyst, developer
IT migration	Decommission the legacy system	IT architect	Legacy system decommissioned	Operations manager, business analyst
	Conduct migration	Developer	Migration carried out	Operations manager, business analyst, application owner
	Design a migration concept	IT architect	Migration concept	Business analyst, developer
	Realize migration procedure	Developer	Detailed specifications	Business analyst, IT architect

Table 36:   Business analyst relationships

4.4.2.6   Developer

Description

Specialist

The role of developer is comprehensive and refers to the product developer and IT developer. The developer drafts, shapes and creates the product or IT system according to the requirements under the guidance of the project manager. He integrates the product or IT system into the operator's environment.

Responsibility

- Responsible for the development of the development outcomes while adhering to the set deadlines and budgets

Powers

- Can access all required information

Skills

- In-depth knowledge of the special field of product or software development
- In-depth knowledge of design, specification, development, testing and integration methods and practices
- Knowledge of HERMES
- Ability to work in a team, to communicate and to resolve conflicts

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Agile development	Keep a product backlog	Project manager	Product backlog	Business analyst, developer
	Design release plan	Developer	Release plan	Operations manager, business analyst
	Conduct sprints	Developer	Increment	
			Minutes	Project manager

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
			Sprint backlog	Business analyst
Product	Activate product	Developer	Product activated	Operations manager
	Realize product	Developer	User manual	User representative
			Product realized	User representative
			Product documentation	
IT system	Design an integration concept	IT architect	Integration concept	Operations manager, business analyst, developer
	Realize prototype	Developer	Prototype realized	IT architect
			Prototype documentation	IT architect
	Activate system	Developer	System activated	Operations manager, business analyst, application owner
	Realize system	Developer	User manual	User representative, developer
			Detailed specifications	Business analyst, IT architect
			System developed or parameterized	
			System architecture	Operations manager, IT architect
	Prepare system integration	Developer	Detailed specifications	Business analyst, IT architect
			Integration and installation instructions	Operations manager
			Interfaces realized	
			System architecture	Operations manager, IT architect
	Design a system concept	IT architect	Detailed study	Business analyst, user representative, developer
			System architecture	Operations manager, developer
Procurement	Issue a call for tenders	Project manager	Offer	Operations manager, developer
Deployment organization	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
Testing	Conduct test	Test manager	Test concept	Tester, operations manager, business analyst, developer

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
	Design a test concept	Test manager	Test concept	Tester, operations manager, business analyst, developer
IT migration	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
	Conduct migration	Developer	Migration carried out	Operations manager, business analyst, application owner
	Design a migration concept	IT architect	Migration concept	Business analyst, developer
	Realize migration procedure	Developer	Detailed specifications	Business analyst, IT architect
			Migration procedure	Operations manager
IT operation	Activate operation	Operations manager	Operation activated	Application owner, developer
	Integrate system in operation	Operations manager	System integrated	Developer
Information security and data protection	Implement ISDP concept	Project manager	ISDP measures	Operations manager, ISDP manager, developer

Table 37: Developer relationships

4.4.2.7   Technical committee member

Description

The technical committee supports the project manager with the evaluation of outcomes.

The members of the technical committee raise the concerns of the organizational unit they represent. The project manager organizes and chairs the meetings of the technical committee.

Responsibility

- Advice and support for the project manager in the evaluation of specialist issues and outcomes
- Support for the project and its anchoring in the organization he represents
- Early raising of concerns of the organization represented

Powers

- Gives recommendations on outcomes to the project manager
- Gives recommendations on quality assurance measures to the project manager
- Can access all required information

Skills

- In-depth knowledge of the specialist area and special field represented
- Business administration knowledge for evaluating and prioritizing requirements and assessing options and cost-effectiveness
- Ability to work in a team, to communicate and to resolve conflicts

4.4.2.8   Business process owner

Description

Specialist
The business process owner handles the process-related aspects within the project.

Responsibility

- Specialist process performance
- Assurance of essential information regarding the IT needs of his process so that decisions can be made by the project management
- Planning and implementation of process optimization activities

Powers

- Authority to give instructions
- Decision-making power regarding process adjustments

Skills

- In-depth knowledge of the processes and organization of the specialist area
- Business administration knowledge
- In-depth knowledge of the special field of process management
- Project management knowledge
- Knowledge of HERMES
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills, e.g. to create process documentation

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project steering	Decide on project release	Project sponsor	Project order	Project manager, business process owner
Project management	Manage and control initiation	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner
	Draw up project order	Project manager	Project order	Business process owner
	Manage stakeholders and communication	Project manager	Stakeholder list	Project sponsor, business analyst, business process owner

ROLES

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project foundations	Analyze the legal basis	Project manager	Legal basis analysis	Business process owner
	Analyze protection needs	ISDP manager	Protection needs analysis	Project manager, business process owner
	Conduct a study	Project manager	Study	Business analyst, user representative, business process owner, IT architect
Business organization	Activate business organization	Business analyst	Business organization activated	User representative, business process owner
	Realize business organization	Business analyst	Organization implemented	Business process owner
			Organization description	User representative, business process owner
			Process description	User representative, business process owner
	Draw up business organization concept	Business analyst	Business organization concept	User representative, business process owner
IT system	Design a system concept	IT architect	Situation analysis	Business analyst, user representative, business process owner
			System requirements	Business analyst, user representative, business process owner
Deployment organization	Execute deployment	Project manager	Deployment measures carried out	Business analyst, business process owner
	Prepare deployment	Project manager	Deployment measures and organization realized	Business analyst, business process owner
	Design a deployment concept	Project manager	Deployment concept	Business analyst, user representative, business process owner

Table 38:   Business process owner relationships

4.4.2.9   ISDP manager

Description

Specialist

The ISDP manager is responsible for the aspects of information security and data protection in the project.

Responsibility

- Assurance that the information security requirements and data protection measures are taken into account and implemented in the project

- Promotion of information security and data protection awareness within the project

Powers

- Can access all required project information
- Issuing of security-related specifications for dealing with data and information during project execution

Skills

- In-depth knowledge of the special field of information security and data protection
- Knowledge of the legal basis
- Knowledge of IT standards, architectures, methods and practices
- In-depth knowledge of the methods and practices to be applied in his tasks
- Business administration knowledge for evaluating options and cost-effectiveness
- Process management knowledge
- In-depth knowledge of HERMES, preferably attested to by a certificate
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills, e.g. to create reports

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project foundations	Analyze protection needs	ISDP manager	Protection needs analysis	Project manager, business process owner
Information security and data protection	Design ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect
	Implement ISDP concept	Project manager	ISDP concept	Operations manager, ISDP manager, application owner, IT architect
			ISDP measures	Operations manager, ISDP manager, developer
	Transfer ISDP concept	ISDP manager	Checklist	Project manager
			ISDP concept	Operations manager, application owner, IT architect

Table 39: ISDP manager relationships

4.4.2.10   IT-architect

Description

Specialist

The IT architect designs the architecture of the system to be created. He defines the system components and their interfaces with the peripheral systems.

Responsibility

- Overall technical responsibility for the IT system being developed
- Assurance of compliance with the existing standards and architecture requirements and performance of audits

Powers

- Authority to give instructions
- Decision-making power regarding the system architecture

Skills

- Knowledge of the specialist area
- In-depth knowledge of the special field of IT architecture
- In-depth knowledge of IT standards, architectures, methods and practices
- Business administration knowledge for evaluating options and cost-effectiveness
- Project management knowledge
- In-depth knowledge of HERMES, attested to by a certificate
- Ability to work in a team, to communicate and to resolve conflicts
- Very good writing skills, e.g. to create architecture documentation

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project foundations	Conduct a study	Project manager	Study	Business analyst, user representative, business process owner, IT architect
IT system	Design an integration concept	IT architect	Integration concept	Operations manager, business analyst, developer
	Realize prototype	Developer	Prototype realized	IT architect
			Prototype documentation	IT architect
	Realize system	Developer	Detailed specifications	Business analyst, IT architect
			System architecture	Operations manager, developer, IT architect
	Prepare system integration	Developer	Detailed specifications	Business analyst, IT architect
			System architecture	Operations manager, IT architect
	Design a system concept	IT architect	Detailed study	Business analyst, user representative, developer
			Situation analysis	Business analyst, user representative, business process owner
			System requirements	Business analyst, user representative, business process owner
			System architecture	Operations manager, developer

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
IT migration	Decommission the legacy system	IT architect	Legacy system decommissioned	Operations manager, business analyst
	Design a migration concept	IT architect	Migration concept	Business analyst, developer
	Realize migration procedure	Developer	Detailed specifications	Business analyst, IT architect
IT operation	Design an operating concept	Operations manager	Operating concept	Application owner, IT architect
Information security and data protection	Design ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect
	Implement ISDP concept	Project manager	ISDP concept	Operations manager, ISDP manager, application owner, IT architect
	Transfer ISDP concept	ISDP manager	ISDP concept	Operations manager, application owner, IT architect

Table 40:   IT architect relationships

4.4.2.11   Project committee member

Description

The project committee supports the project sponsor in performing his tasks. The members of the project committee raise the concerns of the organization unit they represent. The project sponsor organizes and chairs the meetings of the project committee.

Responsibility

- Advice and support for the project sponsor in performing his tasks
- Support for the project and its anchoring in the organization he represents
- Early raising of concerns of the organization represented
- Participation in the development of solutions to problems

Powers

- Can request a project review or audit
- Power to issue recommendations
  - o Recommendations on completion and release of phases to the project sponsor
  - o Recommendations on risk-reduction measures to the project sponsor (e.g. on appointment of project controlling or the quality and risk manager)
- Can gather all the information needed to steer and assess the project

Skills

- Knowledge of the specialist area
- In-depth knowledge of the special field represented

ROLES

- Business administration knowledge to ensure the efficient and effective use of financial and human resources
- In-depth knowledge of project steering
- Knowledge of HERMES, attested to by course attendance
- Ability to work in a team, to communicate and to resolve conflicts

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project steering	Decide on project closure	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on phase release	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on project release	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Steer project	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
Procurement	Decide on contract award	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on call for tenders	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
Deployment organization	Decide on launch of operation	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager

Table 41: **Project committee member relationships**

4.4.2.12 Project manager

Description

The project manager manages the project on behalf of the project sponsor. He is appointed and managed by the project sponsor.

Responsibility

- Management of the project to achieve the project outcomes and procedure objectives (time, cost, quality)
- Economical and sustainable use of resources
- Leadership of the reporting system and provision of comprehensive, regular and situational information to project steering so that its steering and decision-making tasks can be performed.
- Leadership of stakeholder management and assurance of the involvement of eligible stakeholders
- Management of quality and risk management
- Timely involvement of the responsible controlling and compliance bodies to ensure that their legitimate requirements are met
- Arrangement of the methods, practices and tools to be used in the project in addition to HERMES and assurance of their use

- Performance of procurement in accordance with the requirements
- Execution of decision-making tasks

Powers

- Authority to use the resources released for the phase
- Decision-making power within the framework defined with the project sponsor
- Authority to give instructions
- In consultation with the project sponsor, division of the project into sub-projects, appointment of sub-project managers and delegation of management tasks

Skills

- Knowledge of the specialist area
- Knowledge of the project environment
- Knowledge of the core organization's requirements in terms of the project and operation of the application (e.g. for procurement, financing, controlling, security)
- In-depth project management knowledge
- Knowledge of the methods and practices used in the project
- Business administration knowledge to assess options and cost-effectiveness and to ensure the efficient and effective use of financial and human resources
- In-depth knowledge of HERMES, attested to by a certificate
- Decisiveness and assertiveness
- Managerial skills
- Communication skills to represent the project internally and externally, manage stakeholders and resolve conflicts
- Good writing skills, e.g. to create project reports

Relationships

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
Project steering	Decide on project closure	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on phase release	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on project release	Project sponsor	Checklist	Project manager
			Project order	Project manager, business process owner
			Project decision steering	Project manager, project committee member, quality and risk manager

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Module	Task	Task responsibility	Outcome	Involved in creation of outcome
	Commission and steer initiation	Project sponsor	Project initiation order	Project manager
	Steer project	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
Project management	Lead change management	Project manager	Project management plan	
			Change request	Business analyst, user representative
			Change status list	
	Decide on an option	Project manager	Checklist	
			Project decision management & execution	Quality and risk manager
	Manage and control initiation	Project manager	Work order	
			Project status report	
			Minutes	
			Stakeholder list	Project sponsor, business analyst, business process owner
			Stakeholder interests	
	Agree on and steer goods/services	Project manager	Evaluation report	
			Quote request	
			Agreement	Project sponsor
	Prepare phase release	Project manager	Phase report	
			Project management plan	
			Project status report	
	Deal with problems and benefit from experience	Project manager	Lessons learned	
	Manage and control project	Project manager	Work order	
			Project management plan	
			Project status report	
			Minutes	
	Prepare project closure	Project manager	Lessons learned	
			Final project evaluation	

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
	Draw up project order	Project manager	Project order	Business process owner
			Project management plan	
	Perform quality assurance	Project manager	Project management plan	
			Review report	
	Manage risks	Project manager	Project management plan	
			Project status report	
	Manage stakeholders and communication	Project manager	Project management plan	
			Stakeholder list	Project sponsor, business analyst, business process owner
			Stakeholder interests	
Agile development	Decide on agile development using SCRUM	Project manager	Checklist	
			Project decision management & execution	Quality and risk manager
	Keep a product backlog	Project manager	Product backlog	Business analyst, developer
	Introduce SCRUM	Project manager	Project management plan	
	Conduct sprints	Developer	Minutes	Project manager
Project foundations	Analyze the legal basis	Project manager	Legal basis analysis	Business process owner
	Analyze protection needs	ISDP manager	Protection needs analysis	Project manager, business process owner
	Conduct a study	Project manager	Study	Business analyst, user representative, business process owner, IT architect
IT system	Decide on system architecture	Project manager	Checklist	
			Project decision management & execution	Quality and risk manager
Procurement	Evaluate tenders	Project manager	Evaluation report	
			Minutes	

ROLES

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
	Issue a call for tenders	Project manager	Offer	Operations manager, developer
			Tender documentation	
	Prepare a call for tenders	Project manager	Tender documentation	
	Draw up a procurement plan	Project manager	Project management plan	
	Decide on contract award	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
			Publication	Project manager
	Decide on call for tenders	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
	Draw up agreement	Project manager	Agreement	Project sponsor
Deployment organization	Execute deployment	Project manager	Deployment measures carried out	Business analyst, business process owner
	Prepare deployment	Project manager	Deployment measures and organization realized	Business analyst, business process owner
	Design a deployment concept	Project manager	Deployment concept	Business analyst, user representative, business process owner
	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
			Checklist	
			Project decision management & execution	Quality and risk manager
	Decide on launch of operation	Project sponsor	Checklist	Project manager
			Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager

Module	Task	Task responsibility	Outcome	Involved in creation of outcome
			Checklist	
			Project decision management & execution	Quality and risk manager
Testing	Transfer test concept and infrastructure	Test manager	Minutes	Project manager
IT migration	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
			Checklist	
			Project decision management & execution	Quality and risk manager
IT operation	Design an operating concept	Operations manager	Agreement	Project sponsor, project manager
Information security and data protection	Decide on ISDP concept	Project manager	Checklist	
			Project decision management & execution	Quality and risk manager
	Implement ISDP concept	Project manager	ISDP concept	Operations manager, ISDP manager, application owner, IT architect
			ISDP measures	Operations manager, ISDP manager, developer
	Transfer ISDP concept	ISDP manager	Checklist	Project manager

Table 42:   Project manager relationships

4.4.2.13   Project support

Description

Project support assists the project manager in dealing with organizational and administrative matters. The role is also referred to as project office (PO).

Responsibility

- Responsible for the project management activities delegated to him

Powers

- Authority to give instructions
- Can request and provide information within the scope of the tasks delegated to him

ROLES

- Knowledge of the project environment
- In-depth project management knowledge
- Knowledge of the methods and practices to be applied in his tasks
- In-depth knowledge of HERMES, attested to by a certificate
- Business administration knowledge
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills and ability to create documentation

4.4.2.14 Quality and risk manager

Description

The quality and risk manager supports the project sponsor with an independent assessment of the project. He recommends measures to achieve the project objectives.

Responsibility

- Assessment of compliance with the specifications of the core organization
- Assessment of the procedure and the outcomes of project management, project organization and cooperation in the project
- Comprehensive assessment of the processes of project steering, project management and project execution concerning all project partners
- Evaluation of the project outcomes from a qualitative point of view
- Assessment of the project status and forecasts
- Assessment of risks
- Recommendation of measures to deal with risks and achieve the project objectives
- Transparent reporting to the project sponsor

Powers

- Recommendations on completion and release of phases to the project sponsor
- Recommendations on measures to the project sponsor
- Can gather all the information needed to assess the project (with direct access to all project participants)

Skills

- In-depth knowledge of project management, particularly concerning the aspects of controlling, quality assurance and risk management
- Business administration knowledge
- In-depth knowledge of HERMES, attested to by a certificate
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills, e.g. to create reports

Relationships

Module	Task	Task responsibility	Outcome	Creation of outcome
Project steering	Decide on project closure	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
	Decide on phase release	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
	Decide on project release	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Steer project	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
			QA and risk report	Quality and risk manager
Project management	Decide on an option	Project manager	Project decision management & execution	Quality and risk manager
Agile development	Decide on agile development using SCRUM	Project manager	Project decision management & execution	Quality and risk manager
IT system	Decide on system architecture	Project manager	Project decision management & execution	Quality and risk manager
Procurement	Decide on contract award	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on call for tenders	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
Deployment organization	Decide on acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
			Project decision management & execution	Quality and risk manager

ROLES

Module	Task	Task responsibility	Outcome	Creation of outcome
	Decide on launch of operation	Project sponsor	Project decision steering	Project manager, project committee member, quality and risk manager
	Decide on preliminary acceptance	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
			Project decision management & execution	Quality and risk manager
IT migration	Decide on acceptance of migration	Project manager	Acceptance report	Operations manager, user representative, application owner, developer, quality and risk manager
			Project decision management & execution	Quality and risk manager
Information security and data protection	Decide on ISDP concept	Project manager	Project decision management & execution	Quality and risk manager

Table 43:   Quality and risk manager relationships

4.4.2.15   Sub-project manager

Description

The sub-project manager is responsible for providing the goods and services agreed with the project manager. He has all the powers required to carry out the activities delegated by the project manager.

Responsibility

- Quality of the outcomes obtained and compliance with the guidelines in his sub-project
- Adherence to the agreed costs and deadlines in his area
- Management of the specialists in his area
- Reporting in his sub-project
- Securing of the necessary resources with the required qualifications in his area

Powers

- Same as for the project manager, valid for the area of his sub-project

Skills

- Knowledge of the specialist area
- Knowledge of the project environment

- Knowledge of the core organization's requirements in terms of the project and operation of the application (e.g. for procurement, financing, controlling, security)
- In-depth project management knowledge
- Knowledge of the methods and practices used in the project
- Business administration knowledge to assess options and cost-effectiveness and to ensure the efficient and effective use of financial and human resources
- In-depth knowledge of HERMES, attested to by a certificate
- Decisiveness and assertiveness
- Managerial skills
- Communication skills to represent the project internally and externally, manage stakeholders and resolve conflicts
- Good writing skills, e.g. to create project reports

4.4.2.16 Tester

Description

Specialist
The tester participates in the creation of test case descriptions, carries out tests and assesses and logs the outcomes.

Responsibility
- Support for the test manager in the creation of test case descriptions
- Performance of tests for one or more test objects
- Evaluation of the test results and recording of them in the form of test reports

Powers
- Can access all required information
- Decision-making power to classify the test results according to the defect categories defined in the test plan

Skills
- In-depth knowledge of the specialist area (specialist processes, system requirements, etc. in his test area)
- Knowledge of testing and test methods
- Quick comprehension and thorough working methods
- Assertiveness
- Ability to work in a team, to communicate and to resolve conflicts

Module	Task	Task responsibility	Outcome	Creation of outcome
Testing	Conduct test	Test manager	Test concept	Tester, operations manager, business analyst, developer
			Test report	Tester
	Design a test concept	Test manager	Test concept	Tester, operations manager, business analyst, developer

Table 44:   Tester relationships

4.4.2.17   Test manager

Description

Specialist

The test manager designs, plans and coordinates testing. He ensures that the test fundamentals are developed in the form of the test concept and transfers testing to the subsequent operation.

Responsibility

- Assurance that the various requirements such as business requirements and system requirements regarding the quality of the IT system are met

Powers

- Defines the test methods and test organization
- Determines employee and system deployment for testing and orders tests to be conducted

Skills

- Knowledge of the specialist area
- In-depth knowledge of the test objects (specialist processes, technology, etc.)
- In-depth knowledge of the special field of quality assurance and testing with the corresponding methods and practices
- Knowledge of the design and implementation of IT solutions
- Knowledge of project management
- In-depth knowledge of change management
- In-depth knowledge of HERMES, attested to by a certificate
- Decisiveness and assertiveness
- Ability to work in a team, to communicate and to resolve conflicts
- Good writing skills, e.g. to create test concepts and test reports

Relationships

Module	Task	Task responsibility	Outcome	Creation of outcome
Testing	Conduct test	Test manager	Test concept	Tester, operations manager, business analyst, developer
			Test report	Tester
	Realize test infrastructure	Operations manager	Test data	Business analyst, test manager
			Test system	Test manager
	Design a test concept	Test manager	Test concept	Tester, operations manager, business analyst, developer
	Transfer test concept and infrastructure	Test manager	Minutes	Project manager

Table 45:   Test manager relationships

5　Tasks

5.1　Introduction

Outcomes are achieved with tasks. A task consists of several activities to achieve the outcomes and ensure the quality requirements are met.

The task is assigned a role with responsibility for the task.

Content-related tasks are grouped as modules.

Tasks and their outcomes are structured in the project structure plan and allocated to phases and milestones. Tasks that lead to a decision end with a milestone.

Task descriptions do not replace knowledge of the methods and practices to be applied or corresponding training.

5.2　Task overview

The table shows the tasks per module and the partner responsible for the task.

Module	Task	User	Developer	Operator
Project steering	Decide on project closure	X		
	Decide on phase release	X		
	Decide on project release	X		
	Commission and steer initiation	X		
	Steer project	X		
Project management	Lead change management	X		
	Decide on an option	X		
	Manage and control initiation	X		
	Agree on and steer goods/services	X		
	Prepare phase release	X		
	Deal with problems and benefit from experience	X		
	Manage and control project	X		
	Prepare project closure	X		
	Draw up project order	X		
	Perform quality assurance	X		
	Manage risks	X		
	Manage stakeholders and communication	X		
Agile development	Decide on agile development using SCRUM	X		
	Keep a product backlog	X		

Module	Task	User	Developer	Operator
	Design release plan		X	
	Introduce SCRUM	X		
	Conduct sprints		X	
Project foundations	Analyze the legal basis	X		
	Analyze protection needs	X		
	Conduct a study	X		
Business organization	Activate business organization	X	X	
	Realize business organization	X	X	
	Draw up business organization concept	X	X	
Product	Activate product		X	
	Realize product		X	
	Design a product concept	X	X	
IT system	Decide on system architecture	X		
	Design an integration concept	X	X	X
	Realize prototype		X	
	Activate system		X	
	Realize system		X	
	Prepare system integration		X	
	Design a system concept	X	X	X
Procurement	Evaluate tenders	X		
	Issue a call for tenders	X		
	Prepare a call for tenders	X		
	Draw up a procurement plan	X		
	Decide on contract award	X		
	Decide on call for tenders	X		
	Draw up agreement	X		
Deployment organization	Execute deployment	X		
	Prepare deployment	X		
	Design a deployment concept	X		
	Decide on acceptance	X		
	Decide on launch of operation	X		
	Decide on preliminary acceptance	X		
Testing	Conduct test	X	X	X
	Realize test infrastructure			X
	Design a test concept	X	X	X
	Transfer test concept and infrastructure	X	X	X
IT migration	Decommission the legacy system	X	X	X
	Decide on acceptance of migration	X		
	Conduct migration		X	
	Design migration concept	X	X	X
	Realize migration procedure		X	

Module	Task	User	Developer	Operator
IT operation	Activate operation			X
	Realize operation			X
	Design an operating concept			X
	Integrate system in operation			X
Information security and data protection	Decide on ISDP concept	X		
	Design ISDP concept	X		
	Transfer ISDP concept	X		
	Implement ISDP concept	X		

Table 46:   Tasks per module and responsibilities

5.3   Task descriptions

5.3.1   Explanation regarding task description

For each task, there is a task description that is always structured in the same way:

- Purpose
  describes the intent and purpose of the task.
- Basic idea
  creates a fundamental understanding of the task.
- HERMES-specific
  describes how HERMES supports the task in concrete terms.
- Activities
  describe how the task is executed. If possible, the activities are listed in the order of execution.
- Relationships (only available online)
  show how the task relates to modules, outcomes and roles.
- Outcomes (book only)
  show which outcomes are generated by the task.

5.3.2   Task directory

5.3.2.1   Decommission the legacy system

Purpose

After the productive deployment of the new system, the legacy system is decommissioned.

Basic idea

The legacy system is decommissioned in such a way that the data security and data protection requirements are met and the specifications of controlling and compliance bodies are complied with.

HERMES-specific

The decommissioning of the legacy system is based on the procedure defined in the migration concept.

The concept defined in the migration concept for data archiving and for compliance with the data security and data protection requirements is implemented.

Activities

- Decommission the legacy system
- Treat legacy data according to the migration concept
- Dismantle and dispose of the legacy system

Outcomes

- Legacy system decommissioned

5.3.2.2   Lead change management

Purpose

Change management uses a defined process to ensure that project changes are identified, assessed and decided upon.

Basic idea

Change management makes it possible to maintain control over the project's development in the event of changes to objectives, scope, requirements, framework conditions, etc. and to recognize the impact on operations. Project planning and outcomes are adjusted based on the approved changes. The project manager ensures that the change process is consistently adhered to.

HERMES-specific

The change process is documented in the project management plan.

The change status list contains all of the changes dealt with. It gives an overview of their status and documents the consequences of their realization or non-realization.

Activities

- Define the change process, document it in the project management plan and disclose it
- Enter and update change requests in the change status list
- Analyze and approve/reject change requests
- Plan, implement and review approved changes
- Adapt the project management plan based on change request decisions

Outcomes

- Project management plan
- Change request
- Change status list

TASKS

5.3.2.3   Evaluate tenders

Purpose

Tenders are evaluated according to the evaluation criteria. The concrete procurement planning activities are carried out.

Basic idea

After the deadline has expired, the tenders are opened and an internal opening minutes is created. They are then evaluated. The evaluation is based on the list of criteria completed by the tenderer and the information provided in the tender.

HERMES-specific

Depending on the selected procedure, the activities were fleshed out in the task draw up procurement plan and set out in the project management plan. They are carried out according to the plan.

In the case of public procurement, a minutes on the opening of tenders must be prepared after the submission deadline.

If tenderer presentations are made, all procurement law and evaluation-related points are recorded in the minutes and, if necessary, subsequent tenders are obtained.

If negotiations are conducted with tenderers, all procurement law and evaluation-related points are recorded in the minutes.

The evaluation report contains the consolidated results of the evaluation and the proposal issued by those in charge of the evaluation.

Activities
- Open tenders, check them formally (on time, complete) and create a minutes
- Evaluate tenders in terms of content
- Carry out procurement planning activities (e.g. organizing and recording tenderer presentations, conducting and recording negotiations, etc.)
- Draw up an evaluation report and prepare a proposal
- Coordinate the evaluation report with the controlling and compliance bodies responsible for procurement

Outcomes
- Evaluation report
- Minutes

5.3.2.4   Issue a call for tenders

Purpose

The tender is conducted according to a specific, transparent procedure.

With the publication of the call for tenders, an unrestricted group of tenderers is informed and invited to apply. If necessary, any further tender documents are made available, questions answered and incoming tenders collected.

HERMES-specific

Depending on the selected procedure, the activities were fleshed out in the task draw up procurement plan and set out in the project management plan. They are carried out according to the project management plan.

The call for tenders is published on the simap platform (www.simap.ch). Replies to questions from tenderers are recorded. They are made available to all interested parties in a neutralized form and are part of the tender procedure.

Activities
- Publish tender documentation or invite interested parties
- Carry out procurement planning activities (e.g. answer tenderers' questions)

Outcomes
- Tender documentation
- Offer

5.3.2.5   Prepare a call for tenders

Purpose

The call for tenders is the prerequisite for the creation of competition among tenderers, comparable tenders and a comprehensible evaluation.

Basic idea

The tender documentation is prepared in such detail that the tenders can be evaluated in a comprehensible manner. For this purpose, the evaluation criteria questions are set out in the list of criteria.

The project specifications (also called specifications) describe the requirements for the items to be procured (goods, services, etc.) and the procurement procedure.

The draft contract forms the basis for concluding the contract and is part of the tender documentation.

HERMES-specific

The tender documentation consists of various documents. It includes the project specifications, the list of criteria, the draft contract, the tender notice and other documents. The list of criteria must include all eligibility criteria, technical specifications, award criteria and the evaluation model to be applied.

TASKS

In the case of a public tender, the tender documentation must meet the formal and procurement law requirements.

The outcomes produced in other modules such as system requirements, concepts, detailed studies, detailed specifications, etc. are an integral part of the project specifications.

Activities

- Produce tender documentation with project specifications, list of criteria, draft contract, tender notice and other documents
- Coordinate the tender documentation with the controlling and compliance bodies and/or have them checked by them.

Outcomes

- Tender documentation

5.3.2.6   Draw up a procurement plan

Purpose

Procurement planning ensures that the necessary procurements are coordinated with project planning and are carried out in accordance with the specifications.

After procurement, the provision of goods or services is steered by the project management module.

Goods and services that do not require a tender are agreed with the project management module.

Basic idea

Procurement planning fleshes out the tasks, activities and outcomes. It is coordinated with the controlling and compliance bodies for procurement. Procedural issues are clarified in procurement planning, e.g.:

- What exactly is to be procured, and what requirements are there in terms of quantity and quality
- Do contracts already exist and for how long will they remain valid
- What is the estimated cost of what is to be procured
- What is the planned time frame/length of use; has funding been secured for the entire project, including consequential costs
- What type of market is it and how many tenderers are expected
- What documents are included in the tender documentation, and who is in charge of compiling and reviewing it
- What tender procedure is to be used
- How will questions about the tender documentation be answered
- Will tenderer presentations and negotiations be conducted
- Who will evaluate the tenders, and how will the decision-making process be conducted

Procurement planning takes account of internal and statutory requirements, processes and deadlines

The procurement plan is recorded in the project management plan if the body in charge of tenders in the core organization does not provide for a procurement plan.

Activities

- Define the procedure based on the characteristics of the procurement, the core organization's specifications and the statutory basis
- Conceive tasks, activities and outcomes and take account of the core organization's specifications and the statutory basis
- Create the procurement plan from a scheduling point of view and coordinate it with project planning
- Plan human and financial resources for procurement
- Coordinate procurement planning with the controlling and compliance bodies responsible for procurement

Outcomes

- Project management plan

5.3.2.7   Activate operation

Purpose

The operator's new operating organization is activated. It takes up operation together with the activated IT system (see IT system module).

Basic idea

The IT system, tools needed for operation and operating processes are put into effect.

HERMES-specific

Operation is activated based on the decision to launch operation in the deployment organization module. The operator ensures operation according to the SLA.

Activities

- Activate operation
- Support the project organization during the initial utilization period
- Monitor how systems and processes are functioning and check compliance with agreements
- Analyze problems that arise and take or propose measures
- If necessary, analyze and implement stabilization measures
- Update the operating manual with the lessons learned

Outcomes

- Operating manual
- Operation activated

TASKS

5.3.2.8   Realize operation

Purpose

The operating infrastructure and organization is realized to a degree that enables the system to be integrated.

Basic idea

Based on the operating concept, the operating infrastructure, the operating organization and the tools required for operation are realized.

HERMES-specific

All components and measures defined in the operating concept are implemented and checked with suitable quality assurance measures. The operator tests the operating infrastructure to such an extent that integration can take place. He creates an initial version of the operating manual.

Activities

- Realize operating infrastructure and have tests carried out by the operator
- Create operating manual
- Realize tools in accordance with the operating concept
- Realize specific security measures
- Realize operating organization
- Prepare handover from the project organization to the operating organization
- Testing and acceptance by the operator's competent bodies

Outcomes

- Operating infrastructure realized
- Operating manual
- Operating organization realized

5.3.2.9   Design an operating concept

Purpose

The future operating infrastructure and organization are described, and the procedure for their realization is defined.

Basic idea

The operating concept shows how the requirements affecting operation are met at the organizational and technical level.

HERMES-specific

Based on the system architecture and system requirements, the operating organization with the organizational structure and operating processes, the operating infrastructure and the tools for operating the system are defined and set out in the operating concept.

The operator's specifications are incorporated into the operating concept.

Activities

- Analyze the operating requirements defined in the system requirements
- Analyze the security requirements
- Design an operating concept
- Align with the operator's specifications
- Determine the operating costs and draft the SLA
- Coordinate the operating concept with the stakeholders

Outcomes

- Operating concept
- Agreement

5.3.2.10 Execute deployment

Purpose

Carrying out the deployment measures creates the basis for the operation launch and use of the system.

Basic idea

The realized deployment measures are carried out. This includes user training, for example. The execution of the deployment measures can extend over the entire duration of the deployment phase.

HERMES-specific

The deployment measures are carried out based on the deployment planning developed with the deployment concept.

The system is launched by means of corresponding tasks in the respective modules. These include further activities in connection with the launch and deployment.

Activities

- Execute the realized deployment measures
- Check the effectiveness of the deployment measures

Outcomes

- Deployment measures carried out

5.3.2.11 Prepare deployment

Purpose

The deployment concept is implemented to such an extent that deployment can take place.

Basic idea

The deployment measures and deployment organization are prepared based on the deployment concept.

The development of training is an example of the preparation of a deployment measure. The actual execution of the training does not take place until the deployment phase.

The training of super-users who support deployment is an example of the preparation of the deployment organization. They do not become active until the deployment phase.

HERMES-specific

The emergency organization and the emergency measures defined in the deployment concept are prepared. They can be activated in the deployment phase.

The deployment measures and emergency organization are checked for preliminary acceptance before the deployment phase is released (with the task decide on preliminary acceptance).

Activities

- Prepare deployment measures and deployment organization (including emergency measures and emergency organization)

Outcomes

- Deployment measures and organization realized

5.3.2.12   Design a deployment concept

Purpose

The deployment concept is developed to such an extent that deployment can be prepared in the implementation phase.

Basic idea

The deployment concept determines how deployment is to take place:

- Deployment procedure: decide between deployment on a specific date or phased deployment, and plan accordingly
- Deployment organization: define deployment support roles
- Deployment measures: develop training, prepare documents

HERMES-specific

The deployment concept is designed based on the concepts of the various modules.

The deployment measures defined in the deployment concept are realized in the implementation phase and executed in the deployment phase.

Based on the deployment concept, the release criteria for the decision to launch operation are defined.

If a product or IT system is procured, the developer uses his experience from similar projects in designing the deployment concept. In this case, the deployment concept is designed after procurement.

TASKS

When replacing an existing system, the content of the deployment concept is related to the migration concept. They can influence each other.

Activities

- Design a deployment concept taking account of the deployment risks
- Integrate deployment planning into the project management plan
- Identify user and operator training needs and record training measures in the deployment concept
- Coordinate the deployment concept with the stakeholders

Outcomes

- Deployment concept

5.3.2.13   Decide on ISDP concept

Purpose

The decision on the ISDP concept is the prerequisite for implementing the ISDP measures and realizing the IT system. The project sponsor approves the ISDP concept and accepts the residual risks with the phase release decision.

Basic idea

The decision on the ISDP concept confirms compliance with the specifications of the core organization.

HERMES-specific

The decision on the ISDP concept is made by the competent controlling and compliance body.

In the case of procurement (i.e. not customized development) of an IT system, the ISDP concept is reviewed after evaluation. This is because the tender chosen has a significant impact on the ISDP concept.

Activities

- Add further criteria to the ISDP concept checklist
- Have the ISDP concept checked by the competent controlling and compliance body and get feedback
- Create decision-making documents
- Supply decision-makers with the decision-making documents
- Integrate the review results into the decision-making process for phase release
- Have the project sponsor acknowledge protection measures and residual risks

Outcomes

- Checklist
- Project decision management & execution

TASKS

5.3.2.14   Decide on project closure

Purpose

With the project closure decision, the project organization is dissolved and the project is ended.

Basic idea

The last step of project closure is the formal dissolution of the project organization. This comes under the authority and responsibility of the project sponsor. The project participants are officially relieved of their project responsibilities.

HERMES-specific

The project management's final project evaluation is reviewed and either approved or rejected by project steering. The project sponsor passes on important lessons learned from the project to the relevant parties.

The project sponsor ensures that the project closure requirements of the controlling and compliance body as well as governance are met.

If the project has specific controlling and QA/risk management bodies, they prepare a final report.

Activities

- Add further criteria to the project closure checklist
- Ensure that the closure work has been completed. Carry out or commission corresponding tests
- Provide decision-makers with the final project evaluation and further information for decision-making
- Coordinate decision with the controlling and compliance bodies
- Hold final project committee meeting
- Approve (or reject) the final project evaluation
- Decide on project closure
- If the decision is positive:
    - Dissolve project organization
    - Inform those affected and interested about the decision
    - Pass on lessons learned from the project to relevant bodies

Outcomes

- QA and risk report
- Checklist
- Project decision steering

5.3.2.15   Decide on contract award

Purpose

The contract award decision is the prerequisite for its publication and the drafting of the contract with the successful tenderer.

Basic idea

After the decision to award the contract has been made, the tenderers are informed about the result of the evaluation. The award is published.

HERMES-specific

Depending on the selected procedure, the activities were fleshed out in the task draw up procurement plan and set out in the project management plan. They are now carried out accordingly.

Activities

- Add contract award decision to HERMES checklist
- Critically review project objectives, feasibility and benefits of the project based on new findings and align with the core organization's objectives
- Provide decision-makers with the evaluation report
- Coordinate the decision with the core organization and the controlling and compliance bodies responsible for procurement
- Approve or reject the evaluation report
- If the evaluation report is approved:
  - o Decide on contract award
  - o Publish award on simap (www.simap.ch)
  - o Send rejection notice to unsuccessful tenderers
  - o If necessary, conduct debriefings

Outcomes

- Publication
- Checklist
- Project decision steering

5.3.2.16   Decide on acceptance of migration

Purpose

Migration acceptance is the prerequisite for releasing the new system to users.

Basic idea

The new system is released if the migration quality criteria are met.

HERMES-specific

Migration takes place before the decision to launch operation.

Activities

- Add further criteria to the checklist for the acceptance of migration
- Check the achievement of the quality criteria
- Accept or reject migration

- Formally complete migration and document it in a comprehensible manner
- Release system

Outcomes

- Acceptance report
- Checklist
- Project decision management & execution

5.3.2.17 Decide on acceptance

Purpose

Acceptance concludes the provision of goods or services within the scope of the project and creates the basis for project closure.

Basic idea

Acceptance takes place between the project sponsor, developer or supplier and operator of the system. It regulates how outstanding obligations are to be handled and how the provision of goods or services is to be completed.

HERMES-specific

Acceptance takes place after the system has been launched and has been operational for an initial period during which any defects are identified.

Acceptance is planned early by all those involved.

If necessary, separate acceptance processes (between developer and operator, between developer and user, etc.) are carried out.

Activities

- Determine the organization and general conditions for acceptance
- Add further criteria to the acceptance checklist
- Prepare acceptance in technical and organizational terms
- Perform acceptance and record findings
- Analyze and classify findings (e.g. by defect category, new requirements)
- Decide on acceptance and the next steps

Outcomes

- Acceptance report
- Checklist
- Project decision management & execution

5.3.2.18 Decide on agile development using SCRUM

Purpose

The decision creates the prerequisite for agile development using the SCRUM method. The basis needed for decision-making is established.

Basic idea

Agile development with SCRUM has an impact on users, developers and operators. Therefore, the decision is made consciously with the involvement of those affected.

HERMES-specific

To enable the decision to be made, the basis for decision-making must first be established.

The decision is based on the assessment and recommendation of the user, the developer and the operator or the specialists concerned.

Activities

- Clarify the objectives and expectations for the agile way of working
- Define role assignment, planning and tools
- Assess the impact on the project and possible risks
- Add further criteria to the decision checklist
- Consult users, developers and operators
- Make and communicate decision

Outcomes

- Checklist
- Project decision management & execution

5.3.2.19   Decide on call for tenders

Purpose

The decision to issue a call for tenders creates the prerequisite for publication.

Basic idea

After the decision to issue a call for tenders, the tender documentation is published or, in the case of an invitation procedure, sent out.

HERMES-specific

The decision to issue a call for tenders is made by the project sponsor and (if available) by the body in charge of tenders in the core organization. The project sponsor ensures coordination with the core organization.

Activities

- Add further criteria to the checklist for deciding to issue a call for tenders
- Check the tender documentation with the checklist for deciding to issue a call for tenders
- Check whether overarching strategies, standards and specifications have been adhered to and whether confirmations from the competent bodies are available
- Coordinate the decision with the core organization and make a decision on the call for tenders

TASKS

Outcomes

- Checklist
- Project decision steering

5.3.2.20 Decide on launch of operation

Purpose

The decision to launch operation is the prerequisite for commissioning the system and moving it into productive use.

Basic idea

The project sponsor decides on the launch of operation at the request of the project manager.

HERMES-specific

The decision to launch operation is based on the preliminary acceptance report, the implementation of the deployment measures and further project-specific release criteria.

Activities

- Add further criteria to the launch of operation checklist
- Evaluate release criteria and assess deployment risks
- Provide decision-makers with a basis for their decision-making
- Present an assessment of the release criteria and risks
- Decide on launch of operation
- Release utilization for users after successful launch of operation

Outcomes

- Checklist
- Project decision steering

5.3.2.21 Decide on phase release

Purpose

The phase release decision creates the prerequisite for the work in the next phase.

Basic idea

The phase outcomes are checked and accepted or rejected. The current phase is completed and the next project phase is released, as are any resources needed. If the project objectives cannot be achieved, the project is terminated.

HERMES-specific

At the end of the current project phase, the phase report is approved and a decision is made on the conclusion of the phase. A decision is then made on the release of the next phase.

TASKS

Before phase release, the phase report and the project management plan are compared with the overarching strategies and objectives of the core organization. New findings are taken into account in the process.

Adjustments to the project management plan and project organization are decided.

If the project has specific controlling and QA/risk management bodies, they prepare a report for the project sponsor.

Activities

- Add further release criteria to the phase release checklist
- Critically review project objectives, feasibility and benefits of the project based on new findings and align with the core organization's objectives
- Check whether overarching strategies, standards and specifications have been adhered to and whether confirmations from the competent bodies are available
- Supply decision-makers with the phase report, project management plan and other decision-making documents
- Ensure that the necessary resources (human, financial, infrastructure, knowledge and experience) are available in a timely and sufficient manner for the remainder of the project.
- Coordinate the decision in the core organization
- Make (review and approve or reject) a decision on the phase report, project management plan and phase-specific outcomes
- Decide on phase conclusion
- Decide on phase release or reject outcomes
- If the decision is positive:
  - Release resources for the next project phase
  - Inform those affected about the decision
- If the project objectives cannot be achieved: determine corrective measures or decide to terminate the project and request termination

Outcomes

- Checklist
- QA and risk report
- Project decision steering

5.3.2.22   Decide on project release

Purpose

The project release decision creates the prerequisite for the work in the concept phase.

Basic idea

When the project is released, the actual project begins and the project organization of the concept phase is put into effect. The resources required for the phase are released.

TASKS

The project release decision is made by the core organization and the project sponsor. Before project release, the project order and the project management plan are compared with the overarching strategies and objectives of the core organization.

Activities

- Add further criteria to the project release checklist
- Have the project order reviewed by the project sponsor using the project release checklist
- Ensure resources (human, financial, infrastructure) for the entire duration of the project
- Provide decision-makers with the project order
- Coordinate the decision in the core organization and make a decision on the project order
- If the decision is positive:
  - Sign the project order
  - Release resources for the concept phase
  - Inform those affected about the decision

Outcomes

- Checklist
- Project order
- Project decision steering

5.3.2.23   Decide on system architecture

Purpose

The system architecture decision is the prerequisite for the procurement and development of IT systems.

Basic idea

The system architecture decision confirms compliance with the core organization's IT architecture.

HERMES-specific

The system architecture decision is made by the competent controlling and compliance body.

In the case of procurement (i.e. not customized development) of an IT system, the system architecture is reviewed after evaluation. This is because the tender chosen can lead to an adaptation of the system architecture.

Activities

- Add further criteria to the IT architecture checklist
- Have the system architecture checked by the competent controlling and compliance body and get feedback.
- Create decision-making documents

- Supply decision-makers with the decision-making documents
- Integrate the review results into the decision-making process for phase release

Outcomes
- Checklist
- Project decision management & execution

5.3.2.24   Decide on an option

Purpose

The decision on an option forms the basis for designing the concept for the option chosen. The project order is created on the basis of the option selected.

Basic idea

The decision to choose a particular option sets the scene for the entire project, future operation and the long-term benefit that can be achieved. If it becomes apparent that the expected benefit cannot be achieved, work is stopped at that time and the findings are recorded for those interested.

HERMES-specific

When choosing, care is taken to ensure that a sustainable option is chosen. Accordingly, the proposed variant is reviewed again from that perspective. To this end, the various stakeholders are integrated into the decision-making process. The project manager decides on an option after consulting the project sponsor and other stakeholders. The decision is based on the option descriptions and evaluations developed in the study as well as the recommendations of those involved in the study and other stakeholders.

Activities
- Add further criteria to the option choice checklist
- Check whether sustainability aspects are taken into account
- Obtain recommendations based on the option description and evaluation in the study
- Coordinate the decision with the project sponsor and stakeholders
- Decide on an option

Outcomes
- Checklist
- Project decision management & execution

5.3.2.25   Decide on preliminary acceptance

Purpose

Preliminary acceptance creates the basis for commissioning the system with acceptable risks.

TASKS

Basic idea

Preliminary acceptance takes place before deployment and commissioning of the system. Quality assurance measures such as tests and inspections are carried out beforehand. Preliminary acceptance gives users, developers and operators the assurance that the transfer from the old to the new system state will most likely be successful.

HERMES-specific

Preliminary acceptance is planned early by all those involved. The acceptance criteria are agreed jointly in the process. If a system is procured, this takes place when the contract is concluded between the organizations involved in the project. If a system is developed, the acceptance criteria are determined at the same time as acceptance of the system requirements and system architecture.

Activities

- Determine the organization and general conditions for preliminary acceptance
- Add further criteria to the preliminary acceptance checklist
- Prepare preliminary acceptance in technical and organizational terms
- Perform preliminary acceptance and record findings
- Analyze and classify findings (e.g. by defect category, new requirements)
- Decide on preliminary acceptance and the next steps

Outcomes

- Acceptance report
- Checklist
- Project decision management & execution

5.3.2.26   Activate business organization

Purpose

The new business organization is activated. Employees work in their new roles according to the new processes.

Basic idea

The business analyst activates the new business organization so that employees can work in their new roles according to the new processes.

HERMES-specific

After the decision to launch operation in the deployment organization module, the new business organization is activated by the business analyst and then work is carried out in accordance with the new process descriptions.

The project organization accompanies and supports the business organization during the initial utilization period.

In the case of smooth utilization according to the process description and organization description, the acceptance decision is made (in the deployment organization module).

Activities

- Inform stakeholders at an early stage
- Activate business organization
- Support the project organization during the initial utilization period
- Analyze problems that arise and take or propose measures
- If necessary, analyze and implement stabilization measures

Outcomes

- Business organization activated

5.3.2.27 Realize business organization

Purpose

The business organization is fully realized. The organizational and personnel prerequisites are created to such an extent that the new business organization can be activated.

Basic idea

The organizational structure with all personnel aspects and the processes with all aids are realized to such an extent that the new organization can be activated operationally.

HERMES-specific

Based on the business organization concept, the process description and organization description are realized and the measures are implemented.

The process description describes the processes with the aids used. The organization description describes the organizational structure with a detailed organization chart, function descriptions and personnel requirements. Based on the process and organization description, the measures are realized in order to establish the organization (role assignments, recruitment, etc.).

In the deployment organization module, the business organization is checked for preliminary acceptance before the deployment phase is released (with the decide on preliminary acceptance task).

Activities

- Realize process description
- Realize organization description
- Define measures to establish and implement the organization
- Check whether new requirements arise for the IT system, the product or operation

Outcomes

- Process description
- Organization description
- Organization implemented

5.3.2.28 Draw up business organization concept

Purpose

The business organization is described, and the procedure for its realization is defined.

Basic idea

The business organization concept describes the development and process structure (processes) for business processing.

The business organization concept shows which new business organization is created and which changes are made to what already exists. The business organization comprises the core processes, management processes and support processes.

HERMES-specific

Once the business organization concept has been drawn up, the processes are fully documented. Process descriptions can be prepared already in the concept phase. The process descriptions are finalized in the implementation phase.

Activities

- Draw up business organization concept
- Analyze the impact on the organization and review feasibility
- Coordinate the business organization concept with the stakeholders

Outcomes

- Business organization concept

5.3.2.29 Commission and steer initiation

Purpose

The commissioning and steering of the initiation phase creates the prerequisite for the development of the project foundations and the project release decision.

Basic idea

When the project initiation order is issued, the work for initiating the project is formally started.

The points that are important for successful project initiation are clarified in the order.

TASKS

HERMES-specific

The project sponsor appoints a project manager for project initiation. This project manager does not necessarily have to cover project management for the next phases.

Steering by the project sponsor ensures targeted achievement of the outcomes during the initiation phase.

Activities

- Determine the objectives of the initiation phase
- Define specifications and framework conditions for the initiation phase (e.g. goods/services, outlay, deadlines)
- Appoint a project manager for the initiation phase
- Clarify expectations
- Provide financial and human resources for the work required
- Regulate communication between the project sponsor, project manager and other parties for the initiation phase
- Identify and analyze initiation phase risks and envisage measures
- Create project initiation order and have the project sponsor release it
- Inform contact persons within and outside the core organization
- Steer the initiation phase; obtain the information needed, check project progress, take measures if necessary
- Integrate stakeholders

Outcomes

- Project initiation order

5.3.2.30 Manage and control initiation

Purpose

The project organization is not yet fully defined in the initiation phase. Nevertheless, those involved are appointed and managed so that they can perform their tasks.

Basic idea

To carry out this task, the project sponsor appoints a project manager for the initiation phase. This project manager does not necessarily have to cover project management for the following phases.

The project manager performs all project management activities that are necessary for successful project initiation. If necessary, the project manager is guided by the project management tasks described in the following phases.

The project manager and project sponsor identify and analyze the stakeholders.

TASKS

The project manager issues work orders, leads and supports those involved in the project, monitors progress and coordinates the interdependencies concerning the work to be done. Information on the project status and forecasts is supplied to project steering by means of reporting. Reporting ensures formally standardized information between project management, project steering and other bodies.

HERMES-specific

The project initiation order is the plan for the initiation phase. It forms the basis for the management and control of the project. The outcomes defined in the project initiation order and the activities are fleshed out with work orders.

There is no formal change management in the initiation phase, as the project objectives and outcomes have not yet been defined. If there are changes relative to the project initiation order that affect the outcome, outlay or deadline, the project sponsor decides on them.

Activities

- Hold kick-off meeting with all parties involved
- Provide infrastructure
- Plan and commission the initiation tasks, outcomes and resources, and monitor progress (including QA measures and risks)
- Create stakeholder list
- Perform stakeholder analysis and prepare stakeholder interests
- Inform project sponsors and other authorized stakeholders
- Determine framework conditions and specifications for reporting
- Draw up project status reports according to the specifications and prepare, conduct and post-process meetings, and take minutes; record decisions
- Continually coordinate project progress and important findings with the project sponsor
- Manage project staff and ensure goal orientation
- Issue work orders and ensure a common understanding of procedures and outcomes
- Coordinate the interdependencies between orders
- Check progress by comparing actual values with planned values and making forecasts
- Analyze deviations from what was planned and initiate measures
- Have changes relative to the project initiation order approved by the project sponsor

Outcomes

- Work order
- Project status report
- Minutes
- Stakeholder list
- Stakeholder interests

5.3.2.31 Design an integration concept

Purpose

The design of the integration concept creates the basis for integration into the peripheral IT systems and the various operating platforms.

Basic idea

Integration must be designed so that the system can be integrated into the target environment.

HERMES-specific

The IT integration defined in the system architecture is further specified. The interfaces with peripheral IT systems and the transfer from one operating environment (e.g. development, test, integration, training) to another are specified.

System integration is planned and recorded in the integration concept.

If an IT system is procured, the final integration concept design is based on the procurement decision.

Activities

- Define system integration into the peripheral systems, create specifications for the interfaces and record them in the integration concept
- Determine integration into the operating platforms
- Design the transfer of software, data, etc. between operating platforms
- Create an integration plan and record it in the integration concept
- Verify the integration concept with prototypes (test installations) if necessary
- Coordinate the integration concept with stakeholders

Outcomes

- Integration concept

5.3.2.32 Design ISDP concept

Purpose

The ISDP concept creates the prerequisites for ensuring information security and data protection.

Basic idea

The ISDP concept completes the information security and data protection requirements. It includes a detailed risk analysis. The protection measures are defined.

HERMES-specific

The ISDP concept must be handled in accordance with the information protection requirements (especially if it is classified as CONFIDENTIAL or SECRET, it may be stored only in encrypted form).

TASKS

Activities

- Create a system description with the security-related components
- Create a risk analysis, show how risks are addressed with overarching concepts and identify residual risks
- Create the emergency concept and processing regulations, and record them in the ISDP concept
- Coordinate the ISDP concept with the controlling and compliance bodies

Outcomes

- ISDP concept

5.3.2.33   Transfer ISDP concept

Purpose

The ISDP concept is updated and reviewed by the controlling and compliance body. This is a prerequisite for the decision to launch operation. It is transferred from the project organization to the core organization.

Basic idea

The project sponsor must be able to identify with the updated and checked ISDP concept, approve it and support it externally, as well as accept the restrictions.

HERMES-specific

With the decision to launch operation, the project sponsor assumes responsibility for the operating risks. The ISDP concept is approved by the core organization's executive board, which accepts the residual ISDP risks with its approval.

Activities

- Update the implementation status in the ISDP concept
- Update the residual risk assessment in the ISDP concept
- Have the ISDP concept checked by the competent controlling and compliance body and get feedback
- Get approval for the ISDP concept with the residual risks from the project sponsor and the core organization's executive board

Outcomes

- ISDP concept
- Checklist

5.3.2.34   Implement ISDP concept

Purpose

The protection measures defined in the ISDP concept are implemented. Implementation is a prerequisite for testing the IT system.

The implementation of the ISDP concept creates the prerequisites for the testing of the IT system and for its operation.

HERMES-specific

The protection measures defined in the ISDP concept are implemented in the corresponding modules, e.g. business organization and IT system.

In the deployment organization module, the implementation of the technical protection measures is verified for preliminary acceptance before the deployment phase is released (with the decide on preliminary acceptance task).

Activities

- Accompany the implementation of the protection measures
- Document the implementation status in the ISDP concept
- Update the residual risk assessment in the ISDP concept
- Get approval for the ISDP concept with the residual risks from the project sponsor

Outcomes

- ISDP measures
- ISDP concept

5.3.2.35   Agree on and steer goods/services

Purpose

The service level agreement creates a clearly regulated relationship between the project partners as well as between the project organization and the core organization. Deviations during the provision of goods/services are identified and dealt with. Comprehensive procurements that require a call for tenders (e.g. a public tender) are carried out with the procurement module.

Basic idea

The project acquires various internal and external goods/services which must be agreed and steered. Goods/services acquired by the project include, for example, employee services (personnel resources), premises, IT resources, training, etc.

The need for goods/services is identified and analyzed. Based on this, quotes are obtained and agreements concluded.

The goods/services are periodically checked for compliance with the planning and agreements.

HERMES-specific

Five cases are distinguished. This task deals with the first four cases, while the fifth case is dealt with by the procurement module:

1. Procurement of internal goods/services without cost allocation
2. Procurement of internal goods/services with cost allocation

TASKS

3. Procurement of external goods/services: negotiated procedure (with several offers)
4. Procurement of external goods/services: invitation procedure (with several offers and additional evaluation report)
5. Procurement of external goods/services: open or selective procedure, publication (see procurement module)

The first four cases are dealt with as follows:

- Case 1 and case 2
  The procurement of internal goods/services of the core organization (i.e. without jurisdiction in the event of a dispute) is regulated with project agreements and SLAs.
  The project agreement regulates the goods/services for project execution. The SLA regulates the operation of the system. A service level agreement may also be required for operation during the project phases.
- Case 3
  The procurement of external goods/services with a negotiated procedure is regulated by means of requests for quotes, contracts and SLAs.
- Case 4
  The procurement of external goods/services with an invitation procedure is regulated by means of requests for quotes, contracts and SLAs. With the invitation procedure, an evaluation report is prepared for evaluating the offers.

Project agreements, SLAs and contracts are drawn up according to the specifications of the core organization. HERMES generally refers to these outcomes as an agreement.

During and upon completion of the provision of goods/services, a performance assessment is carried out and discussed with the project partners. It forms the basis for any steering measures. Deviations from the agreed goods/services or from the required needs are analyzed and dealt with in the lead change management task. Changes are initiated in good time to ensure compliance with the requirements (e.g. the legal basis). Significant problems are solved via the deal with problems and benefit from experience task.

Activities

- Establish the required role profiles (skills requirements) and the capacity requirement for human resources based on the planned tasks and outcomes, and record them as a needs requirement
- Determine the need for required infrastructure (rooms, hardware, software, means of communication, etc.)
- Draft internal project agreements and SLAs
- Create requests for quotes for external goods/services, obtain and evaluate quotes. In the case of the invitation procedure, produce an evaluation report
- Coordinate agreements with the controlling and compliance bodies and/or have them checked by them before concluding the agreements
- Assess goods/services during and upon completion of the provision of goods/services

Outcomes

- Quote request
- Evaluation report
- Agreement

5.3.2.36   Conduct migration

Purpose

The migration from the old system to the new system is carried out.

Basic idea

The migration is carried out using the selected migration procedures. After migration, the quality of the migration is checked. Any necessary adjustments are made.

HERMES-specific

Successful migration is the prerequisite for migration acceptance.

Activities

- Conduct migration with the migration procedures according to the migration concept
- Implement quality assurance measures
- Make necessary adjustments

Outcomes

- Migration carried out

5.3.2.37   Design a migration concept

Purpose

The migration concept forms the basis for the transfer of the old system to the new system and the decommissioning of the legacy system.

Basic idea

The focus of the migration of IT systems is on the migration of data. Migrations can be technical (automatic) or organizational (manual).

The migration concept takes into account the quantities, frequencies and quality of the data in the legacy system and its integration into the target system. Possible migration scenarios are analyzed and evaluated so that the appropriate migration procedures can be determined.

Migration considerations include aspects of the feasibility, cost-effectiveness, quality and timing of a migration.

With data migration, the issues of legacy data archiving and system decommissioning must also be addressed. Data security and data protection aspects are taken into account.

TASKS

The deployment strategy in the deployment concept determines the migration strategy (e.g. phased deployment requires a step-by-step migration).

- Analyze the IT system and data
- Design a migration concept based on the deployment concept
- Check the impact on the deployment concept
- Design the decommissioning of the legacy system and clarify data archiving if necessary
- Review feasibility
- Coordinate the migration concept with the stakeholders

Outcomes

- Migration concept

5.3.2.38 Realize migration procedure

Purpose

The migration procedures are realized to such an extent that migration to the productive system can be carried out.

Basic idea

Different realization steps are carried out depending on the process.

HERMES-specific

The detailed specifications are developed on the basis of the migration concept. Migration quality has a major influence on the launch of the new IT system. Accordingly, quality assurance measures are of key importance. The migration procedures are tested according to the test concept. This is done with the testing module.

Activities

- Create detailed specifications for migration and decommissioning of the legacy system
- Consider specifications regarding archiving, data security and data protection
- Realize migration procedure
- Document migration procedure (e.g. with checklist)
- Review the migration procedure with the testing module

Outcomes

- Detailed specifications
- Migration procedure

TASKS

5.3.2.39 Prepare phase release

Purpose

To enable the phase release to be given, the outcomes are summarized for the decision-makers and the next phase is planned.

Basic idea

At the end of a project phase, a decision is made on how the project is to proceed. For this purpose, the information required for decision-making is prepared for the decision-makers.

HERMES-specific

The overall project planning is reviewed and the detailed planning for the next phase is prepared. The project management plan is updated.

Planning accuracy increases continuously over the course of the project thanks to in-depth knowledge of the project and the expected outcomes.

The project phase report with the requests is compiled. It forms the basis for the project sponsor's decision on the release of the next phase.

Activities

- Plan the next phase in detail
- Update the project management plan and coordinate it with all parties involved as well as with the controlling and compliance bodies
- Update the project status report as an appendix to the phase report
- Create further prerequisites for phase release (e.g. ensuring adapted project organization and availability of resources)
- Summarize the outcomes of project progress in a phase report
- Submit requests for the acceptance of outcomes, next steps, the resources to be released, etc.
- Arrange for project steering decisions to be made

Outcomes

- Project management plan
- Project status report
- Phase report

5.3.2.40 Deal with problems and benefit from experience

Purpose

The step-by-step processing of problems helps to achieve the objectives. Learning from experience supports continual improvement within the project and the core organization.

TASKS

Basic idea

Identifying and solving problems at an early stage is an important prerequisite for achieving milestones and project objectives. If the person working on the problem cannot solve it or cannot solve it in time, the problem is escalated immediately within the project organization.

The lessons learned from solving problems are useful as a pool of experience as the project progresses and also for other projects. The pool of experience and its use is part of a continual improvement process in the project and in the core organization. This does not take place only at the end of the project.

HERMES-specific

The escalation process is regulated project-specifically in the project management plan. The lessons learned are pooled in the outcome referred to as project lessons learned. Evaluating the lessons learned is a team task.

The experience gained and the measures identified for solving problems are incorporated into the tasks manage and control project and prepare phase release.

Activities

- Identify and evaluate problems
- Define measures and monitor their implementation
- Initiate and manage escalations and implement de-escalation measures
- Inform those involved about the solution
- Regularly analyze the lessons learned from the project's progression and problem situations, and identify improvement measures for further project execution
- Continually document the lessons learned in the outcome referred to as project lessons learned and pass them on to the core organization

Outcomes

- Lessons learned

5.3.2.41   Keep a product backlog

Purpose

The development tasks are steered via the product backlog.

Basic idea

The product backlog is created based on system requirements, detailed studies and the system architecture. It contains all the requirements that the developers realize.

The product backlog is continuously updated and prioritized.

Requirements newly included in the product backlog and those that no longer apply are monitored by the project management of the developer and the user via change management.

Any major change in the scope or content of the project must be agreed with the project sponsor.

Activities

- Create a product backlog
- Prioritize requirements
- Analyze the effects of prioritization on the achievement of the project objectives
- Steer new requirements and those that no longer apply by means of the project managers' change management
- Monitor the project scope and content

Outcomes

- Product backlog

5.3.2.42 Activate product

Purpose

The product is activated. The user uses the product.

Basic idea

The developer activates the product so that the user can use it productively.

HERMES-specific

After the decision to launch operation in the deployment organization module, the product is activated by the developer and then used by users.

Users and operators are actively supported by the developer during the initial utilization period.

In the case of smooth utilization according to the product concept, the acceptance decision is made (in the deployment organization module).

Activities

- Inform stakeholders at an early stage
- Activate product
- Support the project organization during the initial utilization period
- Analyze problems that arise and take or propose measures
- If necessary, analyze and implement stabilization measures

Outcomes

- Product activated

TASKS

5.3.2.43   Realize product

Purpose

The product is realized to such an extent that it meets the defined quality characteristics and can be deployed.

Basic idea

Based on the product concept, all elements relevant for utilization are realized or made available. The product documentation and the user manual are produced.

Before handing over to the user, the quality of the product and documentation is checked.

HERMES-specific

HERMES does not describe how the actual product is realized. This is highly dependent on the product.

The testing module can be used for quality assurance.

In the deployment organization module, the product is checked for preliminary acceptance before the deployment phase is released (with the decide on preliminary acceptance task).

Activities
* Realize product
* Produce product documentation
* Produce user manual
* Prepare and implement quality assurance measures

Outcomes
* Product realized
* Product documentation
* User manual

5.3.2.44   Design a product concept

Purpose

The product is described, and the procedure for its realization is defined.

Basic idea

The option chosen in the initiation phase is fleshed out. The product concept is designed for this purpose.

HERMES-specific

The product concept fleshes out the requirements and the description of the chosen option in the form of specifications. The product concept is designed in sufficient detail in terms of content and planning to form a reliable basis for the realization (development or procurement) of the product.

The product concept forms the basis for product acceptance as the project progresses.

- Fine-tune requirements based on the option chosen
- Flesh out the description of the selected option in the product concept
- Coordinate the product concept with the stakeholders

Outcomes
- Product concept

5.3.2.45   Manage and control project

Purpose

Throughout the project, those involved in the project are appointed and managed so that they can perform their tasks. The project's progress is continuously reviewed and the planning updated.

Basic idea

The management and control of the project are based on the project planning. The planning describes how the objectives will be achieved (target) and shows the current project status (actual) as well as the future development (forecast).

The project manager issues work orders, leads and supports those involved in the project and coordinates the interdependencies concerning the work to be done.

The tasks and outcomes defined in the planning are fleshed out with work orders. This makes the work processes transparent, the planning is continually fine-tuned and the risk of misunderstandings is reduced.

The project's progress is periodically checked on the basis of the planning and the work orders. Actual project status data is gathered and compared with the planning. The outlay, costs and deadlines for the next steps of the project are estimated and portrayed in the planning as a forecast. In the event of actual or predicted deviations from the planning, the project manager takes measures to ensure that the objectives are achieved. The impact of the measures is continuously assessed.

Information on the project status and forecasts is supplied to project steering by means of reporting.

Reporting ensures formally standardized information between project management, project steering and other bodies.

HERMES-specific

Information on project management and control is recorded in the project management plan.

TASKS

Reporting is regulated in the project management plan. It consists of reports and project meetings. Minutes include the project status report and the phase report. Further reports are required depending on the specifications of the core organization.

The work orders are assigned in advance to the responsible project team members based on the roles.

If significant project changes are required, they are handled in the change management task.

Detailed planning for the next phase is carried out with the task prepare phase release.

Activities

- Hold kick-off meeting with everyone involved and create a project culture
- Determine framework conditions and specifications for reporting
- Define reporting with reports and project meetings in the project management plan and agree with the project sponsor
- Draw up project status reports according to the specifications and prepare, conduct and post-process meetings, and take minutes; record decisions
- Continually coordinate project progress and important findings with the project sponsor
- Manage project staff and ensure goal orientation
- Issue work orders and ensure a common understanding of procedures and outcomes
- Coordinate the interdependencies between orders
- Check progress by comparing actual values with planned values and making forecasts
- Analyze deviations from what was planned and initiate measures
- Continually update project management plan

Outcomes

- Project management plan
- Work order
- Project status report
- Minutes

5.3.2.46   Steer project

Purpose

Project steering and decision-making are prerequisite for the project's success.

Basic idea

The project sponsor steers the project and is responsible for the project's success. He is supported in his task by the other project steering roles. If it becomes apparent that the project's success cannot be achieved, the project sponsor orders the termination of the project.

The persons responsible for steering regularly monitor progress in order to ensure that project deviations are identified at an early stage and to ensure the project's success.

The persons responsible for steering carry out risk management from a management perspective and decide on measures.

To ensure that the project is carried out efficiently, the project sponsor makes rapid decisions. He plans and steers the decision-making processes in cooperation with the project manager and, if necessary, with other parties. He includes the decision-makers in the project.

Problems that cannot be solved by project management are escalated to project steering. Project steering treats these with the necessary priority and urgency.

HERMES-specific

The project sponsor defines the project reporting requirements and checks progress based on the project management plan and the project status report of the project manager.

He decides on significant measures and related adjustments to the project management plan, change requests and risk-reduction measures.

Activities

- Check progress
  o Request project management plan and project status report
  o Carry out target/actual comparisons, assess forecasts, analyze deviations and identify the need for action
  o Take measures
- Risk management
  o Add further risks identified to the project and business risks in the project status report
  o Analyze risks
  o Decide on measures
  o Check the implementation of measures and their impact
  o Arrange for independent controlling, QA and risk management and/or project reviews and audits to be carried out
- Decisions
  o Plan and steer decision-making processes
  o Make, communicate and enforce project decisions
  o Integrate stakeholders
  o Make change request decisions
  o Handle escalation

Outcomes

- QA and risk report
- Project decision steering

TASKS

5.3.2.47   Prepare project closure

Purpose

The preparation of project closure creates the prerequisite for dissolving the project organization and completing the project.

Basic idea

Document storage is purged and the project documentation is transferred to the core organization.

Project execution and the outcomes are evaluated.

To review the success of the project, it is necessary to check sometime after project closure whether the expected effect has been achieved in the project sponsor's view. This includes an in-depth review of the achievement of objectives or a post calculation, for example.

All pending items arising from the project are transferred to those responsible in the core organization.

HERMES-specific

The documentation of the lessons learned from the project is completed. The final project evaluation is compiled.

Activities

- Purge document storage
- Transfer the system documentation relevant for operation, maintenance and further development to the core organization and archive the project execution documentation (project plans, minutes, contracts, phase reports, etc.) in accordance with the storage regulations of the core organization
- Return unrequired resources (infrastructure, etc.) to the core organization
- Revoke access rights granted specifically for the project
- Finalize expense recording systems, project accounts, reporting, etc.
- Compile final project evaluation
- Finalize the lessons learned from the project and hand them over to the core organization
- Determine what is to be investigated in the context of project success monitoring, what measures are to be envisaged for this purpose and who will carry them out
- Transfer to the core organization as a pending item
- Transfer pending items arising from the project to those responsible in the core organization.

Outcomes

- Lessons learned
- Final project evaluation

5.3.2.48 Draw up project order

Purpose

Drawing up the project order creates the prerequisites for making the decision to release the project.

Basic idea

The project order is the binding agreement between the project sponsor and the project manager for project execution. It is based on comprehensible project planning. Based on the project order drawn up, the project sponsor checks whether the project serves the objectives of the organization and whether the necessary resources can be released.

The information required for higher-level project steering and prioritization of an organization's projects is compiled in accordance with the organization-specific requirements.

HERMES-specific

The stakeholder list and the study with the option decision form the basis for drawing up the project management plan and creating the project order. The project order and project management plan are a prerequisite for project steering and control by the project sponsor and the coordination of the project with the strategies and objectives of the core organization.

The project management plan forms the basis for the management and control of the project by the project management.

A master plan is created according to the principle of rolling planning, and the concept phase is planned in detail. At the end of each phase, the next phase is planned in detail and the master plan is reviewed. This is done with the task prepare phase release.

Activities

- Draw up project management plan
- Incorporate relevant outcomes from the study and project management plan in the project order
- Verify the project order with the project sponsor and stakeholders, including the project partners and controlling and compliance bodies

Outcomes

- Project management plan
- Project order

5.3.2.49 Realize prototype

Purpose

A prototype is used to check feasibility (also called proof of concept), specific system behavior or a system feature.

TASKS

Basic idea

The realization of a prototype is a risk-reduction measure. Depending on the project situation, prototyping can occur in different phases, once or more times. A prototype can be reusable or disposable. Depending on the findings, the next steps are determined.

HERMES-specific

The objectives, the concept and the outcomes of the prototype are recorded in the prototype documentation.

The prototype is developed and the prototyping outcomes are evaluated.

Activities

- Develop the objectives, concept and methodology for the prototype
- Realize prototype
- Evaluate prototype
- Document outcomes and conclusions, and incorporate them into further planning
- Destroy prototype or ensure reusability

Outcomes

- Prototype realized
- Prototype documentation

5.3.2.50   Perform quality assurance

Purpose

Quality assurance ensures that the outcomes are of the required quality throughout the project.

Basic idea

In principle, quality assurance makes a distinction between "checking" and "testing":

Checking includes the content-related and formal review of outcomes (documents) and compliance with agreed processes/tasks

Testing includes verifying the fulfilment of system requirements and the applicability of the processes to the current system

The quality of an outcome becomes evident during development. Several QA measures are often carried out during development in order to ensure the required quality.

Checking or testing at the end of the development process is used for the acceptance or approval of an outcome and confirms that the quality requirements for the outcome have been met.

HERMES-specific

The quality assurance task includes checking. Testing is the subject of the testing module.

The procedures for checking outcomes such as consultations, reviews, audits, etc. are described in the project management plan. It also contains the review plan with the outcomes and their review procedures.

The reviews are listed as activities in the work order for the preparation of the corresponding outcome.

The outcomes of a review are recorded in the review report.

The project sponsor can ask the project management to carry out quality assurance. To this end, he appoints an independent body that reports directly to him. This measure is performed in the project steering module with the steer project task.

Activities

- Set quality objectives for the project phase and the overall project in the project management plan
- Define a review procedure for the outcomes and processes/tasks and record it in the review plan as part of the project management plan
- Record the review procedure and procedures in the work order and ensure that there is uniform understanding among all project participants
- Carry out reviews and record the outcomes in the review report
- Evaluate the fitness for purpose of quality assurance and make adjustments if necessary

Outcomes

- Project management plan
- Review report

5.3.2.51 Analyze the legal basis

Purpose

Analysis of the legal basis ensures that the legal requirements for the project are met or that the measures are defined in such a way that they can be created.

Basic idea

The legal basis must be complied with in every project. It constitutes an immovable restriction for a project.

HERMES-specific

Project management ensures that the existence of a sufficient legal basis is clarified.

To this end, contact is made with the competent body (usually legal services or another unit responsible for legislative matters). In the absence of a sufficient legal basis, it is necessary – again in cooperation with the competent bodies – to clarify whether and how the necessary adjustments to the legal basis can be made.

The findings from the legal basis analysis are incorporated into the study.

TASKS

Activities

- Document the existing legal basis with regard to the future system
- Analyze imminent changes to the existing legal basis
- Identify possible gaps in the legal basis and work out proposals to fill the gaps with the competent bodies.
- Assess the impact on the study and project execution
- Coordinate the legal basis analysis with the stakeholders

Outcomes

- Legal basis analysis

5.3.2.52   Design release plan

Purpose

The release plan creates the prerequisites for coordinating activities in connection with releases with the affected bodies.

Basic idea

The release plan consists of several sprints and defines when delivery to the user takes place.

HERMES-specific

The release plan is designed based on the product backlog. It is coordinated with the project management plan.

Activities

- Design release plan
- Coordinate the release plan with stakeholders

Outcomes

- Release plan

5.3.2.53   Manage risks

Purpose

Risk management identifies risks at an early stage and defines measures to ensure success.

Basic idea

Risks are future events that pose a problem if they occur. Project risks concern the course of the project. Operating risks affect the utilization of the project outcomes.

Risks are identified and analyzed. Depending on the significance of a risk, the strategy and measures for dealing with the risk are defined.

An in-depth risk assessment takes place at the end of each phase so that a decision on the release of the next phase can be made. The risk assessment is recorded in the phase report.

Risk management is documented in two outcomes: the project management plan describes how risk management is carried out and the project status report contains the effective risks.

The project sponsor can commission overarching risk management of the project. To this end, he appoints an independent body that reports directly to him. This measure is performed in the project steering module with the steer project task.

Activities

- Obtain information about the project and its environment
- Define the risk management process and risk assessment metrics in the project management plan
- Identify risks and group them into risk areas; analyze risks and assess their probability of occurrence and the extent of damage, and document this in the project status report
- Define the strategy (e.g. avoidance, reduction, outsourcing, acceptance of the risk) for each risk in the project status report and define, commission and monitor the measures.
- Periodically communicate the assessment of the risk situation to the relevant bodies and persons using the project status report

Outcomes

- Project management plan
- Project status report

5.3.2.54 Analyze protection needs

Purpose

The protection needs analysis determines the information security and data protection requirements.

Basic idea

A protection needs analysis is to be conducted for each IT project. This ensures that IT security is taken into account from the start.

HERMES-specific

If the protection needs analysis shows that enhanced protection is necessary, an in-depth risk analysis must be carried out and an information security and data protection concept (ISDP concept) must be prepared.

This is done with the information security and data protection module. The findings from the protection needs analysis are incorporated into the study.

TASKS

- Conduct a protection needs analysis
- Analyze information security and data protection requirements and assess the impact on the study and project execution
- Coordinate protection needs analysis with the controlling and compliance bodies

Outcomes

- Protection needs analysis

5.3.2.55 Introduce SCRUM

Purpose

The introduction of SCRUM determines how and with what resources agile development takes place. The human, methodological and technical prerequisites are created.

Basic idea

SCRUM is described in the SCRUM Guide™ as "lightweight, simple to understand, difficult to master". For SCRUM to be used successfully, its introduction must be planned and managed throughout.

HERMES-specific

The introduction of SCRUM has a clear start and a clear end. At the end of the introduction of SCRUM, the achievement of the introduction objectives is checked. If this is not the case, the causes are determined and measures are decided. One possible option is to terminate the introduction of agile development using SCRUM.

The introduction is planned and implemented. First sprints are conducted and experience is gained.

The decision about the system architecture must be made before the start of the actual development.

If development takes place already in the concept phase, this must be planned accordingly and taken into account in the project management plan.

Investments in development during the concept phase (e.g. for the architecture feasibility study) must not result in the phase concept not being completed and implementation largely taking place during the concept phase.

Activities

- Make agreements for the use of SCRUM and record them in the project management plan, e.g.:
  - Length of sprints
  - Definition of done
  - Assignment of SCRUM roles
  - Regulation of change management in HERMES
- Introduce instruments/tools
- Establish estimation procedure and estimate outlay

- Conduct first sprints
- Gain experience and implement improvements
- Conduct evaluation after SCRUM has been introduced and decide on the next steps

Outcomes

- Project management plan

5.3.2.56   Conduct sprints

Purpose

Conducting a sprint leads to an agreed, concrete and verifiable outcome.

Basic idea

A sprint includes all planning, realization and coordination activities over a fixed period of time. They are formally defined in SCRUM as events and include Sprint Planning, Daily SCRUM, Sprint Review and Sprint Retrospective.

The planned outcome of a sprint is documented in the sprint backlog.

At the end of a sprint, there is an increment that has the attribute of an executable product, regardless of whether or not it is delivered to the user as a release.

HERMES-specific

The sprints are planned as a whole in the release plan.

The project management assigns responsibility for the execution of a sprint to the SCRUM team. The SCRUM team organizes itself and adheres to the defined agreements of the agile working methods documented in the project management plan.

Activities

- Plan sprint and document in the sprint backlog
- Develop increment and conduct Daily SCRUM
- Conduct Sprint Review: prepare and give a presentation of the increment and test it according to the test concept
- Conduct a Sprint Retrospective and document lessons learned in a minutes

Outcomes

- Sprint backlog
- Increment
- Minutes

TASKS

5.3.2.57   Manage stakeholders and communication

Purpose

Stakeholder management consists of analyzing interests and establishing measures to ensure the project's success. Communication ensures the flow of information between those involved in the project and from the project to its environment. This also includes project marketing.

Basic idea

The interests and expectations of stakeholders are analyzed. Different interests and expectations can lead to significant conflicts that jeopardize the project's success. They have to be settled. Decision-making processes are planned and decisions prepared as part of stakeholder management.

The communication objectives and measures are planned and/or implemented, and their impact is regularly reviewed. Communication takes target groups and stakeholder interests into account.

HERMES-specific

The communication plan is part of the project management plan.

The stakeholder list and stakeholder interests are created for the first time in the initiation phase and are continually pursued in the course of the project. The analysis of stakeholder interests is a subjective assessment by the project manager and not a public outcome, but stakeholder interests are still needed for communication.

Activities

- Determine framework conditions and specifications for communication
- Identify and analyze new stakeholders, update stakeholder list and stakeholder interests, perform continuous stakeholder management
- Define communication objectives, plan communication measures and coordinate them with the project sponsor; implement measures and measure impact; continually update the communication plan in the project management plan
- Create decision planning, coordinate it with the project sponsor and integrate it into communication planning

Outcomes

- Project management plan
- Stakeholder list
- Stakeholder interests

5.3.2.58   Conduct a study

Purpose

The objectives, rough requirements and options are established with the study. The study forms the basis for the option decision.

Basic idea

A project must be in line with the strategy and objectives of the organization. It must take account of the framework conditions and its economic efficiency must be ensured.

The study is fleshed out to such an extent that appropriate planning accuracy for deadlines, costs and outlay is achieved. It must be possible to assess the risks and economic efficiency comprehensively.

HERMES-specific

The study is conducted to create a project order.

The objectives and requirements form the basis for developing different options. The objectives are finalized. The requirements are described in such a way that the project content and scope are clear and the evaluation criteria can be defined. The requirements are fleshed out as the project progresses further.

The options are described in the study on the basis of the objectives and requirements. Typical options include customized development on the one hand and the procurement of a solution available on the market on the other.

Information from the market environment is used to develop the options. The options are described in sufficient detail for them to be evaluated. The evaluation criteria are defined for evaluating the options. These include the degree of objective achievement, coverage of requirements and other evaluation criteria such as compliance with the specifications, feasibility, risks and benefits.

The evaluation is comprehensibly documented and shows the current state of knowledge when the decision is made.

The study corresponds to the business case and shows the business benefit and how it is related to the strategy and objectives of the core organization.

Activities
- Analyze the situation and record the findings in the study
- Develop objectives and requirements, coordinate them with stakeholders and include them in the study
- Identify conflicts of interest and resolve them with the project sponsor
- Carry out market surveys and collect information on possible solutions (products, services, etc.)
- Integrate the findings from the legal basis analysis and the protection needs analysis into the study
- Describe options
- Determine evaluation criteria and their weighting
- Evaluate options based on the evaluation criteria
- Assess the impact of the option choice on the project
- Complete the study
- Coordinate the study with the project sponsor and stakeholders, including the controlling and compliance bodies

TASKS

Outcomes
- Study

5.3.2.59 Activate system

Purpose

The integrated system is activated. The user uses the system.

Basic idea

The developer activates the system so that the user can use it productively.

HERMES-specific

After the decision to launch operation in the deployment organization module, the system is activated by the developer and then used by users.

Users and operators are actively supported by the developer during the initial utilization period.

In the case of smooth utilization, the acceptance decision is made (in the deployment organization module).

Activities
- Activate system
- Provide support during the initial utilization period
- Analyze problems that arise and define and decide on measures (bug-fixing)
- If necessary, take stabilization measures

Outcomes
- System activated

5.3.2.60 Integrate system in operation

Purpose

The integration of the system into the operating infrastructure creates the prerequisites for carrying out the tests.

Basic idea

The system realized is integrated into the operating infrastructure technically and organizationally.

HERMES-specific

Based on the system integration concept, the system is integrated into the operating infrastructure. The links to peripheral systems are activated.

Several integration steps are carried out. They are defined in the integration plan in the integration and installation instructions outcome.

- Carry out and document integration steps according to the integration and installation instructions
- Perform tests according to the test concept
- Implement and ensure transition from one operating platform (e.g. development, testing, training, production) to another
- Document lessons learned from the integration process in the operating manual for later maintenance and further development

Outcomes

- Operating manual
- System integrated

5.3.2.61 Realize system

Purpose

The system is realized to the point where it meets the system requirements and is ready for integration.

Basic idea

The detailed specifications are created based on the system requirements and the system architecture. The system is realized:
- When a system is procured, the system is parameterized and system enhancements are developed.
- The system is developed with the customized development of a system.

HERMES-specific

The developer tests the system during realization before the first delivery to the user and operator.

Tests after the first delivery are supported by the testing module. The documentation compiled so far (system architecture, detailed study, etc.) is updated and the user manual is produced.

Activities

- Create detailed specifications
- Realize system
- Arrange for quality assurance and testing to be conducted by developer
- Update documentation
- Produce user manual
- Update system architecture

Outcomes

- System developed or parameterized
- System architecture
- User manual
- Detailed specifications

TASKS

5.3.2.62   Prepare system integration

Purpose

System integration is prepared by the developer to enable the operator to integrate the system into the operating environment.

Basic idea

The detailed specifications needed for integration are prepared.

HERMES-specific

Based on the integration concept, interfaces with peripheral systems and necessary adjustments to peripheral systems are realized.

Integration into the operating environment is prepared on the basis of the operating concept and the operator's specifications. The integration and installation instructions are drawn up.

Activities

- Create detailed specifications
- Develop interfaces
- Coordinate adjustments to peripheral systems
- Prepare integration into the operating environment
- Produce integration and installation instructions
- Update system architecture

Outcomes

- Interfaces realized
- System architecture
- Integration and installation instructions
- Detailed specifications

5.3.2.63   Design a system concept

Purpose

The system requirements and system architecture are compiled with the system concept. They form the basis for the procurement or realization of the system.

Basic idea

The following outcomes are produced:

- The situation analysis is more in-depth than the study analysis.
- The system requirements substantiate the requirements resulting from the study.
- The system architecture describes the IT system with its components and structure (architecture), as well as the interfaces with peripheral systems. The system architecture also describes the relationship between the IT architecture and the business processes.
- Detailed studies supplement the system architecture. They describe solution concepts for specific issues (e.g. user administration and access rights, archiving).

Options are established and evaluated in this task. The options selected are combined in the system architecture to form a comprehensive solution.

System requirements and the system architecture are designed in sufficient detail in terms of content and planning that they form a reliable basis for the procurement or realization of the system. They are included in the project specifications and form the basis for the decision on acceptance.

The level of detail varies depending on the critical nature of a system element.

The system requirements are fleshed out further in the form of detailed specifications in the implementation phase.

The system architecture forms the basis for the system architecture decision. It is fleshed out further in the implementation phase.

Activities

- Critically question the framework conditions from the project order and analyze the influences on the project's success
- Check whether the situation analysis in the study was sufficiently comprehensive; if necessary, supplement it and go into more detail
- Flesh out requirements and document them as system requirements
- Create the system architecture
- Create detailed studies and integrate them into the system architecture or reference them as appendices
- If necessary, check the system architecture with prototypes (test installation)
- Coordinate the outcomes with the stakeholders

Outcomes

- Situation analysis
- System requirements
- Detailed study
- System architecture

5.3.2.64 Conduct test

Purpose

Tests are conducted to ensure that the system meets the stipulated requirements.

The tests are carried out and the test results are evaluated and recorded.

Basic idea

Testing is not carried out until the preliminary conditions have been met. Accordingly, the test infrastructure must have been released beforehand.

HERMES-specific

The tests are carried out according to the test case descriptions in the test concept. If necessary, they are further specified.

TASKS

The results of the tests are recorded and evaluated according to criteria defined in the test concept.

If necessary, the test is repeated several times until the quality criteria are met. Open issues from the tests and the next steps in this regard are established by binding agreement. The test plan in the test concept is continually updated.

In the deployment organization module, the test results are checked for preliminary acceptance before the deployment phase is released (with the decide on preliminary acceptance task).

Activities
- Check whether the test preliminary conditions are met to start the tests
- Perform tests according to the test concept
- Log the test results and evaluate them according to criteria in the test concept
- If necessary, correct defects and repeat tests
- Agree on how to deal with unresolved issues

Outcomes
- Test report
- Test concept

5.3.2.65 Realize test infrastructure

Purpose

A test infrastructure is provided before testing starts. It includes all elements necessary for test execution and the collection and evaluation of the test results.

Basic idea

The test infrastructure comprises the test system and test tools (e.g. test management system for collecting and evaluating the results) and, in a broader sense, the test data.

HERMES-specific

The test infrastructure is prepared in accordance with the responsibilities defined in the test concept. Quality assurance measures are used to check that the test infrastructure is ready and complete.

Activities
- Provide test infrastructure according to the test concept
- Ensure the quality of the test infrastructure
- Release the test infrastructure for testing

Outcomes
- Test system
- Test data

5.3.2.66 Design a test concept

Purpose

The test concept creates the prerequisites for the systematic and efficient organization and execution of the tests.

Basic idea

Testing solutions requires specific test management. This is described in the test concept.

The test concept with the test plan and test case descriptions is the basis on which the test organization and test infrastructure are provided and the tests are carried out.

HERMES-specific

The development of the test concept requires close cooperation between the user, developer and operator, as they all have to make essential contributions to the testing process. The test concept must be jointly accepted and then implemented.

Activities

- Establish quality features and requirements or, if already available, verify and record them in the test concept
- Define test objectives and test types, and record them in the test concept
- Prepare test objects, test organization, test case descriptions and test plan as part of the test concept
- Coordinate the test concept with the stakeholders

Outcomes

- Test concept

5.3.2.67 Transfer test concept and infrastructure

Purpose

After project closure, tests are carried out for corrections and further developments. Therefore, the test concept and test infrastructure are transferred to the operating organization.

Basic idea

The maintenance and further development of the IT system continue even after project completion. Consequently, the test infrastructure and concept have to remain available.

HERMES-specific

The test concept and test infrastructure are transferred after the start of operation and before project closure. They are transferred by the project organization to those responsible for operation and further development in the case of the user, developer and operator.

- Adjust the test concept with test case descriptions and test data or update it with findings from the tests
- Inform and train those responsible
- Carry out formal transfer
- Produce a transfer report

Outcomes

- Minutes

5.3.2.68   Draw up agreement

Purpose

The agreement is drawn up on the basis of the specifications, the draft contract, the general terms and conditions and the offer.

Basic idea

A project agreement, a contract or service level agreements (SLA) govern cooperation between different project participants such as the user (project sponsor), developer and operator and/or between different project phases.

HERMES-specific

This task is related to the agree on and steer goods/services task in the project management module. The contract is concluded with it and the goods/services are steered.

The agreement must be recorded in an IT-based contract management tool for contract execution. This tool can be used to store any further information (e.g. persons involved, deadlines, etc.) on the contract. After the agreement, the goods/services are periodically checked for compliance with the planning and agreements. HERMES uses the agree on and steer goods/services task to deal with this.

Activities

- Draw up agreement
- Have the core organization or controlling and compliance bodies review the agreement
- Ensure contract execution

Outcomes

- Agreement

6 Outcomes

6.1 Introduction

Outcomes are at the heart of HERMES. Outcomes are assigned to tasks and roles. Content-related outcomes are grouped into modules.

An outcome can be a document that was drafted on the basis of a document template such as a project order, a business process description.

However, an outcome can also be a new state of an existing outcome, e.g. "operating infrastructure realized" or "IT system activated".

In many cases, project outcomes are not only technical outcomes such as IT applications. The project outcome often also consists of trained users and the activated organization with its processes. This systemic point of view results in a comprehensive system consisting of several elements being activated at the end of the project.

Figure 24 shows the course of the project with sample outcomes.
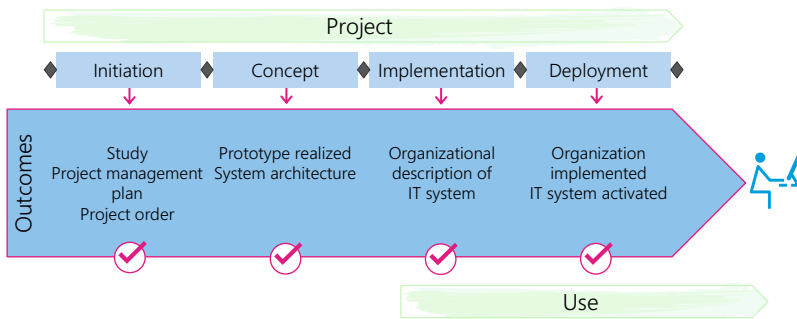
Figure 24:   **Possible course of the project with sample outcomes**

6.2 Outcome overview

HERMES defines the minimum outcomes required to meet governance requirements. The following table contains not only those outcomes that must be checked by the auditors, but also all those that must be produced in a module as a "must have". The minimum outcomes are the safeguards for ensuring the project's success. If a module is not relevant for the project, the minimum outcomes defined in it are also dropped.

The list of minimum outcomes reflects a general project situation without going into the special features of the individual projects.

The table shows the outcomes per module and the partners involved.

Module	Outcome	User	Developer	Operator
		* = minimum outcomes required		
Project steering	Checklist	X		
	Project order	X*		
	Project decision steering	X*	X*	X*
	Project initiation order	X*		
	QA and risk report	X		
Project management	Change request	X*	X*	
	Change status list	X*		
	Work order	X		
	Checklist	X		
	Evaluation report	X*		
	Quote request	X		
	Phase report	X*		
	Project order	X*		
	Project decision management & execution	X*		
	Lessons learned	X		
	Project management plan	X*		
	Final project evaluation	X*		
	Project status report	X*		
	Minutes	X		
	Review report	X		
	Stakeholder interests	X		
	Stakeholder list	X*	X*	
	Agreement	X		
Agile development	Checklist	X		
	Increment		X*	
	Product backlog	X*	X*	
	Project decision management & execution	X*		
	Project management plan	X*		
	Minutes	X		
	Release plan	X	X	X
	Sprint backlog	X*	X*	
Project foundations	Legal basis analysis	X*		
	Protection needs analysis	X*		
	Study	X*	X*	
Business organization	Business organization activated	X		
	Business organization concept	X*		
	Organization implemented	X		
	Organization description	X*		
	Process description	X*		
Product	User manual	X	X	
	Product activated			X

Module	Outcome	User	Developer	Operator
			* = minimum outcomes required	
	Product realized	X		
	Product documentation		X*	
	Product concept	X*		
IT system	User manual	X	X	
	Checklist	X		
	Detailed specifications	X	X	
	Detailed study	X	X	
	Integration and installation instructions			X
	Integration concept	X	X	X
	Project decision management & execution	X*		
	Prototype realized		X	
	Prototype documentation		X	
	Interfaces realized		X	
	Situation analysis	X	X	
	System activated	X	X	X
	System developed or parameterized		X	
	System requirements	X*	X*	
	System architecture		X*	X*
Procurement	Offer		X*	X*
	Tender documentation	X*		
	Checklist	X		
	Evaluation report	X*		
	Project decision steering	X*	X*	X*
	Project management plan	X*		
	Minutes	X		
	Publication	X*		
	Agreement	X		
Deployment organization	Acceptance report	X*	X*	X*
	Checklist	X		
	Deployment concept	X*	X*	
	Deployment measures carried out	X	X	
	Deployment measures and organization realized	X	X	
	Project decision management & execution	X*		
	Project decision steering	X*	X*	X*
Testing	Minutes	X		
	Test data	X	X	
	Test concept	X*	X*	X*
	Test report	X*	X*	X*
	Test system	X		
IT migration	Acceptance report	X*	X*	X*
	Legacy system decommissioned	X	X	X
	Checklist	X		
	Detailed specifications	X	X	

OUTCOMES

Module	Outcome	User	Developer	Operator
		* = minimum outcomes required		
IT operation	Migration carried out	X	X	X
	Migration concept	X*	X*	
	Migration procedure			X
	Project decision management & execution	X*		
	Operation activated	X	X	
	Operating manual			X*
	Operating infrastructure realized			X
	Operating concept	X*	X*	
	Operating organization realized	X		
	System integrated		X	
	Agreement	X		
Information security and data protection	Checklist	X		
	ISDP concept	X*	X*	X*
	ISDP measures	X*	X*	X*
	Project decision management & execution	X*		

Table 47:   Outcomes per module and partners involved

6.3   Outcome descriptions

6.3.1   Explanation regarding outcome description

For each outcome, there is a description of the outcome that is always structured in the same way:

- Description
  creates a fundamental understanding of the outcome
- Content
  describes the content of a document
- Relationships (only available online)
  shows how the outcome relates to modules, roles and tasks
- Document template (only available online)
  A document template is available for some outcomes. It elaborates on the outcome descriptions and is a concrete aid for the application of HERMES. The document templates can be adapted to the needs of the organization.
  There are two cases where no document templates are available:
  1. The outcome describes a state, e.g.
     o   Product realized
     o   Operation activated
  2. The document template is project-specific or prescribed by the core organization, e.g.
     o   User manual
     o   Agreements

6.3.2 Outcome directory

6.3.2.1 Acceptance report

Description

The acceptance report documents compliance with the agreement with regard to product/system features and existing defects. It is a legally binding document.

Content

- Item being accepted
- Those involved in acceptance
- Basis
- Acceptance procedure
- Acceptance criteria with defect categories
- Delivery outcomes and defects, incl.
  - Measures
  - Responsibilities
  - Deadlines
- Acceptance outcome
- Signature

6.3.2.2 Legacy system decommissioned

Description

The legacy system is decommissioned in accordance with the specifications. The decommissioning also includes the destruction or archiving of data.

6.3.2.3 Change request

Description

The change request forms the basis for a change. It includes the description of the change to be made, as well as the actual request, the procedure for making the change, and the proposed solution for implementing the change. The change request acts as a requirement to be met and specifies the change to be made in detail.

Content

- Identification of change request and requester
- Description of the change
- Information on execution
- Proposed solution
- Impact assessment
  - Outlay
  - Costs
  - Deadline
  - Risks

6.3.2.4 Change status list

Description

The change status list is used to monitor change requests. It provides an overview of the change requests submitted, their processing status and – if the changes are made – the status of the changes.

Content

For each change request submitted:

- Change request no.
- Requester
- Date of request
- Decision maker
- Status of the change
- Change date
- Person responsible for the change
- Outlay
- Costs

In addition:

- Total outlay and costs for all approved change requests

6.3.2.5 Offer

Description

The offer specifies the service or product proposed by the developer/operator. The offer also includes all commercial elements such as outlay, costs, warranties, guarantees, rights to outcomes, etc. The offer describes the processes and procedures for the provision of the goods/services and/or for the installation and integration of products/systems.

Content

The structure of the offer is based on the purchaser's specifications.

6.3.2.6 User manual

Description

The user manual contains all the information that the user of a product/system needs to use it properly and to be able to react correctly in the event of problems.

Content

- Overview
- Functions
- Detailed descriptions of use
- Defect handling

6.3.2.7   Work order

Description

The work order contains all relevant information for completing a set task. The project manager uses it to assign work to members of the project team. Together with the degree of outcome completion, work orders form the basis for monitoring progress with respect to the project. Work orders can be issued internally or externally. A work order is issued for each work package.

Content

- Work objectives
- Outcomes
- Boundaries
- Prerequisites and dependencies
- List of activities with
  - Reference to the outcomes
  - Activity
  - Those responsible/involved
  - Plan hours
  - Deadlines
  - Status
- Resource requirements
- Presentation of outcomes
- Quality assurance

6.3.2.8   Tender documentation

Description

The tender documentation includes all information published in the context of a call for tender. This includes first and foremost the project specifications (also called specifications in Switzerland), together with the catalogue of criteria, which is an indispensable part of the tender documentation.

Without project specifications, it is virtually impossible to compare the tenders received. The project specifications drawn up by the body issuing the tender for the goods/services to be provided are of benefit to both that body and potential tenderers. When drawing them up, the body issuing the tender becomes aware of what it really needs, and the tenderer in turn recognizes what the customer wants. It also forces the tenderer to take a stand on questions it might prefer to avoid, as well as to submit the tender with the required structure. In this way, the body issuing the tender gets a clear reference basis and can compare the tenders with each other.

The tender documentation additionally includes a draft contract, general terms and conditions of the core organization, the tender notice and further project specification enclosures. If questions are answered in a public tender, the questions and answers are likewise part of the tender documentation and are given to all tenderers.

Content

- Project specifications with
  - Background with
    - Introduction, purpose of the document
    - Reason for the tender, need for action
    - Procurement item
  - Description of the situation with
    - Business organization
    - Strengths and weaknesses
    - Quantities and frequencies
    - Scope and price
  - Target situation with
    - Objectives and requirements
    - Mandatory and discretionary criteria
  - Deadlines
  - Structure of the offer
  - Administrative details
  - List of criteria with
    - Eligibility and award criteria
    - Weighting
    - Points
- Appendices such as
  - General terms and conditions
  - Draft contract
  - Tender notice
  - Additional tender documentation

6.3.2.9 Operation activated

Description

Operation is launched and conducted with the operating organization defined in the operating concept. The activities set out in the operating manual are carried out. The operating staff carry out the operating tasks.

6.3.2.10 Operating manual

Description

The operating manual provides all the information the operator needs to operate the system properly and to be able to react correctly in the event of problems. All operating information of relevance for the operator is documented in the operating manual.

Content

- System overview
- Launch of operation
  - Prerequisites for the launch of operation
  - Launch of operation process
  - Quality assurance after the launch of operation
  - System acceptance specifications
- Implementation and monitoring of operation

OUTCOMES

- Interruption or termination of operation
- Support organization with
  - Support processes
  - Organization with roles
- Change management with
  - Change management process
  - Change management organization with
    – Roles
    – Contact details
- Security provisions

6.3.2.11 Operating infrastructure realized

Description

The operating infrastructure comprises all infrastructures required for the creation and operation of an IT system with the various system environments (development, testing, production, etc.) and all its components. The operating infrastructure also includes the components needed to monitor operation, such as monitoring and alarm systems, statistical tools, etc.

6.3.2.12 Operating concept

Description

The operating concept describes the operating organization with the organizational structure and operating processes of the operator. The operating concept forms the basis for creating the operating manual and the organization of the operator.

Content
- Operation requirements
- System technology
  - IT infrastructure concept
  - Systems, components used, versions
  - Networks
  - Data security
  - Archiving
- Organization
  - Organizational structure
  - Operating process
- System operation with
  - Normal operation
  - System monitoring
  - Work preparation
- Troubleshooting
- Description of security aspects
- Requirement coverage

OUTCOMES

6.3.2.13   Operating organization realized

Description

The operating organization defined in the operating concept, including the operator's organizational structure and operating processes, is realized. The operating staff are trained and can perform the operating tasks.

6.3.2.14   Checklist

Description

Based on decision-making tasks, the checklist supports decision-making processes and serves the systematic performance of reviews. Before each review, the general checklist is supplemented with project-specific criteria in the corresponding area.

Content

- Decide on ISDP concept
- Decide on project closure
- Decide on contract award
- Decide on ISDP concept
- Decide on acceptance
- Decide on agile development using SCRUM
- Decide on call for tenders
- Decide on launch of operation
- Decide on phase release (deployment)
- Decide on phase release (implementation)
- Project release decision
- Decide on system architecture
- Decide on an option
- Decide on preliminary acceptance
- Commission and steer initiation

Standard and project-specific review points with

- Acceptance criteria
- Evaluation
- Those responsible
- Review date

6.3.2.15   Detailed specifications

Description

The detailed specifications describe the detailed system properties. They are based on the system requirements and the detailed study, and form the basis for the implementation and the creation of detailed test case descriptions.

Content

The content of the detailed specifications depends on the item being implemented and the specification method used.

6.3.2.16　Detailed study

The detailed study is more in-depth than the option described in the study. The detailed study shows how the system meets the requirements. Detailed studies can be created on several topics. Solution options can be developed and evaluated in the detailed study. In IT projects, the outcomes of the detailed studies are summarized in the system architecture. They form an appendix to the system architecture.

Content

- Background
- Requirements
- Solution concept with
  - Options
    - Description
    - Requirement coverage
- Feasibility assessment – comparison of options
- Recommendation

6.3.2.17　Deployment concept

Description

The deployment concept describes the measures and organization for deployment. It also includes the analysis and planning of organizational change management measures to support the transition from the old situation to the new one. The deployment concept also regulates the procedure for acceptance and sets out the acceptance criteria.

Content

- Background
- Impact analysis
- Deployment procedure
- Deployment measures with
  - Organization transition / change management
  - Emergency measures and emergency organization
- Deployment organization
- Deployment planning
- Emergency measures and emergency organization
- Planning of preliminary acceptance and acceptance
- Acceptance criteria

6.3.2.18　Deployment measures carried out

Description

The measures described and realized in the deployment concept are executed. The implementation of the measures is reviewed and their quality assurance carried out. For example, user training has been carried out and the participants' course assessments are available for quality assurance.

OUTCOMES

6.3.2.19 Deployment measures and organization realized

Description

The measures described in the deployment concept and the organization needed for deployment are realized. For example, the super users are recruited and trained to support the users in the deployment phase, or the training materials are produced so that training can then be carried out.

6.3.2.20 Evaluation report

Description

The evaluation report summarizes the results of the tender evaluation. It forms the basis for the award decision.

Content

- Background
- Procedure for the evaluation
  - Members of the evaluation team
  - Evaluation process
- Call for tender, questions and tender opening
- Results of the evaluation with
  - Eligibility criteria
  - Technical specifications
  - Award criteria
  - Evaluation procedure
  - Evaluation of tenders
  - Selection and justification
- Recommendation
- Requests
- Appendices with
  - Completed list of criteria
  - Evaluation
  - Other appendices

6.3.2.21 Business organization activated

Description

The new business organization is activated. It carries out its processes according to the process descriptions.

6.3.2.22 Business organization concept

Description

The business organization concept describes the development and process structure (processes) for business processing and support. The business organization concept shows which new business organization is created and which changes are made to what already exists.

Content

- Background
- Organizational requirements
- Organizational structure with
  - Organizational principles and options
  - Organization description
  - Organization chart
- Process structure with
  - General overview with
    - Process landscape
    - Description of actual / target situation
    - Processes to be supported
  - Process description
    - Core processes
    - Management processes
    - Support processes
- Overview of changes
- Requirement coverage

6.3.2.23   Increment

Description

An increment is an executable development outcome that can be tested by the user. It results from a sprint by the SCRUM team.

Content

The content of an increment is set out in the sprint backlog.

6.3.2.24   Integration and installation instructions

Description

The integration and installation instructions describe how the IT system is integrated and installed in the operating infrastructure.

Content

- Product description
- Prerequisites
- Execution instructions
- Quality assurance and testing
- Defect handling
- Support
- Acceptance

OUTCOMES

6.3.2.25 Integration concept

Description

The integration concept describes how the IT system is integrated into the environment. It also describes how transport from one system environment to another takes place and how to ensure configuration management and quality. In the case of step-by-step integration with releases or deployment with implementation units, release planning is part of the integration concept.

Content

- System overview and integration items
- Interfaces
- Integration environments
- Integration procedure and integration steps with measures
- Framework conditions and interdependencies
- Integration organization
- Transport concept and transport processes
- Quality assurance

6.3.2.26 ISDP concept

Description

The ISDP concept forms the basis for defining the information security and data protection measures. It shows the residual risks associated with the operation of the IT system and the organization. It describes the emergency concept.

Content

- List of security-related documents
- Classification based on the protection needs analysis
- Security-related system description
- Risk analysis with residual risks
- Emergency concept
- Processing regulations
- Compliance with/review of protection measures
- Testing/acceptance of information security functions
- Liquidation

6.3.2.27 ISDP measures

Description

The ISDP measures are realized on the basis of the ISDP concept. They ensure that the requirements in terms of protection needs are met in accordance with the ISDP concept.

OUTCOMES

6.3.2.28 Migration carried out

The migration from the old system to the new system is carried out and documented in accordance with the specifications of the controlling and compliance bodies. The comprehensibility of the migration is ensured. Successful migration is the prerequisite for the launch of operation decision and migration acceptance.

6.3.2.29 Migration concept

Description

The migration concept describes the technical and organizational requirements for migration and contains the migration procedure concept. The migration concept proves feasibility and shows migration planning. Aside from technical and organizational requirements, the auditing, information security and data protection requirements are also taken into account.

Content

- Migration objectives
- Migration requirements
- Migration items
- Data analysis
- Migration procedure
- Migration plan
- Feasibility
- Archiving and decommissioning of the legacy system
- Requirement coverage

6.3.2.30 Migration procedure

Description

The migration procedure implemented has been tested by the developer or the developer's tester. He provides evidence of his tests. They are the prerequisite for preliminary acceptance.

6.3.2.31 Quote request

Description

Offers for non-comprehensive procurements are obtained with the quote request. The offers form the basis for the service level agreement as described in the agree on and steer goods/services task. The offer specifications allow the offers to be compared and evaluated.

Content

- Project sponsor
- Background
- Subject of the order
- Deadlines
- Conditions

- Offer specifications
- Administrative process for procurement

6.3.2.32 Organization implemented

The business organization defined in the business organization concept is implemented.

Based on the process description and organization description, the measures were realized in order to establish the organization (position assignments, recruitment, etc.).

6.3.2.33 Organization description

The organization description describes the organizational structure with a detailed organization chart, function descriptions and personnel requirements. It forms the basis for assigning positions.

Content

- Organization chart
- Organizational interfaces
- Function descriptions
- Personnel requirements

6.3.2.34 Phase report

The phase report forms the basis for deciding on the release of the next phase. It summarizes the outcomes and decisions of the current phase and shows the organization of the next phase.

Content

- Background
- Forecast regarding objective achievement and solutions
- Strategy reference and implementation of specifications
- Legal basis
- Benefits and economic efficiency
- Planning and organization
- Risks
- Requests

6.3.2.35 Product backlog

The product backlog is used for the agile steering of development and contains all of the requirements to be realized. It is updated on an ongoing basis.

OUTCOMES

- Requirement
- Story points
- Priority
- Sprint assignment
- Status

6.3.2.36 Product activated

Description

The activated product is made available to users for utilization. The product is activated after preliminary acceptance and the release of deployment. It includes all of the components necessary for operation.

6.3.2.37 Product realized

Description

The product realized has been tested by the developer or the developer's tester. It is transmitted to the user for testing and preliminary acceptance.

6.3.2.38 Product documentation

Description

Product documentation refers to the technical documentation of the product. All of the documentation defined in the development process together forms the product documentation. It is a prerequisite for the maintenance and further development of the product.

Content

The content of the product documentation depends on the outcomes defined in the development process.

6.3.2.39 Product concept

Description

The product concept describes the project outcome to be achieved. Its structure and level of detail vary depending on the project content. The product concept fleshes out the functional and qualitative requirements and the description of the chosen option in the form of specifications. The product concept is designed in sufficient detail in terms of content and planning to form a reliable basis for the realization (development or procurement) of the product. The product concept forms the basis for product acceptance as the project progresses.

Content

- Background
- Product description with
    - Intended use
    - Product classifications
    - Rough description and specifications

OUTCOMES

- Detailed requirements with
  - Business organization requirements
  - Functional requirements
  - Quality requirement, framework condition
- Requirement coverage

6.3.2.40 Project order

Description

The project order forms the binding basis for project release. It is the agreement between the project sponsor and project manager.

Content

- Background
- Objectives
  - System and procedure objectives
  - Framework conditions & boundaries
- Description of solution
- Strategy reference and implementation of specifications
- Legal basis
- Resource requirements
- Economic efficiency
- Planning and organization
- Risks
- Consequences

6.3.2.41 Project decision management & execution

Description

The project management project decisions document the outcomes of the decision tasks of the management and execution hierarchy level. The decisions to be made during a project are defined as decision tasks. The results of the decisions are documented. The project decision management & execution document is used for the entire duration of a project.

Content

- Decision
- Underlying documents
- Decision-makers at the management and execution hierarchy level
- Date

6.3.2.42 Project decision steering

Description

The project steering project decisions document the outcomes of the decision tasks of the steering hierarchy level. The decisions to be made during a project are defined as decision tasks. The results of the decisions are documented. The project decision steering document is used for the entire duration of a project.

Content

- Decision
- Underlying documents
- Decision-makers at the steering hierarchy level
- Date

6.3.2.43   Lessons learned

Description

The lessons learned are documented. They support the continual improvement process in the project and in the core organization. They provide valuable information for the further course of the project and for subsequent projects by adopting positive aspects and, if possible, preventing negative ones.

Content

- Contact
- Subject area
- Date
- Lessons learned: positive/negative
- Relevance: possible significance for own project or other projects
- Recommendation: information for the core organization

6.3.2.44   Project initiation order

Description

The project initiation order forms the binding basis for the release of the initiation phase. It is the agreement between the project sponsor and project manager for the initiation phase.

Content

- Background
- Objectives
  - Objectives of the initiation phase
  - Parameters
- Resource requirements
- Deadlines
- Resources
- Communication
- Risks

OUTCOMES

6.3.2.45 Project management plan

Description

The project management plan contains the overall planning of the project and the essential regulations on methods, techniques, roles and aids determined for the specific project. The project management plan serves as a uniform basis for action for everyone involved in the project. As the project progresses, it is continuously fleshed out and updated according to the principle of rolling planning and steering. At the end of the phase, the project management plan is adapted to the changed conditions for the next phase.

Content

- Project description
- Scenario with phases and milestones
- Organization
- Project outcome structure
- Scenario with project structure plan
- Review plan
- Schedule
- Cost plan
- Resource plan
- Procurement plan
- Communication plan
- Reporting
- Specifications, methods and tools
- Quality assurance
- Risk management
- Escalation procedure
- Document management
- Change management

6.3.2.46 Final project evaluation

Description

The final project evaluation forms the basis for the project closure decision. It gives the project sponsor information on the target/actual comparison with regard to the project and procedure objectives in terms of deliverables, scheduling and finances. The lessons learned are documented in a summary. The content and deadlines for project success monitoring are set.

Content

- Background
- Evaluation of the achievement of objectives
- Economic efficiency

- Target/actual comparison
  - Costs/benefits
  - Outlay
  - Deadlines
  - Outcomes
- Lessons learned
- Pending items and measures
  - Directly from the project with
    – Pending item
    – Measure
    – Those responsible
    – Implementation deadline
  - Further measures after project closure with
    – Measure
    – Those responsible
    – Implementation deadline
- Request

6.3.2.47 Project status report

Description

The project status report is used for periodic reporting on the project status, project progress and forecasts as to how the project will proceed. The form and method of reporting are set out in the project management plan. The project takes account of the core organization's specifications with regard to reporting content and frequency.

Content

- Overview of project status
- Forecast regarding objective achievement
- Target/actual comparison and forecasts
  - Costs/benefits
  - Outlay
  - Deadlines
  - Outcomes
- Problems and measures
- Risks
- Outlook

6.3.2.48 Minutes

Description

The minutes document the decisions and orders that are made or placed in a meeting. Important discussion points are recorded. Orders recorded in the minutes are transferred to a to-do list. The full set of minutes ensures the traceability of decisions.

OUTCOMES

Content

- Meeting type/topic
- Date
- Participants
- Agenda items
- Minute items
- To-do list (appendix)

6.3.2.49 Prototype realized

The prototype is used to check the feasibility or behavior of a system or product in a specific situation. Prototypes are used to assess and reduce risks. Several different prototypes can be realized in the project. They are realized for the proof of concept (POC). A distinction can be made between disposable prototypes and reusable prototypes.

6.3.2.50 Prototype documentation

Description

The prototype documentation forms the basis for the realization and evaluation of the prototype. It records the prototyping objectives, requirements, outcomes and conclusions.

Content

- Background
- Parameters
- Requirements
- Concept
  - Prototype concept
  - Required infrastructure
- Summary of test results
  - Reference to test concept
  - List of test cases
  - Summary of test protocols, test report
- Conclusions
- Recommendations

6.3.2.51 Process description

Description

The process description describes the processes with the aids used.

Content

- Process designation
- Process owner
- Parties involved in the process

- Process objectives
- Process key indicators/measurement variables
- Critical success factors
- Process evaluation
- Process diagram with
  - Input
  - Output
  - Activities
  - Aids

6.3.2.52   Review report

Description

The review report records review findings and documents the implementation decisions concerning the findings, as well as the decision on the status of the outcome.

Content

- Outcome to be checked
- Review date
- Reviewer
- Findings
- Decisions on findings
- Outcome decision

6.3.2.53   Publication

Description

The publication provides information about the tender contract award. The form and content of the publication are specified by the controlling and compliance bodies or the procurement office.

Content

- Tender concerned
- Procurement office
- Successful tenderer
- Legal means

6.3.2.54   QA and risk report

Description

The QA and risk report provides independent information on the project's quality and risk situation. The content of the QA and risk report depends on the mandate and scope, as well as on the methods used.

Content

- Mandate and scope
- Procedure

OUTCOMES

- Overall assessment with project status
- Quality assessment
- Risk assessment
- Recommendations

6.3.2.55　Legal basis analysis

Description

The legal basis analysis describes the legal basis intended for the project outcome and the possible need for it to be amended.

Content

- Existing legal basis
- Imminent changes
- Gaps identified
- Proposals to fill gaps
- Evaluation of the consequences
- Recommendations

6.3.2.56　Release plan

Description

In agile development, the release plan forms the basis for conducting sprints, planning the delivery of a release to the users and coordinating activities with the affected bodies.

The release plan consists of several sprints and defines when integrations and delivery to the user take place.

Content

- Releases
- Dependencies and prerequisites
- Organization
- Deadlines

6.3.2.57　Interfaces realized

Description

The interfaces realized ensure the exchange of data between the system and the peripheral systems.

The interface has been tested by the developer or the integrator and the developer's tester. It is handed over to the operator for integration into the operating infrastructure.

6.3.2.58　Protection needs analysis

Description

The protection needs analysis documents the information security and data protection requirements.

Content

- Requirement category
- Requirement description
- Requirement assignment

6.3.2.59 Situation analysis

Description

The situation analysis describes and analyzes the current situation and future developments. It supplements the situation analysis in the study and goes into more depth. Together with the system objectives, the situation analysis forms the functional basis for the definition of the system requirements to be met by the project outcome. It is neutral in terms of objectives and solutions.

Content

- Introduction
- Business organization
- Description of the current system
    - Objective and intended use, function
    - Documentation on system and operating organization
    - Parameters and specifications
    - System description
    - Information security and data protection
- Quantities and frequencies
- Analysis of strengths, weaknesses and causes
- System context

6.3.2.60 Sprint backlog

Description

The sprint backlog is used for the agile steering of development and contains all of the requirements to be realized within a sprint.

Content

- Sprint
- Requirement

6.3.2.61 Stakeholder Interests

Description

The analysis of stakeholder interests is conducted separately from the stakeholder list. It is a subjective assessment by the project manager within the project and is not public. However, it is needed for communication and is regularly updated.

Content

- Stakeholder positioning
- Stakeholder description

6.3.2.62 Stakeholder list

Description

The stakeholder list forms the basis for stakeholder management and communication planning. It is continually updated.

Content

- Stakeholders

6.3.2.63 Study

Description

The study describes the desired solution by defining the rough objectives, listing possible solution options and then evaluating them. It forms the basis for deciding whether or not a project is to be released. It is the prerequisite for drawing up the project management plan and the project order.

Content

- Background
- Situation analysis with
  - o Business organization
  - o Quantities and frequencies
  - o Information security and data protection
  - o Analysis of strengths, weaknesses and causes
  - o System context
- Objectives
- Parameters
- Rough requirements
- Solution options with
  - o Option overview
  - o Description per option
  - o Analysis and evaluation with
    - – Degree of objective achievement
    - – Requirement coverage
    - – Further criteria such as cost/benefit/economic efficiency considerations, risk assessment, etc.
- Option selection

6.3.2.64 System activated

Description

The activated system is made available to users for utilization. It is operated in accordance with the operating concept and the operating manual. The prerequisites for measuring and complying with the SLA are met.

6.3.2.65   System developed or parameterized

Description

The developed and/or parameterized system has been tested by the developer or the integrator and the developer's tester. It is handed over to the operator for integration into the operating infrastructure. Development and integration can take place in several steps or releases.

6.3.2.66   System integrated

Description

The integrated system is made available to the user's testers for testing and preliminary acceptance. The system is activated after preliminary acceptance and the release of deployment.

6.3.2.67   System requirements

Description

The system requirements describe requirements for the future system. They are structured according to requirement categories. They include business requirements, operating requirements, support requirements and security requirements, for example, and they are prioritized according to their importance. The documentation of the system requirements is based on and uses the standards/notations of the requirement engineering method used.

Content

- Rough requirements with
  - Requirement
  - Requirement type
  - Importance
  - Urgency
- System overview
- Detailed requirements with
  - Business organization requirements
  - Functional requirements
  - Quality requirements
  - Operating concept requirements
  - System architecture requirements
  - Migration concept requirements
  - ISDP concept requirements

6.3.2.68   System architecture

The system architecture divides the system into subsystems and their components. It describes the system structure and the interfaces. The system architecture allows for a comprehensive view of the system. Depending on the project outcome and scope, it contains several architecture elements and models, e.g. the business process model, the function model (e.g. with Use Cases/user stories), the data architecture/data model, the security architecture. It also contains the IT documentation or refers to the developer's documentation. The system architecture is based on the specifications of the controlling and compliance bodies.

Content

- System structure
  - o   Overview of the system
  - o   Subsystems and components
  - o   Architectures/models
- Interfaces and scope
  - o   Interfaces with peripheral systems
  - o   Reference to integration concept
  - o   Boundaries
- Feasibility assessment
- Compliance with specifications
- Requirement assignment and coverage

6.3.2.69   Test data

Description

Test data is used to perform tests. It is provided according to the test concept. If copies of productive data are used for tests, the information security and data protection requirements must be met.

6.3.2.70   Test concept

Description

The test concept describes the test objectives, test objects, test types, test infrastructure and test organization. It also includes test planning and test case descriptions. A detailed test case description is created for each test case. This constitutes the test specifications. Test planning determines the logical and chronological structure of the tests. The test concept forms the basis on which the test organization and test infrastructure are provided and the tests are carried out. It is always updated in the case of new findings.

Content

- Test objectives
- Test strategy and test levels

- Test objects
- Test types
- Test coverage
  - Overview of test cases
  - Assessment of test objectives and test coverage
- Test framework with
  - Test prerequisites
  - Defect classification
  - Starting and abandonment conditions
- Test environment
- Test infrastructure with
  - Test system
  - Test data
  - Test tools
- Test organization
- Test case descriptions
- Test plan

6.3.2.71 Test report

Description

The test report records the test results. The test results are evaluated according to the defect classes defined in the test concept.

Content

- Overview of test cases/testing
- Test case
- Test case description
- Test date, tester
- Defect category (test result)
- Defect description

6.3.2.72 Test system

Description

The test system is used to perform tests. Depending on the test method, the test system must meet different requirements. Therefore, different test systems may be required. The test system is provided according to the test concept. It must correspond to the production system to the extent that the test case descriptions can be carried out under realistic conditions.

6.3.2.73 Agreement

Description

The agreement governs the cooperation between different project participants, mainly between the user (project sponsor), developer and operator. The agreement can be concluded for one or more phases. Agreements are differentiated according to project agreement, contract and SLA.

OUTCOMES

Content

The content of agreements is stipulated by the core organization. The agreement may include, but is not limited to, the following points:

- Deployment
- Scope
- Scope of goods/services and outcomes
- Persons deployed
- Cooperation duties
- Quality assurance and acceptance
- Warranty
- Data protection and data security
- Change management
- Reporting
- Outlay and costs
- Signatures
- Supplementary technical standards
- Regulations
- Directives
- etc.

7   User information

7.1   Introduction

Outcomes have been at the heart of HERMES since the launch of HERMES 5. They are related to other method components such as tasks or roles, and some outputs are supplemented by document templates when used. A visualization of the project processes themselves is not paramount.

This section helps people to use the new format of HERMES properly. In order to help users with HERMES, this section contains information that allows for a deeper under-standing of HERMES, explains application cases or provides guidelines of sorts for specific cases, for instance.

7.2   Information overview

The user information is divided into two categories:
a)   Explanations
     The explanations show how specific topics are integrated into HERMES. They illustrate interrelationships and enable a deeper understanding of methods.
b)   Notes on application cases
     The notes on application cases show how HERMES should be implemented in specific situations. They ensure safe application and help to reduce the scope for interpretation.

The table shows the information per category.

Category	Information
Explanations	Governance
	Sustainability
	Financial steering and management
Notes on application cases	Planning
	Implementation units and releases
	Application in the program
	Interaction with other methods and practices
	Agile project management with HERMES and SCRUM
	Deployment of HERMES in the organization

Table 48:   User information per category

7.3   Information directory

7.3.1   Governance

7.3.1.1   General

Governance is generally understood to mean "responsible corporate management and control". It must be implemented in particular by management.

Project governance is part of corporate governance.

The characteristics of good project governance are:

- Effective project steering and management
- Consideration of stakeholder interests
- Cooperation between the project organization and core organization
- Reconciliation of the project objectives with the strategies and objectives of the core organization
- Transparency in project communication
- Comprehensibility of project implementation
- Appropriate approach to risks
- Efficient and sustainable use of resources

The hallmarks of good project governance constitute the requirements for project steering and project implementation.

7.3.1.2   Business processes and HERMES

While companies are conducting their operating business, they are in a constant flux in order to meet current and future challenges. As Figure 25 shows, an enterprise has processes and methods which

- support the preparation of business planning,
- accompany the implementation of business planning and
- ensure the utilization of the outcomes.
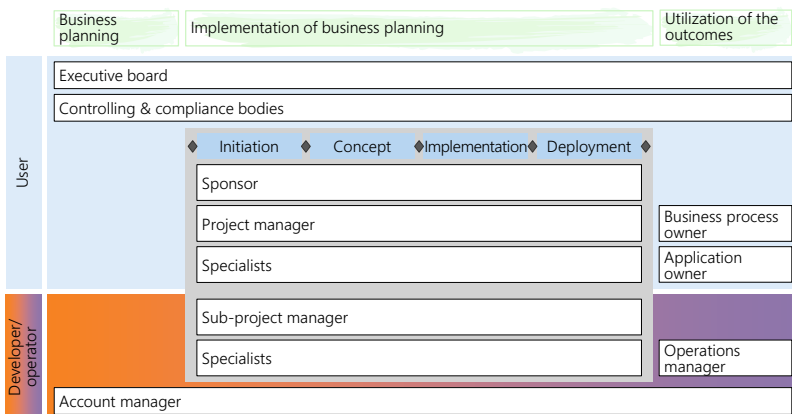
Figure 25:   Business processes in the light of HERMES

7.3.1.3   Preparation of business planning

Principles of business planning

With the preparation of the business planning, the projects are prioritized and the resources needed for implementation are planned so that they are available in sufficient quantities.

Business planning is based on an outline of the needs of a business process, ideas for future IT solutions or strategic projects. These rough outlines are often referred to as "studies" and normally do not incur external costs.

If the partners belong to the same organization (e.g. a public administration), they are in contact with each other already during the business planning stage. Depending on the type of business relationship involved, information is exchanged between the account manager of the developer or operator and the user's management at an early stage in order for the necessary resources to be available to all partners concerned in sufficient quantities. The organization-specific specifications are taken into account in the process. Based on the business planning, the core organization decides which projects are to be initiated. After the decision on project initiation, the project is carried out with HERMES and included in the core organization's project portfolio.

Implementation of business planning

In the implementation of business planning, significant changes are implemented with projects. Less significant, low-risk projects with a low degree of complexity are often implemented with orders. The definition of a project depends very much on the respective enterprise and must be regulated by it in a binding manner. HERMES 5 supports the implementation of business planning with projects.

HERMES 5 governs the cooperation of the partners in the project and supports them with the initiation, design, implementation and deployment of the outcome and with the provision of the necessary operating organization. HERMES 5 describes the roles, outcomes and tasks of the partners, i.e. user, developer and operator, and ensures the necessary clarity in cooperation. During the initiation phase, the business planning outlines or studies are expanded upon. Options are established and evaluated in the process. A project order is prepared for the chosen option so that the core organization can decide to release the project at the end of the initiation phase.

The project is closely linked to the user's core organization. The executive board and the controlling and compliance bodies are integrated into the project via decision tasks and reporting. The project sponsor ensures constant communication between the core organization and project organization.

Utilization of the outcomes

The utilization of a project's outcomes begins with the launch of operation. The prerequisites for sustainable utilization are created in the project. The project is closed once the operation is stable and the outcomes have been accepted. The partners ensure that the roles required for utilization are assigned. These often include the roles of business process owner, application manager and operations manager. The executive board of the user and the account manager of the developer or operator remain in contact also during the utilization period. The check to see whether the project objectives have been achieved is carried out during the utilization stage.

7.3.1.4   Integration into project portfolio management

The governance requirement concerning efficient and sustainable use of resources means that an assessment is carried out to ascertain whether a project should be released. One task of the core organization is to steer and control all of the organization's projects on an overarching basis. This is done with project portfolio management. It includes the overarching prioritization and coordination of projects, the allocation of resources to projects and decisions on which projects are carried out and whether projects are halted or terminated.

As Figure 26 shows, project portfolio management in the core organization is often
a)   in the project management competence center or
b)   in controlling and compliance bodies.
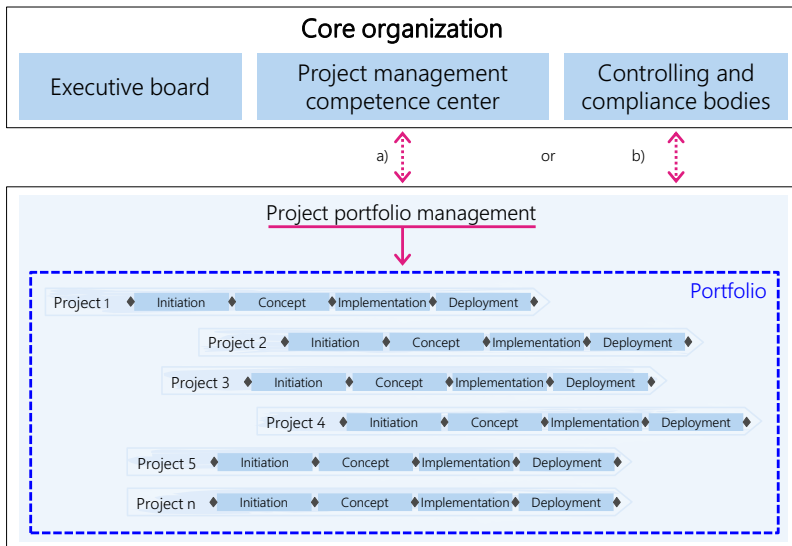
Figure 26:   **Two frequent portfolio management subordination options**

HERMES supports the integration of projects into project portfolio management with phases and milestones, among other things. They support transparent project steering. At the milestones, there are defined quality gates where the necessary reviews are supported with the checklist and are verifiably documented.

7.3.1.5 Reporting

The project governance requirement concerning transparent communication necessitates reporting. Reporting also supports the project governance requirement concerning traceability of the course of the project.

Reporting formally regulates the flow of information within the project organization and vis-à-vis the core organization. Timely reporting is a prerequisite to enable the competent bodies in the project organization and core organization to carry out their tasks responsibly.

The transparency achieved with reporting is of benefit not only for the core organization and the project sponsor, but also for the project manager, as it documents the quality of project implementation.

Figure 27 shows reporting within the project organization and vis-à-vis the core organization.
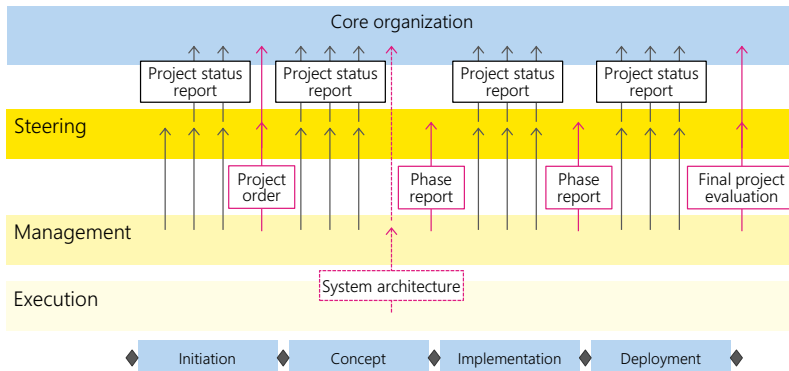
Figure 27: **Project reporting vis-à-vis the core organization**

The following outcomes arise in the case of reporting:

* Project status report
  Project status reports are prepared periodically from the beginning of a project until its completion. In time frames defined by the core organization, the project management uses the project status report to inform the project sponsor and the core organization about the project status (plan/actual comparison) and the expected next steps (forecast).

- Phase report
  At the end of the concept and implementation phases, the phase outcomes and the planning of the further course of the project are prepared for the project sponsor in such a way that he can decide on how to proceed (usually on phase release).
- Final project evaluation
  At the end of the deployment phase, the final project evaluation is created. It provides the basis for continual improvement in the core organization based on the lessons learned.

Specific outcomes of project execution

In addition to reporting, defined specific outcomes are sent to the controlling and compliance bodies for review (example: system architecture).

7.3.1.6 Meeting the project governance requirements

Review subject matter

When assessing a project, it is checked whether it meets the requirements for good project governance, among other things.

The following list describes for each requirement how the individual HERMES method components support the meeting of the requirements.

Effective project steering and management

- Roles
  Roles are a key method component for meeting the requirements for effective project steering and management:
  o Responsibility for tasks and outcomes is assigned to defined roles and partners in the project.
  o The roles are assigned to the hierarchy levels of steering, management and execution. This further highlights the responsibility of the roles.
  o The roles are fleshed out with role descriptions. They describe the tasks, powers and responsibility, as well as the skills required to perform the role.
  o A role of quality and risk manager has been defined to support the role of the project sponsor. He carries out independent assessments of project implementation and makes recommendations.
  o A role of project committee has been defined to support the role of the project sponsor. This enables the stakeholders to be integrated into the project organization at the steering hierarchy level.
  o A role of technical committee is defined to support the role of the project manager. This enables the stakeholders to be included in the project organization both in the management area and at the technical level.
  o The project organization section describes which aspects are to be taken into account when assigning roles in order to ensure effective project steering and management.

- **Modules and tasks**

  The steering and management tasks are described in detail. They are grouped in the project steering and project management modules and are therefore clearly visible for the project sponsor, project manager and other project participants.

  This ensures a high degree of transparency with regard to tasks and outcomes for which the project sponsor and project manager are responsible.

- **Outcomes**

  Every project has certain minimum outcomes that have to be achieved to enable it to be steered and managed. These include the project order or project management plan, for example. The minimum outcomes from a governance perspective are defined in the outcomes section.

- **Reporting**

  Project steering requires reliable information on planning, project status and forecasts. These are provided via reporting. Reporting is described below.

Consideration of stakeholder interests

- **Roles**

  The roles of project steering (project sponsor) and project management (project manager) are responsible for the corresponding tasks.

- **Tasks**

  The manage stakeholders and communication task ensures that stakeholders are identified and their interests are analyzed.

- **Outcomes**

  The stakeholder list and stakeholder interests are first established in the initiation phase and are continuously pursued in the course of the project.

Cooperation between the project organization and core organization

- **HERMES and project portfolio management**

  HERMES supports the integration of projects into project portfolio management. See the explanations below.

- **Phases and milestones**

  The phases and milestones (with quality gates) support cooperation.

- **Roles**

  The role model establishes a clear link between the project organization and the core organization with its controlling and compliance bodies.

- **Tasks**

  Several tasks support cooperation between the project organization and core organization. For example:
  - The decision tasks for project release, phase release and project closure
  - The task agree on and steer goods/services
  - The task decide on system architecture
  - The task decide on ISDP concept

Reconciliation of the project objectives with the strategy and objectives of the core organization

- **Phases and milestones**
  Before project release and phase release, the project objectives are aligned with the strategy and objectives of the core organization within the framework of the respective decision tasks. The project is released by the core organization and project sponsor after the initiation phase, whereby the project sponsor bears responsibility.

Transparency in project communication

- **Tasks**
  Communication planning is created with the manage stakeholders and communication task. Communication is target-group-oriented.

- **Reporting**
  Reporting ensures internal communication between project management and the project sponsor, and also provides a realistic and timely overview and holistic evaluation for the core organization.

Comprehensibility of project implementation

- **Outcomes**
  The outcomes achieved as the project progresses document the course of the project.
  - Periodic reporting, which includes the project status report and the phase report, documents the progress of the project.
  - Project decisions are recorded and minutes are taken of meetings.
  - The lessons learned are continuously recorded.
  - In the final project evaluation, planned and actual comparisons are carried out and key findings are recorded.
  - The project management plan is continuously updated and documents the respective planning status.
  - Procurements are documented with an evaluation report.

Appropriate approach to risks

- **Roles**
  At the project steering hierarchy level, the role of quality and risk manager supports the project sponsor with an independent assessment of the project.

- **Phases and milestones**
  If, at the end of a phase, the risks are deemed unacceptable, the next phase is not released by the project sponsor.

- **Scenarios and modules**
  Scenarios and modules support all project participants and the core organization with a common understanding of how a project with a specific characteristic is handled. In this way, misunderstandings can be prevented and project risks can be reduced overall.

- **Tasks**
  Risk management is continuously managed with the task manage risks.

- Outcomes
  The project status report contains the current risk assessment and informs the recipients about the project manager's assessment.

Efficient and sustainable use of resources

- Scenarios and modules
  Scenarios and modules enable efficient project planning.
- Phases and milestones
  At the end of the initiation, concept and implementation phases, a check is carried out to see whether it is wise to start or continue the project. Possible reasons for termination include economic inefficiency, excessive risks, infeasibility, lack of alignment with the objectives and strategies of the organization.
  The phases and milestones additionally enable the integration of projects into project portfolio management.
- User information
  The sustainability section describes how projects are implemented sustainably, how sustainable outcomes are achieved and which criteria are used to assess sustainability.

7.3.2 Sustainability

7.3.2.1 General

Understanding of sustainability
Source: Federal Office for Spatial Development ARE

Switzerland relies on the sustainability concept of the World Commission on Environment and Development (Brundtland Commission), which defined sustainable development as development that satisfies the needs of the present without compromising the ability of future generations to meet their own needs. This underlines how economic, social, and ecological processes are all connected.

Sustainable development is not a voluntary task for the Confederation or the cantons. Article 2 ("Aims") of the Federal Constitution declares sustainable development to be a national objective, and Article 73 ("Sustainable development") calls on the Confederation and the cantons to endeavor "to achieve a balanced and sustainable relationship between nature and its capacity to renew itself and the demands placed on it by the population". To date, the Federal Council has implemented these constitutional mandates by means of strategies for sustainable development (1997, 2002, 2008, 2012).

3-dimensional concept

As Figure 28 shows, the Confederation's strategy is based on the 3-dimensional concept.

The strategy includes the following aspects:

- Economic, social, and ecological processes are all connected. The interplay between the three dimensions of environment, economy and society must be taken into account.
- Sustainable development goes beyond environmental protection.

- The implications of today's actions for the future must be taken into account (generations of today and tomorrow).
- The consumption of the environment and resources must be reduced to a sustainable level for the long term while maintaining economic capacity and social cohesion.
- Global interdependencies must be taken into account (north/south aspect).
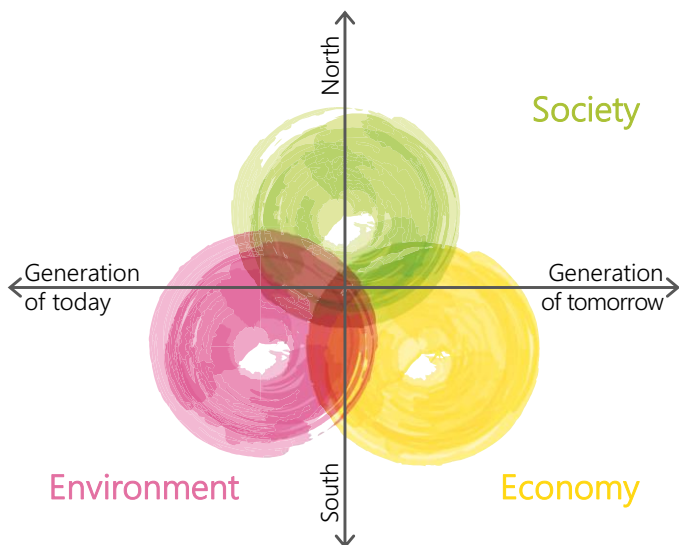
Figure 28:   Confederation's 3-dimensional concept

If projects are to be sustainable, the definition of the project objectives must not be limited to economic objectives (deadlines, costs, project outcomes), and instead must also include the target areas of society and the environment. In this respect, successful project management has a positive impact in the area of sustainable development as well.

One way of assessing projects for implications in sustainability-related areas is to use a sustainability assessment. With this, expected implications in the areas of the economy, environment and society can be estimated and presented and options can be compared using 15 criteria defined by the Federal Council. For further information: Sustainability assessment, www.are.admin.ch/nhb.

From a sustainability perspective specifically in the area of information and communication technologies, the focus is primarily on energy and resource efficiency (from the extraction of raw materials to recycling) and working conditions in the producing countries when it comes to lifecycle considerations. In this regard, special attention is paid to procurement by defining ecological and social award criteria.

For information technologies (IT), long-term information security, data protection, data integrity and access to knowledge (digital resources) additionally play an important role.

7.3.2.2   Sustainability with HERMES

HERMES as a complete product

The project's sustainability is supported by HERMES. The HERMES method components are described with regard to sustainability aspects below.

Scenarios and modules

In the procurement module, the sustainability objectives and requirements are included in the list of criteria for the procurement of services and products and are included in the evaluation.

Phases and milestones

It is important to enshrine sustainability objectives when defining strategic project objectives. These are included in the project as a requirement during the initiation phase.

- The decision to release the project is made at the end of the initiation phase. The core organization decides on the release together with the project sponsor. One of the key criteria in the process is how the project meets the sustainability requirements and objectives. Unsustainable projects are not even released as a result.
- With every phase release decision, compliance with the specifications and the project's alignment with the strategic objectives are checked. When choosing an option and at other milestones – such as the system architecture decision – the achievement of the sustainability objectives is taken into account as an evaluation criterion.

Roles

With their powers and responsibility, roles can promote a conscious approach to resources. The understanding needed for this is created already when defining the objectives. Accordingly, all roles and their tasks are decisive for the project's sustainability.

At the hierarchy levels of steering and management, the following roles are particularly relevant with regard to sustainability objectives:

- Project sponsor
  - o Defines the objectives in line with the strategy and sustainability requirements
  - o Prioritizes objectives and resolves conflicts between objectives
  - o Regularly checks the implementation of requirements and the achievement of objectives
  - o Ensures the involvement of stakeholders and their requirements
  - o Ensures the long-term resources needed for operation
- Project manager
  - o Enshrines sustainability awareness in the project
  - o Considers sustainability criteria when making decisions
  - o Ensures the careful use of resources
  - o When assigning roles, ensures that specialists have the skills needed to fill the roles and closes any skills gaps
  - o Takes stakeholder interests into account

At the execution hierarchy level, the following roles are particularly concerned with sustainability:

- Business analyst
  - o Determines the sustainability requirements of the core organization
  - o Supports the project sponsor in defining sustainability objectives
  - o Ensures that sustainability aspects are factored in when defining project requirements
  - o Sees to a value-oriented prioritization of requirements; The sustainability objectives are included in the evaluation of the requirements
  - o Evaluates options also from a sustainability viewpoint
- Operations manager
  - o Considers sustainability aspects when defining the operation-related requirements
  - o Considers sustainability aspects when drawing up the operating concept
  - o Ensures sustainable operation

In the core organization, the following role groups are particularly concerned with sustainability:

- Controlling and compliance bodies
  - o Assess compliance with the requirements and the achievement of the sustainability objectives
  - o Check the IT architecture in IT projects; homogeneous IT architectures should make it possible to ensure long-term operation and further development
- Executive board
  - o Prioritizes the projects in the project portfolio also using criteria that take sustainability into account
  - o Checks whether the sustainability requirements and objectives can be realistically achieved with the project

Tasks

Several tasks specifically support sustainability in the project, for example:

- The decision tasks for project release, phase release and project closure
- The task decide on an option
- The task decide on system architecture
- The task agree on and steer goods/services
- The task manage stakeholders and communication
- The procurement module tasks

Outcomes

All outcomes required for sustainable operation are developed in the project. These include the organization with its processes, as well as the outcomes for maintenance and further development, including the user manual, operating manual, system architecture and detailed specifications. The test infrastructure and test tools are transferred from the project to the core organization for further development after project closure.

The following outcomes support sustainability in decision-making:

- Study
  Assessment criterion for option selection
- Project specifications
  Evaluation criterion for evaluating the solution and providers
- Checklist
  Quality assurance criterion in the decision-making process

7.3.3 Financial steering and management

7.3.3.1 General

The project's financial steering and management start with the order to initiate the project and continue throughout all phases of the project.

7.3.3.2 Funding

The core organization provides the financial resources for the project. The initiation phase constitutes preliminary project goods/services which are financed using the project budget or line budget. The outlay for the initiation phase is included as preliminary goods/services in the project's economic efficiency considerations.

The planning of resource requirements and financing is carried out for the entire project. A master plan is created at the end of the initiation phase, and this is continuously checked and adjusted. The binding implementation and operating costs should be known at the end of the concept phase. These also factor in the costs of covering project risks.

The operating costs are financed using the project budget during project execution and then using the line budget.

7.3.3.3 Steering

With the project release decision, the project budget is approved by the core organization. The project sponsor assumes responsibility for this and releases the financial resources in phases. This release is steered by means of the phase release decision tasks.

The project sponsor is responsible for financial steering. Reporting provides him with all the information he needs to assess the project status and cost developments.

The project sponsor ensures the economic efficiency of the project. Accordingly, he steers the project costs and future operating costs.

If necessary, he appoints an independent quality and risk manager for steering support.

7.3.3.4 Management

The project manager is responsible for the financial management of the project. He takes care of project accounting and prepares the information for steering.

With the lead change management task, the project manager ensures that changes in requirements and scope as well as their effects on costs, personnel requirements and deadlines are identified, analyzed, applied for and decided upon in good time. The planning is adjusted accordingly.

7.3.4 Planning

7.3.4.1 General

Planning forms the basis for the efficient and effective use of resources in the project. It is the prerequisite for managing and steering the project. It supports communication and the reconciliation of activities among the project participants.

7.3.4.2 Procedure

After conducting the study with the objectives and option choice, the first step in project planning is the creation of a project structure. The project manager selects the appropriate scenario in HERMES online. The scenario with its modules, phases, milestones, tasks, outcomes and roles provides a basic project structure that is adopted for the project and adapted to the actual project situation.

The planning outcomes are recorded in the project management plan. It is the key instrument for managing the project and includes all the plans for the project. It is created in the initiation phase and continually updated.

The project is planned, steered and managed according to the principle of rolling planning. In the initiation phase, the project is first designed as a whole in the sense of a rough plan. Towards the end of the initiation, concept and implementation phases, the next phase is planned in detail before the phase release decision is made, and the rough plan is checked.

7.3.4.3 Rolling planning of phases

Planning of the overall project in the initiation phase

The project is planned as a whole in the initiation phase. The project is structured and the outcomes of the whole project are defined on the basis of the study. The human and financial resources are planned only in enough detail to ensure their availability for the entire project.

First, the project structure plan is drawn up. The procedure is as follows:

1. Create a study with options. Record the scope and limitations for the option chosen.
2. In HERMES online based on the project outcome
   a. Select scenario
   b. Check modules, tasks and outcomes; remove elements not relevant for the project

    c. Create a project structure plan and export it; it contains the phases, milestones, tasks, outcomes and roles and is integrated into the project management plan
3. Supplement project-specific milestones, tasks and outcomes
4. Adapt roles in the project management plan to the project

The project management plan is then drawn up with the steps listed below. They do not necessarily have to be carried out in this order and can be taken more than once.

- Identify risks and determine measures
- Create QA plan and review plan
- Estimate outlay for outcomes
- Determine interdependencies
- Create a schedule
  - o Ensure resources for the duration of the entire project with the agree on and steer goods/services task
  - o Factor in qualification and availability of resources when estimating outlay and duration
  - o Estimate the duration of the tasks
- Plan the use of resources
- Create a communication plan
- Create a cost plan
- Check project management plan with QA measure
- Coordinate the project management plan with stakeholders and verify it as a basis for the project order

Detailed planning for the next phase

The following activities are carried out:
- Review the project structure plan and complete tasks and outcomes
- Flesh out tasks and outcomes
- Define work packages for the next phase and specify persons responsible for each work package
- Flesh out the work package activities and outcomes
- Verify outlay estimates based on work packages
- Flesh out resource planning
- Flesh out the phase schedule
- Create decision plan
- Flesh out review plan
- Flesh out communication plan
- Update the risk list and measures
- Verify the overall plan
- Check project management plan with QA measure
- Coordinate the project management plan with stakeholders

USER INFORMATION

7.3.4.4   Planning and steering with work packages

The detailed planning of a phase is based on work packages. They are the prerequisite for controlling and steering the project. The following notes apply for work packages:

- Several work packages can be created from one HERMES task.
- One or more outcomes result from a work package. These are achieved in activities. When creating a work package order, the activities described in HERMES are further refined.
- Upon completion of the work package, the outcomes have been subjected to the QA measures defined in the review plan or test concept and have been accepted.
- A person is assigned responsibility for a work package. Several people can collaborate in a work package.
- A work package typically lasts between two and six weeks.

7.3.4.5   Planning accuracy in the course of the project

By proceeding in phases, the outcomes are continuously fleshed out (see the section on phases). As a result, uncertainty is reduced over the course of the project and planning accuracy increases. The outcomes' level of detail and planning accuracy are directly related. The planning accuracy to be achieved at a specific point in time determines the level of detail at which the outcomes should be prepared.

Figure 29 shows how planning inaccuracy decreases over the course of the project.

Planning inaccuracy

| Initiation | Concept | Implementation | Deployment |
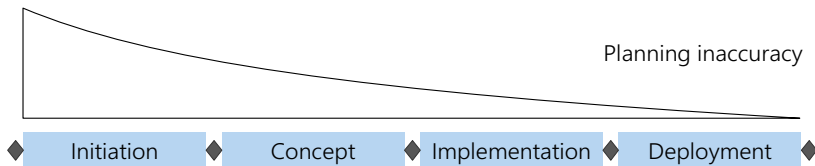
Figure 29:   Declining planning inaccuracy over the course of the project

HERMES cannot specify how accurate planning should be at a specific point in time, as this is highly dependent on the situation and on the characteristics and complexity of the project. However, this should be specified by the project sponsor and the controlling and compliance bodies of the core organization.

Estimates should generally indicate planning accuracy details, and reserves should be included in the project order and project management plan on that basis. For this purpose, the estimate assumptions must be documented in order to meet the governance requirement concerning transparent communication.

7.3.5 Implementation units and releases

7.3.5.1 General

If a project is to deliver initial outcomes for productive use as quickly as possible, or if the overall complexity is too high to allow the entire scope to be implemented at once, implementation and deployment can be broken down into several implementation units.

The implementation unit comprises all of the technical and organizational outcomes required for deployment and utilization.

In IT projects, the IT system is often implemented with software releases that are continuously tested and integrated. An implementation unit can be developed with several releases.

Implementation units and releases are defined as follows:

Implementation unit

An implementation unit (IU) comprises all of the technical and organizational outcomes of the project that are necessary for the system or parts of it to be put into operation. The product or system is used productively at the end of an implementation unit.

Release

A release is an outcome which constitutes an operational IT system. The release does not necessarily have to be put into operation by the user, and can instead be delivered in the form of a test object.

7.3.5.2 Implementation units and phase model

The HERMES phase model enables both the sequential and parallel development of implementation units. Each implementation unit covers the implementation and deployment phases. Before the start of the first implementation unit is released, the concept phase is completed.

Figure 30 shows the time lag for the implementation and deployment of two implementation units. Several releases are developed within an implementation unit.
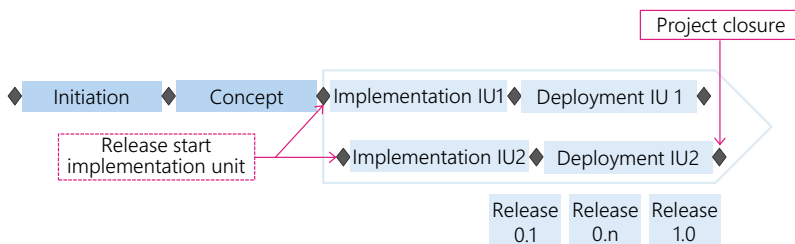
Figure 30: Time lag for implementation units (IU) with several releases

In the case of implementation units, the following points need to be observed:

- The initiation and concept phases are completed. Implementation units can be started after the concept phase. After that point, the project takes place in the phases and milestones of the respective implementation unit. There is no superordinate phase model.
- Although the number of implementation units is not limited by HERMES, the duration of the project should not be unlimited. For this reason, the implementation units are planned as a whole in the concept phase.
- Each implementation unit covers the implementation and deployment phases. Each implementation unit goes through the decision tasks of steering, management and execution.
- The start of an implementation unit must be released by project steering. This requires an updated project management plan.
- From a controlling perspective, implementation units are planned and controlled separately in terms of costs, deadlines, and outcomes. They form independent control units. Accordingly, reporting should be geared to the implementation units.
- For logical reasons, a final evaluation of the implementation unit is carried out at the end of every implementation unit and the lessons learnt are documented and used.

At the end of the last implementation unit, the project is closed with the corresponding tasks and outcomes. This includes the final project evaluation of all implementation units.

7.3.6 Application of the HERMES method in the program

7.3.6.1 Cornerstones of program management

Programs comprise several projects (see Figure 31) with a common objective. The program ensures cross-project steering and management of projects. The phase model facilitates project coordination and steering in a program.

The program sponsor steers the program. The program manager manages the program and coordinates the cross-project aspects and the interdependencies between the projects. The project manager manages his project.

The program order is available once the program has been initiated. This is the basis for implementing the program. Several projects are carried out during the implementation of the program. They go through all HERMES phases. Each project has a project order. Projects can be started with time lags, and they can be in different phases at a given point in time.

Project steering support can be provided by a project committee (project sponsor) and/or a higher-level program committee (under the leadership of the program sponsor). From the point of view of the controlling and compliance bodies, the program and each project are independent controlling objects with specifications regarding costs, time and outcomes.

When the program is completed, a final program evaluation is prepared and the program sponsor dissolves the program organization.
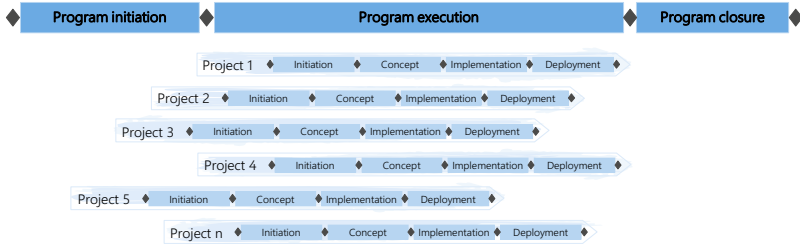
Figure 31:   **Projects can be pooled into programs**

7.3.6.2   Reference manual for program management with HERMES 5

Just like projects, HERMES programs are also carried out methodically and in a structured manner. The "*Reference manual for program management with HERMES 5*" is used for that purpose. It supplements this project management manual with all of the program-specific aspects needed.

7.3.7   Application with other methods and practices

HERMES defines the outcomes and the general course of the project. However, HERMES does not prescribe which methods and practices should be used to produce the outcomes. HERMES is thus supplemented by subject-specific methods and practices in the course of the project (see Figure 32). Users, developers and operators define these and coordinate them with the tasks, outcomes and roles according to HERMES.
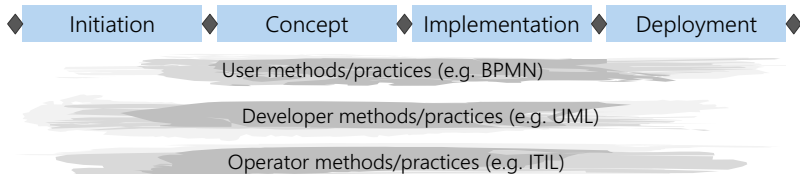
Figure 32:   **Use of supplementary methods and practices**

The following points must be observed when supplementary methods and practices are used:

- The tasks, outcomes and roles of project steering and project management are always based on HERMES and cannot be replaced by other methods.
- The phase model and milestones remain in place.
- Specifications on the use of methods and practices are recorded in the project management plan.

7.3.8 Agile project management

7.3.8.1 Agile project management with HERMES and SCRUM

Why agile

Many developers use agile methods to master the complexity of developing products and systems. The SCRUM method is used as an example to show how HERMES interacts with agile development.

Positioning of agile development in the phase model

HERMES covers the entire life cycle of the project. SCRUM governs the organization and steering of the development team. However, the development team does not need to see the phase transitions. The development team's involvement in project steering is limited, as the development team is steered via product backlog and sprint backlog.

Figure 33 shows agile development throughout the HERMES phases.
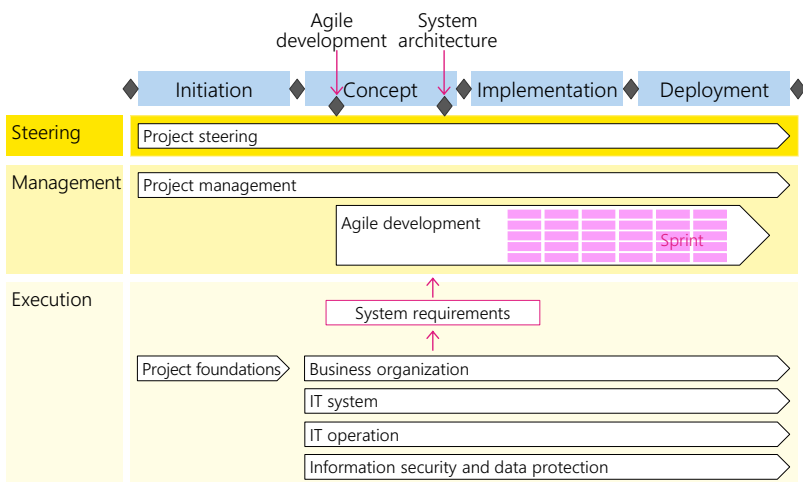
Figure 33:   Agile development throughout the HERMES phases

The HERMES phases and the decision tasks with the milestones of steering, management and execution continue to be carried out by the project manager and project sponsor. Even in the case of agile development, the project sponsor and project manager perform their tasks within the framework of project steering and project management, as these are not covered by SCRUM.

In using agile development with SCRUM, the development team focuses on the following phases:

Initiation

The initiation phase focuses on conducting the study with solution options. Accordingly, development is not yet of significance in this phase.

Concept

SCRUM can be introduced for agile development in the concept phase once the development partner has been determined and the development scope has been defined in a sufficiently stable manner. The agile development module is used for this.

First, the task decide on SCRUM is carried out. Agile development with SCRUM has an impact on partners, users, developers and operators. Therefore, the decision is made consciously with the involvement of those affected. The introduction of SCRUM is then planned and carried out using the task introduce SCRUM. Thereafter, the first sprints can be carried out. These can be used to verify the system architecture with a prototype (proof of concept).

The decision on the system architecture is made in the concept phase. For this purpose, the architecture must be created in such detail that it can be checked by the competent controlling and compliance body and the decision on the system architecture can be made. This ensures the sustainability of the IT system before many resources go into development.

Implementation

The focus of agile development is on the implementation phase. With agile development, the detailed specifications are prepared at a time that is close to development. The development of the system/product is carried out in sprints according to the respective detailed specifications.

Deployment

Further sprints are carried out in the deployment phase. In the process, corrections, bug-fixing, etc. take place in an agile manner until the system is accepted.

Scenarios

HERMES offers two standard scenarios that include agile steering of development with SCRUM:

- Customized IT application (agile)
- Service/product (agile)

With these scenarios, the user has an immediately applicable method for the agile steering of development.

The following section describes how HERMES and SCRUM are used together in an IT development project.

Agile development module

SCRUM is included in HERMES as the agile development module. It contains all SCRUM artefacts as outcomes, and the SCRUM events are integrated into the tasks.

Figure 34 shows the positioning of the agile development module in the customized IT application (agile) scenario. The module is at the management hierarchy level. It complements the project management module, whose outcomes and tasks are still needed because they are not covered by SCRUM.
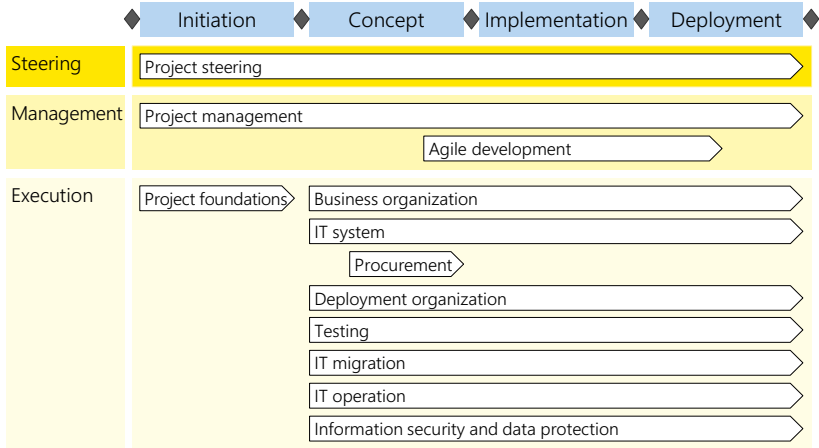
Figure 34: **Positioning of the agile development module**

The modules at the execution hierarchy level are still required, as SCRUM does not provide any information on the specific tasks and outcomes concerning procurement, development of the IT system, testing, migration, etc., and instead focuses on the agile steering of development.

7.3.8.2 Roles

SCRUM has three roles. They supplement the roles of the HERMES method and are lived out as defined in the SCRUM Guide™.

HERMES assumes that one person can hold several roles (role accumulation). This means that a HERMES role holder can also take on a SCRUM role. The table shows role accumulation possibilities.

SCRUM role	HERMES candidate for the SCRUM role
Product owner	Business analyst
	User's project manager
	Business process owner
	Application owner
	IT architect
Development team	Developer, business analyst, test manager, tester
SCRUM master	Developer, business analyst

Table 49: **Role accumulation possibilities with SCRUM**

HERMES and SCRUM have a fundamentally different understanding of team management. While HERMES assumes that the project manager issues work orders, the work of the SCRUM team is steered by the product owner via the product backlog, and the team organizes its work independently.

Maintaining the roles defined in SCRUM is a key success factor for the application of SCRUM. If roles are accumulated, it is important to ensure that the role defined in SCRUM is adhered to by the role holder.

7.3.8.3 Tasks

Extensive focus of tasks

The tasks' focus on software development is more extensive in the agile development module than is the case in SCRUM. The table shows the tasks of the agile development module and how they are related to the SCRUM Guide™.

HERMES task	HERMES task description	SCRUM Guide™
Decide on agile de-velopment using SCRUM	The decision forms the basis for agile development using SCRUM. It determines how the agile work for development with SCRUM is done and how it is introduced.	Not available
Introduce SCRUM	The targeted introduction of SCRUM creates the prerequisite for agile development.	Not available
Keep a product backlog	The product backlog creates the prerequisite for drawing up the release plan and conducting sprints.	Part of SCRUM. An activity of the product owner role.
Design release plan	The release plan forms the basis for conducting sprints, planning the delivery of a release to the users and coordinating activities with the affected bodies.	Not available
Conduct sprints	Conducting a sprint leads to an agreed, concrete and verifiable outcome.	The sprint is at the heart of SCRUM. It contains all SCRUM outcomes and is described in the SCRUM Guide™. In HERMES, the SCRUM events are listed as activities in this task.

Table 50: HERMES tasks and how they are related to the SCRUM Guide™

Particular attention must be paid to the following tasks of the project management module in the case of agile development:

Lead change management

Prioritizing the product backlog leads to changes in the scope of goods/services. The project managers of the user and developer lead change management according to the process that has been defined for the project and is recorded in the project management manual. SCRUM does not make this task superfluous.

Even if using SCRUM, attention must still be paid to the scale and scope of the project. An extension of the scope or a shift in the project scope can affect the core organization and must be assessed by the competent bodies. These include in particular the project sponsor and the controlling and compliance body responsible for project portfolio management.

Agree on and steer goods/services

Goods/services are steered by prioritizing the requirements using the product backlog and sprint backlogs.

In the case of service level agreements at fixed prices, changes in the scope of goods/services lead to contract amendments. The change status list forms the basis for this.

7.3.8.4   Positioning of HERMES and SCRUM

SCRUM is used as a supplement to HERMES in a project using agile development with SCRUM.

The table shows the fundamentally different positioning of HERMES and SCRUM. It clearly demonstrates that SCRUM does not replace HERMES, and instead supplements it when required.

Focus	HERMES	SCRUM
Project life cycle	HERMES covers the entire life cycle of the project, i.e. from the project initiation order to project closure.	SCRUM covers the period in which development takes place.
	The phase model defines differentiated decision points at which the project is coordinated with the core organization (e.g. for the coordination of the system architecture).	SCRUM does not define any differentiated decision points for coordination with the core organization.
Outcomes, tasks, roles	HERMES defines all outcomes, tasks and roles for specific scenarios.	SCRUM defines the outcomes (artefacts), tasks (events) and roles required for the agile steering of development.
	Outcomes, tasks and roles are tailored to the concrete project content (i.e. to the characteristics of a project). They are specific.	Outcomes, tasks and roles are not tailored to the concrete project content (i.e. to the characteristics of a project).
	HERMES describes concrete tasks for the production of project-specific outcomes.	SCRUM does not describe concrete tasks for the production of project-specific outcomes. SCRUM does not describe a development process; rather it "makes clear the relative efficacy of your product management and development practices so that you can improve" (quote from SCRUM Guide).
Hierarchy levels	HERMES distinguishes between the hierarchy levels of steering, management and execution. The roles are assigned to these three hierarchy levels.	SCRUM distinguishes between the levels of steering and execution.
	HERMES comprises several modules, each of which is assigned to one of the hierarchy levels. The differentiation of these hierarchy levels is a significant governance element.	
Partners	HERMES defines the cooperation between the user, developer and operator.	SCRUM defines the cooperation between the user (product owner) and developer (SCRUM team role).

Table 51:   Different positioning of HERMES and SCRUM

7.3.8.5   Overview of the method components

HERMES and SCRUM consist of similar method components, making it easy to integrate the SCRUM framework into the HERMES method.

HERMES method components	SCRUM method components
Outcome	Artefact
Task	Event
Role	Role

Table 52:   HERMES and SCRUM method components

7.3.9   Deployment of HERMES in the organization

7.3.9.1   General

Since each organization has its own specific characteristics, it is essential to adapt the method to its needs to ensure efficient project management.

The following objectives are pursued with the integration of HERMES into the organization:

- Specific core organization processes and requirements, which HERMES is not aware of, are taken into account.
- The project manager and other project participants receive even better support. They have a framework defined specifically for the organization.
- Project management efficiency is increased, as processes and specifications do not have to be reinvented for every project.
- Quality is increased with the more extensive integration of practices into the method and tools.
- HERMES training can incorporate organization-specific adaptations and accordingly be more effective.

7.3.9.2   Procedure

HERMES is best integrated into the organization in the form of a project.

The project can be carried out on the basis of the service/product scenario. In doing so, the aspects of the deployment organization are also taken into account in training, and the business organization with the processes for operation and further development of project management are created and activated.

The adjustment is made by the project management competence center.

7.3.9.3   Adapting the method

Integration of important elements into the method

The core organization's specifications are integrated into the method, e.g.

- Requirements arising from organization-specific processes
- Reporting requirements (project status report, phase report)

- Decision-making process requirements
- Specifications for contracts and agreements
- Security and data protection aspects
- IT architecture aspects

The specific methods and practices for producing outcomes are integrated into the method, e.g.

- Presentation of requirements engineering outcomes
- Presentation of business process modelling outcomes
- Practices for integration into operation

The method components are adapted if necessary. The following points should be observed in the process:

Phases and milestones

- The defined phases and milestones cannot be omitted.
- The names of the phases should not be changed.
- Additional phases and milestones can be defined, i.e. phases can also be further subdivided.

Scenarios, modules, tasks

- New scenarios, modules and tasks can be created.
- The defined HERMES scenarios and modules can be extended with tasks and outcomes, but not reduced. If tasks or outcomes are removed from a scenario or module, this leads to an individual scenario.

Outcomes and document templates

- Minimum outcomes cannot be omitted.
- Several outcomes can be integrated into a single document.
- Outcomes can be split. Several document templates can be created for one outcome.
- Additional outcomes can be defined.
- Outcomes can be described in greater detail. This is done in the document template.
- HERMES document templates can be replaced with organization-specific document templates.
- Document templates should include the contents defined in the outcome description, but they can be expanded and fleshed out.

Roles

- Roles can be described in greater detail as long as the essential task area is identical.
- Further roles can be defined. A role description is mandatory for each new role.
- New roles must be assigned to one of the hierarchy levels and a partner.

Checklist

- Checklist contents can be freely adapted and expanded.
- Checklist components described in decision tasks cannot be omitted.
- Separate individual checklists can also be defined in addition.

Once the organization-specific adaptations have been made, scenarios are created for projects with the same characteristics.

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Appendix B – Figures

Appendix C – Tables

Appendix D – Alphabetical list of Scenarios

Appendix E – Alphabetical list of Modules

Appendix F – Alphabetical list of Roles

Appendix G – Alphabetical list of Tasks

Appendix H – Alphabetical list of Outcomes

The project management method for information technology, services, products and business organization.

HERMES can be applied immediately and offers

- Scenarios for concrete project processes
- Web tool to support the method
- Document templates, including a checklist, for efficient project management

HERMES is simple and understandable and provides

- Clear task descriptions with activities
- Concrete role descriptions for cross-organizational cooperation
- Document templates for quick results

HERMES supports

- The project sponsor with regard to governance and sustainability
- The project and program manager with planning, checking and management
- Specialists with project execution
- Management with the higher-level strategic steering of projects and programs

This reference manual is the standard for IT projects of the Federal Administration and many cantons, communes and companies. HERMES is also the eCH standard for e-government projects and programs.
Program management is dealt with in a separate reference manual.

HERMES is recommended for all types of programs and projects.

HERMES covers all dimensions of modern program and project management, such as procurement and supplier management, communication and stakeholder management, risk and quality management, change management, agile development, governance and sustainability. Moreover, program/project-specific procedures are described.

HERMES online: www.hermes.admin.ch