

**Deutsches Institut für
Interne Revision e.V.
(German Institute for
Internal Auditing)**

DIIR Audit Standard No. 4

**STANDARD FOR
AUDITING PROJECTS**
DEFINITIONS AND RULES

DIIR "Project Management Audit"
Project Group

Authors:

Robert Düsterwald
Susanne Fries-Palm
Frank Giesing
Michael Peis
Ulrich Schwarz

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1 Introduction

1.1 Importance of projects to companies

The importance of projects as a strategic success factor in terms of companies' sustainability has continued to increase in the past few years.

Projects are implemented for a variety of reasons. There needs to be a rapid and appropriate response to changes in globally oriented markets with timely adjustments to business processes, organization and IT systems within one's own company.

Renewal of obsolete infrastructure is required so as not to get left behind in terms of innovative developments and in order to be able to maintain business operations. The rapid introduction of an innovative process or system can become a crucial competitive advantage in the marketplace.

The one-off, temporary nature of adjustments to a changed internal or external environment usually requires that they be implemented via a project rather than via a line organization that is geared to standard processes.

Owing to the rapid changes occurring in global competition, the success of such projects is absolutely essential. Projects also entail very high costs. According to a study conducted by GPM Deutsche Gesellschaft für Projektmanagement e.V. (German Association for Project Management), more than half of the companies surveyed spend more than 10% of their total costs on projects, with 22% of companies even spending more than 50%.

However, the results of projects often turn out to be different from what was planned. Most IT projects fail to achieve their targets, and the failure of all types of projects is largely attributable, directly or indirectly, to inadequate project management.

This comes as no surprise as project management plans and controls constitute the key framework for the project activities running within it. Based on experience, project results are very seldom better than the project management plans and specifications that contain the production process for generating them. Unclear arrangements and specifications in respect of quality targets may, for instance, result in unsatisfactory quality. Poorly defining and planning the project deliverables may lead to massive time and budget overruns. Delays in making decisions on how to deal with project risks, for instance provision of resources with the appropriate expertise, may have a serious impact on the schedule and cost budget. In particular, specifications that are often unclear in relation to project targets and to the roles of the parties involved as well as inadequate or non-binding project planning cannot be offset by the project team members and often lead to targets being badly missed.

If it is Internal Audit's task to audit the organizational structure and process organization in a risk-oriented way, then, against the background described, there should not be any audit gap specifically for auditing project management organization and processes. To date, the auditing of projects has not been described in a uniform manner, either in practice or in theory. To a certain extent, the project management audit, which is possibly the most important component of project audits, is still largely new territory because up to now there has not been a definitive approach to combining project management and audit.

Nevertheless, an increasing number of companies are now recognizing the need for project (management) audits to be conducted by Internal Audit or by external parties with a view to improving project management processes and as a measure for improving the success of projects. In the financial services sector, owing to regulatory requirements, it may even be imperative to have Internal Audit review certain projects.

Subjects of audit in projects, particularly in the area of project management, can essentially be audited in exactly the same way as any other corporate processes. In this regard, not only in-house project portfolio management and its standards (if available) but also internationally recognized project management frameworks, such as PMBoK, PRINCE2 or ICB, may be of assistance. These set out best practice standards for the implementation of projects and can be used as the standard for an audit.

1.2 Content of this document

This document describes the ***standard for auditing projects***.

The standard describes the type, content and scope of project audits, with the main focus on project management audits, and provides initial recommendations of a general nature on how to conduct audits. It relates to all types of projects as even projects in different fields have certain characteristics that are always the same. It is to these characteristics that the standard refers. It does not go into differences in the project contents that are of a technical nature.

As project management methodology and auditing have hitherto not used standardized terminology for projects, the main aim of the standard is to establish a clear nomenclature from an auditing perspective and to define and delineate the types of project audits in a standardized way. The standard is therefore not an actual guide on how to conduct an audit but rather a framework, which can be used, in particular, to plan an audit and to coordinate and specify the audit assignment. This makes the standard a kind of “map” for auditors that can provide them with a basic set of directions. The standard does not, however, describe the actual execution of the audit in detail. Rather, the statements it makes can and indeed need to be adapted to the respective corporate context.

It is planned to gradually supplement the standard by adding explanatory notes as part of a guideline.

1.3 Addressees

This document is directed primarily at staff and managers of audit units, but also at certified public accountants, project customers and project managers and at staff of consultancy firms. It should be noted that project management auditing requires basic skills in project management itself.

1.4 Binding nature of the standard

The ***standard for auditing projects*** is of a recommendation nature for members of DIIR. If adjustments are necessary in the corporate context owing to the scale of a project, or for other project-related or organizational reasons, the standard should be applied *mutatis mutandis*.

2 DIIR definitions

2.1 Definition of projects

Project

A project is a temporary organizational structure and process organization comprising a special management environment aimed at creating one or more business products based on a specific business plan (hereinafter referred to as “business case”) on a one-off basis within a specific timeframe using resources that have been provided specifically for that purpose (cf. PRINCE2). The project includes the planning, deployment and management of all the company resources that have been provided for the particular purpose as part of assigned powers.

Key elements of projects:

- Temporary organizational structure and process organization
- Special management environment
- Business case/project brief as a basis
- Defined end products
- Defined starting and completion date
- Assigned resources (also personnel)

Additional element (to be defined in more detail in the corporate context):

- Budget allocated specifically for the project task or equivalent in internal person hours

Program

A program is a number of different projects under unified management that serve a common business case. In this document, for the sake of simplicity, no distinction is made between programs and projects, and only the term projects is used.

Portfolio

A portfolio is a number of projects in a particular organizational unit that have different business cases and are not under unified management.

2.2 Definition of project management

Overall project management

Overall project management encompasses all of the organizations and systems, including the project customer's, that are aimed at generating and successfully implementing a particular project. Overall project management, in turn, comprises two components:

- Directive project management (synonymous with “project control”)

(usually represented by the steering committee, i.e. by the project customer and the management of the third parties who are involved in a major way in the project)

This includes all of the organizations and systems that the project customer uses to make decisions in respect of the general project content and objectives of a particular project. Directive project management has a basic control and escalation function that extends beyond operational project management, which occurs on a day-to-day basis, and it overrides the latter.

- Operational (day-to-day) project management

(usually represented by the project manager appointed by the steering committee)

This includes all of the organizations and systems that are used for the day-to-day planning and management of a particular project based on the project brief.

In the following, for the sake of simplicity, the term “project management” is always used for “overall project management”.

Project portfolio management

Project portfolio management encompasses all of the organizations and systems that are aimed at generating, prioritizing and/or systematically supporting the successful implementation of several projects in a particular division or business unit.

Project control system

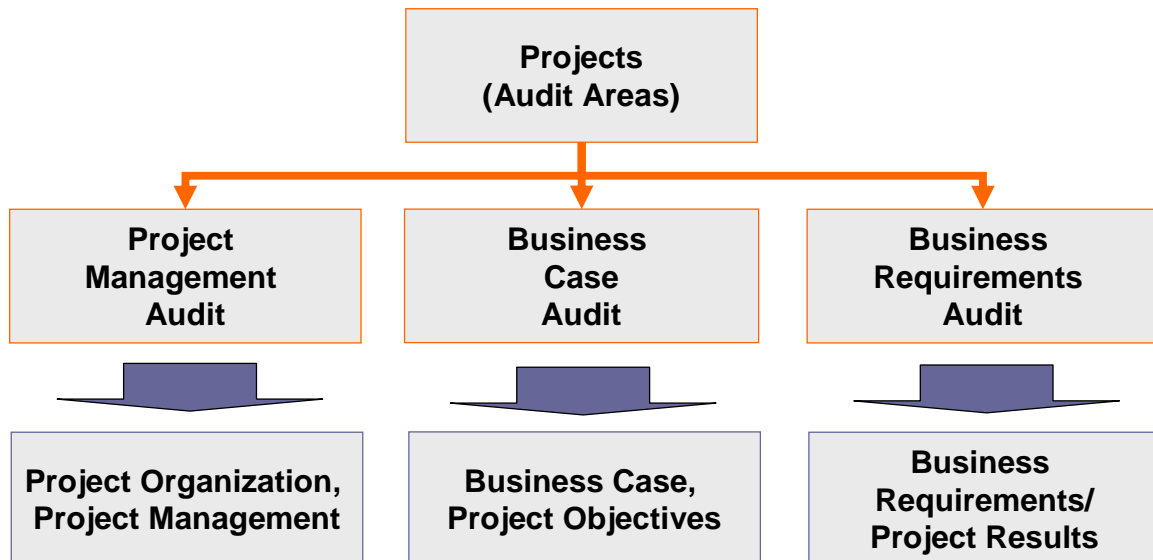
The project control system is the system that is used within a company to successfully coordinate the organizations, systems and processes involved in the generation, prioritization and implementation of projects.

3 Audit areas and audit objects

3.1 General audit areas in projects

The audit areas in projects are shown in the following diagram:

Diagram 1: Audit areas in project audits



DIIR has decided on the following definitions for purposes of defining the audit terms used for the individual audit areas in projects.

3.2 Project audit

A project audit is an audit that involves auditing a project in terms of its project management, its business case or its business requirements incl. their implementation.

Projects are, in general terms, auditable with regard to their effectiveness and efficiency but also with regard to their compliance with statutory, regulatory and corporate guidelines. As such, the audit should review a projects organization, terms of reference, specifications, strategic goals, plans, controls and project management processes as well as to the results of the project teams. In-house guidelines and specifications, statutory regulations, but also the best practice standards set by project management frameworks such as PMBoK, PRINCE2 or ICB, can be used as assessment criteria.

Audit objectives:

The actual audit objectives of a particular project audit are to be adjusted to reflect the risks and content of the respective audit areas within the overall “project audit” area.

It is possible to combine project audits with audits of audit areas outside of the actual project audit, for instance, with procurement or financial audits.

3.2.1 Project management audit

A project management audit comprises an examination of the organization, the processes and the products of project and portfolio management.

Recommendation:

The project management audit ascertains whether the project or portfolio management is suitable in terms of managing the project activities so as to ensure that delivery of the project objectives in respect of time, budget and quality can fundamentally be achieved. If there are weak points, it makes appropriate recommendations for improvements.

The project management audit examines the organization, plans, controls, specifications and operational measures of project management or portfolio management units in terms of their effectiveness and efficiency.

3.2.2 Business case audit

A business case audit comprises an examination of the processes used to prepare the business case for a project or an assessment of the business case itself.

Recommendation:

A business case audit ascertains whether the justification for the project is based on suitable analytical processes and calculations as well as on sufficiently valid assumptions. Its audit objective is, at a minimum, to assess the effectiveness and efficiency of the processes used to prepare the business case.

Additional audit contents and objectives are possible, for instance, an assessment of the content of the business case based on business or economic criteria. However, the actual design of a business case audit should be defined in basic correlation with Internal Audit’s company-specific mandate in order to avoid any disputes over autonomy and overlaps with other divisions or third parties.

3.2.3 Business requirements audit

A business requirements audit comprises an examination of the business requirements of the project as well as their implementation as part of the project work (so-called “specialist products”).

Recommendation:

A business requirements audit ascertains whether the definition of the business requirements and their subsequent implementation in respect of the approved business case are appropriate and comply with statutory, regulatory or company-specific guidelines (audit objectives: compliance, effectiveness and efficiency). Hence, a business requirements audit deals with the interim and final results of the business project work.

4 Project audit universe

Projects follow a life cycle which, from an audit perspective, can be broken down into five *project stages*.

The *audit areas* of a project include other sub-areas, so-called *audit fields* (mostly processes, such as “integration management”, but also products, documents and organizational elements).

Audit areas and *audit fields* can be displayed as *rows*, and *project stages* as *columns*, in a matrix. Within the relevant audit fields, there are specific, auditable *audit objects* (*field contents in the matrix*) in the respective project stages. The audit areas, project stages and audit objects together form the matrix of the project audit universe.

The structure of the project audit universe is based on the project management processes outlined in the PMBok (Project Management Body of Knowledge, published by PMI, the Project Management Institute), however it has been modified for audit purposes.

PROJECT AUDIT UNIVERSE

Audit areas and project stages	PROJECT STAGE I Initiation	PROJECT STAGE II Planning	PROJECT STAGE III Execution	PROJECT STAGE IV Completion	PROJECT STAGE V Post Implementation
I. Audit area: project management					
1. Project organization	Project sponsor /stakeholder	Plan, project organization, project manager	Project organization, project roles	Project organization, project roles	Dissolution of project organization
2. Integration management	Project mandate, provisional project charter, Open-Issue-List	Project plan, project structure plan, project management plan, management of open issues	Project management meetings, steering committee meetings, documented decisions, management of open issues	Transfer of open issues to line	Ideas for follow-up projects
3. Content and scope management		Change management plan, change request form	Change requests, updating of project plan	Transfer of project results to line	
4. Time management		Milestone plan, activity plan and sequencing, resources and work packages, critical path	Time management, compliance measures, updating of plans		
5. Cost management		Cost plan	Cost/benefit equation (target-performance comparison, forecast)	Completion diagram	Historical cost/benefit analysis, margin/variance analyses
6. Quality and test management		Quality plan	Quality reviews reports, approvals	Quality review reports, approvals	
7. Human resources management		Human resource requirements plan, project team list	Recruitment, human resources management	Dissolution of project team	

Audit areas and project stages	PROJECT STAGE I Determination	PROJECT STAGE II Planning	PROJECT STAGE III Execution	PROJECT STAGE IV Completion	PROJECT STAGE V Follow-up inspection
8. Communication management		Meeting list, communication plan, project documentation system, configuration plan	Project management meetings, minutes, workshops, project results documentation	Knowledge transfer (transfer to line)	Lessons learned
9. Project reporting		Templates for reports, KPIs for the project	Project progress reports	End stage report	
10. Risk management		Risk management plan, initial risk list	Risk management, updating of risk list		
11. Procurement management		Procurement plan, quotations	Contracts, accounting, performance of the contract	Completion accounts	
II. Audit area: business case					
Business case	Project objectives, analyses, assumptions	Business case, calculations, approvals, budget approvals	Additions to the business case, changes to assumptions		
III. Audit area: business requirements					
Business requirements		Results provided by the project teams, e.g. analysis of the status quo, plans, drafts	Results provided by the project teams, prototypes, test plans, tests	Final results provided by the project teams	Post implementation results

The matrix only shows a minimum structure. Other breakdowns and other audit objects are conceivable. In particular, the actual definition of the audit objects depends on the individual project content and schedule as well as on the respective individual audit.

Recommendations:

- Use a uniform project audit universe

All project management audits should be guided by this uniform project audit universe. It is permissible, in individual cases, to use a different project audit universe, for instance because company-specific factors are being taken into consideration or because a uniform project management standard is being used within the company that is strictly and solely based on a specific, recognized project management framework (for instance, exclusively based on PRINCE2, ICB or PMBoK), if the particular universe does not have a fundamentally different structure from that of the matrix.

- Take into account the special characteristics and circumstances relating to the project that is to be audited

Owing to the strong interdependencies of audit objects, it is advisable to examine as fully as possible all of the results of an audit area that are auditable at the time during a project stage. It may, however, be appropriate or even imperative to exclude audit objects under certain circumstances. Such circumstances may include:

- Experience gained during previous audits
- Special features in relation to the type and content of the project task
- The size and complexity of the project

Taking this into account and with a view to making the best possible use of the audit team's limited resources, it is advisable to set relevant audit focal points based on risk-oriented priorities. However, in the case of a project management audit, audit fields 1, 2, 3, 4, 9 and 10, at a minimum, should be part of the audit.

- Take into account the project life cycle during the project management audit

The project life cycle, i.e. the project's status during the project stage in which the audit is conducted, should be properly taken into account in every audit. As the project develops on an ongoing basis, there will be recurrent, but also constantly additional, audit elements during the course of the project (*cumulative audit approach*).

Preparing and conducting the audit: if the audit is being conducted for the first time at a relatively late stage of the project, the audit should include not only the processes and plans that are current during that particular stage but also the project management products that were produced in earlier stages.

Reporting on the results of the audit: the assessment of the results of the audit must always take the relevant project stage into account.

5 Audit approach and procedure

5.1 General approach

The execution of projects can involve major risks for the company's success. Project audits should therefore be an integral part of the tasks of internal audits.

Recommendations:

- The planning of project audits should be an integral part of the planning of internal audits.
- Project audits can and should be planned, implemented and documented according to the same rules that apply to all other audits. Nonetheless, the following specific features must be taken into account:
 - Discontinuation of projects owing to premature termination of the project or if major changes are made to the project content before or during the audit:
In this event, the audit should be cancelled or discontinued, alternatively no follow-up should be implemented. The reasons for this must be documented. If major changes are made to the project content or if the project is to be revamped, it is advisable to set up a new audit.
 - Major changes/delays in the project schedule or content that are likely to affect any useful follow-up:
In this case, no follow-up should be implemented or a whole new audit should be initiated instead of a follow-up. The reasons for this must be documented.

5.2 Priority of Internal Audit

Project audits should preferably be implemented by Internal Audit.

Recommendation:

DIIR recommends that it be checked first of all whether Internal Audit can conduct a project audit with sufficient experience, knowledge and adequate resources within the desired period. All audit activities should be implemented, if possible, solely and consistently under the management of Internal Audit.

If this is not the case, the services of external auditors can be enlisted. Even in this case, Internal Audit must be involved in the audit. The customer and Internal Audit will receive the results of the audit.

5.3 Independence of project audits

In order to safeguard the quality of the audit work, it must be ensured that the auditor is independent and has the necessary detachment from the projects that are to be audited.

Recommendations:

- In order to rule out conflicts of interest, auditors should not be employed as project managers outside of Internal Audit.
- At the very least, it must be ensured that auditors who are being employed as auditors on a particular project are not employed as a project manager or as a member of a project team in the same or in a closely linked project before, during or after the audit.

5.4 Criteria

The assessment of audit results in a project audit should be based on specifically defined criteria.

Recommendation:

In order to assess a project, particularly its project management, there are frequently several criteria available. Internal Audit should solely use one of the following criteria. It is fully responsible for deciding on the assessment criteria and takes the adequacy of the criteria in relation to the actual project and the respective corporate context into account.

The following assessment criteria can be considered suitable:

- Existing project (management) standards used by the division that has commissioned the project or by the company insofar as any such standards have been assessed as adequate by Internal Audit and have been audited by the Internal Audit itself
- Generally accepted and widely used project (management) standards, such as PMBoK, PRINCE2, ICB or the like, provided their use is binding within the company
- Separate, standardized criteria used by Internal Audit that have been derived from such standards

5.5 Preventive approach

The assessment of effectiveness and efficiency at the end of a project frequently takes place too late as it is difficult, if not impossible, to take remedial action. Inconsistent or inadequate project management increases the risk of project failure.

Recommendation:

Project audits, specifically project management audits, should not be carried out at the end of a project, but rather during earlier project stages, for instance during the planning stage.

5.6 Project-supervisory approach

It is often useful, and indeed required where regulatory requirements have to be met, for a project that is important in strategic-economic terms to be accompanied by an audit (see above). However, the constant presence of auditors during a project ties up a considerable amount of audit capacity over the entire project duration. What is more, the continual proximity of auditors to the project may jeopardize their vital independence.

Recommendation:

A project-accompanying audit should also be planned and prioritized based on risk considerations. It should preferably be implemented based on a series of modular, individual audits in order to safeguard the necessary internal independence and to ensure optimum use is made of the auditors.

A project-accompanying audit should also be adequately documented. Irrespective of whether a report is issued after the audit has been completed, it is also advisable, where audits are carried out over an extended period, to draw up status or interim reports.