BEST PRACTICE

ISO 21500 in Practice

The international Guidance on project management

A Management Guide
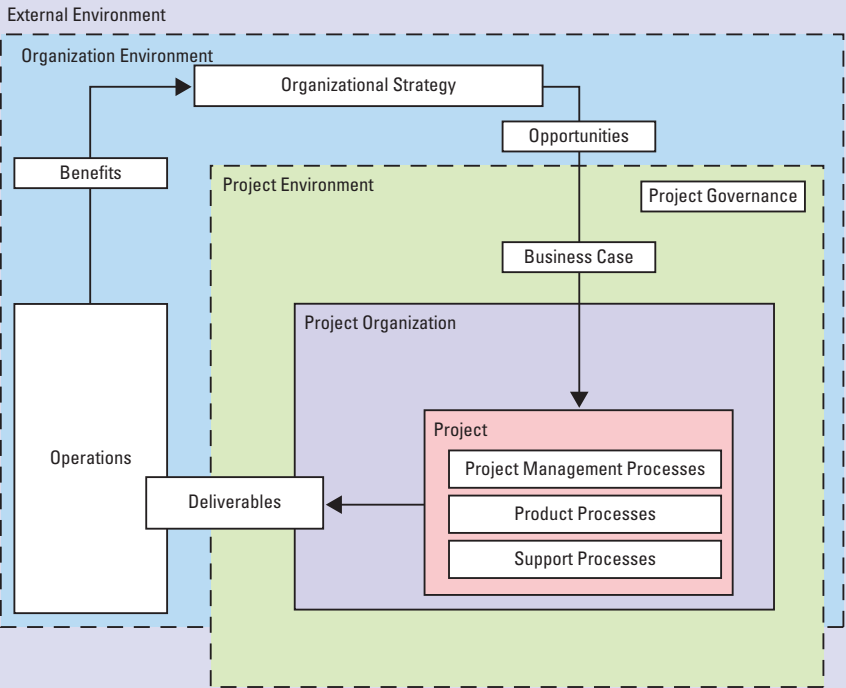
External Environment

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Deliverables

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ISO 21500 in Practice – A Management Guide

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ISO 21500 in Practice – A Management Guide

The International Guideline for Project Management

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PUBLISHING

Colophon

Contents

Foreword

The international guideline for project management, ISO 21500, was released in 2012 and has since been much talked about by the international community. Individuals and companies have been considering the subject matter in order to embrace, incorporate and/or adapt to the guidelines in ISO 21500 and much experience has been gained as a result.

This book is a revision of a publication in Dutch that was written at a time when ISO 21500 was still "new". This revised version, in English, therefore contains much of the solid practical content of its predecessor, but it also incorporates the complementary knowledge and experience gained since ISO 21500's release.

It not only features many tips on how to practically apply ISO 21500 in projects but it also takes a step backward and looks at the process of implementing ISO 21500 in an organization from the very beginning of interest at the bottom of the project management maturity scale to the point where benefits are being measured and continued improvement has become a sustainable process. In other words you see *how* to get the most value out of the guideline and how to make it work for you and your organization.

The arrival of ISO 21500 was a major milestone for the project management profession. It is the first real broad-based guideline for project management, and as such it will form the basis for current and future project management standards – in essence, a document that acts as a starting point for the further development of the project management profession. This was one of the key reasons for writing this book.

This book gives an answer to the most commonly asked questions about ISO 21500, with the central question: What is the importance of this guideline for the practice of project management?

The authors trust to give you, the project management professional, many tools and tips to get started with using the guideline and improving your project management skills and competences. Of course, now you have to take it from here, so we wish you the best of success and many new insights!

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1 Introduction

ISO 21500, officially published by the International Organization for Standardization (ISO) in September 2012, is a guideline for project management. It presents a common frame of reference and a process standard, that is intended to be overarching for all standards and concepts of project management. This international standard firmly positions projects within the context of programs and project portfolios, without extensively discussing the management of programs and project portfolios in depth.

■ 1.1 WHY THIS BOOK

The objective of this book is to clarify ISO 21500. Guidance on project management is provided to show that it can be applied in virtually every type of organization, for both profit as well as non-profit organizations, and for every type of project, independent of complexity, size or duration.

■ 1.2 WHO SHOULD READ THIS BOOK?

This book is aimed at everyone working in projects, sponsoring projects or those who will be using the outcomes of projects. In practice this logically includes everyone working in an organization. Projects are not limited to a specific branch or domain. A project is the most commonly applied organizational structure for realizing changes within, on behalf of, or between organizations.

The target audience of this book is, therefore, not limited to project managers and project team members. Of course, they form the primary audience for a

guideline on project management. But the guideline is also relevant for line managers and other management functions in an organization. Especially since these functions are heavily impacted by projects and they can strongly influence and play an important part in the successful realization of a project. Therefore they can benefit from a generally accepted guideline on project management.

■ 1.3   HOW TO READ THIS BOOK

This book describes the What, Why and How of ISO 21500 *Guidance on project management*, and it covers these aspects in that order.

Chapter 2 provides an introduction to the content of ISO 21500. It describes the background and the process that led to the creation of this standard. It also provides an overview of its structure and content, without literally copying its detailed contents. For the full unabridged version of the ISO Guideline for Project Management please go to (www.iso.org/iso/home/store.htm) or the website of your national ISO representative.

Chapter 3 explains the value of ISO 21500. In this chapter the Why of the standard is explained in more depth for the different roles in the organization and in the project environment.

Chapter 4 then continues by positioning the standard within the overall landscape of ISO standards and project management techniques, models and best practices. In this chapter we also highlight the views on this standard by the largest professional associations for the project management professions: PMI and IPMA. It will clarify how ISO 21500 relates to their publications, PMI's *A Guide to the Project Management Body of Knowledge* (*PMBOK® Guide*) and the *IPMA Competence Baseline* (ICB).

Chapter 5 deals with the implementation of ISO 21500 and its practical use in and by organizations.

In chapter 6 a roadmap is presented for the application of ISO 21500 to a project. This chapter also contains a case study, where a fictitious implementation scenario is presented as a practical example of how ISO 21500 can be applied.

Chapter 7 describes the expected future developments of the ISO standards in the domain of project, program and portfolio management and the impact on other standards and guides on project management. Is ISO 21500 the first step to a truly global standard on project management?

This book also aims to provide answers to the most important questions that the authors themselves had wondered about in relation to ISO 21500. Chapter 8 lists these questions, including clear references (where possible) to the applicable section in the book where this question is answered and discussed in more detail.

The Annexes contain information on the ISO organization and the international standardization process, as well as a list of specific terms and definitions as defined in the ISO 21500, together with various references. Finally, details of the authors of this book are provided.

In case you have any questions after reading this book, then please contact one of the authors. Based on this we can make improvements and add additional questions and answers and experiences to the next publication!

2 Origin and structure

This chapter describes the rationale for the creation of an ISO 21500 and the economic importance thereof. Subsequently, the history and the structure of the standard are briefly explained.

■ 2.1 THE MOTIVATION FOR ISO 21500

In 2010, 18.6% of the Gross Domestic Product (GDP), or €15.9 trillion, was invested by the advanced economies (Australia, Belgium, Canada, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hong Kong, Iceland, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, San Marino, Taiwan, Sweden, Switzerland and United States). The expectation is that this will grow to 20.7% of the GDP, or €22.3 trillion, in 2016. To put these massive amounts in perspective: €8,600 is invested each year for each person from the newborns to senior citizens in the advanced economies. [1]

This is a huge amount. Certainly, with an investment of such a large sum of money, everyone would wish to see a return. Achieving a return on an investment indicates growth, and since the advent of the industrial revolution it is commonly accepted that a key condition for growth is standardization at the micro, middle and macro levels.

Many investments are managed in a project-based manner. Many of these projects and programs are staffed by various disciplines and externally hired co-workers. One expects that they all should cooperate effectively, that everyone should be able to perform their tasks well and at the same time, that all of this should be coordinated and implemented in a process-driven way.

For Information technology (IT) projects alone, there are at least seventeen different project management methods currently being used. One wonders who is capable of applying all of these methods correctly? What if the project is more complex than simply a pure IT project? How do you communicate with other stakeholders? Is anyone capable of understanding the whole picture? It is, therefore, time for a global guideline on how we can work together successfully in projects. ISO 21500 is a first step towards an overarching standard for the management of projects [2].

Although the role of ISO 21500 is limited in its reach, this guideline provides a good platform for the creation or further development of the project management methods in organizations. Proper control of the project management processes will increase the chances of project success.

An important feature of ISO 21500 is the introduction of a global standard and language for the field of project management. ISO 21500 is an overarching project management framework and reference point for the project practice of your own organization. If your practice conforms to the requirements and criteria of ISO 21500, then you have a sound basis for competent project managers to deliver good project results. In addition, you can show both internally in your organization, and externally, that you are able to deliver quality in your projects, because your project practice is based on the independent, internationally recognized benchmark for project management practice, namely ISO 21500. This guideline can have a direct, positive influence on the way that the projects are executed, and thereby indirectly enhance the quality of the project result.

■ 2.2   TARGET AUDIENCE OF ISO 21500

The target audience of ISO 21500 includes:
- Senior managers and project sponsors, so that they gain a better understanding of the principles and practice of project management and therefore provide appropriate support and guidance to their project managers, project management teams, and the project teams;
- Project managers, project management teams, and project team members, so that they have a common base of comparison of their project standards and practices with those of others;

■ Developers of national or organizational standards, for use in developing project management standards, which are consistent at a core level with those of others.[15]

Not explicitly mentioned in the standard, but no less relevant, are consultants, educators, coaches and trainers in the project management discipline. These also belong to the target audience, and they can therefore connect various generally known and bespoke project management methods, models and best practices to the ISO 21500 framework as a common frame of reference.

■ 2.3 THE DEVELOPMENT OF ISO 21500

In 2006, the British Standards Institute (BSI), a member of ISO, took the initiative for an ISO guideline on project management by submitting a proposal for the development of an international guideline. With the forthcoming London Olympics (2012) it was determined that the national standard of the BSI needed to be revised.

The British proposal was supported by the U.S. representative within ISO and ANSI, after which it was sent out for ballot to the 164 countries that are connected to ISO to develop and publish standards. A majority of the ISO members voted positively on this proposal, and the development process was started.

2.3.1 Establishment of PC 236 and standards committees

In 2007, the ISO Project Committee (PC) 236 was set-up to develop the guideline for project management. Under the leadership of the initiating countries, the United Kingdom and the United States, over 100 subject matter experts from the 37 participating countries worked for several years to reach consensus on the concepts and processes that define project management. The experts represented national standards committees that were installed in the participating member countries to provide input from the professional communities in these countries.

In addition to the professional opinions of the subject matter experts, PC 236 also used market standards and references for project management as inputs to the development of the ISO 21500.

The two most important (international) professional associations for project management, the International Project Management Association (IPMA) and the Project Management Institute (PMI), both participated actively in the development of the project management guideline. IPMA was formally involved as a liaison to PC 236 and informally via IPMA representatives to the national standards committees. PMI acted as the secretary of PC 236 and was also informally involved via PMI representatives to the national standards committees. There was no formal representation of the UK Cabinet Office (responsible for the development of PRINCE2 until 1st January 2014).

2.3.2 Why this guideline?

The guideline has been developed to focus on a single project. More complex situations such as multi-projects and subprojects, are disregarded, however the guideline can also be effectively applied in these situations. This makes the guideline clear for all of the project's stakeholder groups. The members of that audience can easily relate their own role in projects to the guideline. ISO 21500 puts a strong emphasis on the involvement of the project environment, as this increases the chance that the project yields its expected added value.

ISO 21500 is a guideline for bridging differences and strengthening similarities in the way that people work together in projects. Often, many parties are involved in a project, including the project organization, the customer, fellow project managers, project co-workers, external providers, end users and/or the internal organization. ISO 21500 supports the communication between the parties involved by providing a uniform common language.

A common language is also essential in international and multi-disciplinary projects. In such projects the different teams often use varying methods, while cooperation is necessary. ISO 21500 can be a binding factor by relating the processes and deliverables of each method or methodology to the processes and deliverables of ISO 21500.

Existing sources that describe project management processes in more detail (such as PRINCE2 and the *PMBOK Guide*), provide more depth and support for the project manager when he runs a project. However, in order to involve parties that are not familiar with good project management methods, a compact and clear guideline is welcome.

2.3.3 Sources for ISO 21500

An international standard such as ISO 21500 has a broad target audience (see section 2.2) who use various references for project management. To ensure support for ISO 21500, it was imperative to define the core of project management concepts that is relevant to everyone. So, at the beginning of the development of ISO 21500, all of the national standards committees were given the opportunity to propose all the relevant sources of project management knowledge and best practices. These were general methods, national standards and existing ISO standards. A number of these sources were:

- The American ANSI standard (based on part of the *PMBOK Guide*, Third Edition);
- ICB version 3.0 (IPMA);
- PRINCE2 (UK Cabinet Office, from 1st January 2014 AXELOS, a Joint Venture between UK Government and Capita);
- The German DIN standard (DIN 69901 'Project Management: Project Management Systems');
- The BSI British Standard (BS6079 - 'BS ISO15188: 2001 – project management');
- ISO 9001 'Quality Management';
- ISO 10006 'Guidelines for quality management in projects';
- ISO 31000 'Risk Management - Principles and guidelines';
- IPMA: 'IPMA Competence Baseline version 3.0'.

ISO 21500 incorporated the competences that project co-workers should have in order to be able to contribute to the project as were listed in the ICB version 3.0:

- Technical: project management techniques;
- Behavioral: professional behavior of project personnel;
- Contextual: relations within the context of the project, i.e. both within and outside of the project environment.

2.3.4 The development process

ISO 21500 has been developed through a multi-stakeholder process involving experts from all over the world who have jointly determined what project management includes. During the development of an ISO standard, openness, transparency and consensus are key. It therefore takes some time to arrive at a common understanding of the content of a standard. This approach ensures that ISO guidelines can count on broad support.

The development process was mainly a repetition of a process that consists of two steps:

1. International meetings: discussing and writing texts and processing comments;
2. National standards committees: commenting on the texts and collecting feedback.

Between October 2007 and January 2012 six international meetings took place. During the first five meetings of five days, the participants worked on the text of ISO 21500. On the first days of each meeting the comments were processed and in the final days the text was updated. After the fifth meeting the draft of ISO 21500 was made available to the general public for comment. The sixth and final meeting lasted three days and was only focused on the processing of the final comments.

Hundreds of experts took part in the national standards committees, which together collected over a thousand comments per draft version. A comment must be provided with a justification for the proposed text change. The same eighty to a hundred delegates consistently attended these meetings and quickly became attuned to each other, resulting in an effective and dynamic international project team. As a result, the repetition of discussions was minimal and the guideline was completed within five years.

2.3.5 Involvement and contribution of the professional project management associations

As stated earlier, the professional associations PMI and IPMA participated actively in the development of ISO 21500.

In the structure and content of the guideline, the contribution of PMI is clearly visible. Although formulated at a more 'high level', the project management processes that ISO 21500 identifies, bear the signature of the process groups of the *PMBOK Guide*. In ISO 21500, the clause on processes is preceded by a clause on concepts that positions projects in the context of the value chain in organizations, where opportunities via the business case are converted into projects that create deliverables offering benefits to the organisation. The central position of the business case in projects is also found in PRINCE2. And although

the PRINCE2 standard was not formally represented in the development process, the subject matter experts obviously paid reference to it.

The contribution of IPMA in ISO 21500 can, most explicitly, be found in the identification of project management competences that the guideline mentions:

- Technical: project management matters related to the deliverables of the project;
- Behavioral: the personal relationships in the project environment;
- Contextual: the relationship to management, both within and outside the project.

2.4 THE STRUCTURE

This section outlines the structure of ISO 21500. After the scope the structure of the document is briefly described.

2.4.1   The scope of ISO 21500

This international guideline describes project management and can be used by any type of organization, both profit and non-profit based; and for any type of project, regardless of complexity, size or duration.

It provides a high-level description of the concepts and processes that are generally accepted as constituting 'sound project management practices.' Although projects are viewed within the context of programs and project portfolios, this guideline does not go into the management of programs and project portfolios in any depth. Topics related to general management disciplines are only discussed if they have any bearing on the project management subject being discussed.

2.4.2   The structure of ISO 21500

The guideline is structured as follows:

- Clause 1 Scope;
- Clause 2 Terms and Definitions;
- Clause 3 Project Management Concepts;
- Clause 4 Project Management Processes;
- Annex A (Informative) Process group processes mapped to subject groups.