

M. Daud Alam · Uwe F. Gühl

Project- Management in Practice

A Guideline and Toolbox for Successful
Projects

 Springer

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*This book is dedicated to Nafisa Alam,
Micha A., our families, and our friendship.*

رهرو آن نیست که گه تند و گهی خسته رود
رهرو آنست که آهسته و پیوسته رود
عبدالله انصاری

Foreword

This is an excellent book for everyone who wants to find out more about project management.

Written using the authors' wide-ranging experiences solving real-life problems and their many years training students and lecturing, this book is a well-structured approach, complete with practical steps to facilitate all project management tasks. Each chapter starts with a set of learning objectives and ends with a summary of the relevant findings. In between, you find descriptions of sample problems taken from the automotive and IT sectors as well as content illustrating typical project phases, advice on strategies, practice examples, document templates, checklists to work through, and many well-illustrated solutions and practical tips.

As well as providing an introductory theory on project management, the book also offers the tools readers need to bring their own projects to a successful conclusion. Although an introductory text, more experienced project management practitioners can also benefit from the interesting content, templates, and checklists which will help them to implement their project practices in even more successful ways.

I highly recommend this interesting and neatly constructed book to all beginners who are looking for their first introductory book on project management.

Associate Prof. in Computer Engineering
Kasetsart University
Bangkok, Thailand
October 2015

Arnon Rungkawang

Project management is nothing new. One might even get the idea to ask if the world actually needs another book on the subject of project management.

I believe that the answer to this question is: Absolutely!

Because of the increasingly tough competition and the trend of shortening product cycles, projects in the economy have witnessed major changes. The resources provided (time, money, capacity) have reduced, the participants and stakeholders in a project are spread over different regions around the world, and the desired objectives should be achieved more reliably than ever before.

It is, therefore, essential to know clearly what the expected result of the project is and how it should be measured. A clear structuring into project phases as well as the definition of milestones are required to control the project and its progress. The monitoring or controlling therefore has to focus on the really relevant aspects. The effort to control and the related reporting activities to the budget manager and customer must be in reasonable relation to the effort spent for the functional handling of the project. One way this can be achieved is by being efficient. Another way, which is even more important, is by keeping the people involved in the project motivated.

The goal-oriented monitoring of the progress of the project shows sometimes that the approach chosen was not optimal. Then, on proceeding further, possibly even milestones defined have to at least be questioned and often completely redefined. Addressing and handling of failures or mistakes openly are thus of major importance for the success of a project. The recognition of this situation allows the initiation of steps to analyze the root cause and to modify the project.

Project management today does not only have to cover the necessity of adapting the project to the current boundary conditions in a flexible way anytime, it furthermore has to include measures for the successful achievement of objectives, and all of this in a shorter period of time.

The additional benefit of this book is the practice-oriented approach which provides the project manager flexibly applicable means to manage any project and meet the growing demands successfully.

Director Corporate Audit, Audit Operations, Daimler AG
Sindelfingen, Germany
March 2016

Dr. Gritt Ahrens

Preface

In our daily professional, as well as in our private life, we deal with projects. We work as project managers and impart corresponding knowledge. During our project management training and lectures, for example, at the Chamber of Industry and Commerce Stuttgart, Pforzheim University, at Kasetsart University in Bangkok, Thailand, we noticed that there is a need for a book related to practice that could be used as a toolbox for project management as well.

The objective of this book is not only to introduce the topic in theory but to offer the reader the required tools for practice.

The most important terms and phases of project management are explained following certain standards. The book deals with cross project comprehensive topics and specific contents related to project phases. Tips and hints, examples, templates, and checklists as well as problems and solutions from project practice in the automotive industry and IT complete the contents.

This should enable a good and fast approach to the project management topic, and it should enable the successful execution of the project.

This book is intended for:

- Beginners who would like to acquire initial skills in and understanding of project management
- Participants in further project management training looking for instructional material
- People interested in project management who would like to prepare for their first project in the best possible way
- Project management experts who would like to learn additional aspects and who would like to use templates and checklists for even more successful projects

This book offers the following:

- It is practice oriented.
This book combines practical experience in projects over many years with relevant theories about project management. This should facilitate the proper use of theoretical knowledge. In addition to extensive explanations concerning relevant topics from project management, practical support is offered in terms of examples, templates, and checklists.

- Examples for methods.

This book describes methods that could be used in different phases of the project, depending on the prevailing conditions.

- Objectives and results.

At the beginning of each chapter, the learning targets are listed. At the end of each chapter, the corresponding insights are summarized.

We would like to thank our families. Their support has made this book possible. We would especially like to thank Christian Kücherer for his painstaking examination of this book and his excellent notes and comments. Special thanks for their support, reviews, and constructive critique to Diana, Marina, and Nadia Alam, Clara Baker, Micha A. Bohnet, James Brucker (Instructor at Kasetsart University), Martin Carr, Winfried Erb (Director of the company Consens-Training Erb), Miguel Freire Gomez, Prof. Dr.-Ing. Guido Kramann (Professor at the Brandenburg University of Applied Sciences), Angela and Terry Lions, Nicole Merkel-Hilf, Dagmar Michels, Ebba Rauch, and Sabine Willmann. Special thanks for the excellent support in proofreading this book to Edward Bruce Duhigg.

Sindelfingen, Germany
Stuttgart, Germany
June 2016

M. Daud Alam
Uwe F. Gühl

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About the Authors



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The significance of project management is growing. Project management activities in the daily working life of an engineer have increased from 9 to 16 % [7, p. 27]. The added value based on projects in small- and medium-sized businesses in Germany is forecast to increase from 2 to 15 % from the year 2007 to 2020 [10]. A US study “Project Manager Staffing Ratios” finds that over a 5-year-period project managers have risen as a percentage of the IT staff. In 2011, project managers made up an average 4.5 % of the IT staff, up from 3.4 % in 2008 [5].

To be able to discuss project management, a common understanding of the basic project management terms is required.

1.1 Definitions

There are diverse project management definitions of different organizations and boards, for example, by the Project Management Institute (PMI) [13], the International Project Management Association (IPMA) [11] with national associations like GPM Deutsche Gesellschaft für Projektmanagement e. V. (GPM) [8], or Deutsches Institut für Normung (DIN) [6].

Additionally, some companies define their own project management standards with a specific project structure and accurately defined project stage names. The terms have been inspected, brought together for easy understanding, and are explained in context, following standards.

Often projects use a special language making the use of a glossary helpful. More information can be found in Sect. 2.3.5. The glossary of this book starts on p. 159.

The basic question to ask is: What is a project?

Project

Following DIN 69901-5 a project is an “intent, characterized by uniqueness of conditions in their totality.” A project is distinguished by an aim with temporal, financial, and personnel restrictions [1].

Typically, it is novel and unique and complex and requires a project-specific organization.

Characteristics of a project are:

- Temporal limitation
There is a beginning and an end.
- Uniqueness
Typically it is something new.
- Defined objective
Result could be, for example, a product, a system, or a process.
- Adequate complexity
- Interdivisional
This is valid for big organizations.
- Limited resources

A project can also be defined as:

- A unique, transient endeavor undertaken to achieve planned objectives [2]
- A temporary endeavor undertaken to create a unique product, service, or result [22]
- An undertaking requiring concerted effort [3]

So, execution of regular work is not a project. Operation of software (and maintenance) is an ongoing task. But if there are releases to be delivered at specific dates, every release, including release planning, preparation, execution, and delivery, could be understood as a project.

The next question to ask is the basic question of this book: What is project management?

Project Management

DIN 69901-5 says: “Project management is the totality of managerial functions, organization, techniques, and instruments to initiate, define, plan, control, and close projects” [1].

Project management covers the coordination of people and the optimal resource management to achieve project objectives.

There are more definitions for “project management” available:

- The planning, delegating, monitoring, and control of all aspects of the project, and the motivation of those involved, to achieve the project objectives within the expected performance targets for time, cost, quality, scope, benefits, and risks [3]
- The complete set of tasks, techniques, and tools applied during project execution [22]
- The application of processes, methods, knowledge, skills, and experience to achieve the project objectives [2]
- The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements [14]

Dr. Martin Barnes, President of the British Association for Project Management (APM) from 2003 to 2012, summarized: “At its most fundamental, project management is about people getting things done.”

1.2 Successful Projects

Studies confirm that many IT projects fail and many others exceed time and costs. As shown in Fig. 1.1, the number of successful projects increases from 1994 to 2012 continuously.

But in 2011 the Standish Group changed the definition of “successful.” The reason was that even when a project was “on time, on budget, and on target (e.g., scope),” the customer was not always satisfied. So, Standish changed the

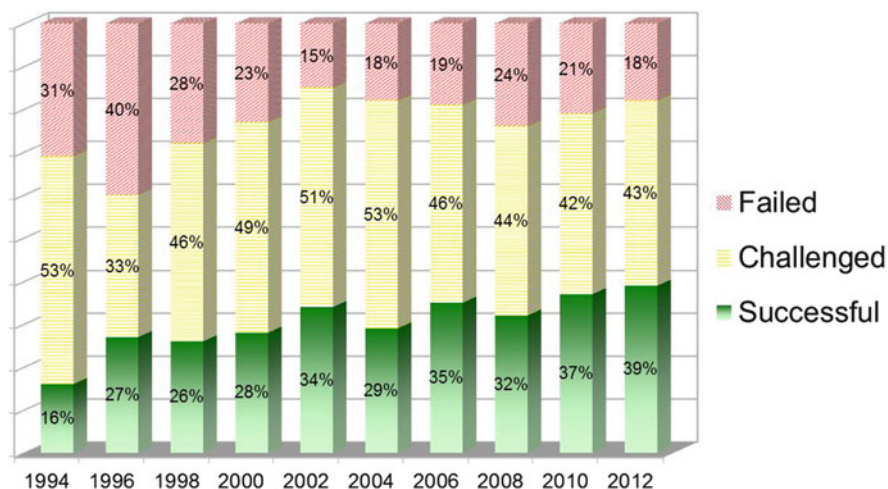


Fig. 1.1 Standish Group—Chaos Report 2013