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Standards and Excellence in Project Management - In Who Do We Trust?

Nino Grau *

*Vice President Standards and Awards - IPMA - International Project Management Association
Technische Hochschule Mittelhessen, Friedberg, Germany*

Abstract

The importance of project management as a special organizational form for temporary endeavors and in particular for international collaborations increases steadily. Can the use of standards guarantee the excellent performance of a project or is the result just a good and acceptable project quality? These questions will be answered with regard to the new ISO 21.500 guideline for project management, to the art of national and international Project management standards and to the model for the project excellence. It will be shown how different standards help to build trust for collaboration in projects. In this paper the new global Standard, the national and international standards and a Project Excellence Modell der IPMA will be described. There will be some suggestions how these standards can be used in a reasonable mix. Last but not least the importance of well trained, competent individuals involved in project work will be emphasized.

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1. Introduction

Nowadays many organizations are in the situation that they have to decide about the implementation of a project management standard. The cost of such an implementation is high and so it is not surprising that the responsible managers try to lower the risk. Therefore they have to answer the following questions: ‘Which standard is the best for us now and which standard will be the best in long term?’ Many

* Corresponding author. Tel.: +49-6031-6920755; fax: +4960316920759.
E-mail address: nino.grau@wi.thm.de.

organizations have postponed this decision until the publication of the new PM standard ISO 21500 which is here now (published late 2012). Can we now assume that after implementing of this standard all projects will be good or even excellent? Are now all questions answered? No, this is unfortunately not the case. More and more questions arise, such as: "Is the new global standard a super standard that will replace all current standards? Have old national standards and models for excellence in project management become redundant? Can an organization certify their project managers according to this standard? Or can the whole project management system of an organization be certified according to ISO 21.500?" Perhaps the most important question is: "Who will actually guarantee that this standard will prevail?" In addition to the confidence that the core of the standard is good, there has to be trust, that it is recognized by other market participants as well.

The implementation of a project standard in an organization can be triggered from very different directions. It could be a requirement from a customer, who wants his project to be managed according to a certain standard. But it could also be the wish to raise transparency expecting better quality of results. The importance of a standard seems to be much higher when different organizations or parts of organizations participate in a project. In this case it is important to be able to coordinate different activities according to the same standard. This could be for example a standard using phases, milestones, gates, etc. These elements must have the same meaning in all the participating organizations.

Much bigger problems can arise in the coordination of international projects. The globalization in the business relationships leads to customers having reached an unprecedented level of expectation concerning quality of products and services. Everything shall be offered as quickly and cheaply as never before. The quickly changing requirements of customers lead to an increasing amount of work being carried out in temporary organizations especially in international and national projects (cf. Grau & Vossebein, 2010).

What are the motives an organization has to introduce a standard? Essentially, there are two groups of reasons:

- The standard supports the work within the organization, in which it guides processes and methods, whose application directly improves the quality of work and results. In this case the extent of its spread will play a much smaller role than a standard's quality, i.e. the property to solve the tasks comprehensively.
- The standard supports one's own work, by simplifying collaboration with customers and suppliers by strengthening trust in both directions. One trusts that the supplier will deliver what is expected by his customer and that the customer expects what his supplier is able to deliver by adhering to the respective standard. It is often more important how wide the dissemination of the standard is than how high its quality is. Naturally the market power of the partners is crucial too. It is also clear that generally not the absolute spread is important, but the distribution within one's target group (regional, language area, industry segment (e.g. car manufacturers, suppliers), etc.). In addition to the importance of a standard for current partners it is useful to consider potential partners too.

In practice, the two forms are often positively correlated: Good standards are more common; much more widespread standards are further developed and improved than less widely spread ones.

2. The Variety of Standards for Project Management

With a new standard such as ISO 21500 it will always need to be checked how well it can solve problems and how likely its rapid proliferation is. There are plenty of project management standards with very different origins. Normally different standards are used for different occasions (see Figure 1) (cf. Grau & Grau, 2010). It will be important to compare the new standard to the already existing ones.

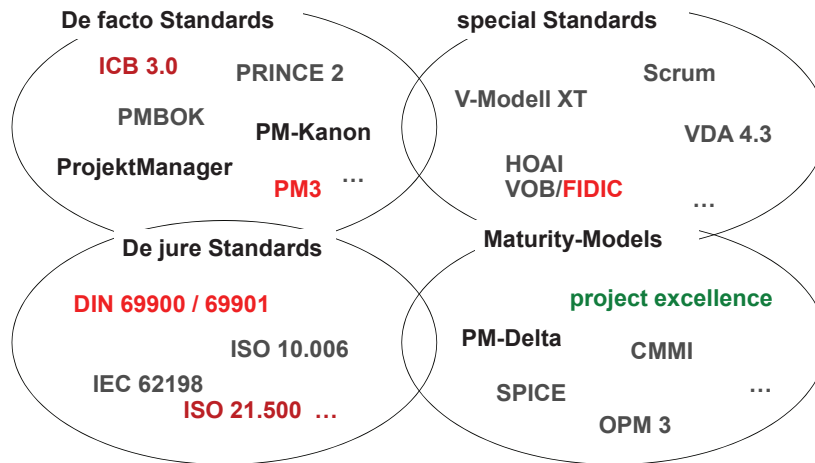


Fig. 1: Different kinds of Standards

2.1. Origin of Standards

2.1.1. Specialized Standards

Some of the specialized standards developed for certain industries are: Plant engineering and construction (e.g. HOAI - Honorarordnungen für Architekten und Ingenieure, VOB - Vergabe- und Vertragsordnung für Bauleistungen (früher: Verdingungsordnung für Bauleistungen) Teil A (DIN 1960:2006-05) und Teil B (DIN 1961:2006-10), FIDIC - Fédération Internationale des Ingénieurs Conseils), IT (e.g. V-Modell, SCRUM, ...), Automotive (e.g. VDA 4.3, ...), etc.

Big organizational (prospective) customers (like automotive companies in relationship to their dependent supplier) are able to force a large number of small and medium sized companies to adopt such special standards.

Even more “specialized” are the so called Company Specific “Standards”. In the narrow sense of the definition company specific regulations are not really a standard. Although it is somehow illogical to call them a “Standard” this is what happens very often. There are different reasons to do so: It is possible, that a company is active in the field of project management where there are no suitable project management standards (cf. Strub, 2008), existing standards are unknown in the organization or the project managers do not possess the competence to use the standard in a proper way (cf. Mörlner, 2007). It is much more reasonable to invest time and money to find the most adequate standard and to train project managers to use it efficiently. If there is no adequate standard with elements that could be used in a 100 % identical way perhaps there is a flexible standard that could be customized to serve the special purpose. In the DIN 69900:2009 there is an opportunity provided to choose elements to be used in a certain situation (or for all projects in a certain company) of course under suitable conditions. The current trend is to focus the standard according to the typical processes and sub-processes for a certain kind of projects. A good example for this kind of standard is the DIN 69900. The way in which sub-processes are not only described but also classified as “essentially necessary” or “additionally helpful” is interesting too. So it is possible to use the standard for smaller and not so complex projects in a kind of slimmed-down version (see Figure 2).

2.1.2. De facto Project Management Standards

Often in professional communities information is produced, discussed, cumulated and condensed in a

“Body of Knowledge”. Such accumulation of knowledge is then presented to the community of project managers in books, on the web or even in a complex system for training and certification. Here are some examples of this kind of standards: (ICB 3.0 - International Competence Baseline, respectively NCB

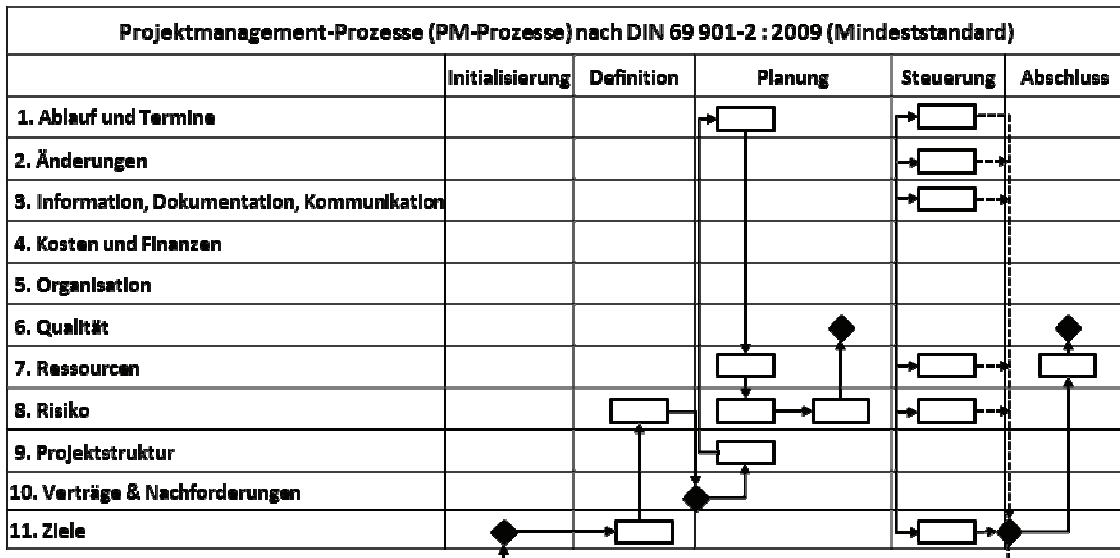


Fig. 2. Minimum level of standardisation of sub-processes according to DIN 69.901-2

(National Competence Baseline (ICB, NCB are registered trademarks of IPMA - International Project Management Association) (IPMA, 2006), PMBOK - Project Management Body of Knowledge (PMBOK is a registered trademark of PMI - Project Management Institute) (PMI, 2008), PRINCE2 - PRojects IN Controlled Environments (PRINCE is a registered trademark of OGC - Office of Government Commerce) (OGC, 2009)). Both first mentioned standards were developed by professional associations and are being utilized by them (IPMA, PMI). PRINCE2 was developed on behalf of OGC in cooperation with the UK project management association (apm - Association for Project Management). If we broaden the topic even such software packages like Primavera, Microsoft Project or even Microsoft Office could be understood as de facto PM standards although they will most likely never reach the level of an official standard.

2.1.3. Official (de jure) Project Management Standards

When speaking about standards the first idea is to think about standards published by an official standards body. At the international level this will be ISO (International Standards Organization). At the national level these are NSBs (National Standard Bodies) which are members of ISO (e.g. ANSI (American National Standards Institute), BSI (British Standards Institute), DIN (Deutsches Institut für Normung, German National Standards Institute)). In some areas the European standards (EN) are of importance too. These standards are not binding by themselves. They can become mandatory by law or when they become a part of a contract. The advantage of ISO standards is that they are spread worldwide. Some national standards are widespread too because of the economic strength of their respective national industry. The process of developing a standard with his nine stages (Preliminary, Proposal, Preparatory, Committee, Enquiry, Approval, Publication, Review and Withdrawal stage with up to seven substages (Registration, Start of main action, Completion of main action, and four Decision Substages) is very

transparent as well in the NSBs (national standard bodies) as in ISO. This helps to come to a consensus very much. This consensual decision making supports trust building and all the interested parties can live with the result although they may be competitors in the market (cf. Leyrer, 2008).

2.2. Purposes and intentions of a standard

To be able to classify standards it is important to understand which part of the knowledge area in the field of project management should be standardized and how the standard should be used. One very basic part of a standard is a glossary. A good example for the size of a glossary (not too long and not too short) is the German standard DIN 69901:2009-01 part 5 with about 150 terms and definitions. If those terms are used in the defined form in the project (including contracts) it will help to avoid misunderstanding and unneeded cost. Another field of application is the standardization of used methods. A good example for such a method is the DIN 69900:2009 with the description of the network planning method. Another intention is to offer template contracts for projects. These contracts can sometimes be used without changes. Normally they will be changed slightly to be adapted for the needs of a certain project. It is very important to understand the taxonomy of the international contracts and international law to be able to decide which template contracts should be used. It is helpful to compare the international contract with the national statutory provisions (for example from FIDIC the special books (Silver Book/Red Book/Yellow Book) with the German VOB (A/B etc.) (cf. Zimmermann & Hamann, 2009).

3. The new global standard ISO 21.500

The new global project management standard has emerged during almost six years of work involving representatives from over 30 countries. Many large professional organizations for PM were involved either indirectly through participation in the NSB (National Standard Bodies) or directly as Liaison Partners such as IPMA. This broad participation and the refined method for producing the consensus form a good basis for global recognition.

This standard is in accordance with the classification in Section 2 a formal (de jure) standard of the International Organization for Standardization ISO. Its purpose is to be a general, overarching standard to give guidance. It will be the basis for developing a series of new national and international standards for project, program and portfolio management. That's why it is so general that it should be applicable for a wide variety of styles, sizes and levels of complexity of projects. In particular, it will support the cooperation in international projects. It was not the goal, to create a standard for special purposes like for example training and certification or meeting requirements for the working level (e.g. in the form of templates or checklists) (cf. Grau, 2011b).

With such a large group of stakeholders in the development (cf. Waschek, 2009), it is not surprising that there has been a lot of discussion even about the basic terms and structures. Thus, for some of the levels (stages/substages) several thousand comments from the various stakeholder groups were handled by the ISO team.

One basic concept that was agreed upon is the "value creation framework" (see Figure 3).

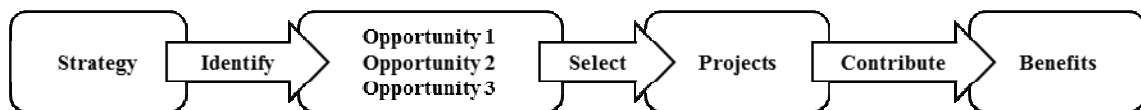


Fig. 3. "An example of a value creation framework"

The concept of "project management" had been discussed at great length. The definition was developed partly as a distinction from the other important terms and their relationships to each other (see Figure 4).

The organizational strategies go just as well as opportunities, operations and benefits beyond the direct project area. The ISO 21500 gives the following definition for the direct Project Environment:

“A project usually exists inside a larger organization encompassing other activities. In such cases there are relationships between the project and its environment, business planning and operations. Pre-project and post-project activities such as business case development, conducting feasibility studies and transitions to operations.

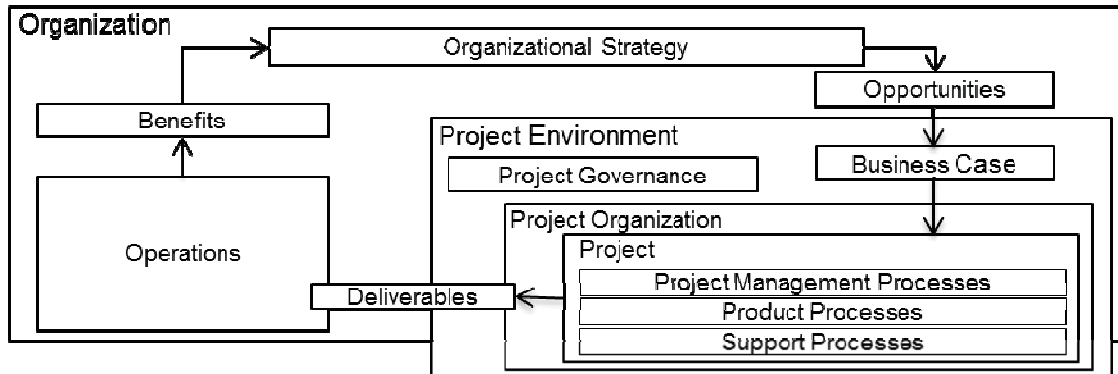


Fig. 4. Relation of project management concepts

“Projects may be organised within programmes and project portfolios. Next figure illustrates these relationships.”

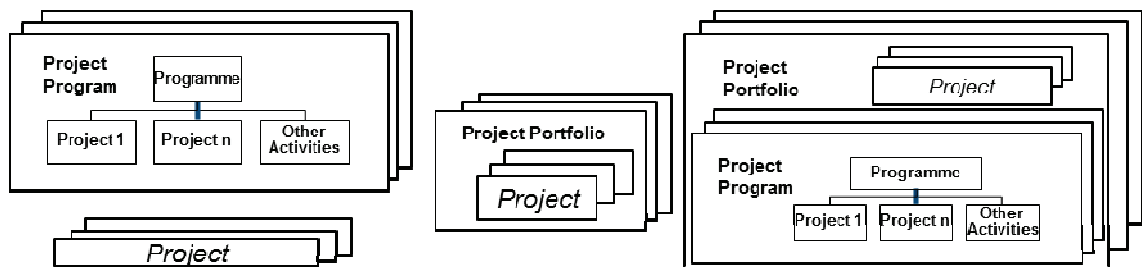


Fig. 5. “Projects, programmes and project portfolios”

Within the project, then the importance of stakeholders is emphasized. It is a request for: “The roles and responsibilities of stakeholders should be defined and communicated based on the organization and project goals.... Typical project stakeholders are shown in the following Figure 6”.

In addition to the organizational structure to the roles involved in the project, there is a breakdown by process and object groups. "The sum of all process groups is called the project life cycle. 'Sharing process groups, the project is divided into the stages of initialization to completion.' The definition of the project lifecycle from ISO 21500 is as follows: “The project management processes may be viewed from two different perspectives: one for the management of the project and one collecting the processes by subject.

Process groups: Initiating, Planning, Implementing, Controlling and Closing”.

The dependencies of the individual processes with each other are described in the concept of “Process groups interactions showing representative inputs and outputs” (see Figure 7).

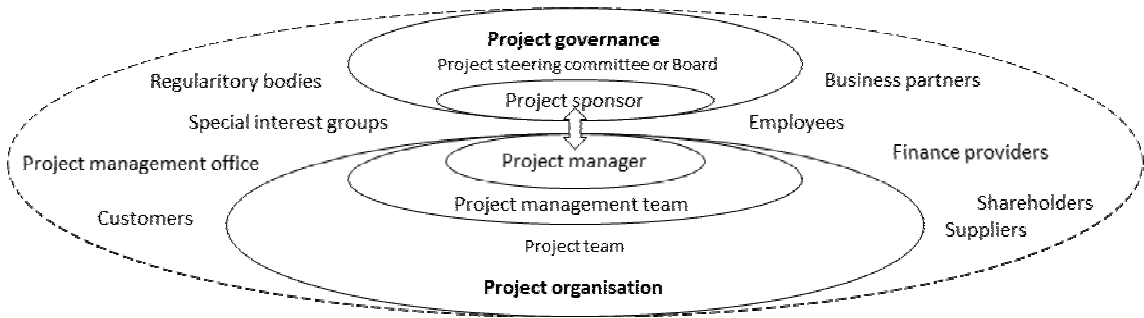


Fig. 6. “Project stakeholders”

Here's an example from the standard regarding the process and object groups. There are indeed all groups of objects in each phase of the project, but not all object groups must be subject to a process: “The following map provides a depiction of the interactions of the individual processes in each process group. Not all process interactions are depicted in these map, they represent one possible logic view of the processes. Any process may be repeated.”(cf. ISO 21.500).

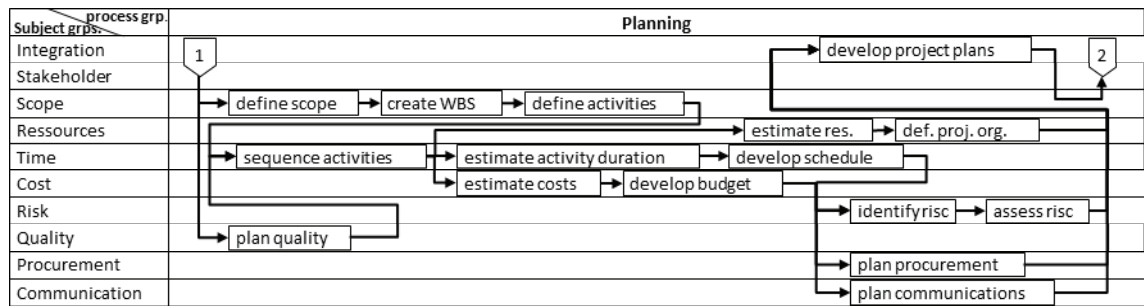


Fig. 7. “Planning process groups”

4. Project Excellence Model

In many cases the customer expects the highest quality for his project. This means that the project team should deliver an excellent, outstanding project management. In every respect, they should meet the expectations of the customer or even better exceed them. Everybody expects an innovative, flexible approach and outstanding results that go behind the standards like ISO 21.500. But how can the excellence be measured? Can there be a standard for outstanding projects? One tool for assessment of project excellence is the IPMA Project Excellence Modell (PEM).

What is the relationship between the call for standards on the one hand, and that for excellence on the other hand? (Grau, 2011a)

It was developed at the end of the 20th century by the GPM (German Association for Project Management.) (cf. Ottmann & Schelle 2011): The model was used initially in the context of a selection

procedure, for finding excellent projects and for paying tribute to their excellence in an award process. The fair assessment of the candidates was paramount. The model is so clear that it is used on the one hand for the assessors as a clear basis for their actions. On the other hand it is well comprehensible for the applicants.

The model that was in use for several years in Germany was passed on to the IPMA at the World Congress in Berlin in 2002. From then on it has been used as a basis for assessment for the IPMA International Award.

From Table 1, it is clearly visible that the model is applicable to projects of different scale. It can be applied regardless of the industry or the type of project. It is therefore an open assessment model, which means that it depends very strongly on experience of assessors or other persons whom use it to standardize the way of assessing, but not the single result of judging (cf. Grau & Hutterer, 1999).

Table 1. Different Categories of Projects applying for IPMA Award

Award Categorization for Project Excellence			
Criteria	Medium-Sized	Big-Sized	Mega-Sized
Project duration	-	at least 1 year	at least 2 year
Phases completed	all finished	all finished	all finished
Project deployment after completion	at least 3 months	at least 3 months	at least 6 months
Budget (in million €)	-	at least 5	more than 100
Number of people involved in the project	-	at least 50	over 100
External sub-contractors and independent organisations involved	at least 1	at least 1	at least 3
Multicultural characteristics	is an advantage	is an advantage	is an advantage

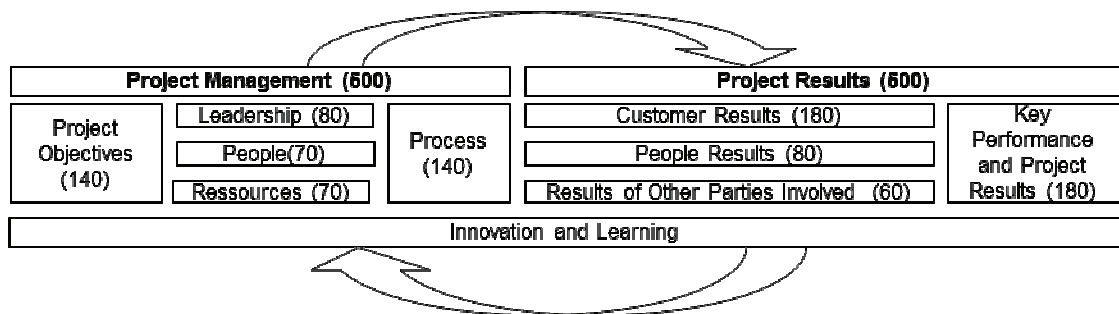


Fig. 8. PEM - The IPMA Project Excellence Model

The PEM-assessment model (see Figure 8) sees the possibility of maximum 1000 points awarded for the project. The nine criteria used for assessing are divided into two groups, with 500 points in each group. The two groups of criteria are the criteria for assessing the results of the project and the project management.

Per criterion there is a different number of evaluation points (see Figure 9). Each criterion is composed of several sub criteria which have to be evaluated individually. The partial results are then merged to a result per criterion. Because PEM is a very open valuation model, the evaluation process itself is of

special importance. In this process, the knowledge and the experience of assessors are the second major precondition for the success of the review in addition to the model.

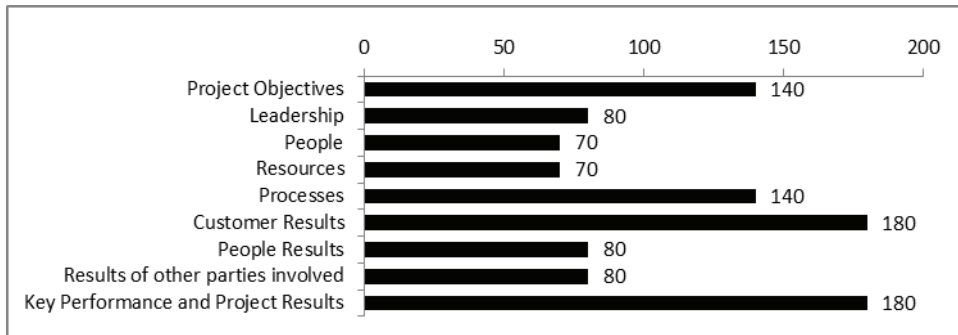


Fig. 9. PEM - Points per criterion

There is a very similar situation when project managers use PEM for the internal use to improve project management in their own company.

In addition to the award process, there are other ways to benefit from the PEM. For example, one can:

- learn from Award or Prize Winners or Finalists about their projects in the sense of best practices.
- identify smaller segments of a project and try to work in these areas excellently

Since both the model and the assessment procedure are publicly available, every project team can use it to improve their own projects. Although the model and the assessment procedure are publicly known, the success of the assessment depends on the knowledge of the assessors. This means that the model provides the maximum benefit, if the model and the assessment procedure can be combined, as provided in the IPMA award process assessment. To do this one should provide usefully training to those who apply the model in the company. It is even better if all the assessors gained their experience within the framework of IPMA award process.

5. CONCLUSIONS

The importance of project management as a special organizational form for temporary endeavors and in particular for international collaborations increases steadily. It is important to build trust between all the parties who are involved in the project. This can be done on different levels.

The lowest, basic level should be an overarching, generic standard with global acceptance. The new standard ISO 21500 seems to have all the characteristics to become such a global recognized basic standard.

Because ISO 21500 is such a generic standard, in many cases project manager and his team will decide to use in addition other more specific standards too. It is therefore important to be familiar with the national and international project management standards in order to combine and employ them optimally.

The third layer on the top will be some excellence model or the top levels of a maturity model like IPMA's PEM (Project Excellence Modell). The application of the model and the process for project excellence helps project teams to improve their projects and to make them excellent at least in the long run but this excellence can't be reached without taking into account the applicable standards for the basics.

Useful project management will therefore apply the basic PM standards as the basis of their work to gain the freedom to achieve excellence in their project work through innovative and creative approaches.

Both areas help only in so far as they are able to be used by well trained, competent individuals involved in project work.

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