

## The New ISO 21502<sup>1</sup>

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### Abstract

The new ISO 21502 “Guidance on project management” international standard has been released recently by the International Standardization Organization. It supersedes the previous ISO 21500, releasing the same number for a new standard which in turn becomes the head of the ISO “3P” (project, programme and portfolio management) series. Being more voluminous than the previous document, the standard changes from a process-based to a practice-based approach, aligning to the other series documents. Being the authors representatives of the Italian standardization body, who participated in the ISO Technical Committee for project management, they portray a review of the new standard, trace its evolution and outline some topics which, according to the authors’ view, may deserve some attention for the thorough interpretation and application of the new reference.

**Keywords:** ISO 21500, ISO 21502, project management standards, processes, practices.

### A new project management standard

The new standard ISO 21502 “*Guidance on project management*”, has recently been published by ISO, the International Standards Organization - for the complete title see [Ref. 1] -, which replaces the former ISO 21500, active since 2012 [2]. Co-edited by the representatives from several countries, the new standard would represent - as it is always the case - the best compromise reached at the ISO working table<sup>2</sup>, where the authors also participated as representatives of UNI (the Italian Standardization Body). The final result was a general satisfaction for this deliverable, which took several years to be finalized, and was likely accelerated in the final stages by the “smart working”, which also developed among ISO circles due to pandemic constraints.

At first sight, the new standard is significantly more voluminous than the previous edition, with the number of pages almost doubled (more than 60), the reason why the representatives of some countries initially objected to the final draft, in view that such a kind of documents should provide a thinner reference. Needless to say, these different views may express, besides personal positions, the various levels to which project management has matured in various world regions, where some countries already possess other national or *de facto* standards, that are also adopted internationally.

The new document was issued a few days before the end of the last year, just to keep the “2020” reference in its title. The change of number, which advanced by 2 units, also makes way for another new standard, ISO 21500 “*Context and Concepts*” [3], which now becomes the leading document of the ISO “3P” series, i.e. project, program, and portfolio management. The “double 0” standard, as it is commonly cited, represents the first document in an ISO thematic series, such as ISO 9000 for quality [4], ISO 31000 [5] for risk management, and alike. Thus the former ISO

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<sup>2</sup> Technical Committee TC258-WG9

21500 has been split into two documents, the new “21500” and “21502”, as mentioned. The new ISO 21500, which is already being published at the time of this writing, elaborates the first and introductory part of the superseded one and represents a generic introduction to the 3P discipline, while ISO 21502 can focus on the specific project management topic<sup>3</sup>.

One may refer to the ISO institutional website<sup>4</sup> to look at the complete table of contents of the new documents, while this paper is focusing on the ISO 21502. The standard, besides some introductory clauses - as usual, dedicated to the document purpose and terms and definitions -, is made up of four main clauses, respectively addressing:

- project management concepts
- requirements for formalizing project management
- integrated project management practices
- practices for managing a project.

In this paper we portray a review of ISO 21502 in the same order, summarizing its contents, highlighting and commenting on the main differences compared to the previous edition<sup>5</sup>. We may also invite other experts to express their own opinions and contribute to the very interesting debate on the role of international project management standards.

Let us first recall that ISO 21502, as the previous edition, aims to be a high-level standard of project management, and should not be taken as a more operative instrument, nor it is focused on techniques and tools; moreover, it does not have the project manager as its single client, but more generally all the institutions and organizations that manage projects, including senior management and other bodies that can issue more specific standards in turn.

ISO Standard <sup>6</sup>		Publ. Year
ISO 21500	Context and Concepts	2021
ISO 21502	Guidance on project management	2020
ISO 21503	Guidance on programme management	2017
ISO 21504	Guidance on portfolio management	2015
Iso 21505	Guidance on governance	2017
ISO/TR 21506	Vocabulary	2018
ISO 21508	Earned Value	2018
ISO 21511	Work Breakdown Structure	2018

Table 1. ISO project management series.

<sup>3</sup> The “21501” position remains empty and open to possible new proposals, which however have not been announced at this moment.

<sup>4</sup> <https://www.iso.org/standard/74947.html>

<sup>5</sup> The authors declare that this article represents their personal views only and does not report any other institution or community’s positions.

<sup>6</sup> In all standards, the title is preceded by their series name “Project, programme and portfolio management” (here omitted)

It should also be noted that the ISO series in question already includes other documents dedicated to other themes, particularly program and portfolio management and, more specifically, WBS (work breakdown structure) and Earned Value, as recalled in Table 1.

This document could therefore be considered a “first-tier” standard, while other level documents should be accessed for more specific reference either methodological insights or industry applications.

## **Project management concepts**

ISO 21502 incorporates, with some modifications, the introductory scheme already depicted in the previous edition - see Figure 1 -, where we can recognize the different contextual layers of the project: those are the external environment, organizational, governance, and project implementation context, which ideally superimpose to each other; furthermore, the virtuous or cybernetic cycle, which runs from the deliverables, outputs and outcomes of the project and leads to the benefits, then the renewal of objectives and business cases for new project initiatives.

Who is already accustomed to the previous edition, would still feel comfortable with the present diagram; in particular, remarking the difference between projects and operations, the new standard says that *"a project's objectives can be fulfilled by a combination of deliverables, outputs, outcomes and benefits, depending on the project's context and direction provided through governance"*. In other words, there is a progressive evolution through which, from the actual deliverables, that is what the project releases in terms of partial products or even management deliverables (documents), they shall move on to become *"outputs"*, for example, aggregate deliverables and final products which can be recognized and accepted by the customer; then to *"outcomes"*, which provide final results, say capable of producing some expected value or organizational change; to be finally transformed into more permanent benefits to the client organization.

Therefore, the standard accepts the paradigm already present in some UK literature, outlining a value chain in terms of deliverables > outputs > outcome > benefits. Though it may appear to practitioners a bit philosophical picture, this represents the expected maturation of original or partial deliverables into final value and may reproduce the real-life of large and more complex projects, possibly having an impact on contractual and social aspects. For instance, delivering a segment of a new road or railway gives the right to payment to contractors, but produces no output for potential users. Delivering all the infrastructures can not yield any benefits, if those are not realized nor generate the expected level of traffic.

Getting the "benefits" among the project objectives shows a certain difference vs. the previous text, which nevertheless claimed the difference between “objectives” and final “goals” of the project. Moreover, the previous edition appeared more influenced by the perspective of certain standards, say the PMBoK [6] by the Project Management Institute, which leaves the benefits realization outside the project, which are in charge of the permanent organization or the realm of the program definition. It is now recognized that some benefits, or some initial part of them, can be generated during the project life cycle itself, for instance during the final or handover phase, when they begin to be delivered to the project owner or client organization.

The ISO 21500:2012 already stated that “*benefits realization is generally the responsibility of organizational management, which may use the deliverables of the project to realize benefits in alignment with the organizational strategy. The project manager should consider the benefits and their realization as they influence decision-making throughout the project life cycle*”. Successively PMI expanded the theme of benefits management in the PMBOK 6<sup>th</sup> and introduced the benefit management plan, under “business documents”, as an input to some of its processes.

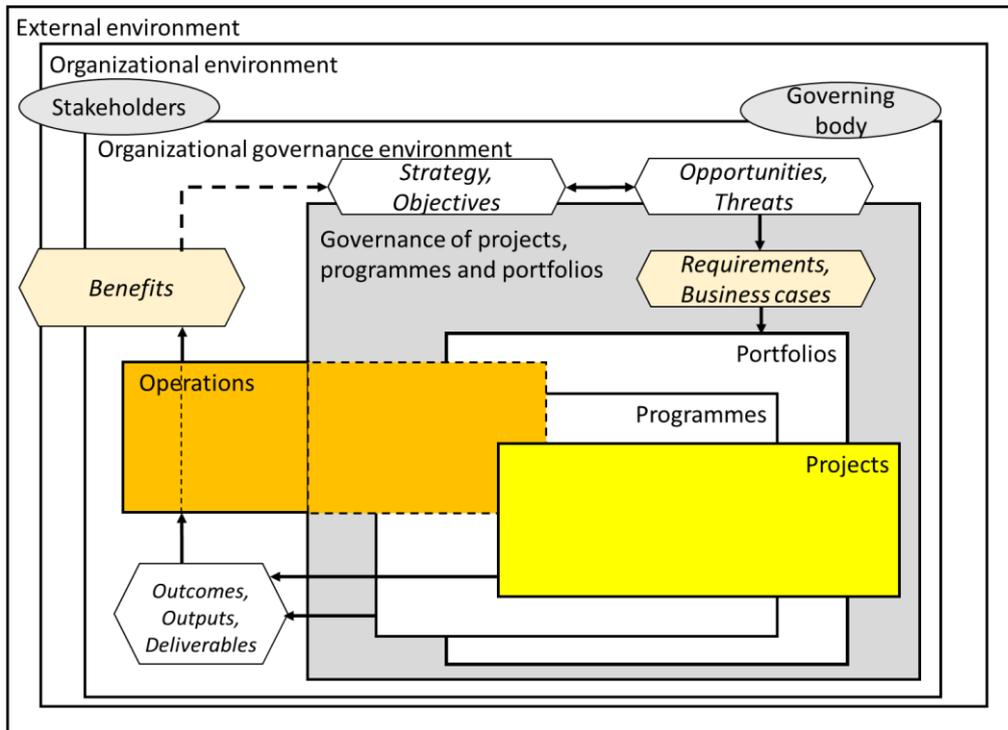


Figure 1– The project management ISO context (source: ISO 21502)

We would recall that the benefits realization represents one of the distinctive aspects of the program definition, while the benefits were already included by PRINCE2 [7] among its six aspects<sup>7</sup>. The benefit adoption has required the introduction of a new element among the practices of ISO 21502, as we will notice in the last section.

The definition of project management according to the standard has also changed. The document says that “*Project management integrates the **practices**, included in this document, to direct, initiate, plan, monitor, control and close the project, manage the resources assigned to the project and motivate those individuals involved in the project to achieve the project’s objectives. Project management should be performed through a set of **processes** and methods that should be designed as a system and should include **practices** necessary for a specific project*”.

<sup>7</sup> In addition to this: Scope, Timescale, Risk, Quality, Cost.

We highlighted particularly in bold two keywords, concerning the ontology and the evolution of the standard. The ISO 21502 is now a standard based on the so-called "*practices*", rather than processes, as the previous 21500 was (significantly influenced by the PMBoK framework). Though the same term has no formal definition in the document, the "practice" should express a concept purposely to be more abstract and less prescriptive than the "process", driving, according to some circles of experts, a more narrative than a directive approach in drafting these standards. It was also deemed that this transition would allow the new ISO standard to work more cohesively with the different versions of process-based systems in the current marketplace.

### **From processes to practices**

According to the online Oxford dictionary, a practice is a "*way of doing something that is the usual or expected way in a particular organization or situation*"<sup>8</sup>; that may fit with our purpose, also improved by "best practices", more common in our circles (nor explicitly cited in the standard), which the same source refines as "*a way of doing something that is seen as a very good example of how it should be done and can be copied by other companies or organizations*". The same source defines instead a process as "*a series of things that are done to achieve a particular result*", but also a "*method of doing or making something*". In more contextual language, we could resort e.g. to ISO 9000 [4], which defines a process "*a set of interrelated or interacting activities that use inputs to deliver an intended result*", plus a series of notes, the first saying that "whether the "intended result" of a process is called output, product or services depends on the context of the reference". It is also well known that other literature reports the "black-box" model of a process, where what counts most is the result than how that is obtained, a characteristic that would provide processes a more stable framework than organizational or procedural settings of activities, or without any knowledge of its internal workings.

The transition to a more narrative style, based more on *what* a practice should obtain, than *how* a process should be conducted, has represented a general requirement of the new edition. This major change from the 39 processes of the previous edition, to the new, more than 60 practice-based of ISO 21502, looks like the major evolution of the standard, being the processes considered by the prevailing movement of experts a too restrictive and binding concept for organizations willing to apply the project management methodology. Although the term "process" in several other ISO standards remains a cornerstone (see quality management [4], risk management [5], system engineering [8], and others), in the field of project management it was considered too prescriptive for organizations, or those that may not generally agree with the process model, nor wish to align with other prevailing process-based standards, like the PMBoK<sup>9</sup>.

We would like to recall that another reference adopting narrative style is the one published by the International Project Management Association, although they use there the term "competencies", ICB4 [9], besides other semantic meanings by the authors. We also notice incidentally that, owing

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<sup>8</sup> Oxfordlearnersdictionaries.com

<sup>9</sup> PRINCE2 is also a strongly process based standard, however of different nature, being this a "management" more than a "subject" oriented process framework.

to the new ISO 21502, another standard by the ISO Quality management circles, the less popular ISO 10006:2017 [10], which provides a mapping between its contents and the original ISO 21500:2012, should now be updated as well.

While it seems that the PMI also intends to abjure its traditional process model in their next standard edition – as they announced a new "principles-based" Body of Knowledge, - the present authors, culturally fed by processes as building blocks of any respected organization, are taking this evolution with some regret. A change - from processes to practices - in some respect can only be a terminological issue and does not take into account the fundamental principle of tailoring, which is the basis of any standard, requiring every organization to customize the proposed model to their own needs. Even in true process definition, the “what” should be the prevailing driver of the concept, and apart from the table and input/output formats of the previous edition, which, admittedly, may look too prescriptive and could have been deleted in any case, the difference between the former processes and new practices is not appearing relevant. However, one should recall that other standards in the same ISO 3P series, which followed the first edition of ISO 21500, i.e. the program and portfolio guidelines, already embraced the practice-based terminology, which now creates a more homogeneous family of standards<sup>10</sup>.

In the new ISO 21502, the input-output tables of the previous 21500 processes have thus been removed, except recalling some of their contents in the more narrative description of the project management practices, as will be discussed later on. Nevertheless, the ISO 21502 does not purge the term “process” at all, which for example appears in the aforementioned definition of project management, and more than thirty times in the document; in other words, the standard would claim to be less restrictive than the previous edition, but address the reader elsewhere for more specific, process based-models, besides providing some additional hints on this topic in its ending Annex (discussed later on).

In general, the new ISO cared to be more liberal about the lexicon of some terms, used in various ways by different project management communities, accepting that the same concept can be differently used in organizations; for example, project charter and other documents can be expressed in different ways.

### **Other aspects of the standard**

Other aspects of general concepts of ISO 21502 are less disruptive, except providing more in-depth analysis. Among these are worth mentioning:

- project governance has been given some more extensive description. The business case has been described in more detail, similarly the life cycle of the project, of which a generic diagram is also depicted (not envisaged in the previous standard);
- the organization and project roles are more in-depth discussed. In particular, the sponsoring organization as usual expresses the project sponsor, who finds at his/her sides the project board

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<sup>10</sup> New versions of ISO 21503 (program management) and ISO 21504 (portfolio management) are also being started for renovation.

and a project assurance function; different relationships can exist between the sponsor and the steering committee or similar names. In particular, project assurance is defined as the *"planned and systematic actions, necessary to provide confidence to the sponsoring organization and project sponsor that a project is likely to achieve its objectives"*.

The project manager refers as usual to the sponsor and can be supported by a project office. Furthermore, work package leaders and other contracted parties can report to the project manager. The concepts of sponsoring organization, project board, and project sponsor are also discussed more fully, together with the roles of the project manager, project office, work package leader, and project team members. Let us remark that although this organizational scheme can concern a complete organizational model, to be suitably tailored for smaller and other (e.g. agile) organizations, it can have a positive influence on more structured entities, such as large and public procurement agencies;

- the ellipsoid diagram of the project stakeholders, as in former ISO 21500, as well as the structure of competencies of the project members, are inherited from the previous text, the latter including, but not limited to: technical, behavioral, and business or context skills.

Other aspects would appear unserved in the standard. Some experts would claim that agile and lean project management are not developed in the standard. The agile term is only cited twice, as example of a delivery method. Nonetheless this comment should be confronted with the generic scope of the document which, as already mentioned, would address to other references for more specialist topics<sup>11</sup>.

## **Requirements for formalizing project management**

A new clause is dedicated to the topic of formalizing project management in organizations. It is emphasized that all organizations carry out project work in a formal or informal way, but there are several prerequisites they should take into account to establish and improve their project management structure and methods before a proper project environment can be developed.

The contents of this clause develop some paragraphs focusing on the necessary conditions to put project management into practice, the continuous improvement of its environment, and the alignment with the organization's processes and systems. This appears like a *vademecum* or checklist for the organizational management who aims at developing project management internally and under continuous improvement, enhancing abilities that can be defined in different ways, such as project management maturity.

Particularly, we read that senior management's task is: to establish an approach, a timeline, a quality assurance function, a project office for periodic evaluation activities, to facilitate the continuous development of processes, methods and techniques of project management, and the evaluation of project management maturity (a definition which has been explicitly though quickly reported). Communication, with all those who are affected by any change of the means by which

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<sup>11</sup> One should recall that some time ago ISO TC258 had a questionnaire circulated among their members for the subjects having more interest to develop in prospective standards, including the agile option.

project management must be performed in the organization, should equally be given particular attention.

At the end of this clause, the document remarks that “*when aligning project management practices and systems, the following should also be considered:*

- *functional and physical organizational over other prevailing structures*
- *conflicting procedures, processes, plans and systems*
- *technology availability and access*
- *communication methods and cycles*
- *technology availability and access*
- *the context of operations of the organization*
- *balancing and optimizing the social, economic and environmental characteristics*
- *administrative and authorization systems*
- *sustainability and oversight requirements”*.

Undoubtedly this is a section that will appeal to organization consultants and staff who endeavor to persuade their managers to develop project management in the company.

### **Integrated project management practices**

This clause represents the core of the new standard, introducing what are defined *integrated project management practices*. These are at the center of the project and will be surrounded by other practices, which are called delivery - including, using the previous 21500 lexicon -, “subject” practices (discussed in the next section). The present practices provide integration, supervision, control, and heart-beating of project management, being linked to different levels and roles, as shown in Figure 2. That is easy to read, as it represents four organizational levels, respectively: sponsoring organization, project sponsor, project manager, and work package leader.

At the first level, the higher management practices play their role - *project overseeing* -, having at their sides (inherited from the previous standard) the so-called pre- and post-project activities. Overseeing a project by the sponsoring organization represents the highest decision-making level, where investment decisions are made, as well as reporting, audits, assurance, and escalation cases.

At the second level, we find the project sponsor responsibilities, i.e. *directing a project*, in turn, assisted or supervised by the project board.

At the third level, the typical practices of the project manager are identified, including:

- project team mobilization
- project governance and management approach
- initial project justification, and
- initial project *planning* (term put in italics for the reasons which follow).

Among these concepts, it is worth mentioning mobilization, a term of military origin, but commonly used in some sectors of project management, as civil construction, where it highlights the critical and initial activities of a project that must be guaranteed, otherwise causing delays and

cost overruns which are difficult to recover. Project governance and management approach include typical tasks such as project organization, roles, responsibilities, and definition of processes and methods to achieve objectives and results, working together with the delivery practices (following clause of the standard).

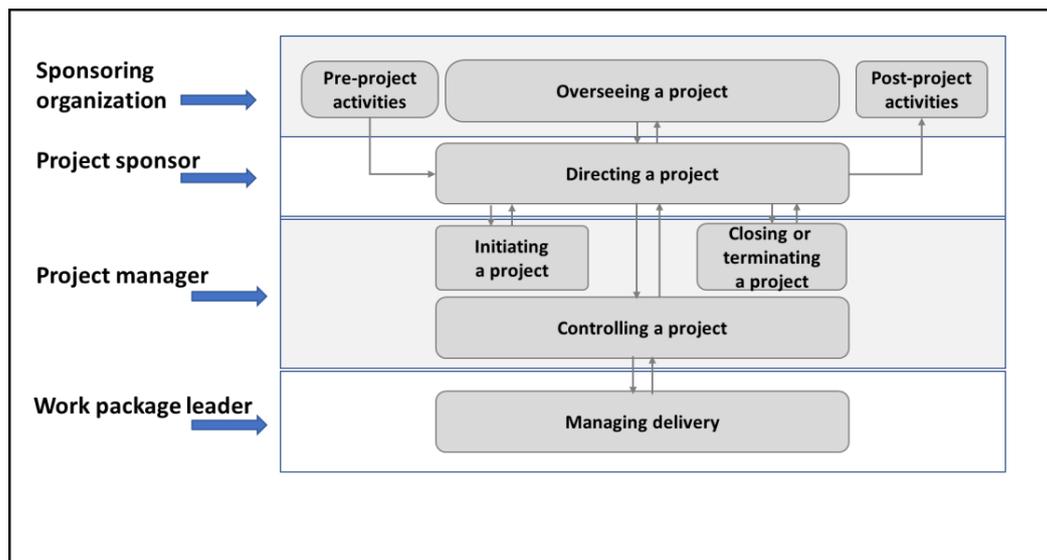


Figure 2 – Integrated project management practices (source: ISO 21502)

The initial project planning includes the development of the business case and its in-depth analysis, or similar document previously drawn up, as well as any necessary modification and integration in the course of the project, aiming to justify its permanent viability. Under the same topic, the standard requires that *"an initial project plan for the project should be developed with milestones and gates or decision points based on the project combined with a detailed plan for at least the immediate phase of the project"*. Still, under the same point, any aspects of the transition of products to operations and alternative options should be considered for the following phases of the project. The reader should pay attention here to the requirements of a “detailed plan” under this initial (not only preliminary) planning of the project.

At the same level as the project manager, project control practices find their container, including:

- progressive justification, i.e. ensuring that the project continues to remain valid, except for the necessary interventions;
- managing project performance, a wide concept encompassing all the characteristic activities of project control as usually meant;
- managing the start and close of each phase of the project;
- managing the start, progress and close of each work package;
- managing delivery, that is the activities of realizing the product properly said (under the responsibility of the work package leader, always in Figure 2);
- closing or terminating a project (back to the level of the project manager).

For the sake of synthesis, these topics are reported here only by their title, but in the standard inflate into series of sub-points, representing some checklists for the respective activities.

The point in question, that we would like to outline here, is the formal absence in Figure 2, the symbolic heart of the project, of the *planning* term. This was an issue at the ISO table, which had various options. One might have included planning as an integrated project management practice as well, requiring to move this practice from the following clause, where it is extensively discussed, to the present clause; however, in the standard the current version prevailed.

This is somewhat different than the previous ISO 21500 model, where the planning process group is at the same level as other groups (i.e. initiating, planning, implementing, controlling, closing). The new standard ISO logic instead creates a stronger link of planning with the delivery or work package practices. This perspective would be in line with the culture of those projects where the planning process - say practices - are more in charge of the work package or contractor responsibility, once the milestones and other elements are agreed upon and approved at a higher level in the general project plan.

It should be noticed that, even in the current framework, the planning is also present at the project sponsor level (recall the initial project planning), while the influence of the organizational framework would bias the practices' model. That is, planning (in the new standard) inherits the lower level of the delivery practices. Nevertheless, among the activities of managing the start and close of each project phase (project manager level, Figure 2), the standard assigns to the project manager the responsibility of "*preparing and reviewing a detailed plan for the phase*". Needless to say, when this role coincides with the delivery or work package leader, there would be no more issues, and the missing "planning" from Figure 2 would remain only a formal, albeit visible issue. The so exposed question, in our opinion, remains one of the few issues of the standard subject to further discussion or, at least, clarification.

### **Practices for project management.**

This final and lengthy clause of ISO 21502 describes the practices for project management, which as mentioned take the place of processes in the previous edition. With the planning - which should be given more emphasis among the integrated project management practices -, the here reported practices are 17, compared to the 10 subject areas of the previous ISO 21500. The composition of all the practices is depicted in figure 3, where the "practices for project management" form the corolla around the integrated project management ones. This floral picture may become the candidate as the symbol of the new standard.

In this regard, we should speak better in terms of "groups of practices", in analogy to the subject process groups of the previous edition. One may ask how these groups have inflated vs. the original ISO 21500. In this regard we find:

- a new entry practice: *management of benefits*, already discussed;
- a new subject area: *organizational and social change*, a.k.a. change management; the importance of which being recognized in the project management evolution, as well as for impacts and

innovative effects that a project can have on any organization or a social community. This would also fill some cultural gap between the project and change management experts;

- two practices aimed at enhancing the project organizational level: *management of lessons learned* and *documentation and information management*. The former was already included in the processes of historical ISO 21500, while the latter, close to knowledge management definition, was added to capitalize project information, likely in line with similar themes included in other standards (such as the PMBoK);
- three items which we would define “service” practices: *management of project issues*, *change control*, and *reporting*. Thanks to this structure, activities, usually included in the more general area of project control, are raised to the level of a practice group; moreover, the standard editors wished to distinguish reporting (internal activities for project administration) from the more general subject of communication.

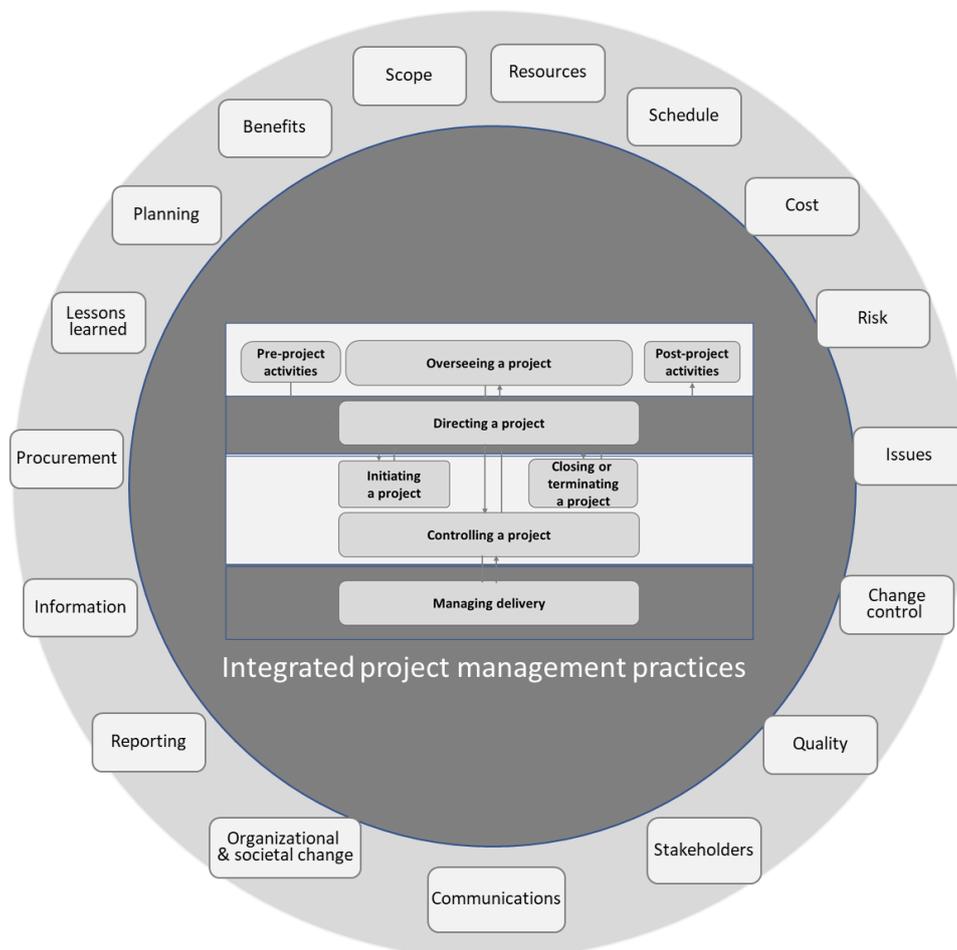


Figure 3. Practices for project management, complete view (source: ISO 21502)

In addition to these, one finds the traditional practices that inherit the subject groups already present in the previous edition, as other petals of the corolla: *stakeholders*, *scope*, *times*, *costs*,

*resources, quality, procurement*, and already mentioned *communication*. In this framework, we could furthermore comment that the integration subject group of the former ISO 21500:2012 has disappeared and provided materials for the new integrated and other practices for project management.

Instead, we would report that the ISO working group did not accept the proposal to insert a further practice group, related to project sustainability, regarding themes of health, safety, security. and environment (HSSE), which also are a sensitive topic in several project sectors, and may also involve some responsibility of the project manager; as well known, these subjects are developed in other standards and specific legislation.

For each practice, or one should better say "group of practices", a more specific and operative description is provided, similar to the previous edition, which explodes each group into elementary practices of planning, execution, and control, according to the perennial PDCA model, introduced by Deming and quality circles<sup>12</sup>. This concept, which defines the framework of the previous ISO 21500 process matrix, cannot be changed and allows ideally a one-to-one correspondence between the "former" processes and "new" elementary practices<sup>13</sup>. For example, the management of benefits consists of the elementary practices:

- identify and analyze benefits (a practice which can be understood as planning practice)
- monitor benefits (classified as a control practice)
- maintain benefits (also a control practice, through corrective and preventive actions).

If we take another example, resources management includes:

- planning the project organization (obviously a planning practice)
- establishing the team (classified an implementing practice)
- developing the team (an implementing practice as well)
- managing the team (a control practice)
- planning, managing and controlling physical and material resources (which combines planning, implementing and controlling).

By so doing, one can recreate a framework like the previous standard and generate a matrix of practices analogous to the previous ISO 21500. We should not ignore the fact that, for those not necessarily familiar with this model, some difficulty can arise in understanding the division into "implementing" and "control" areas, due to their natural synergy in the current management of a project. In any case, by repeating the analysis for each group of practices, the respective elementary practices can be identified, and one can conventionally make each practice correspond to a process.

An example of the mapping of the new ISO 21502 practices to ISO 21500:2012 process groups is shown in Table 2, adapted from Annex A to the new ISO. The model of the so-obtained matrix

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<sup>12</sup> *Plan-Do-Check-Act*. This regards a generic paradigm that applies to all socio-technical systems, and the put the basis of the process group framework of the traditional PMBOK, then migrated to ISO 21500:2012 (initiating, planning, implementing, controlling, closing).

<sup>13</sup> "Group of practices" and "elementary practice" is a definition introduced in the present article and does not correspond to any wording found in the standard.

can recreate the same framework as the previous ISO 21500. Moreover, some ISO experts required this model to survive in the new ISO 21502, in order to compare the contents of the new standard with the previous one, this being also compliant with ISO rulings. This finally provides a unitary framework between the entities of processes and practices, and demonstrates how different languages can be understood and reconciled under common concepts.

	Process groups of ISO 21500:2012				
Clauses of ↓ ISO 21502:2020	Initiating	Planning	Implementing	Controlling	Closing
6. Integrated project management	...				
	<ul style="list-style-type: none"> <li>Project team mobilization</li> <li>Project governance and management approach</li> <li>...</li> </ul>	Initial project planning	Managing the start, progress and close of each work package	<ul style="list-style-type: none"> <li>Progressive justification</li> <li>Managing project performance</li> </ul>	Managing the (start and) close of each project phase
7.2 Planning		Developing the plan		Monitoring the plan	
7.3 Benefit management		Identifying and analysing benefits		<ul style="list-style-type: none"> <li>Monitoring benefits</li> <li>Maintaining benefits</li> </ul>	
7.4 Scope management		Defining scope		<ul style="list-style-type: none"> <li>Controlling scope</li> <li>Confirming the scope delivery</li> </ul>	
7.5 Resources management		Planning the project organization	<ul style="list-style-type: none"> <li>Establishing the team</li> <li>Developing the team</li> </ul>	Managing the team	
		Planning, managing and controlling physical and material resources			

Table 2. Example of mapping of ISO 21502 practices to the process group of ISO 21500:2012 (Source: ISO 21502, Annex A)

## Conclusion

This paper wished to introduce the reader to the new ISO 21502 “Guidance on project management”. The content of the document is described and its different approach from the superseded document, say from the process to the practice-based framework is thoroughly analyzed, based on the personal opinions of the authors. Besides providing a general overview of the document, some specific issues of the document have been discussed, for a better interpretation of the text, particularly on the planning concept and practices, with additional references to other previous and current project management standards. ISO 21502 provides a methodology based on fundamental concepts, requirements for formalizing project management and practices, - classified in turn as i) integrated project management practices and ii) practices for project management -, which can help organizations to implement and get the discipline more mature in their own contexts. In particular, the standard is a thicker document than the previous one, which may deserve some comments on the right equilibrium, scope, and role of these generic references, but on the other hand, can provide better insight and guidelines for their acceptance and application.

## References

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**Pier Luigi Guida**, a graduate in engineering and post-graduate in informatics, devoted his initial career to aerospace industry, then worked for some decades at Italian railways, holding several positions and senior management roles, for mission-critical systems, traffic management and corporate business re-engineering. Finally, he became consultant and trainer; currently chief editor at “il Project Manager”, leading Italian journal, coordinates UNI project management committee (Italian Standardization Body), and participates in ISO TC258. He earned PMP, PgMP credentials, is a university lecturer and a Certified Project Manager and assessor for project manager certification, according to the Italian regulations (Accredia). He has authored two books on project management and several refereed papers, and is currently conducting academic research on schedule delay analysis. Pier Luigi lives in Rome, Italy, and may be contacted at [pl.guida@alice.it](mailto:pl.guida@alice.it).



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**Maurizio Monassi**, a graduate in engineering, has held several management positions in leading Italian companies in defense, shipbuilding and computer industry. After being quality manager, he became an advocate of project management and member of the founding team of ISIPM (Italian Institute of Project Management), where he currently is a member of the management board. Currently a consultant and trainer, also for corporate and public agencies, he is member of UNI technical committee (Italian Standardization Body) for project management. He earned the PMP credential and he is a Certified Project Manager and assessor for project manager certification, according to the Italian regulations (Accredia). He authored several papers and co-authored a book on project management based on ISIPM advanced qualification framework. Maurizio lives in Rome, Italy, and may be contacted at [monassi@isipm.org](mailto:monassi@isipm.org)