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Comparing
PMBOK® Guide 4th Edition,
PMBOK® Guide 5th Edition
and ISO 21500
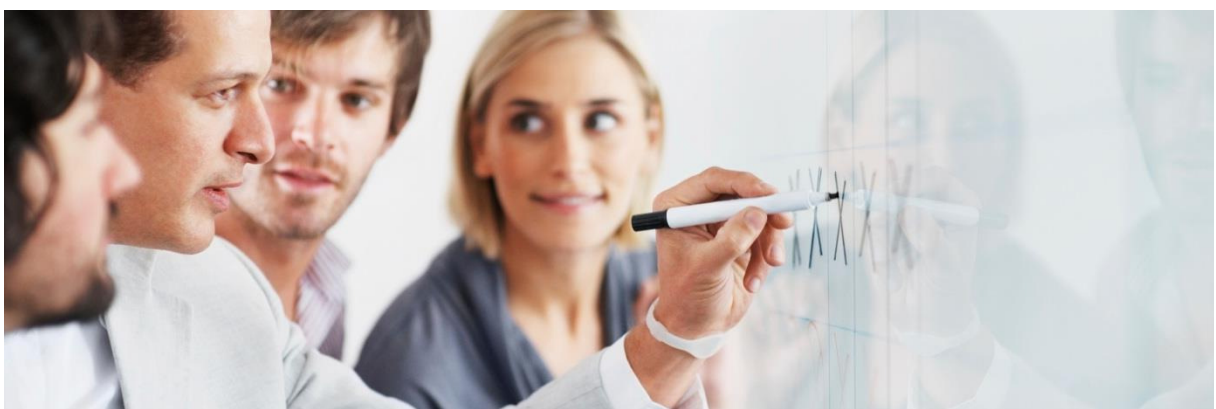
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CONTENTS

1 FOREWORD FROM THE AUTHOR

National and international standards exist, and these have initiated the emergence of project management certifications that mostly target individuals rather than organizations.

Despite this orientation, most project management standards are process-oriented. Therefore, many companies have developed in-house methodologies that are more or less inspired by these standards.

Currently, three major process-oriented certification bodies have a dominant and significant influence in Switzerland and across Europe:

- The Project Management Institute (PMI) and its Project Management Body of Knowledge (PMBOK) Guide®.
- The Office of Government Commerce and PRINCE2®, published in 1996 by a consortium of 150 European organizations.
- The Swiss Federal Strategy Unit for IT, the owner of the HERMES method.

The International Project Management Association is not considered here since it is not process-oriented but rather competencies-oriented when considering its certification framework.

In 2006, the British Standards Institute, a member of ISO, initiated a request towards ISO to work on defining a standard for project management.

ISO launched a new Technical Committee to deal with project management: TC236. This committee comprises 37 participating countries and 14 observing countries.

The TC236 secretariat has published guidance on project management, namely ISO 21500:2012, which was released in September 2012.

Since the PMBOK® Guide has been approved by the American National Standards Institute (ANSI), and as the ANSI is the TC236 secretariat, some similarities were expected between the PMBOK® Guide and the ISO 21500:2012 standard.

This white paper aims to highlight the major similarities and differences between the ANSI and ISO standards, i.e. between the PMBOK® Guide and ISO 21500:2012 standard. Both *PMBOK*® Guides, that is the 4th and 5th editions, are covered in this white paper.

Thierry Labriet, PMP
Senior Consultant at STS SA

The two releases of the PMBOK® Guide and ISO 21500 standard are very close. They present a set of processes that have been organized in the same way, namely by project management stage and project management topic.

The ISO standard is only 47 pages and is limited to the introduction of the processes, their inputs and their outputs.

Both PMBOK® Guides describe, over more than 450 pages, project management processes, their inputs, their outputs and their associated tools and techniques.

In chronological order, the ANSI standard came first, with the 4th edition of the PMBOK® Guide. The ISO standard has been approved by national committees and was released in September 2012. The new edition of the PMBOK® Guide was released at the end of 2012.

ISO uses most of the PMBOK® Guide 4th processes but it has introduced minor adaptations: the risk knowledge area has been repositioned, as has human resource management.

The major change is related to stakeholder management; the subject group (aka knowledge area) has been introduced by ISO and it also appears in the new PMBOK® Guide release. The two processes introduced by ISO in this subject group were two processes of the communication knowledge area of the PMBOK® Guide 4th edition.

ISO processes are more likely to be oriented towards a cascade approach of the scope definition rather than an iterative approach. Therefore, the ISO standard is perhaps less attractive for agile organizations.

3 PROCESS ORGANIZATION IN THE STANDARDS

Both standards (ANSI and ISO) are structured into project management stages (project management, not project stages or phases) and project management topics:

	PMBOK® Guide 4th	ISO 21500	PMBOK® Guide 5th
Stages	5 process groups	5 process groups	5 process groups
Topics	9 knowledge areas	10 subject groups	10 knowledge areas
Processes	42 processes	39 processes	47 processes

NB: Since the PMBOK® Guide 4th came first, we use the wording "process groups" and "knowledge areas" in this document.

The first noticeable factor is the introduction of a new knowledge area in the ISO norm and the PMBOK® Guide 5th edition: stakeholder management.

	PMBOK® Guide 4th	ISO 21500	PMBOK® Guide 5th
Process Groups	1. Initiating 2. Planning 3. Executing 4. Monitoring & Controlling 5. Closing	1. Initiating 2. Planning 3. Implementing 4. Controlling 5. Closing	1. Initiating 2. Planning 3. Executing 4. Monitoring & Controlling 5. Closing
Knowledge Areas	1. Integration 2. Scope 3. Time 4. Cost 5. Quality 6. Human Resource 7. Communications 8. Risk 9. Procurement	1. Integration 2. Scope 3. Time 4. Cost 5. Quality 6. Resource 7. Communication 8. Risk 9. Procurement 10. Stakeholder	1. Integration 2. Scope 3. Time 4. Cost 5. Quality 6. Human Resource 7. Communications 8. Risk 9. Procurement 10. Stakeholder

NB: In both PMBOK® Guides, the full name of the knowledge areas follows the pattern <Project <KA> Management>: "Integration" is described by PMI as "Project Integration Management".

The set of processes in the PMBOK® Guide 4th edition is the following:

PMBOK® Guide 4th	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Integration	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Execution	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
Scope		5.1 Collect Requirements 5.2 Define Scope 5.3 Create WBS		5.4 Verify Scope 5.5 Control Scope	
Time		6.1 Define Activities 6.2 Sequence Activities 6.3 Estimate Activity Resources 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6 Control Schedule	
Cost		7.1 Estimate Costs 7.2 Determine Budget		7.3 Control Costs	
Quality		8.1 Plan Quality	8.2 Perform Quality Assurance	8.3 Perform Quality Control	
Human Resources		9.1 Develop HR Plan	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
Communi-cations	10.1 Identify Stakeholders	10.2 Plan Communications	10.3 Distribute Information 10.4 Manage Stakeholders Expectations	10.5 Report Performance	
Risk		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Monitor and Control Risks	
Procurement		12.1 Plan Procurements	12.2 Conduct Procurements	12.3 Administer Procurements	12.4 Close Procurements

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ISO presents the following set of processes:

ISO 21500 Standard	Initiating	Planning	Implementing	Controlling	Closing
Integration	4.3.2 Develop Project Charter	4.3.3 Develop Project Plans	4.3.4 Direct Project Work	4.3.5 Control Project Work 4.3.6 Control Changes	4.3.7 Close Project Phase or Project 4.3.8 Collect Lessons Learned
Stakeholders	4.3.9 Identify Stakeholders		4.3.10 Manage Stakeholders		
Scope		4.3.11 Define Scope 4.3.12 Create WBS 4.3.13 Define Activities		4.3.14 Control Scope	
Resource	4.3.15 Establish Project Team	4.3.16 Estimate Resources 4.3.17 Define Project Organization	4.3.18 Develop Project Team	4.3.19 Control Resources 4.3.20 Manage Project Team	
Time		4.3.21 Sequence Activities 4.3.22 Estimate Activity Durations 4.3.23 Develop Schedule		4.3.24 Control Schedule	
Cost		4.3.25 Estimate Costs 4.3.26 Develop Budget		4.3.27 Control Costs	
Risk		4.3.28 Identify Risks 4.3.29 Assess Risks	4.3.30 Treat Risks	4.3.31 Control Risks	
Quality		4.3.32 Plan Quality	4.3.33 Perform Quality Assurance	4.3.34 Perform Quality Control	
Procurement		4.3.35 Plan Procurements	4.3.36 Select Suppliers	4.3.37 Administer Contracts	
Communications		4.3.38 Plan Communications	4.3.39 Distribute Information	4.3.40 Manage Communication	

The PMBOK® Guide 5th edition introduces the following processes:

PMBOK® Guide 5th	Initiating	Planning	Executing	Monitoring & Controlling	Closing
Integration	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Execution	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
Scope		5.1 Plan Scope Management 5.2 Collect Requirements 5.3 Define Scope 5.4 Create WBS		5.5 Validate Scope 5.6 Control Scope	
Time		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Resources 6.5 Estimate Activity Durations 6.6 Develop Schedule		6.7 Control Schedule	
Cost		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
Quality		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
Human Resources		9.1 Plan HR Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
Communi-cations		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
Risk		11.1 Plan Risk Management 11.2 Identify Risks 11.3 Perform Qualitative Risk Analysis 11.4 Perform Quantitative Risk Analysis 11.5 Plan Risk Responses		11.6 Control Risks	
Procurement		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
Stakeholder	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Management	

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4 SUMMARY OF THE MAJOR CHANGES TO PROCESSES

The PMBOK® Guide 4th edition details 42 processes.

From the PMBOK® Guide 4th, ISO …

… uses 32 processes or direct equivalents,

… repositions two processes (Develop HR Plan and Acquire Project Team are repositioned into Establish Project Team and Define Project Organization)

... merges 2×2 processes into two (Perform Qualitative Risk Analysis and Perform Quantitative Risk Analysis are merged into Assess Risks, while Distribute Information and Report Performance are merged into Distribute Information)

… omits four processes (Collect Requirements, Verify Scope, Plan Risk Management, Close Procurements)

… introduces three processes (Collect Lessons Learned, Control Resources, Manage Communication)

The ISO standard has 39 processes.

The PMBOK® Guide 5th, compared with its predecessor …

… adds four processes to plan the management of knowledge areas

… introduces two new controlling processes (Control Communications, Control Stakeholder Management)

… merges two processes (Distribute Information and Report Performance) into a repositioned process (Manage Communications)

… reallocates two processes in the new stakeholder knowledge area

This edition of the PMBOK® Guide details 47 processes.

5 DETAILED ANALYSIS

Following the structure of the PMBOK® Guide 4th edition, the major differences between the three references are now detailed by knowledge area.

Since this structure did not include the stakeholder knowledge area, it is explained at the end of this document. Therefore, the analysis will not strictly follow the structure of the ISO standard.

5.1 PROJECT INTEGRATION MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Develop Project Charter	Develop Project Charter	Develop Project Charter
What's new in ISO?	No major additions.		
What's new in the 5th edition?	In addition to the expert judgment, the 5th edition proposes facilitation techniques to build the project charter. These techniques were introduced in the 5th edition. Typical facilitation techniques include brainstorming, the Delphi technique, problem solving, meetings, facilitation, etc.		
Process	Develop Project Management Plan	Develop Project Plans	Develop Project Management Plan
What's new in ISO?	ISO reinforces the distinction between the baselines and management plans. The Project Management Plan combines the management plans of the different knowledge areas, such as the scope management plan and the risk management plan, which are called subsidiary plans. The project plan contains the baselines of the project, in terms of scope, schedule, resources, risks, etc.		
What's new in the 5th edition?	For both frameworks of the PMI, the Project Management Plan integrates and consolidates all the subsidiary management plans and baselines. Thus, the Project Management Plan comprises two major sections: subsidiary management plans and baselines. This is consistent with the previous edition.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Direct and Manage Project Execution	Direct Project Work	Direct and Manage Project Execution
What's new in ISO?	Change requests are not an input of the Direct Project Work process. The ANSI justifies such changes because when the work is being undertaken, colleagues may request process adaptations, discover new ways to perform, etc. More significantly, ISO introduces the issue log into its standard. This clear deliverable flows between processes when it is a component of the project documentation for the ANSI. The issue log is allocated at the same level as the risk register in the ISO standard.		
What's new in the 5th edition?	Meetings (rather than facilitation techniques) are introduced as a technique to manage project execution. These meetings might trigger the creation of a change request when dealing with scope change proposals, process adaptations, etc.		
Process	Monitor and Control Project Work	Control Project Work	Monitor and Control Project Work
What's new in ISO?	For ISO, this process is in charge of the transformation of progress data into progress reports and forecasts. In the ANSI standard, this transformation occurs in the Report Performance process, which is also a controlling process. ISO also introduces Project Handover Reports but does not detail its use.		
What's new in the 5th edition?	The new edition of the ANSI standard moves in the same direction as ISO. Forecast and work performance information is analyzed in this process in order to produce performance reports.		
Process	Perform Integrated Change Control	Control Changes	Perform Integrated Change Control
What's new in ISO?	ISO uses a more formal change register, whereas it is a de facto document in the ANSI standard.		
What's new in the 5th edition?	The change register is also more formal, termed a change log. Change Control Tools are introduced in the 5th edition in order to facilitate configuration and change management.		

	PMBOK® Guide 4th processes	ISO 21500 Processes	PMBOK® Guide 5th processes
Process	Close Project or Phase	Close Project Phase or Project	Close Project or Phase
What's new in ISO?	The closure report and released resources are explicit outputs of the ISO process, which is a clear improvement. ISO uses project handover reports and certificates as formal inputs to confirm the production of expected deliverables at the expected level of quality.		
What's new in the 5th edition?	The 5th edition does not confirm the explicit use of the closure report and released resources. It stays very close to the 4th edition with the addition of analytical techniques and meetings as tools and techniques.		
Process		Collect Lessons Learned	
What's new in ISO?	This process has been introduced by ISO. This is a clear sign of the importance of knowledge management in learning organizations, even though it is not managed as a new knowledge area, as expected by many contributors. This process involves many situational outputs of other processes to produce a lessons learned document.		
What's new in the 5th edition?	This process has not yet been implemented in the ANSI standard. On the other hand, many process outputs now include Lessons Learned Documentation in the Organizational Process Assets Updates general deliverable.		

5.2 PROJECT SCOPE MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process			Plan Scope Management
What's new in the 5th edition?	The new edition of the ANSI standard implements systematically a management plan for each knowledge area. This was an unclear area in the previous edition. Further, the scope management plan was not covered in any process but rather mentioned as a subsidiary plan of the project management plan, for instance. This new process has major outputs. The scope management plan details how the scope will be managed and what templates will be used. The requirement management plan is also very interesting since it details how the requirements will be managed from the start until the end and how the configuration management activities will be handled.		
Process	Collect Requirements		Collect Requirements
What's new in the 5th edition?	The 5th edition has removed the inconsistent output of the Collect Requirements process, which is the management plan for the requirements.		
Process	Define Scope	Define Scope	Define Scope
What's new in ISO?	In this process, ISO places the creation of the requirements documentation and makes an interesting link between the scope and its contribution to the strategic goals of the company.		
What's new in the 5th edition?	No major additions.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Create WBS	Create WBS	Create WBS
What's new in ISO?	No major additions.		
What's new in the 5th edition?	Whereas ISO shows the WBS and its dictionary as the sole outputs of the process, the new edition of the ANSI standard keeps the term scope baseline. This is consistent with other knowledge areas. For instance, regarding time, planning processes issue a schedule baseline rather than a specific instance of a baseline such as a Gantt, a PERT, etc. The 4th edition had both outputs: a scope baseline, the WBS and its dictionary, which was somewhat redundant.		
Process		Define Activities	
What's new in ISO?	This process has been moved by ISO in scope management. Detailed changes are shown in the next knowledge area.		
Process	Verify Scope		Validate Scope
What's new in the 5th edition?	The 5th edition introduces some interesting points regarding the validation (instead of verification) of the scope. The deliverable is not accepted simply upon the scope baseline but also on work performance data, that include the degree of compliance with requirements, the number of nonconformities and the severity of these nonconformities. This involves validation using group decision-making techniques.		
Process	Control Scope	Control Scope	Control Scope
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		

5.3 PROJECT TIME MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process			Plan Schedule Management
What's new in the 5th edition?	This new process details how time-related activities will be managed through the planning, the execution, the control and the closure of the project or phase.		
Process	Define Activities	Define Activities	Define Activities
What's new in ISO?	Except the fact that this process is listed in the scope subject group, there are no major changes compared with the ANSI standard.		
What's new in the 5th edition?	No major additions.		
Process	Sequence Activities	Sequence Activities	Sequence Activities
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		
Process	Estimate Activity Resources	Estimate Resources	Estimate Activity Resources
What's new in ISO?	ISO has moved this process into the Resource subject group. The process Estimate Resources deals with all kinds of resources (as does the ANSI standard) but since ISO placed it in the Resource subject group, this group can no longer be "HR only".		
What's new in the 5th edition?	Activity cost estimates and the risk register have been added to the list of inputs of the 4th edition, since risks and costs may affect resource selection.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Estimate Activity Durations	Estimate Activity Durations	Estimate Activity Durations

What's new in ISO?	No major additions.
What's new in the 5th edition?	The new edition of the ANSI standard adds the risk register as an input to estimate activity durations. This is interesting since there is a balance to strike between 1) identifying and managing risks as such and removing uncertainty from the estimates and 2) keeping minor uncertainties in the responsibility of the team member, and therefore in the duration estimate, because the amount at stake is more minor compared with the cost of managing the risk.

Process	Develop Schedule	Develop Schedule	Develop Schedule

What's new in ISO?	ISO introduces schedule constraints as an input to schedule development, which makes sense. Such information might impose deadlines (constrained milestones) on schedule development.
What's new in the 5th edition?	Figure 6-18 related to the Critical Path Method offers a better view on how to calculate early starts and finishes of activities through a network diagram, according to their dependencies.
	It also depicts more in-depth the Critical Chain Method that is more and more used in project management.
	A new technique of resource optimization has also been added: Resource Smoothing has the same aim as Resource Leveling except that it is kept within the activity float, so the project-critical path remains unchanged.

Process	Control Schedule	Control Schedule	Control Schedule

What's new in ISO?	ISO, in the process description, emphasizes the necessity to produce schedule forecasts in order to trigger change requests, if required.
What's new in the 5th edition?	The new edition adds schedule forecasts as outputs of this control process.

5.4 PROJECT COST MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process			Plan Cost Management
What's new in the 5th edition?	Like other management plans, this has been added to cover the cost area. The cost management plan defines the control thresholds and rules to be applied when using performance measures as EVM does.		
Process	Estimate Costs	Estimate Costs	Estimate Costs
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions. There is a minor point regarding weighted average cost estimates. In addition to the PERT estimates, the new ANSI standard presents a simple average (C+M+P)/3.		
Process	Determine Budget	Develop Budget	Determine Budget
What's new in ISO?	The ISO standard does not show evidence that the determined budget is time-based and can be used to determine funding requirements.		
What's new in the 5th edition?	The new edition of the ANSI standard clarifies the inclusion of the contingency reserve in the cost baseline and the exclusion of the management reserve. This last reserve is part of the overall budget and funding requirements. Regarding the contingency reserve, a new figure improves the understanding of the PMI by showing an activity level and an overall contingency reserve. This might indicate that risks and their associated reserves are managed at the work package level, not necessarily at the activity level.		
Process	Control Costs	Control Costs	Control Costs
What's new in ISO?	No major additions.		
What's new in the 5th edition?	The 5th edition indicates reserve analysis as a new technique. This answers the needs of project managers that manage risky projects.		

5.5 PROJECT QUALITY MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Plan Quality	Plan Quality	Plan Quality Management
What's new in ISO?	ISO indicates the quality plan as an output of this process. This plan is a set of documents ensuring that quality standards will be met. This aims to cover the multiple outputs of the ANSI standard (quality metrics, quality checklists, process improvement plans, etc.). The quality management plan refers to the quality policy set by the permanent organization (or derived from it).		
What's new in the 5th edition?	The new edition introduces new tools ("Seven basics quality tools": cause & effect diagrams, flowcharts, check sheets, Pareto diagrams, histograms, control charts and scatter diagrams) and removes flowcharting and proprietary quality management methodologies.		
Process	Perform Quality Assurance	Perform Quality Assurance	Perform Quality Assurance
What's new in ISO?	In the ISO standard, quality assurance is mostly concerned with the assurance that quality requirements are communicated and understood and that established procedures are used. It also states that "quality assurance activities ensure that [...] product quality conforms to project quality requirements and standards", which is a concern mostly addressed in the Quality Control process of the ANSI standard.		
What's new in the 5th edition?	Quality Management and Control Tools are more detailed compared with in the previous edition.		
Process	Perform Quality Control	Perform Quality Control	Perform Quality Control
What's new in ISO?	Formal inspection reports are mentioned as key outputs.		
What's new in the 5th edition?	No major additions.		

5.6 PROJECT HUMAN RESOURCE MANAGEMENT

This knowledge area is presented differently in the two standards, and thus we need to take a few minutes to understand the two points of view.

In both ANSI standards, the first process is Develop HR Plan (or Plan HR Management in the 5th edition). This process is in the planning process group. Other HR processes are execution processes: Acquire Project Team, Develop Project Team and Manage Project Team.

In the ISO standard, we can see that a first process (Establish Project Team) appears in the Initiating Process group.

Then, we follow the planning processes Estimate Resources and Define Project Organization.

Develop Project Team is an execution process that has two controlling processes: Control Resources and Manage Project Team.

Gosh! These two standards have completely different points of view! Not really!

ISO puts the process Establish Project Team in the Initiating process group because it is seen as a process that is performed continuously throughout the project.

ISO does not mean that the team is built first, then resources are estimated and finally the team is organized.

When one looks at the inputs and outputs of this process, it is very close to the ANSI standard and corresponds to the Acquire Project Team process.

Let's represent this graphically:
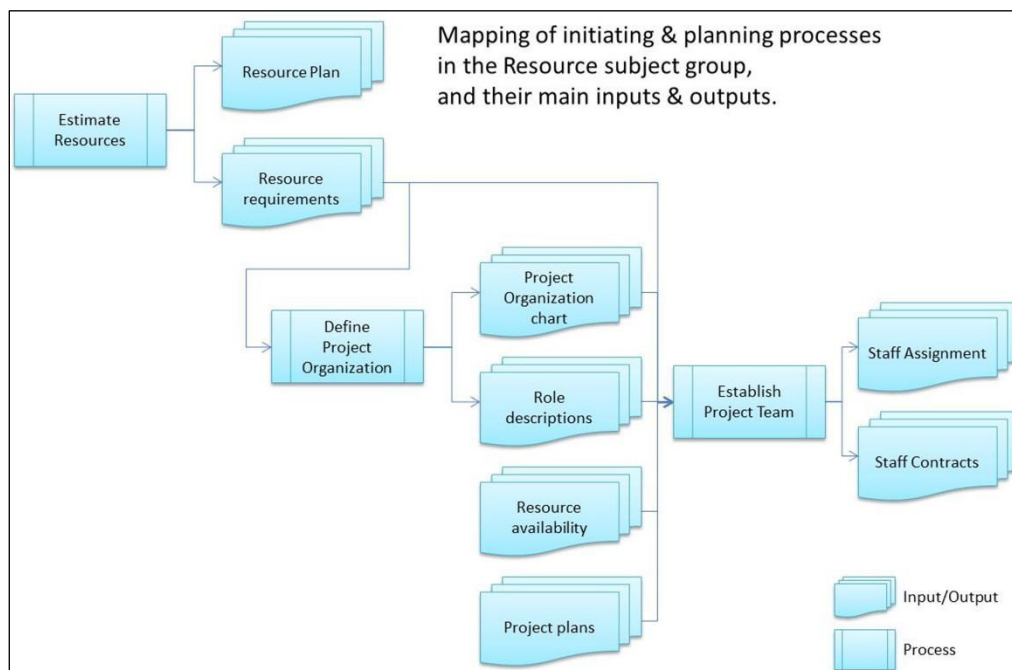
ISO answers in this way a concern: the project needs a team to perform the initiating and planning activities. Therefore, this process can be performed iteratively, and the main team set-up occurs in the planning.

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Develop HR Plan	Define Project Organization	Plan HR Management
What's new in ISO?	The Define Project Organization process aims to secure commitments from the permanent organization (team leaders, for instance). Like the Develop HR Plan, its objective is also to define the roles and responsibilities in the project and to detail how resources will be acquired, rewarded and released.		
What's new in the 5th edition?	No major additions.		
Process	Acquire Project Team	Establish Project Team	Acquire Project Team
What's new in ISO?	The ISO standard introduces the idea of staff contracts in addition to staff assignments, which is interesting since, in many organizations, there is a more or less formal agreement between functional managers and the project management team.		
What's new in the 5th edition?	The new release of the ANSI standard introduces a new technique to acquire the project team: multi-criteria decision analysis uses more objective decision criteria such as cost, availability, experience, knowledge, etc.		
Process	Develop Project Team	Develop Project Team	Develop Project Team
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		
Process	Manage Project Team	Manage Project Team	Manage Project Team
What's new in ISO?	ISO adds a new output of this process: Staff Performance and Staff Appraisals. The distinction with Team Performance and Team Appraisals, which are outputs of the Develop Project Team, is not clear, but ISO presents such outputs as inputs for organizational personnel appraisals and lessons learned.		
What's new in the 5th edition?	No major additions.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process		Control Resources	
What's new in ISO?	With this new process, ISO shows the importance of controlling resource assignments and allocations, the necessity to anticipate resource shortages or shifts and the need to address resource conflicts in availability.		

5.7 PROJECT COMMUNICATIONS MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Identify Stakeholders		
What's new in ISO?	This process has been moved into the Stakeholders Group (see below).		
What's new in the 5th edition?	This process has been moved to the newly created knowledge area Project Stakeholder Management (see below).		
Process	Plan Communications	Plan Communications	Plan Communications Management
What's new in ISO?	ISO identifies a clear input into this process (Role Descriptions) in order to build the communication plan. This was implicit in the ANSI standard since the Communication Management Plan includes responsibilities.		
What's new in the 5th edition?	No major additions.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Distribute Information + Report Performance	Distribute Information	Manage Communications
What's new in ISO?	The processes Report Performance and Distribute Information have been merged into Distribute Information. This process has the same inputs as Report Performance, namely work performance information and forecasts. It thus aims to make the required information available to stakeholders (this is the same aim as the process Distribute Information). This process also manages information distribution from stakeholders to the project in order to provide inputs to other processes (e.g. risk management).		
What's new in the 5th edition?	The new release of the ANSI standard also merges these two 4th edition processes. The tools and techniques presented by the PMI include performance reporting, which was initially in the Report Performance process. This repositioned process goes beyond the distribution of relevant information and seeks to ensure that the information being communicated to project stakeholders has been received and understood. It also provides opportunities for stakeholders to make further information requests.		
Process		Manage Communications	Control Communications
What's new in ISO?	The purpose of this new process is to identify and resolve communication issues and to ensure communication needs are satisfied. The outputs are accurate and timely information (resolved communication issues) and change requests, mainly on the communication plan.		
What's new in the 5th edition?	The 5th edition of the ANSI standard is close to the ISO considerations in this regard.		

5.8 PROJECT RISK MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Plan Risk Management		Plan Risk Management
What's new in the 5th edition?	The 5th edition has improved the list of tools and techniques for planning risk management. A non-exhaustive list of techniques is presented, as are the most important stakeholders who can provide their expert judgment. The list of inputs has also been repositioned to improve consistency.		
Process	Identify Risks	Identify Risks	Identify Risks
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		
Process	Perform Qualitative Risk Analysis	Assess Risks	Perform Qualitative Risk Analysis
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		
Process	Perform Quantitative Risk Analysis		Perform Quantitative Risk Analysis
What's new in ISO?	This interesting ANSI process has not been explicitly described by ISO. It may be considered to be included in Assess Risks, but the ANSI standard delivers real added-value by describing the statistical considerations and methods in-depth and by providing interesting outcomes such as a probabilistic analysis of the project.		
What's new in the 5th edition?	No major additions.		

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Plan Risk Responses	Treat Risks	Plan Risks Responses
What's new in ISO?	No major additions.		
What's new in the 5th edition?	The 5th edition has removed the output of this process. Risk-related Contract Decisions is no longer an outcome here.Such information is already provided through the updates on the procurement management plan, which is an element of the Project Management Plan.		
Process	Monitor and Control Risks	Control Risks	Control Risks
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		

5.9 PROJECT PROCUREMENT MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process	Plan Procurements	Plan Procurements	Plan Procurement Management
What's new in ISO?	Here, ISO added in-house capacity and capability to the list of inputs, which may influence the make-or-buy analysis compared with the resource requirements. Existing contracts are also considered to be an input by ISO.		
What's new in the 5th edition?	The main change here is the addition of Market Research and Meetings as tools and techniques and the removal of Contract Types, which are now considered to be inputs into this process and as such are included in Organizational Process Assets.		
Process	Conduct Procurements	Select Suppliers	Conduct Procurements
What's new in ISO?	ISO states more formally that three main activities are covered by this process: 1) Obtaining supplier responses 2) Supplier selection 3) Negotiation prior to agreement of contract conditions		
What's new in the 5th edition?	The PMBOK® Guide 5th edition has changed few tools and techniques: Internet Search has been removed (this may be included under the general Advertising technique) and Analytical Techniques have been introduced.		
Process	Administer Procurements	Administer Contracts	Control Procurements
What's new in ISO?	The ISO standard does not detail two of the major concerns that are well highlighted in the ANSI standard: Payments and Claims Administration.		
What's new in the 5th edition?	No major additions.		
Process	Close Procurements		Close Procurements
What's new in ISO?	ISO considers this activity to be part of the integration process Close Project Phase or Project. This process identifies Completed Contracts as an output.		
What's new in the 5th edition?	No major additions.		

5.10 PROJECT STAKEHOLDER MANAGEMENT

	PMBOK® Guide 4th processes	ISO 21500 processes	PMBOK® Guide 5th processes
Process			Plan Stakeholder Management
What's new in the 5th edition?	This new process introduces a concern regarding stakeholder engagement. It details how current and desired levels of engagement are analyzed and highlights the fact that levels of engagement may change according to the project situation and timeframe. Alongside levels of engagement, this process also identifies the interrelations between stakeholders.		
Process	Manage Stakeholders Expectations	Manage Stakeholders	Manage Stakeholder Engagement
What's new in ISO?	No major additions.		
What's new in the 5th edition?	No major additions.		
Process			Control Stakeholder Management
What's new in the 5th edition?	This new process ensures the comprehensive identification and listing of new stakeholders, reassessment of current stakeholders and removal of stakeholders no longer involved in the project. It also monitors changes in stakeholder interrelations and controls their engagement in order to adapt the stakeholder management strategy if needed.		

6   CONCLUSION FOR SPECIALISTS

This review demonstrates that the most important addition of the ISO standard is that of the formal knowledge necessary to deal with stakeholders.

A step towards knowledge management has thus been made in the ISO standard without becoming a knowledge area by itself.

The PMBOK® Guide 5th edition also incorporates this major change. However, it has not reassigned processes into different knowledge areas as ISO has.

The major addition of the PMBOK® Guide 5th Edition compared with its predecessor is the fact that, from now on, a knowledge area always starts with the concerned subsidiary management plan.

Many project managers expected to see the emergence of iterative approaches to decomposing the scope and executing the project: both standards are "cascade approach"-oriented.

The most important point may be that current training does not need tremendous alteration to be consistent with the new PMBOK® Guide. Simplification and consistency concerns drove this new edition, together with the new knowledge area.

7   MANAGEMENT CONCLUSION

Consistency between the ANSI and ISO standards will certainly help the profession.

PMI certifications will continue to promote structured project management, and project managers (or associates) will help a number of organizations align their project management processes towards ISO recommendations.

This mutual contribution is likely to continue since a new technical committee has been set up to deal with program and portfolio management. Moreover, the composition of this new committee is the same as the committee that produces the ISO 21500:2012 standard, which might lead the PMI to certify portfolio managers in the future.

The PMI confirms its leading position in certifying program managers, project managers and associates who will feel "at home" in ISO-oriented organizations.

In the future, if ISO 21500:2012 becomes the basis of certification, it will be an advantage for companies to have PMI-certified projects and program managers onboard.

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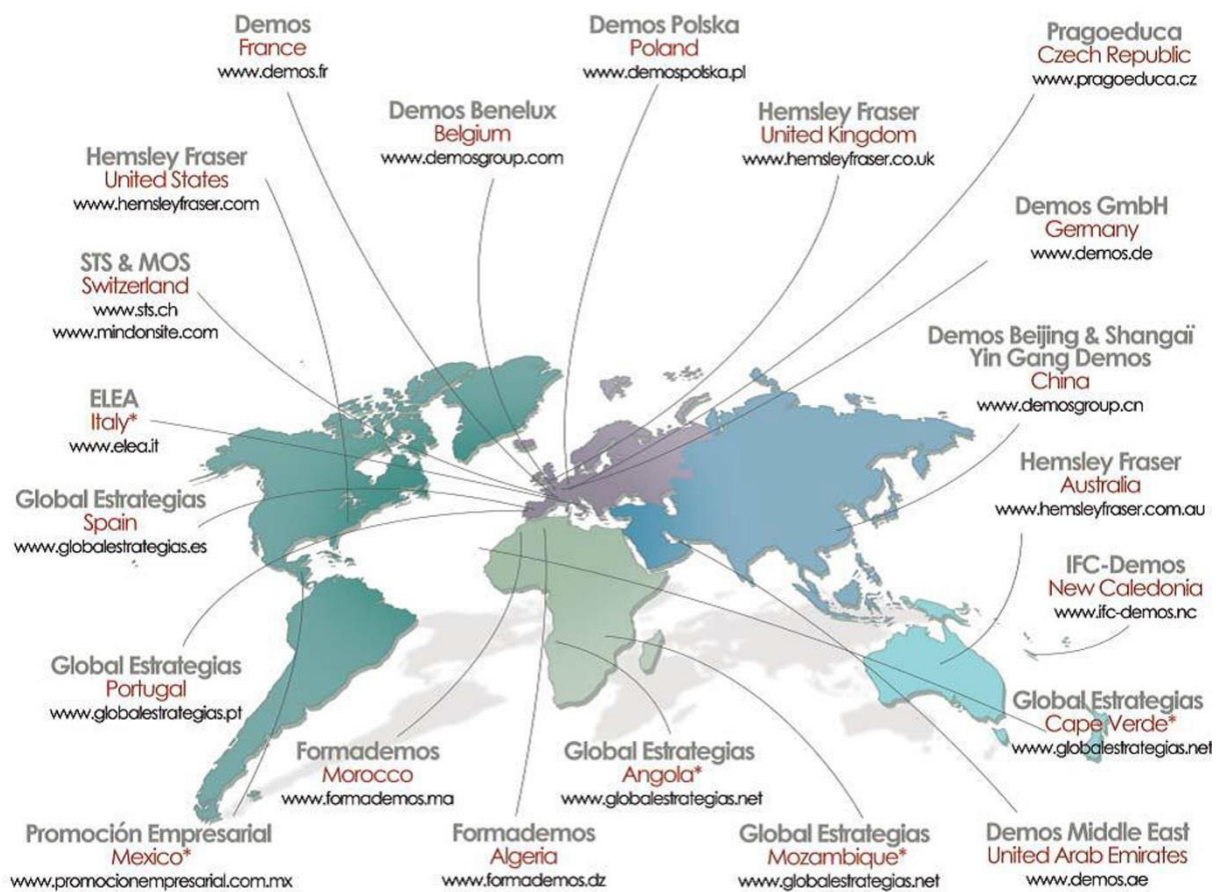
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