

NAB Data Integration Solutions Company Sharing Session of Project Management & Scrum Overview Upon Client's Request for Values Added

03 October 2014



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Introducing Deloitte



Introducing Deloitte

Powerful global network

As one of the largest professional services network, we will bring all the power of our global network to serve you while continuously investing in our relationship.

Deloitte is one of the world's largest professional services network. What does that mean? It means we can offer you access to an unrivalled pool of technical and industry specialists and support you wherever you go in the world.

Our vision is to be **the Standard of Excellence**: the first choice of the most sought-after clients attracted by the breadth and depth of our world-class service in each market segment.

In the region of
200,000 people in more than 150 countries globally across 640 offices

US\$32.4bn global revenues in FY13

5,795 people on international assignments

6,000 people in 23 offices across Southeast Asia
More than

41,000 staff and partners in Asia Pacific

51,400 people hired globally in FY13

Global organisation

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and deep local expertise to help clients succeed wherever they operate.

Deloitte's approximately 200,000 professionals are committed to becoming the standard of excellence.

Our member firms serves more than 80 percent of the world's largest companies, as well as large national enterprises, public institutions, locally important clients, and successful, fast-growing global companies. We audit nearly 20 percent of the companies with assets that exceed US\$1 billion.

Introducing Deloitte (continued)

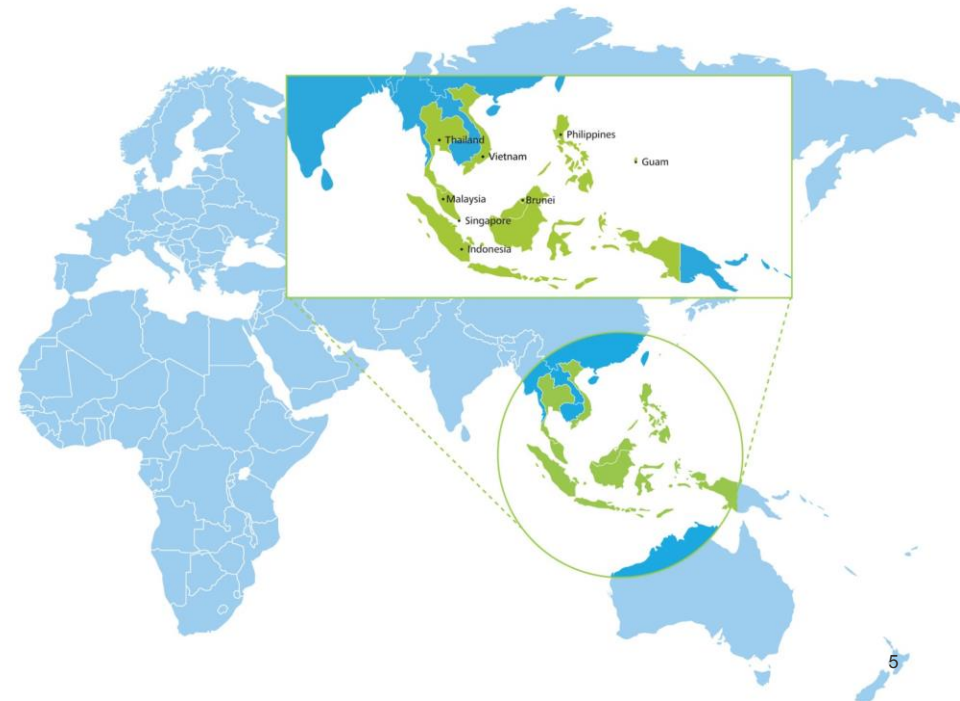
About Deloitte Southeast Asia

Deloitte Southeast Asia Ltd – a member firm of Deloitte Touche Tohmatsu Limited comprising Deloitte practices operating in Brunei, Cambodia, Guam, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand and Vietnam – was established to deliver measurable value to the particular demands of increasingly intra-regional and fast growing companies and enterprises.

With a team of over **270 partners** and **6,300 professionals** in **24 office locations**, Deloitte Southeast Asia specialists combine their technical expertise and deep industry knowledge to deliver consistent high quality services to companies in the region.

We are one Deloitte for the Southeast Asia marketplace, and clients reap the benefit of the combined pool of expertise and specialist skills – whether it is capital markets resources in Indonesia and Singapore or transfer pricing expertise in Guam – Deloitte can bring the strengthened team to deliver services in a seamless manner across the region.

The formation of the Deloitte Southeast Asia practice has also allowed us to centralise and therefore strengthen our training and learning opportunities for both people and clients alike. In addition, Deloitte size and scale gives the ability to invest more heavily in local markets and to continue to offer innovative services and solutions where and when they are needed.



Introducing Deloitte (continued)

Deloitte Vietnam

Deloitte Vietnam delivers high quality services in the local market by combining the best local and international talents.

Deloitte Vietnam, founded over 20 years ago as the first audit and advisory firm in Vietnam, is part of the Deloitte South East Asia. Our clients are served by over 700 staffs located in our Hanoi and Ho Chi Minh City offices, integrating the deep understanding of Vietnam regulations and business environment with the full strength of our Deloitte South East Asia member firm with practices in Brunei, Guam, Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Singapore and Thailand. Through our extensive network, Deloitte Vietnam delivers value-added services in Enterprise Risk Services, Consulting, Financial Advisory, Tax and Audit to the private and public sector across a wide range of industries.

Our client service teams help create powerful business solutions for local and multinational companies and organizations. This integrated approach combines insight and innovation from multiple disciplines with business knowledge and industry expertise to help our clients exceed their expectations.

With the power of Deloitte South East Asia and the global vision of the Deloitte network, Deloitte Vietnam is dedicated to providing superior client services with professional objectivity and working diligently to preserve the trust of our clients and business partners.



Introducing Deloitte (continued)

Our Main Services

Assurance and Advisory

Audit of the financial statements
Perform audit based on agree upon procedures
Special purpose and limited scope audits,
Reviews of engagements to provide comfort to lenders and shareholders,
Acquisition examinations and due diligence review, IFRS services

Tax Services

Provide advice in organizing investments and business transactions to minimize the overall tax liabilities.

In-depth knowledge of tax requirements (both Vietnamese and expatriate)

Enterprise Risk Services

The services can be described in five distinct but interrelated areas of business risk management, control and assurance:

- Business Process Improvement
- Internal Audit
- SOX Audit
- Performance Audit
- Governance
- Contract Risk & Compliance
- Basel II implementation
- Enterprise Risk Management
- Cyber Risk Services
- IT Consulting Services

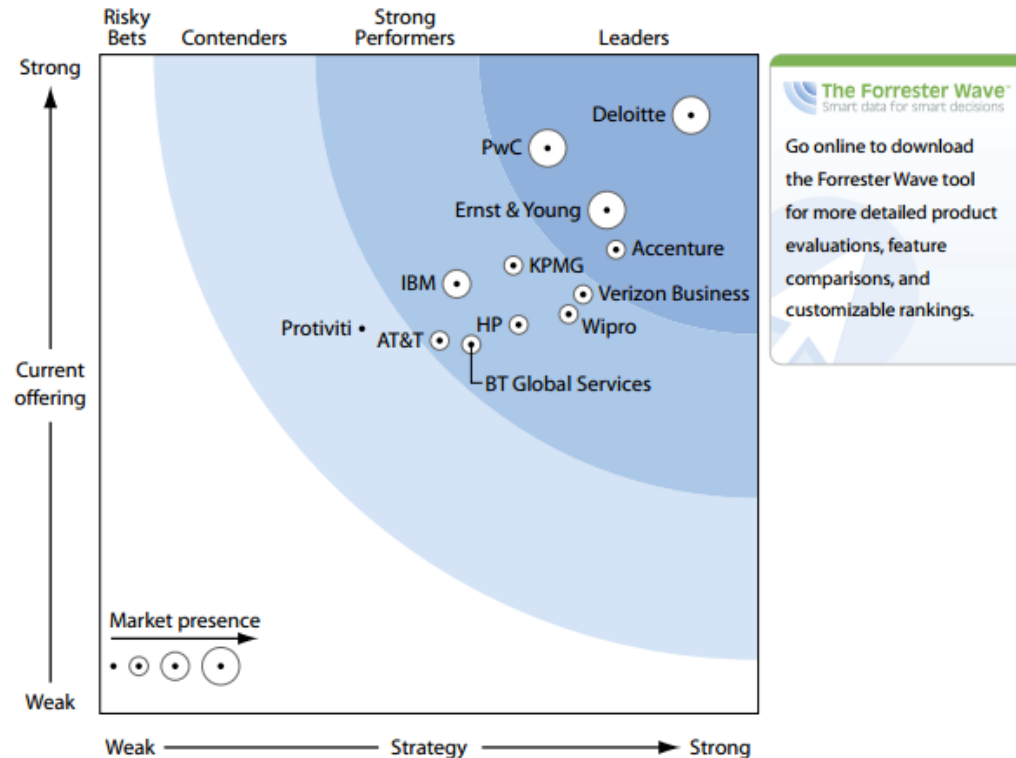
Financial Advisory Services

Deloitte Financial Advisory team is a highly specialized group that provides strategic and financial advice to clients throughout the region in relation to Corporate Finance, M&A Transaction services, Reorganization and Forensic.

Introducing Deloitte (continued)



Figure 3 Forrester Wave™: Information Security And Risk Consulting, Q3 '10



How We Are Different from other firms

Extensive service offerings and continued investment

“Deloitte’s vision of becoming the client’s trusted partner, coupled with its extensive list of services and technical and business experience, separates it from the rest of the pack. Information security, privacy, and IT risk remain top corporate priorities for Deloitte, and this is evident in the company’s recent investments. Deloitte also has an aggressive growth strategy, with plans to invest heavily in emerging areas in this space. It has an excellent customer support structure. Client references pointed to flexibility, project management, and quality of relationships as areas of strength and contract terms and limited services in certain geographies as areas of potential improvement. Deloitte also attracts a more mature client base and excels in solving complex problems while consistently producing high-quality deliverables for its clients. **If you have a large and complex environment and are dealing with complex issues that require an understanding of the business process and deep technical capabilities, you should look to Deloitte.**” - “The Forrester Wave™: Information Security And Risk Consulting Services, Q3 2010,” Forrester Research, Inc., August, 2010.

Global TMT Industry

Advisors to some of the world's leading TMT companies

- Deloitte member firms serve 94% (or 51 companies) of the 54 FG500 TMT companies

- 20 of the 23 largest telecommunications companies

- 100% of the 8 largest global media companies

- 100% of the 23 largest telecommunications companies



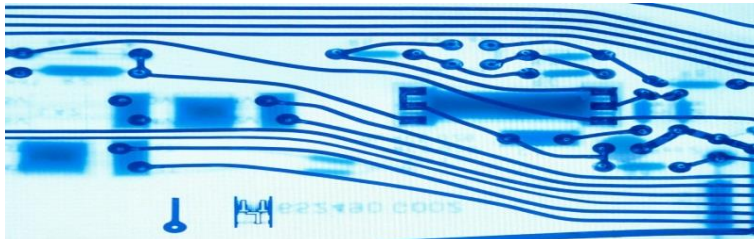
FORTUNE GLOBAL 500

- Our Global TMT experiences
- Innovation by collaboration

•“Deloitte member firms serve 94% of the TMT companies on the Fortune Global 500®.”



- At Deloitte we recognize that industry expertise is critical to gaining and sustaining credibility when serving our clients. Understanding our clients' unique industry challenges allow us to tailor our services to meet their specific requirements.



- The Global Technology, Media & Telecommunications (TMT) group consists of the practices organised in the various member firms of DTTL and includes more than 15,000 member firm partners, directors and senior managers, supported by thousands of other professionals dedicated to helping their clients evaluate complex issues, develop fresh approaches to problems and implement practical solutions.

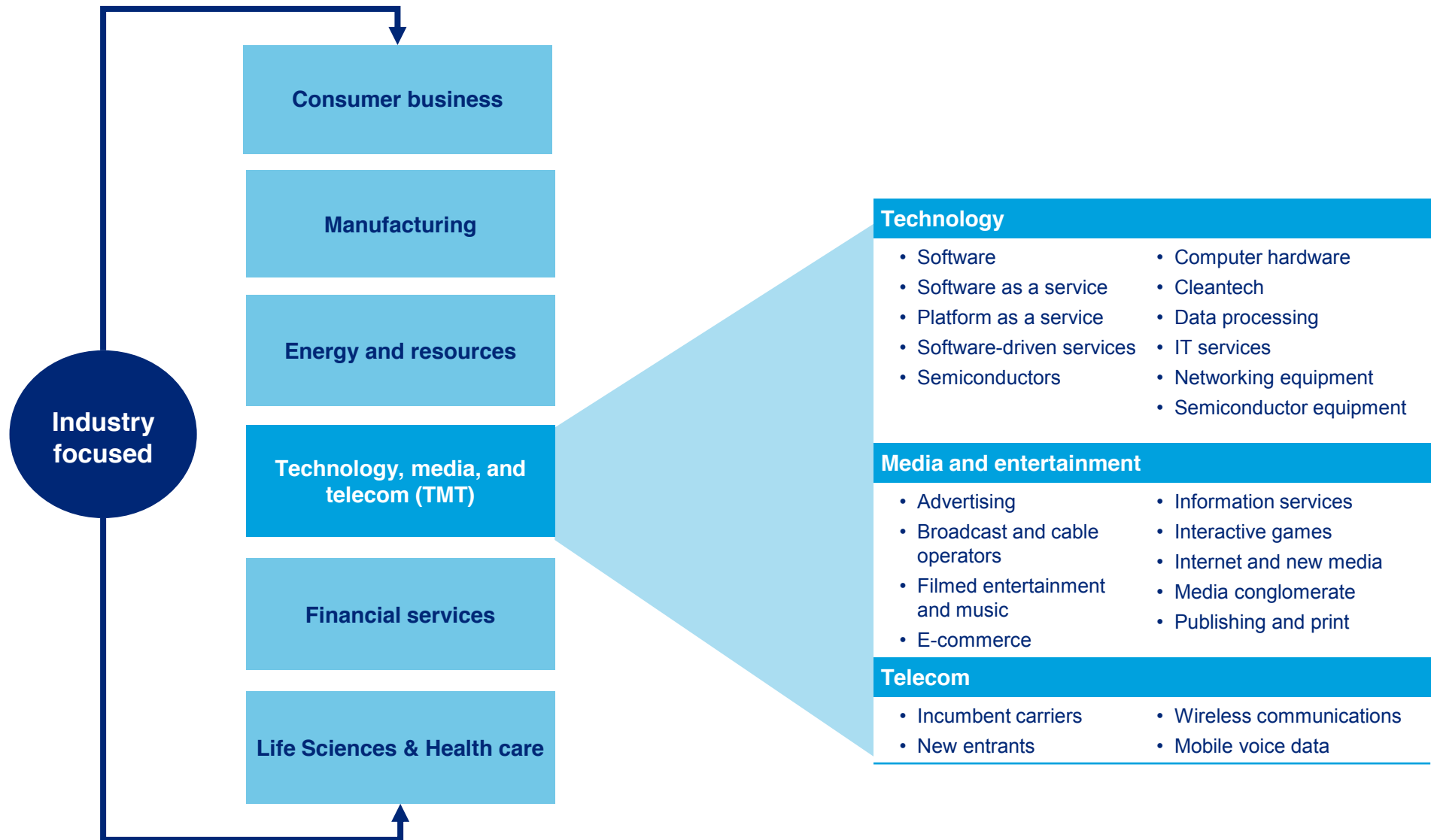


- TMT encompasses three industry sectors – technology, media and telecommunications. There are dedicated TMT member firm practices in 45 locations along with global virtual centres of excellence for each industry sector.



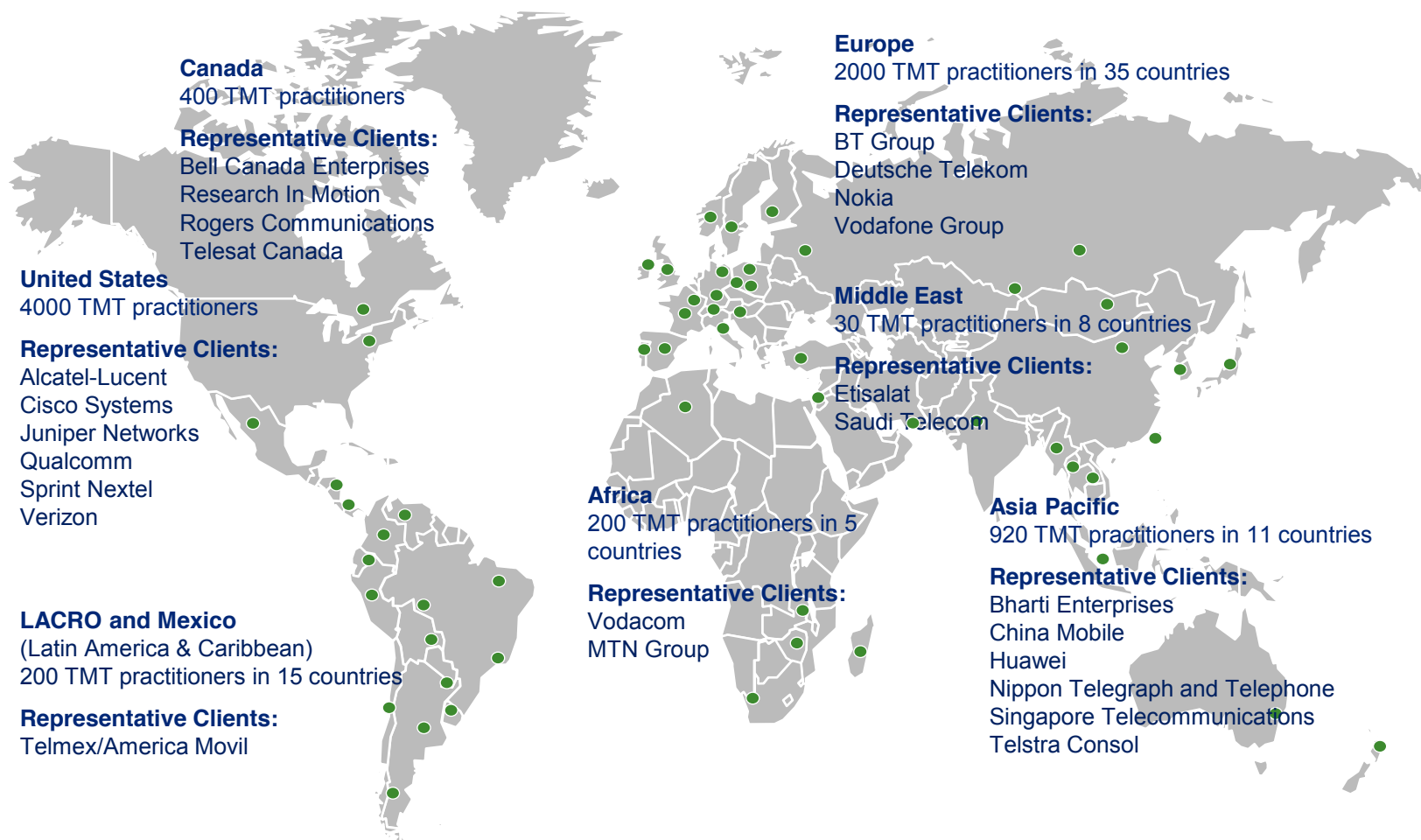
- By addressing the problems of the perpetually growing and innovative TMT industry, Deloitte continues to pursue key clients throughout the world.

Industry focused



Global TMT presence and telecommunications clients

Over 7,000 TMT member firm partners, directors and senior managers in over 75 countries.



- Deloitte is...



Deloitte's existing client service model is distinctive in our profession.

By innovating off this stable base, Deloitte continues to enhance its mix of business capabilities and implementation services to help clients anticipate and meet their greatest challenges.

Project Management Overview



Project Management

Content

- Project Management Overview
- Competencies for Project Management
- Project Management Organizational Structure
- Environment Factors
- Project Management Life Cycles
- Characteristics of Project Life Cycles
- 5 Group Processes of Project Management
- Project Knowledge Areas
- Skills of a Successful Project Manager
- Out of Control in Project Management
- Tools to support



Project Management Overview

What is a project?

- *Unique*
- *Temporary*
- *Project objectives*
- *Creates a unique product, service, or result*

What is Project Management?

Project management is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. Project management is accomplished through the appropriate application and integration of the 47 logically grouped project management processes, which are categorized into five Process Groups(1). These five Process Groups are:

- *Initiating*
- *Planning*
- *Executing*
- *Monitoring and Controlling*
- *Closing*

(1) Source: the Project Management Body of Knowledge (PMBOK® Guide)



Project Management Overview

Key aspects in managing a project:

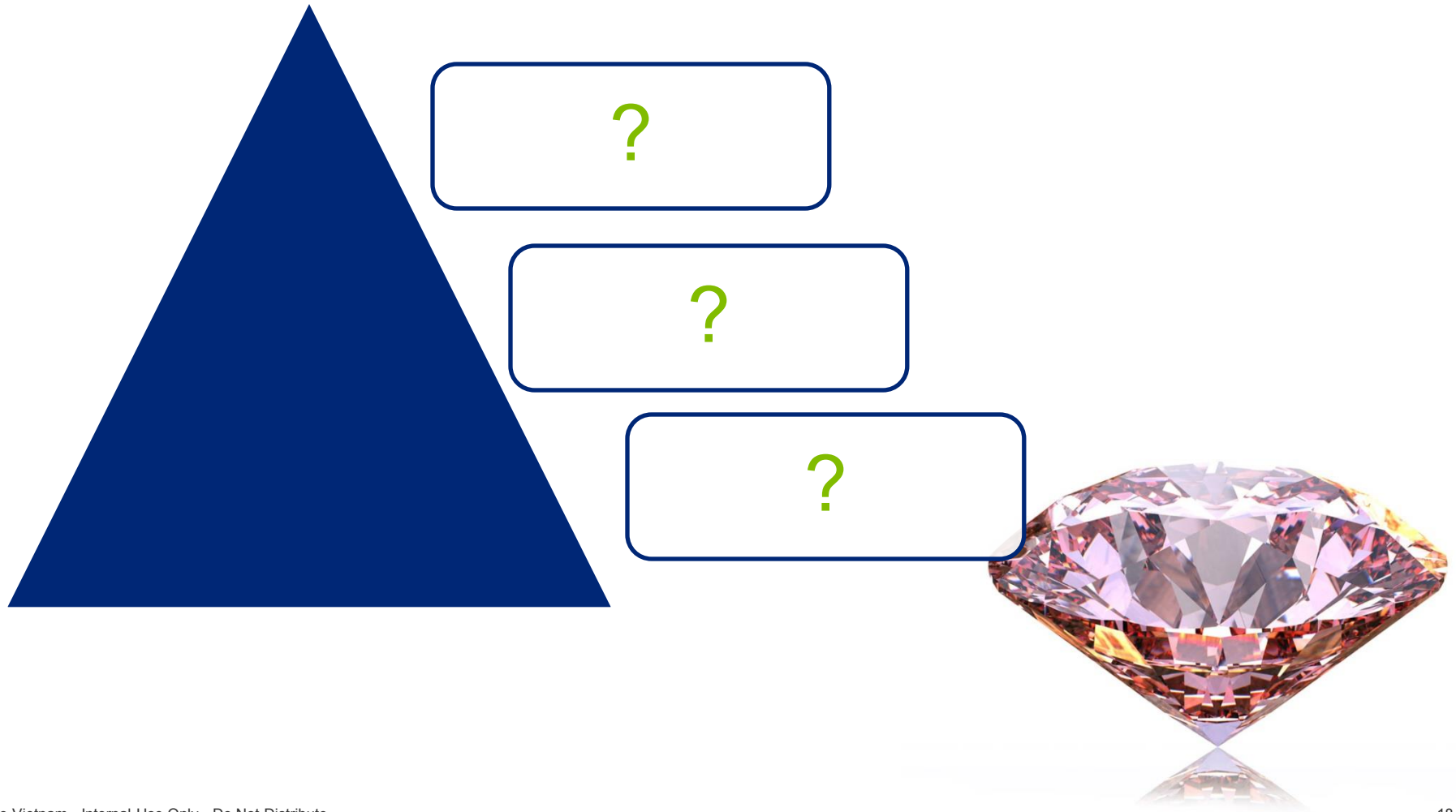
- 1) Requirements;
- 2) Various needs, concerns, and expectations of the stakeholders;
- 3) Communications among stakeholders that are active, effective, and collaborative in nature;
- 4) Managing stakeholders towards meeting project requirements and creating project deliverables;
- 5) Balancing the project constraints (not limited):
 - Scope
 - Quality
 - Schedule
 - Budget
 - Resources
 - Risks



Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Overview

Relationships Among: Program Management, Project Management, Portfolio Management



Competencies for Project Management

Business Values

Two main types of business values:

- Tangible
- Intangible

Role of Project Manager

- The role of Project Manager is to lead the team that is responsible for achieving the project objectives while balancing the project constraints.
- Project Manager is the link between the strategy and the team.

Competencies Required:

- Knowledge (about project management and domain);
- Performance (able to do or accomplish while applying knowledge);
- Personal (attitudes, core personality characteristics, and leadership).



Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Organizational Structure

Project Management Vis-à-vis Organizational Structure

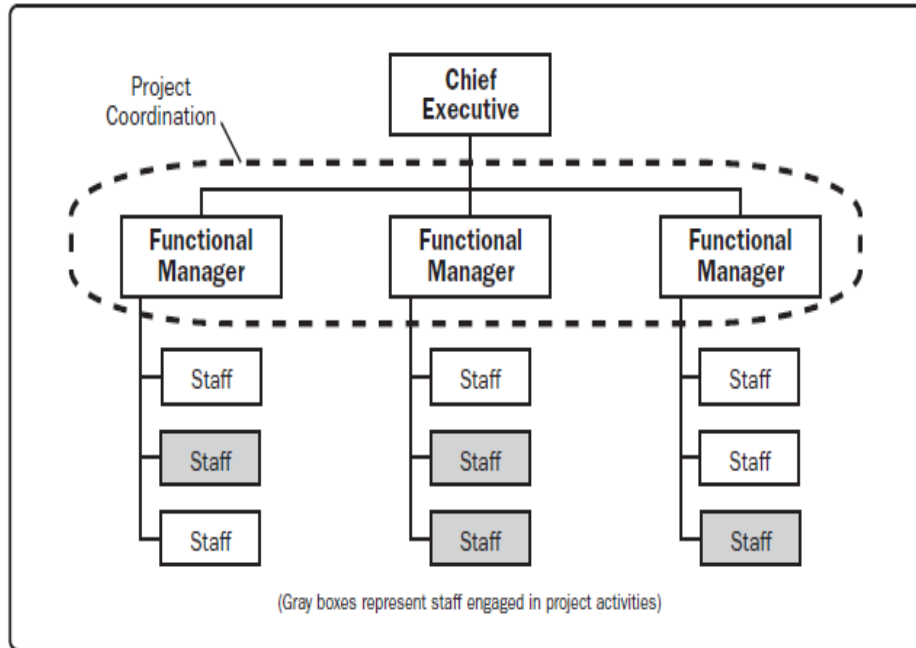
- 1) Functional Organization
- 2) Weak Matrix Organization
- 3) Balanced Matrix Organization
- 4) Strong Matrix Organization
- 5) Projectized Organization
- 6) Composite Organization

Source: the Project Management Body of Knowledge (PMBOK® Guide)

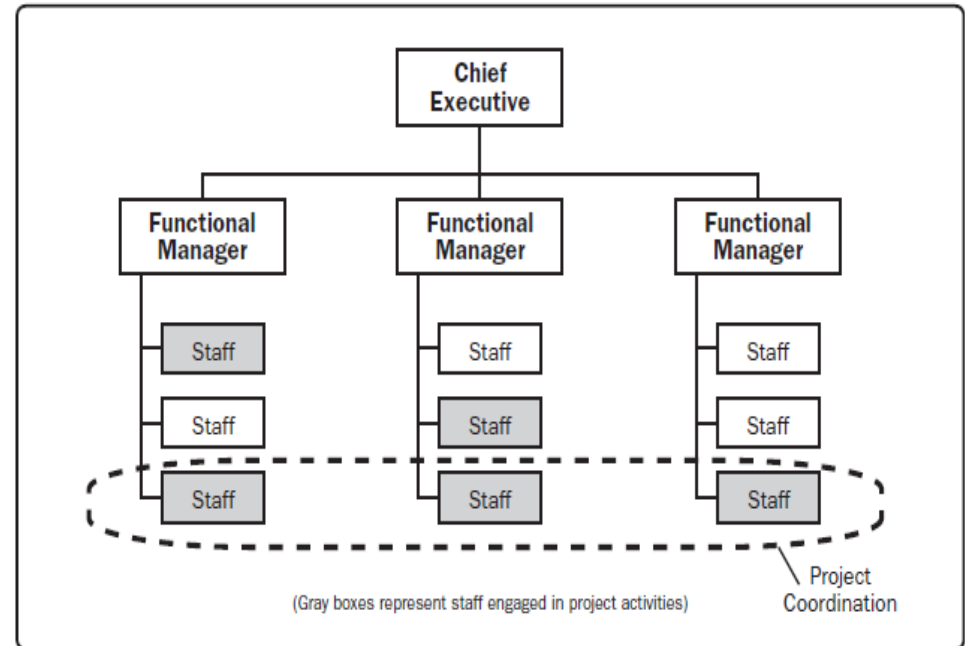


Project Management Organizational Structure

Project Management Vis-à-vis Organizational Structure



1. Functional Organization

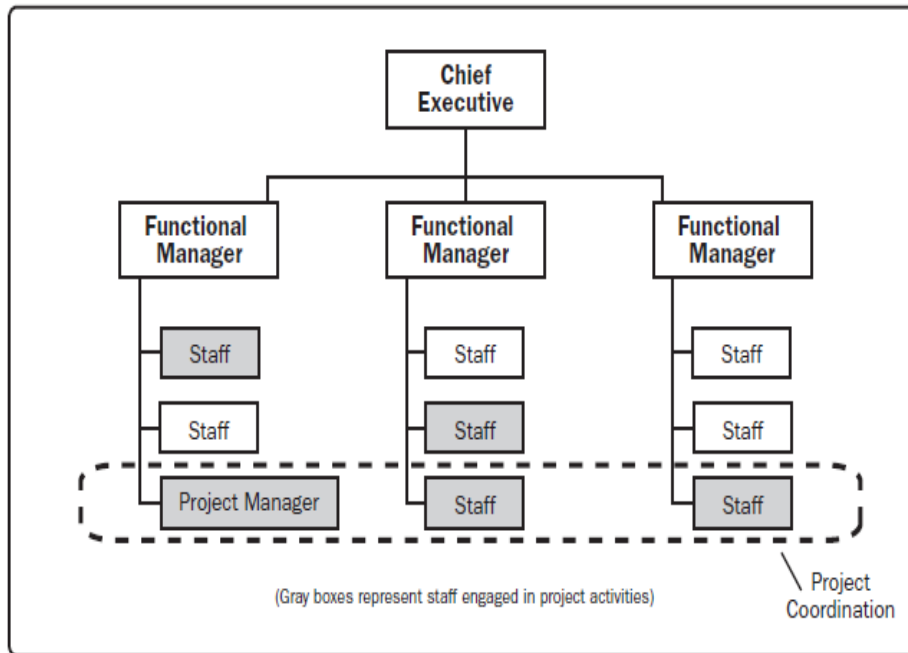


2. Weak Matrix Organization

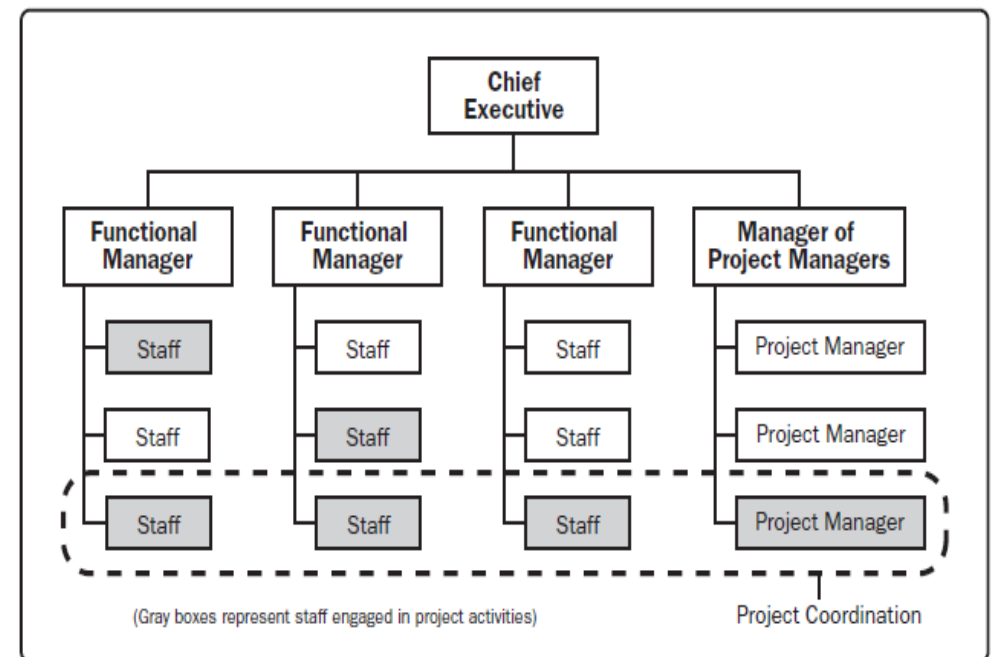
Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Organizational Structure

Project Management Vis-à-vis Organizational Structure (cont.)



3. Balanced Matrix Organization

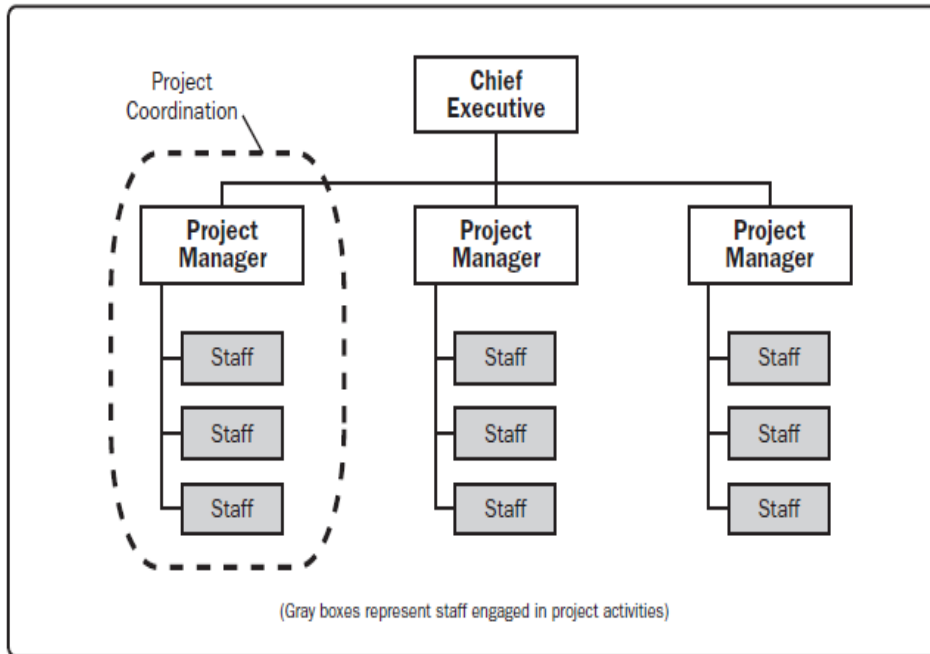


4. Strong Matrix Organization

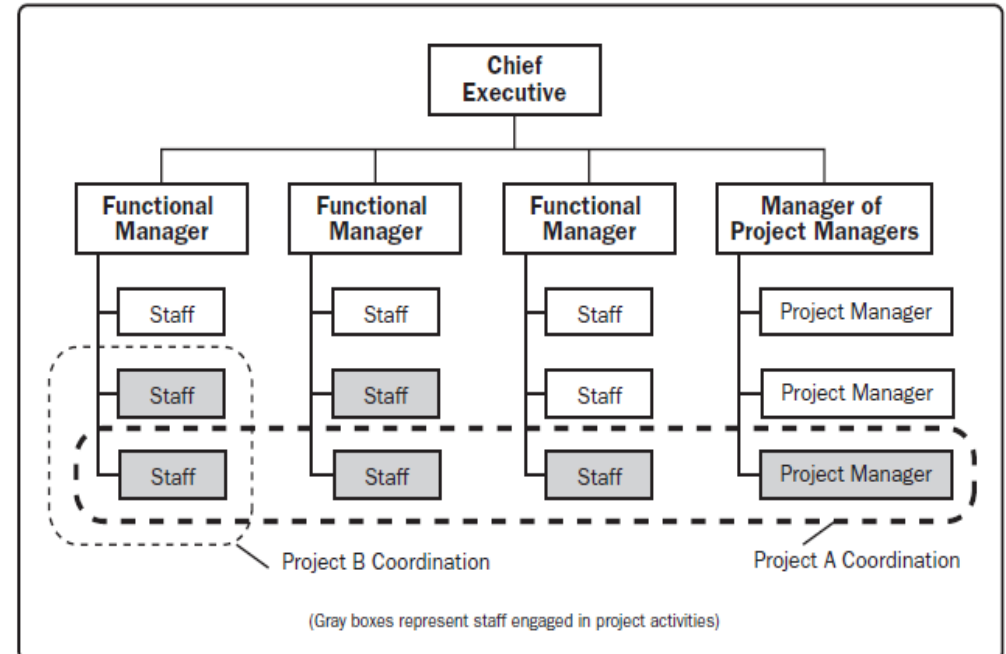
Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Organizational Structure

Project Management Vis-à-vis Organizational Structure (cont.)



5. Projectized Organization



6. Composite Organization

Source: the Project Management Body of Knowledge (PMBOK® Guide)

Environmental factors

Environmental factors include, but are not limited to:

- Organizational culture, structure, and governance;
- Geographic distribution of facilities and resources;
- Government or industry standards (e.g., regulatory agency regulations, codes of conduct, product standards, quality standards, and workmanship standards);
- Infrastructure (e.g., existing facilities and capital equipment);
- Existing human resources (e.g., skills, disciplines, and knowledge, such as design, development, legal, contracting, and purchasing);
- Personnel administration (e.g., staffing and retention guidelines, employee performance reviews and training records, reward and overtime policy, and time tracking);
- Company work authorization systems;
- Marketplace conditions;
- Stakeholder risk tolerances;
- Political climate;
- Organization's established communications channels;
- Commercial databases (e.g., standardized cost estimating data, industry risk study information, and risk databases); and
- Project management information system (e.g., an automated tool, such as a scheduling software tool, a configuration management system, an information collection and distribution system, or web interfaces to other online automated systems).

Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Life Cycle



Source: PMBOK Guide

Project Management Life Cycle

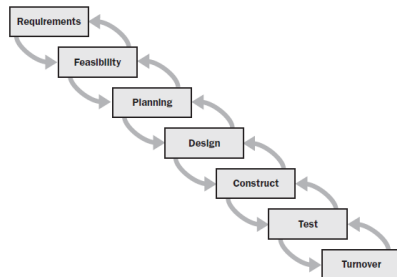
Project Phases

- Sequential relationship
- Overlapping relationship



Project Life Cycles

- Predictive Life Cycles (also known as fully plan-driven);
- Iterative and Incremental Life Cycles (also called iterations);
- Adaptive life cycles (also known as change-driven or agile methods);

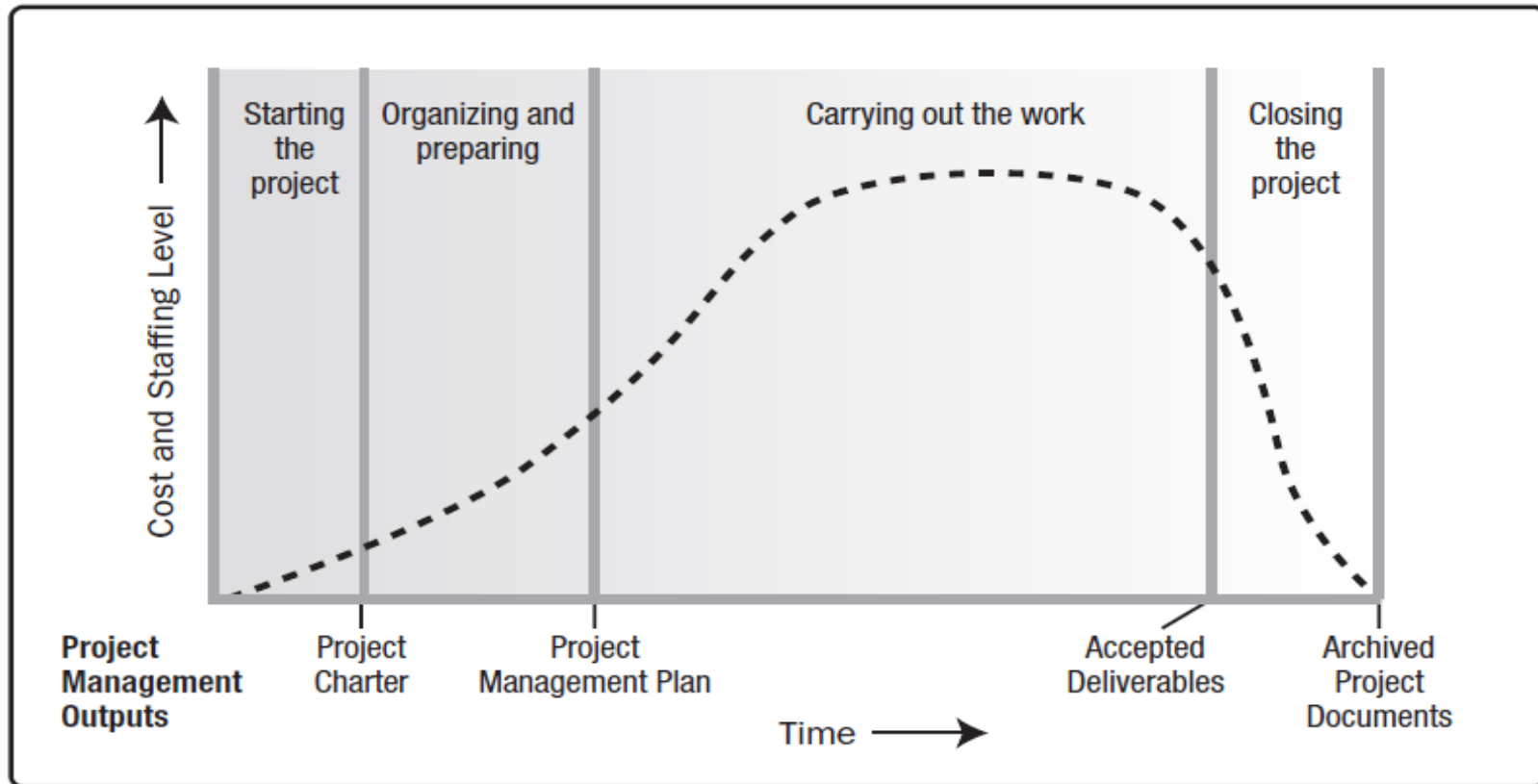


Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Life Cycle

Characteristics of the Project Life Cycle

Cost and Staffing Levels



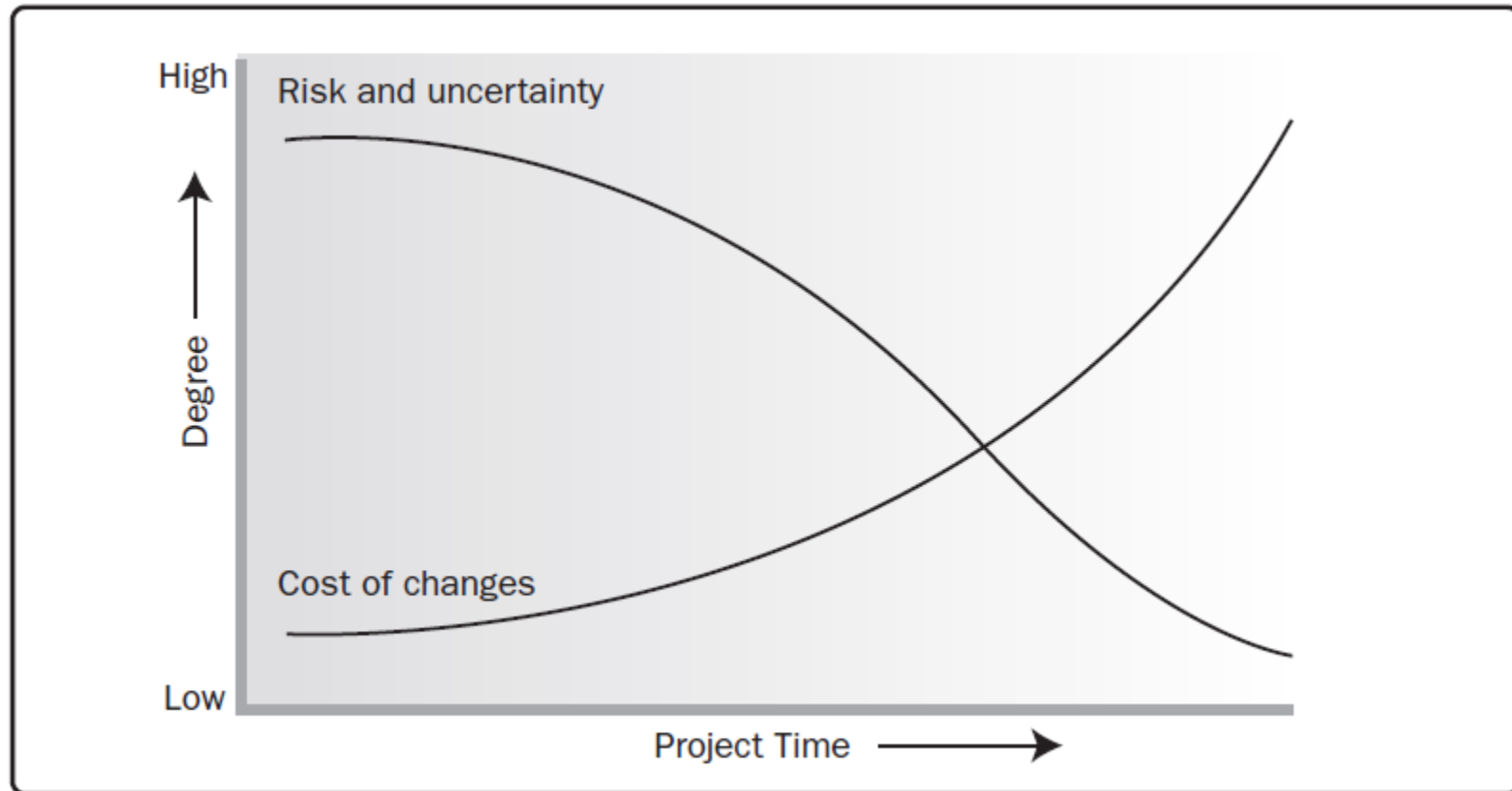
Typical Cost and Staffing Levels Across a Generic Project Life Cycle Structure

Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Life Cycle

Characteristics of the Project Life Cycle (cont.)

Risk and uncertainty

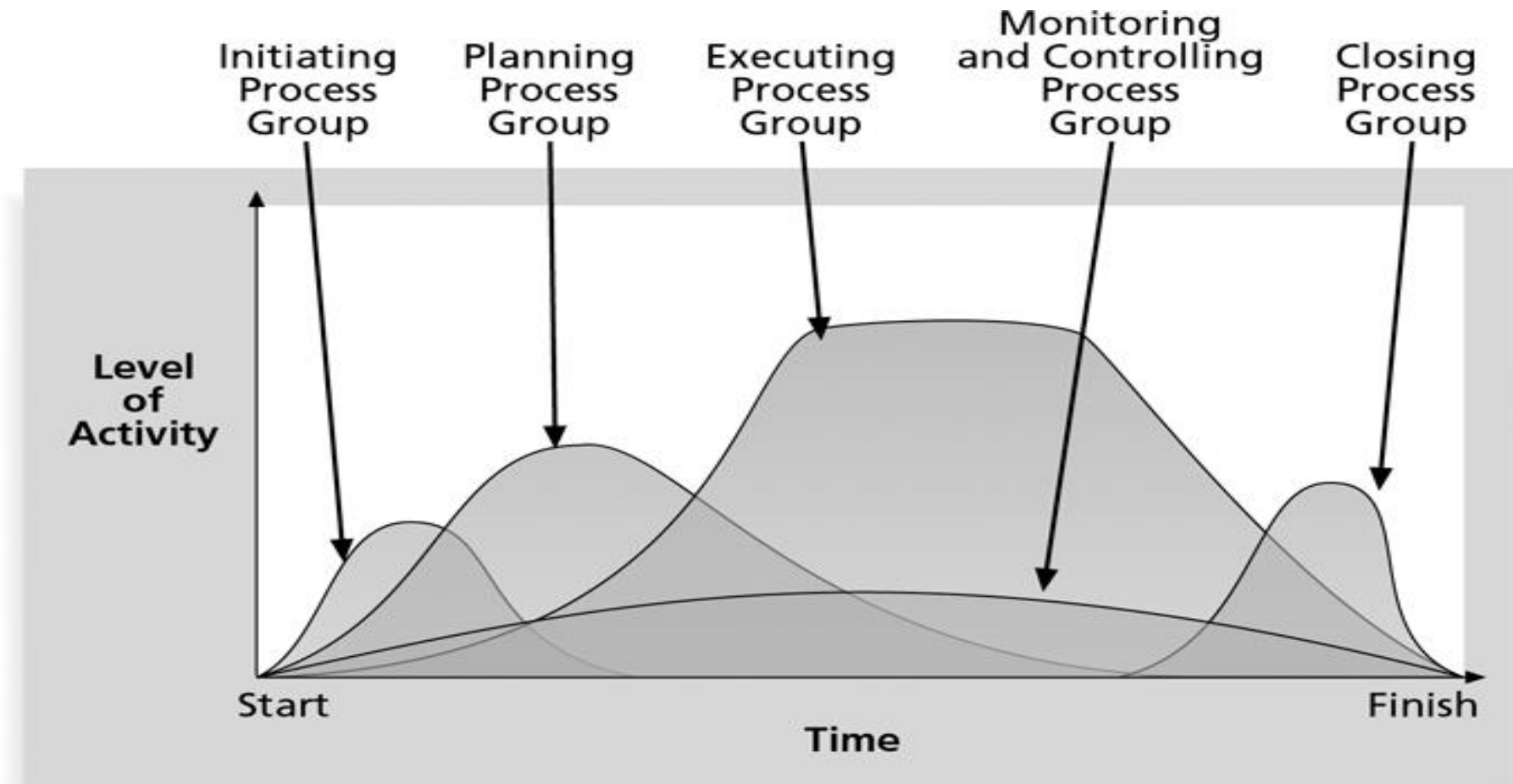


Impact of Variable Based on Project Time

Source: the Project Management Body of Knowledge (PMBOK® Guide)

Project Management Processes

5 Group Processes of Project Management



Project Management Processes

Knowledge Areas	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
4. Project Integration Management	4.1 Develop Project Charter	4.2 Develop Project Management Plan	4.3 Direct and Manage Project Work	4.4 Monitor and Control Project Work 4.5 Perform Integrated Change Control	4.6 Close Project or Phase
5. Project Scope Management		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	
6. Project Time Management		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	
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	

Project Management Processes

Knowledge Areas	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring and Controlling Process Group	Closing Process Group
8. Project Quality Management		8.1 Plan Quality Management	8.2 Perform Quality Assurance	8.3 Control Quality	
9. Project Human Resource Management		9.1 Plan Human Resource Management	9.2 Acquire Project Team 9.3 Develop Project Team 9.4 Manage Project Team		
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Control Communications	
11. Project Risk Management		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	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	12.4 Close Procurements
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Management	13.3 Manage Stakeholder Engagement	13.4 Control Stakeholder Engagement	

Project Management

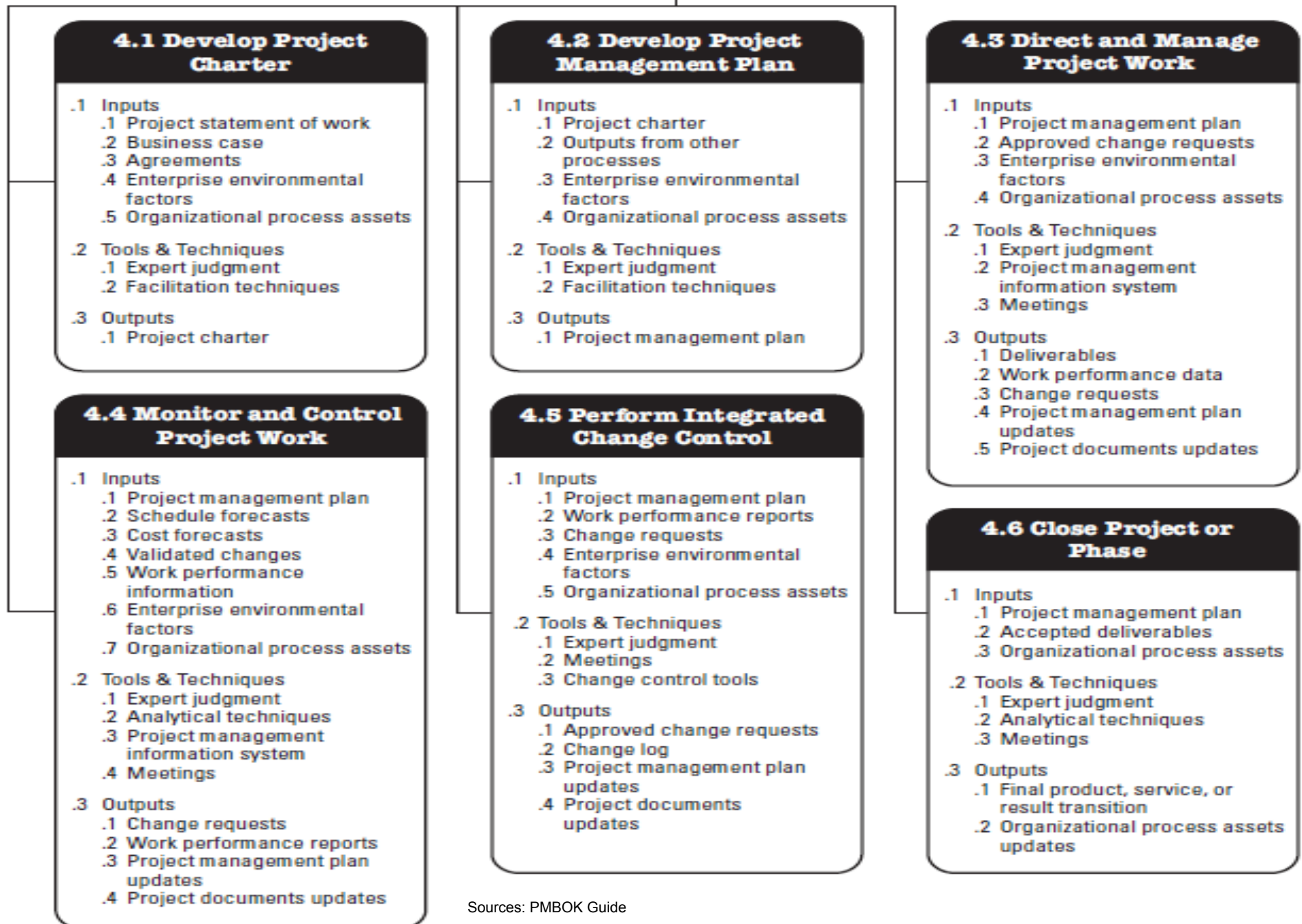
Knowledge Area

1. Project Integration Management
2. Project Scope Management
3. Project Time Management
4. Project Cost Management
5. Project Quality Management
6. Project Human Resources Management
7. Project Communication Management
8. Project Risk Management
9. Project Procurement Management
10. Project Stakeholder Management

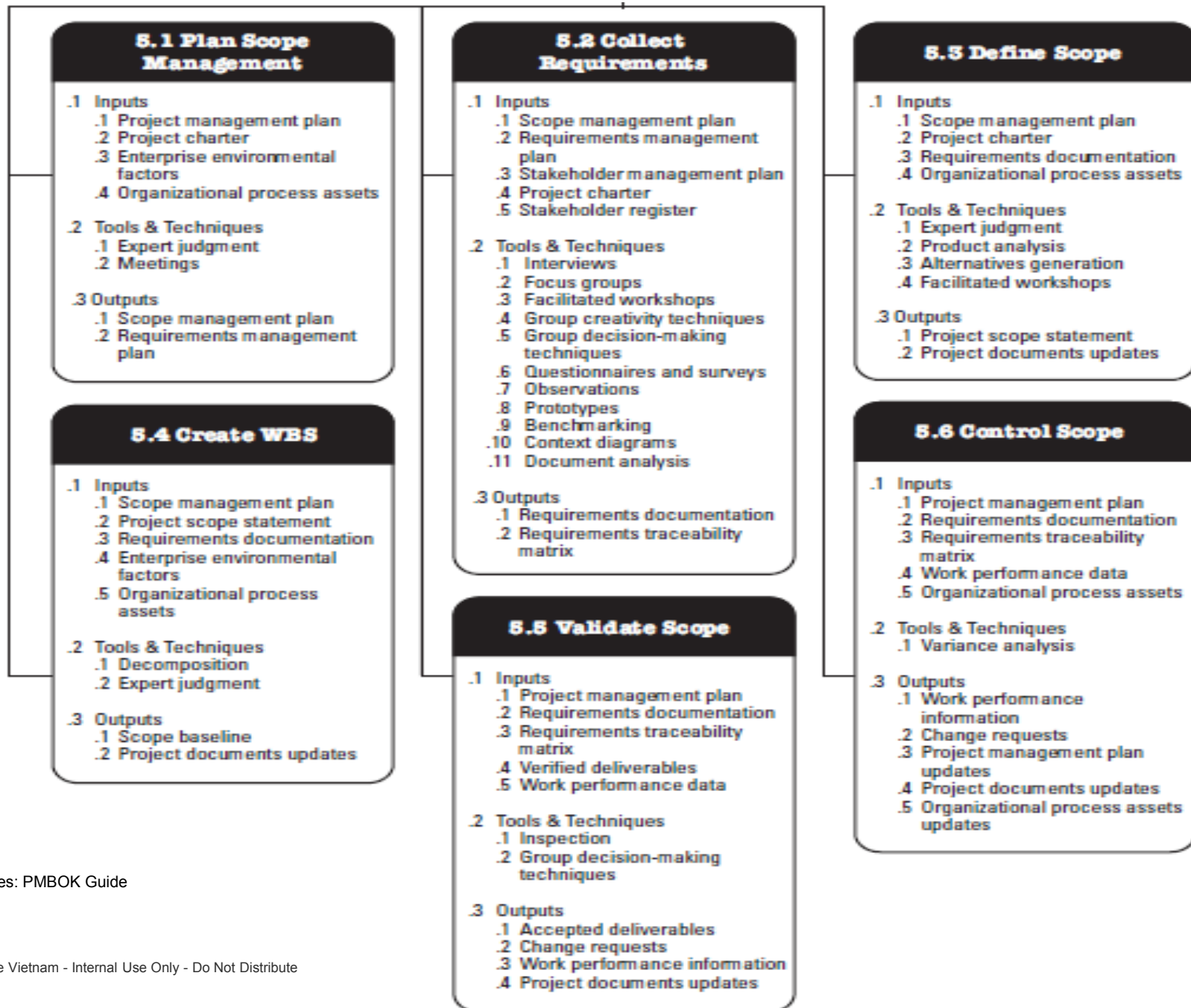


Source: the Project Management Body of Knowledge (PMBOK® Guide)

1. Project Integration Management Overview

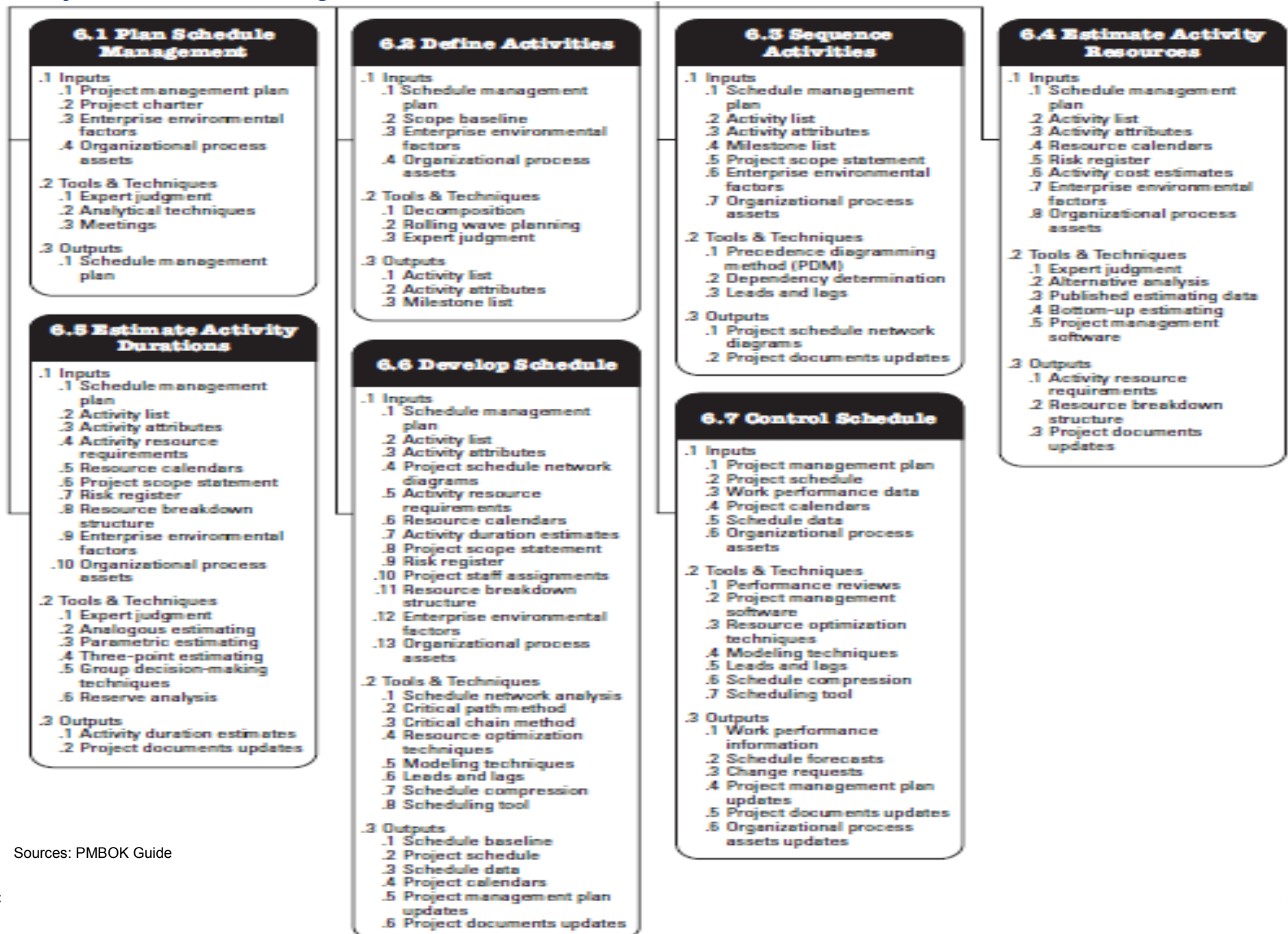


2. Project Scope Management Overview



Sources: PMBOK Guide

3. Project Time Management Overview



Sources: PMBOK Guide

4. Project Cost Management Overview

7.1 Plan Cost Management

- .1 Inputs
 - .1 Project management plan
 - .2 Project charter
 - .3 Enterprise environmental factors
 - .4 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Analytical techniques
 - .3 Meetings
- .3 Outputs
 - .1 Cost management plan

7.4 Control Costs

- .1 Inputs
 - .1 Project management plan
 - .2 Project funding requirements
 - .3 Work performance data
 - .4 Organizational process assets
- .2 Tools & Techniques
 - .1 Earned value management
 - .2 Forecasting
 - .3 To-complete performance index (TCPI)
 - .4 Performance reviews
 - .5 Project management software
 - .6 Reserve analysis
- .3 Outputs
 - .1 Work performance information
 - .2 Cost forecasts
 - .3 Change requests
 - .4 Project management plan updates
 - .5 Project documents updates
 - .6 Organizational process assets updates

7.2 Estimate Costs

- .1 Inputs
 - .1 Cost management plan
 - .2 Human resource management plan
 - .3 Scope baseline
 - .4 Project schedule
 - .5 Risk register
 - .6 Enterprise environmental factors
 - .7 Organizational process assets
- .2 Tools & Techniques
 - .1 Expert judgment
 - .2 Analogous estimating
 - .3 Parametric estimating
 - .4 Bottom-up estimating
 - .5 Three-point estimating
 - .6 Reserve analysis
 - .7 Cost of quality
 - .8 Project management software
 - .9 Vendor bid analysis
 - .10 Group decision-making techniques
- .3 Outputs
 - .1 Activity cost estimates
 - .2 Basis of estimates
 - .3 Project documents updates

7.3 Determine Budget

- .1 Inputs
 - .1 Cost management plan
 - .2 Scope baseline
 - .3 Activity cost estimates
 - .4 Basis of estimates
 - .5 Project schedule
 - .6 Resource calendars
 - .7 Risk register
 - .8 Agreements
 - .9 Organizational process assets
- .2 Tools & Techniques
 - .1 Cost aggregation
 - .2 Reserve analysis
 - .3 Expert judgment
 - .4 Historical relationships
 - .5 Funding limit reconciliation
- .3 Outputs
 - .1 Cost baseline
 - .2 Project funding requirements
 - .3 Project documents updates

5. Project Quality Management Overview

8.1 Plan Quality Management

- .1 Inputs
 - .1 Project management plan
 - .2 Stakeholder register
 - .3 Risk register
 - .4 Requirements documentation
 - .5 Enterprise environmental factors
 - .6 Organizational process assets
- .2 Tools & Techniques
 - .1 Cost-benefit analysis
 - .2 Cost of quality
 - .3 Seven basic quality tools
 - .4 Benchmarking
 - .5 Design of experiments
 - .6 Statistical sampling
 - .7 Additional quality planning tools
 - .8 Meetings
- .3 Outputs
 - .1 Quality management plan
 - .2 Process improvement plan
 - .3 Quality metrics
 - .4 Quality checklists
 - .5 Project documents updates

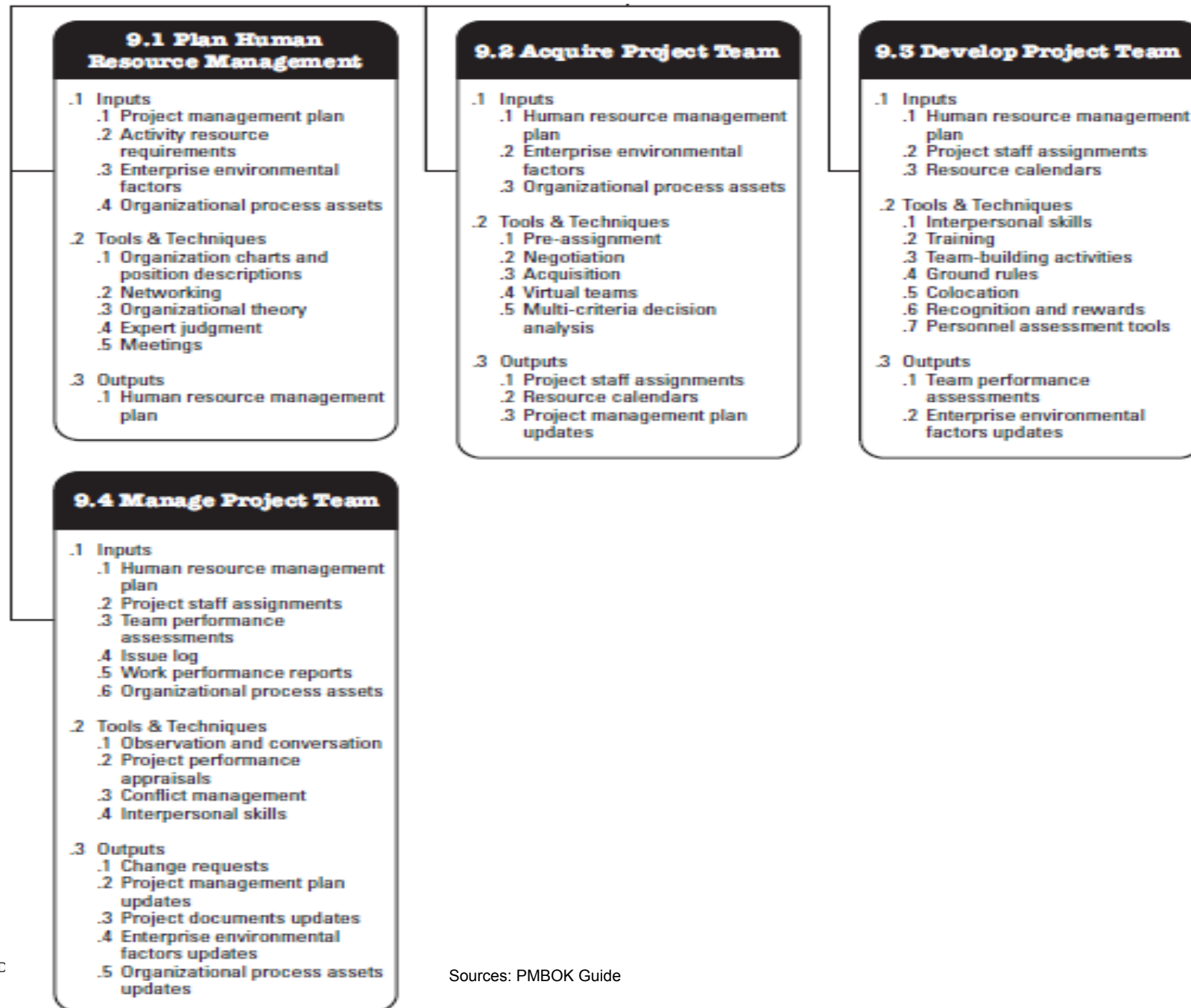
8.2 Perform Quality Assurance

- .1 Inputs
 - .1 Quality management plan
 - .2 Process improvement plan
 - .3 Quality metrics
 - .4 Quality control measurements
 - .5 Project documents
- .2 Tools & Techniques
 - .1 Quality management and control tools
 - .2 Quality audits
 - .3 Process analysis
- .3 Outputs
 - .1 Change requests
 - .2 Project management plan updates
 - .3 Project documents updates
 - .4 Organizational process assets updates

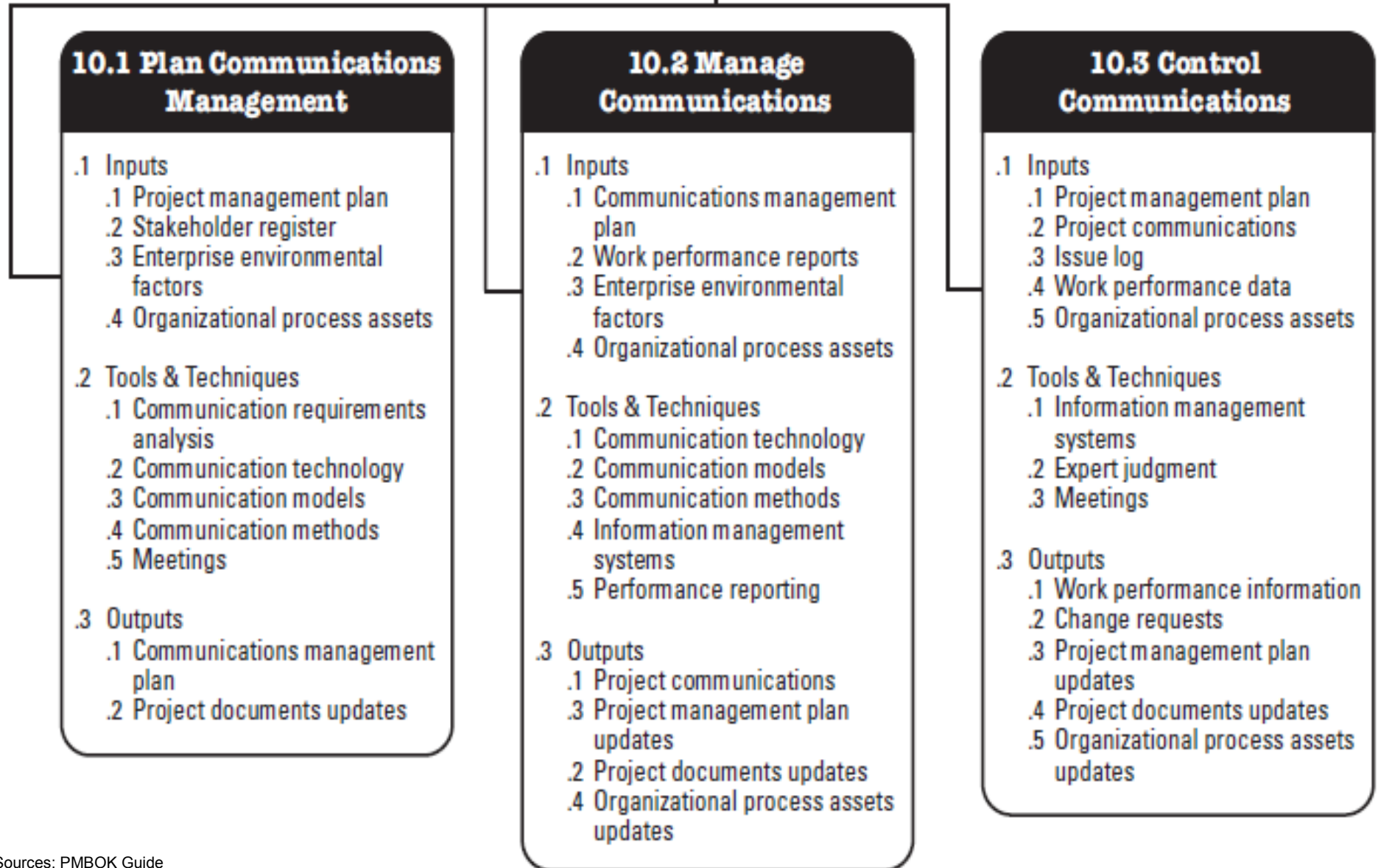
8.3 Control Quality

- .1 Inputs
 - .1 Project management plan
 - .2 Quality metrics
 - .3 Quality checklists
 - .4 Work performance data
 - .5 Approved change requests
 - .6 Deliverables
 - .7 Project documents
 - .8 Organizational process assets
- .2 Tools & Techniques
 - .1 Seven basic quality tools
 - .2 Statistical sampling
 - .3 Inspection
 - .4 Approved change requests review
- .3 Outputs
 - .1 Quality control measurements
 - .2 Validated changes
 - .3 Validated deliverables
 - .4 Work performance information
 - .5 Change requests
 - .6 Project management plan updates
 - .7 Project documents updates
 - .8 Organizational process assets updates

6. Project Human Resource Management Overview

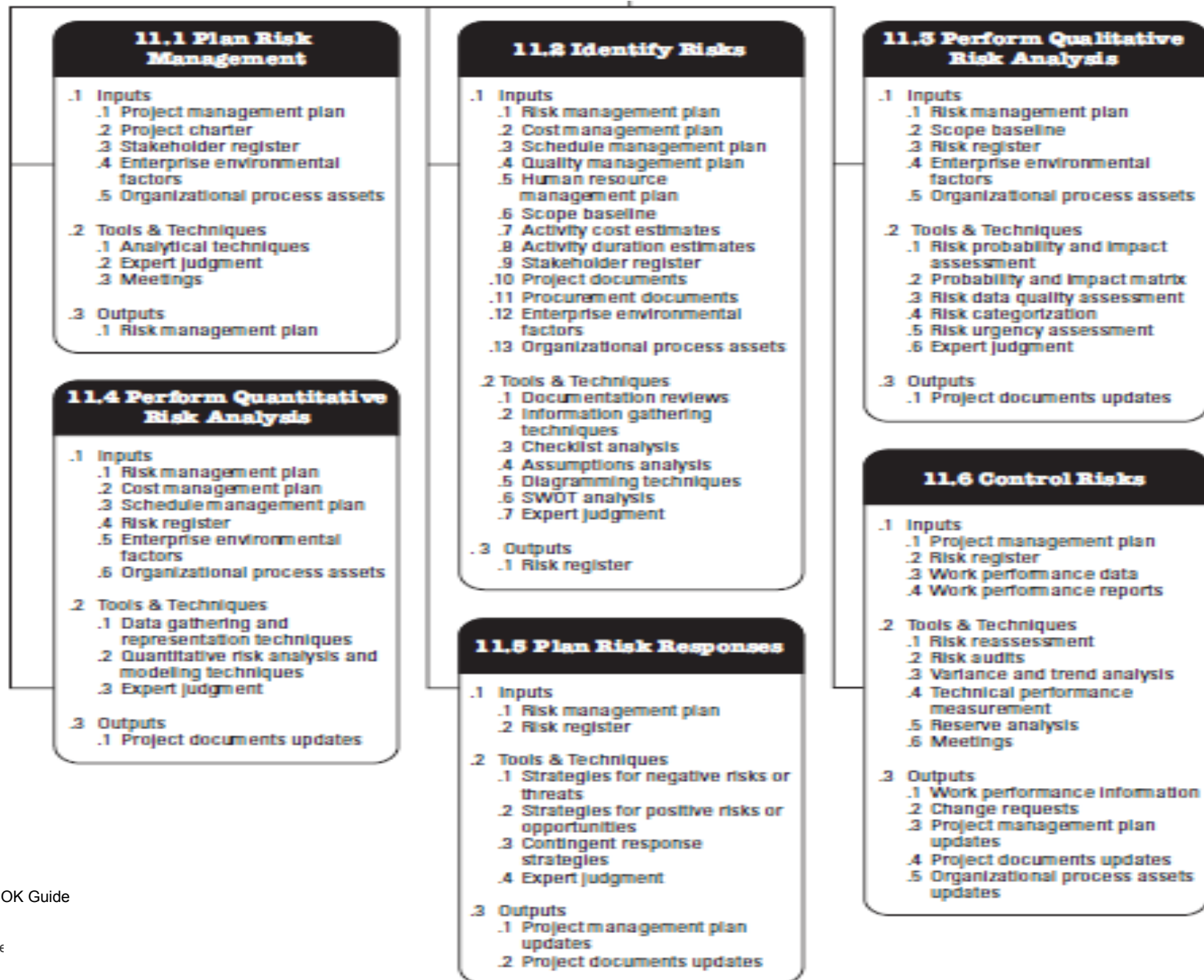


7. Project Communications Management Overview



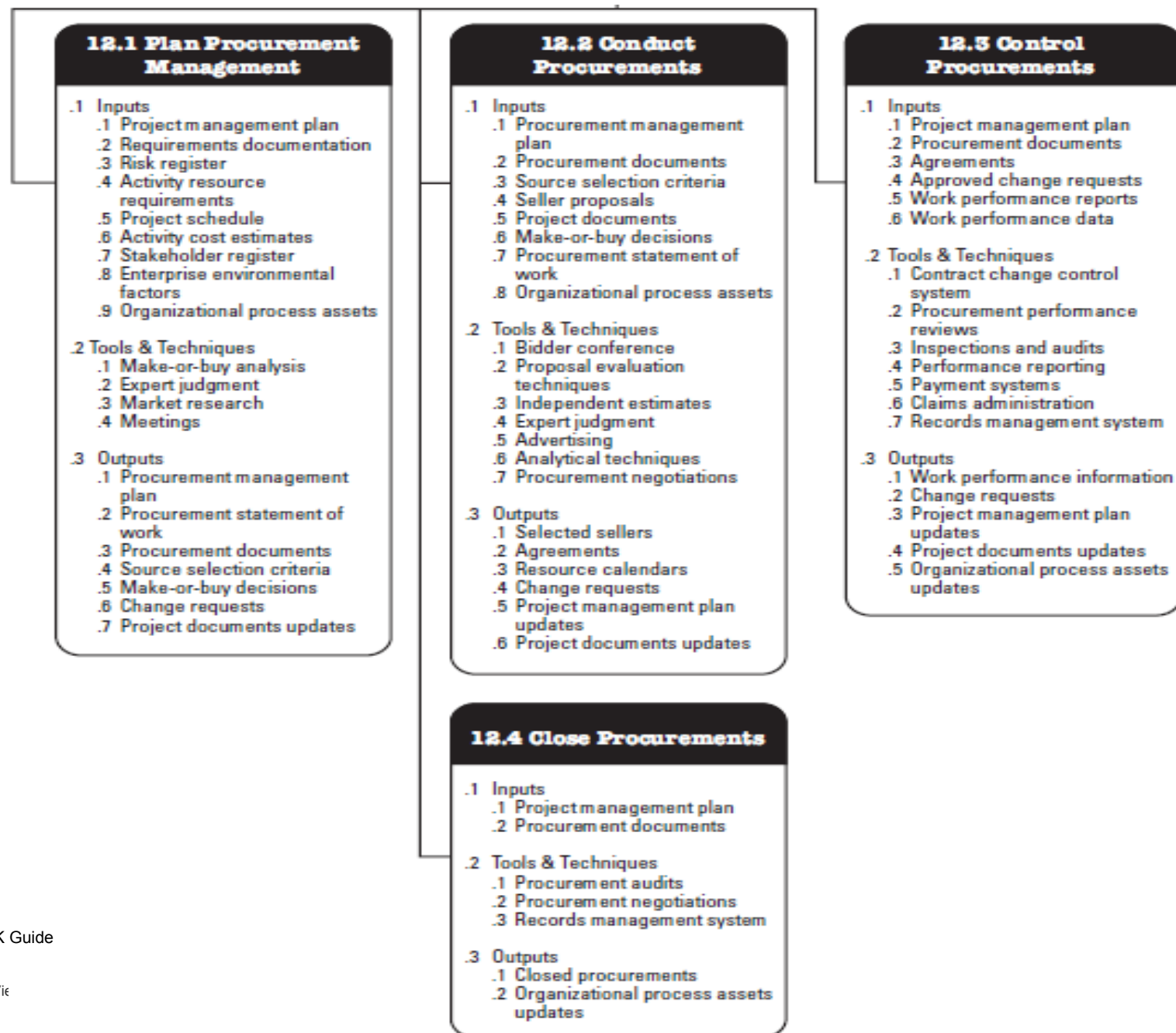
Sources: PMBOK Guide

8. Project Risk Management Overview

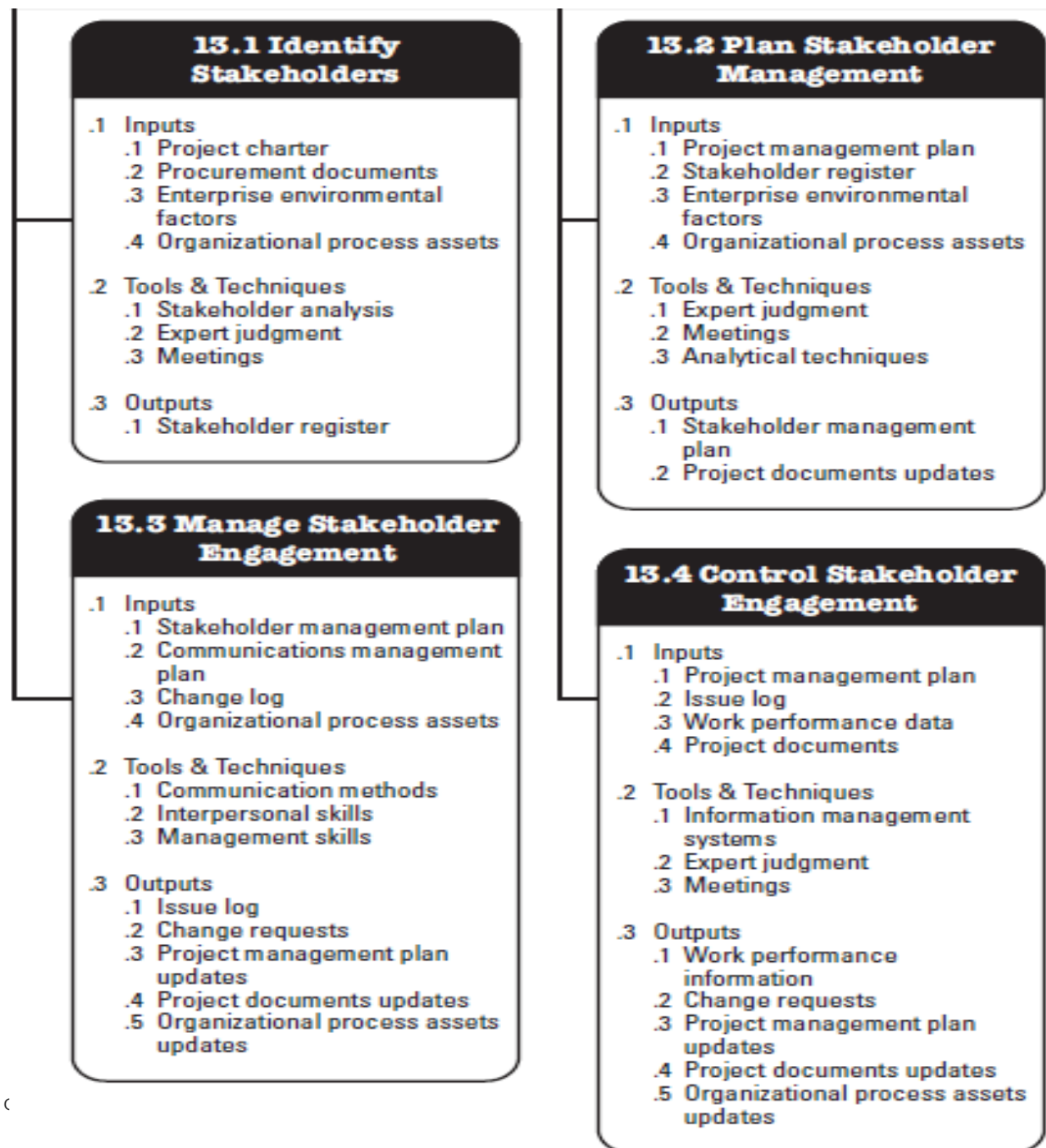


Sources: PMBOK Guide

9. Project Procurement Management Overview



10. Project Stakeholder Management Overview



Sources: PMBOK Guide

Project Management

Skills of a successful project manager

- Leadership
- Team building
- Motivation
- Presentation
- Communication
- Listening
- Influencing
- Decision making
- Political and cultural awareness
- Negotiation
- Resource allocation
- Time management
- Trust building
- Conflict management
- Strategic thinking
- Training and coaching..



Project Management

Out of Control

- People get sick
- Family emergencies come up
- Long-planned vacations arise
- Calls from other departments come in for “your” resources
- Personnel get promoted and move on to other responsibilities
- Team members move on to other positions
- Vendors fail to meet their commitments
- A corporate downsizing is announced
- Severe weather events occur
- Changes in the organizational/management/economic/ laws/ government regulations landscape suddenly take place



Project Management

Tools to support

- PMBOK GUIDE – A Guide to the Project Management Body of Knowledge
- Project Management Software, such as Microsoft Project/Office
- Input/Output/Template/Form/Plan/Schedule/Checklist/Matrix/Report
- Meeting facilities/ tools
- Communication tools/ devices
- Document management and control system



Scrum Overview



Agile Scrum Overview

Content

Why Agile Scrum?

Traditional Software Development Approach

Scrum Process

Definition of Scrum

Waterfall & Agile Methods Comparison

Detailed Comparison of Methodologies

Agile Manifesto

12 Principles of Agile

Scrum Role

Scrum Methodology

Scrum Events

Scrum Sprint

Scrum Product Backlog

Scrum Sprint Backlog

Capabilities & User Stories

User Story

Acceptance Criteria

Definition of “Done”

Scrum Retrospective

Burn Down Chart

Scrum Software Delivery Overview



Agile Scrum Overview

Why Agile Scrum?

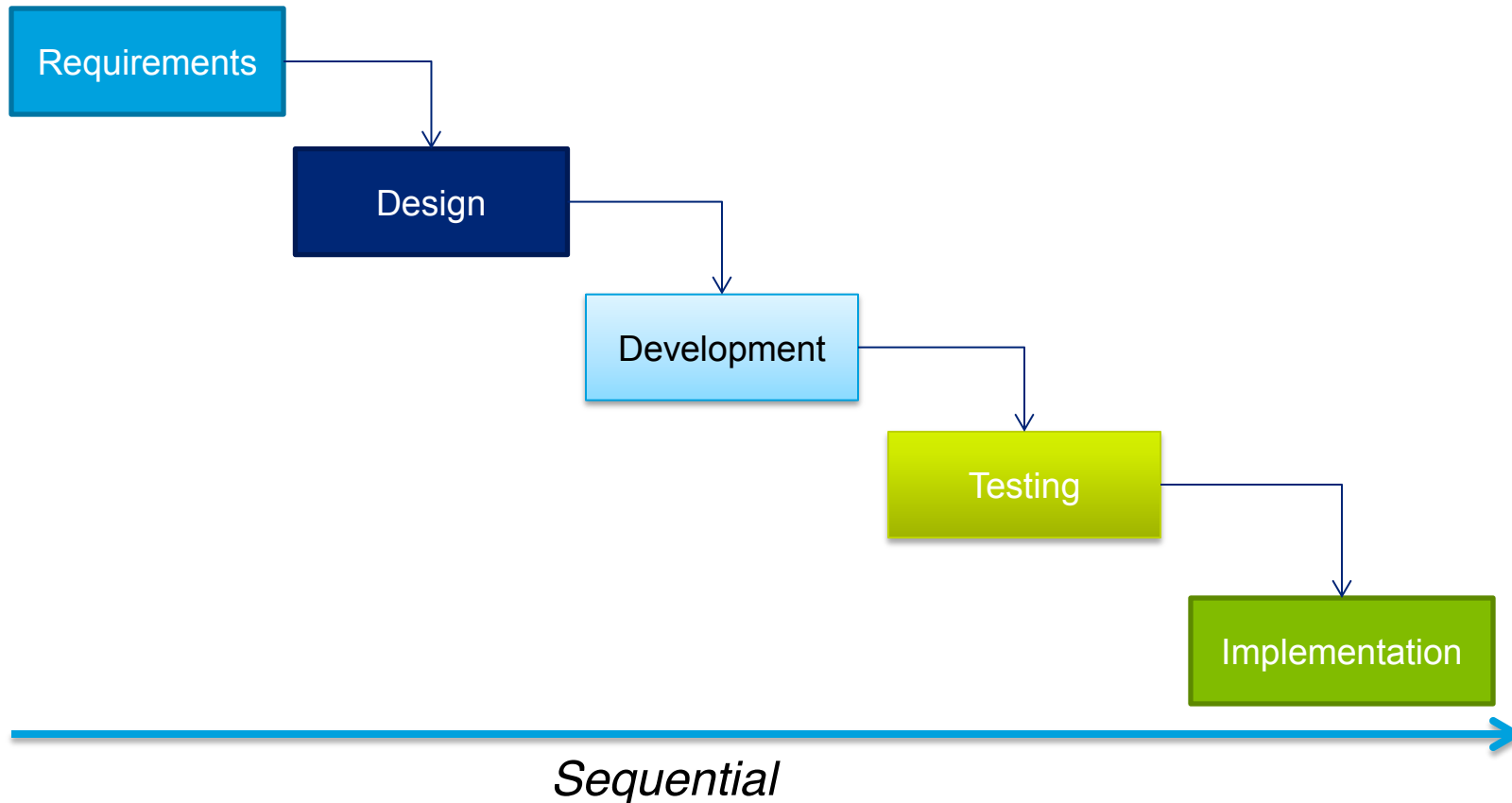
“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change.”

- Charles Darwin



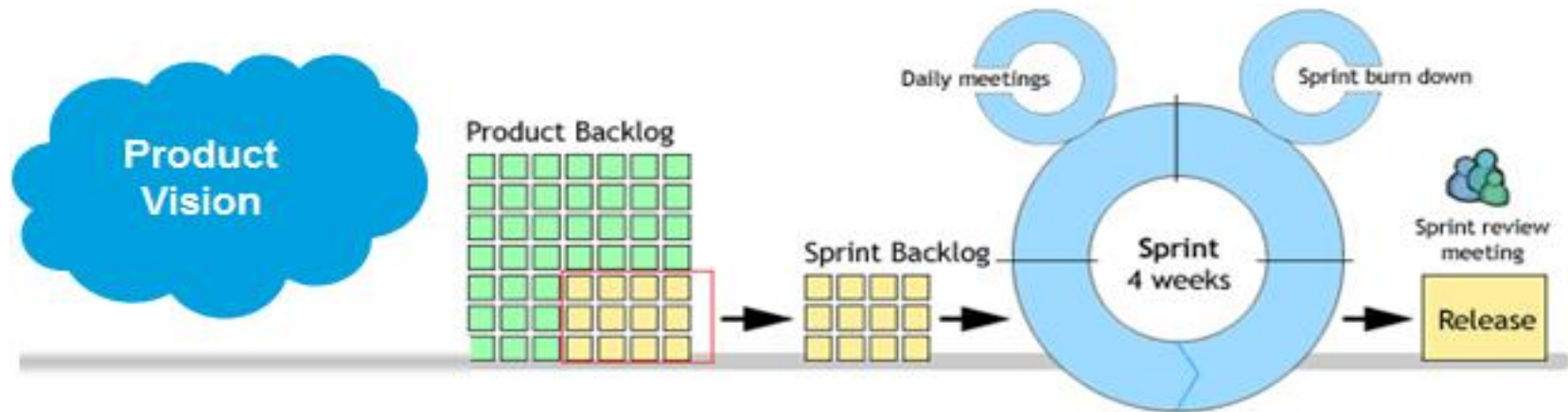
Agile Scum Overview

Traditional Software Development Approach



Agile Scrum Overview

Scrum Process



Agile Scrum Overview

Definition of Scrum

Scrum is a framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value.

Scrum is:

- Lightweight;
- Simple to understand;
- Difficult to master.

The team model in Scrum is designed to optimize:

- Flexibility;
- Creativity;
- Productivity.

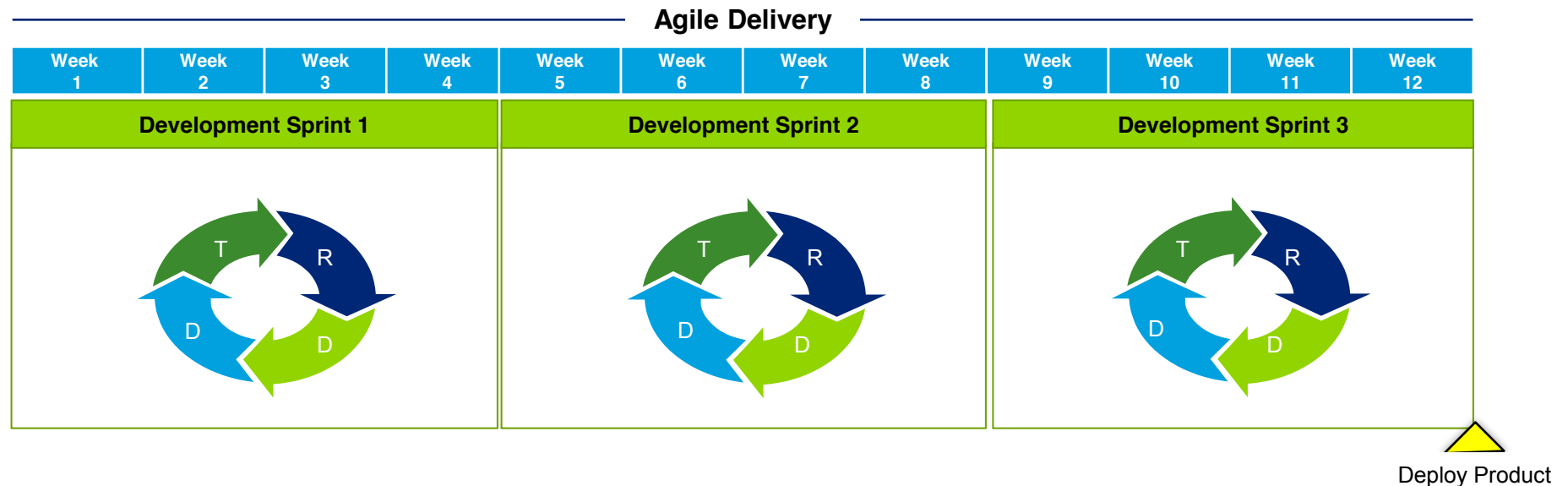
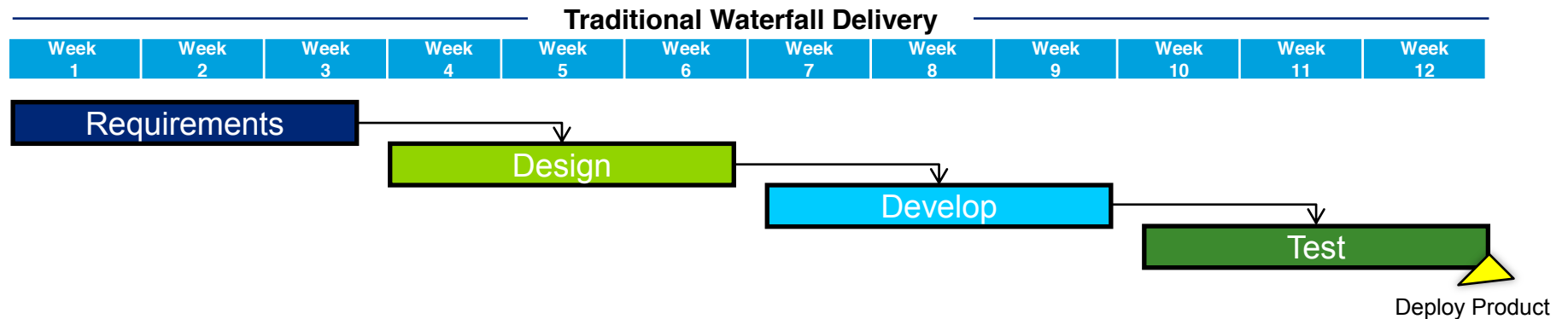
The Scrum Team consists of:

- A Product Owner;
- A Scrum Master;
- The Development Team a Scrum Master.



Waterfall & Agile Methods Comparison

Waterfall and Agile projects take fundamentally different approaches in completing requirements, design, development and testing activities



Detailed Comparison of Methodologies

Agile methodologies differ significantly from a traditional Waterfall software development lifecycle. Agile is focused on flexibility and speed, while Waterfall prefers planning and predictability

	Agile	Waterfall
Overview	<ul style="list-style-type: none">• Is iterative• Prioritizes individuals & interactions• Favors adaptability• Produces working software in increments over 2-week “sprints”	<ul style="list-style-type: none">• Is linear & sequential• Prioritizes processes & tools• Favors predictability• Spans months from planning to final product
Requirements	<ul style="list-style-type: none">• Defines high-level requirements or “Epics” in product & release plans• Defines and refine “User Stories” at sprint planning for each Sprint	<ul style="list-style-type: none">• Defines comprehensive list of requirements at outset of development lifecycle
Documentation	<ul style="list-style-type: none">• Prefers working software• Creates and iterate living, breathing user stories	<ul style="list-style-type: none">• Prefers comprehensive documentation• Creates static requirements documenatation at beginning of project

Agile Scum Overview

Agile Manifesto

Individuals and **interactions** over processes and tools
(emphasis on the relationship of software developers)

Working software over comprehensive documentation
(continuously provide working software which is tested)

Customer collaboration over contract negotiation
(focus on maintaining relationship is high preferred than strict contract)

Responding to change over following a plan
(team authorized to adjust customer needs during iterations)

Source: www.agilemanifesto.com

Agile Scum Overview

12 Principles of Agile

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4. Business people and developers must work together daily throughout the project.

5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

9. Continuous attention to technical excellence and good design enhances agility.

10. Simplicity--the art of maximizing the amount of work not done--is essential.

11. The best architectures, requirements, and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Source: www.agilemanifesto.com

Agile Scum Overview

Scum Roles

1. Product Owner (knowledgeable, empowered to make decision, immediately available)

- 1 person
- Know what should be produced
- Responsible for maximizing values and ROI of the product and the
- Create and maintenance the Product Backlog

2. Scrum Master (responsible, humble, collaborative, committed, influential, knowledgeable)

- 1 person to server the team (not a team manager)
- Does whatever it takes to make the Scrum Team successful
- Remove any Team's constraints and impediments
- Remove the barriers between the team and the customers
- Protect the team from disruption or disturbance
- Coach everyone to be successful with Scrum

3. Development Team

The Team develop the product envisioned by the Product Owner and the customer is going to use.

Attributes of Development Team:

- *Self organizing;*
- *No role, no title for each team member;*
- *5-9 members in a scrum team;*
- *Motivated to deliver product and to improve skills;*
- *Authorized to do what is needed to meet commitment;*
- *Support and help each other;*
- *Think out-of-the-box;*
- *Flexibility, creativity, and productivity.*



Scrum - RACI

Processes/Activities:	Roles								
	Stakeholders, PMO	Scrum Leadership	Architects	Chief Product Owner	Product Owner	BSA	Scrum Master	Scrum Team	QA
Vision	R	I	C	A	C	I	I	I	I
Roadmap	A	C	I	C	C	I	I	I	I
Release Planning	I	C	C	A	R	C	C	C	I
Product Backlog	I	I	I	A	R	C	C	C	I
Sprint Backlog	I	I	I	I	I	I	C	A, R	C
Daily Plan	I	I	I	I	I	I	R	R	I
Remove Impediments	A	A	C	C	C	C	R	C	C
Create BRs/User Stories	I	I	I	I	A	R	C	I	I
Approve/Prioritize User Stories	I	I	I	I	A, R	C	C	I	I
Architecture Direction	I	C	A, R	I	I	C	I	I	I
Requirements Clarification	I	I	I	A	A	R	C	I	I
Develop & Test Product	I	I	C	I	C	C	R	A, R	A, R

Key:

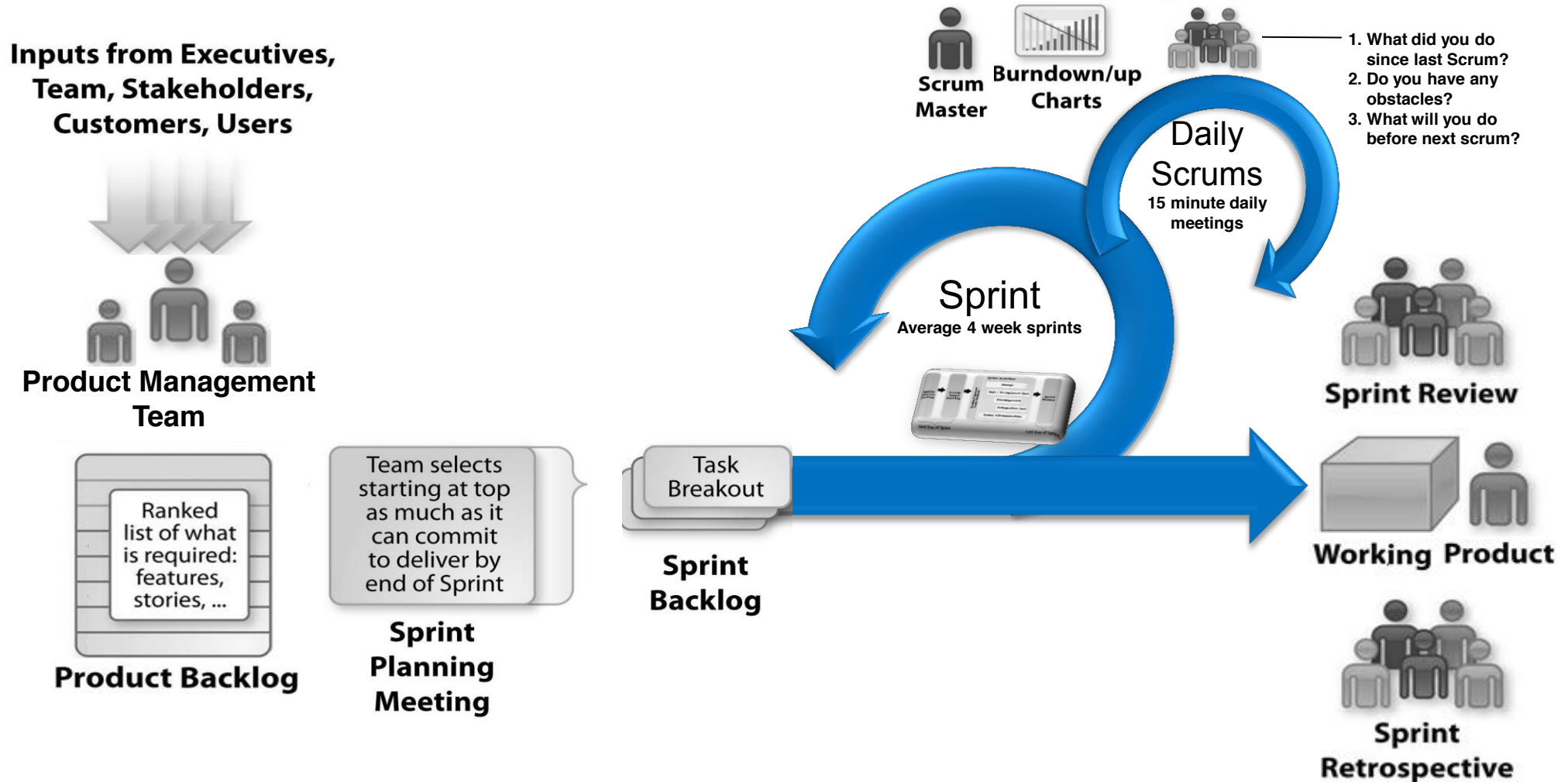
Responsible (R)

Accountable (A)

Consulted (C)

Informed (I)

Agile Scrum Methodology



Scrum Events

Scrum prescribes 4 formal events for inspection and adaptation:

- 1. Sprint Planning:** The work to be performed in the Sprint is planned at the Sprint Planning. This plan is created by the collaborative work of the entire Scrum Team. Sprint Planning is time-boxed to a maximum of eight hours for a one-month Sprint.
- 2. Daily Scrum:** is a 15-minute time-boxed event for the Development Team to synchronize activities and create a plan for the next 24 hours.
- 3. Sprint Review:** is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. This is a four-hour time-boxed meeting for one-month Sprints.
- 4. Sprint Retrospective:** is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint.

Scrum Events:

- All events are time-boxed events;
- Have a maximum duration;
- Once a Sprint begins, its duration is fixed and cannot be shortened or lengthened.



Source: Scrum Guide – Scrum.org

The Sprint

The heart of Scrum is a Sprint, a time-box of one month or less during which a “Done”, useable, and potentially releasable product Increment is created.

Sprints best have consistent durations throughout a development effort. **A new Sprint starts immediately after the conclusion of the previous Sprint.**

Sprints contain and consist of

- Sprint Planning;
- Daily Scrums;
- Development work;
- Sprint Review;
- Sprint Retrospective.

During the Sprint:

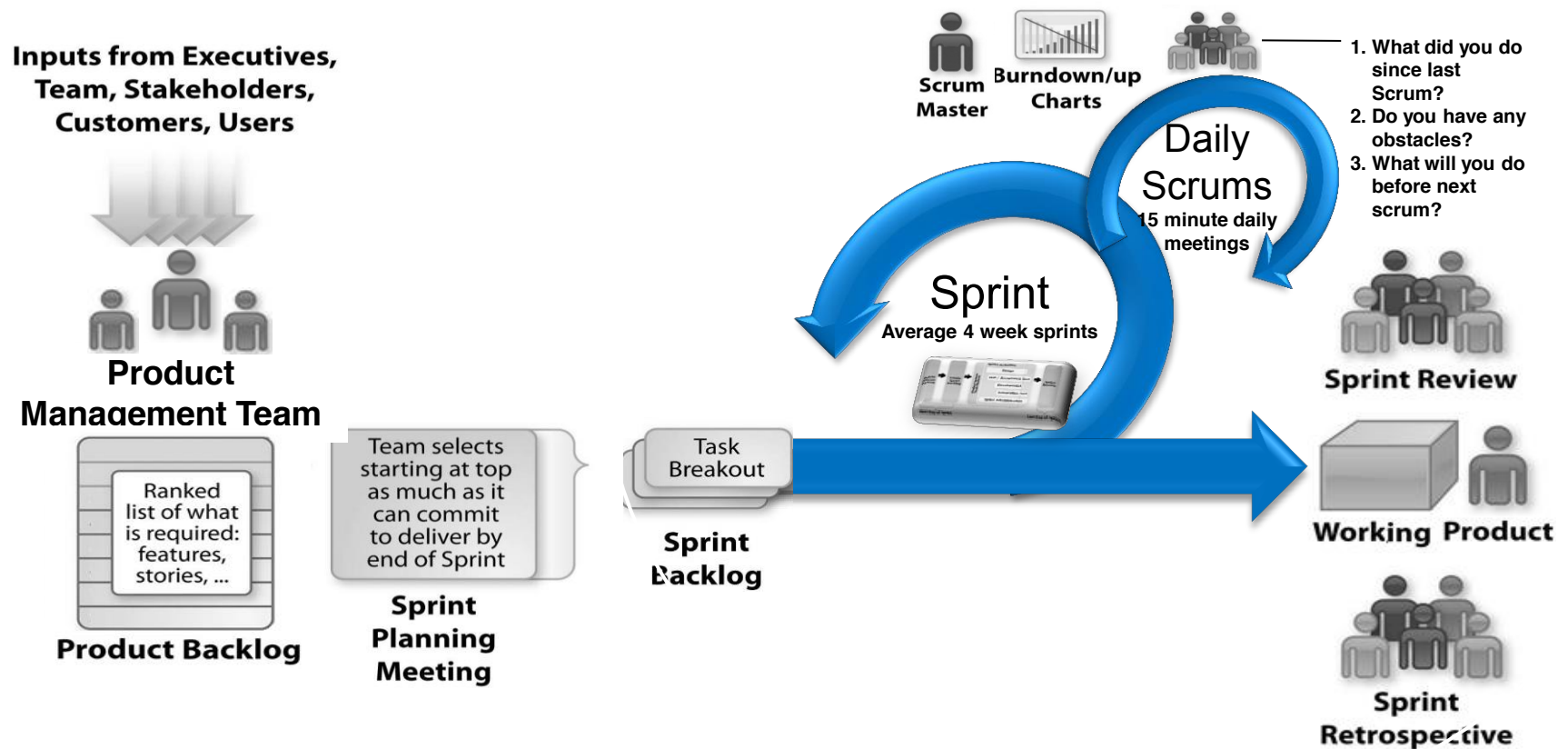
- No changes are made that would endanger the Sprint Goal;
- Quality goals do not decrease; and,
- Scope may be clarified and re-negotiated between the Product Owner and Development Team as more is learned.



Source: Scrum Guide – Scrum.org

The Sprint (cont.)

The Sprint is the period of time in which the Scrum Team takes the User Stories committed to the Sprint Backlog and develops them into the actual product component.



What is a Product Backlog?

It is our entire collection of Capabilities and User Stories that are stored.

The Product Management Team is constantly adding new User Stories, refining existing User Stories, and prioritizing/re-prioritizing User Stories within the Product Backlog.

	Product Backlog	Sprint Backlog
Level of detail	Less detailed	Very detailed
Estimation units	Story Points	Hours
Ownership	Product Owner	Team
Revised	Weekly	Daily
Life span	Project	Sprint

Table: Key Attributes of the Product and Sprint Backlog

The product backlog and the sprint backlog serve similar but distinct purposes. **The product backlog contains a list of features - expressed as user stories that a system should have, meaning all the work that a team completes to create the finished product.** The product owner ranks the user stories in the product backlog and provides sufficient detail so that the team can estimate and implement each user story.

In contrast, **the sprint backlog is a subset of the product backlog and contains a detailed list of all the tasks that the team must complete to finish the user stories for the iteration or sprint.**

Product Backlog

•The Product Backlog is the master list of all functionality desired in the product

- Usually created from user stories, which
- Can deliver value by itself
- Details can be worked out by conversation
- The value of doing this is clear
- Team understands it well enough to estimate
- Fits in one Sprint
- We can define clear test criteria
- Ideally expressed such that each item has value to the users or customers of the product
- Prioritized by the Product Owner at the start of each scrum/release planning
- Reprioritized at the start of each sprint
- Efforts estimate is relative, not absolute

Sample Product Backlog

User Story	Priority	Point
As new user, I can create an account	Must	8
As an existing user, I can log in to make a purchase	Must	5
As a user, I can reset my password	Should	2
As an administrator, I can view account records	Should	5
As a purchaser, I can choose from a list of products in a specific category in order to see all competing brands	Could	2
As a purchaser, I can pay using a credit card	Could	2
As a purchaser, I can setup a line of credit in order to make future purchases easily	Must	13

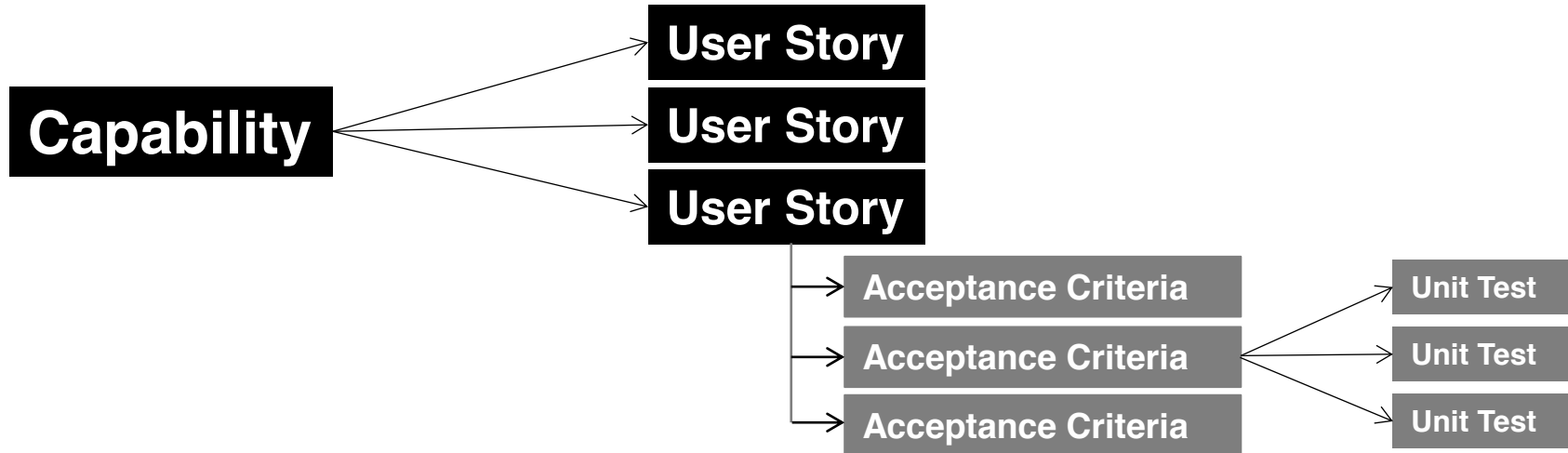
Sprint Backlog

- Sprint backlog is list of tasks/action items to implement solution
- Efforts to complete task should be estimated in hours

User Story	Task	M	T	W	T	F	M	T	W	T	F
Create account	Create home page with “create account” link	8	2								
Create account	Create DB script	3	0								
Create account	Create sign off form	4	0								
Create account	Create user class with “create” method to populate user table	4	0								
Login	Design and create customer login page	8	4								
Login	Create test cases and test login functionality	3	2								
Admin	Design and create admin login page	4	2								
Admin	Create test cases and test admin login functionality	4	4								
	Total hours of work remaining	34	14								


Capabilities & User Stories

Capabilities are comprised of multiple User Stories. Each User Story will have several associated Acceptance Criteria.




Object	Example	Format
Capability	Dynamic Filtering	Capability [box on Jeopardy board]
User Story	Dynamic Filtering: As a customer, I want to filter by a selection of attributes, so that I can see a shortlist of relevant products.	Capability: As a <user>, I want <some goal> so that <some reason>
	that I can see a shortlist of relevant products.	that <some reason>
Acceptance Criteria	Given a page of search results, when certain attributes are selected, then only those products containing those attributes appear.	Given, When, Then
Unit Test		

User Story



**As who,
I want what,
so that why.**



**As a busy breakfast maker,
I want the toast to pop-up
when it's done, so that I
can focus on other things
while it's cooking.**

Object

Example

User Story

Dynamic Filtering: As a customer, I want to filter by a selection of attributes, so that I can see a shortlist of relevant products.

Capability: As a <user>, I want <some goal> so that <some reason>

When writing user stories , always begin each user story with the name of its parent Capability

Acceptance Criteria

Well-written Acceptance Criteria should be logical and written from the shoes of the Tech Team. Attach any associated graphics, mocks, process flows to the Acceptance Criteria if it is necessary or beneficial for the Tech Team.

Object	Example	Format
Acceptance Criteria	076: Given a page of search results, when 2 or more attributes are selected, then only those products containing those attributes appear on my page.	ID#: Given, When, Then

Always begin each acceptance criteria with the ID# of the associated User Story.



Definition of Done

Iteration	<u>P</u> roduct Management	<u>U</u> X/Creative	<u>T</u> echnical
Iteration <u>1</u>	<ul style="list-style-type: none">• Basic flow completed• Technology investigated	<ul style="list-style-type: none">• Basic flow done	<ul style="list-style-type: none">• Requires U2• Initial draft completed
Iteration <u>2</u>	<ul style="list-style-type: none">• Requires U2• Flow finalized• Wireframes implemented	<ul style="list-style-type: none">• Flow finalized• Basic screen layout done	<ul style="list-style-type: none">• Design Approved
Iteration <u>3</u>	<ul style="list-style-type: none">• Requires U3 & C3• Designs implemented• Animations finalized	<ul style="list-style-type: none">• Screens finalized.• Fine detail	<ul style="list-style-type: none">• Design Implementation Reviewed



Sprint Planning Meeting Agenda

Activity	Groups
Product vision and roadmap	Prod. Mgmt Team
Development status and state of architecture	All
Release name and theme	Prod. Mgmt Team
Velocity from previous iterations and releases	All
Release schedule and number of iterations/Sprints	Prod. Mgmt Team
Issues and concerns	All
Definition of Done	All
User stories to consider	Prod. Mgmt Team
Coarse sizing of user stories intended for the release	Tech Team
Map stories to iterations in the release	All
Dependencies and assumptions	All
Commit!	All

Release Planning Meeting Agenda

Product vision and roadmap	Product Owner
Development status and state of architecture	Agile Team
Release name and theme	ScrumMaster
Velocity from previous iterations and releases	ScrumMaster
Release schedule and number of iterations/Sprints	ScrumMaster
Issues and concerns	ScrumMaster
Definition of Done	Agile Team
User stories to consider	Product Owner
Coarse sizing of user stories intended for the release	Agile Team
Map stories to iterations in the release	Agile Team
Dependencies and assumptions	ScrumMaster
Commit!	Agile Team

Sprint Retrospective

The entire Scrum team meets at the conclusion of each Sprint for a Sprint Retrospective.

The purpose of the Retrospective is to discuss lessons learned and to reflect on what could be done better for future sprints.

- What should we start doing?
- What should we stop doing?
- What should we continue doing?



Burn Down Chart

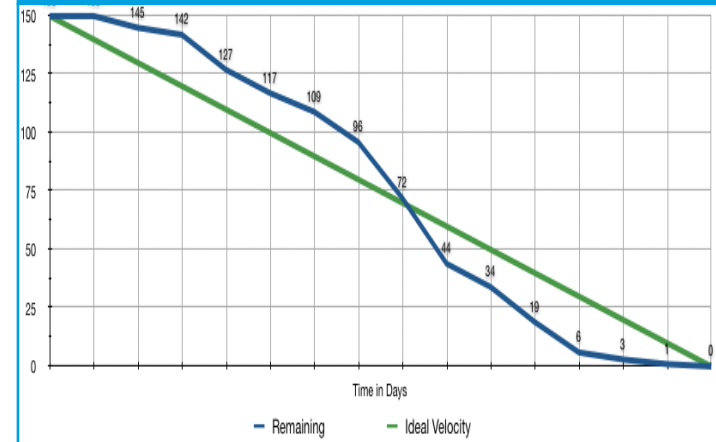
•The Burndown Chart is a graphical presentation of estimated work remaining in the sprint

- Calculated and updated daily to reflect up to date work remaining by release and iteration
- Shows work remaining in Y axis and time in axis
- Typically work remaining goes up and down and eventually trends downwards
- Shows daily overall sprint progress. But does not directly depicts how many user stories/requirements are developed/tested
- Can be used at 2 levels: Release and Sprint
- Can be used by remaining hours (figure 1) or remaining user story points (figure 2)

Figure 1: Remaining Hours



Figure 1: Points Remaining



Burn Down Chart

Burn Down Charts are used to present the “work done” and scrum information.

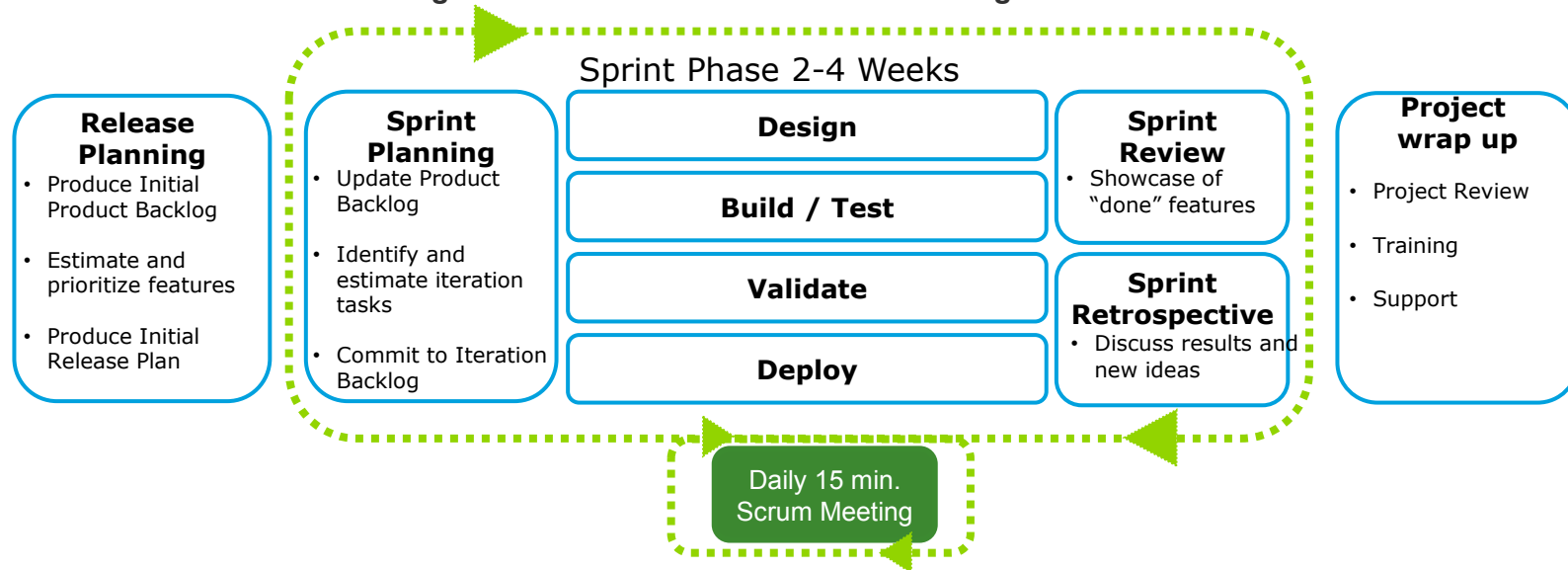
There are 3 types of Burn Down Chart:

1. Sprint Burn Down Chart is used for progress of the Sprint
2. Release Burn Down Chart is used for progress of release
3. Product Burn Down Chart is used for progress of the Product



Scrum Software Delivery Overview

•Agile software delivery is collection of development principles based on iterative and sustainable development practices, where requirements and solutions evolve through collaboration in order to deliver the highest value in the shortest time



Artifacts



Product Backlog

A list of all desired work / features for a release that has been ordered by the Product Owner



Sprint Backlog

A list of all desired work / features for an iteration that has been ordered by the Product Owner and committed for completion by delivery team



Burn-up / Burn-down chart

Graphical presentation of estimated work remaining in iteration in relation to time remaining

Roles



Product Owner

The product owner prioritizes features and decides what will be built and in which order



ScrumMaster

The ScrumMaster ensures that the team adheres to its chosen process and removes blocking issues.



Delivery Team

Cross functional and self organizing team that commits and delivers software features



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