Project Management
Best Practices

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Outline

- Project Life Cycle , Process Groups and Phases
- PMBOK v6 10 Knowledge area
- PMBOK v6 ITTO & Data flow diagram
- PRINCE2 and PRINCE2Agile
- Agile Development vs Standards for Project Management
- PMBOK v6 to PMBOK v7

Project Life Cycle
Process Groups and Phases

From PMBOK

Single and Three Phase Project Example

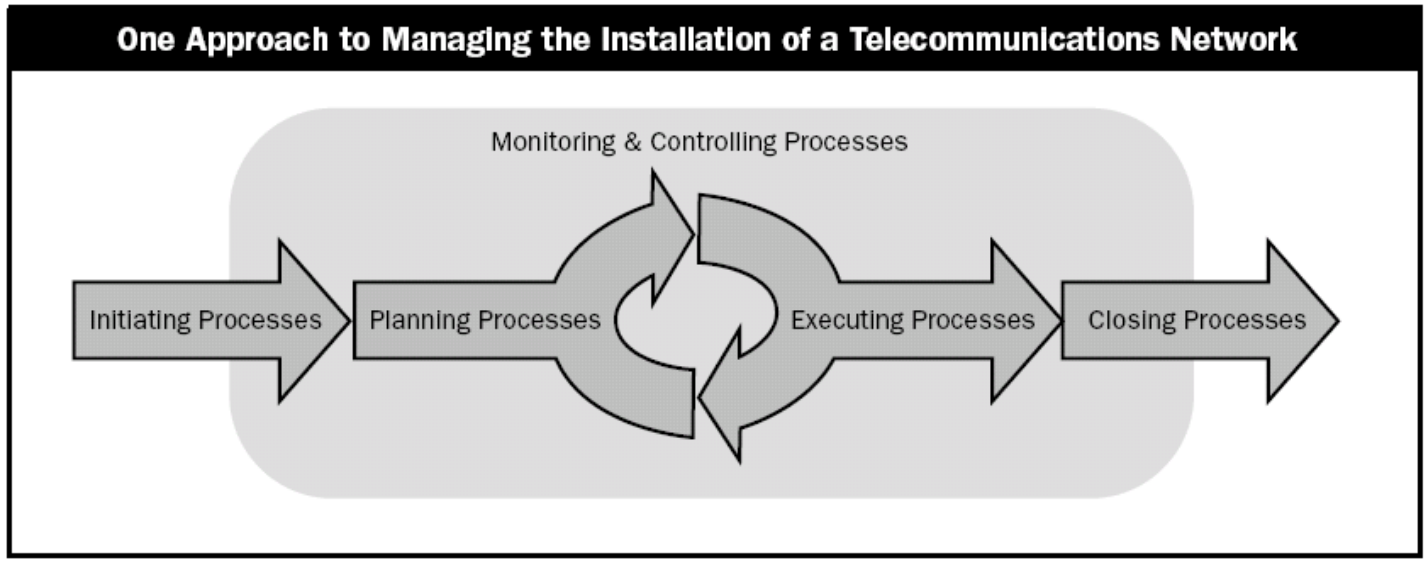


Figure 2-3. Example of a Single-Phase Project

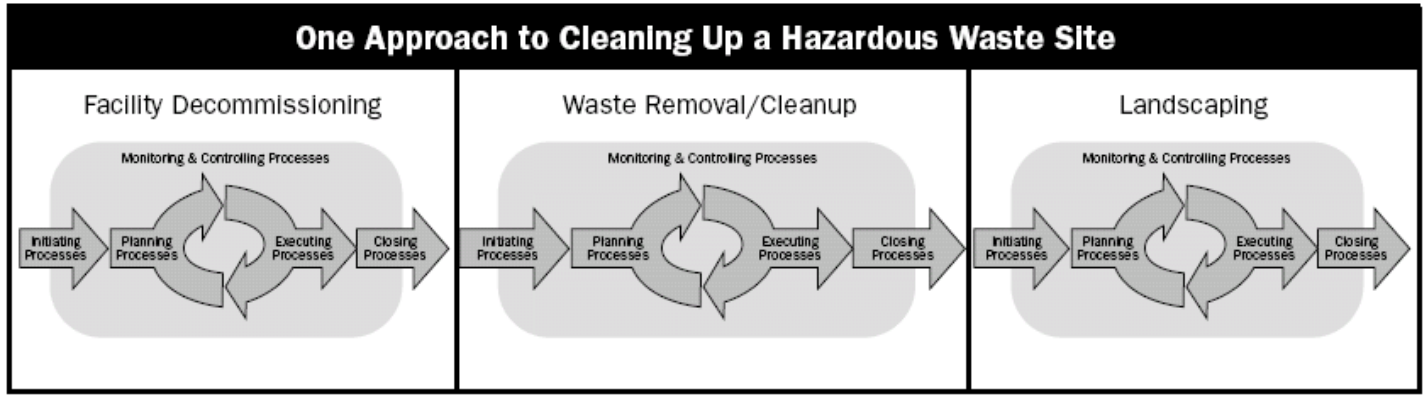
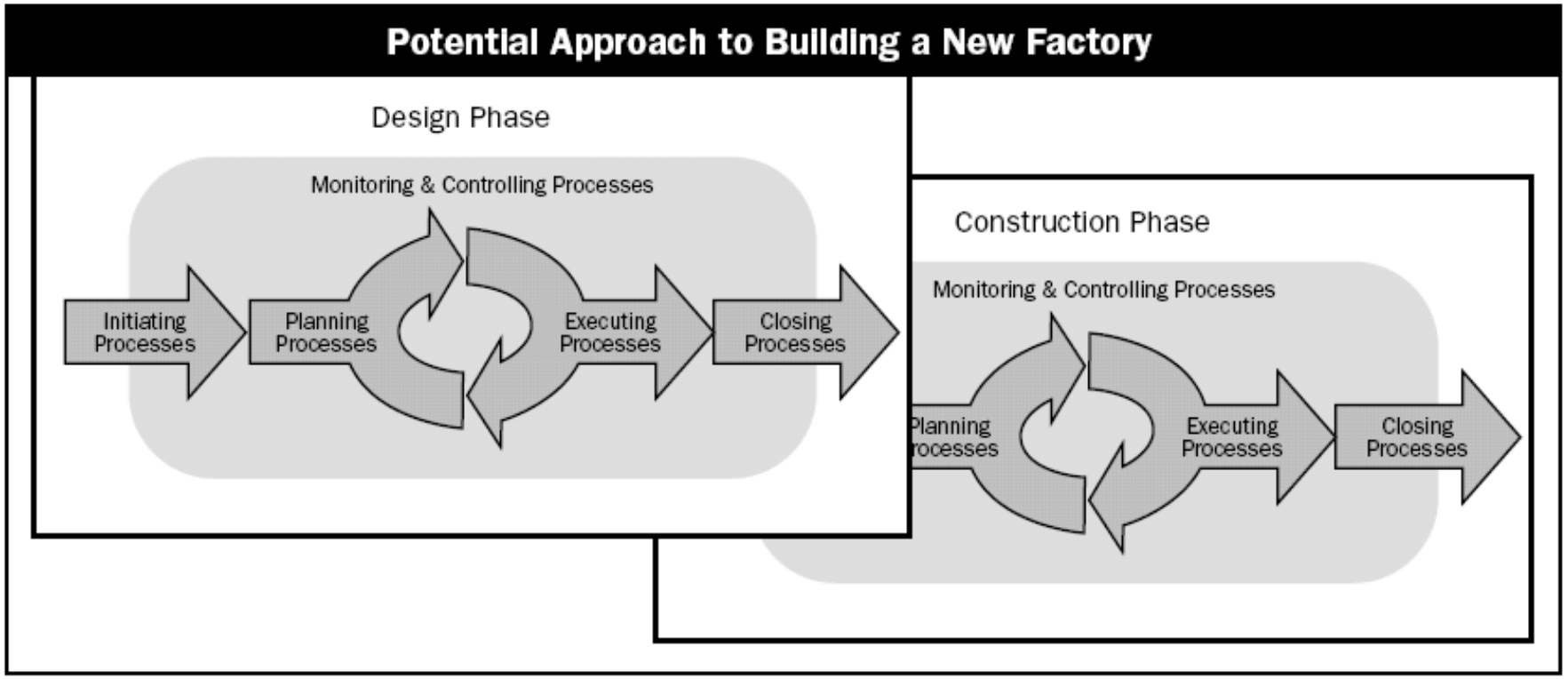


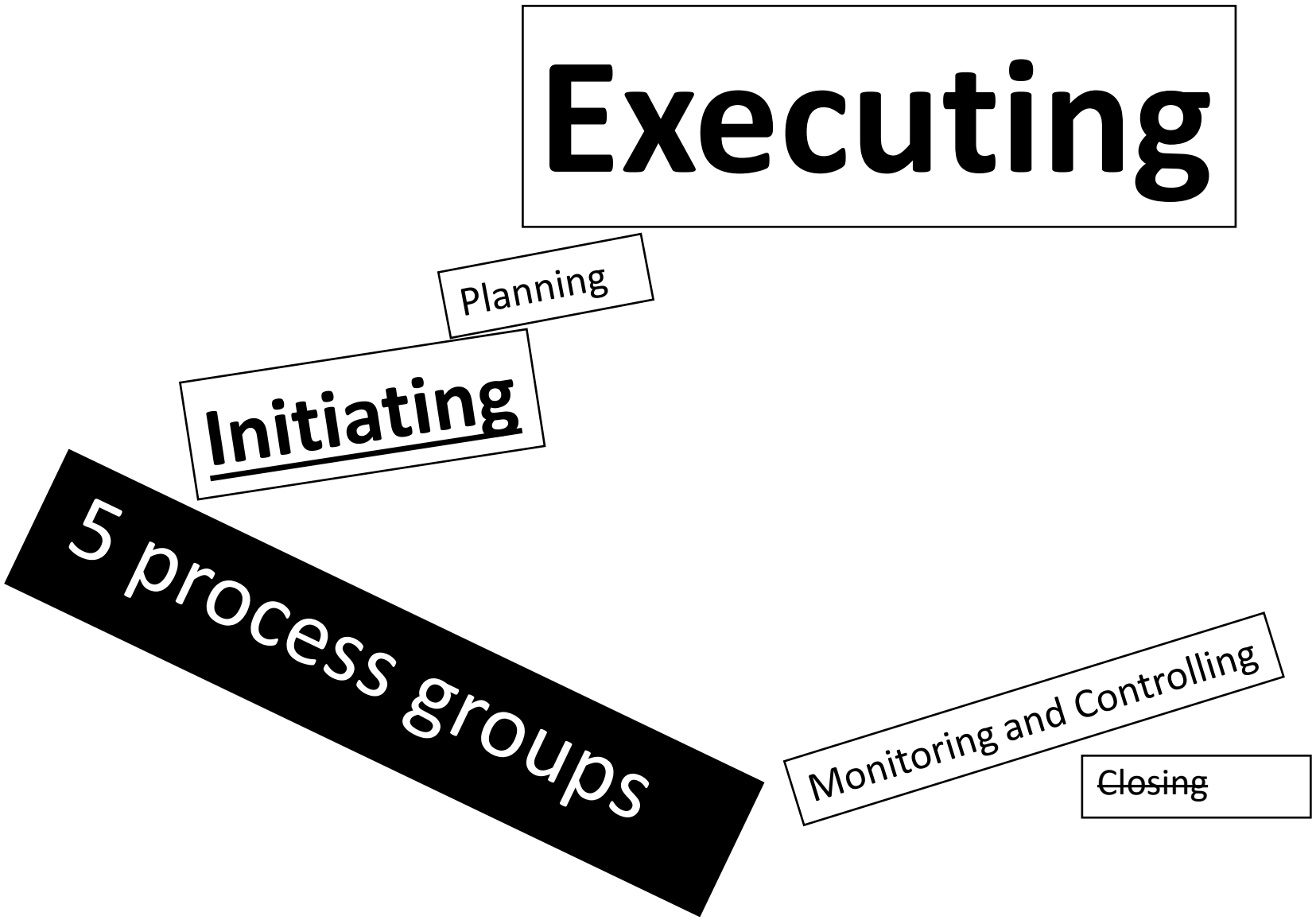
Figure 2-4. Example of a Three-Phase Project Figure

Project with Overlapping Phases Example

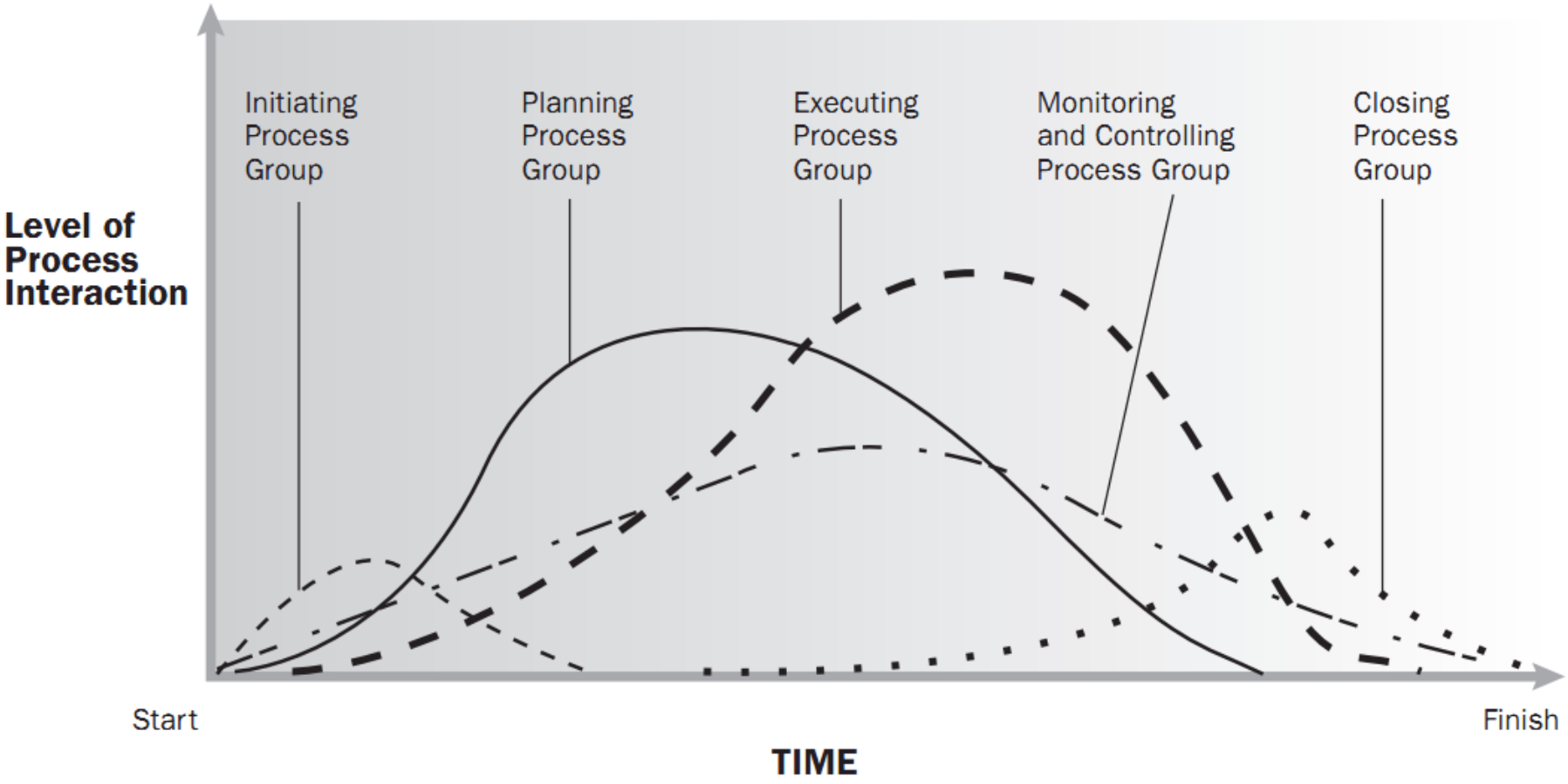


2-5. Example of a Project with Overlapping Phases

Project Management 5 Process Groups



Group NOT Phase



Phase Examples

- Concept development
- Feasibility study
- Customer requirements
- Solution development
- Design
- Prototype
- Build
- Test
- Transition
- Commissioning
- Milestone review
- Lessons learned

Project Management Body Of Knowledge

10 Knowledge Areas

10 knowledge areas are...

1.Project Integration Management

2.Project Scope Management

3.Project Schedule Management

4.Project Cost Management

5.Project Quality Management

6.Project Resource Management

7.Project Communications Management

8.Project Risk Management

9.Project Procurement Management

10. Project Stakeholders Management

Knowledge Areas 1/2

Integration Management	เพื่อให้ความมั่นใจว่าองค์ประกอบต่างๆของโครงการมีการประสานงานอย่างถูกต้อง
Scope Management No=monkey ต้องไม่ทำ	เพื่อให้ความมั่นใจว่าโครงการทั้งหมด(หมายถึงงานที่จำเป็นและงานที่จำเป็นเท่านั้น)ถูกกำหนดเพื่อให้โครงการสำเร็จ
Schedule Management	ดูแลให้โครงการ เสร็จทันเวลา
Cost Management	ให้ความมั่นใจว่าโครงการจะแล้วเสร็จภายในงบประมาณที่ได้รับการอนุมัติ
Quality Management	ให้ความมั่นใจว่าโครงการจะตอบสนองความต้องการ ที่จำเป็นต้องดำเนินการ

Knowledge Areas 2/2

Resource Management	ให้ความมั่นใจว่าสมาชิกในทีมของโครงการทำงานได้อย่างมีประสิทธิภาพมากที่สุด
Communications Management	ให้ความมั่นใจว่าข้อมูลของโครงการถูกสื่อสารอย่างเหมาะสม การเผยแพร่ การจัดเก็บ ถูกทำไปในทิศทางเดียวกัน
Risk Management	ระบุวิเคราะห์และการตอบสนองต่อความเสี่ยงโครงการ
Procurement Management	การจัดซื้อหรือได้มาผลิตภัณฑ์บริการที่จำเป็นต่อการปฏิบัติงานในโครงการ (จากภายนอก)ให้กับทีมงาน
Stakeholders Management	การบริหารผู้มีส่วนได้ส่วนเสีย

PMBOK 6 processes 1/3

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 Manage Project Knowledge	4.5Monitor and Control Project Work 4.6 Perform Integrated Change Control	4.7 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 Schedule Management		6.1 Plan Schedule Management 6.2 Define Activities 6.3 Sequence Activities 6.4 Estimate Activity Durations 6.5 Develop Schedule		6.6Control Schedule	

PMBOK 6 processes 2/3

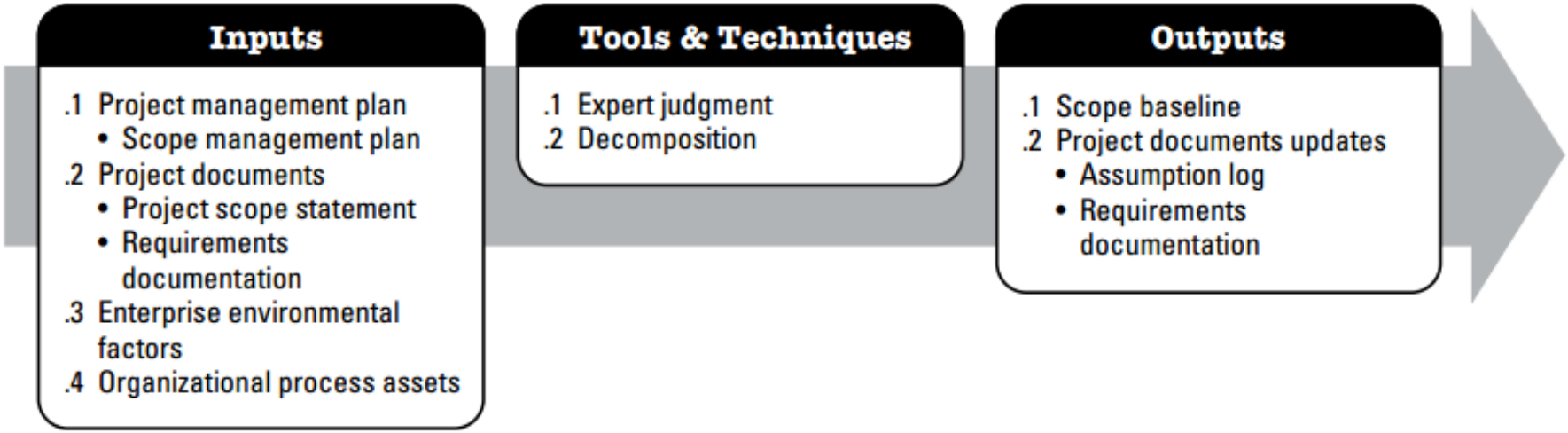
7. Project Cost Management		7.1 Plan Cost Management 7.2 Estimate Costs 7.3 Determine Budget		7.4 Control Costs	
8. Project Quality Management		8.1 Plan Quality Management	8.2 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate activity resource	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6Control Resoucres	
10. Project Communications Management		10.1 Plan Communications Management	10.2 Manage Communications	10.3 Monitor 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 Implement Risk Response	11.7 Monitor Risks	

PMBOK 6 processes 3/3

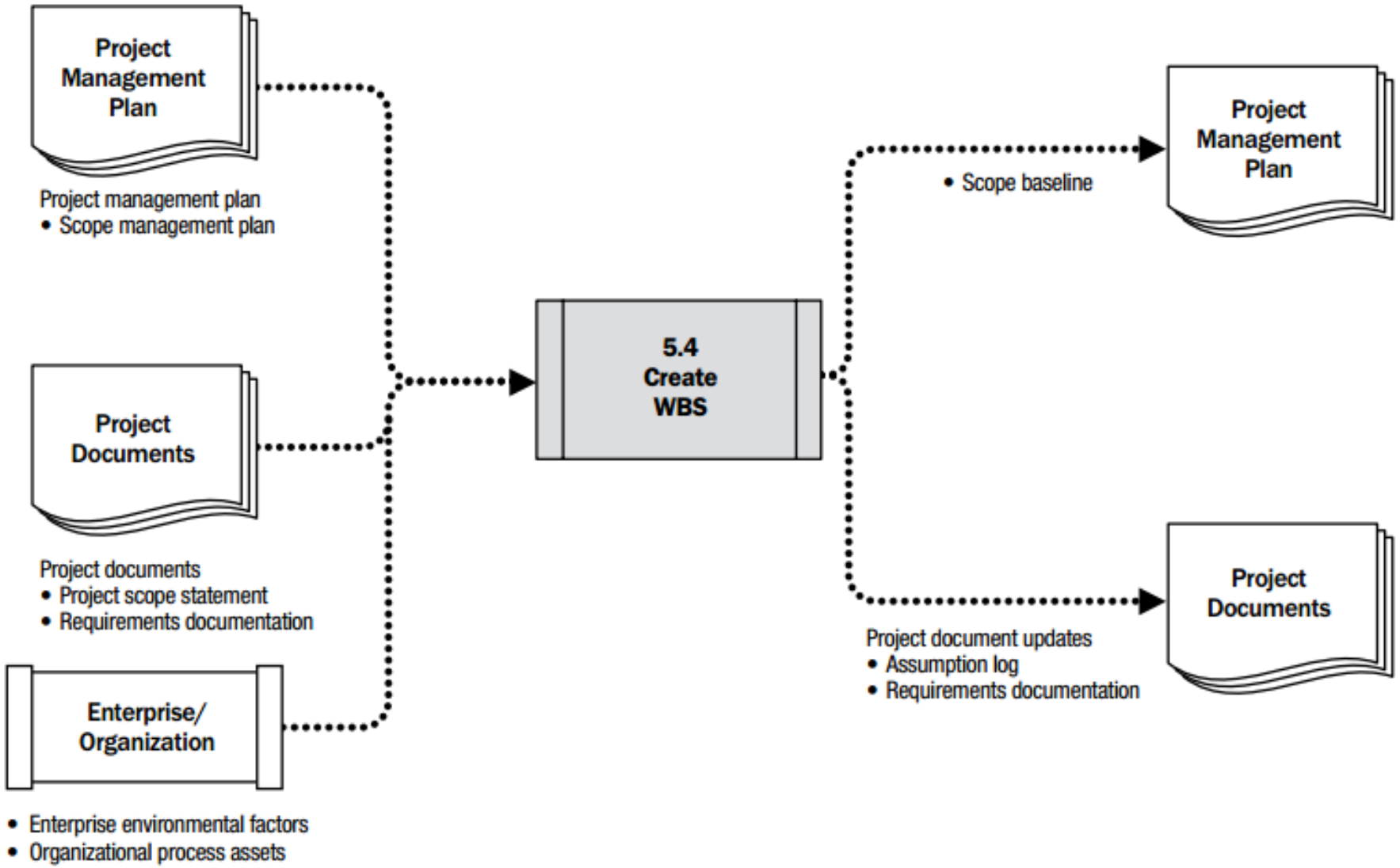
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 identity Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

PMBOK v6 ITTO & Data flow diagram

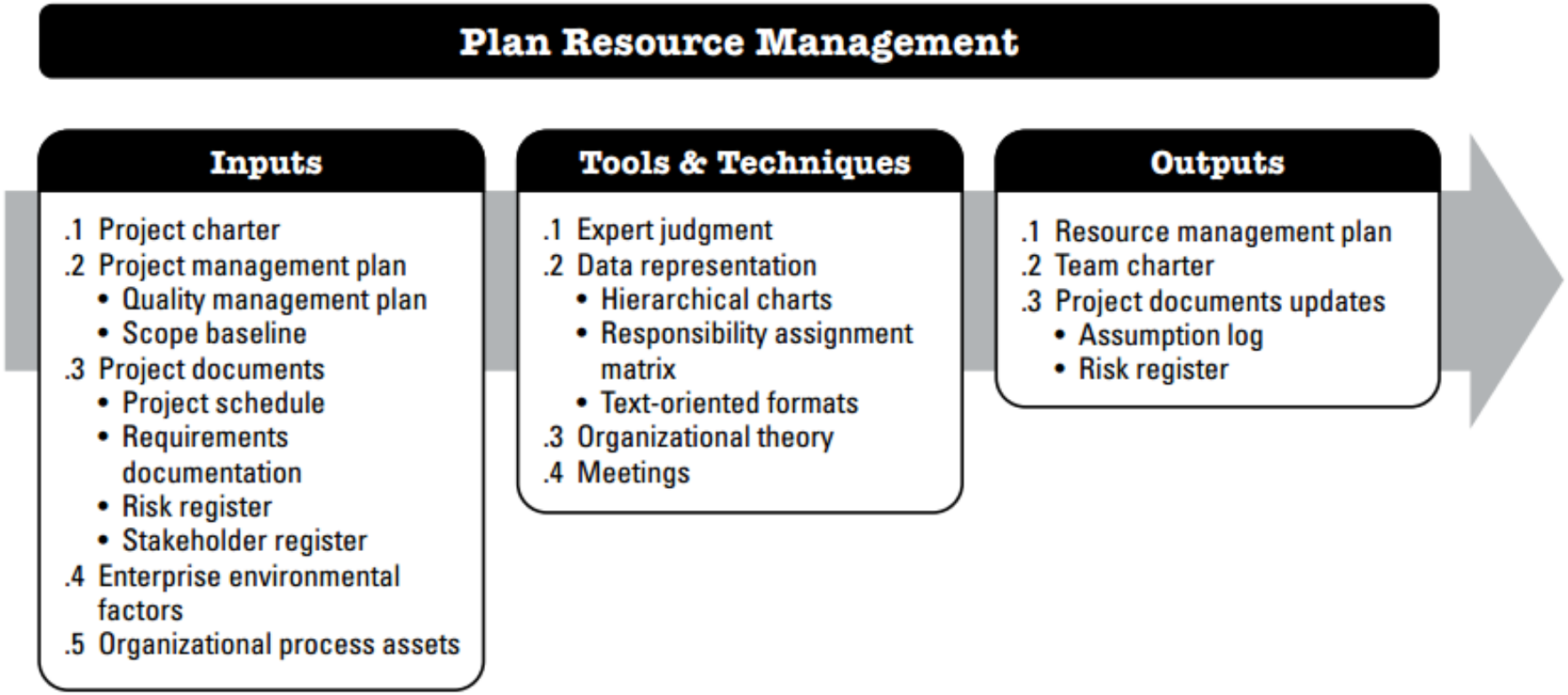
ITTO Example: Create WBS



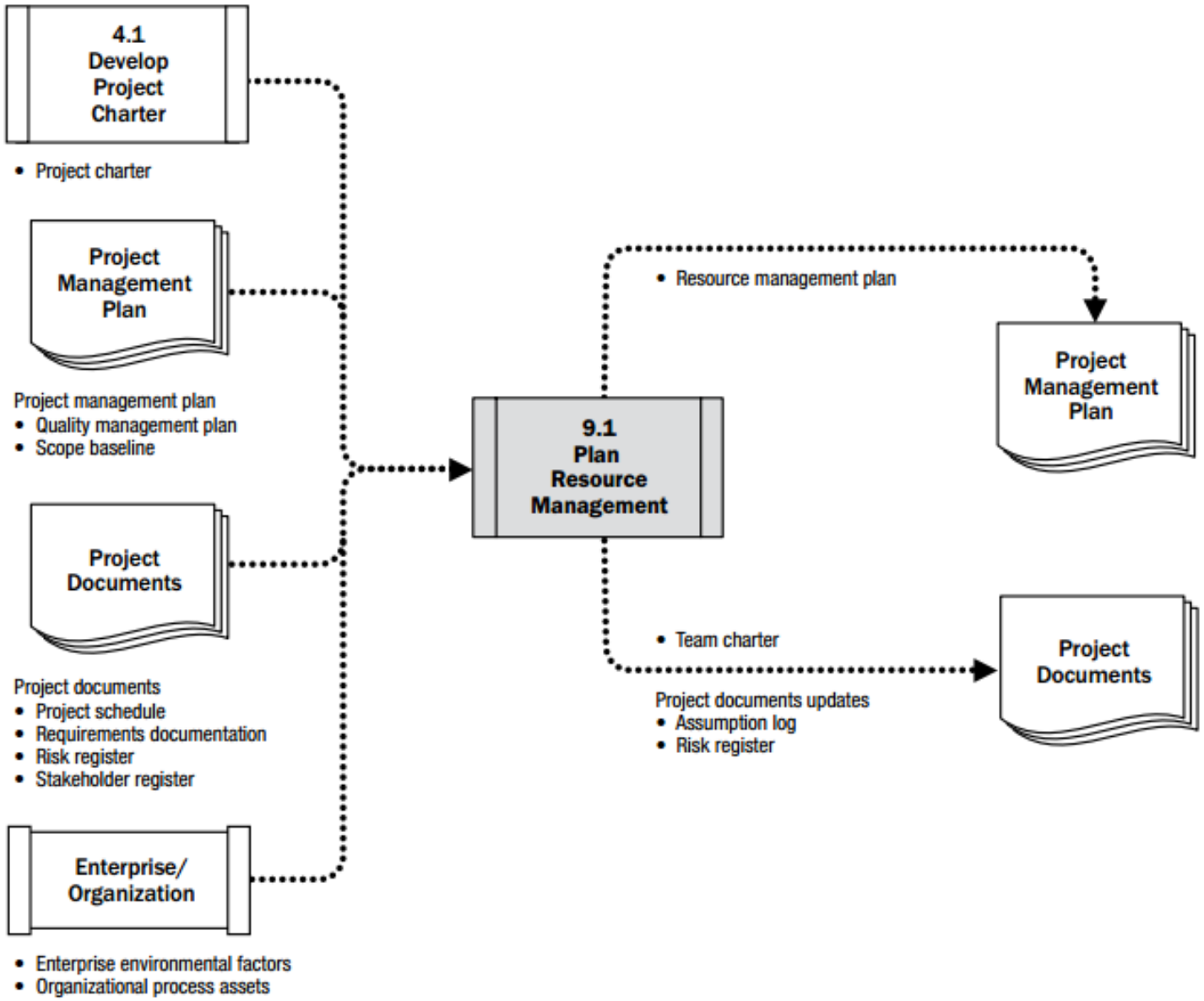
Data Flow Diagram: Create WBS



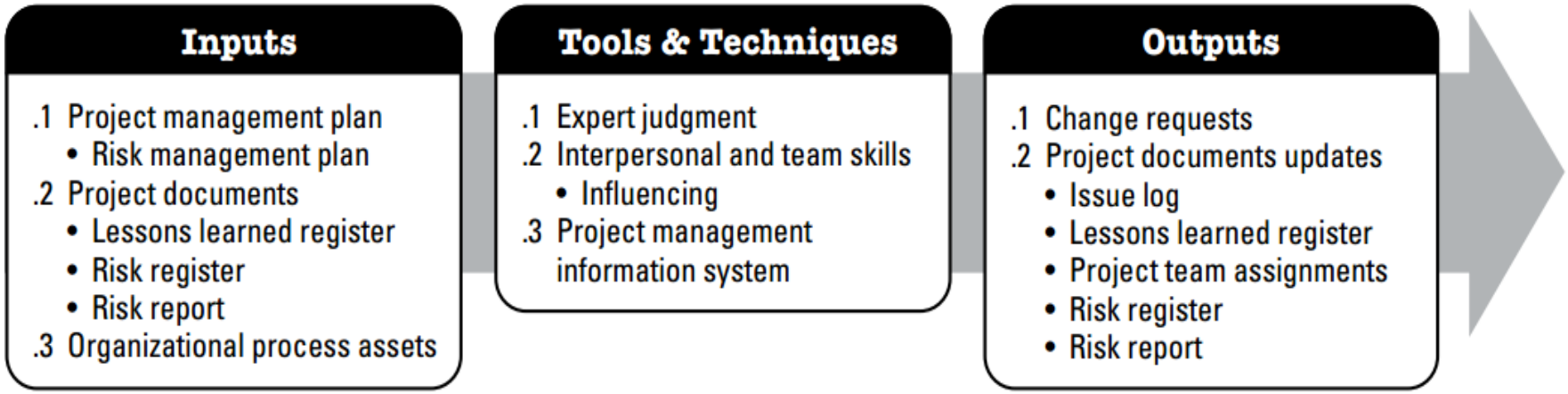
ITTO Example: Project Resource Management



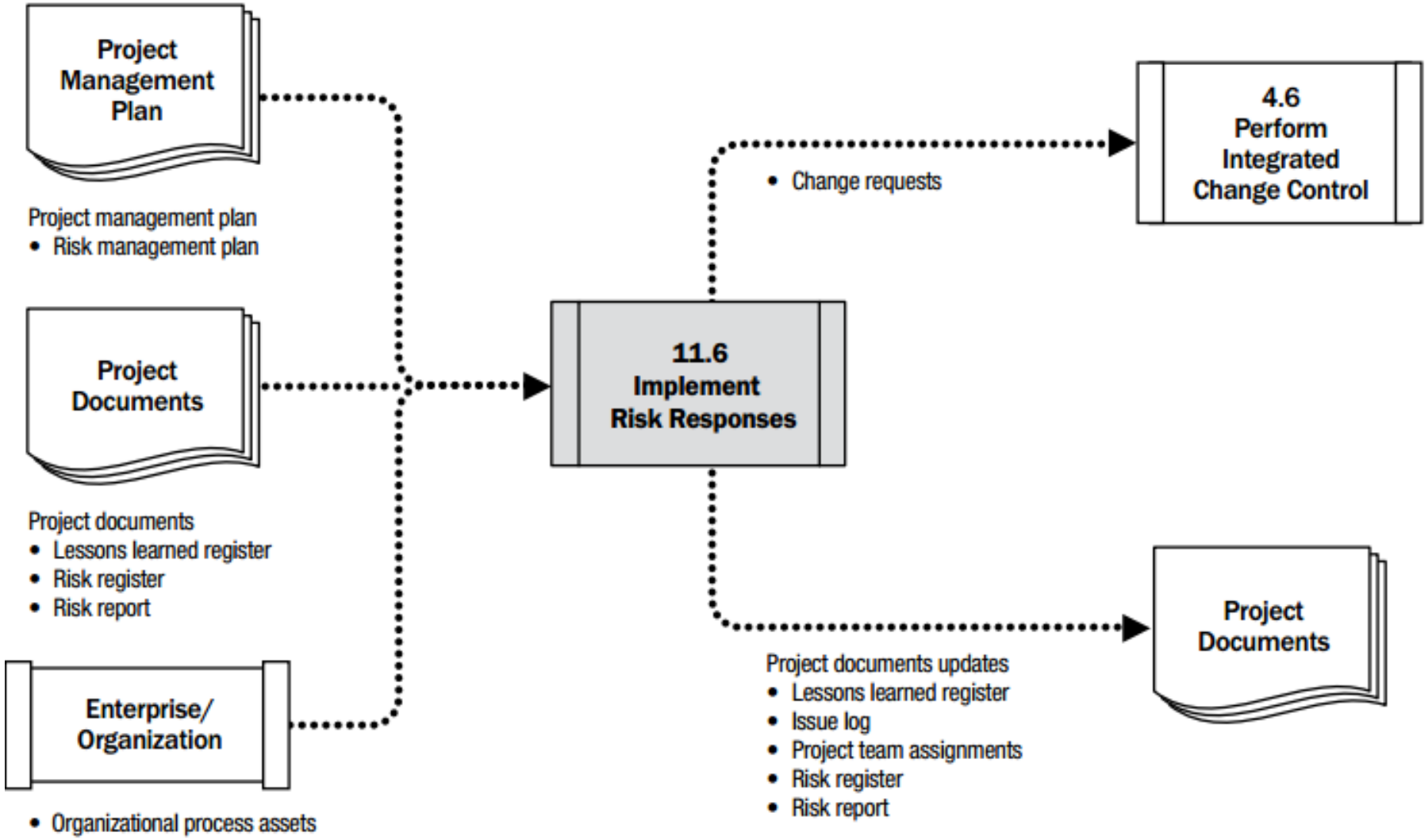
Data Flow Diagram: Project Resource Management



ITTO Example: Implement Risk Response



Data Flow Diagram: Implement Risk Response



PRINCE 2

PRoject IN Control Environment

7 Principles 7 Themes 7 Processes

https://www.axelos.com/best-practice-solutions/prince2/what-is-prince2

7 Principles PRINCE2

1. Continued Business Justification
2. Learn from Experience
3. Define Roles and Responsibilities
4. Manage by Stages
5. Manage by Exception
6. Focus on Products
7. Tailor to the Environment

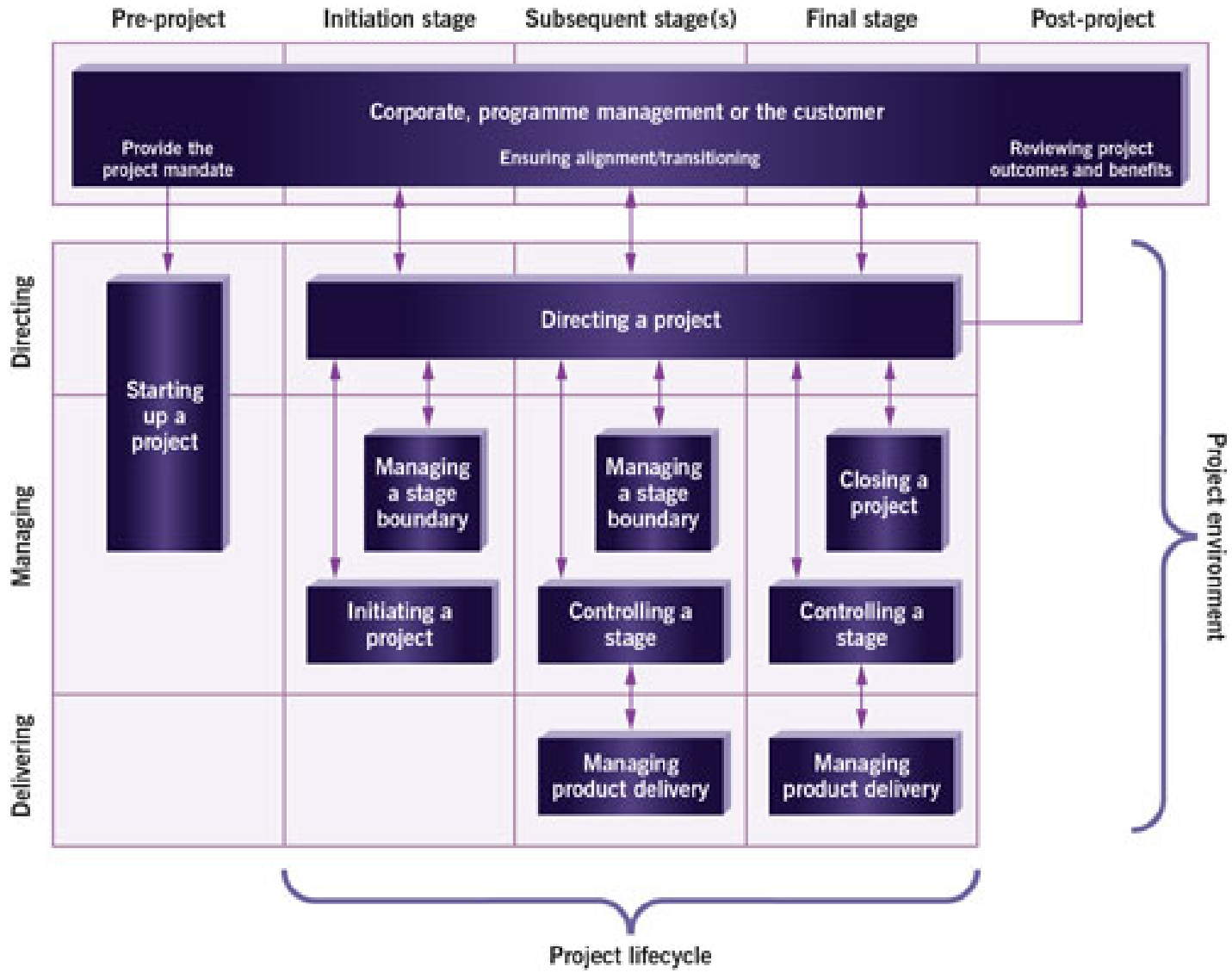
7 Themes PRINCE2

1. Business Case
2. Organisation
3. Quality
4. Plans
5. Risk
6. Change
7. Progress

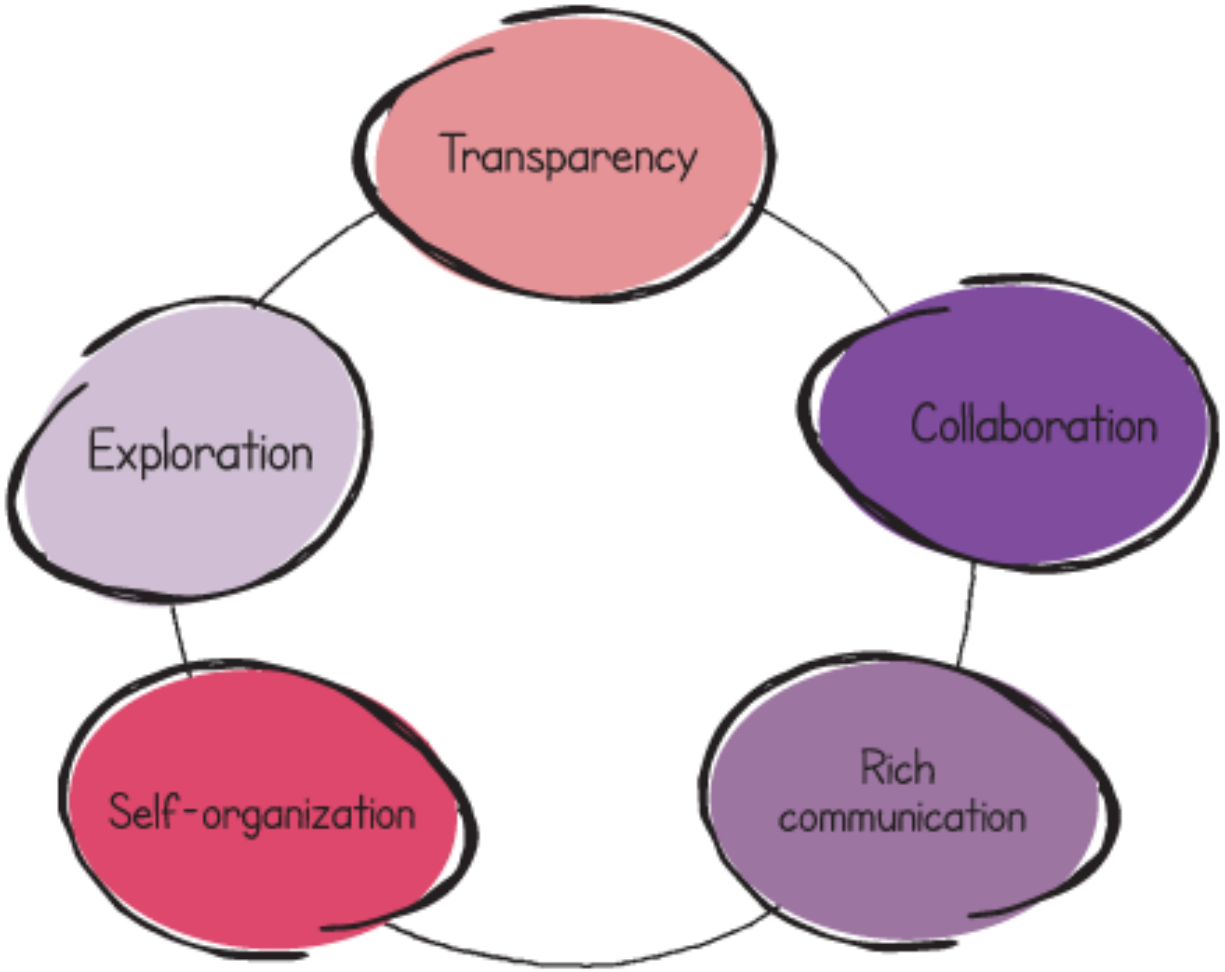
7 Processes PRINCE2

1. Starting Up a Project (SU)
2. Initiating a Project (IP)
3. Directing a Project (DP)
4. Controlling a Stage (CS)
5. Managing Product Delivery (MP)
6. Managing Stage Boundaries (SB)
7. Closing a Project (CP)

Delivering Managing Directing



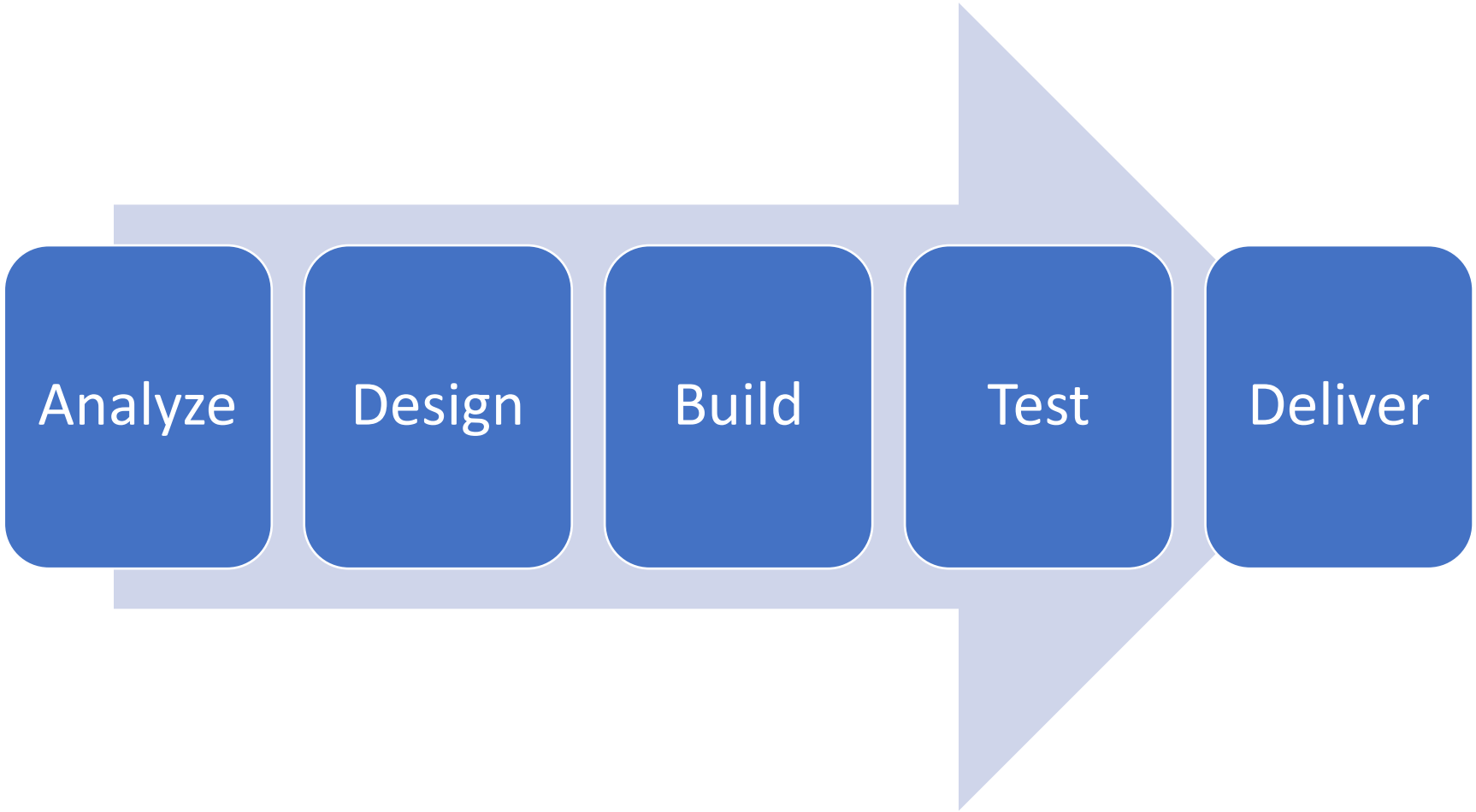
PRINCE2 Agile Behavior



Https://publications.axelos.com/PRINCE2Agile2016/content.aspx?page=pra_47&showNav=true&expandNav=true

Agile Development vs Standards for Project Management

Predictive Life Cycle



Waterfall shortcomings

a. Any change was expensive

b. Communication silos

c. Responsibility was fragmented

d. Low levels of motivation

What is Agile?

- time-boxed
- iterative
- builds & delivers s/w incrementally

- Agile set of Principles and Values

12 Principles of Agile

1. Highest priority - satisfy customer through early & continuous delivery
2. Welcome changing requirements
3. Deliver working software frequently
4. Business people and developers - daily work together
5. Build projects among motivated individuals
6. Most efficient way to convey information - face to face communication
7. Working software - primary measure of progress
8. Promote sustainable development
9. Continuous attention to technical excellence & good design enhances agility
10. Simplicity
11. The best products emerge from self organising teams
12. Teams should reflect on how to become more effective

Agile Manifesto

- Individuals & Interactions over Processes & Tools
- Working Software over comprehensive documentation
- Customer collaboration over contract negotiations
- Responding to change over following a plan

Agile Methodologies

- Scrum
  - Product Owner
  - Scrum Master
  - Team
- Extreme Programming (XP)
- FDD
- DSDM

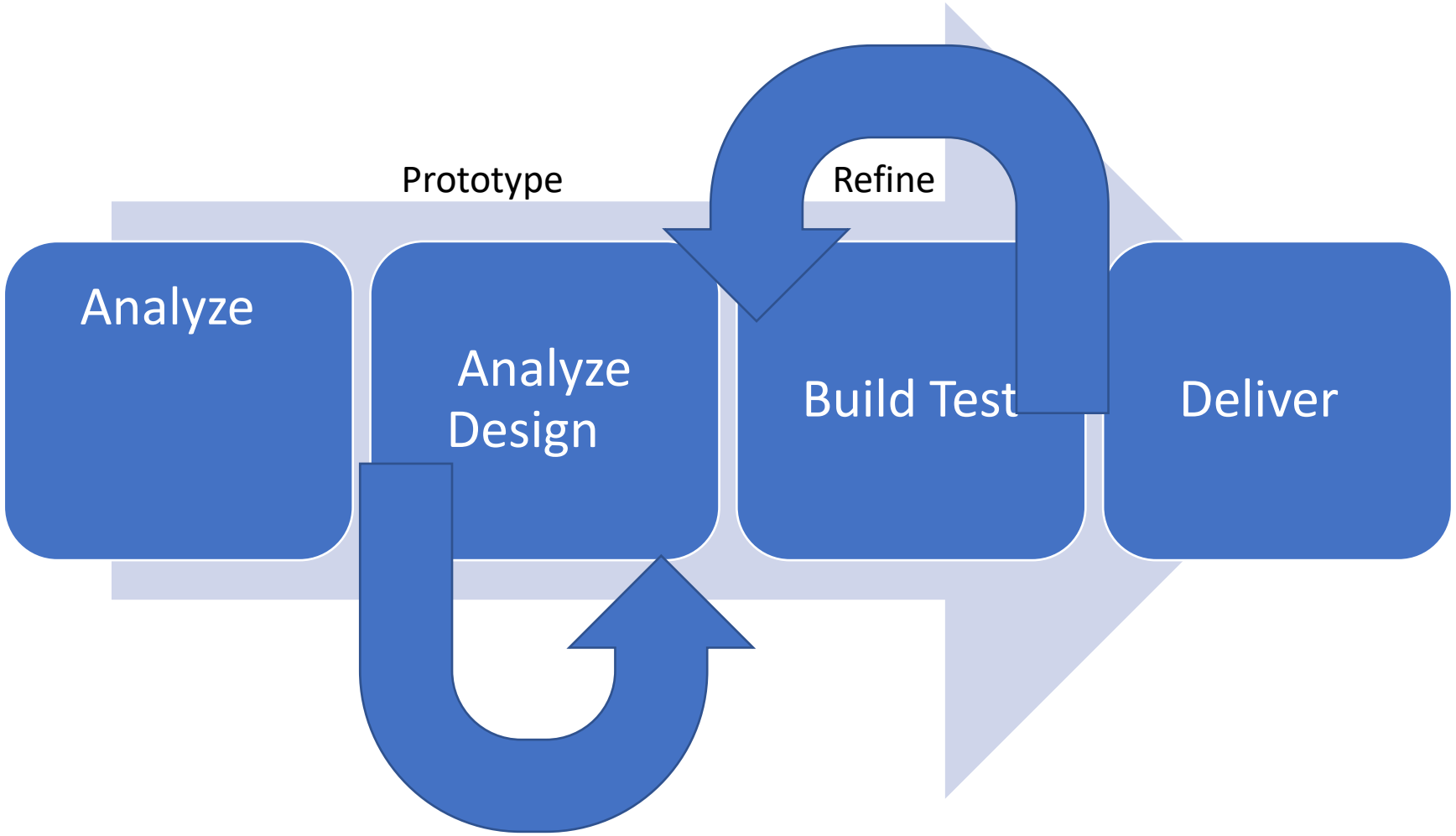
Scrum Flow & Focus

- Product Backlog
- Sprint Planning
- Sprint Backlog

1. Effective transition from backlog to DEV
2. Hard limit on W.I.P.

- https://socketsandlightbulbs.files.wordpress.com/2012/02/scrum-board-example.jpg

Iterative Life Cycle



Iteration-Based vs Flow-Based

Iteration-Based Agile

Requirements Analysis Design Build Test	Requirements Analysis Design Build Test	Requirements Analysis Design Build Test	Requirements Analysis Design Build Test	Repeat as needed ...	Requirements Analysis Design Build Test	Requirements Analysis Design Build Test

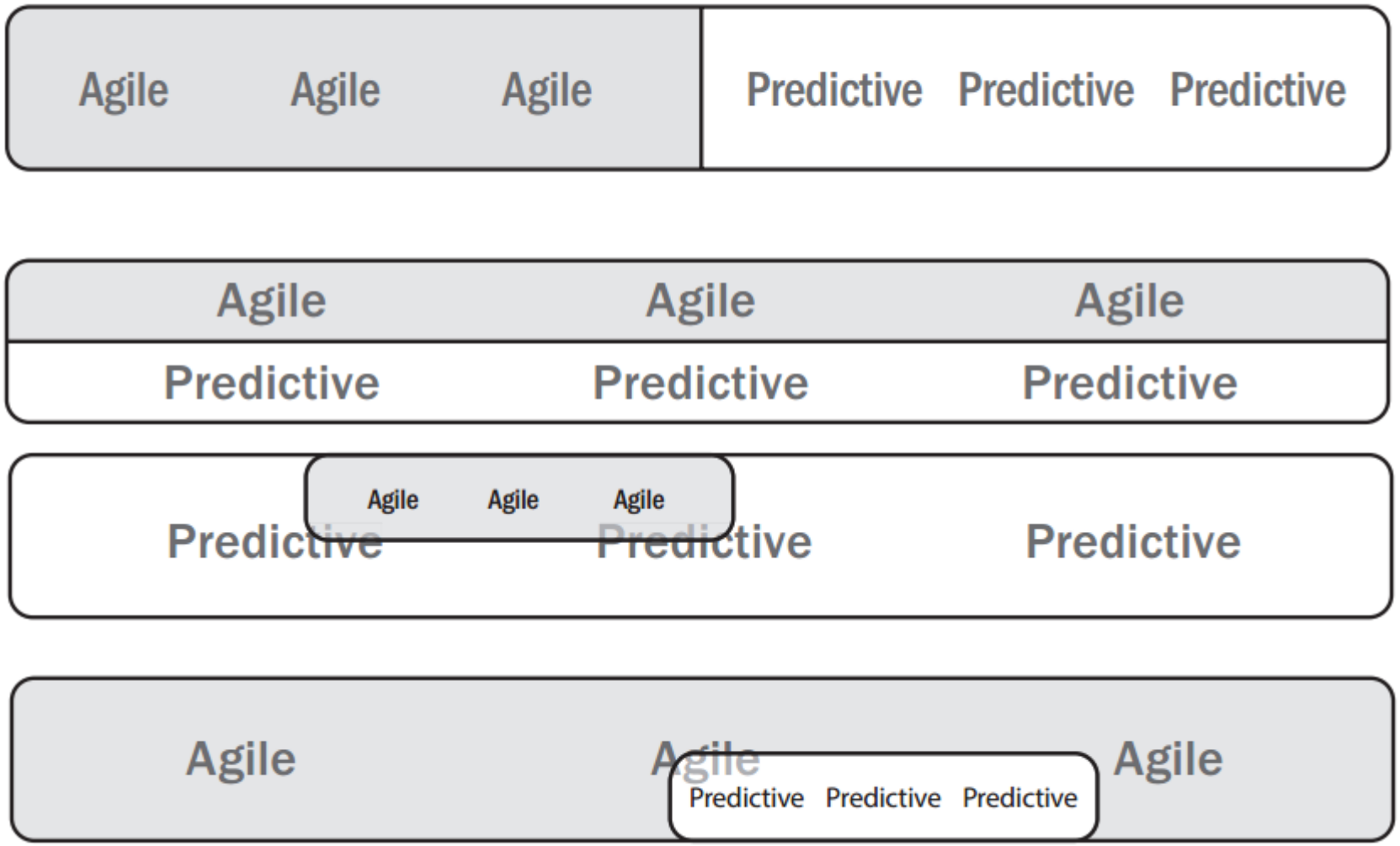
NOTE: Each timebox is the same size. Each timebox results in working tested features.

Flow-Based Agile

Requirements Analysis Design Build Test the number of features in the WIP limit	Requirements Analysis Design Build Test the number of features in the WIP limit	Requirements Analysis Design Build Test the number of features in the WIP limit	Repeat as needed ...	Requirements Analysis Design Build Test the number of features in the WIP limit	Requirements Analysis Design Build Test the number of features in the WIP limit

NOTE: In flow, the time it takes to complete a feature is not the same for each feature.

Any type can work

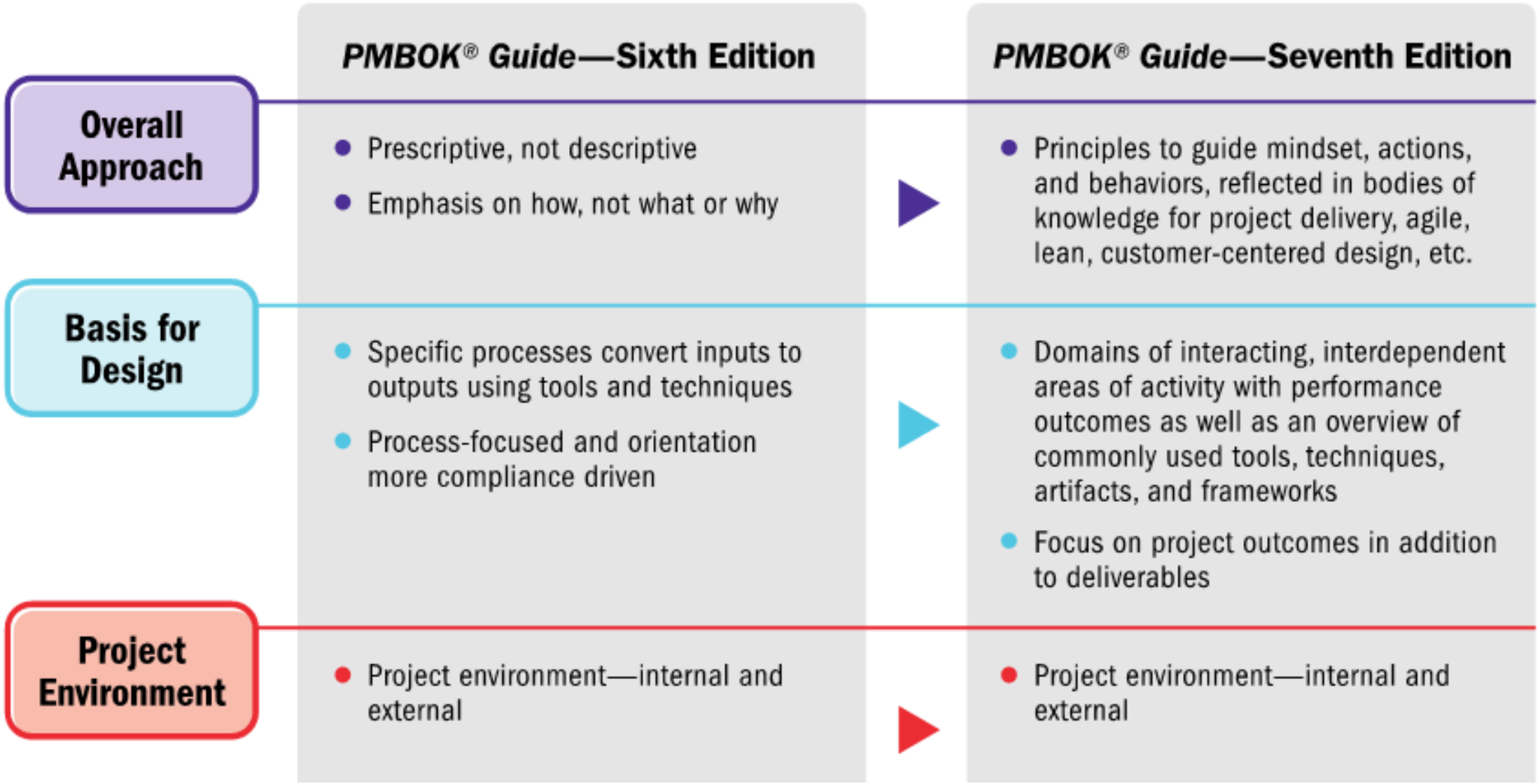


Standards for Project Management

- ISO 21500: 2012, Guidance on project management
- ISO 21503: 2017, Guidance on programme management
- ISO 21504: 2015, Guidance on portfolio management
- ISO 21505: 2017, Guidance on governance
- ISO TR 21506: 2018, Project management vocabulary
- ISO 21508:2018, Earned value management
- ISO 21511:2018, Work breakdown structure

PMBOK v6 to PMBOK v7

Changes from the PMBOK Guide - Sixth Edition to the Seventh Edition 1/2



Changes from the PMBOK Guide - Sixth Edition to the Seventh Edition 2/2

Project Performance Domain PMBOK v7

is defined as a group of related activities that are critical for the effective delivery of project outcomes.

- Stakeholder
- Team
- Development Approach & Life Cycle
- Planning
- Project Work
- Delivery
- Measurement
- Uncertainty

Project Delivery Principles PMBOK v7

1) **Stewardship**: Be a diligent, respectful, and caring steward.
2) **Team**: Build a culture of accountability and respect.
3) **Stakeholders**: Engage stakeholders to understand their interests and needs.
4) **Value**: Focus on value.
5) **Holistic Thinking**: Recognize and respond to systems' interactions.
6) **Leadership**: Motivate, influence, coach, and learn.
7) **Tailoring**: Tailor the delivery approach based on context.
8) **Quality**: Build quality into processes and results.
9) **Complexity**: Address complexity using knowledge, experience, and learning.
10) **Opportunities & Threats**: Address opportunities and threats.
11) **Adaptability & Resilience**: Be adaptable and resilient.
12) **Change Management**: Enable change to achieve the envisioned future state.

What’s Next?

Certification

- PMI
  - PMP Project Management Professional
  - CAPM Certified Associate in Project Management
- AXELOS
  - PRINCE 2 PRoject IN Control Environment 2

Course

- PMF Project management Foundation(Workshop)
- PMP Exam Prep 5 Days with Workshop