




Agile Project Management

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Intro about me

- Raisul Kabir, co-founder of Brain Station 23 Ltd
- BUET EEE 2006, MBA EWU 2009, PMP 2012, CSM, CSPO
- Brain Station 23 is 700+ professionals company, 70% work from abroad
- In Bangladesh we have been working on MyGP, MyBL, CityTouch and like



Agile Project Management

- Agile way - Scrum
- Project Management - PMP

Agile Manifesto



Individuals and
interactions
over processes and tools



Working software
over comprehensive
documentation



Customer
collaboration
over contract negotiation



Responding to
change
over following a plan

Scrum Primer v2

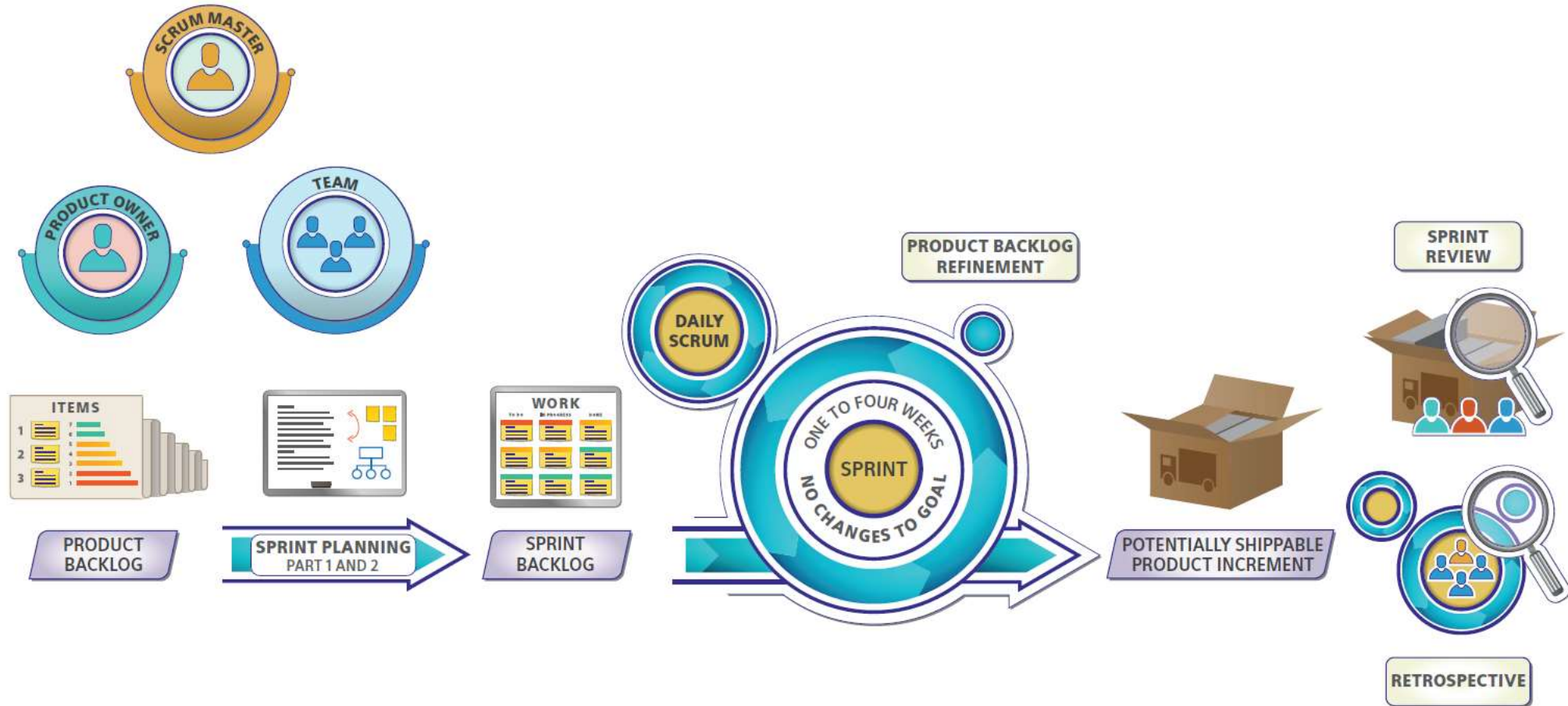


Figure 1. Scrum Overview

Scrum Roles

- Product Owner - identifying product features, translating these into a prioritized list
- The Team - builds the product that the Product Owner indicates
- ScrumMaster - helps the product group learn and apply Scrum to achieve business value.

Product Backlog

	New Estimates at Sprint ...								
Priority	Item	Details (wiki URL)	Initial Size Estimate	1	2	3	4	5	6
1	As a buyer, I want to place a book in a shopping cart (see UI sketches on wiki page)	...	5						
2	As a buyer, I want to remove a book in a shopping cart	...	2						
3	Improve transaction processing performance (see target performance metrics on wiki)	...	13						
4	Investigate solutions for speeding up credit card validation (see target performance metrics on wiki)	...	20						
5	Upgrade all servers to Apache 2.2.3	...	13						
6	Diagnose and fix the order processing script errors (bugzilla ID 14823)	...	3						
7	As a shopper, I want to create and save a wish list	...	40						
8	As a shopper, I want to to add or delete items on my wish list	...	20						

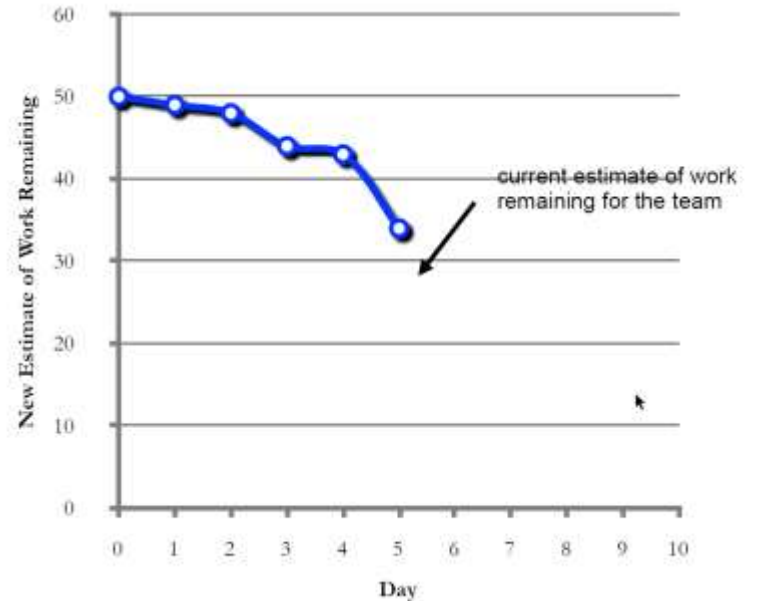
Sprint Planning

- Summary: A meeting to prepare for the Sprint, typically divided into two parts (part one is “what” and part two is “how”).
- Participants: Part One: Product Owner, Team, ScrumMaster. Part Two: Team, ScrumMaster, Product Owner (optional but should be reachable for questions)
- Duration: Each part is timeboxed to one hour per week of Sprint.

Product Backlog Item	Sprint Task	Volunteer	Initial Estimate of Effort	New Estimates of Effort Remaining at end of Day...					
				1	2	3	4	5	6
As a buyer, I want to place a book in a shopping cart	modify database		5						
	create webpage (UI)		8						
	create webpage (Javascript logic)		13						
	write automated acceptance tests		13						
	update buyer help webpage		3						
Improve transaction processing performance	merge DCP code and complete layer-level tests		5						
	complete machine order for pRank		8						
	change DCP and reader to use pRank http API		13						

Tracking Progress during the Sprint

Product Backlog Item	Sprint Task	Volunteer	Initial Estimate of Effort	New Estimates of Effort Remaining at end of Day...					
				1	2	3	4	5	6
As a buyer, I want to place a book in a shopping cart	modify database	Sanjay	5	4	3	0	0	0	
	create webpage (UI)	Jing	3	3	3	2	0	0	
	create webpage (Javascript logic)	Tracy & Sam	2	2	2	2	1	0	
	write automated acceptance tests	Sarah	5	5	5	5	5	0	
	update buyer help webpage	Sanjay & Jing	3	3	3	3	3	0	
...									
Improve transaction processing performance	merge DCP code and complete layer-level tests		5	5	5	5	5	5	
	complete machine order for pRank		3	3	8	8	8	8	
	change DCP and reader to use pRank http API		5	5	5	5	5	5	
...									
		Total	50	49	48	44	43	34	





Product Backlog Refinement


- Summary: Split big items, analyze items, re-estimate, and re-prioritize, for future Sprints.
- Participants: Team; Product Owner will attend the entire activity if they are the expert who can help with the detailed refinement, otherwise they may attend only a subset to set direction or re-prioritize; others who understand the requirements and can help the Team; ScrumMaster will attend during initial sessions to coach the group to be effective, otherwise may not attend.
- Duration: Usually, no more than 10% of the capacity of the Team for the Sprint, though it may be longer for “analysis heavy” items. For example, in a two-week Sprint, perhaps one day is spent on refinement.

Sprint Review

- Summary: Inspection and adaption related to the product increment of functionality.
- Participants: Team, Product Owner, ScrumMaster. Other stakeholders as appropriate, invited by the Product Owner.
- Duration: Timeboxed to one hour per week of Sprint.

Sprint Retrospective

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- Summary: Inspection and adaption related to the process and environment.
 - Participants: Team, ScrumMaster, Product Owner (optional). Other stakeholders may be invited by the team, but are not otherwise allowed to attend.
 - Duration: Timeboxed to 45 minutes per week of Sprint.
- 
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New Estimates at Sprint ...

Priority	Item	Details (wiki URL)	Initial Estimate	1	2	3	4
1	As a buyer, I want to place a book in a shopping cart (see UI sketches on wiki page)	...	5	0	0	0	
2	As a buyer, I want to remove a book in a shopping cart	...	2	0	0	0	
3	Improve transaction processing performance (see target performance metrics on wiki)	...	13	13	0	0	
4	Investigate solutions for speeding up credit card validation (see target performance metrics on wiki)	...	20	20	20	0	
5	Upgrade all servers to Apache 2.2.3	...	13	13	13	13	
6	Diagnose and fix the order processing script errors (bugzilla ID 14823)	...	3	3	3	3	
7	As a shopper, I want to create and save a wish list	...	40	40	40	40	
8	As a shopper, I want to to add or delete items on my wish list	...	20	20	20	20	

...

...

...

537

580

570

500

PMP process

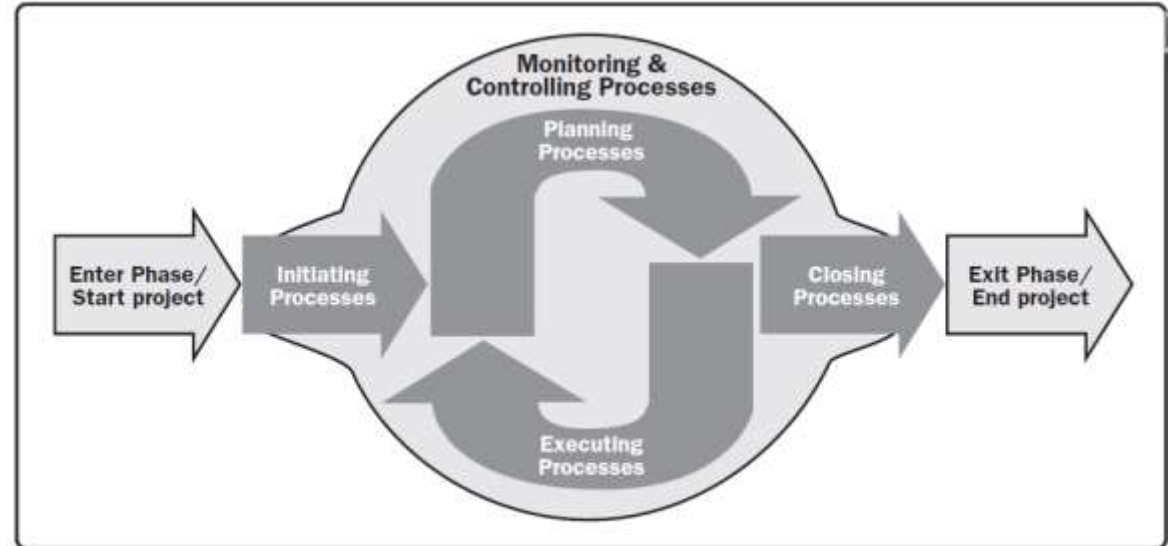
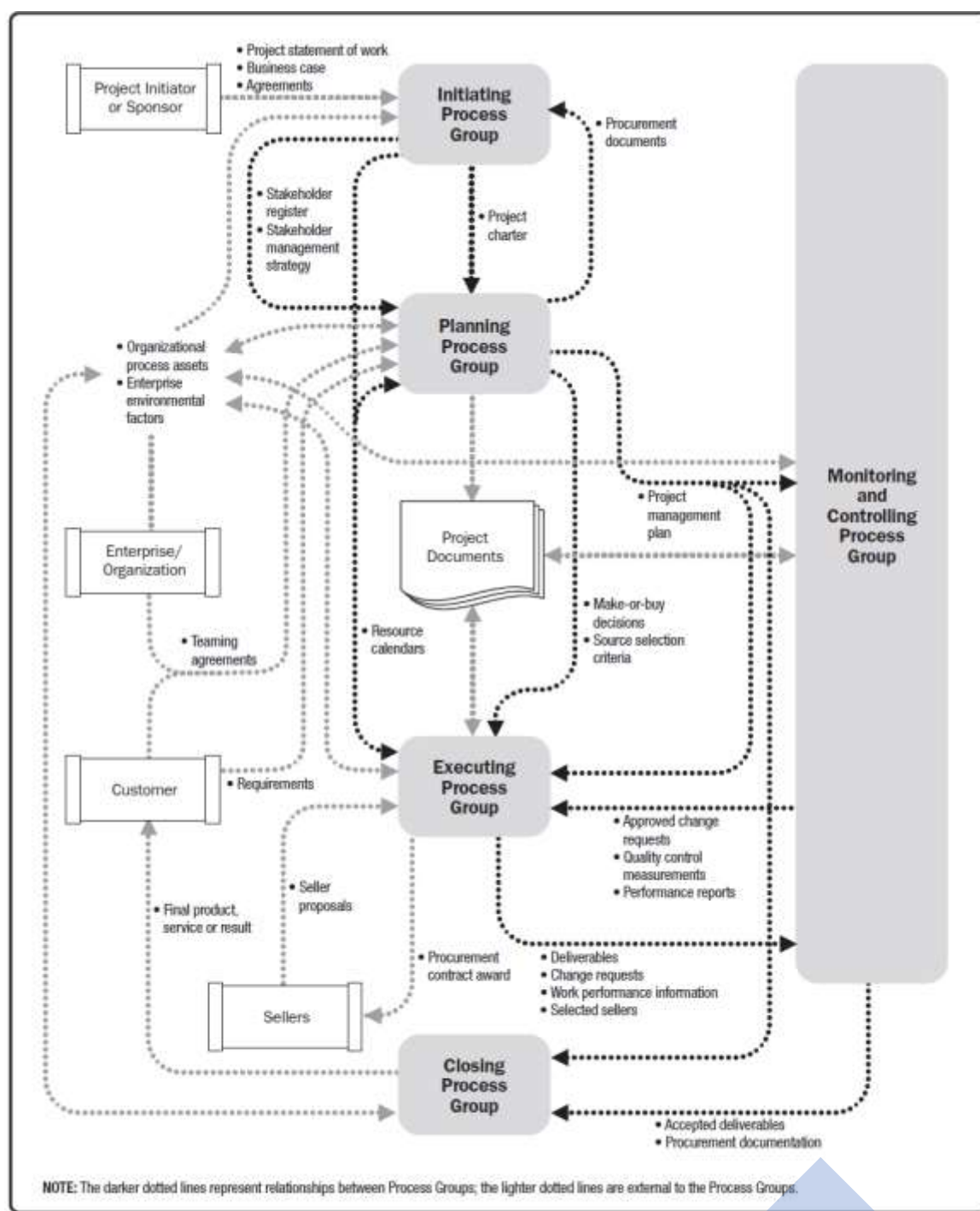


Figure 3-1. Project Management Process Groups



Knowledge Areas	Project Management Process Groups				
	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	

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	

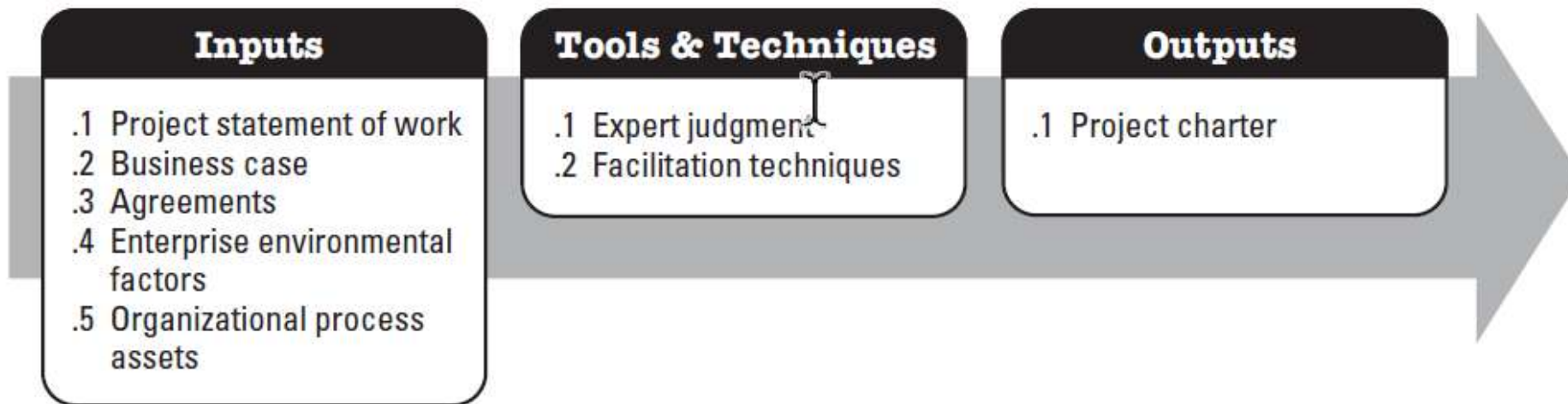


Figure 4-2. Develop Project Charter: Inputs, Tools and Techniques, and Outputs

Project Charter

- Project purpose or justification,
- Measurable project objectives and related success criteria
- High-level requirements,
- Assumptions and constraints,
- High-level project description and boundaries,
- High-level risks,
- Summary milestone schedule
- Summary budget
- Stakeholder list
- Project approval requirements (i.e., what constitutes project success, who decides the project is successful, and who signs off on the project)
- Assigned project manager, responsibility, and authority level, and
- Name and authority of the sponsor or other person(s) authorizing the project charte

4.2 Develop Project Management Plan



Figure 4-3. Develop Project Charter Data Flow Diagram

4.2.3.1 Project Management Plan

- Scope baseline (Section 5.4.3.1),
 - Schedule baseline (Section 6.6.3.1), and
 - Cost baseline (Section 7.3.3.1)
-
- Scope management plan (Section 5.1.3.1),
 - Requirements management plan (Section 5.1.3.2),
 - Schedule management plan (Section 6.1.3.1),
 - Cost management plan (Section 7.1.3.1),
 - Quality management plan (Section 8.1.3.1),
 - Process improvement plan (Section 8.1.3.2),
 - Human resource management plan (Section 9.1.3.1),
 - Communications management plan (Section 10.1.3.1),
 - Risk management plan (Section 11.1.3.1),
 - Procurement management plan (Section 12.1.3.1), and
 - Stakeholder management plan (Section 13.2.3.1).

5.4 Create WBS

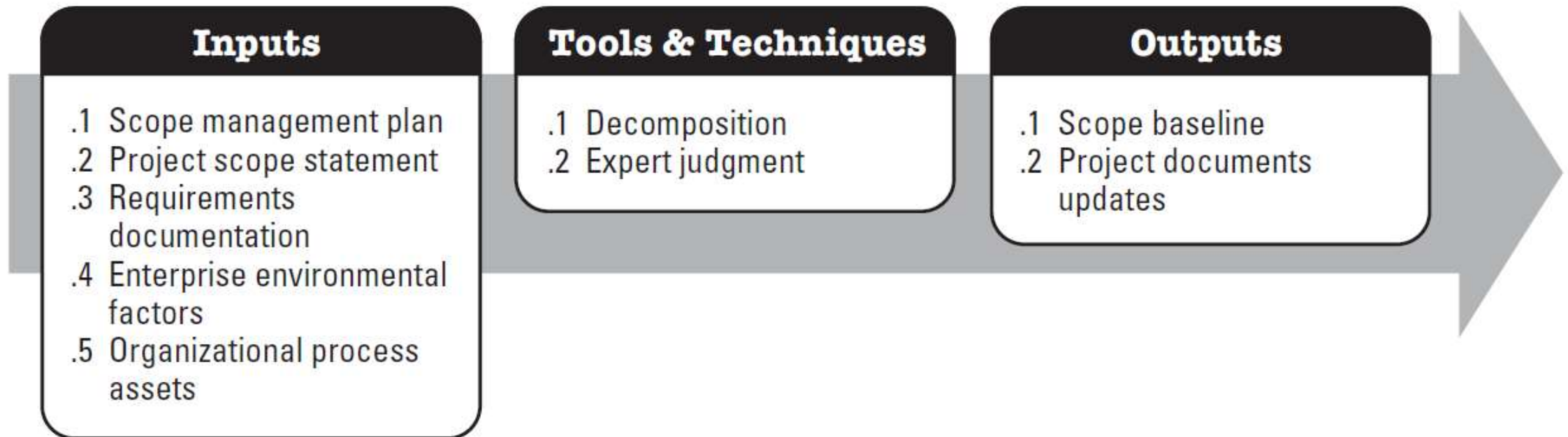
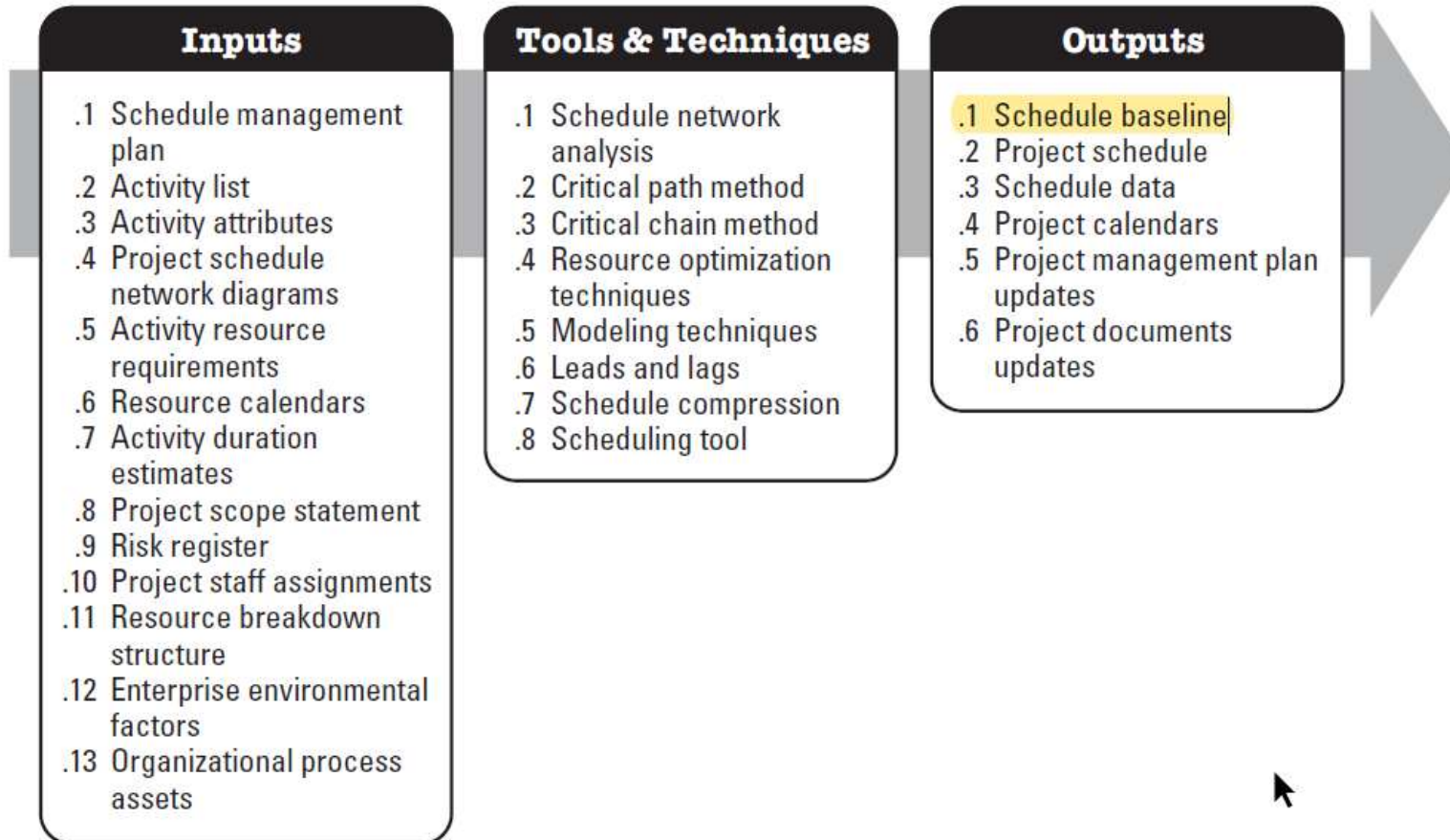
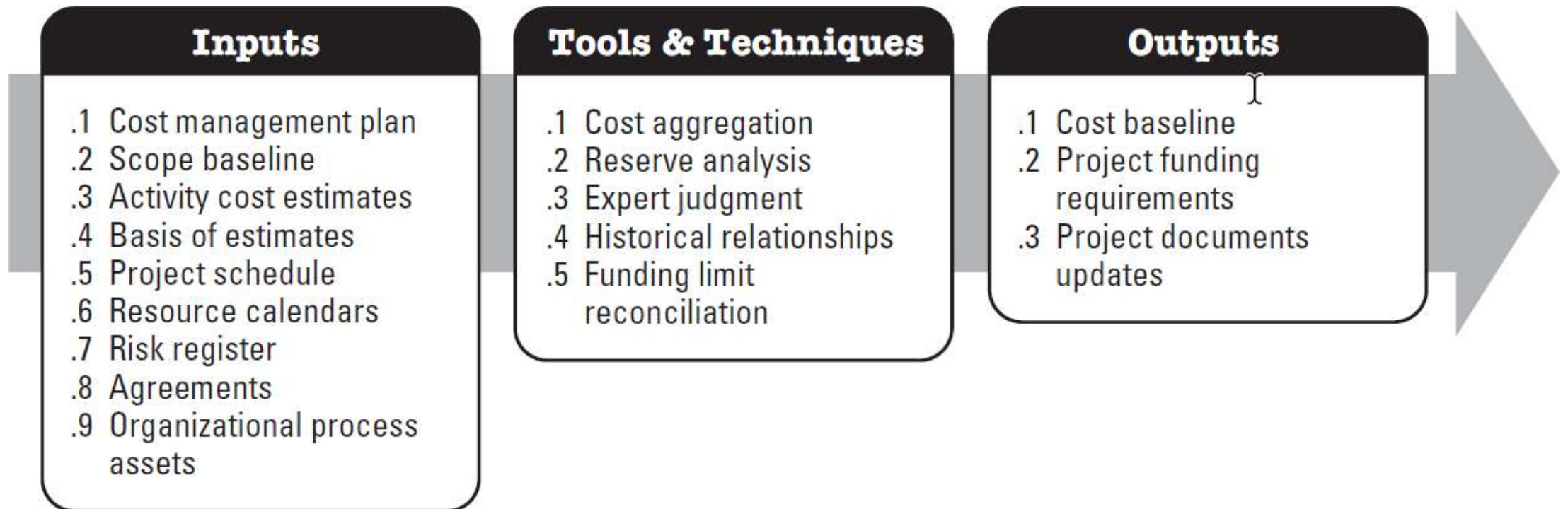


Figure 5-9. Create WBS: Inputs, Tools & Techniques, and Outputs

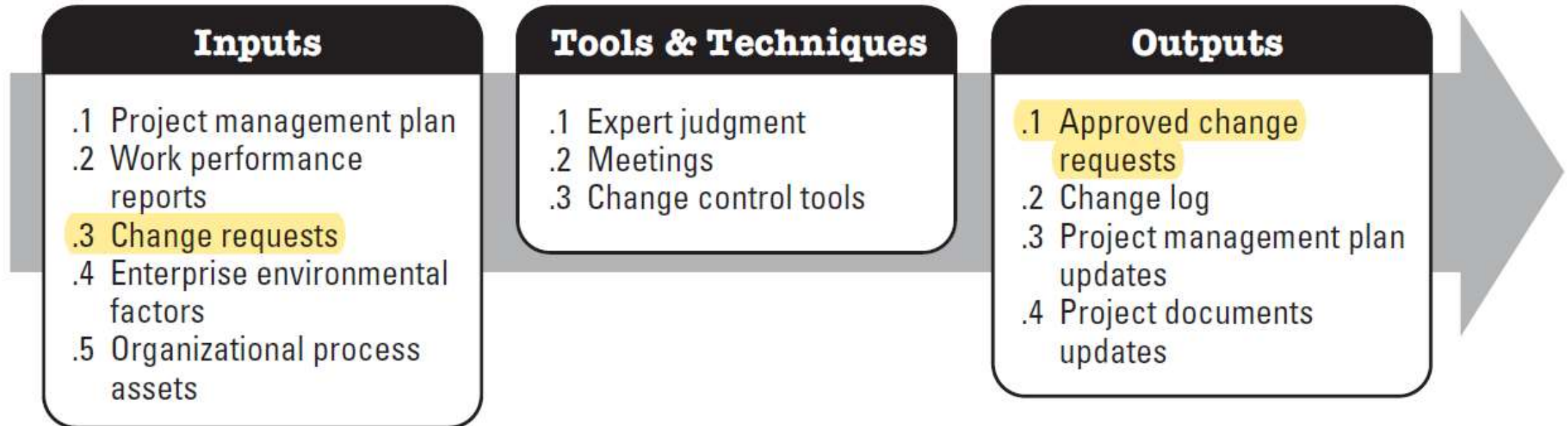
6.6 Develop Schedule



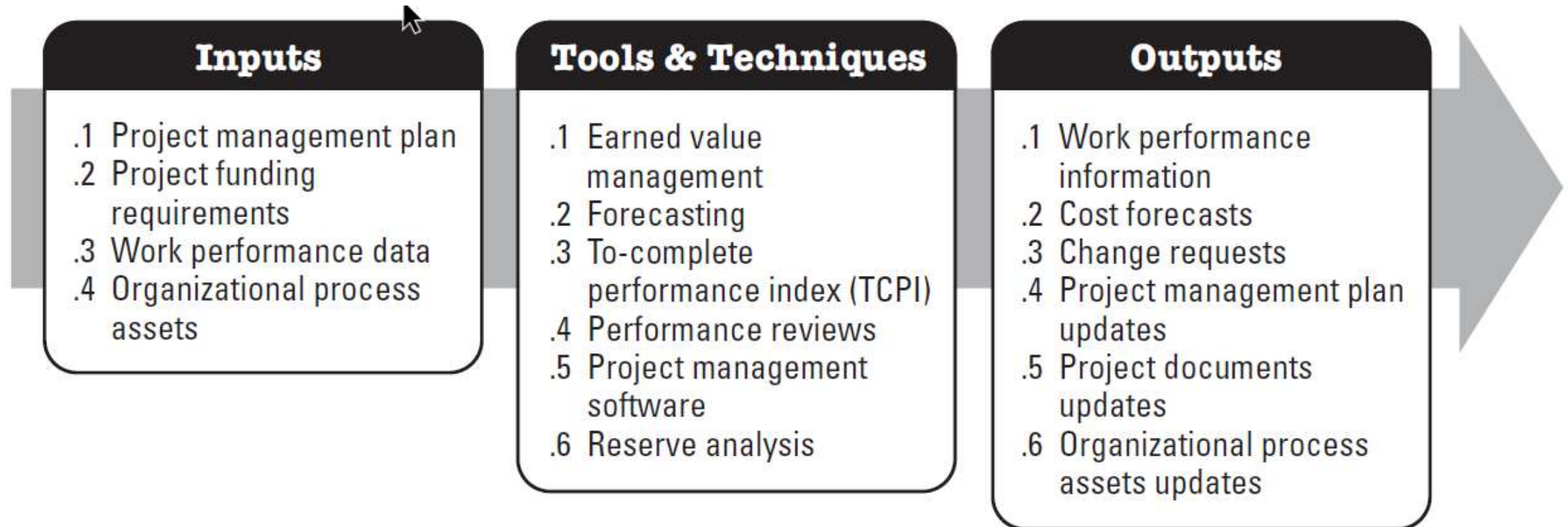
7.3 Determine Budget



4.5 Perform Integrated Change Control



7.4 Control Costs



7.4.2.1 Earned Value Management

- Planned value (PV) - is the authorized budget assigned to scheduled work.
- Earned value (EV) is a measure of work performed expressed in terms of the budget authorized for that work.
- Actual cost (AC) is the realized cost incurred for the work performed on an activity during a specific time period.

New Estimates at Sprint ...							
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2	As a buyer, I want to remove a book in a shopping cart	...	2	0	0	0	
3	Improve transaction processing performance (see target performance metrics on wiki)	...	13	13	0	0	
4	Investigate solutions for speeding up credit card validation (see target performance metrics on wiki)	...	20	20	20	0	
5	Upgrade all servers to Apache 2.2.3	...	13	13	13	13	
6	Diagnose and fix the order processing script errors (bugzilla ID 14823)	...	3	3	3	3	
7	As a shopper, I want to create and save a wish list	...	40	40	40	40	
8	As a shopper, I want to to add or delete items on my wish list	...	20	20	20	20	
...					
			537	580	570	500	

- If there are 5 person working for 3 sprint, 2 weeks each sprint
1. What is Planned Value?
 2. What is Earned Value?
 3. What is Actual Cost?

Thank you and Questions!