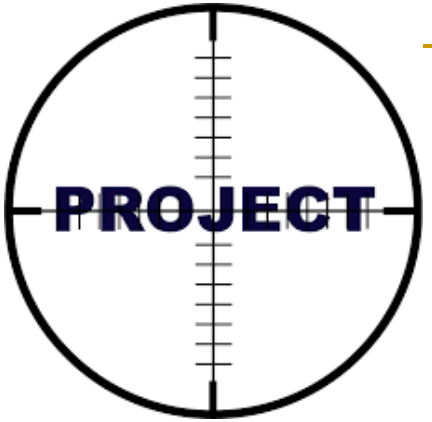
Seminar Pengurusan Projek JKR Malaysia
Date: 10-11 TH Oct 2017. Venue: IP JKR Malaysia K.Lumpur

TOWARDS EXCELLENT PROJECT DELIVERY:

Scoping…scoping..scoping



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Objectives

- Some overview on project management as in PMBOK the 6 th Edition
- Recognise the importance of ‘right for the first time’ in project scoping for project success
- Discover some opportunities for improvement and ways forward in project scoping

Presentation outlines

1. Project Management overview
2. Scope Management processes
3. Scoping for public projects in JKR
4. Case studies
5. Way forward in scope management

1. Project Management overview

PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK 6 th Edition)

PM = Science (49 processes in 10 Knowledge Areas) **+ Arts**

Project Management Functions / Knowledge Areas

Core Functions / Knowledge Areas

- Scope Mgmt
- Time Mgmt
- Cost Mgmt
- Quality Mgmt

Stakeholders / Clients Needs / Requirements and Expectations

- Initiation
- Planning
- Implementation
- Monitoring & Control
- Closing

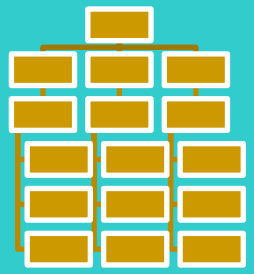
Project Integration Management

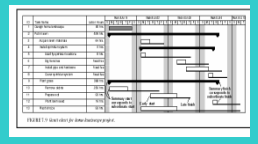
Project Success

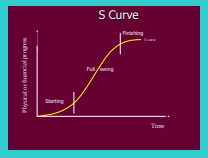
Facilitating Functions / Knowledge Areas

- HR Mgmt
- Comm Mgmt
- Risk Mgmt
- Procure. Mgmt
- S.holder Mgmt

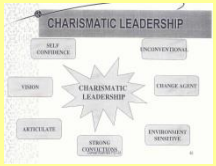
Project Tools & Templates







Project Manager Skills and Experience



- Negotiation
- Communication
- Leadership
- Motivation
- Teambuilding
- Conflict Management
- Delegation
- Decision making
- Problem solving,etc

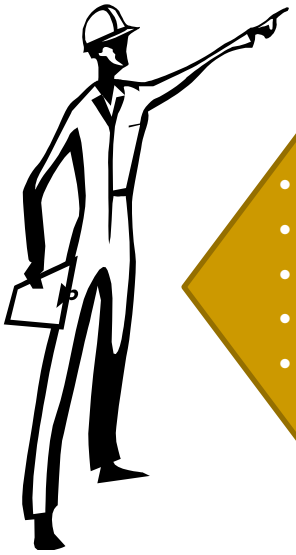
Table 1-1. Project Management Process Group and Knowledge Area Mapping

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 Manage Project Knowledge	4.5 Monitor 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		6.6 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 Manage Quality	8.3 Control Quality	
9. Project Resource Management		9.1 Plan Resource Management 9.2 Estimate Activity Resources	9.3 Acquire Resources 9.4 Develop Team 9.5 Manage Team	9.6 Control Resources	
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 Responses	11.7 Monitor Risks	
12. Project Procurement Management		12.1 Plan Procurement Management	12.2 Conduct Procurements	12.3 Control Procurements	
13. Project Stakeholder Management	13.1 Identify Stakeholders	13.2 Plan Stakeholder Engagement	13.3 Manage Stakeholder Engagement	13.4 Monitor Stakeholder Engagement	

Role of a Project Manager

- Project issues
- Disseminating project information
- Mitigating project risk
- Quality
- Managing scope
- Metrics
- Managing the overall work plan

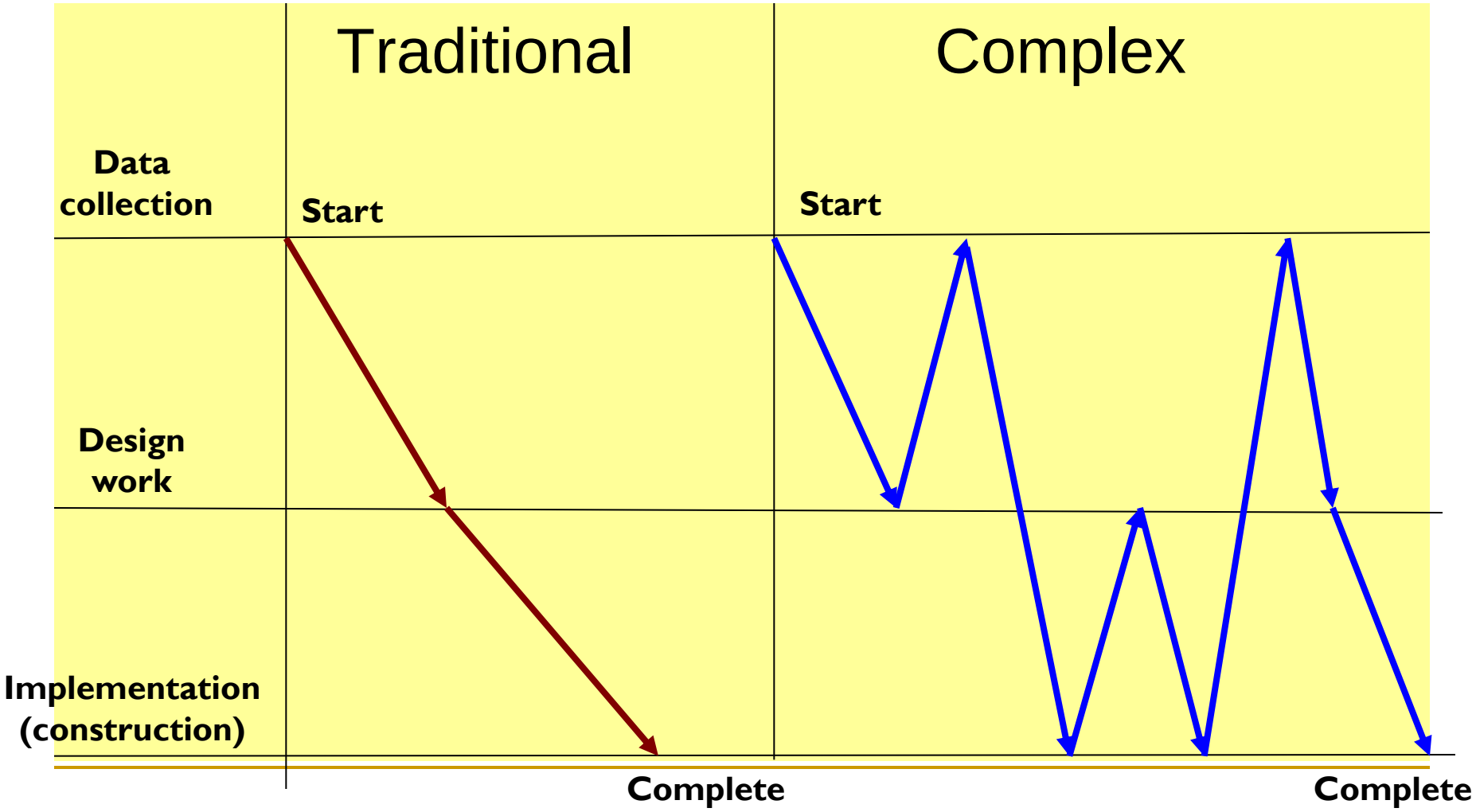
Process Responsibilities



- Implementing standard processes
- Establishing leadership skills
- Setting expectations
- Team building
- Communicating skills

People Responsibilities

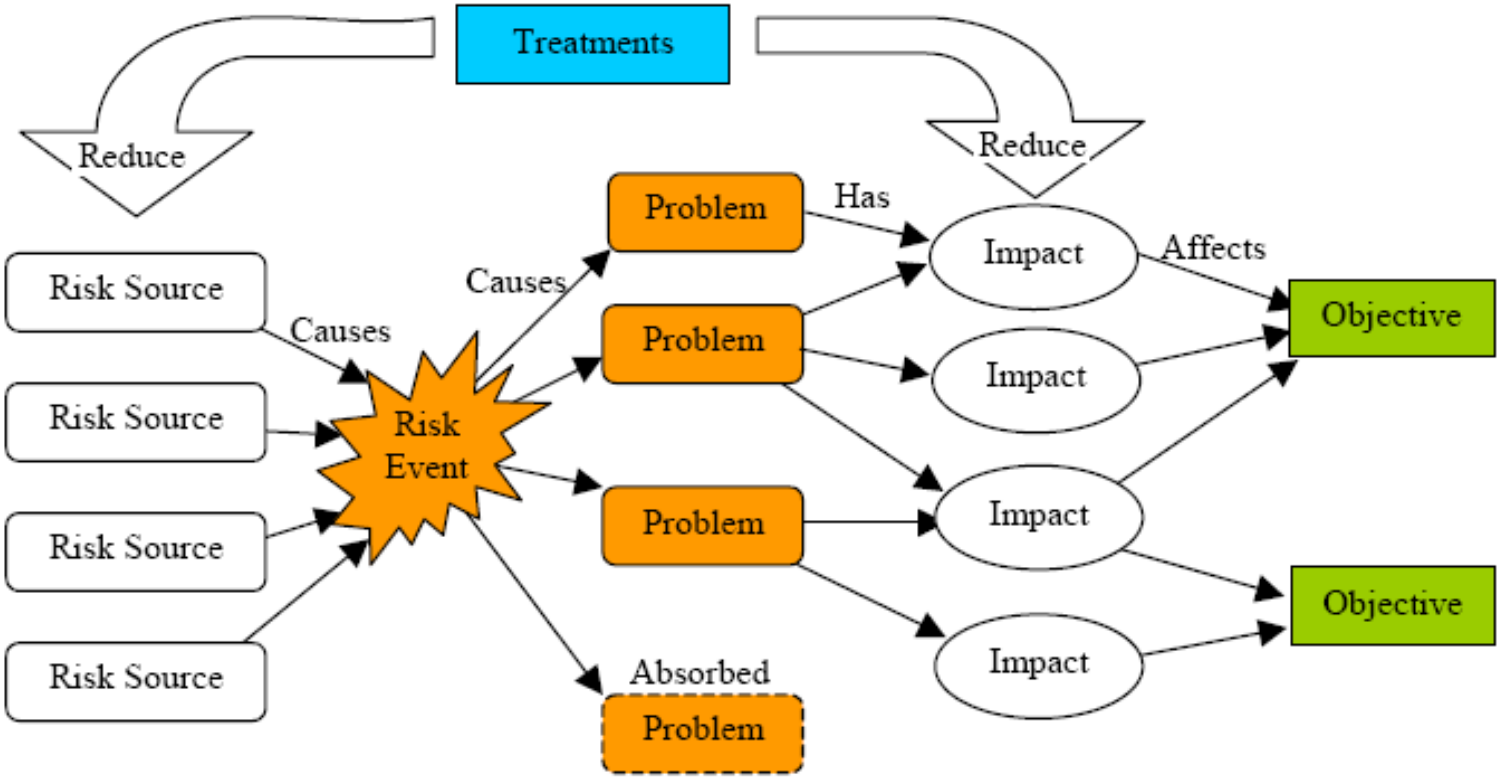
Traditional vs Complex projects



Project Complexity….generally due to:

- Multidiscipline organisational environments
- Complex lines of communication
- Conflicting priorities characteristics of matrix relationships
- Heavy political influences
- Changing of scopes in big scale across the project life cycle
- Locational difficulty of projects
- Others

- Risk events give rise to problems, some of which may be absorbed or accommodated, but others have impacts that affect project objectives. Naturally, there is seldom a one to one relationship.

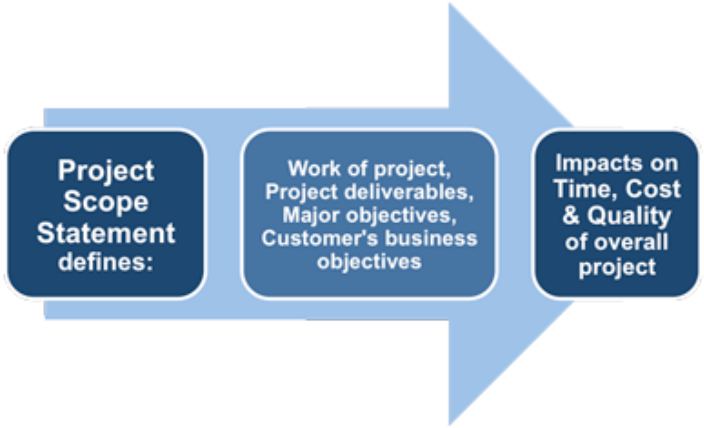


Risks have sources and impact objectives

Risk event

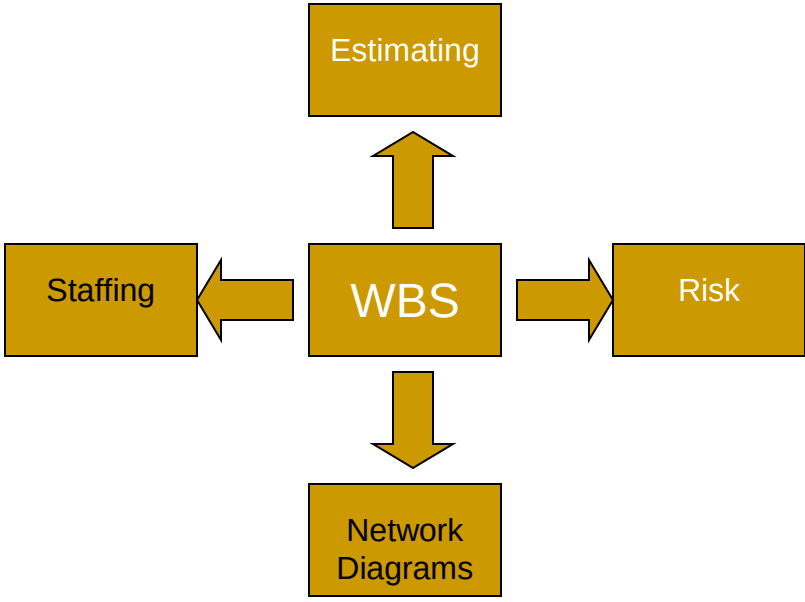
- Risks are significant uncertainties about outcomes.
- Uncertainty – 2 dimensions
  - likelihood of risk event occurring
  - extent of its consequences
- Different domains, different terms
  - Security – ‘threat’
  - OS&H and environment – ‘hazard’
  - Project – ‘risk event’
- Always important to understand the sources of risk events

2. Scope management processes



Scope Management Key Points

- **What is scope management**
  - **Checking to ensure that one is completing work**
  - **Saying No to additional work not in the charter**
  - **Preventing extra work/gold plating**
- **Work Breakdown Structure (WBS)**
  - **Foundation of the project, all planning and controlling is based on the WBS**
  - **Identifies all work to be performed, if it is not in the WBS it does not need to be done**
  - **Graphical picture of work**



Scope Management

- Project Scope Management is the process to ensure that the project is inclusive of all the work required, and only the work required, for successful completion.
- Primarily it is the definition and control of what ***IS*** and ***IS NOT*** included in the project.

Uncertainty

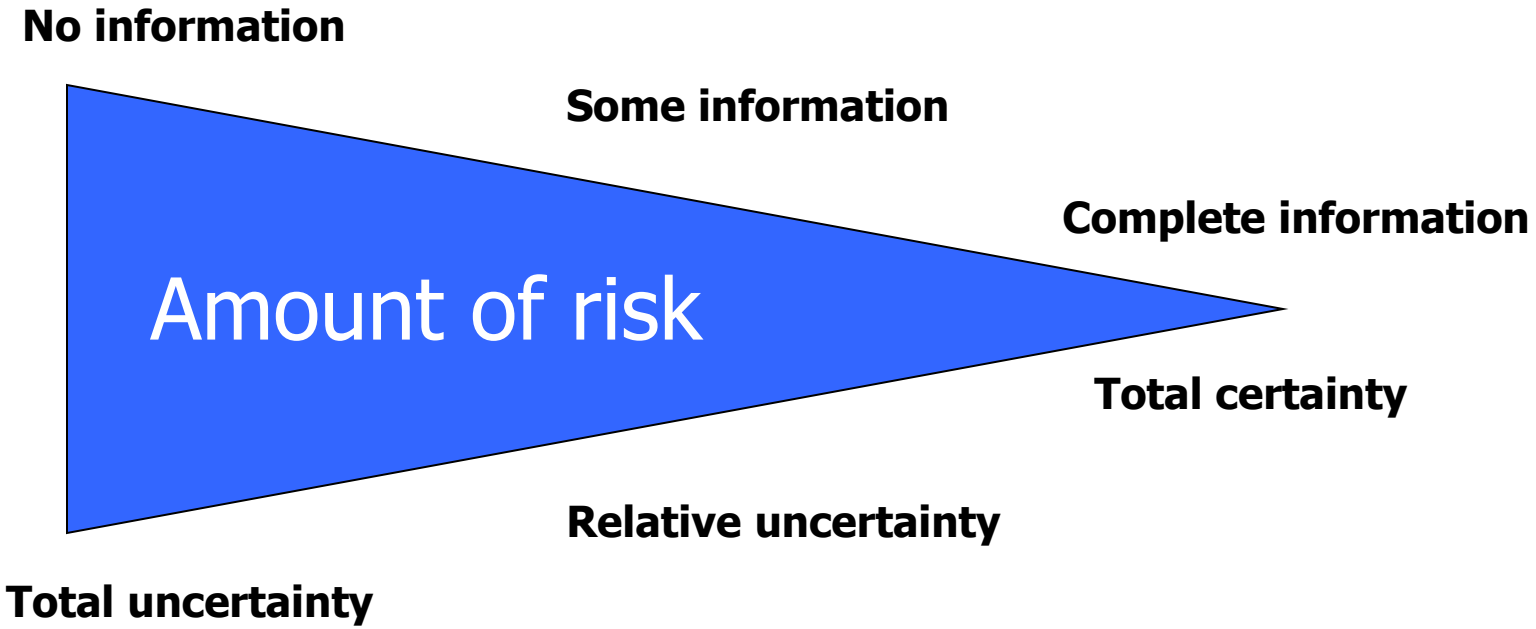
Uncertainty is defined as the absence of:

- Information
- Knowledge and skill
- Understanding regarding the outcomes of action, decision or event.

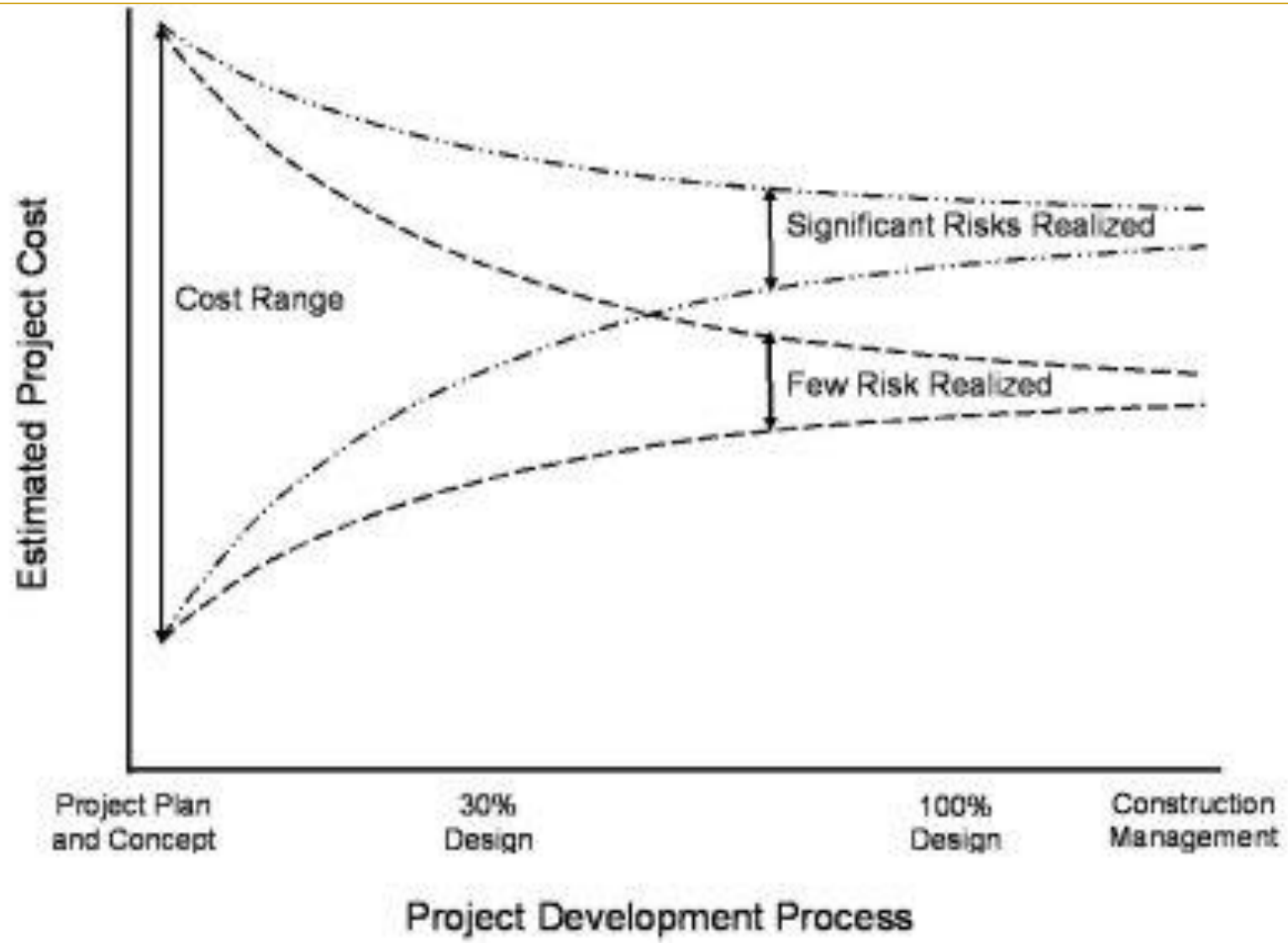
Risk and uncertainty

- Risk is the measure of the amount of uncertainty.
- In project management, risk relates to the extent of your ability to predict a particular outcome with certainty

Relationship of risks, information and uncertainty

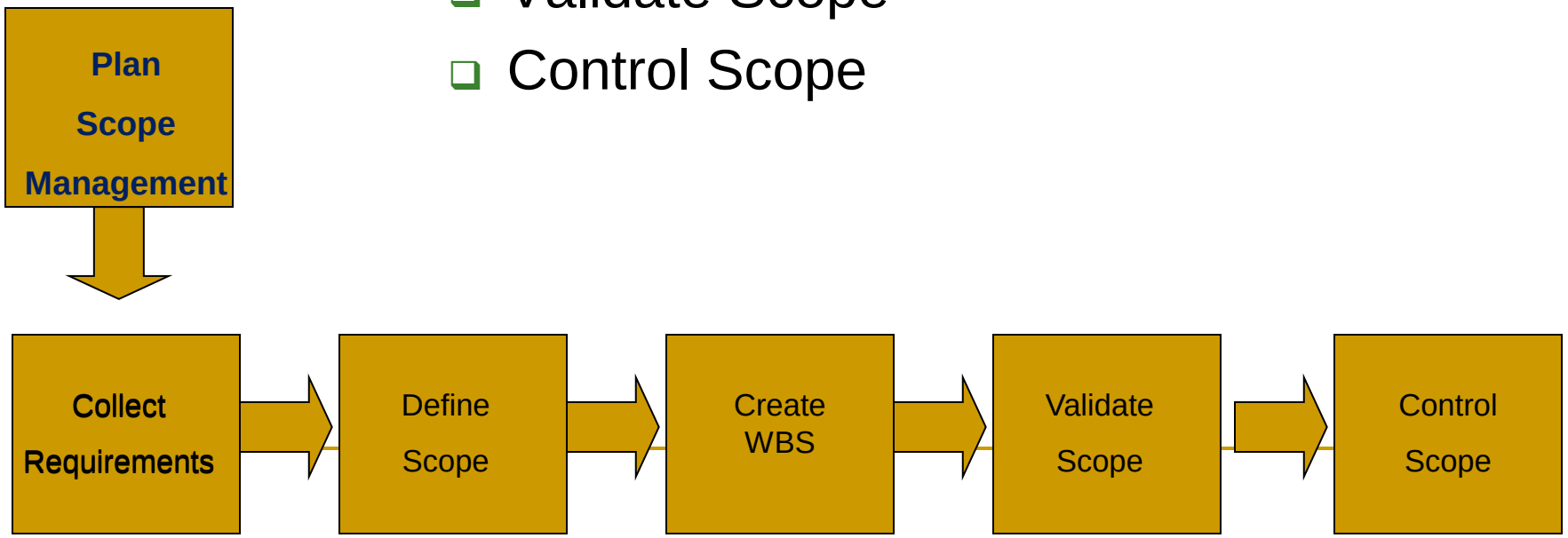


Conceptual refinement of a cost estimate



How Do We Manage Scope?

- Six (6) processes (in PMBOK 6th Edition)
  - Plan Scope Management
  - Collect Requirements
  - Define Scope
  - Create WBS
  - Validate Scope
  - Control Scope



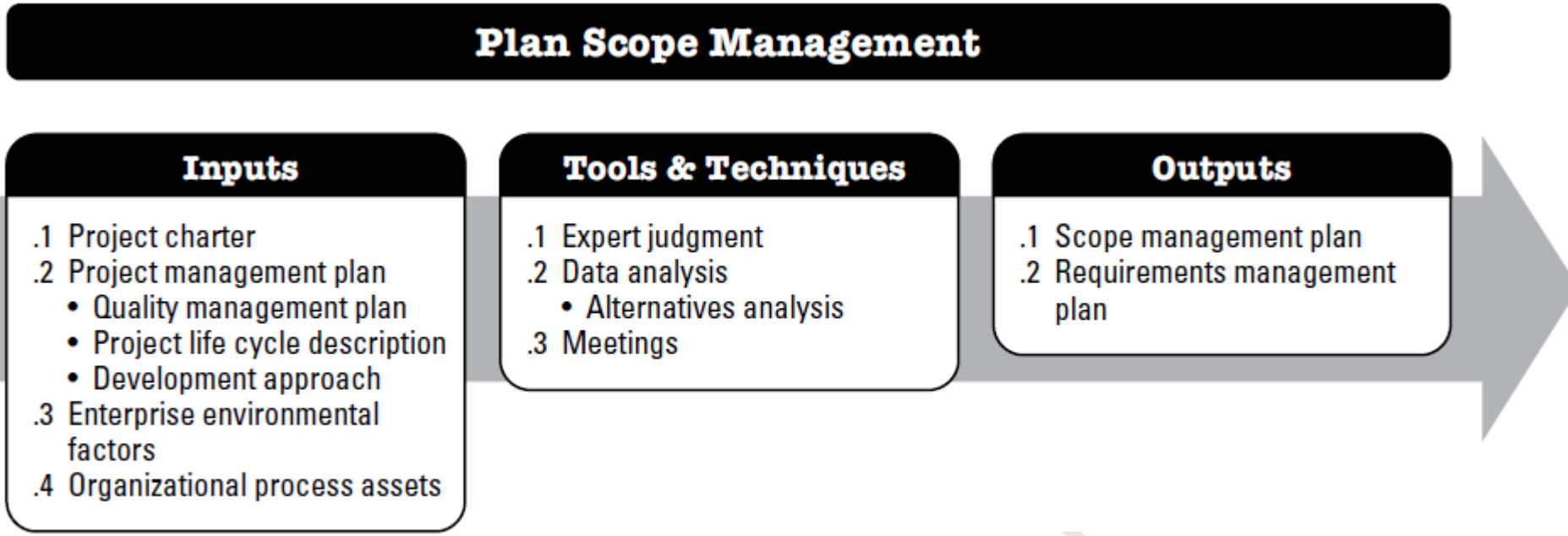


Figure 5-2. Plan Scope Management: Inputs, Tools & Techniques, and Outputs

Collect Requirements

Inputs

.1 Project charter
.2 Project management plan
- Scope management plan
- Requirements management plan
- Stakeholder engagement plan

.3 Project documents
- Assumption log
- Lessons learned register
- Stakeholder register

.4 Business documents
- Business case

.5 Agreements
.6 Enterprise environmental factors
.7 Organizational process assets

Tools & Techniques

.1 Expert judgment
.2 Data gathering
- Brainstorming
- Interviews
- Focus groups
- Questionnaires and surveys
- Benchmarking

.3 Data analysis
- Document analysis

.4 Decision making
- Voting
- Multicriteria decision analysis

.5 Data representation
- Affinity diagrams
- Mind mapping

.6 Interpersonal and team skills
- Nominal group technique
- Observation/conversation
- Facilitation

.7 Context diagram
.8 Prototypes

Outputs

.1 Requirements documentation
.2 Requirements traceability matrix

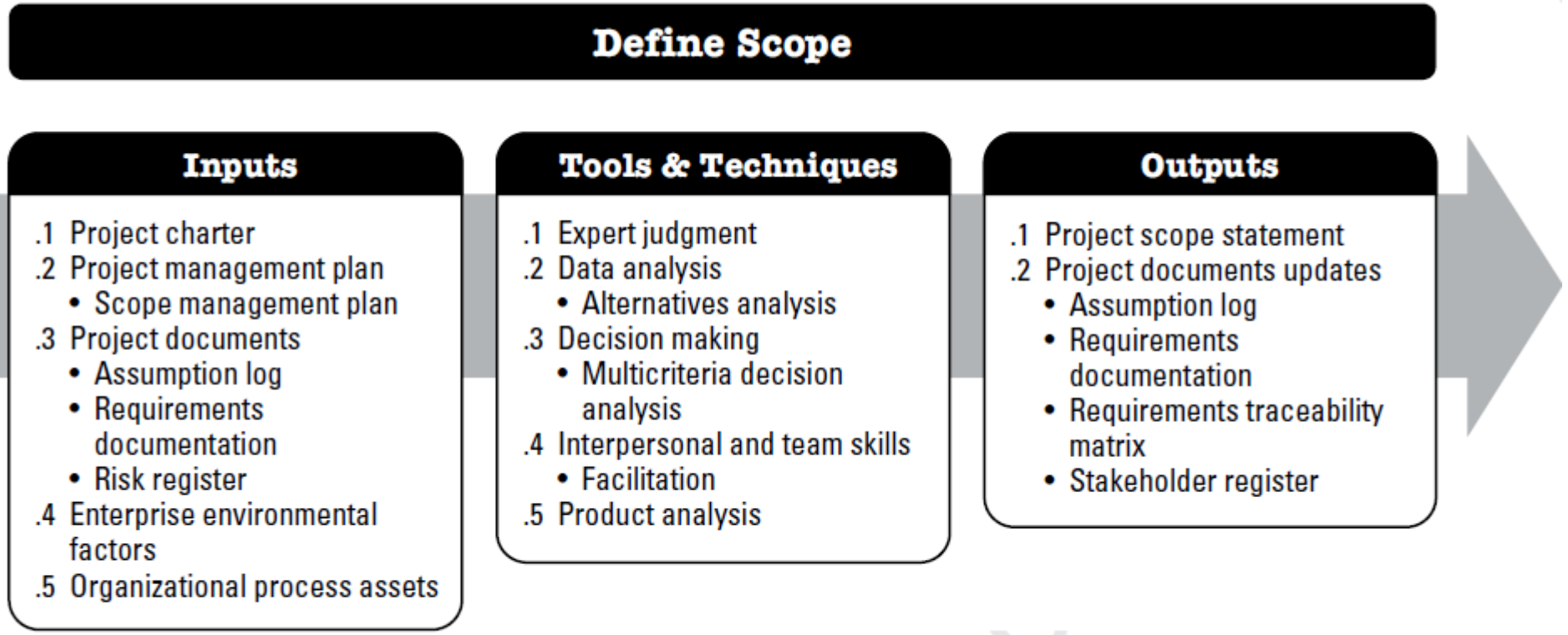


Figure 5-8. Define Scope: Inputs, Tools & Techniques, and Outputs

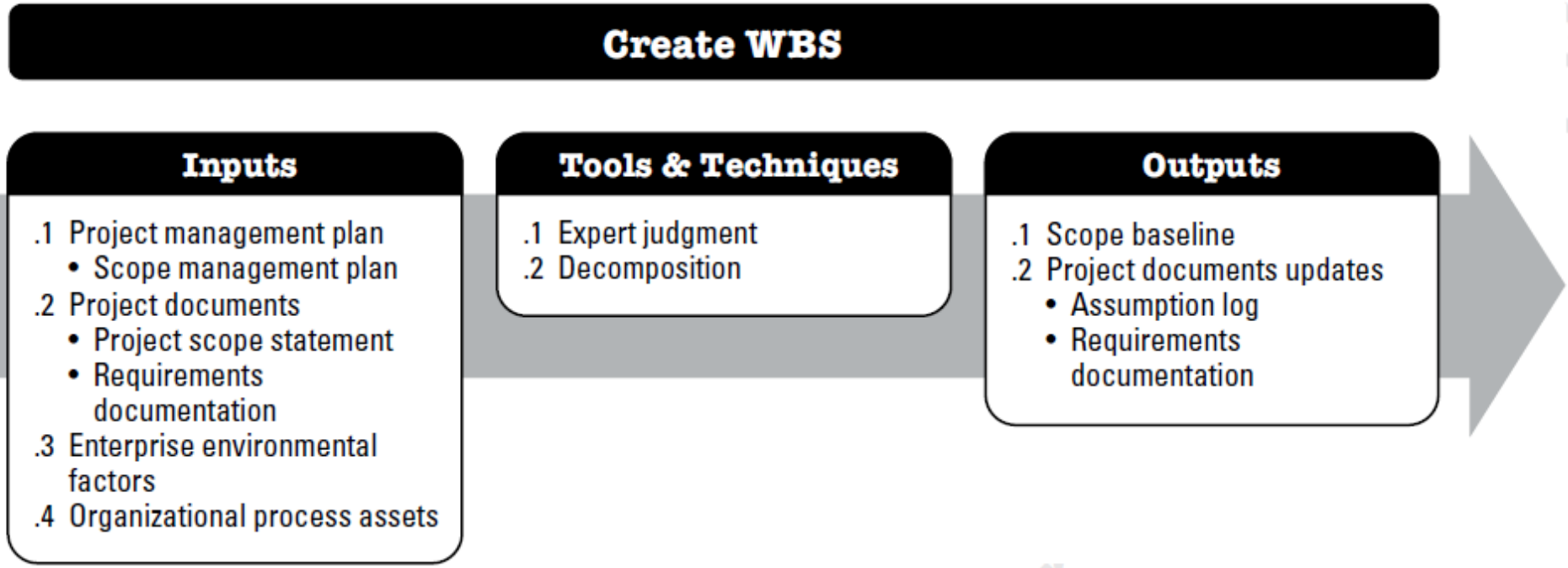


Figure 5-10. Create WBS: Inputs, Tools & Techniques, and Outputs

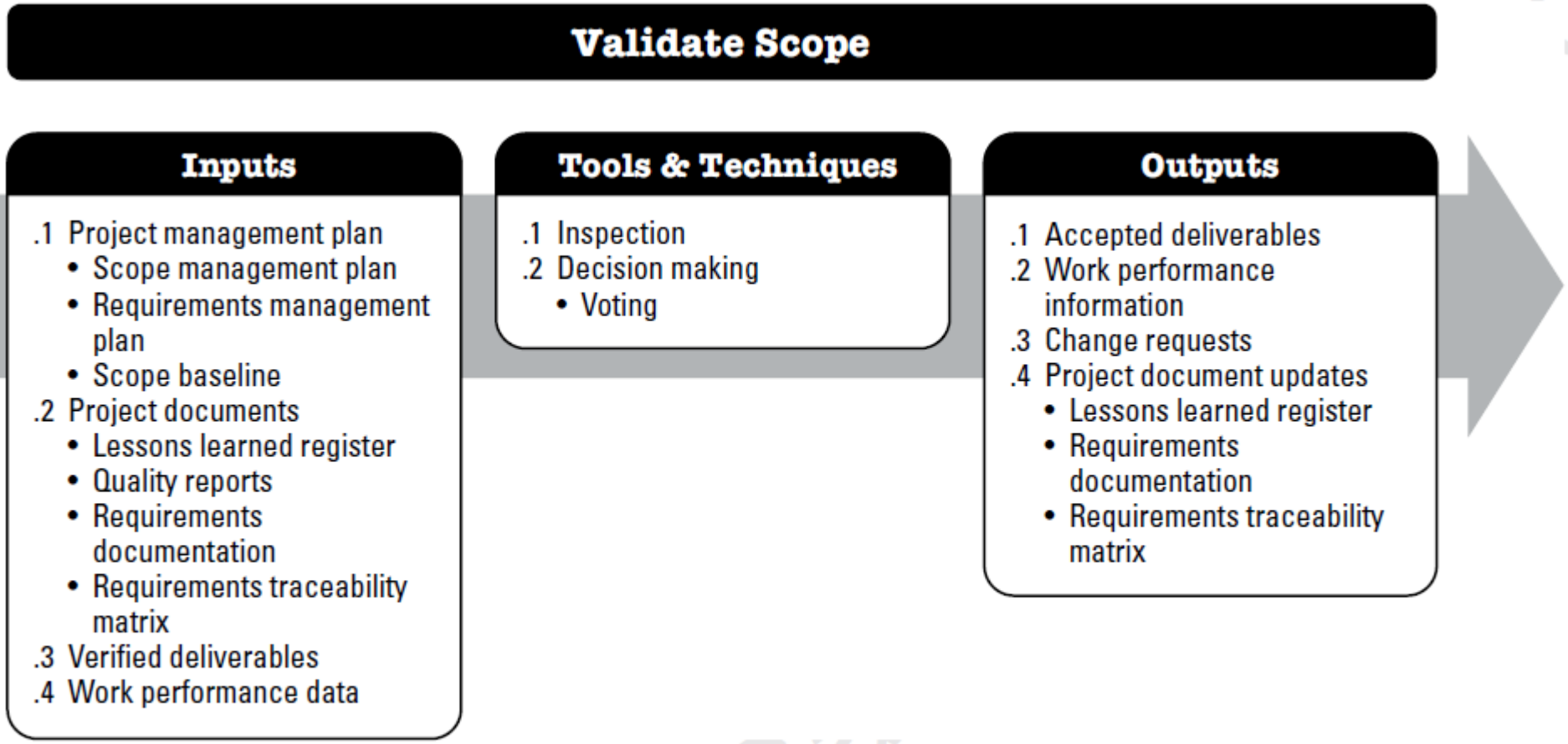


Figure 5-15. Validate Scope: Inputs, Tools & Techniques, and Outputs

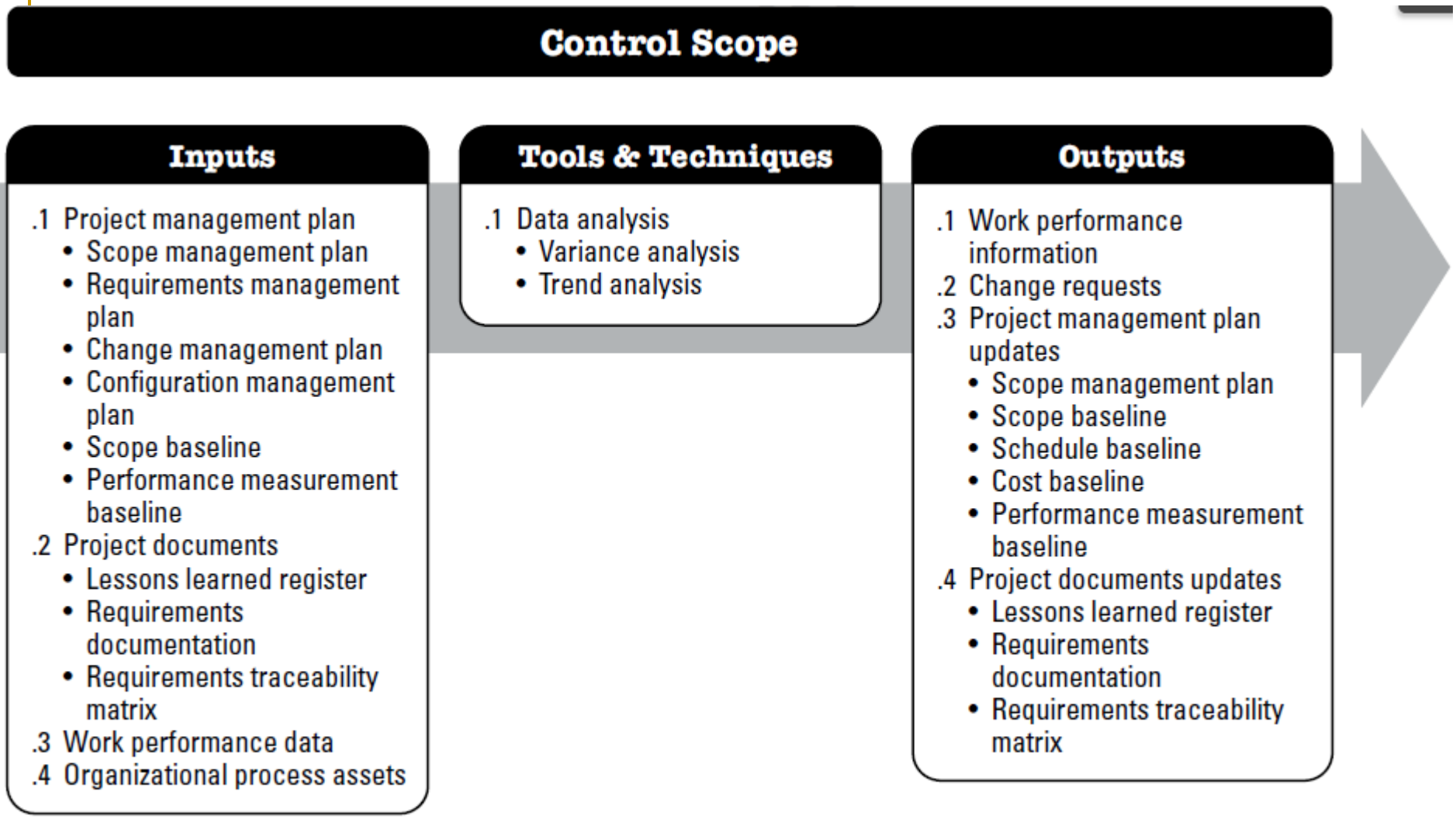
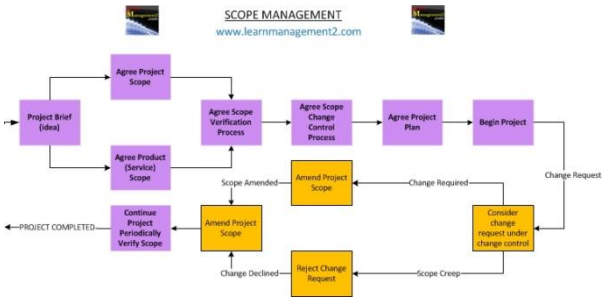


Figure 5-17. Control Scope: Inputs, Tools & Techniques, and Outputs

3. Scoping for Public projects in JKR



Scope v Time & Cost

Time and cost are outputs of scope.

Defining the scope - developing a common understanding as to what is included in (inclusions), or excluded (exclusions) from, a project.

Scope changes caused grief. Scope is bound to change, and this is to be expected. As the detail becomes clearer, more complications creep in.

Scoping, scoping, scoping

1. **Scoping**….strategic scope (client's project Brief)

2. **Scoping**….JKR concept design (design brief)

3. **Scoping**….detailed design (every discipline)

PERANCANGAN – KETERSEDIAAN PROJEK & PRA KONTRAK

1. Kesediaan projek utk dilaksana (project readiness)

Gpanduan RMK11
UPE, JPM
- Skop, brif, tanah, bajet & lulus VA (tanah–selesai PBT)

Tempoh masa – perlu dipendekkan

2. Pra Kontrak

i) **Perancangan**

Iteration 1
- Ukur tanah & SI
- Muktamad skop
- Lulus RB Konsep
- Anggaran kos PDA
- VE & ***GO / No GO***

ii) **Rekabentuk (RB)**
- **Awalan**
- **Terperinci**

Iteration 2
- RB Awalan
- Kelulusan PBT
- RB Terperinci
- Anggaran terperinci (anggaran vs Siling)
- ***GO / No GO***

Iteration 3

iii) **Perolehan**
- Tender
- ATDA vs Siling
- ***GO / No GO***
- SST

PEMBINAAN DAN PENYERAHAN

2. Pasca Kontrak

i) Pembinaan

- Jadual – program kerja
- Kualiti
- Perubahan RB
- VO
- EOT
- Kos tambahan?
- Proses penamatan & tender semula

ii) Penyerahan

- Penyambungan utiliti
- T&C
- *Joint inspection*
- *DLP Management*
- *O&M*
- *As Built drawing*
- Sedia utk operasi (oleh penguna)

iii) Penutupan kontrak / projek

- *Certificate of Making Good Defects*
- *Statement of Final Account (SOFA)*
- *Final payment*
- *ACDA*
- *Lessons learned*

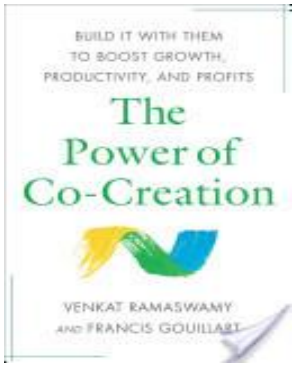
Tip

Rushing design jobs helps no one and mistakes can be made if a complex job is pushed through without time to review, however, there are times when a rush job is needed, and in these cases you should be honest and upfront about it.

4. Case studies on project Scoping

- to discuss some projects

5.Ways forward for improvement in Scope management



Opportunities for improvement

1. Enhance the competencies for Project Managers and team members (HOPTs, HODTs) in scope management.
2. JKR to enhance the Development Officers in Client Ministries in scoping for projects (Central Scoping office)
3. Enhance/redevelop project scoping process and workflow (project scoping template)
4. Get the benefit of Building Information Technology (BIM) for project visualisation and VM (VA and VE)

Thank You

for your attention