Quản lý dự án

Viện Công nghệ thông tin và truyền thông
Đại học Bách khoa Hà Nội

1. Giới thiệu

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1.1 Giới thiệu về bản thân

➢ Tên của bạn

➢ Tên công ty / tổ chức / nhóm

➢ Công việc

➢ Mục tiêu khóa học / Định hướng phát triển

➢ Sở thích

1.2 Dự án là gì

Định nghĩa về "Dự án"

➢ Dự án là một công việc có tính **tạm thời** và tạo ra một sản phẩm hoặc dịch vụ hoặc một kết quả nào đó có tính **đơn nhất**.

➢ Tạm thời : có vòng đời, có điểm bắt đầu và kết thúc

➢ Đơn nhất : con người mới, hoạt động mới, qui trình mới, sản phẩm mới... → rủi ro.

➢ Vậy cần làm gì?

➢ Dự án cần được quản lý để đáp ứng được các thay đổi có thể xảy ra

Ví dụ về một dự án

➢ Xây sân vận động
➢ Bài tập lớn môn học
➢ Chuyển chỗ ở
➢ Tiệc sinh nhật
➢ Làm bữa tối
➢ Săn gấu

1.3   Vậy còn dự án của bạn là gì

➢ Liệt kê một vài dự án bạn đã từng làm hoặc có trải nghiệm

_____

_____

_____

_____

_____

Xác xuất thành công

➢ Bạn nghĩ rằng có bao nhiêu % dự án IT thành công?

   ➢ 90% ?

   ➢ 70% ?

   ➢ 50% ?

   ➢ 30% ?

Điều gì tạo nên một dự án thành công

Dự án A	Dự án B
Bàn giao sản phẩm đúng hạn (Delivered the system by the date agreed on)	Lỡ hẹn bàn giao (Missed the deadline)
Phù hợp với ngân sách (Completed the project within budget)	Vượt kinh phí dự toán (Over budget)
Gần như không cần bảo trì (Almost never used after appreciation)	Duy trì thường trực trong 10 năm (Has been used over 10 years)

Dự án nào có khả năng thành công cao hơn?
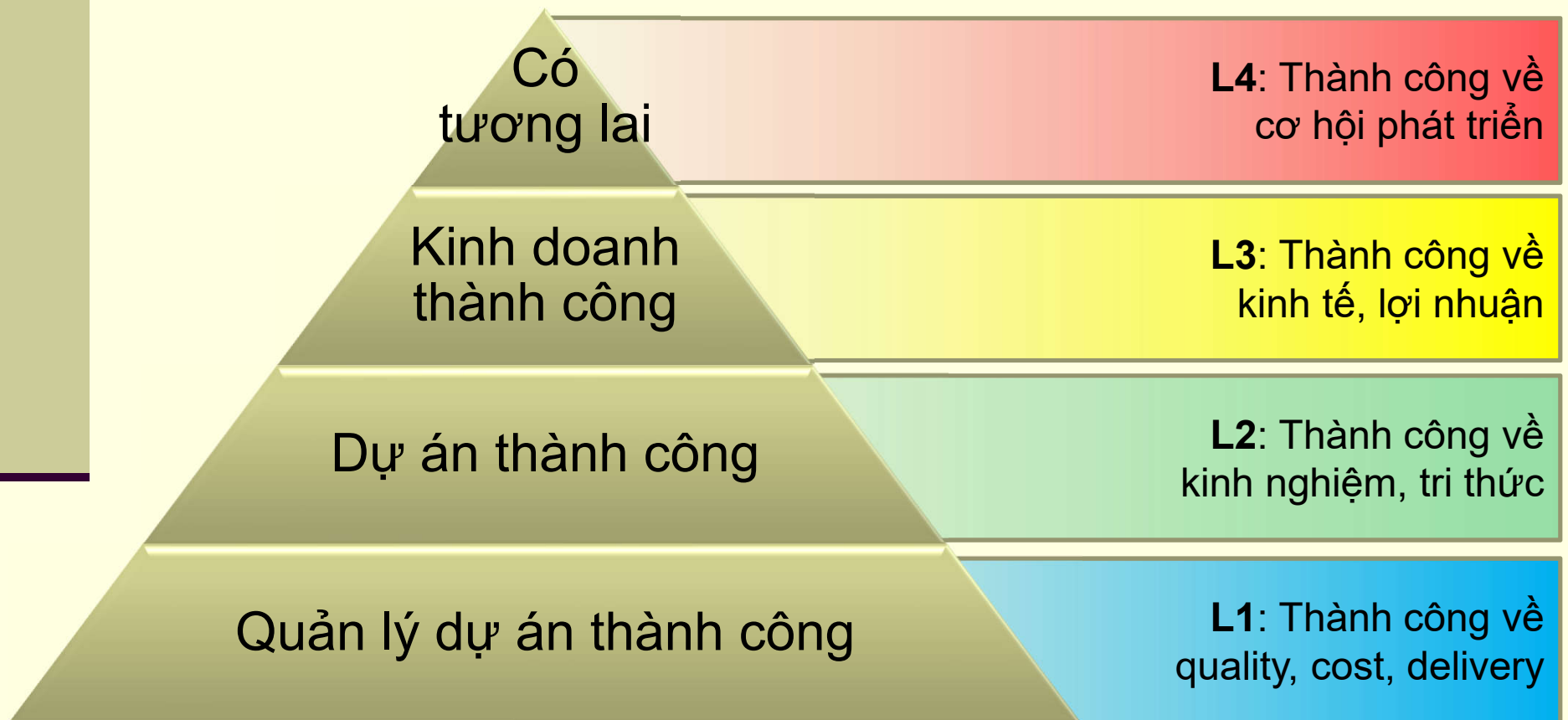
Dự án đường hầm nối Anh và châu Âu?

6....

1/3...
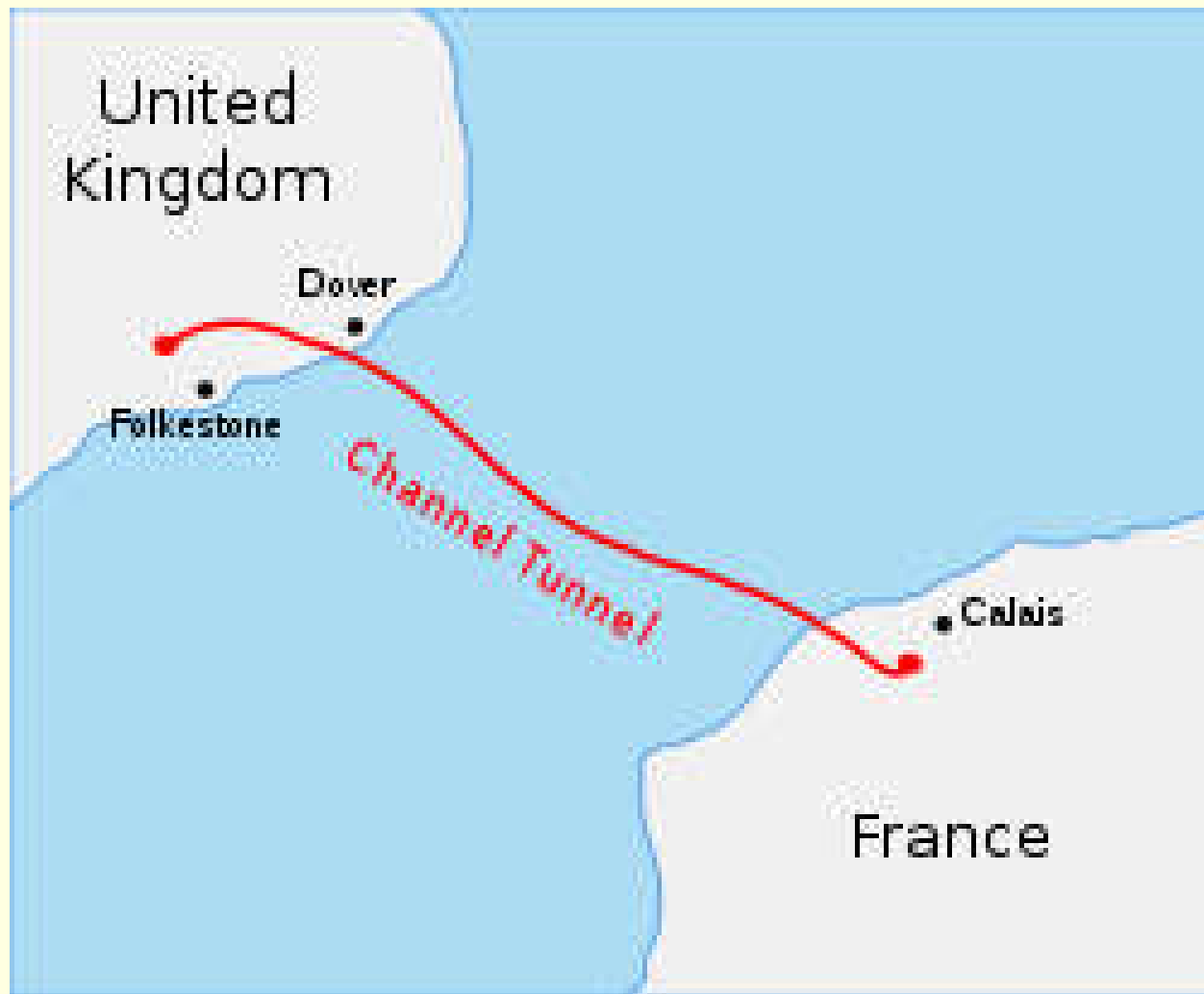
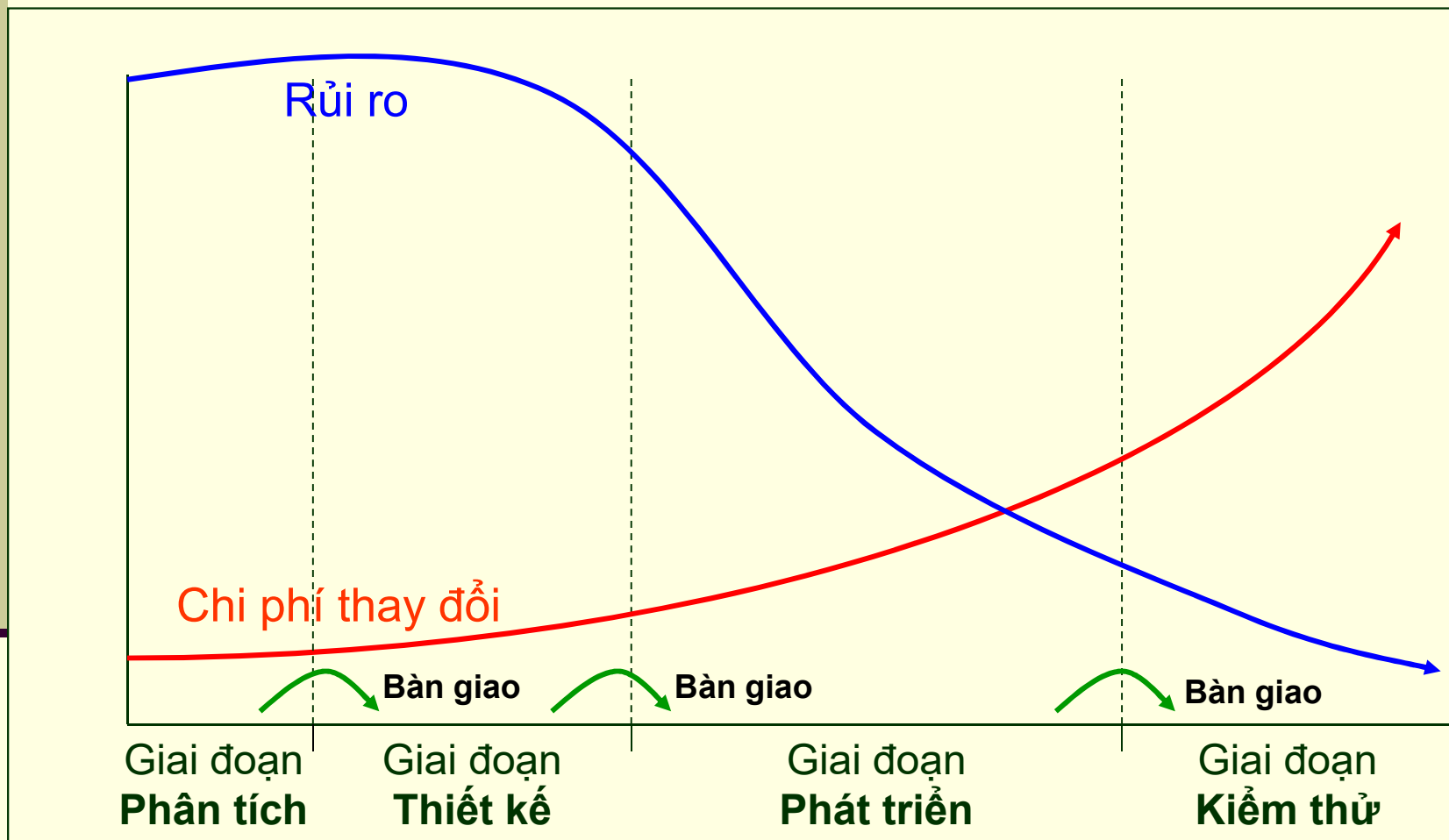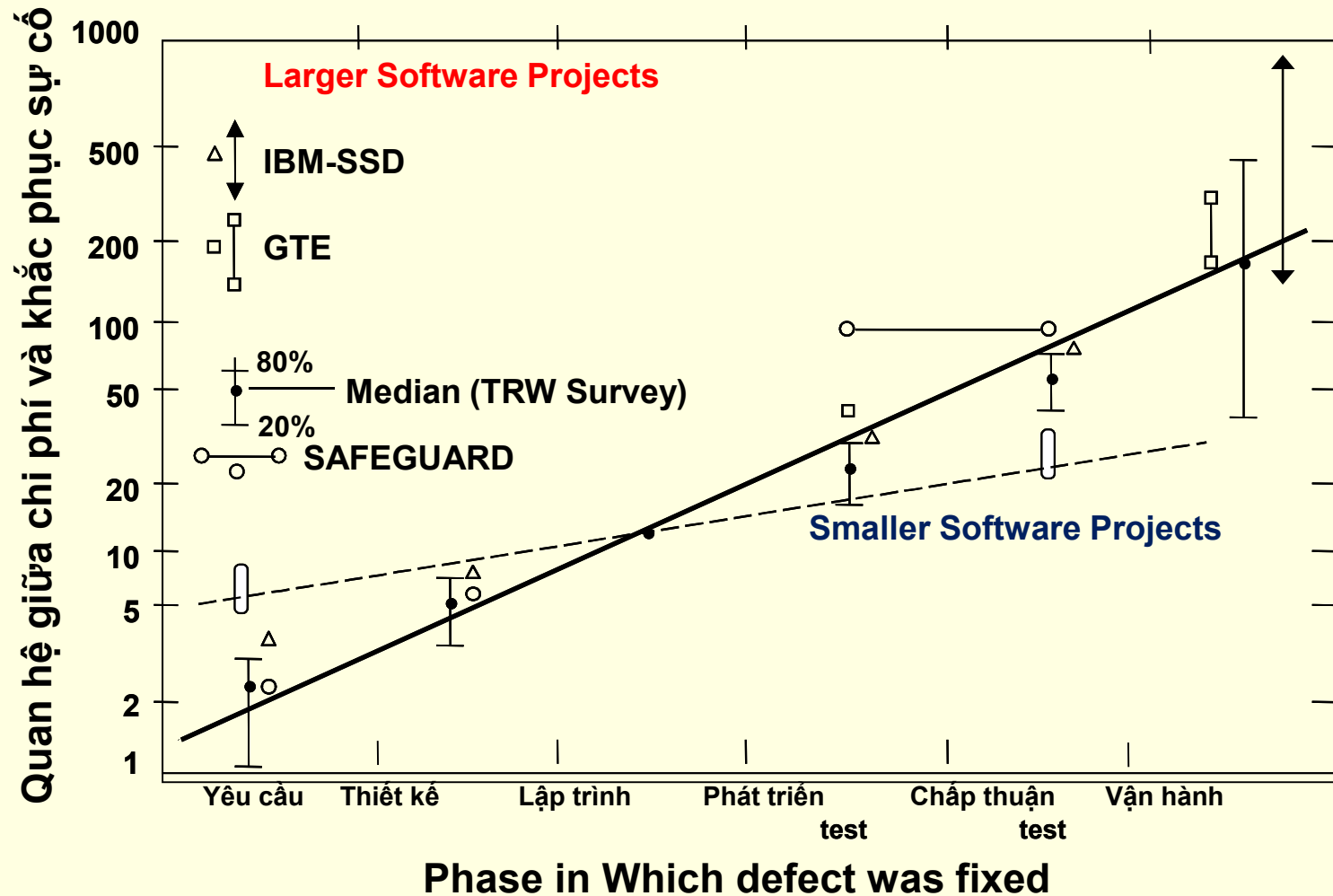# 1.4 Lộ trình của dự án thành công

Phân tầng của sự thành công

1.5   Vòng đời dự án

Biểu đồ sự cố ở mỗi giai đoạn

Richard W. Selby, "Software Engineering: Barry W. Boehm's Lifetime Contributions to Software Development, Management, and Research" P223

1.6   QUẢN LÝ DỰ ÁN

< DỰ ÁN luôn cần được QUẢN LÝ>

➤ Quản lý dự án là quá trình vận dụng các tri thức, kỹ năng, công cụ, và kỹ thuật vào các hoạt động của dự án để thỏa mãn các yêu cầu của dự án.

➤ Quản lý dự án đòi hỏi phải vận dụng tốt các kỹ năng quản lý (management) và kỹ năng lãnh đạo (leadership).

➤ Mặc dù các kỹ năng này mang yếu tố con người, chúng ta cần học tập, trải nghiệm và kết hợp các yếu tố công nghệ để việc quản trị hiệu quả, nhanh chóng.

1.7   Kỹ năng lãnh đạo là gì?

➢ Kỹ năng lãnh đạo là đưa ra mục tiêu và tập hợp các cá nhân để hoàn thành mục tiêu đó.

  ➢ Có thể tìm ra các nhân tố đặc thù.

  ➢ Có thể đưa ra bức tranh rõ ràng về tương lai.

  ➢ Kỹ năng lãnh đạo tập trung vào việc kiểm soát những than phiền liên quan tới tinh thần làm việc và hi vọng.

➢ Người lãnh đạo tốt luôn tập trung vào tầm nhìn tương lai để hợp nhất các thành viên trong đội.

1.8. Kỹ năng quản lý là gì?

➤ Nói chung, việc quản lý tập trung vào (hiểu và kiểm soát) độ đa dạng của các thành viên trong nhóm và tính phức tạp của các nhiệm vụ.

  ➤ Quá trình quản lý đòi hỏi nhìn nhận các vấn đề khác nhau dưới những góc độ khác nhau.

  ➤ Điểm khởi đầu của quá trình quản lý nằm ở mỗi thành viên và mỗi nhiệm vụ.

  ➤ Quá trình quản lý thường tuân theo các bước "Plan – Do – Check – Act", gọi tắt là "PDCA cycle."

➤ Người quản lý tốt có thể tìm ra điểm đặc trưng ở mỗi thành viên và khai thác được các thế mạnh đó

Cf. Lãnh đạo và Quản lý

Người lãnh đạo

- Hướng về tương lai
- Tính hợp nhất
- Hi vọng
- Tầm nhìn
- Sáng tạo
- Truyền cảm hứng
- Tư duy tiến bộ
- Chớp thời cơ

Người quản lý

- Hướng về hiện tại
- Tính đa dạng
- Quan sát
- Hỗ trợ
- Gỡ rối
- Phân tích
- Tư duy cấu trúc
- Thực tế

…cần cả 2 tố chất…

1.9 Project Stakeholders

- Stakeholder là cá nhân, nhóm, tổ chức có **ảnh hưởng hoặc bị ảnh hưởng** bởi các quyết định, các hoạt động, đầu ra của dự án

- Xác định và điền tên stakeholder vào các ô trống
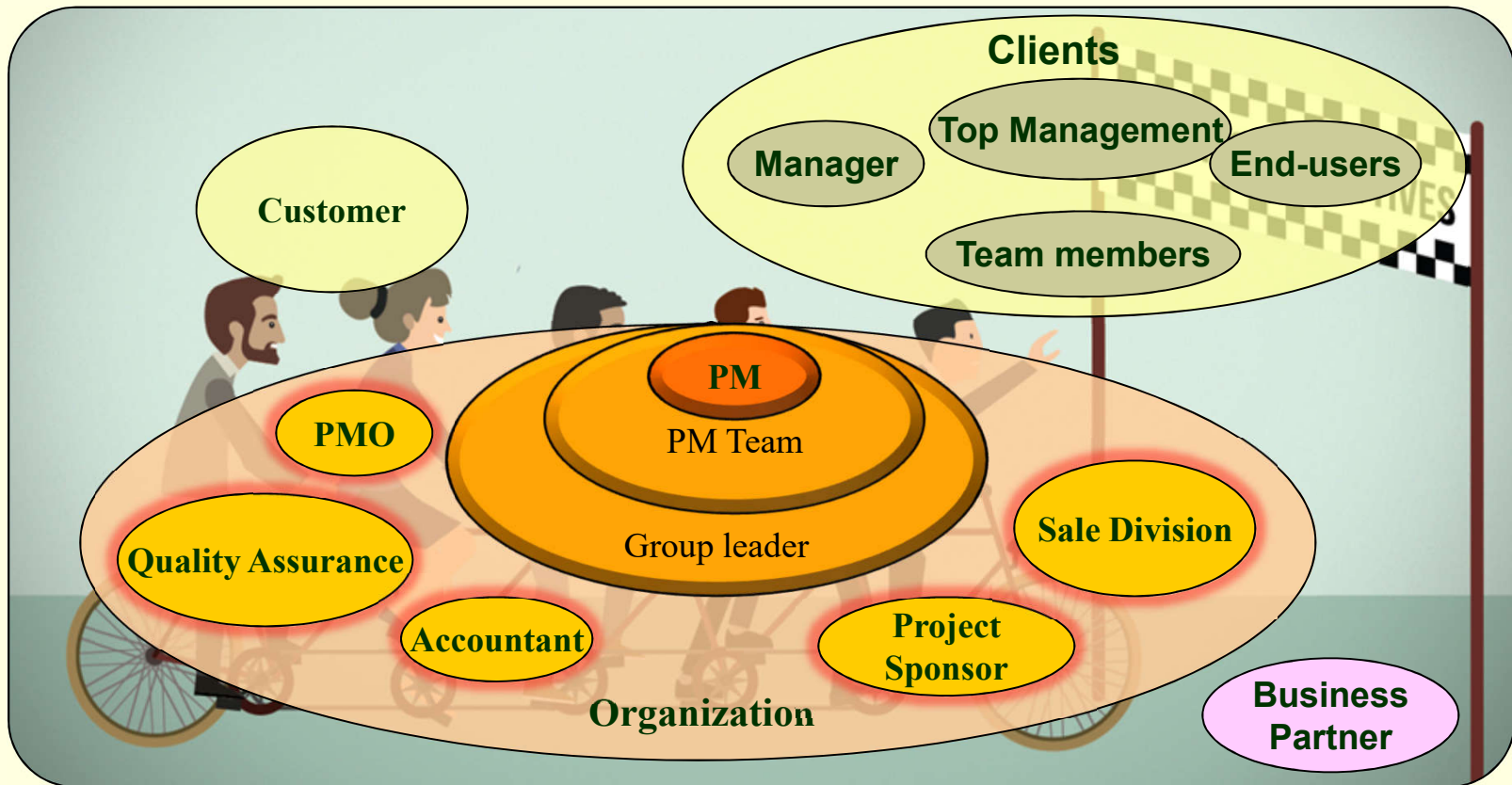
1.10 Phong cách quản lý

Nên nhận ra phong cách quản lý của bản thân để phát triển cá nhân phù hợp

➢ Các kiểu quản lý được phân loại dựa trên **kinh nghiệm**, **kỹ năng**, và **tài năng**.

"Tôi luôn luôn lập kế hoạch càng sớm càng tốt. Và sau đó, làm việc theo lịch đã đặt ra"

"Tôi không quan tâm tới các kế hoạch bởi vì chúng thay đổi trong từng dự án. Cứ làm đi, đó là triết lý của tôi.."

..vô thức, không dễ thấy, không dễ sửa.

1.10 Phong cách quản lý

➤ Trong quản lý, chúng ta thường vận dụng các nhân tố:

Knowledge
➤ Chân lý và kết quả thông qua kinh nghiệm và học tập.

Skills
• Đo lường bằng hành động.

Talent
• bản năng, mẫu hành vi lặp lại trong suy nghĩ và hành động

➤ Hiểu rõ phong cách quản trị của mình sẽ giúp bạn nhận ra các rủi ro và có các hành xử phù hợp để phòng tránh.

→ Gợi ý: so sánh phong cách của mình với chuẩn, ví dụ PMBOK

1.11 Framework của Quản lý

< Framework as a PMBOK >
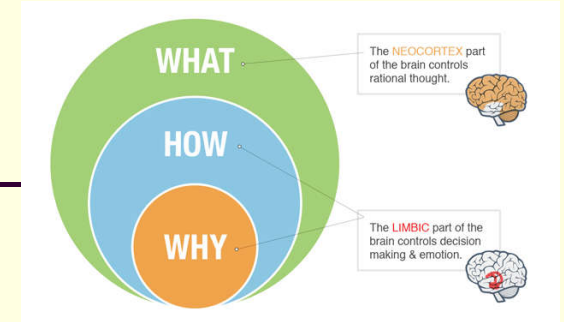
➢ Project Management Institute (PMI) xuất bản sách hướng dẫn "Project Management Body of Knowledge (PMBOK)" như là một tiêu chuẩn cho quản lý dự án.

➢ PMBOK sẽ giúp xây dựng framework và ngôn ngữ cho việc quản trị dự án (know What)

➢ PMBOK đã trở thành chuẩn toàn cầu về PM

➢ PMBOK bao gồm một tập hợp các tiến trình nên tham khảo, áp dụng trong nhiều lĩnh vực công nghiệp khác nhau như xây dựng, y tế, điện tử, IT.

Cf. Các framework khác về PM trên thế giới

➢ PRINCE2 (<u>P</u>rojects <u>in</u> <u>C</u>ontrolled <u>E</u>nvironments, <u>2</u>nd version) ở Vương quốc Anh.

➢ ICB (IPMA Competence Baseline) of International Project Management Association ở châu Âu.

➢ P2M (<u>P</u>roject & <u>P</u>rogram Management for enterprise innovation) ở Nhật Bản

➢ Hiện nay, workgroup, ISO/PC 236 đã thiết lập chuẩn quản trị dự án quốc tế mới, gọi là "ISO 21500." Hiện đã có phiên bản 2012 https://www.iso.org/standard/50003.html?browse=tc
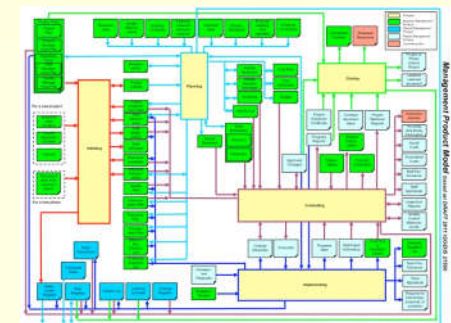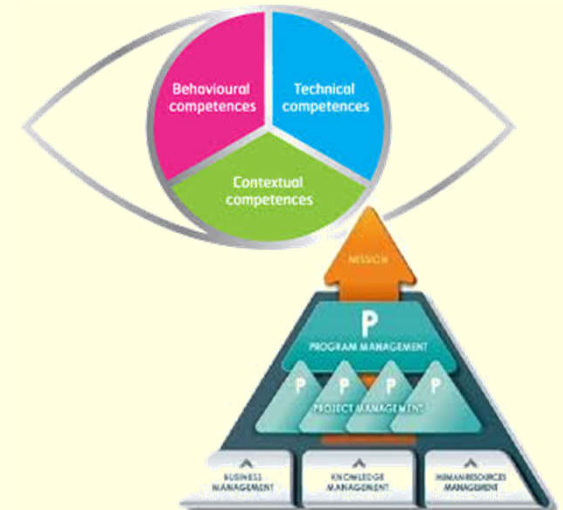
1.12 Five Process Groups

- PMBOK(R) xếp các tiến trình quản lý dự án vào thành 5 loại
- Project Management Process Groups (hoặc Process Groups):

Monitoring & Controlling bao trùm lên tất cả tiến trình trong các nhóm

Monitoring & Controlling
Giám sát và Điều khiển

Quản lý rủi ro của QCD
Quality, cost, delivery

Planning
Lập kế hoạch

Initiation
Khởi tạo

Closing
Đóng

Executing
Thực hiện
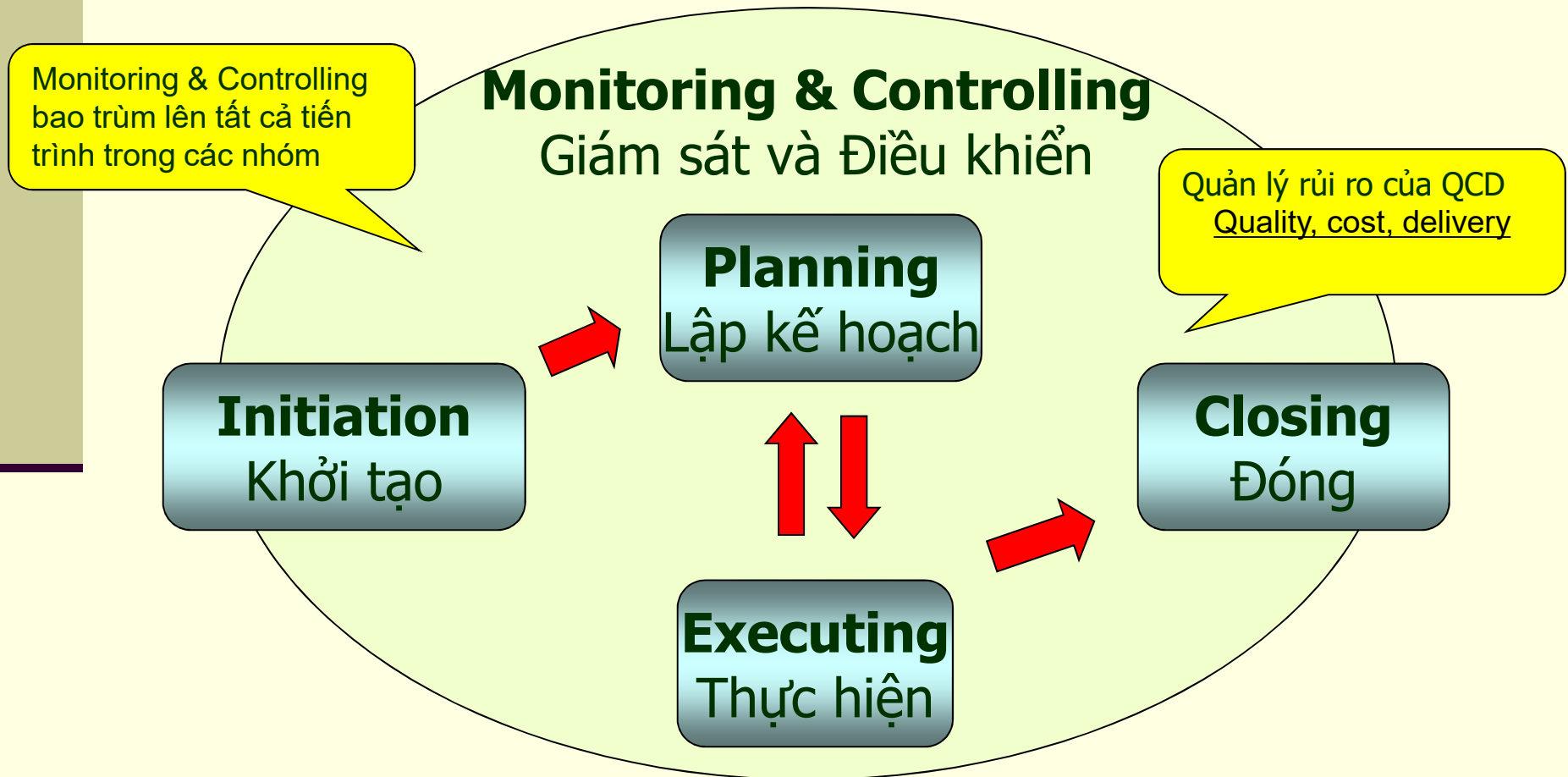
1.13   9 Knowledge Areas

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

1.14 Input - Tools & Technique - Output

■ PMBOK use the process framework;

Input – Tools & Technique – Output

Input	Tools & Technique	Output
- Activity List - Activity Resource Requirements - Project Scope Requirements	- Expert Judgment - Analogous Estimating - Parametric Estimating - Reserve Analysis	- Activity Duration Estimates - Project Document Updates
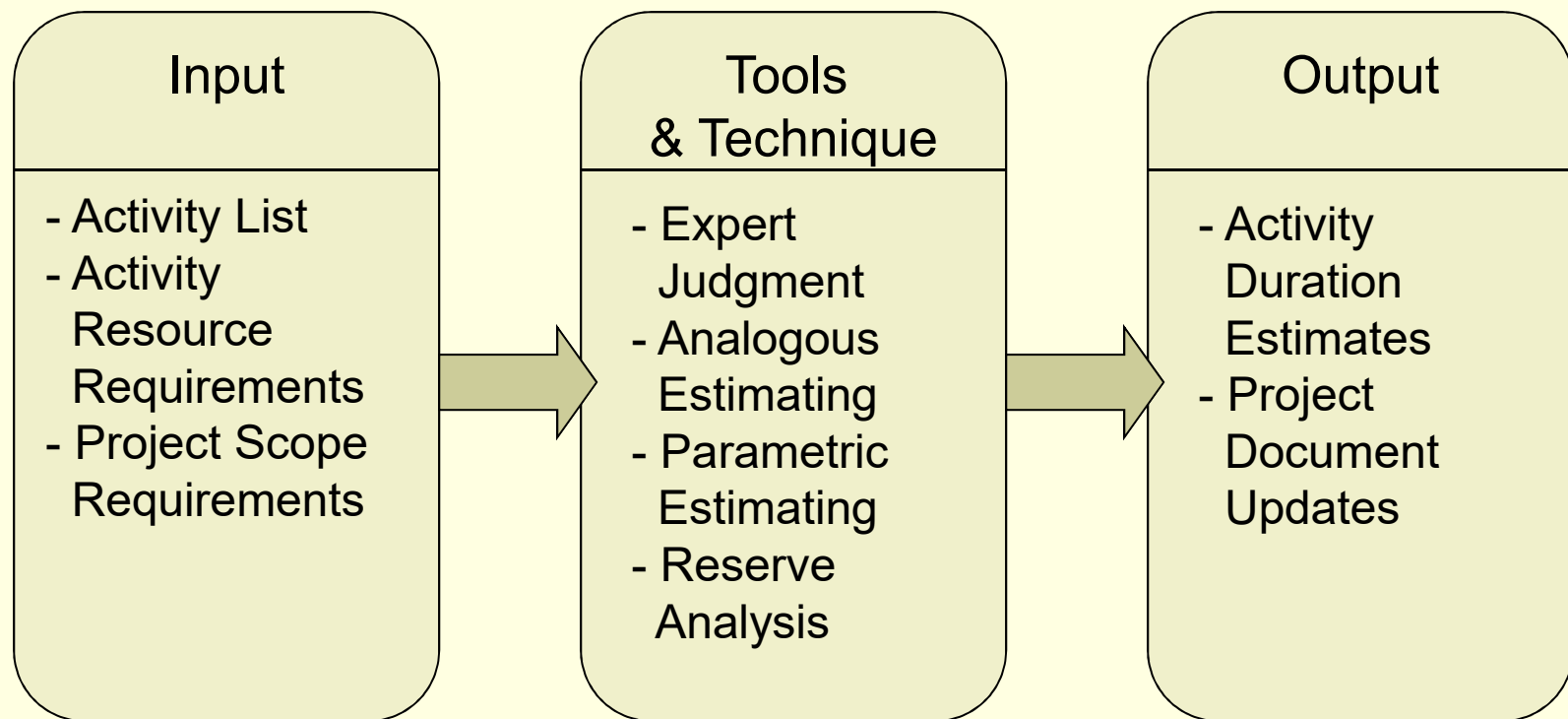
1.15 Framework for "Problem Solving"

< Constraint Condition >

Natural Disaster, World Recession, etc (Absolute)
....
Law, Restricted Budget, Dead line, etc (Relative)

Goal
Objective
Plan

Problem

< Input >
- Staffs
- Products
- Budget
- Information
  etc..

< Process >
- Management Way
- How to operate
- Schedule
- Sequence of task
  etc..

Output

Past (Cause) | Present (Effect)

Exercise

< Constraint Conditions >
Tight schedule, a lot of works,
no additional resources etc.

< Inputs >
- Two Staffs
- Products
- Order
Information

< Processes >
- Send the products
to ordered place
as soon as
possible with no
check.

Send products correctly

Problem

Sent products to in-correct place

Past (Cause)   Present (Effect)

PMBOK Processes for problem solving

Constraint conditions

Goal

Problem

Input

If you get the wrong input, the output should be wrong in correct process.

Cf. Garbage in, garbage out. (GIGO)

Tools & Technique

This part correspond to the process.

If you take inefficient process, output will be poor.

Output

If there are some variances between the goal and the output, you have some problem.

Past (Cause)　　Present (Effect)
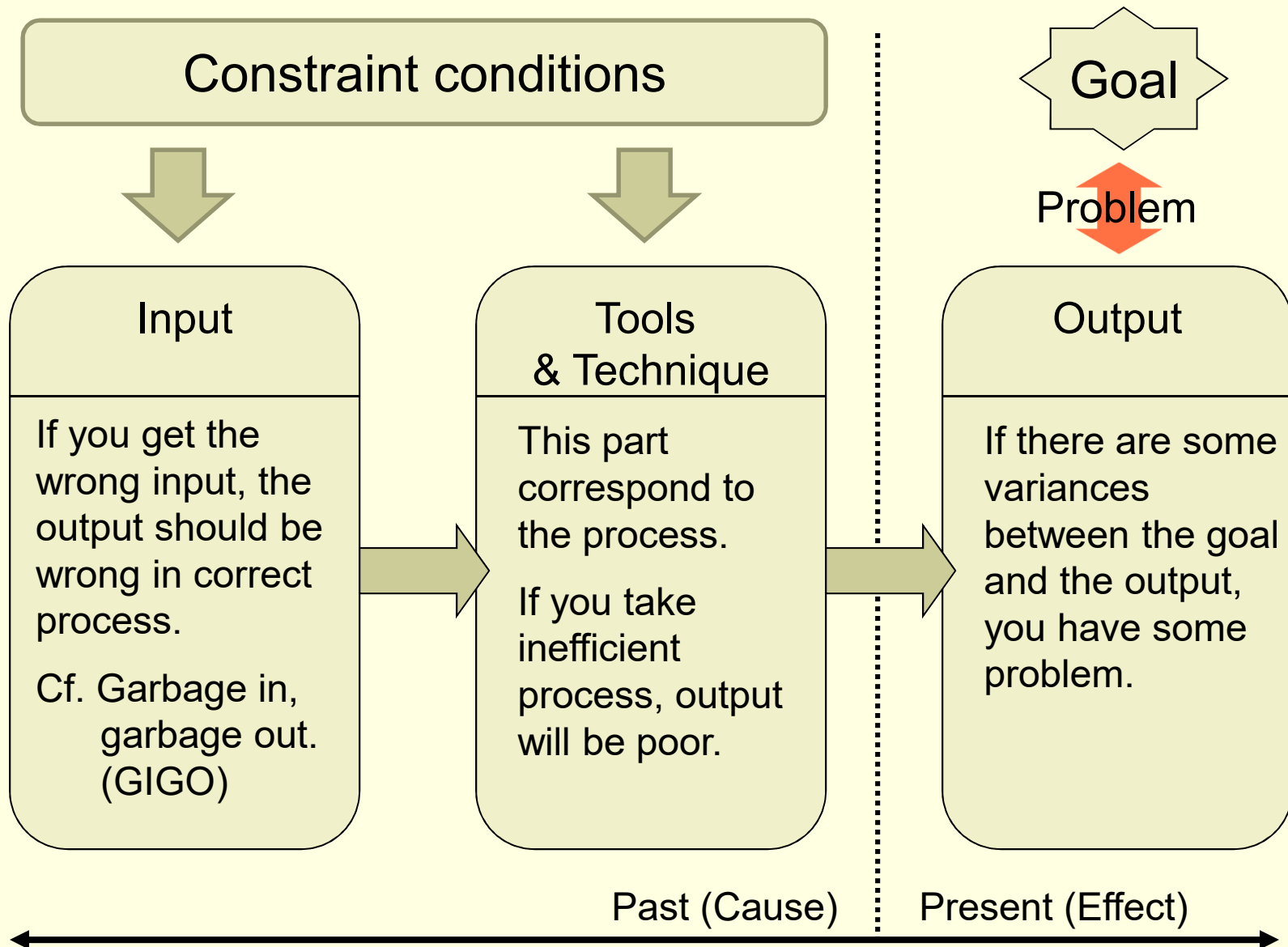
2. Project Initiating

2.1 Project Initiation
2.1.1 Definition of Project Initiation(1)

➢ Project Initiation is the first process group in project.

➢ You need to understand project goal.

➢ You may need to convince stakeholders.

  ➢ So, Project Charter is needed.

➢ You need to communicate well with stakeholders of the project.

  ➢ Good communication depend on the perception through shared experiences.

Definition of Project Initiation(2)

➢ Project Initiation is the process to be authorized officially at the beginning of a new project.

Input	Tools & Technique	Output
- Business Case - Enterprise Environmental Factors - Statement of Work - Organizational Process Assets	- Expert Judgment	Project Charter 1. Purpose 2. Objectives 3. Requirements 4. Risks 5. Milestone 6. Budget :
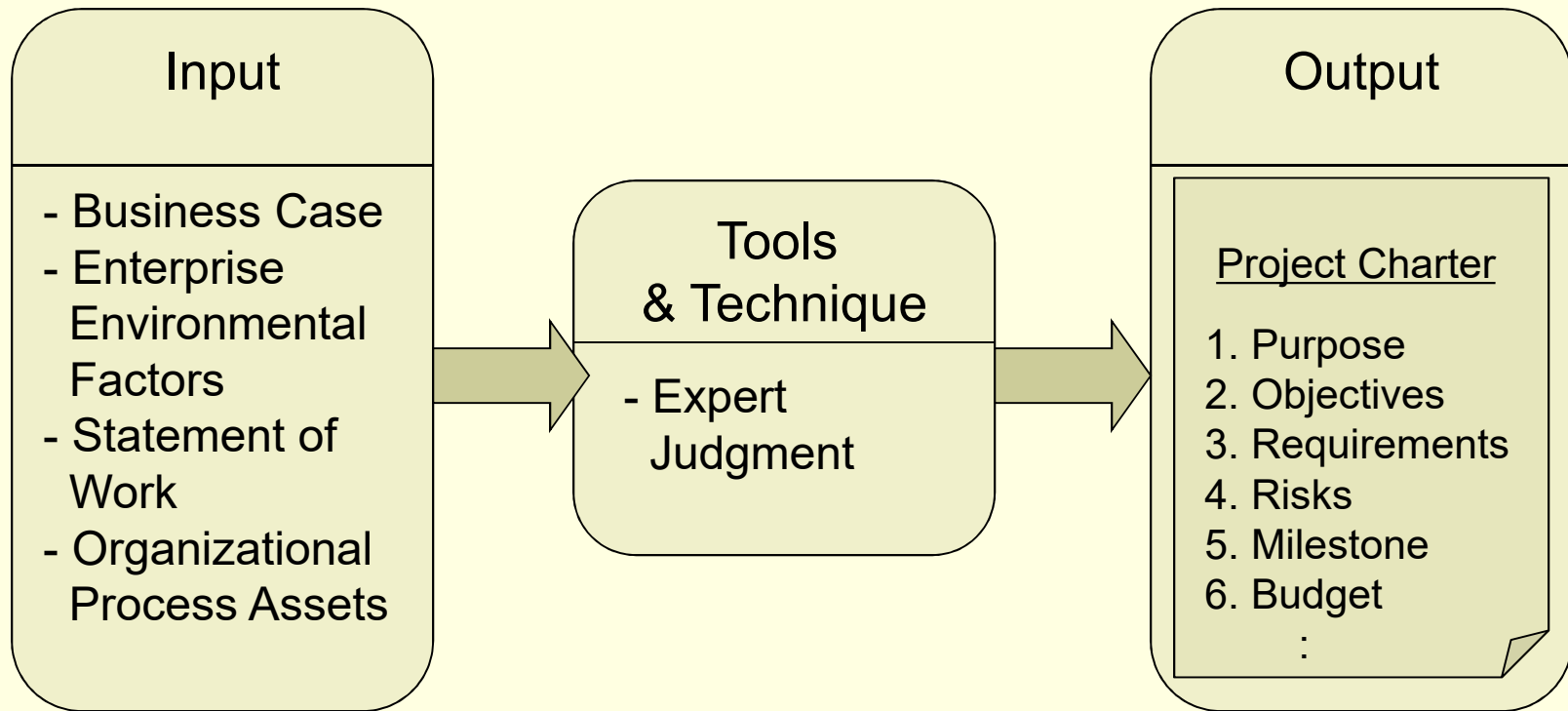
2.1.2 Make sure final project goal / purpose

- ➢ Project has several goals.
- ➢ Project is one of the measure of business goals. It is needed to understand the relationship between goal and measure.
- ➢ Please ask these questions as follows;
    - ➢ "What is the final goal of this project?"
    - ➢ "What is the objectives in this project?"
    - ➢ "What for?"
- ➢ The best way to get these information is to go to client office and communicate directly.

2.1.3 Characteristics of Effective Goals

➢ Goals should be specific and written

➢ Goals should be quantitative not qualitative

➢ Goals should be challenging yet achievable

➢ The set of goals should be mutually reinforcing

➢ Goals should focus on both ends and means

➢ Goals should be time bound

2.1.4 Goals Should Be SMART

➢ <u>S</u>pecific

➢ <u>M</u>easurable

➢ <u>A</u>ttainable…but Challenging

➢ <u>R</u>esults Oriented

➢ <u>T</u>ime bound

Exercise

- ➢ If your supervisor asked you as follows, how do you organize these goals?

  "Develop a new order-receiving and delivery system to achieve these goals."

  ① *improve of customer satisfaction*
  ② *speed up the operational process*
  ③ *make associates skilled up*
  ④ *satisfy the QCD (Quality, Cost, Delivery)*
  ⑤ *raise profit margin*

Sample Contents of Project Charter

2.2 Identify Stakeholders

■ Identify all people and organizations impacted by the project, and document relevant information regarding their interests, involvement, and impact on project success.

Input	Tools & Technique	Output
1. Project Charter 2. Procurement Documents 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Stakeholder Analysis 2. Expert Judgment	1. Stakeholder Register 2. Stakeholder Management Strategy
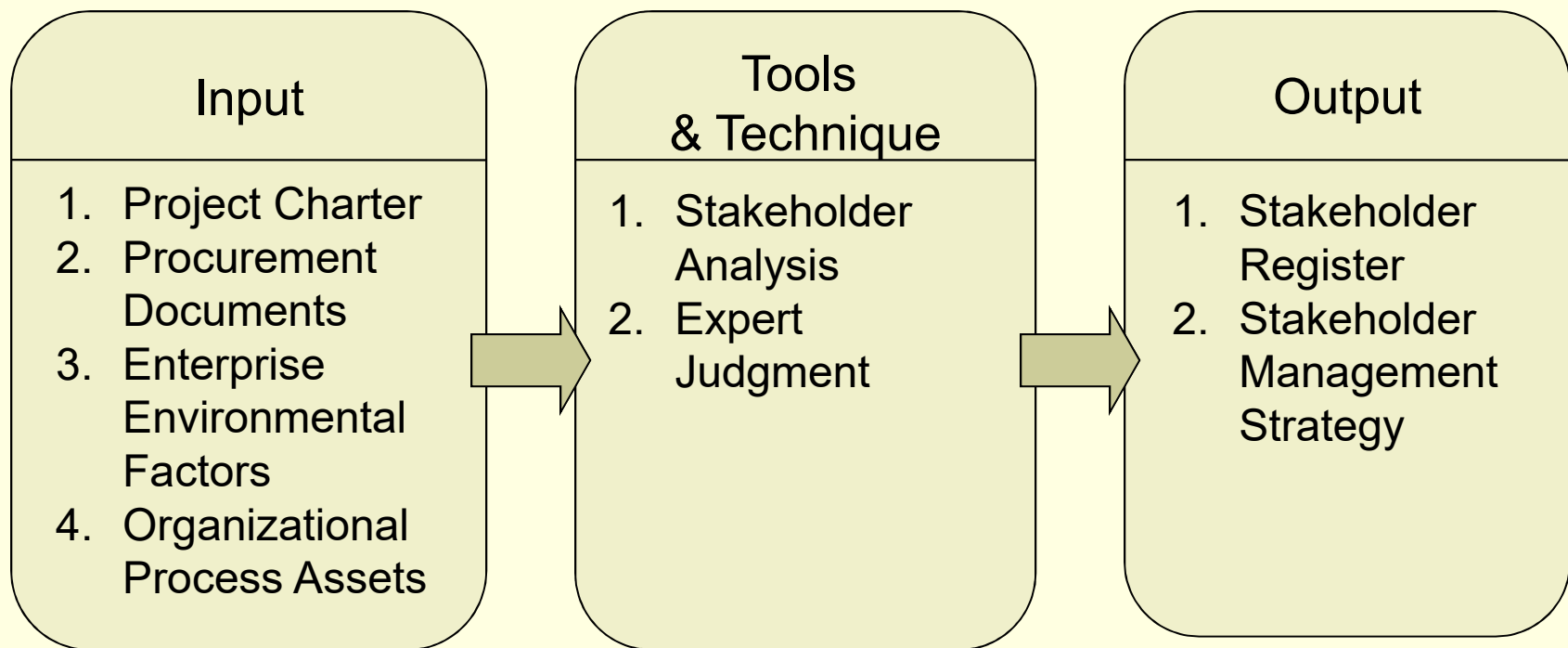
Cf.　Additional point

- ➢ Recognize constraint conditions
- ➢ Constraint conditions restrict both inputs and processes
- ➢ Identify constraint conditions gives you;
  - ➢ Policy of the project
  - ➢ Creativity
  - ➢ Priority
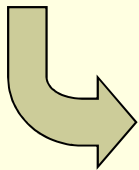 - ➢ Negotiation power
  - ➢ Customer satisfaction

3. Project Planning

3.1 Project Planning
3.1.1 Overview

Project Charter		
- Project Goal - Scope - Delivery time - Budget - Quality		

Integration Management	Project Management Plan	
Scope Management	Collect Requirements, Define Scope, Create WBS	
Time Management	Define Activities, Sequence Activities, Estimate Activity Resources, Estimate Activity Durations, Develop Schedule	
Cost Management	Estimate Cost, Determine Budget	
Quality Management	Plan Quality	
Human Resource Management	Human Resource Plan	
Communication Management	Plan Communications	
Risk Management	Plan Risk Management, Identify Risk, Perform Qualitative/Quantitative Risk, Plan Risk Responses	
Procurement Management	Plan Procurements	

Project Plan

3.1.2 Importance of Planning (1)

The relationship between planning cost and excessive cost of 31 project in NASA
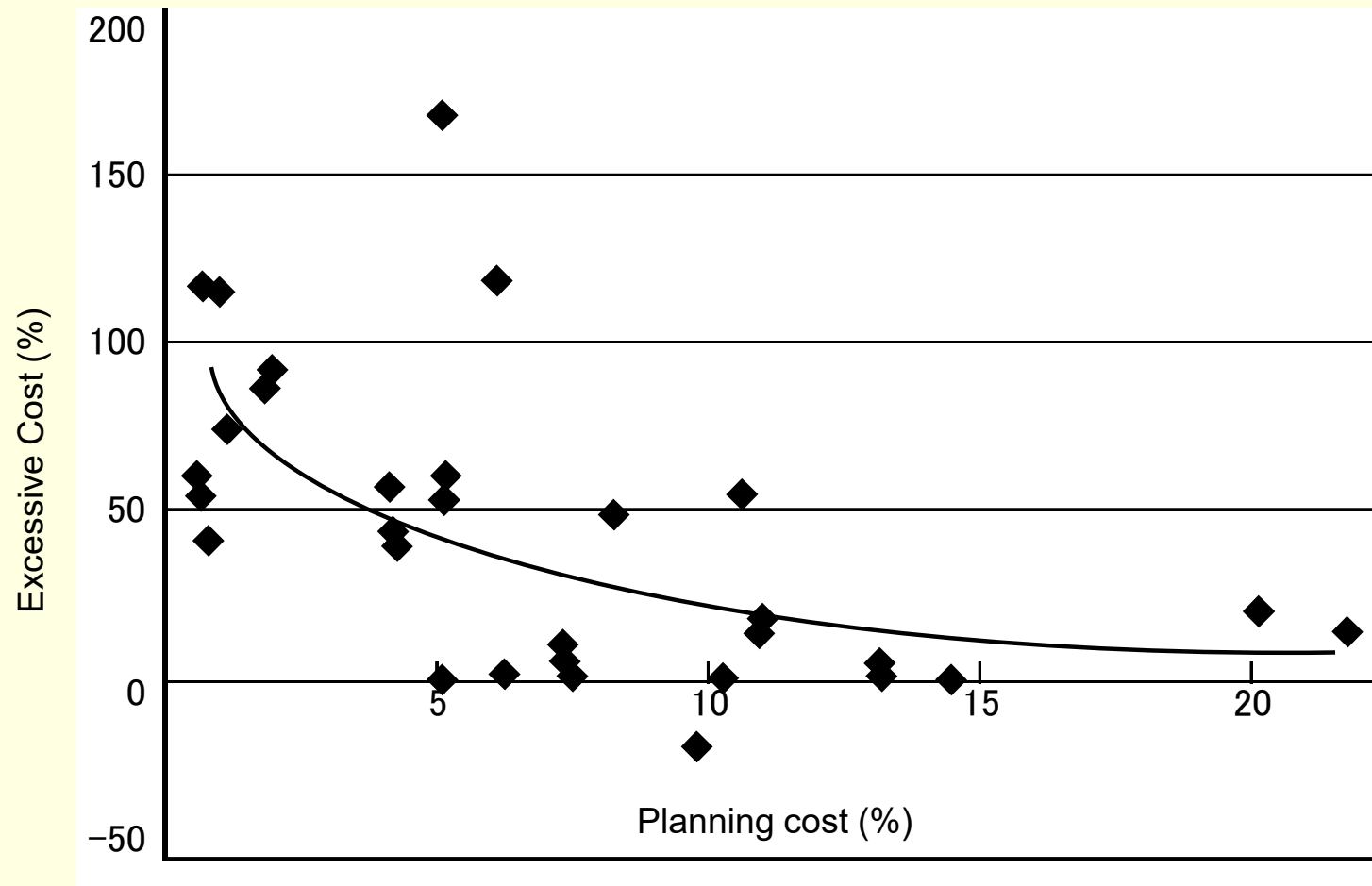
Gred Githens, "Financial Models, Right Questions, Good Decisions"
PM Network July 1998 Volime 12, Number7

Importance of Planning (2)
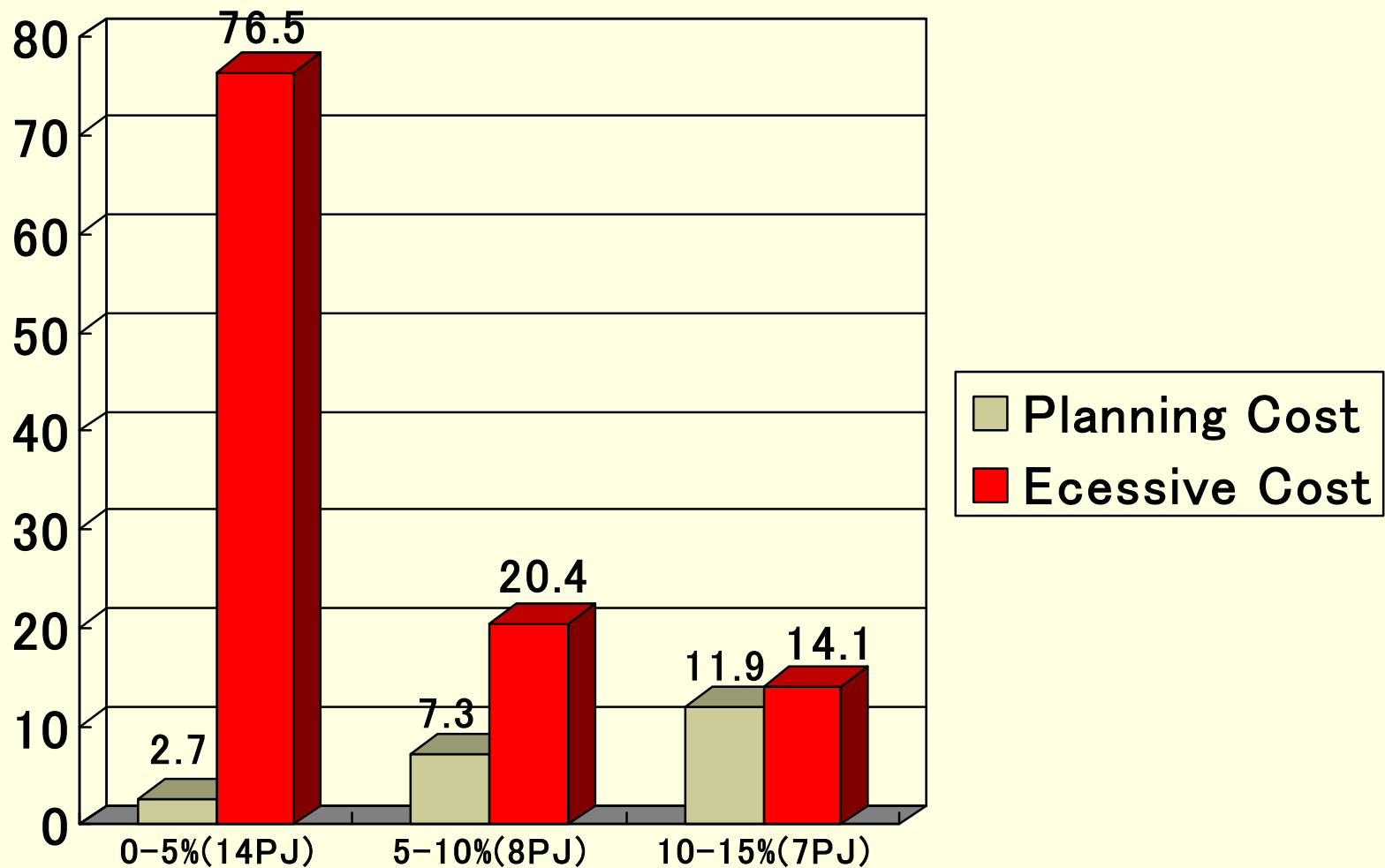
Gred Githens, "Financial Models, Right Questions, Good Decisions"
PM Network July 1998 Volime 12, Number7

3.1.3 Develop Project Management Plan

➢ First of all, it is needed to develop project management plan.

➢ Project Management Plan is the plan for the way to manage your project which includes below but not limited to;

    ✓ Change management plan

    ✓ Configuration management plan

    ✓ Key management reviews for content, extent, and timing to facilitate addressing open issues and pending decisions.

3.1.4 How to execute management cycle?

➢ The key to manage well is to run the basic management cycle which is called "PDCA" as follows;

PLAN

ACT

DO

CHECK
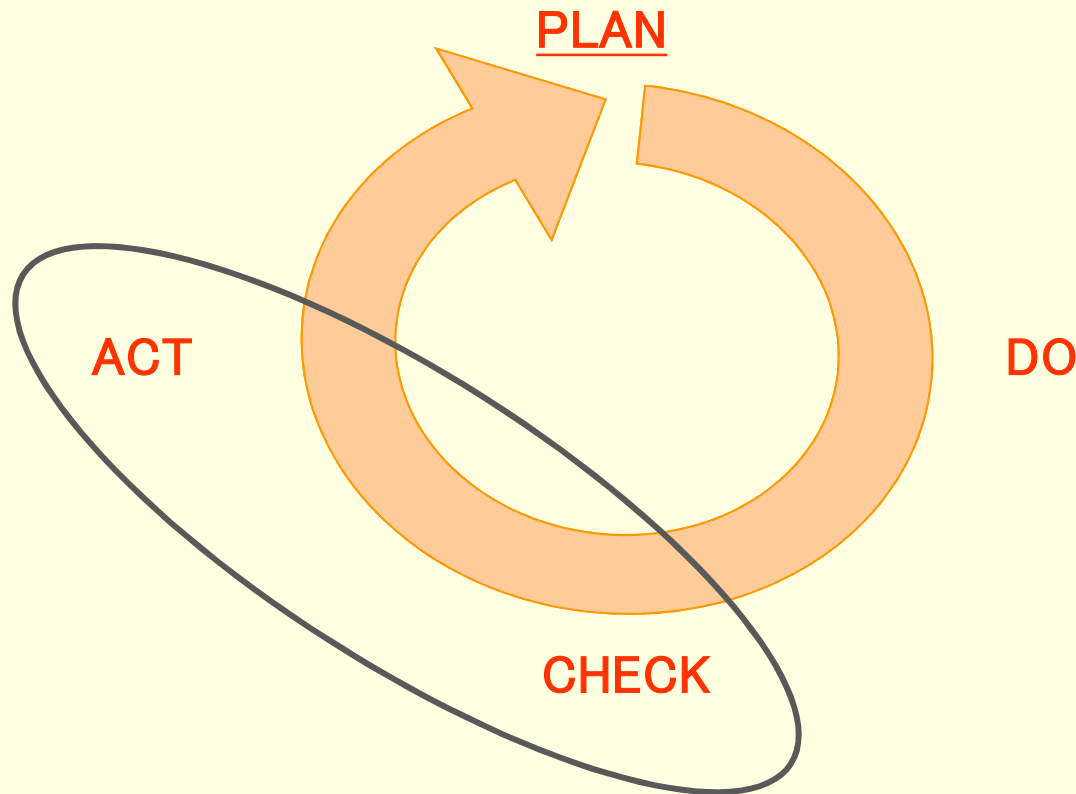
3.2 Create Management Plan

```
                        ┌──────────────────┐  ┐
                        │      Scope       │  │
                    ┌───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
                    │   │      Time        │  │
                    ├───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
                    │   │      Cost        │  │
                    ├───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
┌──────────────┐    │   │     Quality      │  │  ┌────────────────────────┐
│   Project    │    │   │    Management    │  │  │                        │
│  Management  │────┤───│       Plan       │  ├──│  Plan the way to        │
│    Plan      │    │   └──────────────────┘  │  │  manage each plan       │
└──────────────┘    │   ┌──────────────────┐  │  │                        │
                    │   │  Human Resource  │  │  └────────────────────────┘
                    ├───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
                    │   │  Communication   │  │
                    ├───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
                    │   │      Risk        │  │
                    ├───│    Management    │  │
                    │   │       Plan       │  │
                    │   └──────────────────┘  │
                    │   ┌──────────────────┐  │
                    │   │   Procurement    │  │
                    └───│    Management    │  │
                        │       Plan       │  ┘
                        └──────────────────┘
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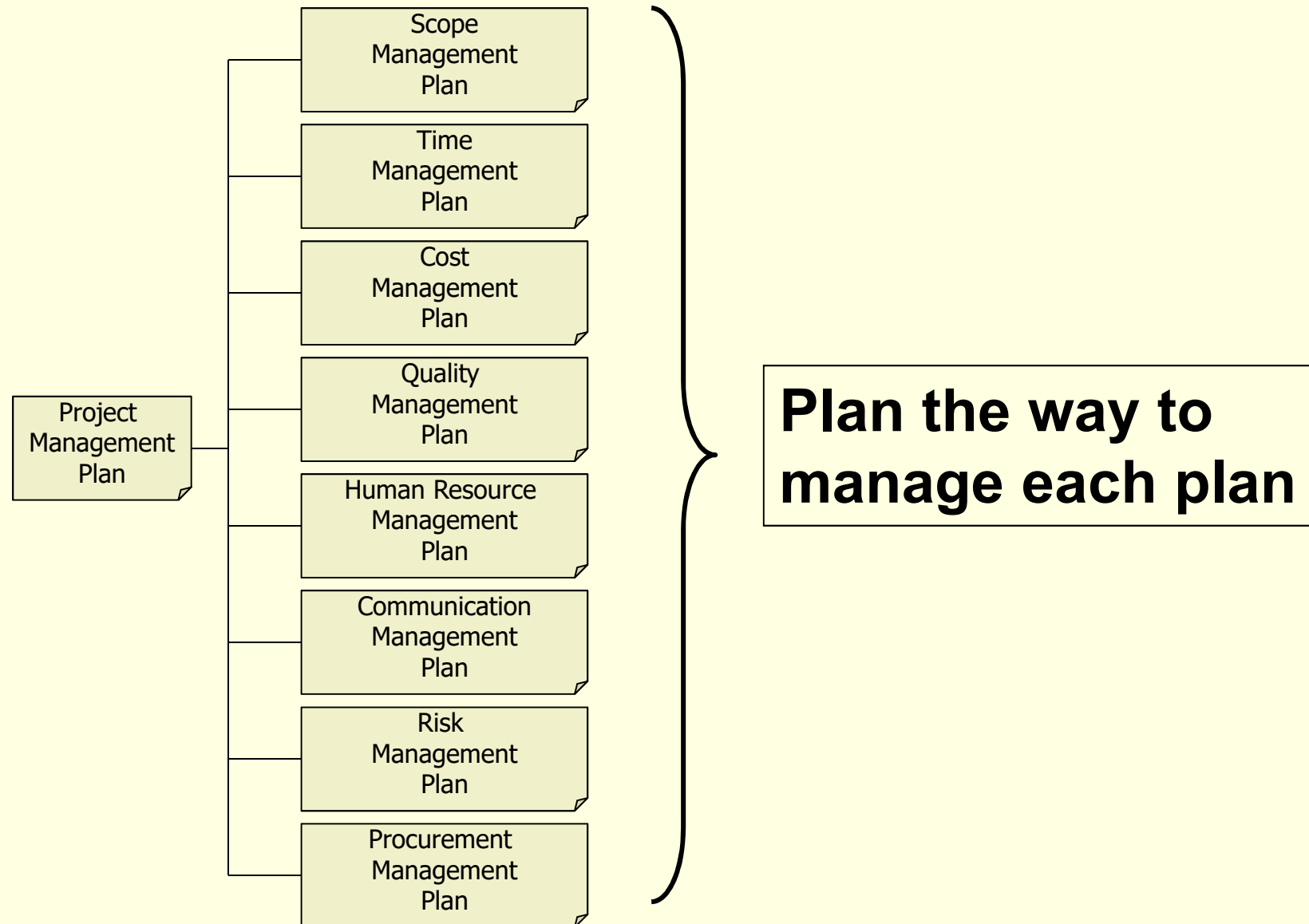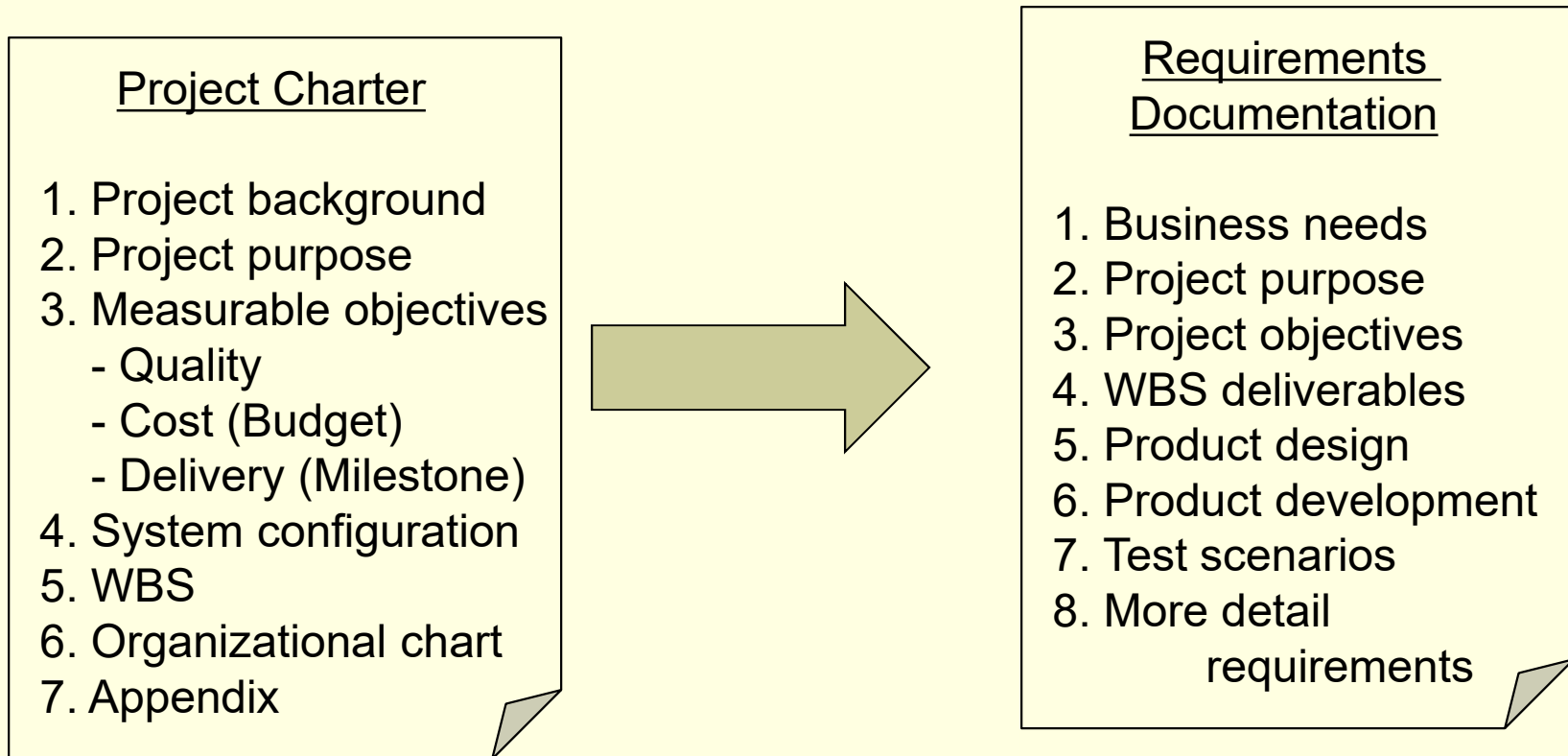
3.3　Collect Requirements

➢ The process of defining and documenting stakeholders' needs to meet the project purpose.

Project Charter

1. Project background
2. Project purpose
3. Measurable objectives
   - Quality
   - Cost (Budget)
   - Delivery (Milestone)
4. System configuration
5. WBS
6. Organizational chart
7. Appendix

Requirements Documentation

1. Business needs
2. Project purpose
3. Project objectives
4. WBS deliverables
5. Product design
6. Product development
7. Test scenarios
8. More detail
   requirements

3.3.1 Interview skill

➢ Interview skill is the core skill in Collect Requirements.

➢ Generally, listening is hard work for person;

  ➢ Rush to action

  ➢ Speed difference: speaking 135-175 WPM, can listen at 400-500 WPM

  ➢ Lack of training

➢ So, you need to train the both skills for effective collect requirements.

3.3.2. Basics of Interview Skill

- Open Question:
  - Question which start from the words "What, Why, Who, When, Where, How, How many, How much, How long?" etc.
- Closed Question
  - Question which start from the words "Do you ～?/Are you"
  - A closed question can be answered with either 'yes' or 'no'.
- Combine these two questions to get more information from your clients.

3.3.3 Active Listening

- ➤ Put the speaker at ease. Smile!
- ➤ Make eye contact, ask questions, take note.
- ➤ Show that you want to listen.
- ➤ Exhibit affirmative head nods and appropriate facial expressions.
- ➤ Paraphrase
- ➤ Avoid interrupting the speaker. Don't over talk!
- ➤ Use the <u>starter question</u> when you start the interview.
    - ➤ "Has business been busy today?"
      "May I ask a question now?"
- ➤ <u>Yes-Taking Question</u>: Ask question what the answer should be "yes" to make the atmosphere positive.
    - ➤ "We set the dead line at the end of next month at the last meeting, wasn't it?" "<u>Yes</u>, we did."

3.4　What is Scope?

➢ Scope means "range" of the products or services in a project.
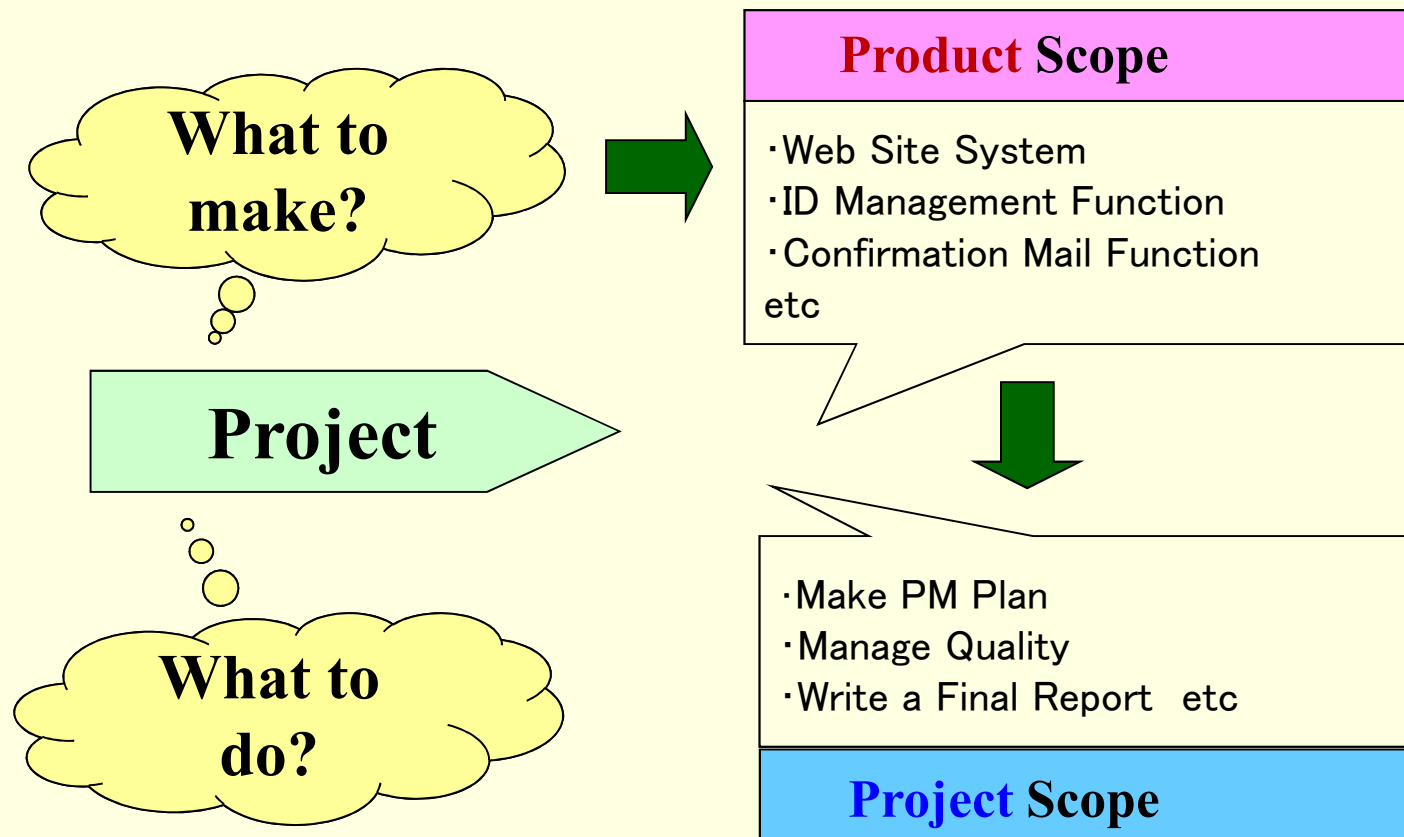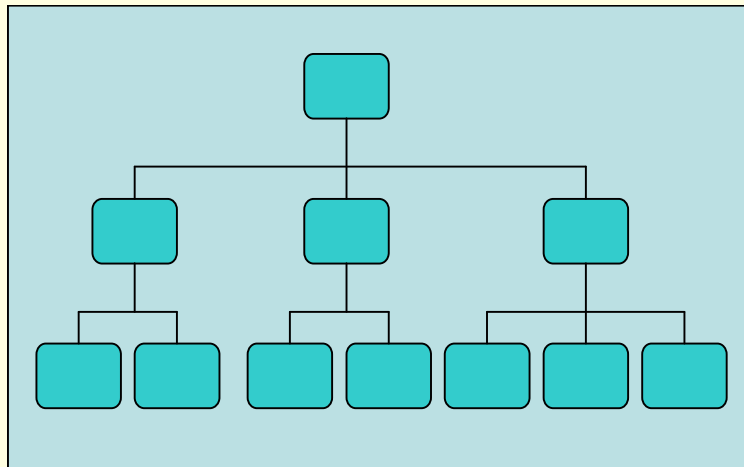
3.4.1 Scope Management Planning

➢ As scope is quite important for the project, scope should be managed throughout the project.

➢ Scope can be changed little by little in a project, which is called "Scope Creep."

➢ To avoid it, you need to plan the process of change management.

➢ It is safe to suppose that scope will change during project. So, scope management plan need to have the process

3.5   Create WBS(1)

➤ WBS (Work Breakdown Structures) is a systematic structure which is break-downed the project deliverables and processes.
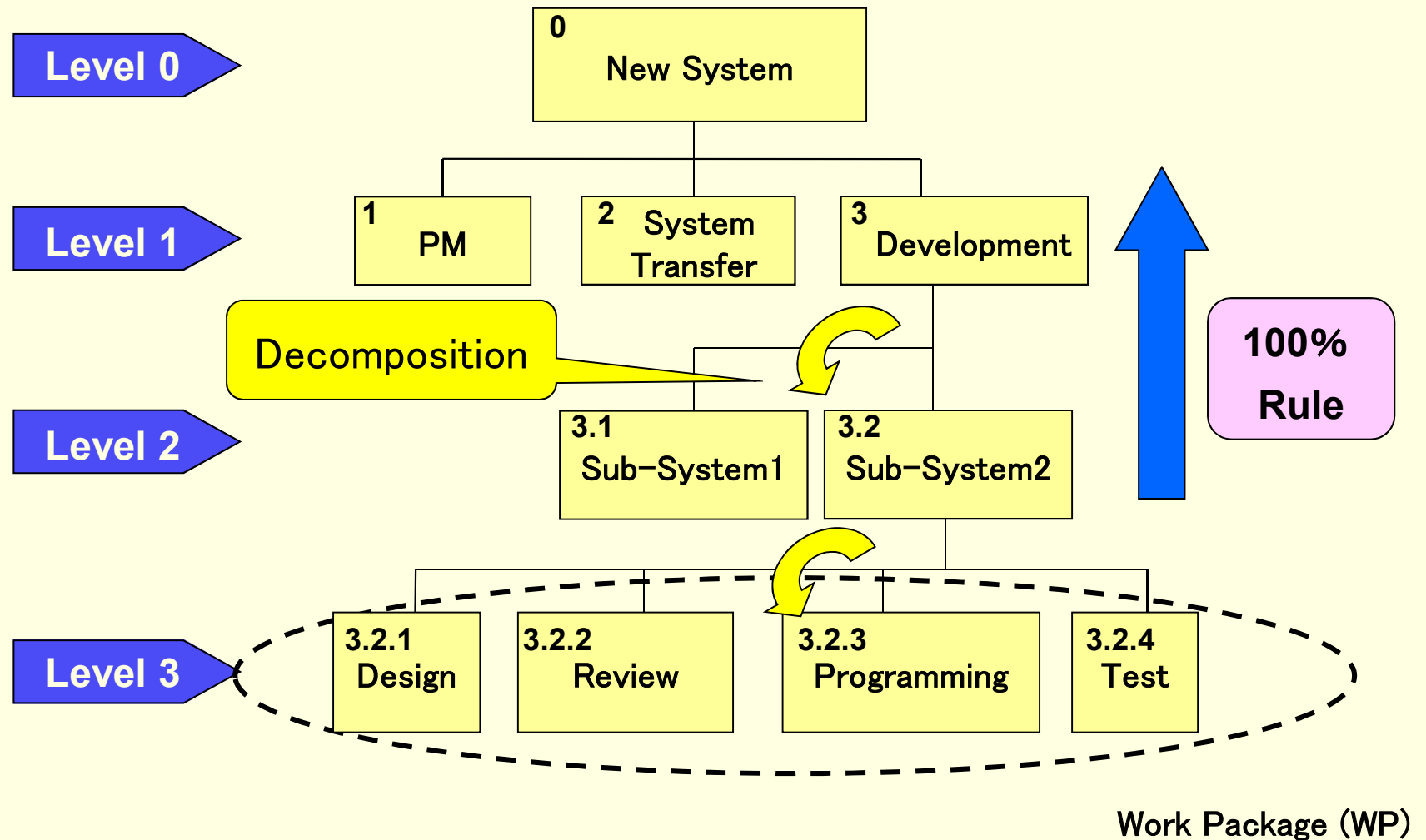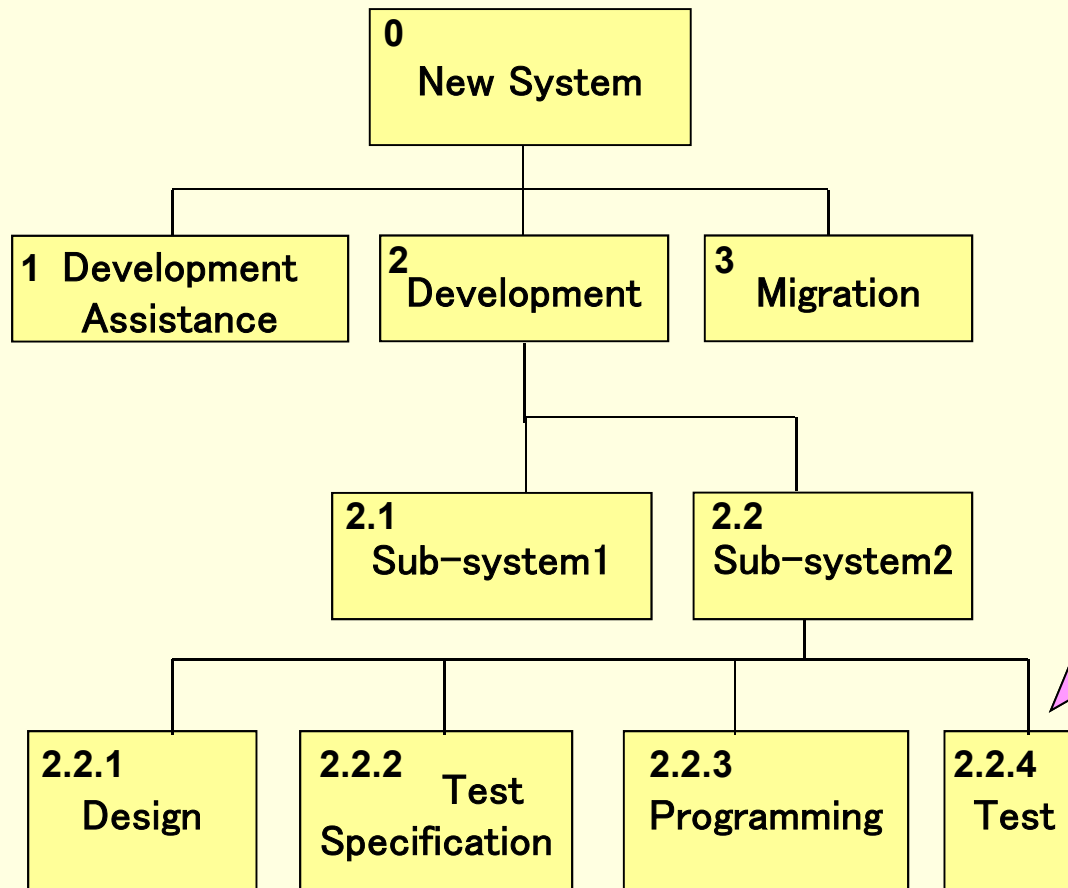
<Chart Form WBS>

<Tabular Form WBS>

1 Project Management		
	1.1 Planning	
		1.1.1 Scope Statement
		1.1.2 Activity List
		1.1.3 Resource Plan
		1.1.4 Time Estimate
		1.1.5 Cost Estimate
		1.1.6 Risk Analysis
		1.1.7 Schedule
		1.1.8 Project Management Plan
	1.2 Executing	
2 Design		

Create WBS(2)

Level 0

0 New System

Level 1

1 PM

2 System Transfer

3 Development

Decomposition

100% Rule

Level 2

3.1 Sub-System1

3.2 Sub-System2

Level 3

3.2.1 Design

3.2.2 Review

3.2.3 Programming

3.2.4 Test

Work Package (WP)

Create WBS(3)

Level of Work Package depends on the purpose.

```
                        ┌──────────────────┐
                        │ 0                │
                        │   New System     │
                        └──────────────────┘
             ┌──────────────────┼──────────────────┐
  ┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐
  │ 1 Development    │ │ 2                │ │ 3                │
  │   Assistance     │ │  Development     │ │    Migration     │
  └──────────────────┘ └──────────────────┘ └──────────────────┘
                    ┌──────────┴──────────┐
         ┌──────────────────┐   ┌──────────────────┐
         │ 2.1              │   │ 2.2              │
         │  Sub-system1     │   │  Sub-system2     │
         └──────────────────┘   └──────────────────┘
```

```
  ┌──────────────┐ ┌──────────────┐ ┌──────────────┐ ┌──────────────┐
  │ 2.2.1        │ │ 2.2.2        │ │ 2.2.3        │ │ 2.2.4        │
  │  Design      │ │   Test       │ │ Programming  │ │  Test        │
  │              │ │ Specification│ │              │ │              │
  └──────────────┘ └──────────────┘ └──────────────┘ └──────────────┘
```
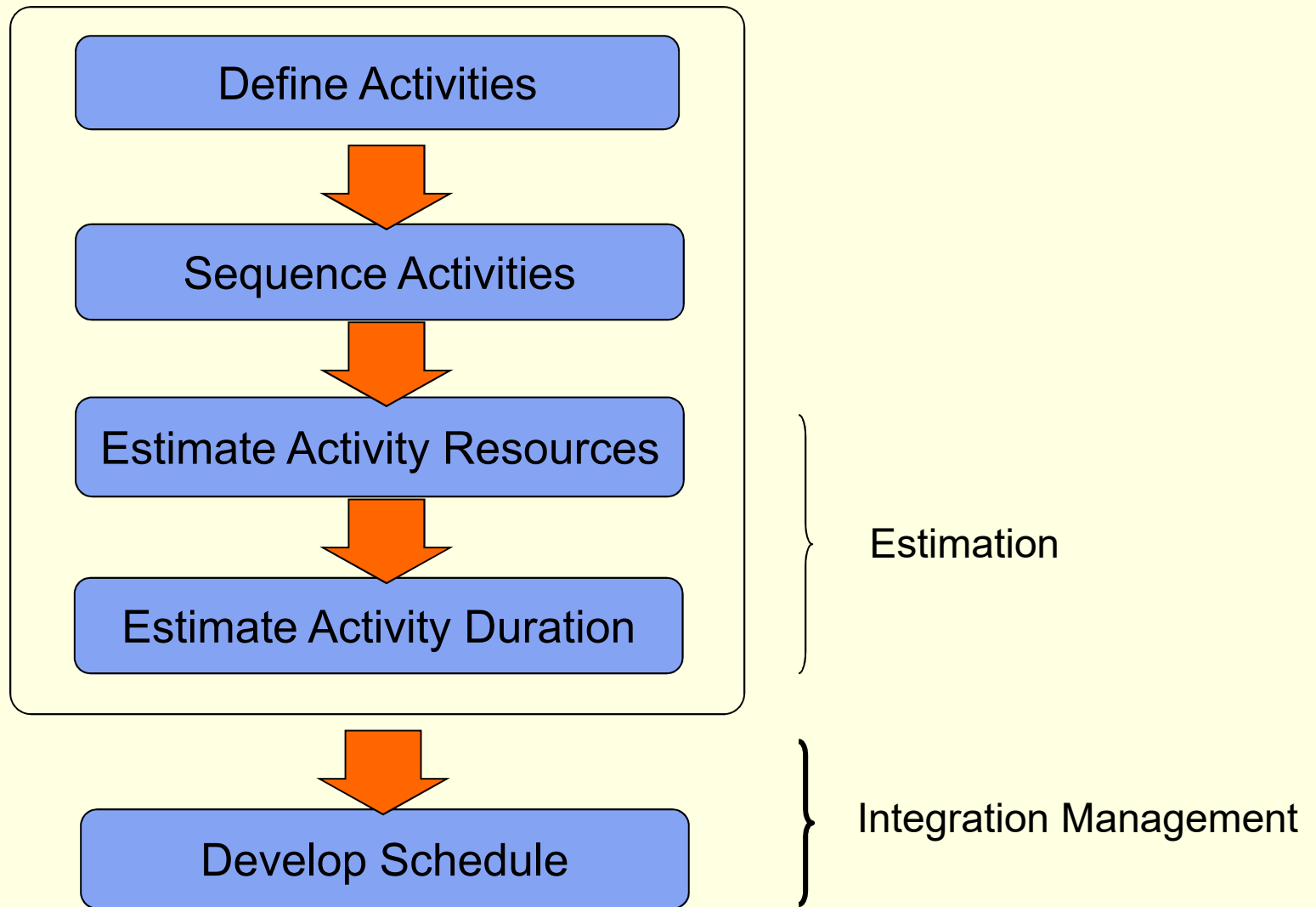
・Can you understand the elements of WBS?
・How often do you check progress?
・Is it clear division of roles?
・Does work package need more accurate estimation?

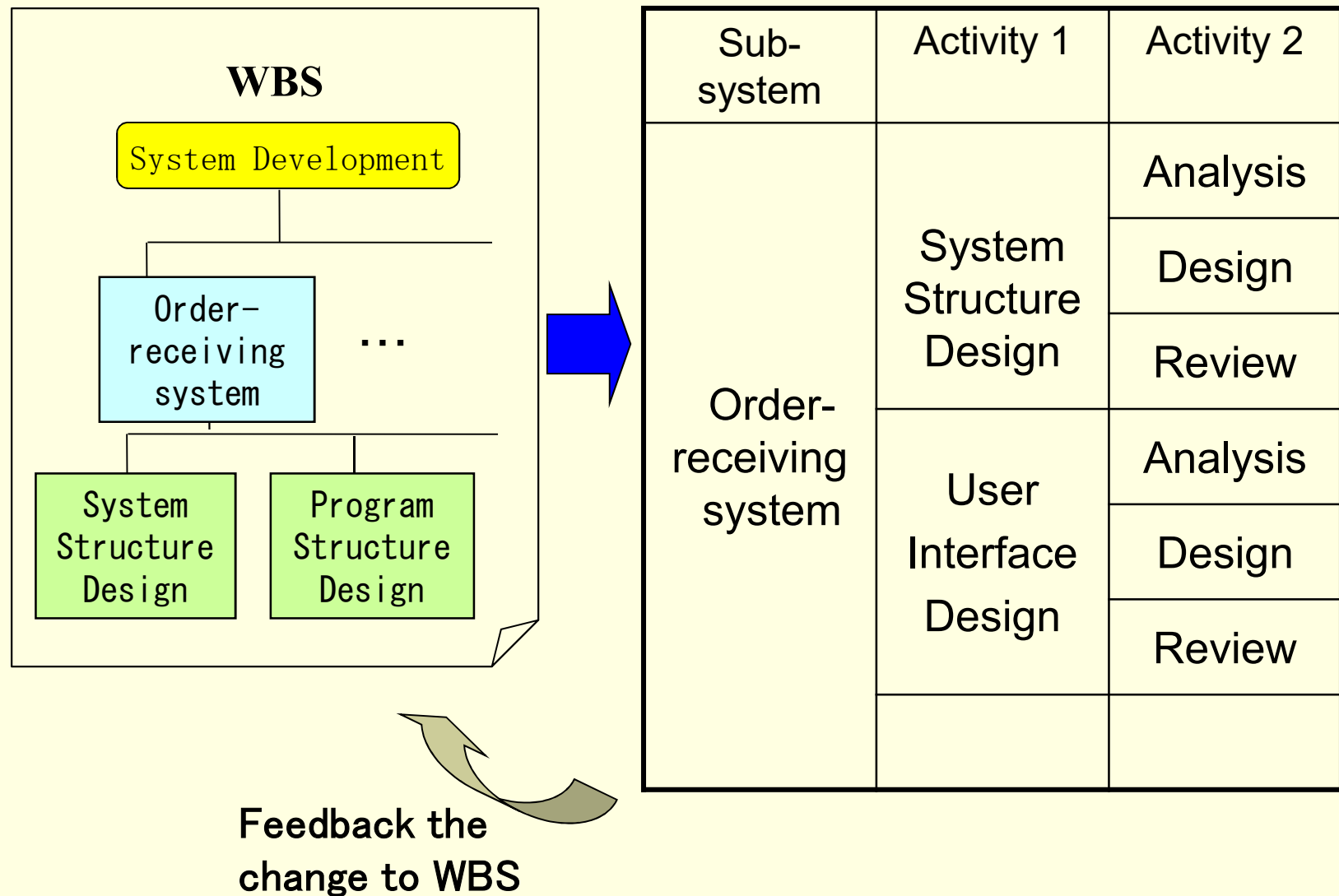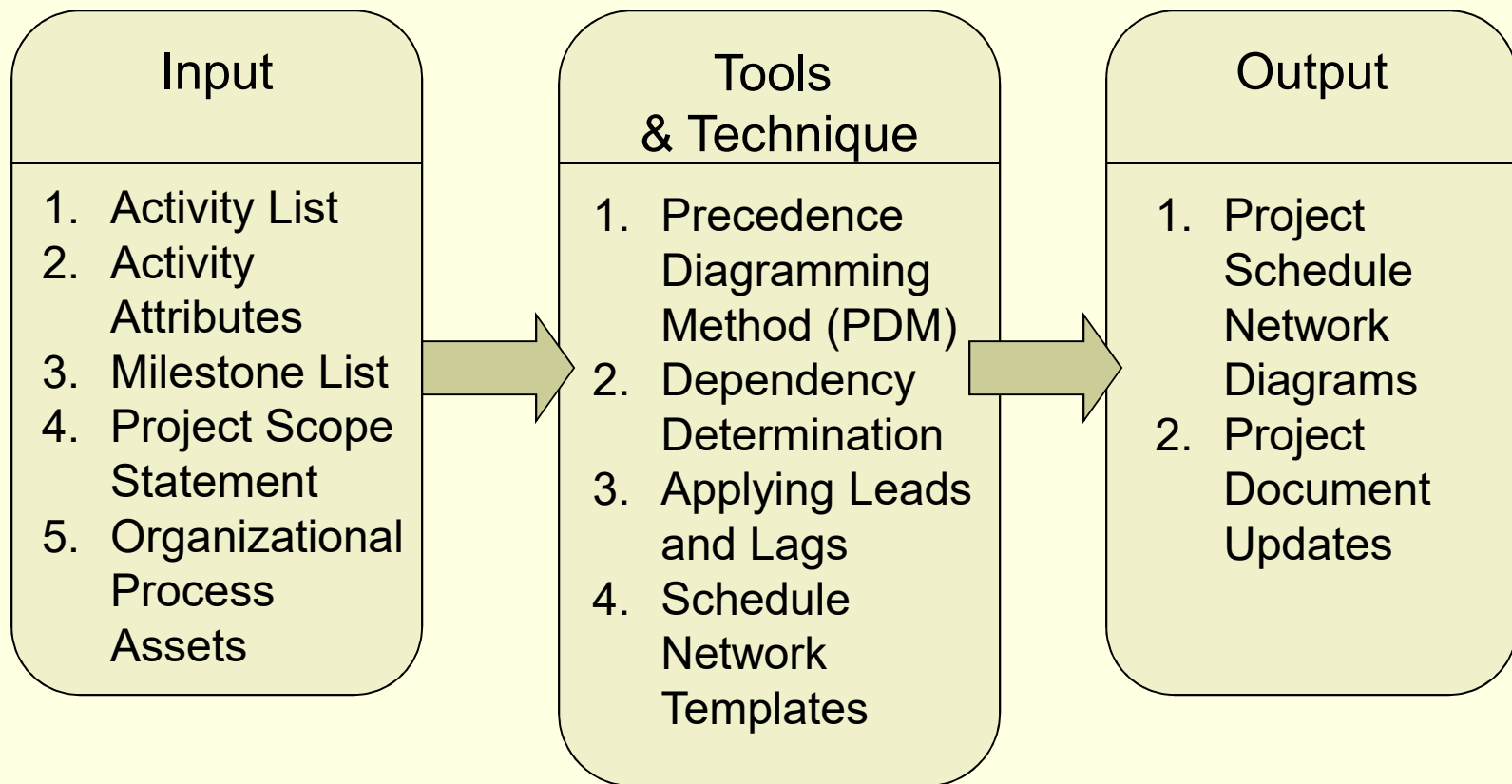# 3.6 Develop Schedule

# 3.6.1 Overview

Define Activities

↓

Sequence Activities

↓

Estimate Activity Resources

↓

Estimate Activity Duration

} Estimation

↓

Develop Schedule

} Integration Management

3.6.2 Define Activities

WBS

| System Development |

Order-receiving system ...

| System Structure Design | | Program Structure Design |

Feedback the change to WBS

Sub-system	Activity 1	Activity 2
Order-receiving system	System Structure Design	Analysis
		Design
		Review
	User Interface Design	Analysis
		Design
		Review

3.6.3   Sequence Activities

➢ Identify and document relationships among the project activities.

Input	Tools & Technique	Output
1. Activity List 2. Activity Attributes 3. Milestone List 4. Project Scope Statement 5. Organizational Process Assets	1. Precedence Diagramming Method (PDM) 2. Dependency Determination 3. Applying Leads and Lags 4. Schedule Network Templates	1. Project Schedule Network Diagrams 2. Project Document Updates

3.6.4 Precedence Diagramming Method (PDM)

➤ Describe the activity as a node and connect it with the other using allow to express sequence relationship. PDM can describe four dependent relationships.

① Finish to Start (FS)　：The initiation of the successor activity depends on the completion of the predecessor activity.

② Finish to Finish (FF)　：The completion of the successor activity depends on the completion of the predecessor activity.

③ Start to Start (SS)　：The initiation of the successor activity depends on the initiation of the predecessor activity.

④ Start to Finish (SF)　：The completion of the successor activity depends on the initiation of the predecessor activity.
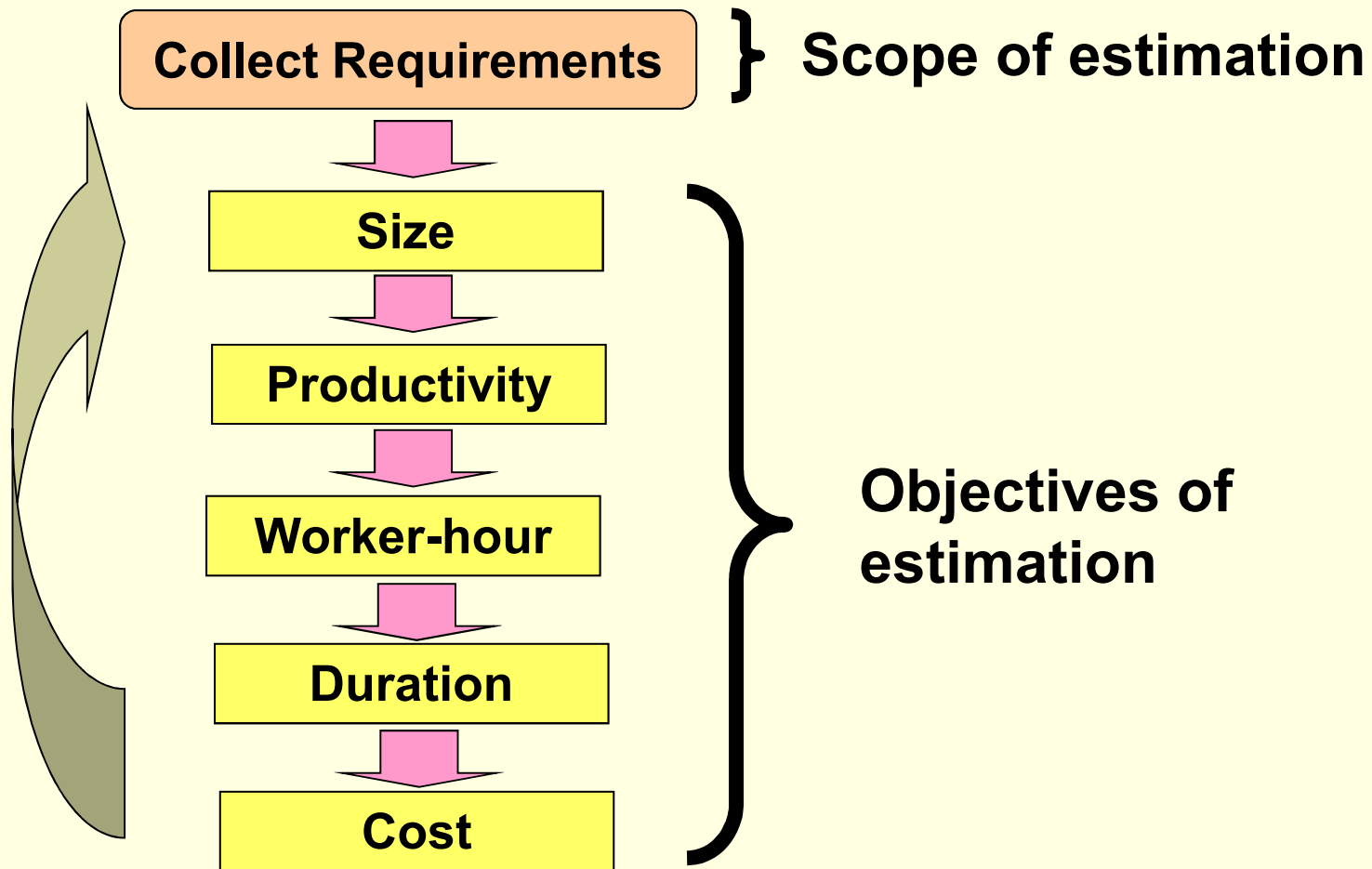
①
A

B

③
A

B

②
A

B

④
A

B
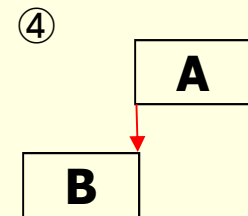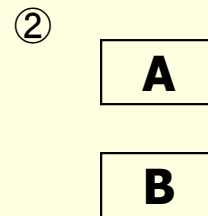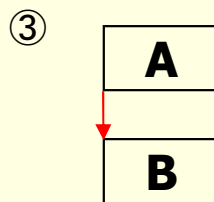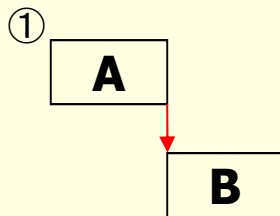
3.6.5 Dependency Determination

➢ To define the sequence among the activities, three types of dependencies are used;

1. Mandatory Dependencies:
   - ➢ Dependencies that are contractually required or inherent in the nature of the work.

2. Discretionary Dependencies:
   - ➢ Dependencies which can be determined sequence of activities discretionary.

3. External Dependencies:
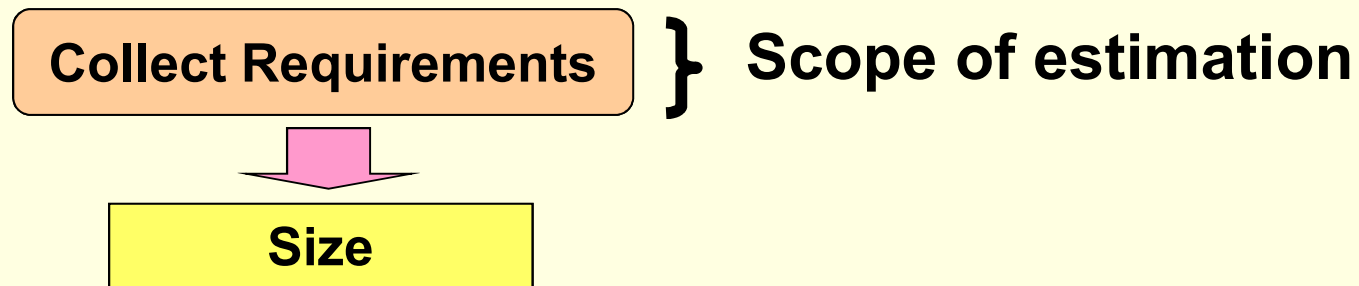   - ➢ Dependencies that are controlled by outsider.

3.6.6 Estimation

<The basic process of estimation>

(1) Sizing

<The basic process of estimation>

```
┌────────────────────────────┐
│   Collect Requirements     │  }  Scope of estimation
└────────────────────────────┘
              ⬇
┌────────────────────────────┐
│          Size              │
└────────────────────────────┘
```

< Examples of Metrics >
Number of requirements
Number of steps (LOC: Lines of code)
Number of functions (FP: Function point)
Number of pages
Number of I/O
Number of interface

(2) Estimate Productivity

➤ How to estimate the productivity?

$$\text{Productivity} = \frac{\text{Size}}{\text{Worker-Hour}}$$

➤ Productivity means the amount of output per hour/day/month.

➤ To get the productivity, the past data are used.

➤ Over 30 data are desired to get the reliable average productivity. (You need to modify it depends on the skill level of team members.)

(3) Estimate Worker-Hour

➤ After you estimate the size and productivity, you can calculate worker-hour using the formula.

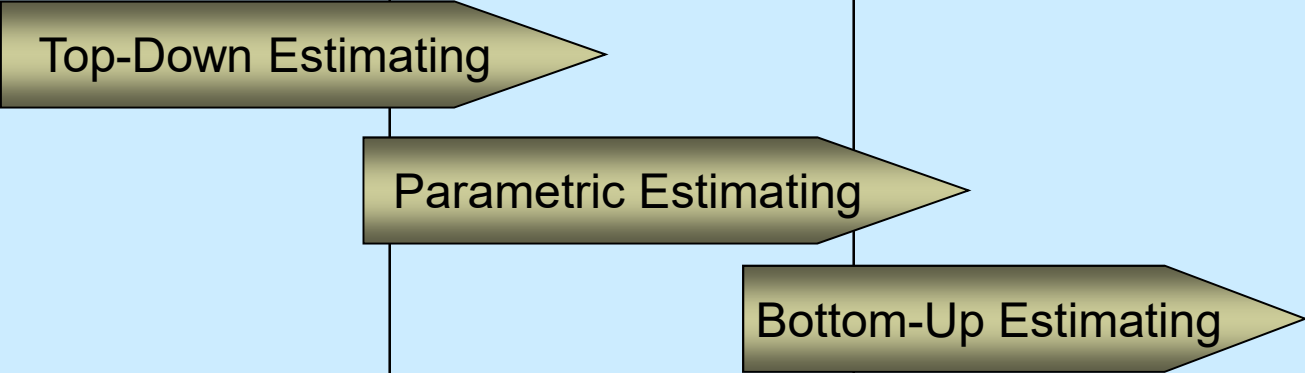$$\text{Worker-Hour} = \frac{\text{Size}}{\text{Productivity}}$$

(4) Estimate Activity Duration

<The basic process of estimation>

$$\boxed{\text{Duration}} \; = \; \frac{\boxed{\text{Worker-Hour}}}{\boxed{\text{Number of Workers}}}$$

➢ Estimate Activity Durations is the process of approximating the number of work periods needed to complete individual activities with estimated resources.

(5) Estimation Framework

Estimation \ Phase	Business Talks	Collect Requirement	System Design
Type of Estimate	Order-of-magnitude estimate	Preliminary estimate	Definitive estimate
Accuracy	−30～＋50%	−15～＋30%	−5～＋15%
Tools and Technique of Estimating	Top-Down Estimating →	Parametric Estimating →	Bottom-Up Estimating →

3.7 Critical Path Method

> Based on the estimated duration, calculate the theoretical Early Start and Early Finish dates, and Late Start, Late Finish dates.

> The critical path is the longest path throughout the project. The float of critical path should be zero.

> Project manager have to focus on the critical path to manage

> Critical path can change to the other path in a project. So, project manager need to monitor near-critical path as well.
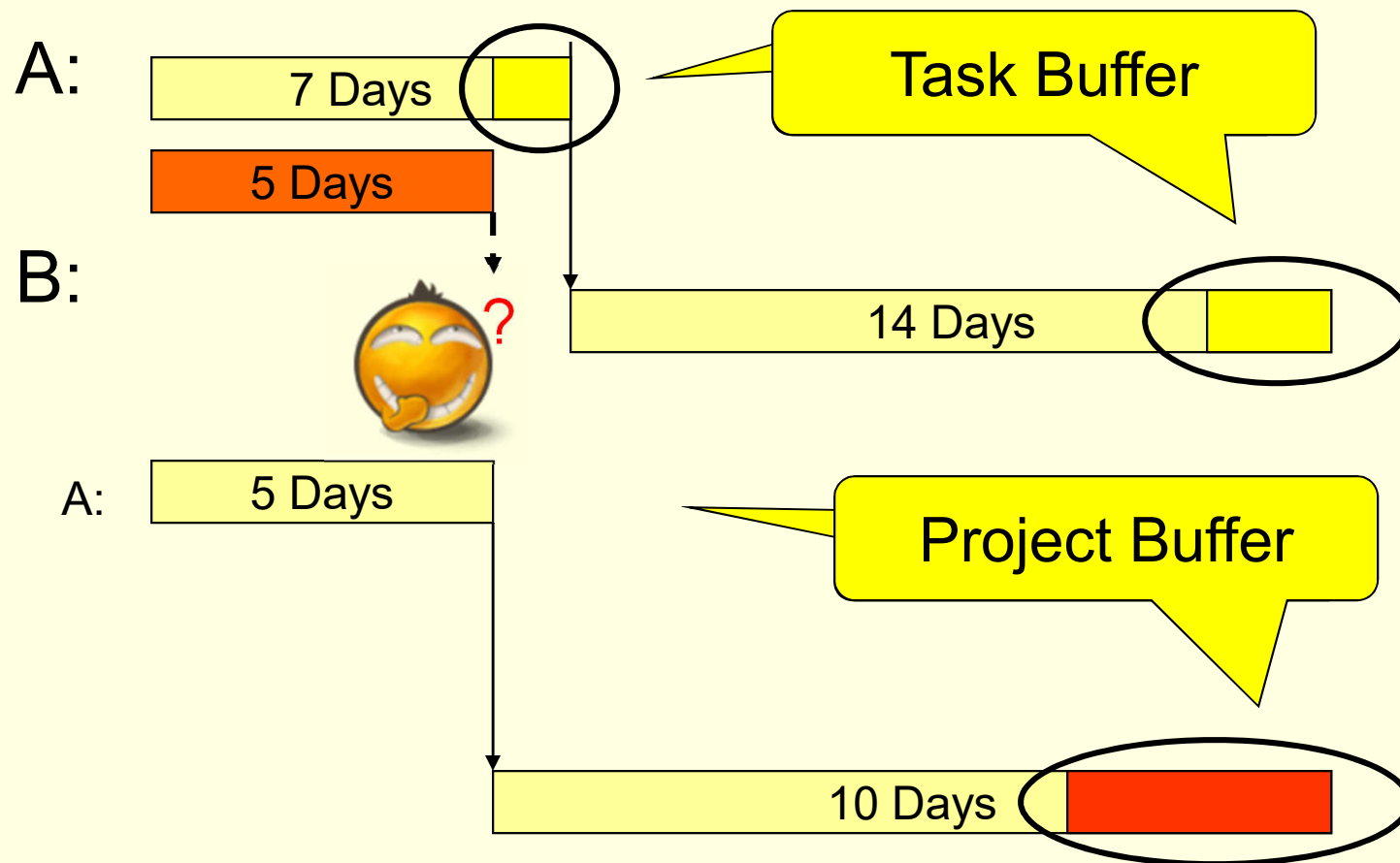
Exercise : Critical Path Method
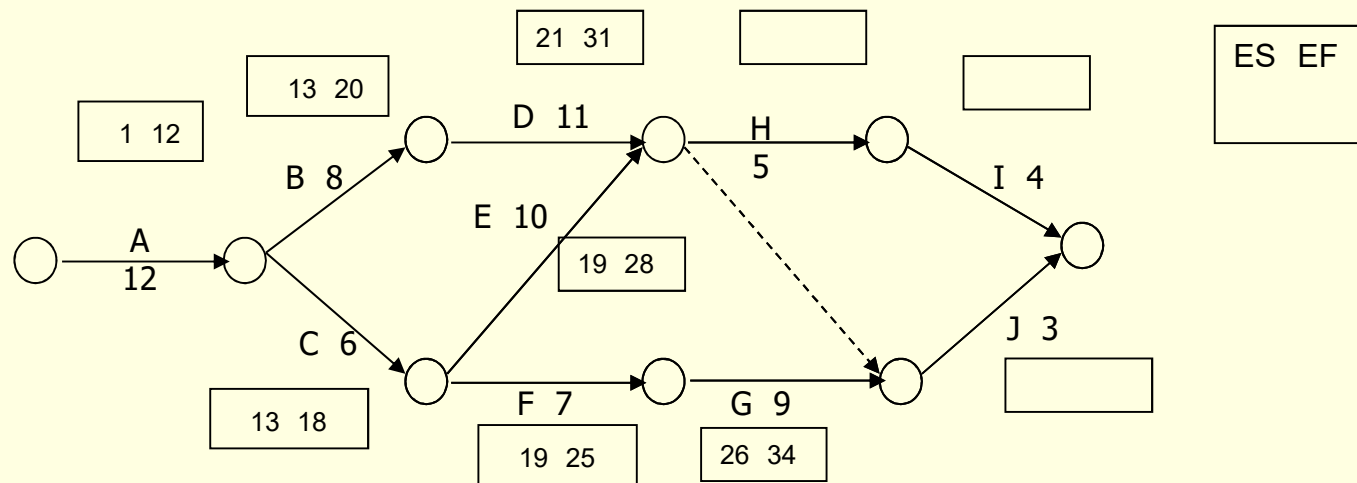
Activity	Predecessor activity	Successor activity	Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
A	—	B、C	12	1	12			
B	A	D	8	13	20			
C	A	E, F	6	13	18			
D	B	H, J	11	21	31			
E	C	H、J	10	19	28			
F	C	G	7	19	25			
G	F	J	9	26	34			
H	D, E	I	5					
I	H	—	4					
J	G、D、E	—	3					

Calculates here

3.8 Critical Chain

➢ Critical Chain is the method of shorten the project duration.

A:
| 7 Days | |

5 Days

Task Buffer

B:
?
| 14 Days | |

A:
| 5 Days |

Project Buffer

| 10 Days | |

3.9 Develop Master Schedule

Master Schedule

System Development Project for X cop.

Duration : 20XX,Apr,1〜20XX,Nov,30（8months）

Date：20XX,Mar,25

Planner：xx Div) Vinh

	4	5	6	7	8	9	10	11
Event		▲Server		▲Client			Training for user	
Meeting	▲	▲	▲	▲	▲	▲	▲	▲
Review		▲Requirement Definition		▲Program Design		▲Test Planning		▲Delivery
Process								
System Analysis	—							
Interface Design		—						
System Design			—					
Program Design				—				
Programming					—			
Program Test								
System Test						—		
Integration Test							—	
Operation Test								—
Personnel	6	6	6	6	8	8	8	6

Note：

3.10 Estimate Activity Resources

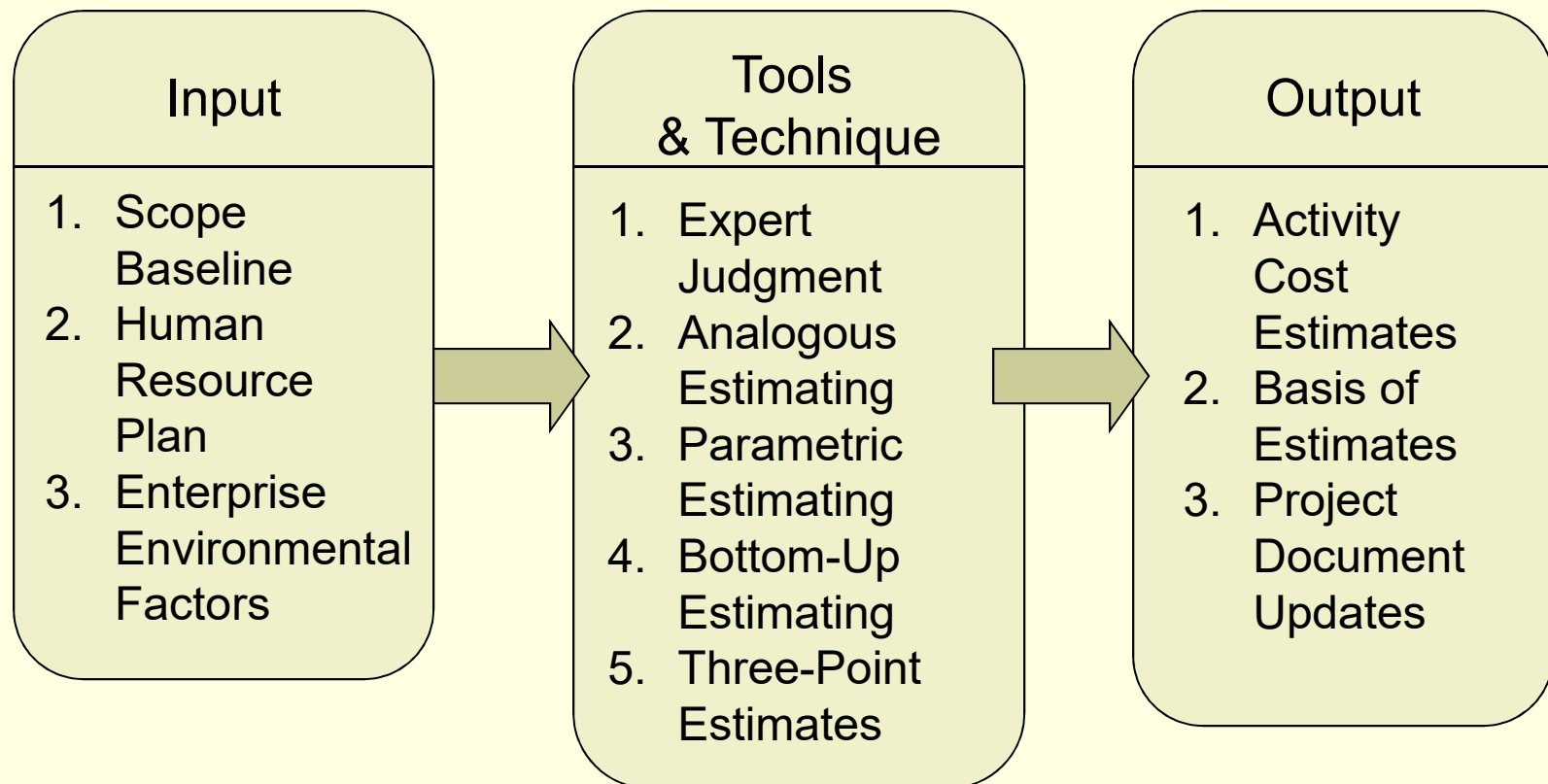➢ Estimate the type and quantities of material, people, equipment, or supplies required to perform each activity.

Input	Tools & Technique	Output
1. Activity List 2. Activity Attributes 3. Resource Calendars 4. Enterprise Environmental Factors 5. Organizational Process Assets	1. Expert Judgment 2. Alternatives Analysis 3. Published Estimating data 4. Bottom-Up Estimating	1. Activity Resource Requirements 2. Resource Breakdown Structure 3. Project Document Updates
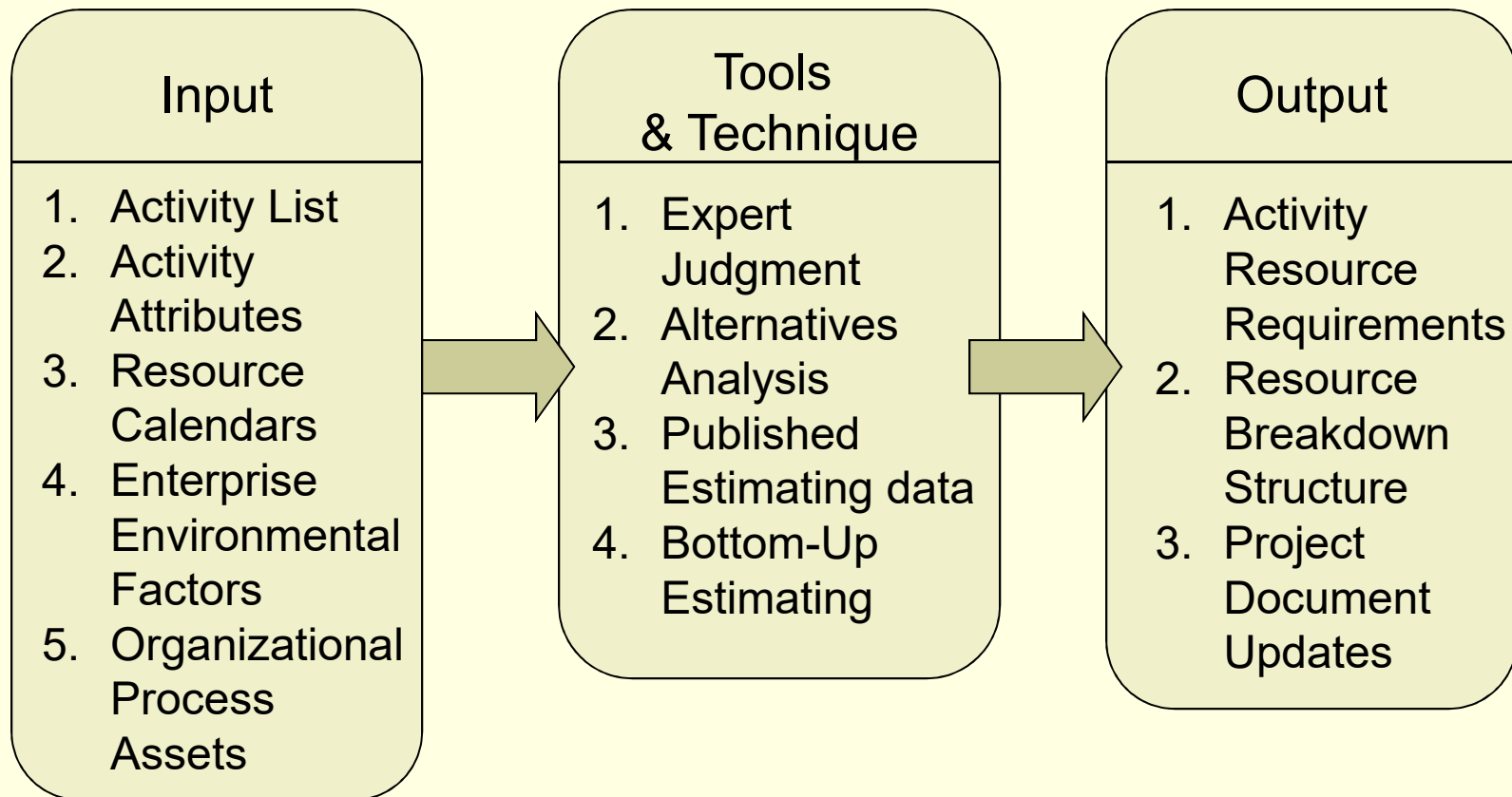
3.11 Cost Planning
3.11.1   Cost Schedule

➢ Estimate Costs

    ➢ The process of developing an approximation of the monetary resources needed to complete project activities.

Input	Tools & Technique	Output
1. Scope Baseline 2. Human Resource Plan 3. Enterprise Environmental Factors	1. Expert Judgment 2. Analogous Estimating 3. Parametric Estimating 4. Bottom-Up Estimating 5. Three-Point Estimates	1. Activity Cost Estimates 2. Basis of Estimates 3. Project Document Updates

3.11.2   Determine Budget

- ➢ Determine Budget
  - ➢ The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline.

Input	Tools & Technique	Output
1. Activity Cost Estimates 2. Scope Baseline 3. Project Schedule 4. Resource Calendars 5. Contracts	1. Cost Aggregation **2. Reserve Analysis** 3. Expert Judgment 4. Historical Relationships 5. Funding Limit Reconciliation	1. Cost Performance Baseline 2. Project Funding Requirements 3. Project Document Updates
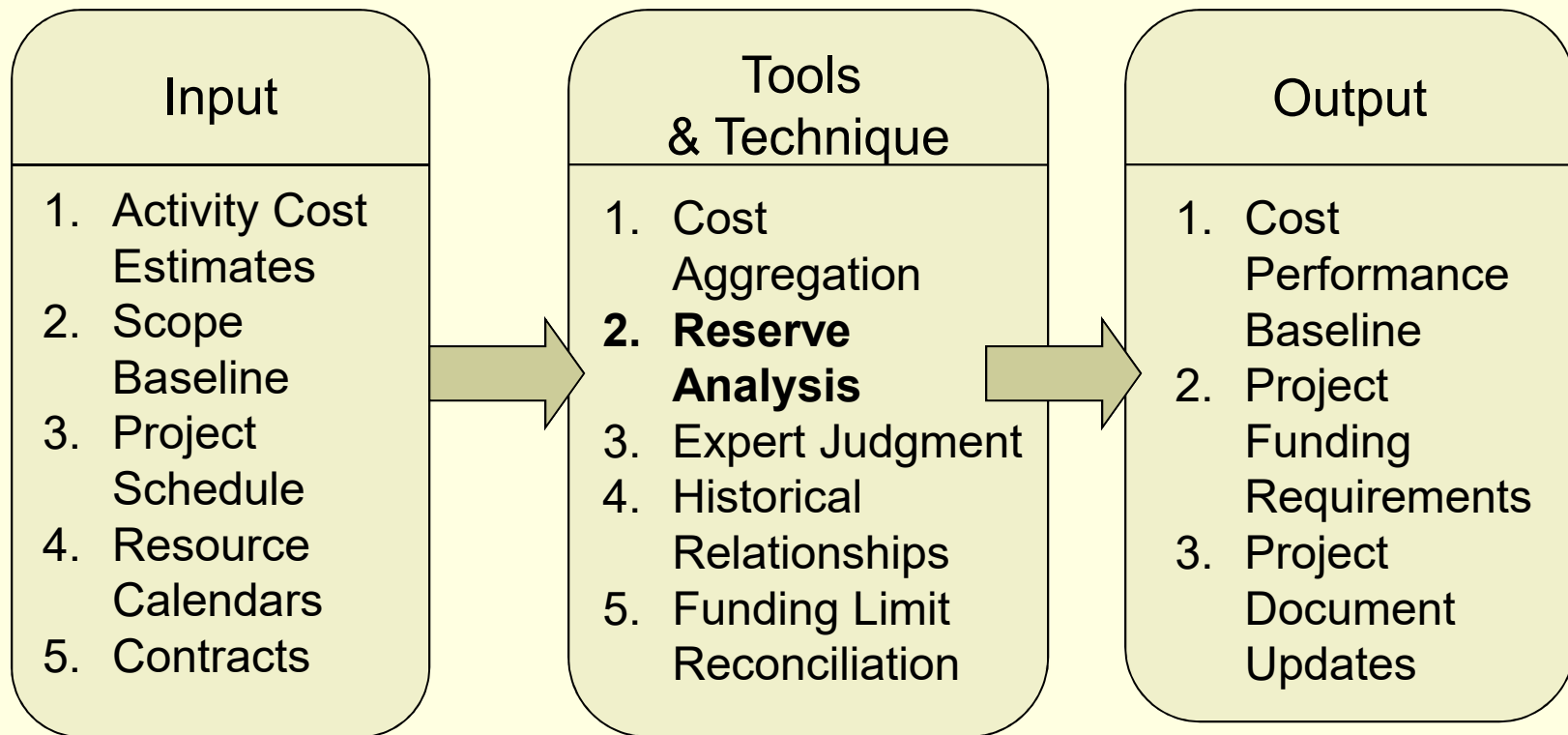
3.12 Quality planning

➤ Quality planning based on process and result.
➤ Test is important, but process design and monitoring are more important.

Input	Tools & Technique	Output
1. Scope Baseline 2. Cost Performance Baseline 3. Schedule Baseline 4. Risk Register 5. Environmental Factors 6. Process Assets	1. Cost-Benefit Analysis 2. Cost of Quality 3. Control Charts 4. Benchmarking 5. Design of Experiments 6. Statistical Sampling	1. Quality Management Plan 2. Quality Checklists 3. Process Improvement Plan 4. Quality Metrics 5. Project Document Updates

Sample Quality Planning

HTML Cording Guidline

Overall

	Items	Basic Rules	Changed
Overall	Rule of file name	Usable caracter : 0-9, a-z, A-Z Don't use number and under bar (_) at the top of file name.	

HTML Cording

	Items	Basic Rules	Changed
Files	File name	Name the easy file name to know the contents at a sight.	
Files	Verification Scope	Over WindowsXP and InternetExplorer6, Mac OS10.4 and Forefox 2.0	
HTML	Link	Standardize the type of path (relative or absolute)	
HTML	Javascript	It is prohibited to write javascript in HTML directly. Use external file.	

Exercise : Plan quality in your job

	Items	Basic Rules
Ovreall		

	Items	Basic Rules

3.13 Human resources planning

➢ Identify and document project roles, responsibilities, and required skills, and creating a staffing management plan.

Input	Tools & Technique	Output
1. Activity Resource Requirements 2. Enterprise Environmental Factors 3. Organizational Process Assets	1. Organization Charts and Position Descriptions 2. Networking 3. Organizational Theory	1. Human Resource Plan • Staff acquisition • Resource calendars • Staff release plan • Training needs • Recognition & rewards
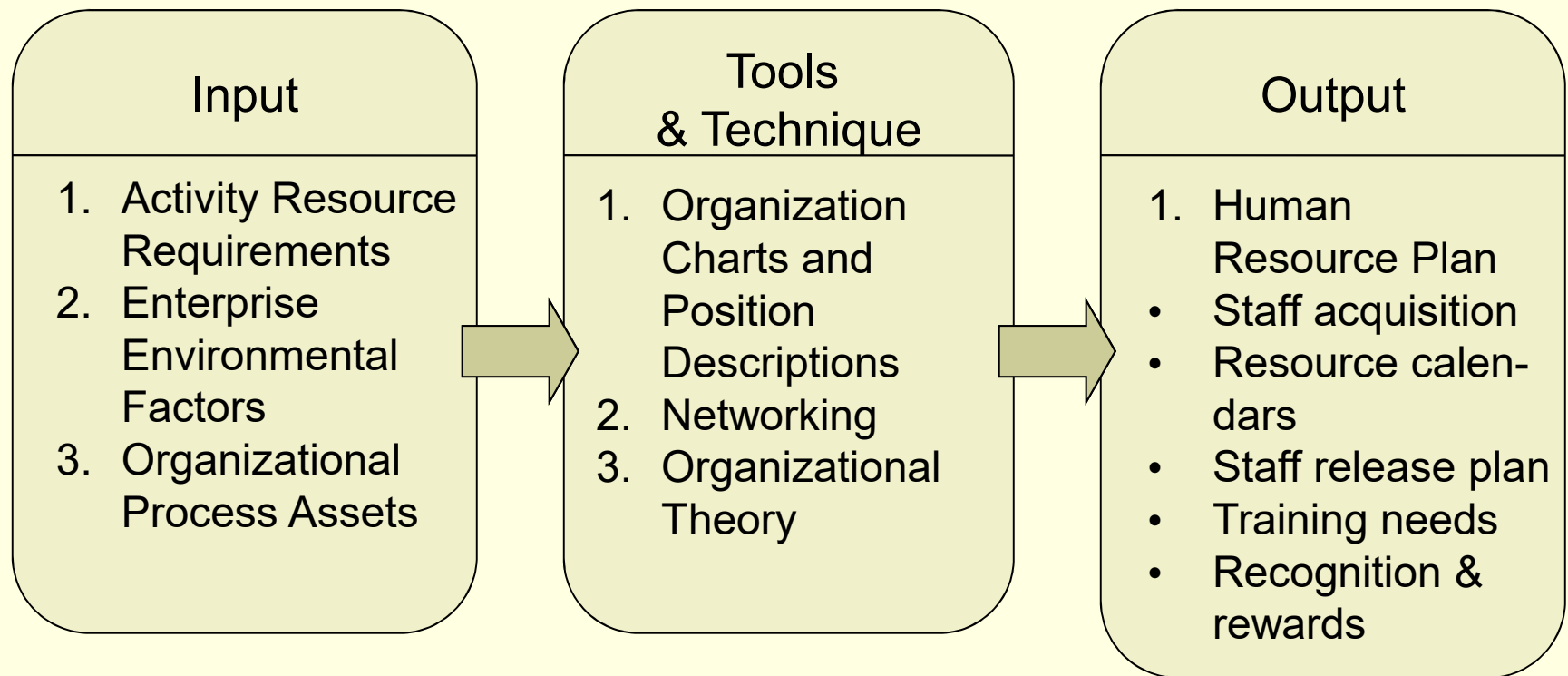
3.13 Human resources planning

Activity	Work Product	Customer	Vice President of Operation	PD Project Director	PL Project Leader	Developer	Tester	SQA Software Quality Assurance	Process Quality Assurance / SEPG
Develop proposal	- Proposal - Contract - Estimation&Schedule	A	A/R	D	I			R	R
Develop internal Work Order, project plan	- Work order - Schedule - Estimation - Configuration Management plan		A/R	R	D	I	I	R	R
Conduct weekly project reporting	- Weekly report	A	R	A	D	I	I	I	I
Conduct project training	- Training report			R/A	D	I	I		R
Conduct CM activities	- Baseline reports			R	R	I	I	R	I
Define user requirements	- URD (User Requirement Defination)	D	A/R	R	R			I	I
Develop software requirements specification	- SRS (Soft ware requirement Specification	D/A	R	A	D	R	R	R	I
Make prototype	- Prototype	A	R	A	D	D	R	I	I
Define and handle change requirements	- Change voucher	A	I/R	A	D	D	R	I	I
Develop test plan	- Test plan and test spec			A	R	I	D	R	I
Make Design	- Basic design - Detail Design - Method design - Operating design - P voucher (Program voucher)	A		A	D	R/D	I	R	I

D - Do; R - Review; A - Approve; I - Informed; T - Translate;<blank>- Omitted

3.14 Communication Planning

➢ Customer satisfaction 😊 depends on the quality of communication.

➢ At first, <u>stakeholder analysis</u> is needed.

  ➢ How about the knowledge and skills?

  ➢ Who is the key person?

  ➢ Are there any hidden stakeholders like "top management," "other division's staff."

Plan Communications

➢ The process of determining the project stakeholder information needs and defining a communication approach.

Input	Tools & Technique	Output
1. Stakeholder Register 2. Stakeholder Management Strategy 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Communication Requirements Analysis 2. Communication Technology 3. Communication Models 4. Communication Methods	1. Communication Management Plan 2. Project Document Updates
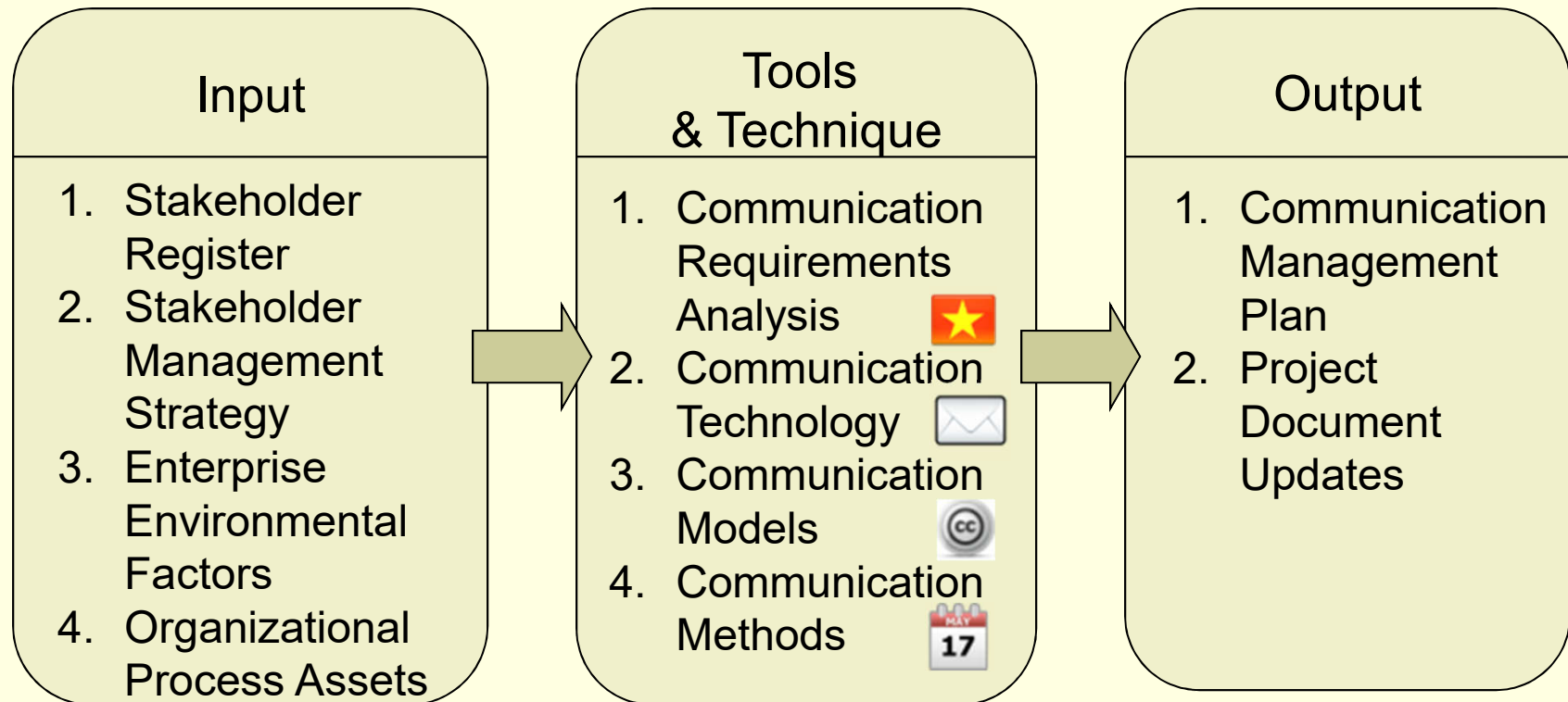
Sample of Communication Plan

No	Meeting Type	Purpose	Frequency	Host	Attendance
1	Phase Meeting	Decision Making	Anytime in needed	Client	Client, PM, Sales
2	Team Meeting	Progress Assessment	Once in a week	PM	PM, Project members
3	Morning Meeting	Know each other, good communica-tion	Every morning	PM	PM, Members

Exercise

< Make the rule of how to use e-mail >

In this project, we will use e-mail as a main tool for communication. The purposes of using e-mail are as follows; 1) Distribute information accurately, 2) Record the information, 3) Avoid interruption
< The Rule when you send a mail>
< The Rule when you reply a mail>
< The Rule when you transfer a mail>
< The Rule when you send a mail using bcc.>

3.15 Risk Planning
3.15.1 Definition of Risk

- What is a risk?
  - Uncertainty which will be able to make a good or bad impact on the project.
  - Project includes a lot of risk.
  - You need to proceed almost all process in the project considering risk.

Mini Question

➢ How to deal with the risk as follows;

    ➢ You plan to have a home party next weekend.

    ➢ But you don't know how many people will come.

    ➢ Now, you consider to prepare drink and food for 10 people.

    ➢ It will be too much if you have only 5 people.

    ➢ It will be too small if you have 15 people.

    ➢ But you can't confirm how many people will come in advance. (Uncertainty will be kept.)

➢ Please find out the <u>best way</u> to avoid the risk under uncertainty.

3.15.2 Whole process of Risk Management

(2) Identify Risks	(3) Risk Analysis ▶ Quantitative ▶ Qualitative	(4) Plan Risk Responses

Project Plan

Risk Plan

Manage repeatedly !

(5) Monitor and Control Risks

▶ **Responses Plan still work?**
▶ **Are there any new risks?**
▶ **Do your risks changed?**
   etc..

(1) Risk Management Plan

Plan at first
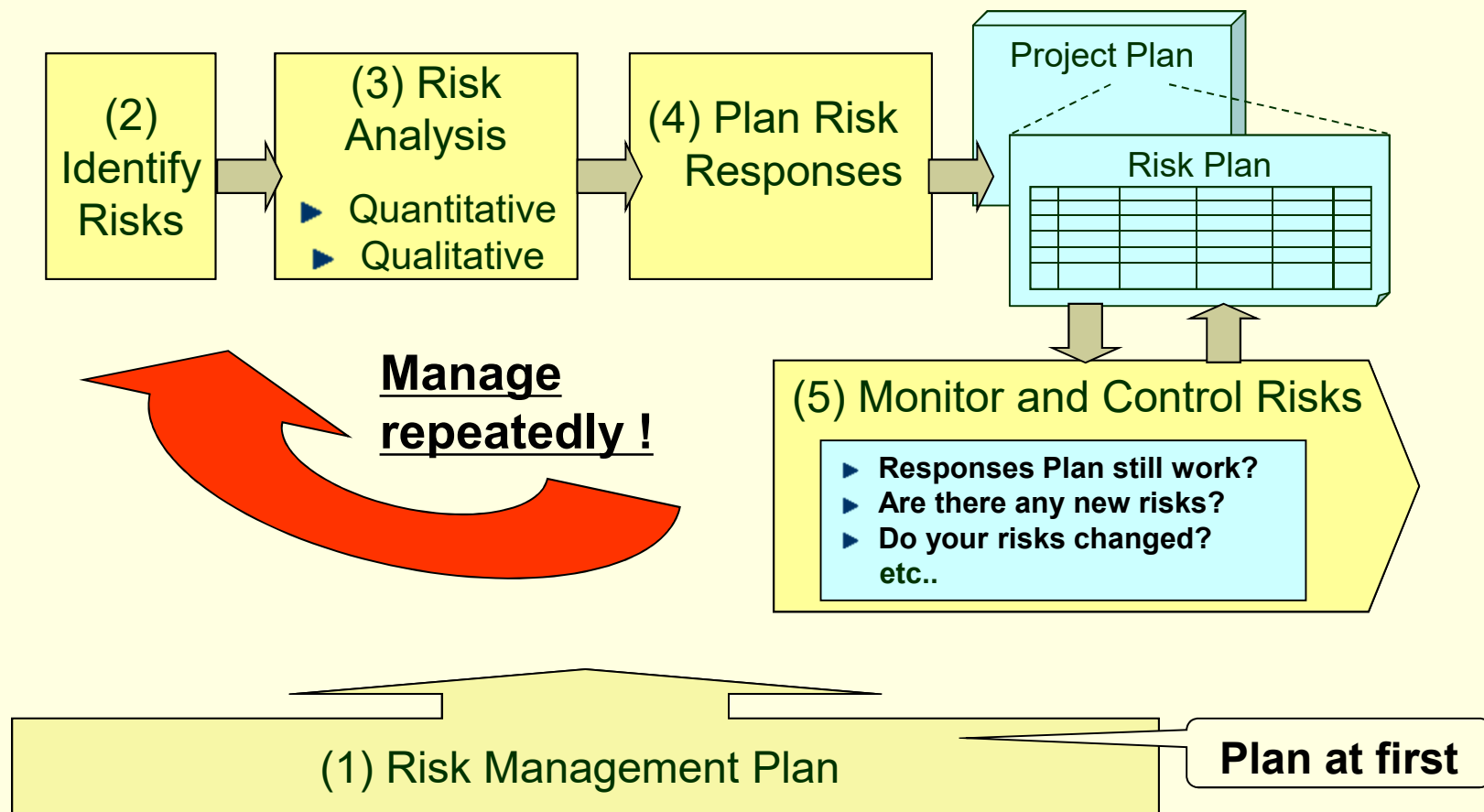
3.15.3 Risk management plan

➢ Plan Risk Management

   ➢ The process of defining how to conduct risk
      management activities for a project.

1. Restraint Conditions
2. Scope Statement
3. Schedule/Cost Management Plan
4. Communication Plan
5. Organizational Process Assets etc..

Planning Meeting and Analysis

Risk Management Plan

•Methodology
•Roles and
    responsibilities
•Budgeting
•Timing
•Risk categories

3.15.4 Identify Risks

➢ Determining the risks which may affect the project and document their characteristics.

CategorySis	Risk Driver	Risk
System	・Request is unclear.	・It may be delay to fix requirement.
	・Size of system is big.	・Estimation may be difficult.
	・Quality requirement is high.	・It may be schedule delay.
Technical	・Use new technology.	・It may take many time for trouble shooting.
	・Use package software.	・It can be difficult to customize it.
Organization	・End use can't join the project.	・It can be difficult to cover all users needs.
	・There are not enough system engineer in the project.	・The project can be delayed.

3.15.5　Perform Risk analysis

Probability	
High	Many times occurred in the past
Middle	Several times occurred in the past
Low	Never or few times occurred in the past

Impact Level	
High	Company have to deal with it. (Lose all profit, Bring lawsuit, Have a press conference for appology etc..)
Middle	Other project team or division need to help the project to solve the problem.
Low	Project team or members can solve ploblems using their own baffer.
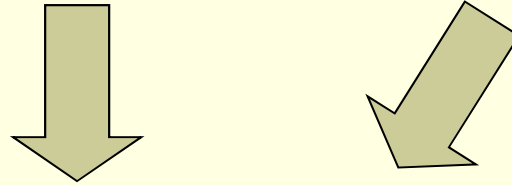
Probability＼Impact	Big	Middle	Small
High	A	A	B
Middle	A	B	C
Low	B	C	C

3.15.6   Plan Risk Responses

➢ Plan Risk Responses is the process of developing options and actions to enhance opportunities and to reduce threats to project objectives.

Risk Management Plan, Risk Register → **Avoid** → **Transfer** → **Mitigate** → **Accept**

Risk Management Plan

✓Risk register
✓Risk-Related Contract Decisions
✓Contingence Plan
✓New Risk
✓Risks which are remained.
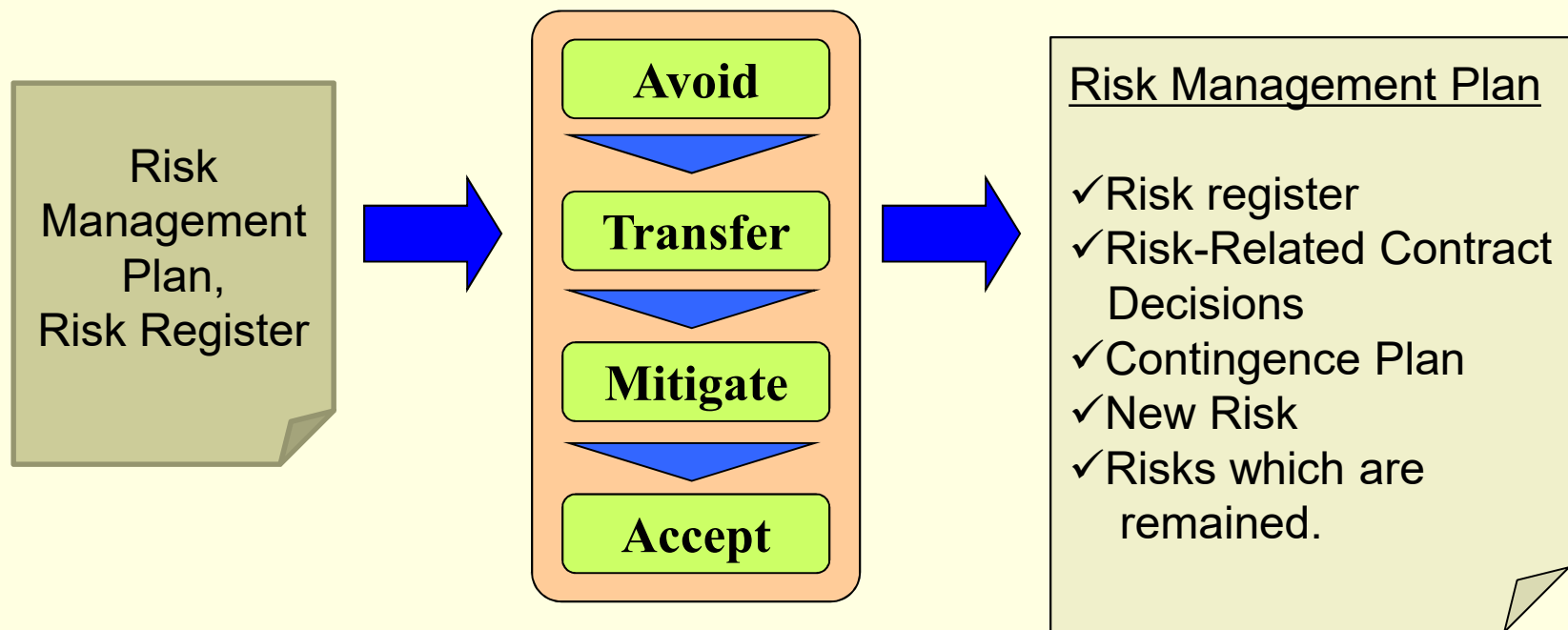
3.16 Procurement Planning
3.16.1   Plan Procurements

➢ Procurement planning start from "make or buy analysis."

➢ It your project decide to buy, you need to meet with good seller.

➢ The basic measure to do so is to make the document like "Request For Proposal (RFP)."

    ➢ RFP is nearly equal document to Project Charter which includes project goal, output, budget, and due date for provable seller.

3.16.2 How to manage procurement risk?

- ➢ Contract Types determine the risk which is shared between the buyer and seller.
- ➢ Project manager need to understand the basic specification of contract types as follows;

Low   Buyer's Risks   High

High   Seller's Risks   Low

FFP	FPI	CPIF	CPFF
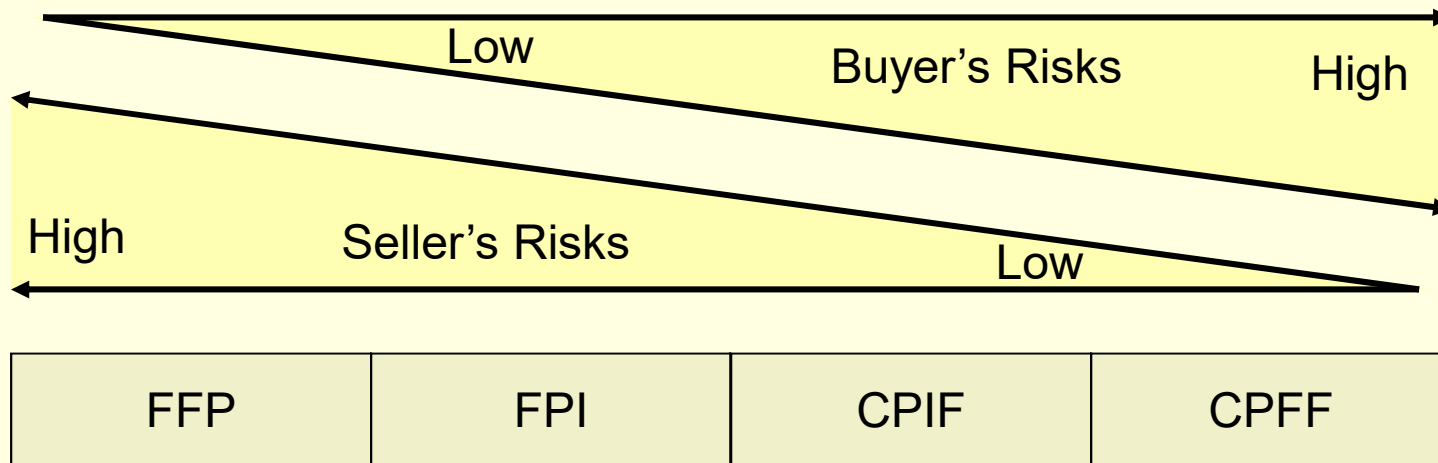
4. Project Executing

4.1　Project Executing
4.1.1 Direct and Manage Project Execution

➢ Perform the work defined in the project management plan to achieve the project's objectives.
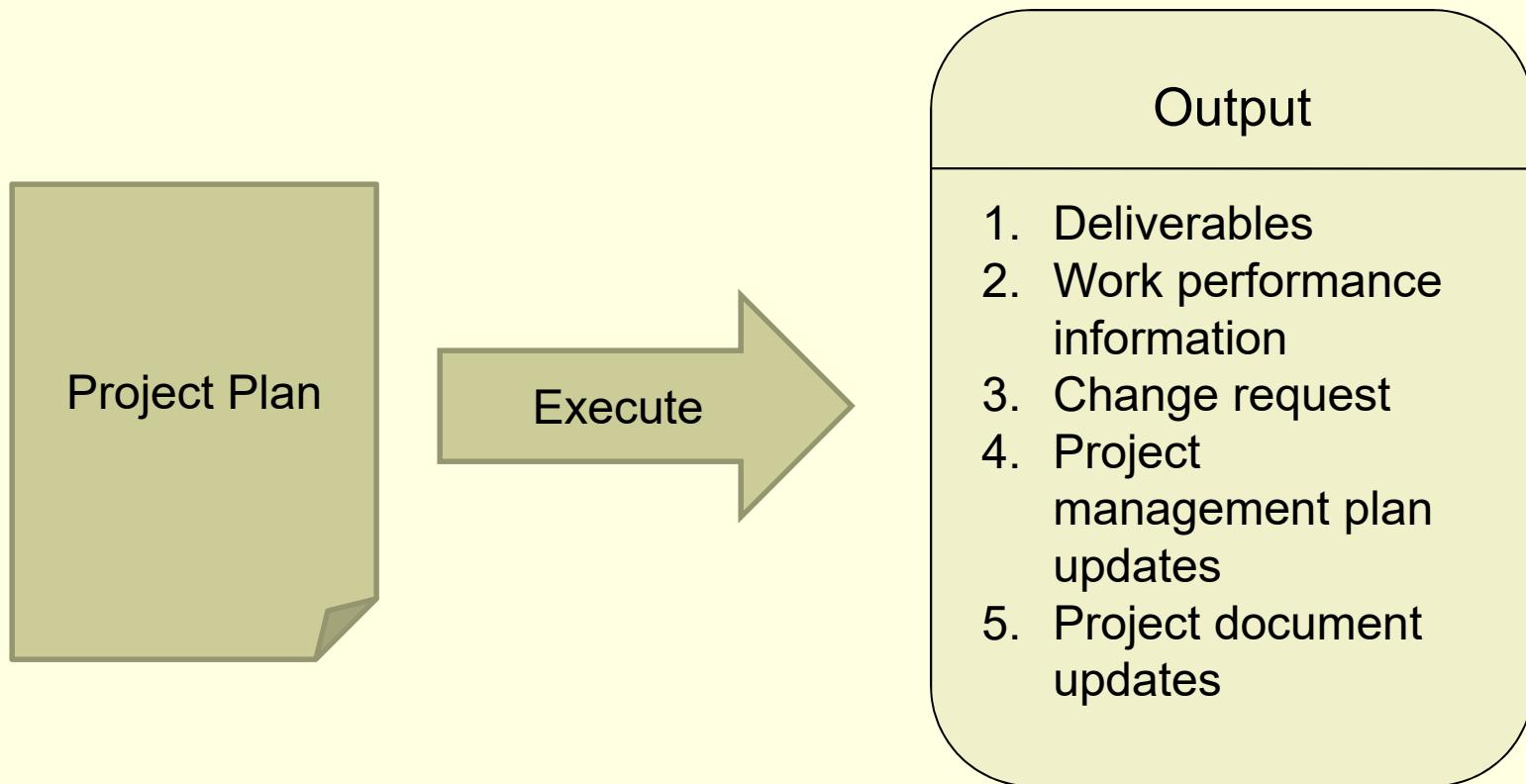
4.1.2 Perform Quality Assurance

➢ High quality output will come from good process.

➢ Perform quality assurance use audit to make sure the planned process is executed appropriately.

Audit to the process

Quality Process

indicate

Process Improvement

Enhance the Review

Process standards

.
.
.
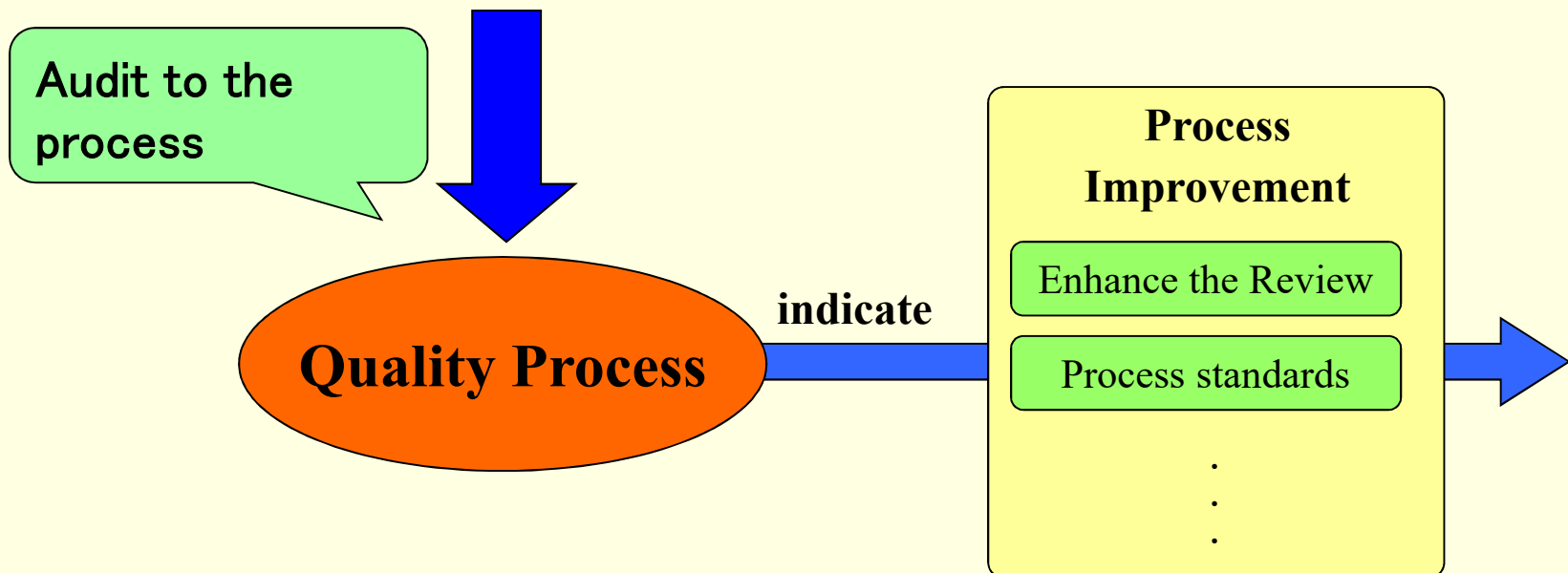
4.2   Team Building
4.2.1 Acquire Project Team

➢ Confirm human resource availability and obtain the team necessary to complete project assignments.

➢ If it is clear that the human resources are not enough to execute, project manager have to explain about it to project sponsor.

➢ Project manager need to have the negotiation to get additional staff.

4.2.2 Develop Project Team

➢ Improve the competencies, team interaction, and the overall team environment to enhance project performance.

➢ Project manager should acquire skills to identify, build, maintain, motivate, lead, and inspire project teams to achieve high team performance and to meet the project's objectives.

4.2.3 Team Building Activities

- Forming
  - Team meets and learn about the project and what their formal rules and responsibilities are.
- Storming
  - Team begins to have different opinion and address the project work, technical decisions, and PM approach.
- Norming
  - Team members begins to understand and adjust work style and behaviors.
- Performing
  - Team reach the performing stage function as a well-organized unit.
- Adjourning
  - Team completes the work and moves on from the project.

4.2.4 Manage Project Team

➢ "Project team organization" secures human resources necessary for the completion of the project.

➢ Tracking team member performance, providing feedback, manage conflict, keep performance better.

4.2.5 How to get better performance?
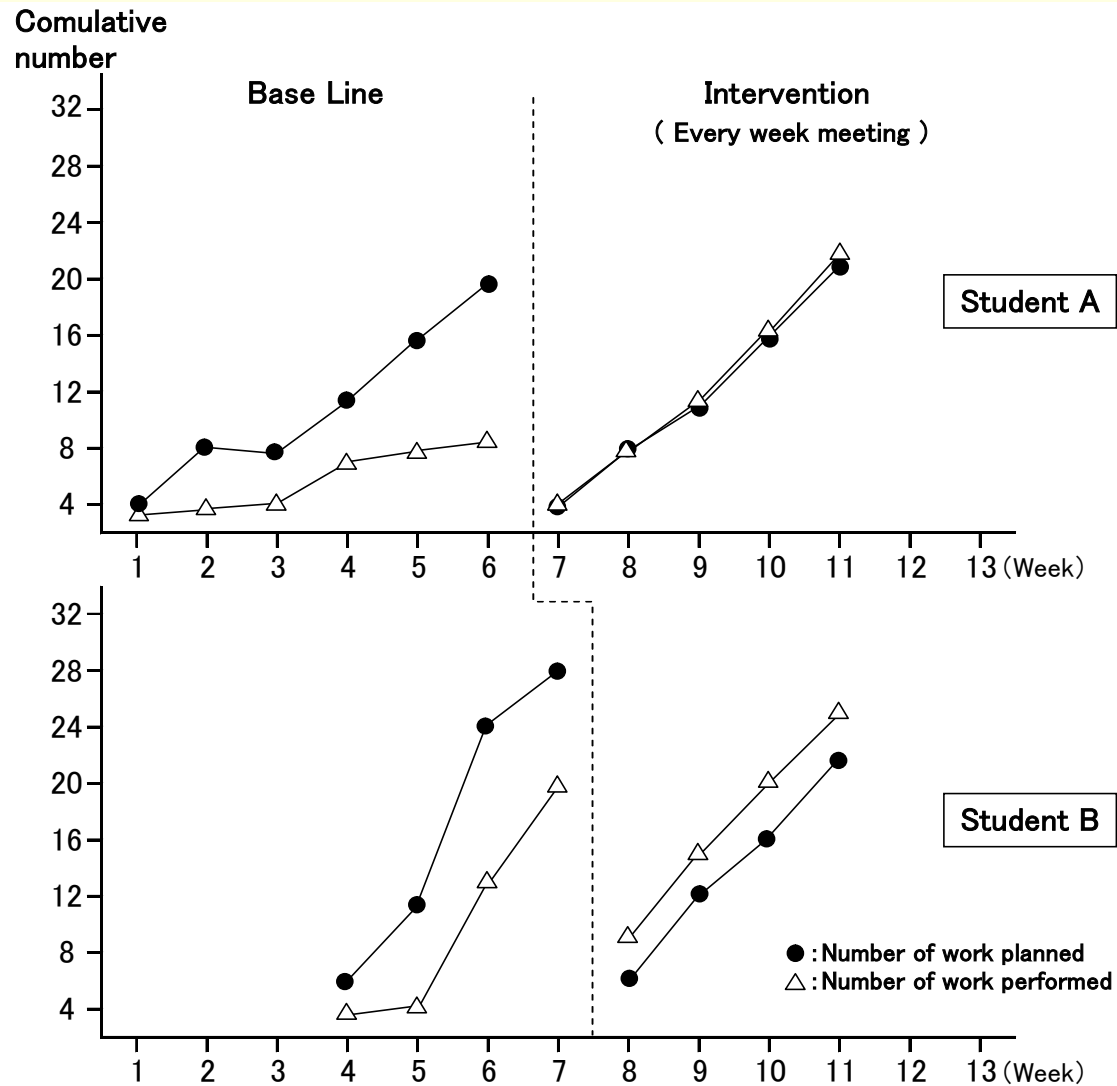
Record of comulative number of two teaching assistant work planned/performed

How to get better performance? (cont)

Able Leader A

	0	10	20	30	40	50 second
D						
C						
F						

Not Able Leader B

| | 0 | 10 | 20 | 30 second |

D : Direction
C : Check
F : Feedback

● : Clear message
○ : Unclear message

Not Able Leader C

| | 0 | 10 | 20 | 30 | 40 | 50 second |
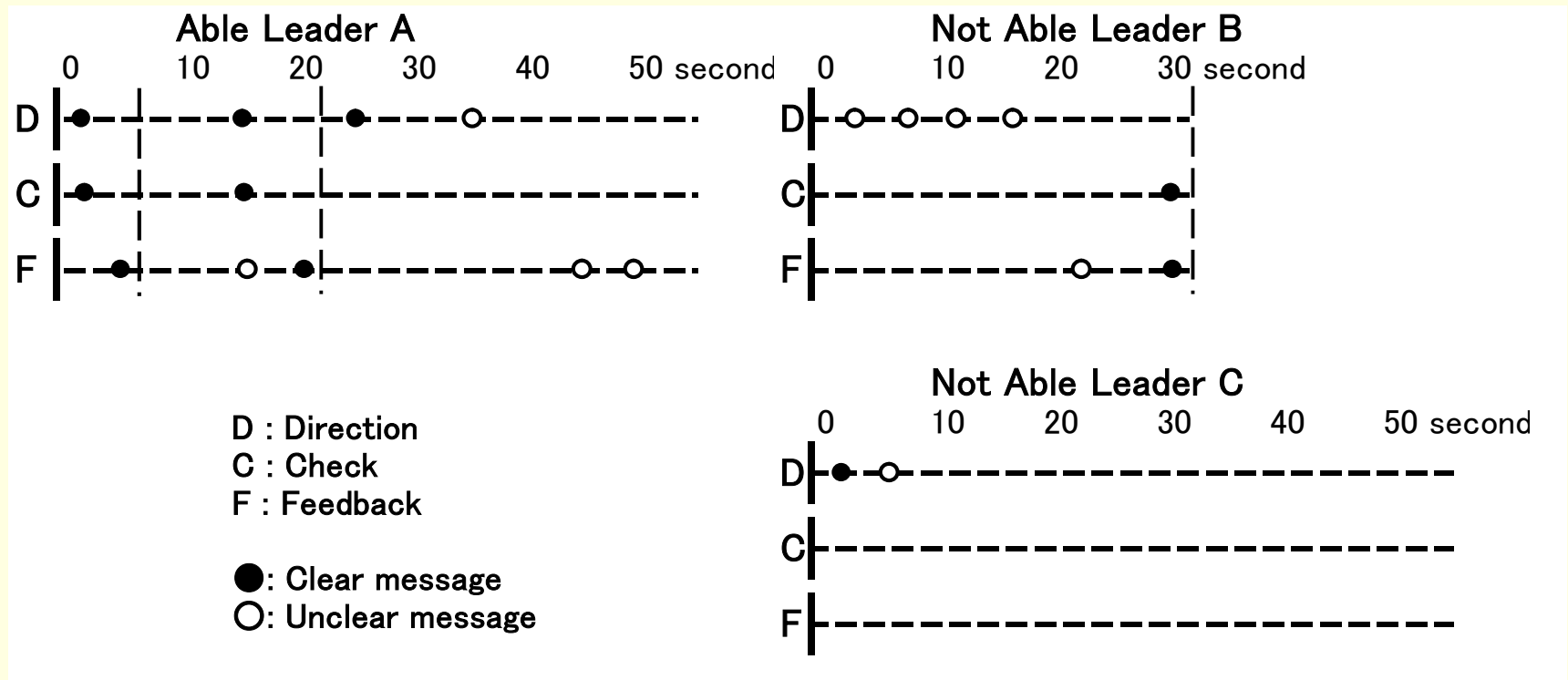
4.3   Basic Group Concepts

Roles
- Vi trò, vị trí, trách nhiệm của từng thành viên trong nhóm.

Norms and conformity
- Luật định, thỏa thuận được chấp nhận và áp dụng.

Motivation management
- Động lực thúc đẩy

Group size
- Nhóm nhỏ hoàn thành công việc nhanh hơn. Nhóm lớn khắc phục sự cố nhanh hơn, khuynh hướng giảm gắn kết

Group cohesiveness
- Mức độ gắn kết giữa các thành viên, chia sẻ mục tiêu.

Conflict management
- Khác biệt là do đối lập hay chống đối. Mâu thuẫn chức năng giúp dự án phát triển, mâu thuẫn phi chức năng thì không.

Informal communications
- Các trao đổi thông tin không chính thức, ngoài quy định.

4.4 Motivation management
4.4.1 Complex motivation

Under higher levels of light,...

Productivity increased!

Hawthorne Works experiments
(1927 to 1932)

Under lower levels of light,...

Productivity increased!
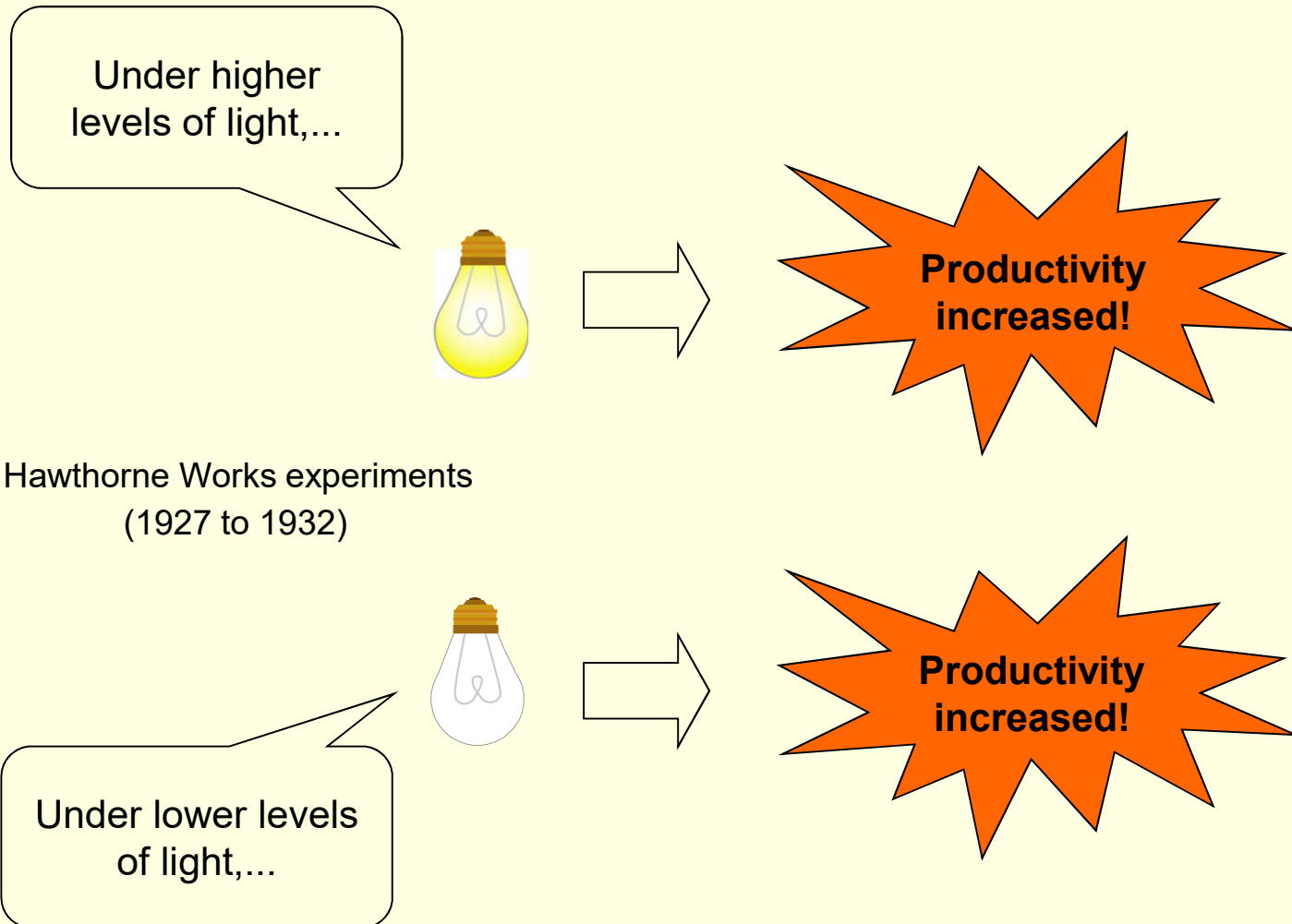
4.4.2 Conditions for creating motivation

Motivation is the process that **triggers** and **sustains** goal-oriented behavior and the function of it.

$$B = P \times S$$

*B: Behavior
P: Personality
S: Situation

Needs, motives (internal factors)

Drive

Sustained

Incentive

Purposes, goals (external factors)
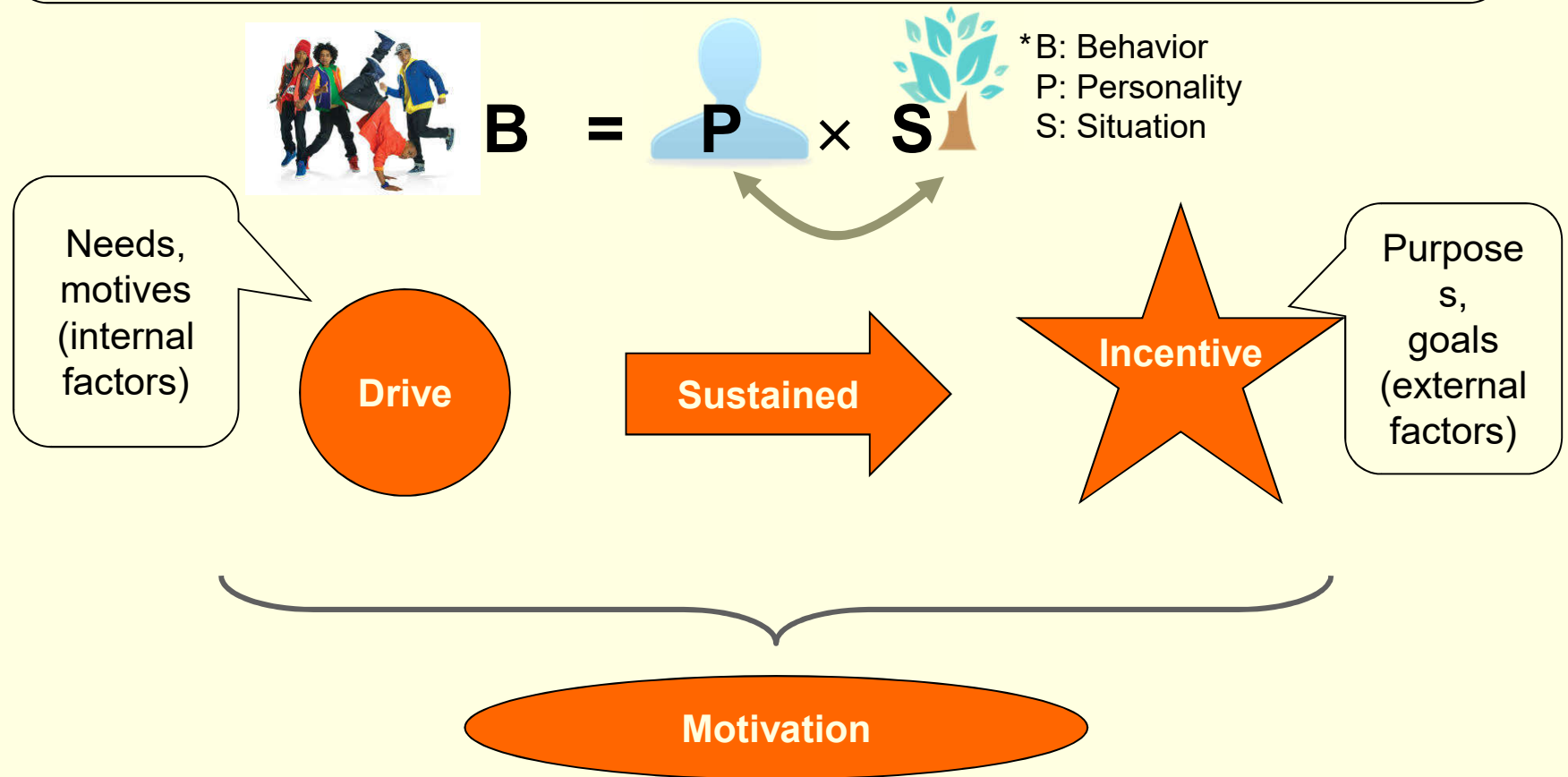
Motivation

4.4.3 Motivation types

The two types of motivation are intrinsic motivation and extrinsic motivation. Each can transform into the other.

$$B = P \times S$$

Each can transform into the other.

	Intrinsic motivation	Extrinsic motivation
Focal point	P (personality)	S (situation)
Orientation	Process-oriented	Result-oriented
Merits - Ưu	Sustainable	Easy to get, instant
Demerits –Nhược	Difficult, takes time	Not sustainable

4.4.4 ...participatory approach?

Theory X assumptions

1. People usually do not like work and, whenever possible, will attempt to avoid it.
2. Most people must be coerced (ép buộc), controlled, ordered, or threatened with punishment to obtain their best performance.
3. People usually will avoid responsibilities, place security first, and display little ambition.

Theory Y assumptions

1. Normally, people view physical and mental effort at work is as natural as rest or play.
2. External controls and threats are not the only means of motivation.
3. Motivation depends on the rewards, including the most important rewards—satisfying ego (cái tôi) needs or fulfilling needs for self-actualization.
4. People usually are willing to take responsibility, given the appropriate conditions.
5. Each company has a pool of creativity, which is necessary for problem-solving, in most of its workforce.

4.4.5 Types and hierarchy of needs

Nhu cầu nâng cao
(Thúc đẩy bằng yếu tố xã hội)

Nhu cầu cơ bản
(Thúc đẩy bằng vật chất)

Self-actualization

Esteem

Love and belonging

Safety

Physiological

Full commitment to realizing one's own potential through goals

Desire for recognition and respect

Desire for friendship and to belong to group

Avoidance of uncertainty

Desire for food and sleep
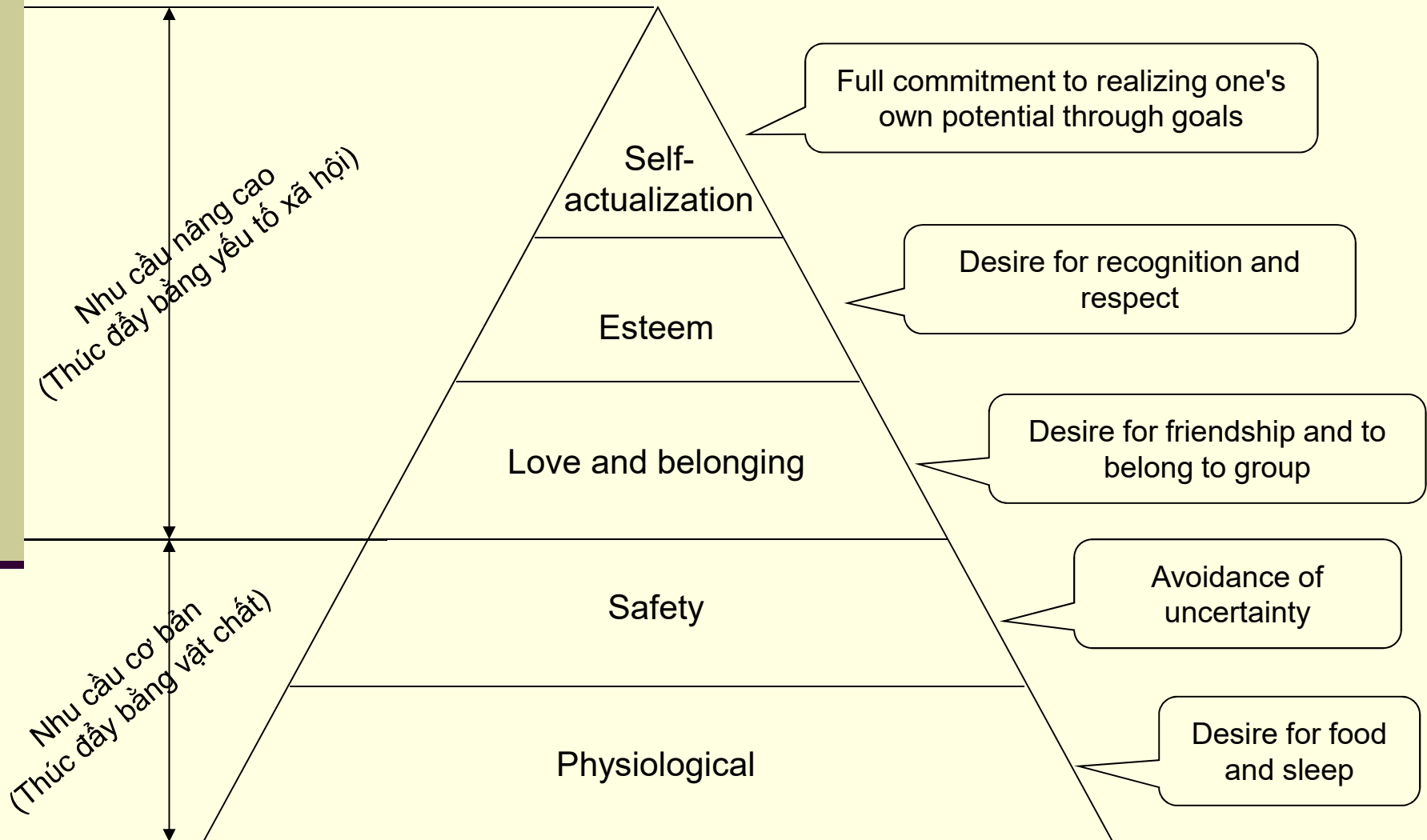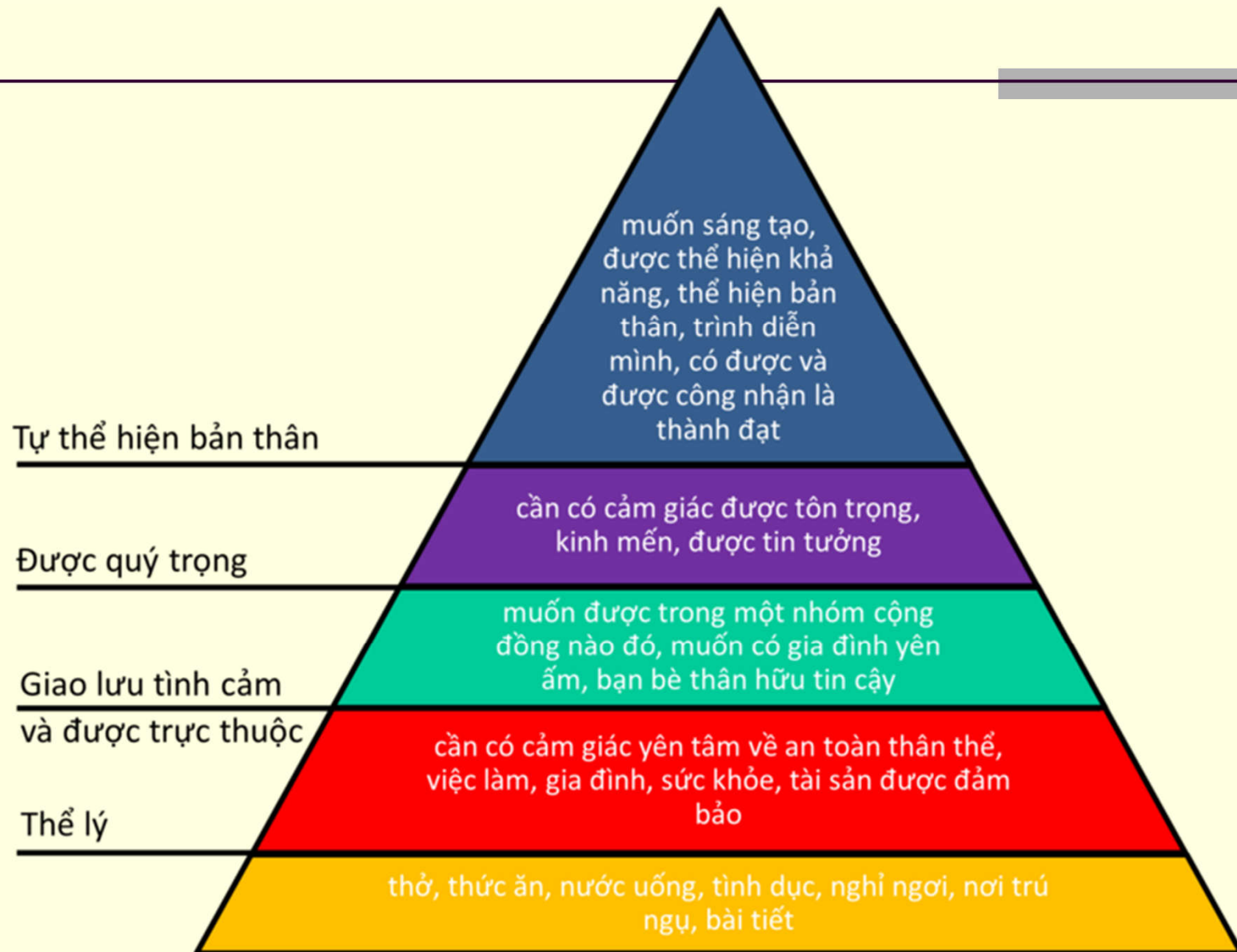
4.4.6 Understanding social motives

Achievement needs

(1) Trying the challenge of moderately difficult tasks
(2) Asking for feedback after an event
(3) Taking responsibility for one's own decisions
(4) Thinking the cause of a failure is insufficient personal effort
(5) Tending to select colleagues based on capability instead of familiarity

Affiliation motives

(1) Frequently making phone calls or sending e-mail
(2) Making a lot of eye contact for a friendlier atmosphere
(3) Often seeking approval from others in one's actions
(4) Responding very negatively to those with different opinions
(5) Easily feeling more anxious when evaluated by others
(6) Tending to select colleagues based on familiarity instead of capability
(7) Showing higher performance in group work, and effectively displaying one's ability by working cooperatively to give feedback

4.4.7 Expectancy-Value theory

(1) Setting attractive goals

Vroom's expectancy theory

Motivation depends on the expected chance of success, which is subjective, and the attractiveness of the goal.

| Motivation | = | Expected chance of success | × | Attractiveness of goal |
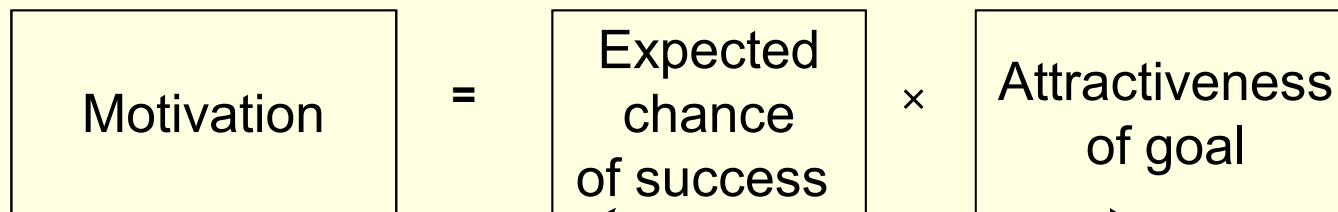
Breaking down a goal into smaller and more concrete goals raises the "expected chance of success," a subjective value.

- Associated with a higher-level goal
- May need a worthy cause

4.4.7 Expectancy-Value theory (cont)

(2) Setting goals at pertinent levels

Atkinson's theory of achievement motivation

The best achievement behavior is obtained at a 50% probability of success for the goal. (It is important to set a goal that is moderately difficult—neither too easy nor too hard.)

| Achievement behavior | = (| Achievement need | × | Probability of success | × | Attractiveness of goal |) |

$0.2 \times 0.8 = 0.16$
$0.3 \times 0.7 = 0.21$
$0.4 \times 0.6 = 0.24$

Maximum ▶ $\mathbf{0.5 \times 0.5 = 0.25}$
$0.6 \times 0.4 = 0.24$
.
.
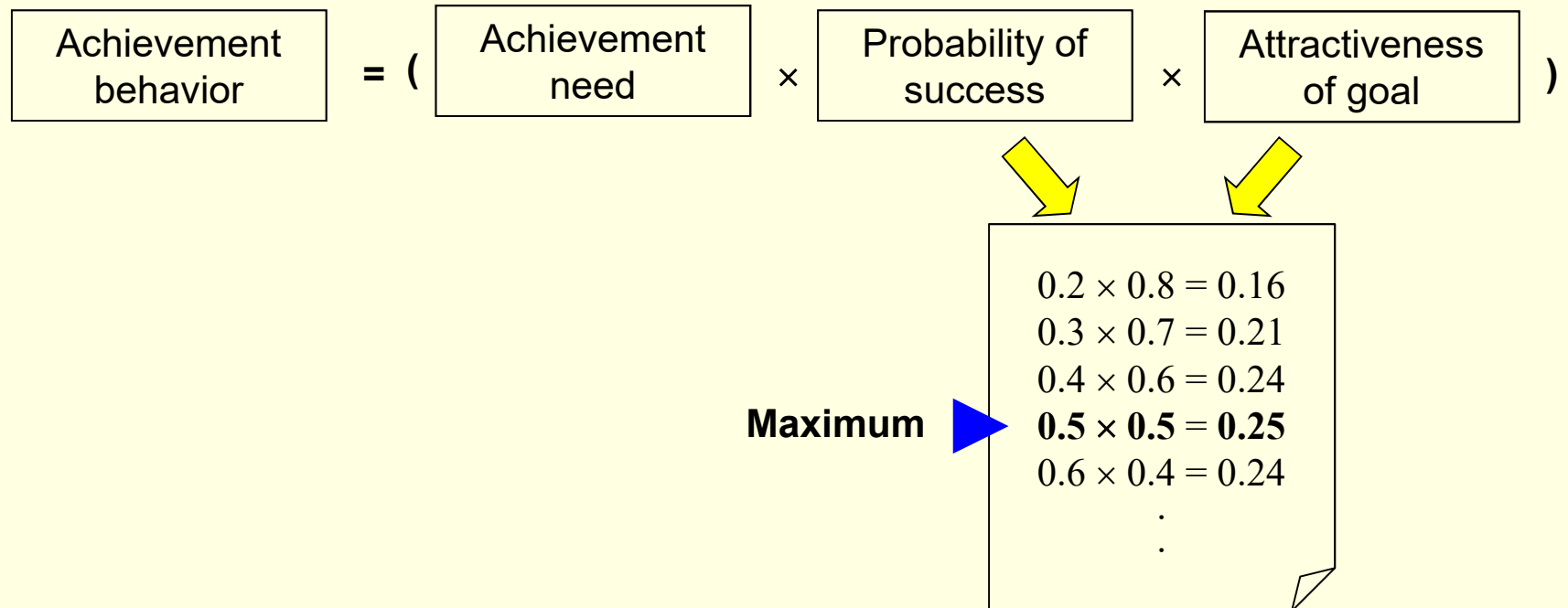
4.4.8 Raising intrinsic motivation

Cognitive evaluation theory

Intrinsic motivation increases depend on the "feeling of competence" and "feeling of autonomy."

Intrinsic motivation

Feeling of accomplishment

Competence **Autonomy**
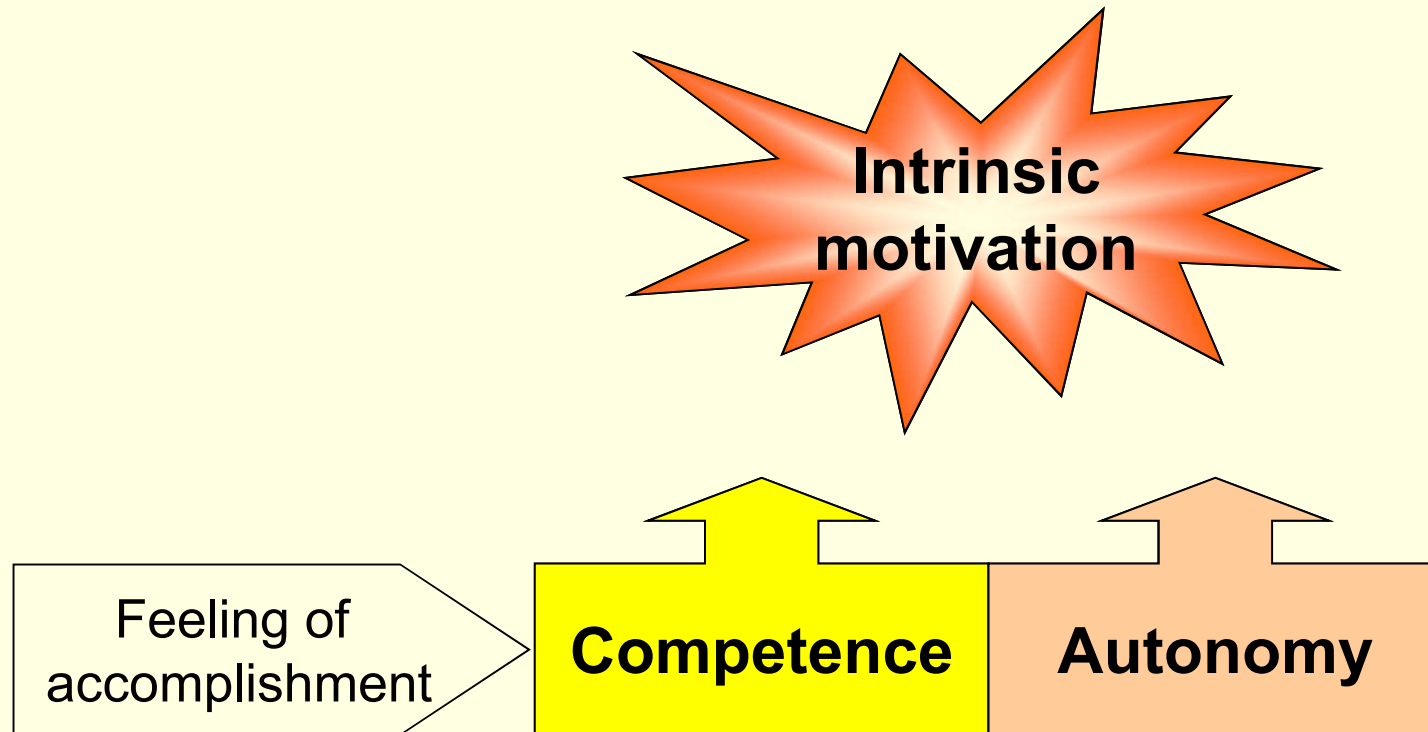
4.4.9   Gaining a feeling of accomplishment, depending on causal attribution

Suppose you were the project manager in charge of a project with planned development costs of less than $10,000. However, costs exceeded the planned amount by $10,000. What was the cause?

A. I neglected cost management.

B. I am always too easygoing.

C. It was inherently impossible to do the project for less than $10,000.

D. Luck was not on my side this time.

4.4.10 Gaining a feeling of accomplishment in a process-oriented approach

By breaking down a goal into more detailed goals, you can experience the feeling of accomplishment many times and raise intrinsic motivation.

Small goal

⬇

Success!

Feeling of accomplishment

⬇

Small goal

Feeling of accomplishment

⬇

Success!
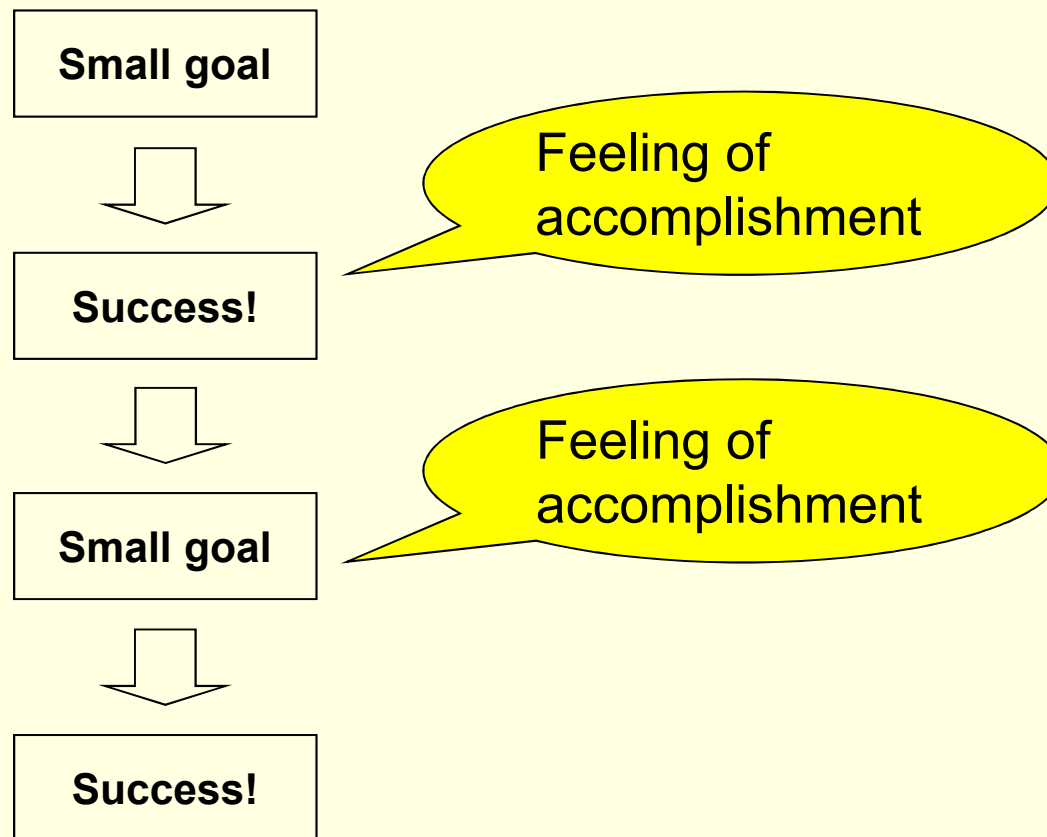
4.5　Conflict Management
4.5.1 Definition of Conflict

➢ Conflict is a form of interaction among parties that differ in interests, perceptions, and preferences.

➢ A process that begins when one party perceives that the other has negatively affected, or is about to negatively affect, something that he or she cares about.

4.5.2 Sources of Conflict

- Differences between interfaces in:
  - Values - moral, ideological, or philosophical outlook
  - Role Pressures - associated with each position is the set of activities and expected behaviors
  - Status Conflict
  - Personality Differences
  - Organizational Structure - overlapping functions, unclear responsibilities
  - Cultural Differences
  - Perceptions
  - Goals
  - Expectations
- Deficient information that causes misunderstandings
- Ambiguity when there are power or turf struggles
- Competition over scarce resources

4.5.3 Causes of Conflict in Organizations

- Organizational Structures
  - Specialization and Differentiation
  - Goal differences
  - Scarce/shared resources
  - Multiple authority relationships
  - Policies and procedures
  - Rewards
- Situational Forces
  - Degree of interaction/interdependence
  - Need for consensus
  - Status differences
  - Communication
  - Ambiguous responsibilities

4.5.4 Consequences of Conflict (1)

➢ Positive Consequences

  ➢ Leads to new ideas

  ➢ Stimulates creativity

  ➢ Motivates change

  ➢ Promotes organizational vitality

  ➢ Helps individuals and groups establish identities

  ➢ Increases group cohesiveness

  ➢ Serves as a safety valve to indicate problems

➢ Forces articulation of views and positions

➢ Results in greater clarification of issues

➢ Results in greater understanding of issues and individuals

➢ Makes values and belief system of the organization more visible and concrete

➢ Easier to see organizational priorities

Consequences of Conflict (2)

> Negative Consequences
>> Diverts energy from work
>> Threatens psychological well-being
>> Wastes resources
>> Creates a negative climate
>> Breaks down group cohesion
>> Can increase hostility and aggressive behaviors

> Dysfunctional conflict reduces:
>> Productivity
>> Morale
>> Job satisfaction

> Dysfunctional conflict increases:
>> Anxiety
>> Absenteeism
>> Turnover

4.5.5 Characteristics of Conflict

➢ Behavior typical of conflict situations
  ➢ Stereotyping
  ➢ Overvaluation of one's own group
  ➢ Devaluation of the other group
  ➢ Polarization on the issues
  ➢ Distortion of perceptions
  ➢ Escalation

4.5.6 Five Conflict Handling Styles
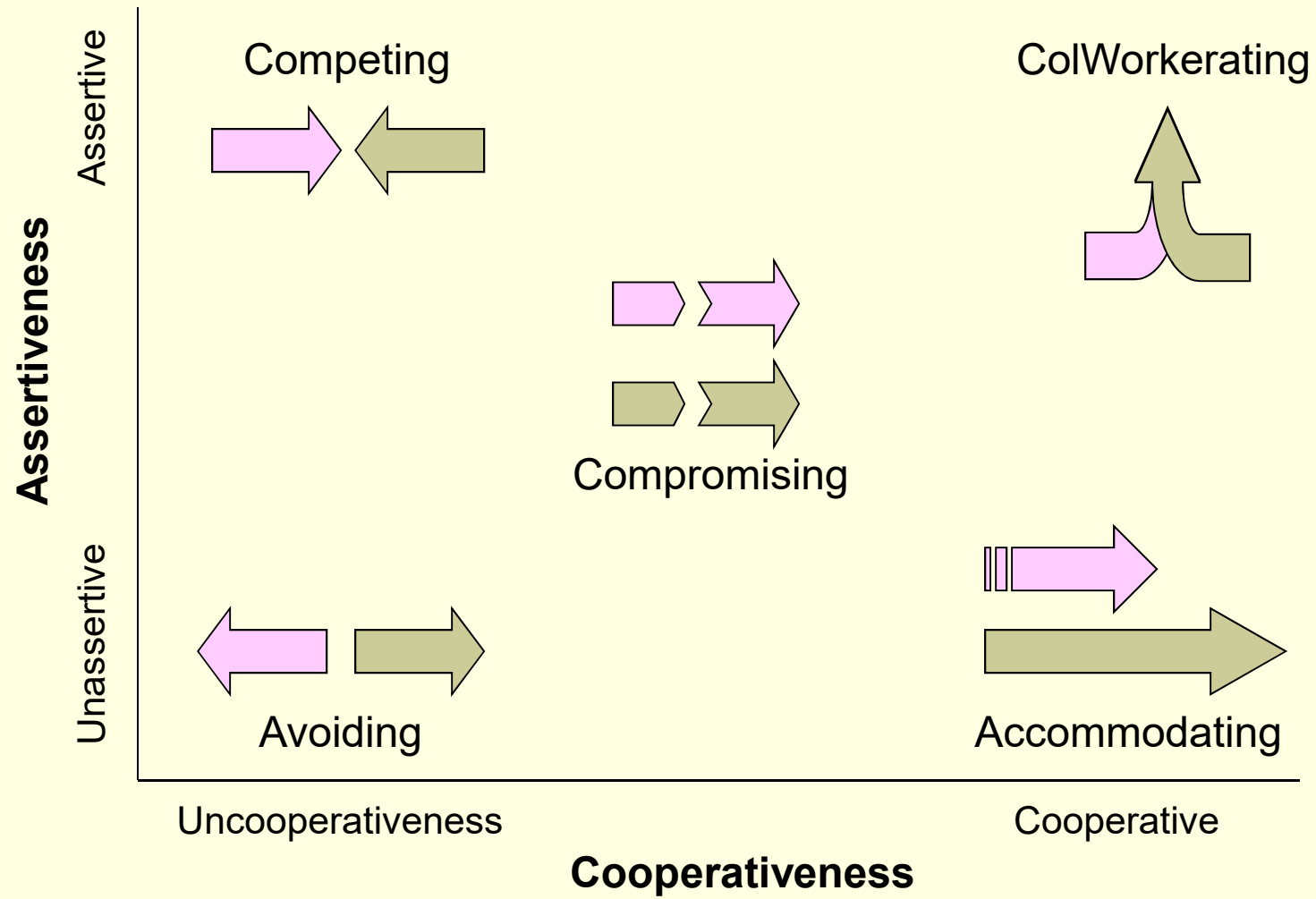
4.5.7 Conflict Resolution Styles

➤ **Avoiding**: Recognizing the conflict exists , but react by withdrawing from or suppressing the conflict. Use when the issue is trivial; when you perceive no chance of satisfying your concerns; to let people cool down and gain perspective; and when others can resolve the conflict more effectively.

➤ **Dominating: (Competing)** When one party seeks to achieve certain goals or to further personal interests, regardless of the impact on the parties to the conflict, he or she competes and dominates. Use when quick decisive action is vital.

Conflict Resolution Styles (con.)

➢ **Compromising:** When each party to the conflict must give up something, sharing occurs, resulting in a compromised outcome. Use when goals are important but not worth the effort of potential disruption of more assertive approaches.

➢ **Integrating: (ColWorkerating)** When each of the parties in conflict desires to satisfy fully the concern of all parties, there is cooperation and the search for a mutually beneficial outcome. Use to find an integrative solution when both sets of concerns are too important to be compromised.

Conflict Resolution Styles (con.)

➢ **Obliging: (Accommodating/Smoothing)** Placing the opponents interest above your own. Use when you find you are wrong; when issues are more important to others than yourself; to build social credits for later issues; to minimize loss when you are outmatched and losing; and when harmony and stability are important.

4.5.8 Group Conflict

- Group conflict is related to the effects of group membership on individual behavior
  - Tendency to believe whatever is believed in a strong reference group believe
  - Groups individuals strongly identify with tend to affirm them in important ways
  - With acceptance by group however comes expectations
    - To conform to values and behaviors acceptable to the group

4.5.9 Resolving Team Conflicts

➢ Promptly let the people involved know how their conflict is affecting performance.

➢ Set up a joint problem-solving approach to resolve the conflict.

➢ Ask the people involved to present their viewpoints objectively.

➢ Get agreement on the problem that needs to be solved.

➢ Have each person generate possible solutions.

➢ Get commitment on what each person will do to solve the problem.

➢ Summarize and set a follow-up date to make sure the conflict has been resolved.

- ➢ Ask appropriate questions to stimulate ideas and discussion
- ➢ Listen closely and intently to ideas and concerns
- ➢ Manage group discussions to encourage everyone to participate
- ➢ Establish an informal and non-threatening climate to stimulate open discussion
- ➢ Use the consensus method to reach decisions on key issues

Some Interpersonal Skills Used in Managing Teams (con.)

- Involve team members in setting goals
- Implement meeting guidelines to minimize wasted time in meetings
- Encourage respect so all know their contributions are valued
- Deal with dysfunctional behaviors immediately
- Celebrate the achievement of milestones and accomplishments
- Use recognition, assignments and other techniques to motivate team members

4.5.11 Guidelines for Achieving Consensus

➤ Avoid arguing for your own rankings. Present your position as lucidly and logically as possible, but listen to the other members' reactions and consider them carefully before you press your point.

➤ Do not assume that someone must win and someone must lose when discussion reaches a stalemate. Instead, look for the next-most-acceptable alternative for all parties.

➤ Source: Decisions, Decisions, by Jay Hall, Psychology Today, 11/71

Guidelines for Achieving Consensus (con.)

➢ Do not change your mind simply to avoid conflict and to reach agreement and harmony. When agreement seems to come too quickly and easily, be suspicious. Explore the reasons and be sure everyone accepts the solution for basically similar or complementary reasons. Yield only to positions that have objective and logically sound foundations.

Guidelines for Achieving Consensus (con.)

➢ Avoid conflict-reducing techniques like coin-flips, majority votes, averages, and bargaining. When a dissenting member finally agrees, don't feel that he must be rewarded by having his own way on some later point.

➢ Differences of opinion are natural and expected. Seek them out and try to involve everyone in the decision process. Disagreements can help the group's decision for a wider range of information and opinions increases chance that the group will hit upon more adequate solutions.

4.5.12 Resolving Conflict

➢ C: Clarify the Issue… the most important step

➢ A: Address the Problem: Have a strategy for addressing the conflict

➢ L: Listen to the other side

➢ M: Manage you way to resolution

# 4.5.13 Amelioration of intergroup discrimination

Summer camp experiment

(1) They interacted as two separate groups.

(2) The groups competed in sports and games, arousing feelings of competition.

> Nasty relationship due to hostility and conflict

(3) An emergency that required a concerted effort by the two groups (failure in the water supply system) was created. Then , the groups had to solve the problem.

> Intergroup discrimination ameliorated as both group became friendly with each other

Introducing a superordinate goal that can be achieved only with a concerted effort by the groups was effective in ameliorating the intergroup discrimination or conflict.
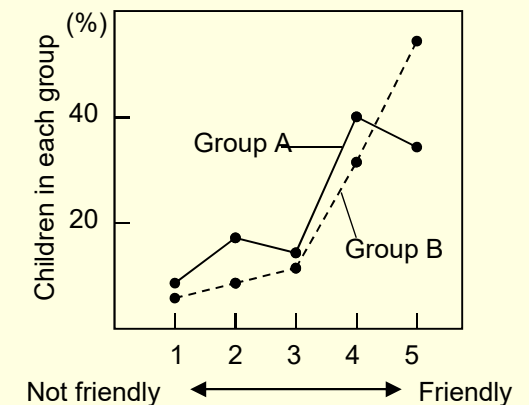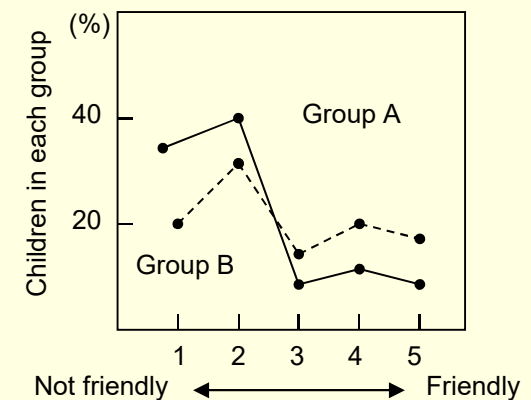
4.6　Assertive communication
4.6.1 Assertiveness

Communication in which people convey their own feelings or thoughts while respecting the feelings and thoughts of others (where all communicating parties are considered important)

Three communication types in assertion theory

Project leader

I'm sorry to have to bother you with this, but please review all 50 pages of this manual by the end of the day.

Team member

- Aggressive : This request is too sudden, and I can't handle it! I've got a lot of other work on my plate so I'm really busy. It's definitely impossible for me to do!

- Non-assertive : All right... (Oh man, this is too much. I may have to work through the night.)

- Assertive : If I review the manual, I won't be able to complete the report that is due today. Which job should get priority?

4.6.2 Assertiveness training

DESC method

For problem resolution, this method organizes in advance the contents of communication from the followings:

- ➢ D (Describe) : Describe the situation objectively.
- ➢ E (Explain)   : Express your opinion with regard to D, and explain the effects subjectively.
- ➢ S (Specify)   : Suggest a solution or compromise.
- ➢ C (Choose) : State a positive option (agree) and negative option (disagree) for the suggestion, and the actions for each option.

4.6.3 Example

Suppose that one of the people attending a meeting has kept talking to express his opinions.

Mr. XX, you've been talking for 15 minutes since the start of the meeting. (D)

I need about 5 minutes for my progress report. Now, looking at the time left for the meeting, I may not be able to report my progress. Besides, Mr. YY also needs to present his report. (E)

So, I suggest Mr. XX make a report individually to the project leader. (S)

If we do so, the two of us giving reports can do so within the specified time. (C for a positive option as the result)
If the individual reporting is going to be inconvenient, will you pick and report only the main points? (C for a negative option as the result)

4.7   Distribute Information

- Distribute information is the process of making information available to project stakeholders as communication plan.
- Distribute information is the key to build a good team.
  - Main element as a team is that team has regular communication each other.
  - If you distribute information correctly, team member easy to get the feeling as a team.
  - It is not good to distribute information to some members only except delicate information.
  - It is more effective to share bad news between team members as soon as possible to get their support.
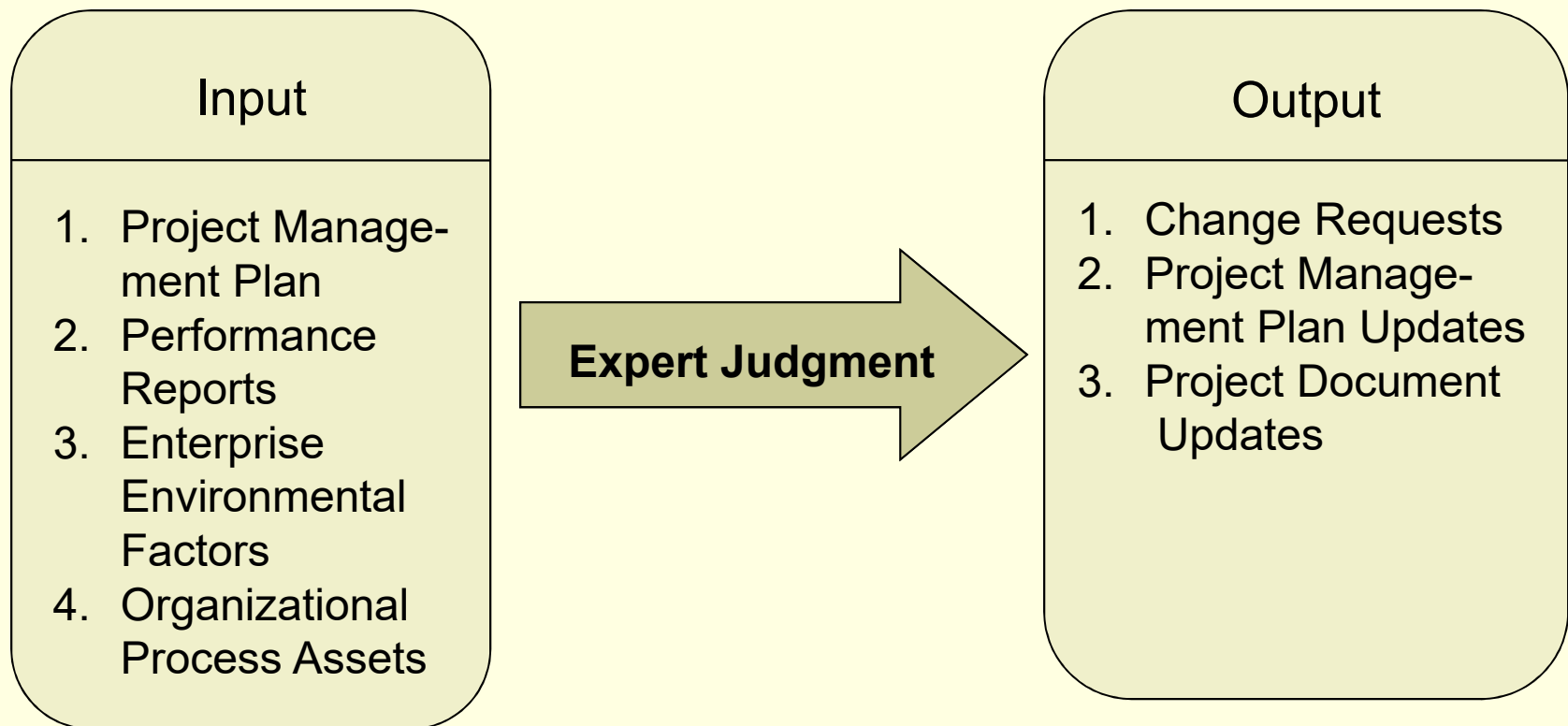
Project Monitoring & Controlling

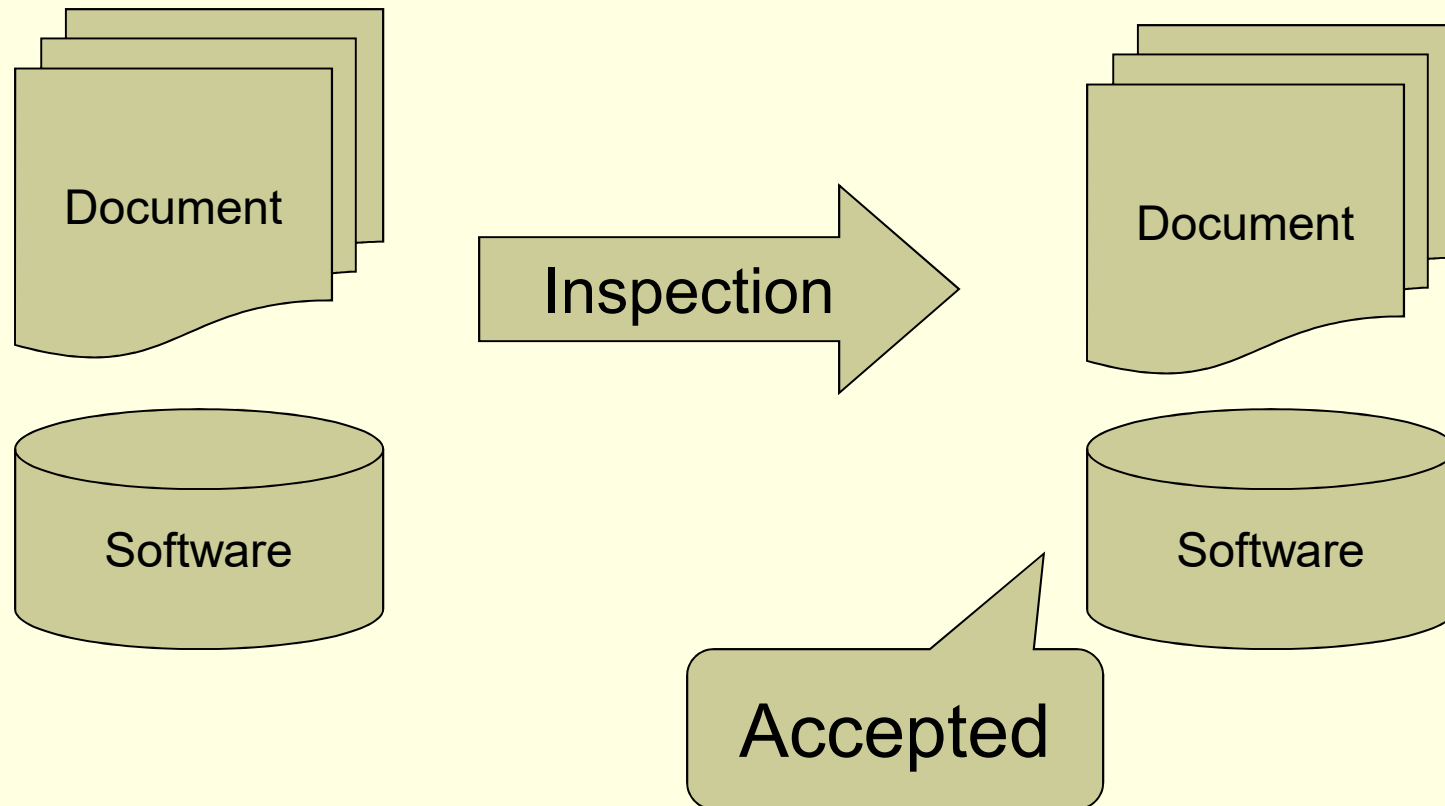# 5.1 Project Monitoring & Controlling
5.1.1 Overview

➢ The process of tracking, reviewing, and regulating the progress to meet the performance objectives defined in the project management plan.

Input

1. Project Management Plan
2. Performance Reports
3. Enterprise Environmental Factors
4. Organizational Process Assets

Expert Judgment

Output

1. Change Requests
2. Project Management Plan Updates
3. Project Document Updates

5.1.2 Verify Scope

➢ The process of formalizing acceptance of the completed project deliverables.

5.1.3 Control Scope

➤ The process of monitoring the status of the project and product scope and managing changes to the scope baseline.

➤ The content of the process is as follows.

(1) Project manager understands the change request

(2) Assess the impact of variation from scope baseline.

(3) Reflect scope change to the schedule, cost plan, quality plan etc. WBS also should be changed .

Sample Form of Change Request

Sample Form of Change Log

➢ For effective change control, it is needed to use change log sheet.

Change ID	Date Submitted	Requested by:	Description	Cost / Schedule Impact	Status

How to put change control into practice?

➤ Although change control is very important process, it is not easy to be practiced.

➤ You can do

   ➤ Design the change control process in project planning with stakeholders.

   ➤ To be understood the process, it can be efficient to make several chance to use this process for stakeholders as an exercise.

5.1.4 Control Schedule

➢ Monitor the status of the project to update project progress and managing changes to the schedule baseline.

➢ Project manager compare project schedule with work performance information.

➢ It is very important to check the real performance. (Not to just believe the report.

5.1.5 Cost control

➢ Monitor the status of the project to update the project budget and managing changes to the cost baseline.
➢ PM will use the inputs as follows;
  ➢ Project funding requirements
  ➢ Work performance information

5.1.6 Using Earned Value (1)
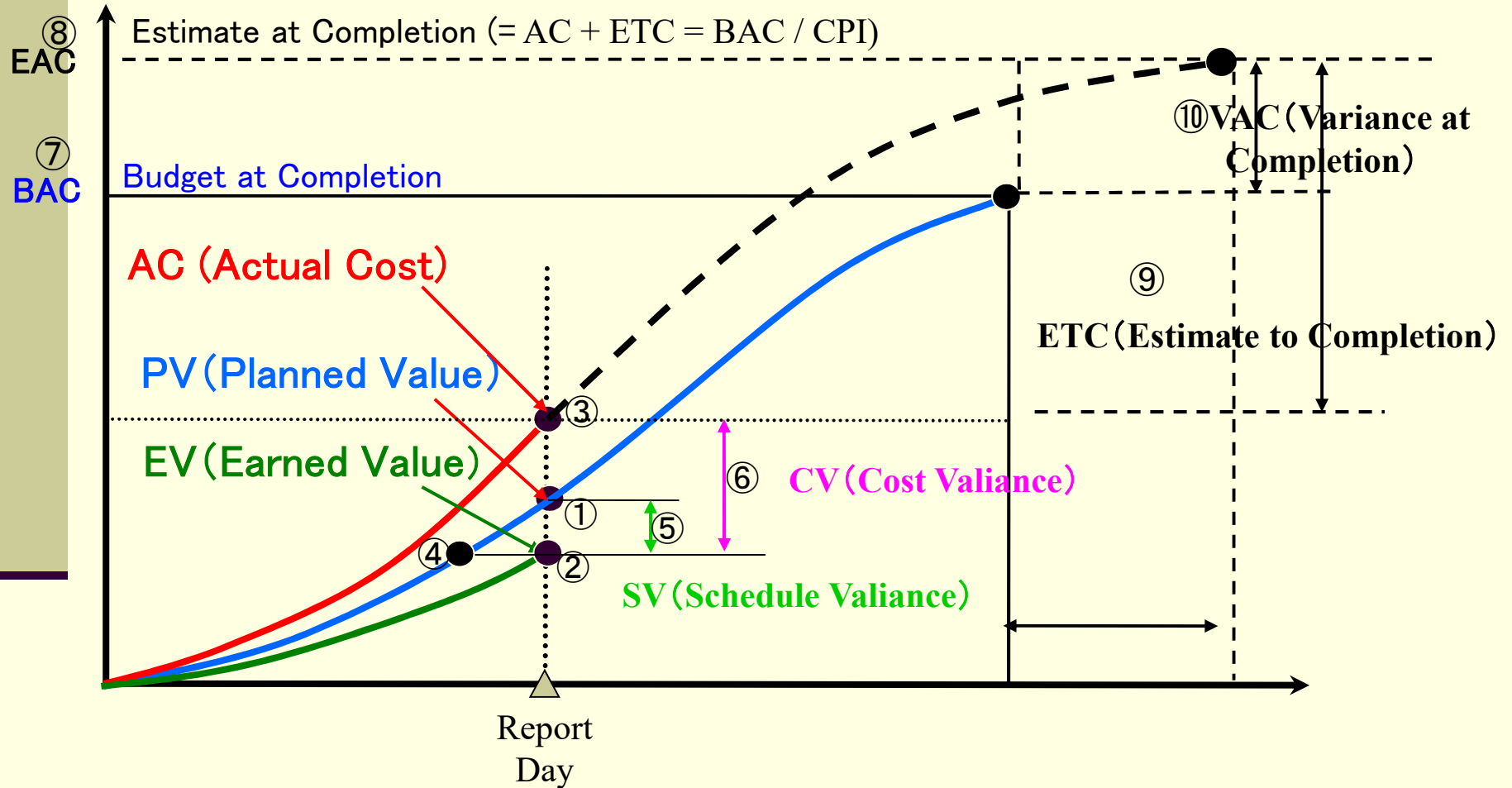
Using Earned Value (2)

①PV	Planned Value	
②EV	Earned Value	
③AC	Actual Cost	
⑤SV	Schedule Variance	EV−PV
SPI	Schedule Performance Index	EV/PV
⑥CV	Cost Variance	EV−AC
CPI	Cost Performance Index	EV/AC
⑦BAC	Budget at Completion	
⑧EAC	Estimate at Completion	
⑨ETC	Estimate to Complete	EAC−AC
⑩VAC	Variance at Completion	BAC−EAC

5.1.7 How to report your performance?

➢ Now, you write a design of new system.

➢ The size of design paper is 100 pages and you have written 80 pages until now.

➢ How do you report about your performance using %?

5.2   Manage Stakeholder Expectations
5.2.1 Basic tools

➢ It is necessary to communicate and work with stakeholders to meet their needs.

➢ In stakeholder management, the project manager leads communications using below;

   ➢ Stakeholder register
   ➢ Stakeholder Management Strategy
   ➢ Issue Log
   ➢ Change Log

5.2.2 Using Issue Log to manage problems

➢ In project, a lot of problems occur.

➢ To manage all, making issue log is effective way to manage problems.

➢ Keep issue log in every meeting.

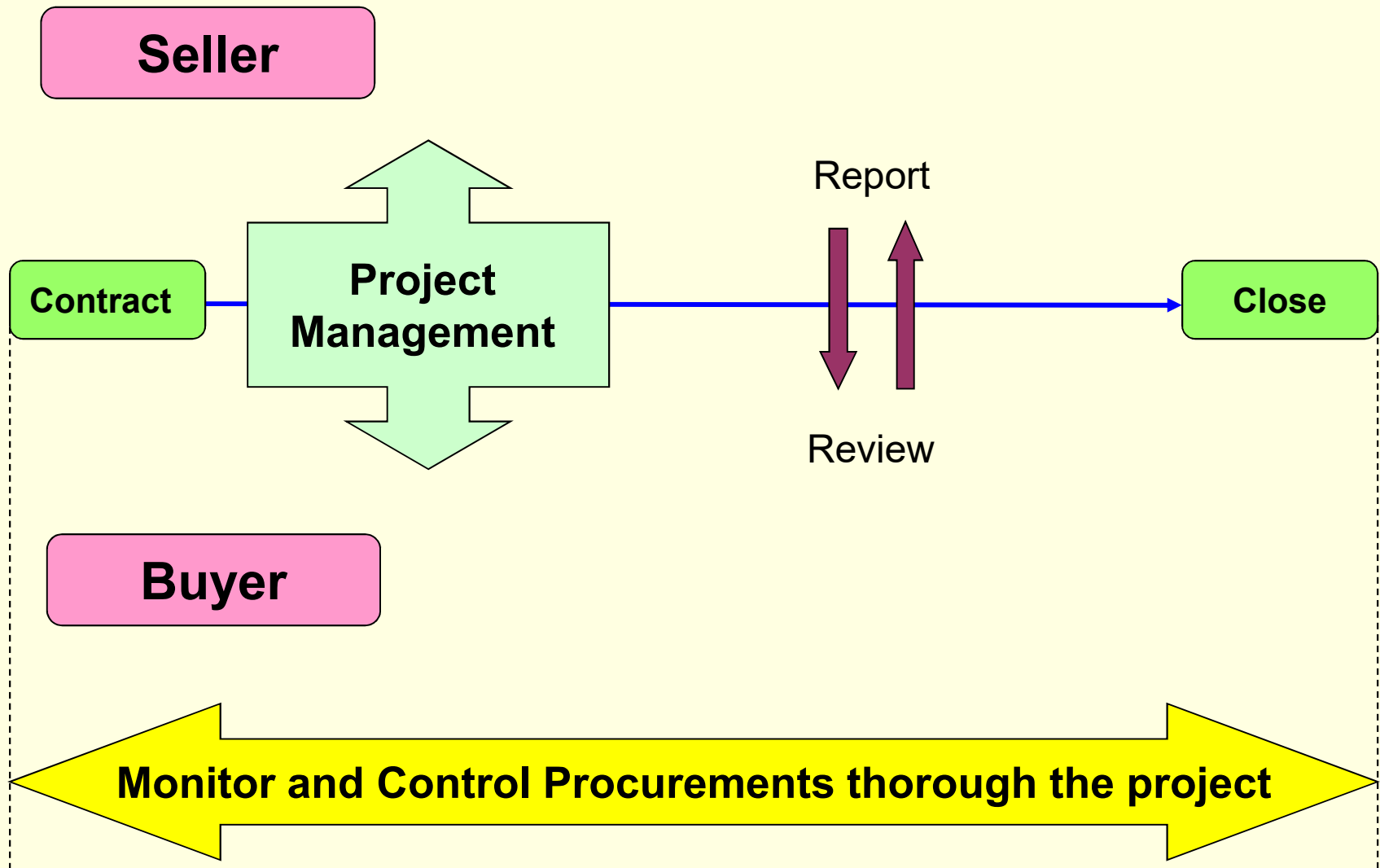➢ Issue log is a reins for project manager to manage well many problems.

Issue Log

(1) Trouble in module A (date - name)
(2) Claim from customer about support
    system (date – name)
    etc..

5.3   Monitor and control risks

5.4 Administer Procurements

Seller

Contract

Project Management

Report

Review

Close

Buyer

Monitor and Control Procurements thorough the project
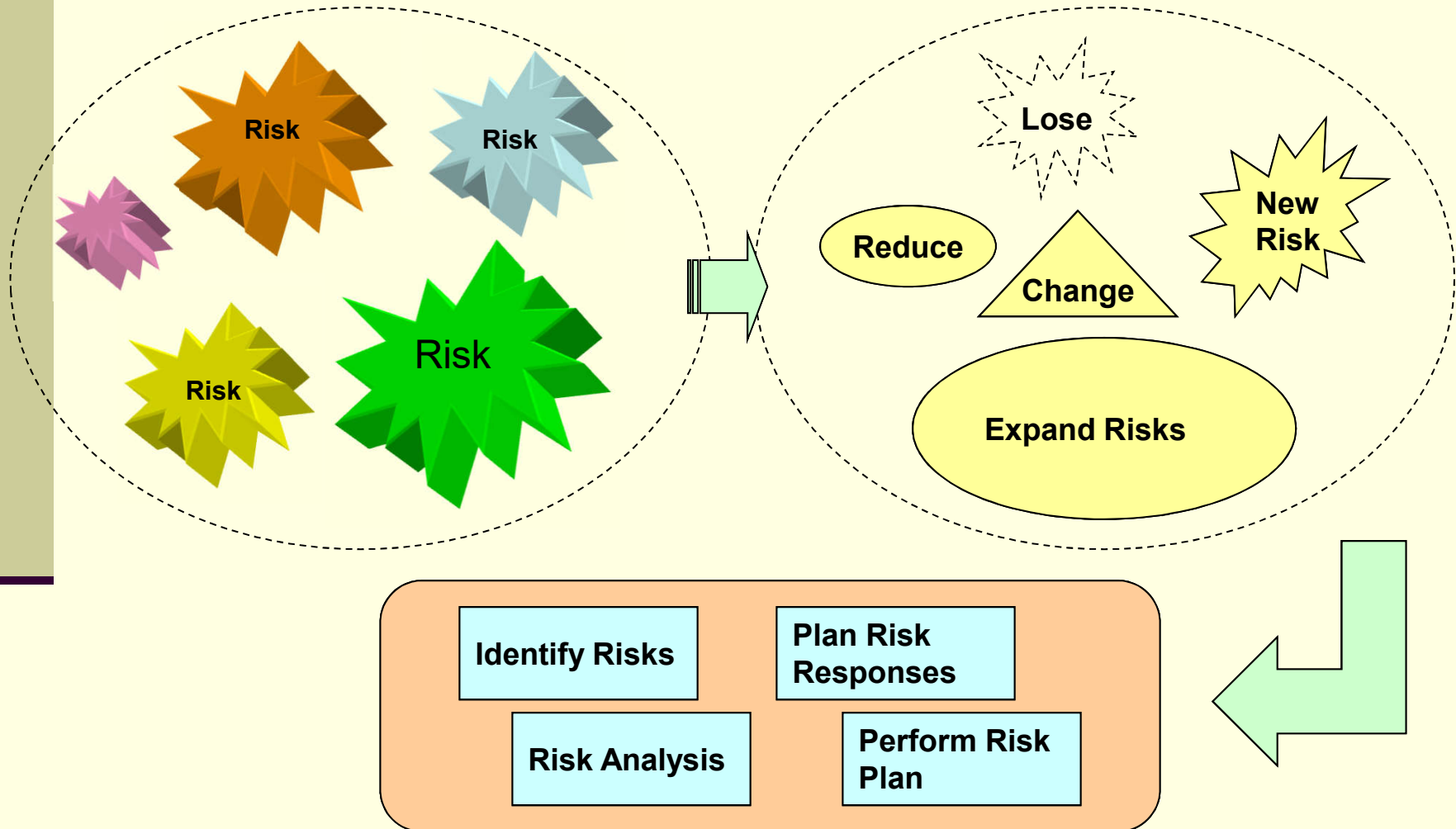
Case

➢ Inspection and Audits are effective way to administer procurement. But in some case, you may have some trouble as follows;

  ➢ In middle phase of project, buyer request to make an audit to check the schedule, seller denied it because of fixed price contract.

 ➢ How can you make an audit in such case?

Project Closing

6.1   Close Project or Phase
6.1.1 Overview

➢ Having inspection by your customer if your deliverables meet customer needs and contract.

➢ The contract conclusion is done at each contract corresponding to the project.

➢ Moreover, the review from the purchase acquisition plan to the contract management is systematically done, and information on the contract is collected.

6.1.2 Close Procurements

➢ The process of finalizing all activities across all of the Project Management Process Groups to formally complete the project or phase.
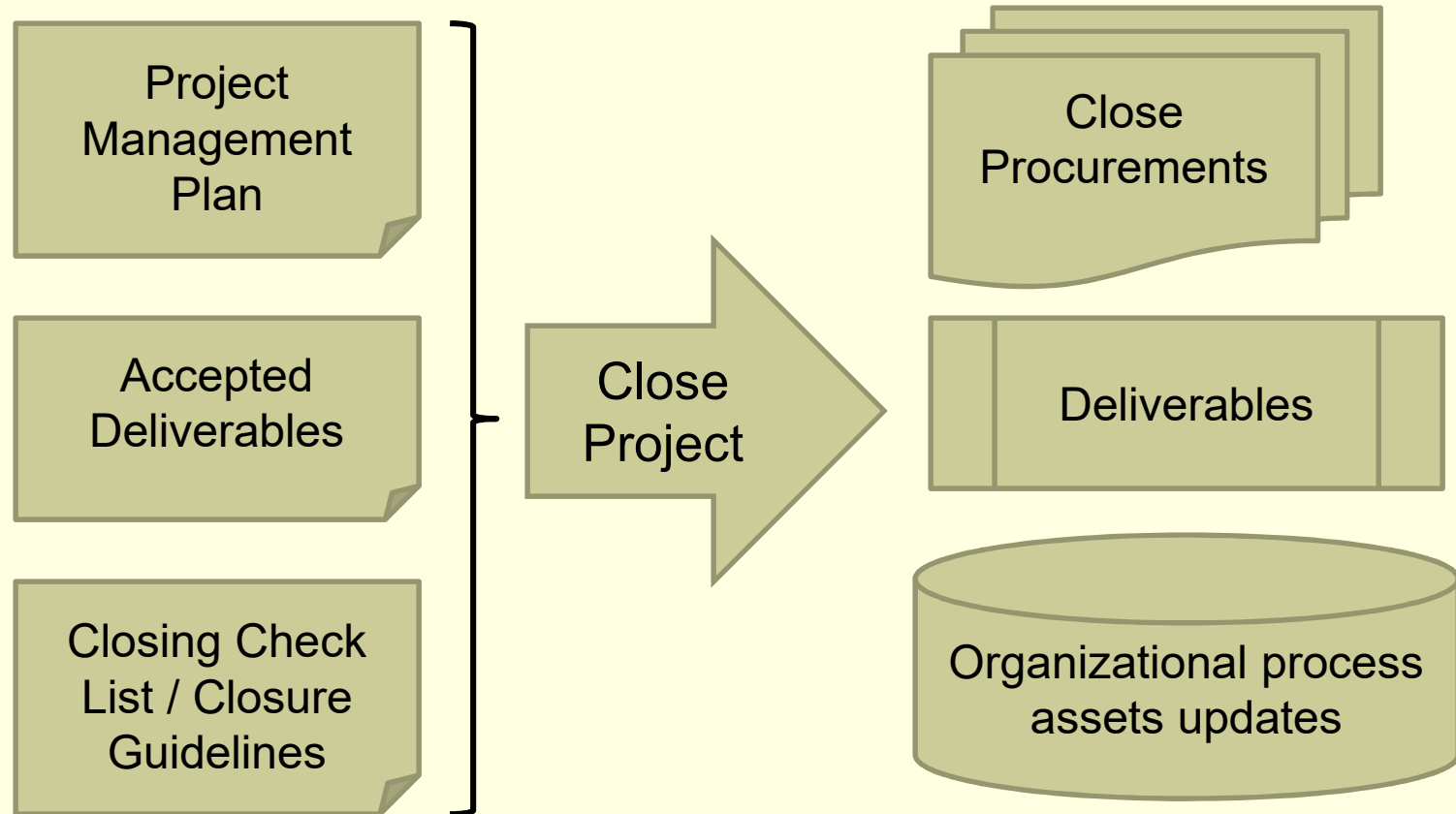
6.2 Assess the project

➢ Make project final report for your organization.

➢ Final report should be the document for lesson learned.
  ➢ Good report point out the problems in process which are needed to be resolved for next other project.
  ➢ Many stakeholders should be involved to write the report including PM, PMO, Sales manager etc.

➢ Final report includes assessment of each processes and their actual performance.

Sample Form of Project Final Report

6.3　Give the feedback to project members

➢ One of the effective way to improve the motivation of project members for next project is giving feedback to them at the end of the project.

➢ Feedback need to include some point as follows;
  ➢ Appreciation of his/her contribution
  ➢ His/her strong point
  ➢ His/her weak point which can be improved in future

➢ Having celebration party with your stakeholders!

Conclusion

➢ Although project management gives you systematic set of knowledge and skills, the application of PMBOK does not guarantee the project success.

➢ Also, the goal of project is not the application of PMBOK but to get the result.

➢ So, you need to choose the appropriate processes from PMBOK which should be applied to your project.

➢ To do so correctly, you have to understand the reason why each management process is needed.

➢ To do so smoothly, it is also good to use management templates.

~ Thank you so much for your participation~

Good luck!