



IT Project Management

Topic 7

Resource Management

COMMONWEALTH OF AUSTRALIA

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READING

Schwalbe Chapter 9



LEARNING OBJECTIVES

At the end of this topic you should be able to:

- ✓ **Explain** the *importance of Resource management* on projects
- ✓ **Summarise** *key concepts* for managing people and other resources *(by understanding appropriate theories)*
- ✓ **Define** and *understand key resource management processes*
- ✓ **Discuss** some key aspects of Human Resource planning
- ✓ **Explain and apply** some of the *tools and techniques* used to help manage a project team and other resources

TODAY'S SESSION IS IN 3 PARTS

INTRODUCTION
(WHAT IS RESOURCE
MANAGEMENT?)

**WHY IS IT SO
IMPORTANT?**

**THE RESOUC
E MANAGEMENT
PROCESS**



AN INTRODUCTION TO RESOURCE MANAGEMENT

INTRODUCTION
(WHAT IS RESOURCE
MANAGEMENT?)

WHY IS IT SO
IMPORTANT?

THE RESOUCCE
MANAGEMENT
PROCESS



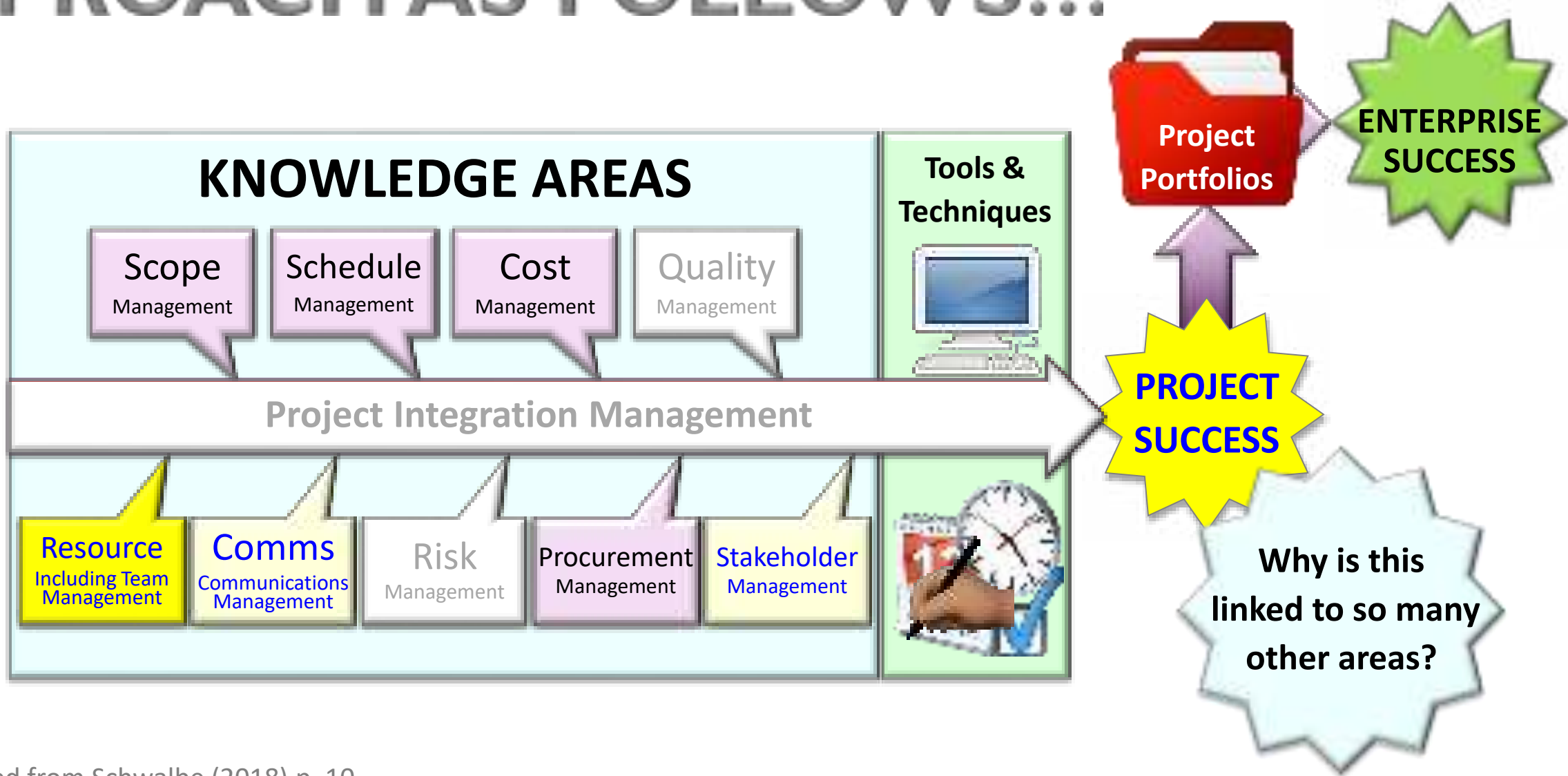
WHAT IS A RESOURCE?

A resource refers to anything that is required to carry out and complete project tasks. It includes:

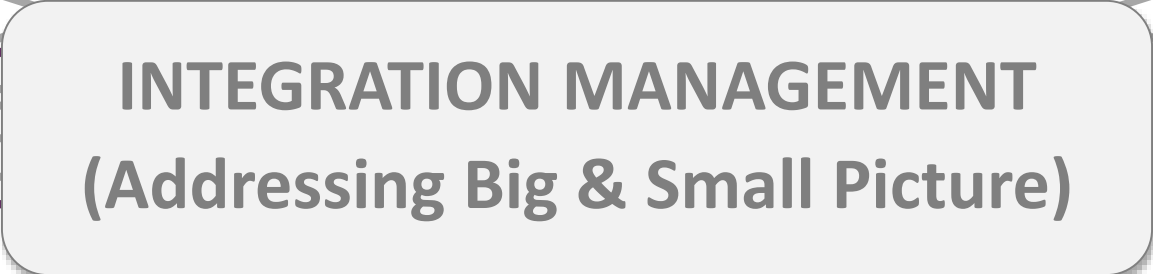
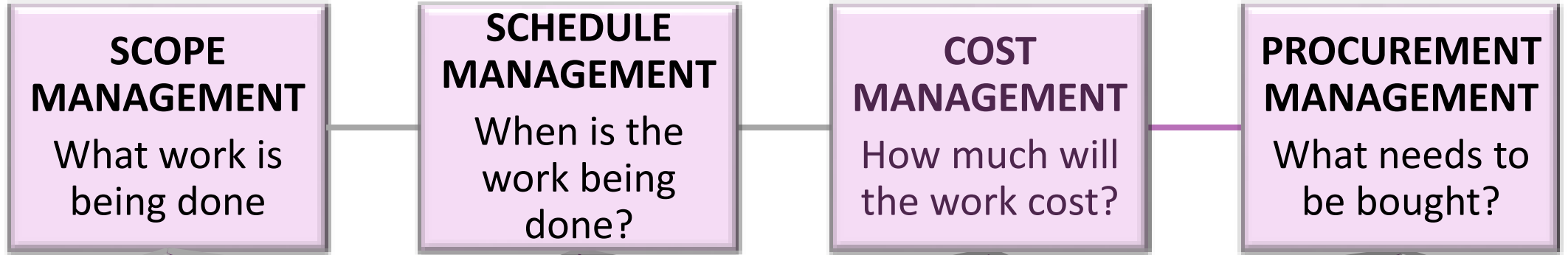
- the right **people** doing the right tasks (**a key resource**)
- facilities (**buildings, Datacentres, etc.**)
- hardware and equipment (**e.g. servers, firewalls, etc.**)
- software/applications (**anything needed to get the job done**)
- services/support (**e.g. network/communications, etc.**)
- **Money** (**funding to get the job done – Cost Management issue**)

IT FITS INTO THE PMBOK APPROACH AS FOLLOWS...

Stakeholders' needs & expectations



THE KNOWLEDGE AREAS



THE 2 INTERLINKED SIDES



✓ **People**

- *With the right knowledge & skills*
- *With the availability to do the job*
- *Who can do the work within the budget (what do they cost?)*
- *Who can work well with the rest of the team (this is critical)*
- *Who can apply the other resources as they become available*

They must
be managed
together

✓ **Materials/Other Resource**

- *Hardware*
- *Facilities*
- *Software*
- *Services/Support*
- *Money*

WHAT IS RESOURCE MANAGEMENT?

**Why is
Resource
Management
important?**

An integral process for:

- ✓ Organising & managing all resources
- ✓ Ensuring that they are available when needed (**linked to Schedule management**)
- ✓ Working to get the best value from the resources (**linked to cost & procurement**)
- ✓ **Motivating, integrating** and **involving** the team members, so they produce high quality outcomes (**deliver good work**)

WHY IS RESOURCE MANAGEMENT IMPORTANT ?

INTRODUCTION
(WHAT IS RESOURCE
MANAGEMENT?)

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E MANAGEMENT
PROCESS






WHY IS RESOURCE MANAGEMENT IMPORTANT?

Without the right resources at the right time, you...

- won't have the right skills to do the work **(existing & developed)**
- won't have the right materials available **(the team can't do its work)**
- won't have the motivation needed to deliver quality **(this is up to the team to implement)**
- **won't achieve the project goals**

SOME EXAMPLES OF POOR RESOURCE MANAGEMENT

-  **Queensland Department of Health Payroll System: IBM:** Original cost \$98M: Actual Cost: \$1.2 Billion – Poor resource management – Damaged company's reputation & litigation
-  **WA Government HR & Shared Services: Oracle:** Original cost \$66.6M but by 2011 cost was \$401M – Resourcing issues – Reputation damage
-  **Victorian Government: DOJ System: Tenix Solutions:** Original cost \$24.9M – 6 years overdue & cancelled – Final Cost \$60M – Resourcing issues – Reputation damage

THE RESOURCE MANAGEMENT PROCESS

INTRODUCTION
(WHAT IS RESOURCE
MANAGEMENT?)

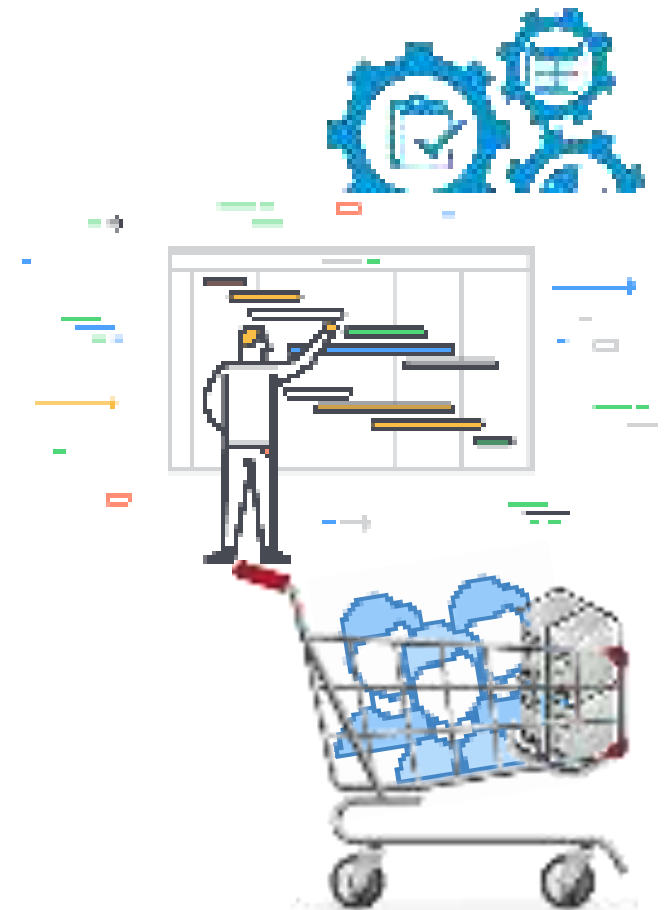
WHY IS IT SO
IMPORTANT?

THE RESOURCE
MANAGEMENT
PROCESS



RESOURCE MANAGEMENT PROCESS

- 1. Plan Resource Management.** Planning how to estimate, acquire, manage and use project resources (create Resource Management Plan and other documents)
- 2. Estimate Activity Resources.** Estimating human, material & other resources needed to complete the project (create a Resource Breakdown Structure & other documents)
- 3. Acquire Resources.** Obtaining team members facilities, equipment, materials, supplies & other resources (create team assignments, resource calendars, change requests, trigger procurement, etc.)

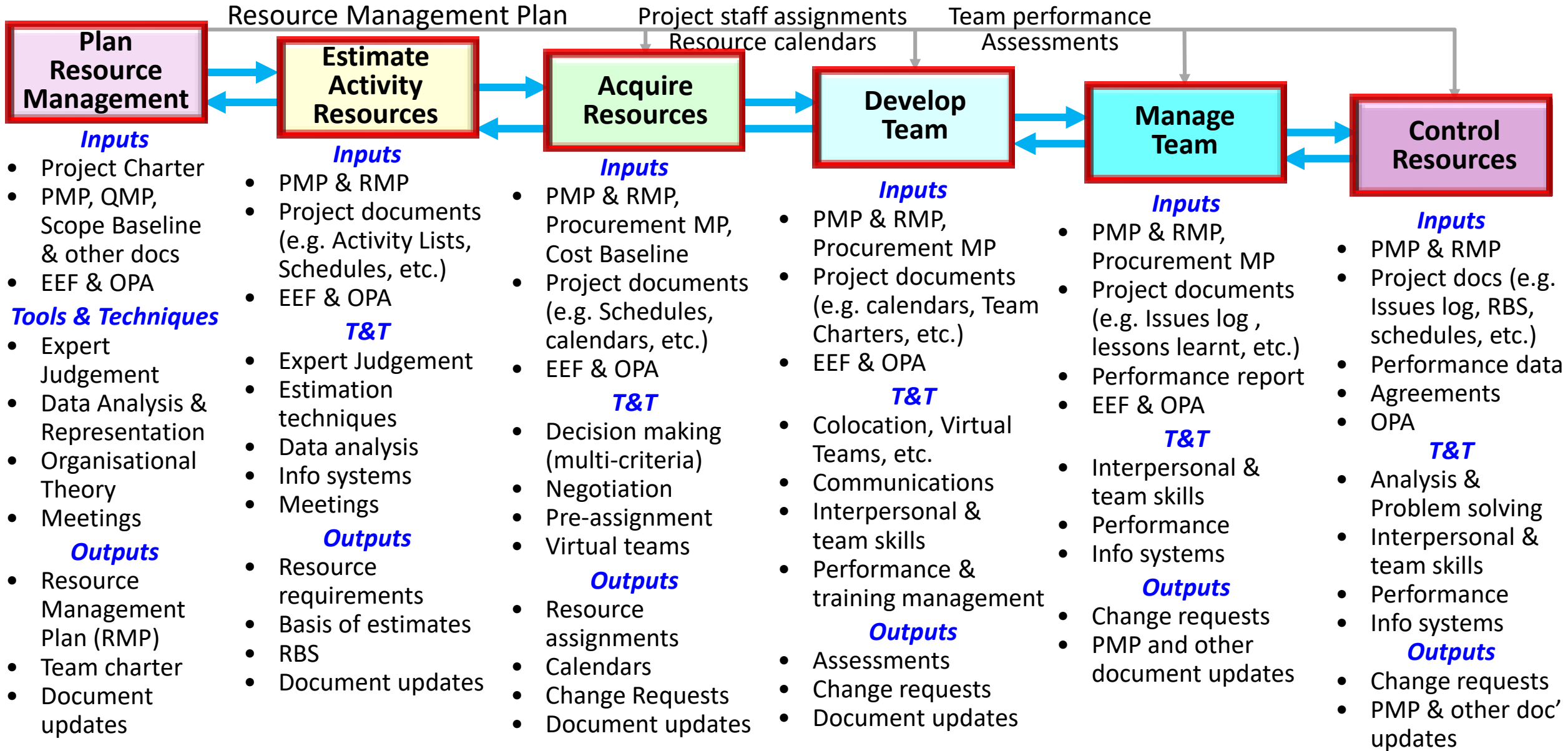


RESOURCE MANAGEMENT PROCESS

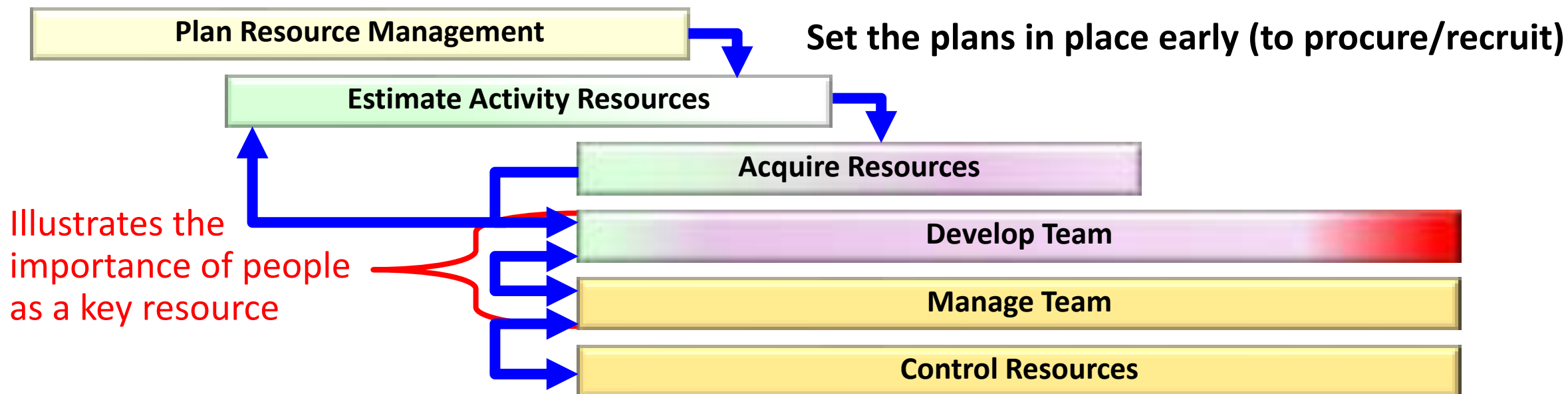
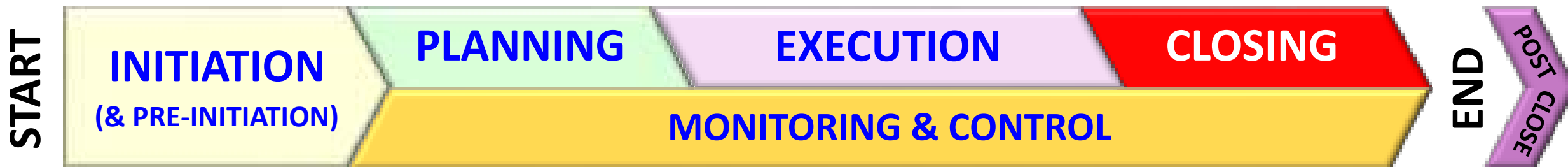
- 4. Develop Team.** Build individual and group skills to enhance project performance (This requires significant soft skills supported by performance assessments, change requests & document updates)
- 5. Manage Team.** Monitoring, motivating and leading the team. This requires a range of critical soft skills (negotiation, conflict resolution, understanding people and team interactions)
- 6. Control Resources.** Ensuring that personnel, material & other resources are available as planned and that the best use is made of these (requires detailed monitoring and performance management)



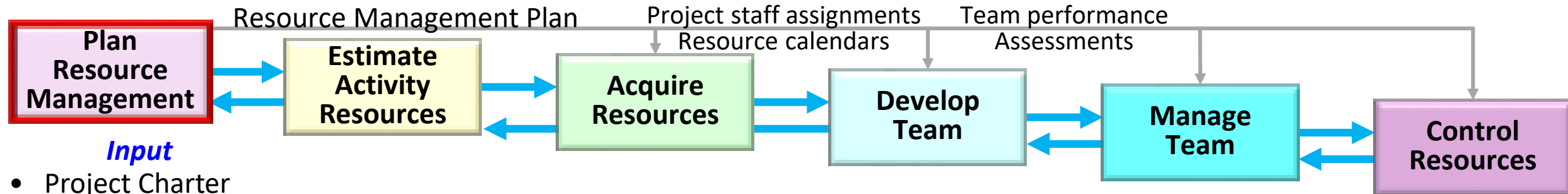
RELATIONSHIPS BETWEEN THESE



WHEN DO THE PROCESSES GET DONE?



PLAN RESOURCE MANAGEMENT



Input

- Project Charter
- PMP, QMP, Scope Baseline & other docs
- EEF & OPA

Tools & Techniques

- Expert Judgement
- Data Analysis & Representation
- Organisational Theory
- Meetings

Outputs

- **Resource Management Plan (RMP)**
- Team charter
- Document updates

The key deliverable is the RMP

PLAN RESOURCE MANAGEMENT

Involves identifying and documenting project resource management approaches for addressing:

- ✓ Human Resource needs
 - Project organisational charts
 - Responsibility assignment matrixes
 - Staffing management plans
 - Resource histograms and graphs
- ✓ Materials & Others
 - Hardware
 - Facilities
 - Software
 - Services/Support
 - Money

Let's look at each of these in more detail

THIS LINKS MANY ASPECTS



LET'S BEGIN WITH HR MANAGEMENT

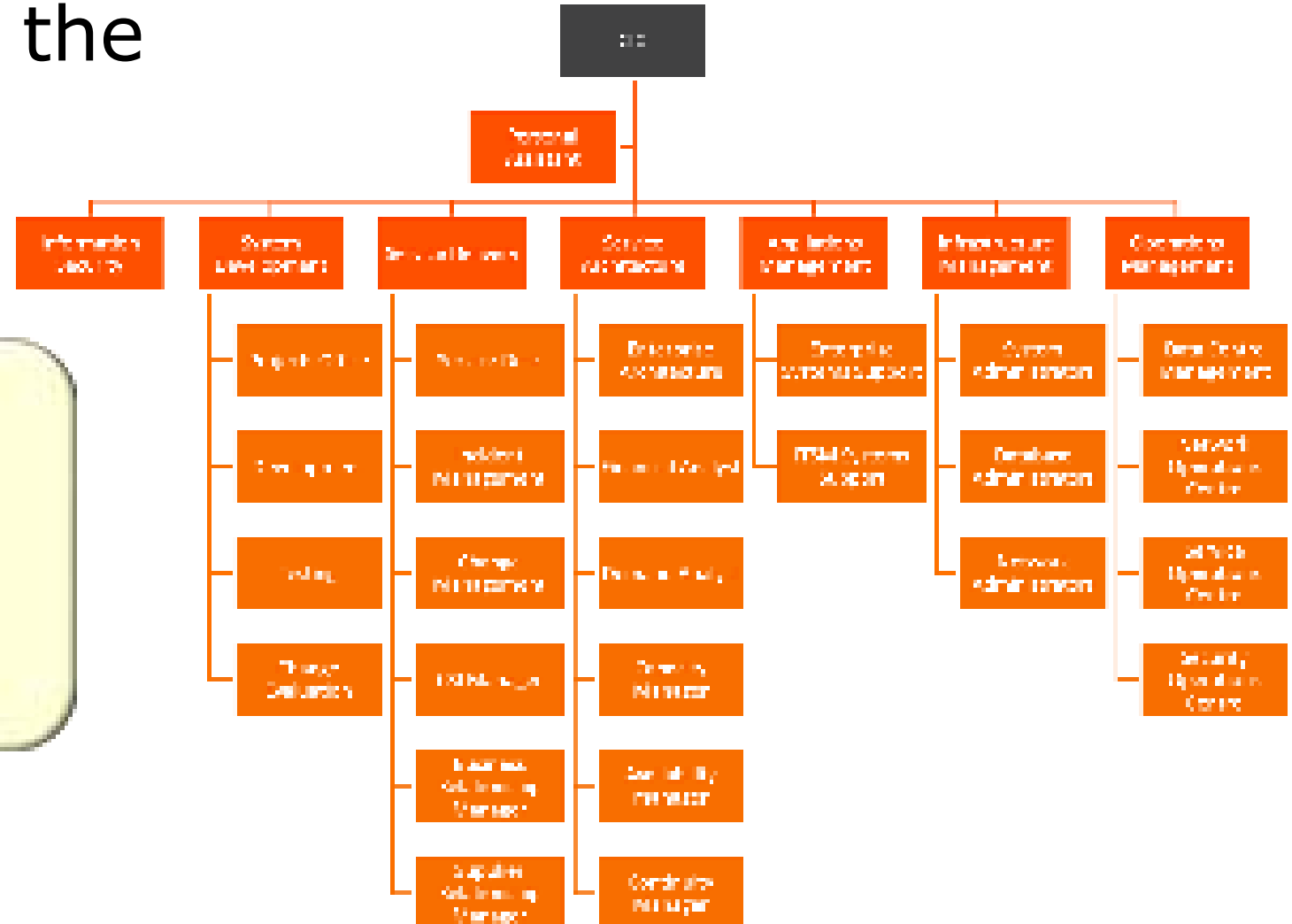
- ✓ A range of **HR focussed solutions** are typically included to help **define the planning**
- ✓ For instance, this involves:
 - Project organisational charts
 - Responsibility assignment matrixes
 - Staffing management plans
 - Resource histograms and graphs



Here are some examples

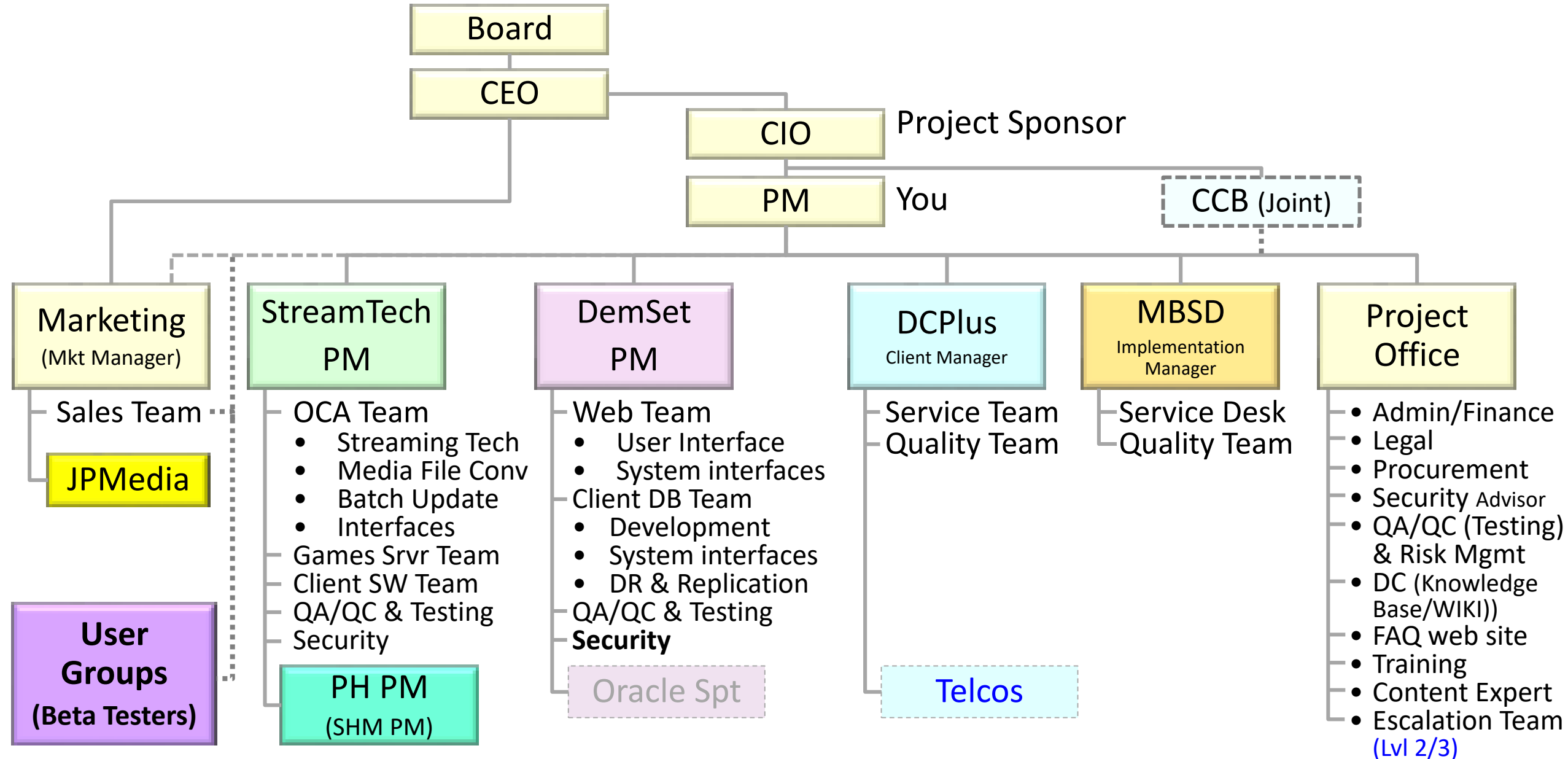
ORGANISATION CHARTS

- ✓ Should provide a clear representation of the structure of the project team



It must make lines of authority, responsibility and organisational relationships clear

EDUSTREAM TEAM ORGANISATION



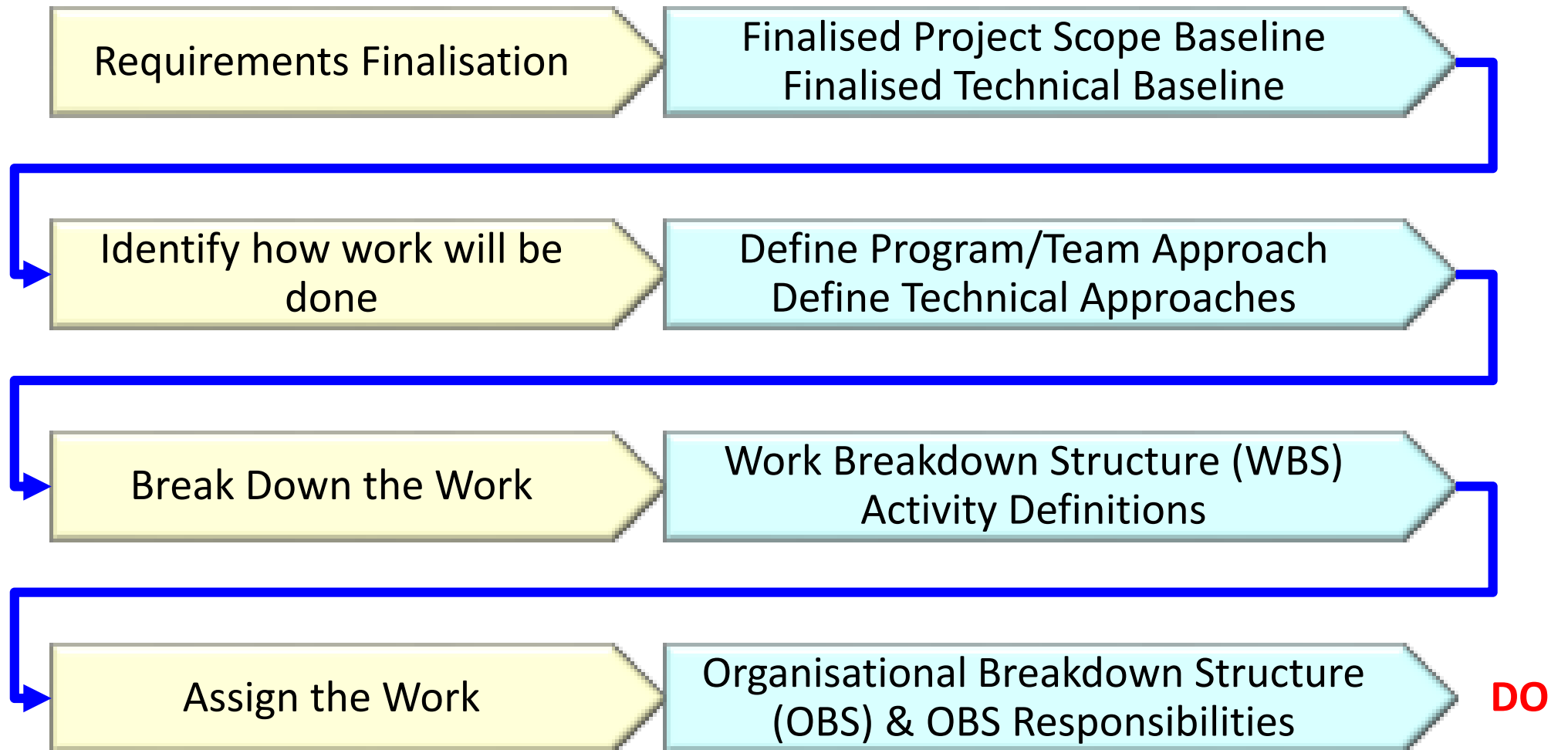
BUILDING RESPONSIBILITY ASSIGNMENTS

INPUTS

STEPS

KEY OUTPUTS

SCOPE



RESPONSIBILITY ASSIGNMENT MATRICES

RESPONSIBILITY ASSIGNMENT MATRIXES

- ✓ A **Responsibility Assignment Matrix (RAM)** is:
 - a matrix that **maps the work of the project**, as described in the WBS...
 - **to the people responsible** for performing the work, as described in the Organisational Breakdown Structure (OBS)



A range of different approaches can be used
(we'll show some examples)

1. RESPONSIBILITY ASSIGNMENT MATRIX (RAM)

OBS UNITS	WBS ACTIVITIES							
	1.1.1	1.1.2	1.1.3	1.1.4	1.1.5	1.1.6	1.1.7	1.1.8
Systems Engineering	R	R P					R	
Software Development			R P					
Hardware Development				R P				
Test Engineering	P							
Quality Assurance					R P			
Configuration Management						R P		
Integrated Logistics Support							P	
Training								R P

R = Responsible Organisational Unit

P = Performing Organisational Unit

Must cover off for all Work Packages (WPs) as Responsible &/or Performing

2. RESPONSIBILITY ASSIGNMENT MATRIX (RAM)

ITEMS	STAKEHOLDERS				
	A	B	C	D	E
Unit Test	S	A	I	I	R
Integration Test	S	P	A	I	R
System Test	S	P	A	I	R
Acceptance Test	S	P	I	A	R

A = Accountable

P = Participant

R = Review Required

I = Input Required

S = Sign-off Required

There must be clear accountability & everyone must understand their responsibilities

3. RESPONSIBILITY ASSIGNMENT MATRIX (RAM)

RACI CHART

ITEMS	STAKEHOLDERS			
	Ann	Ben	Carl	Denny
Develop Schedule	A	R	I	I
Collect Requirements	I	A	R	C
Develop Test Plan	I	A	R	C
Develop Training Plan	A	C	I	R

R = Responsible (to do the work)

A = Accountable

- Ultimate responsibility
- Delegates the work
- Approves the work

C = Consulted (opinions sought as they are experts)

I = Informed (those kept informed of progress)

There must be clear accountability & everyone must understand their responsibilities

STAFFING MANAGEMENT PLAN

- ✓ A **staffing management plan** describes **when and how people will be added to and taken off the project team**
- ✓ Formatting for this varies from company to company
- ✓ Often includes **resource histograms or graphs** (often system generated from the WBS)

Staffing Management Plan Template

Staffing Plan
This staffing management plan describes the project team and the timing of resource additions and removals.

Key Requirements
The staffing management plan should describe the project team and the timing of resource additions and removals. It should also describe the methods used to determine the staffing requirements for the project.

Activity	Start	End	Resources	Staffing	Notes

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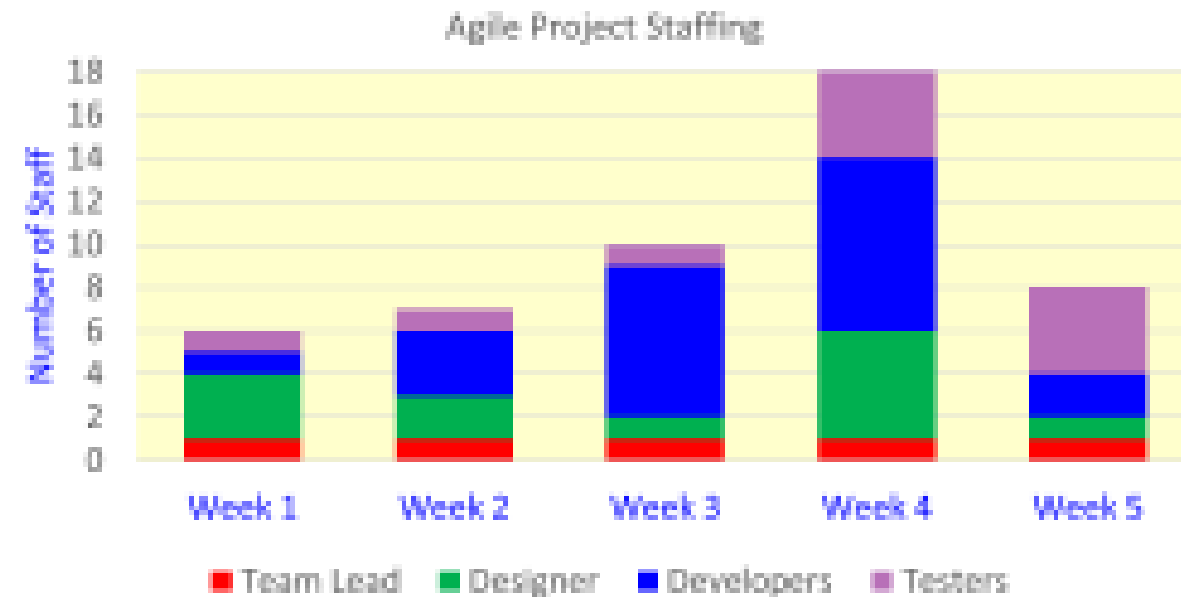
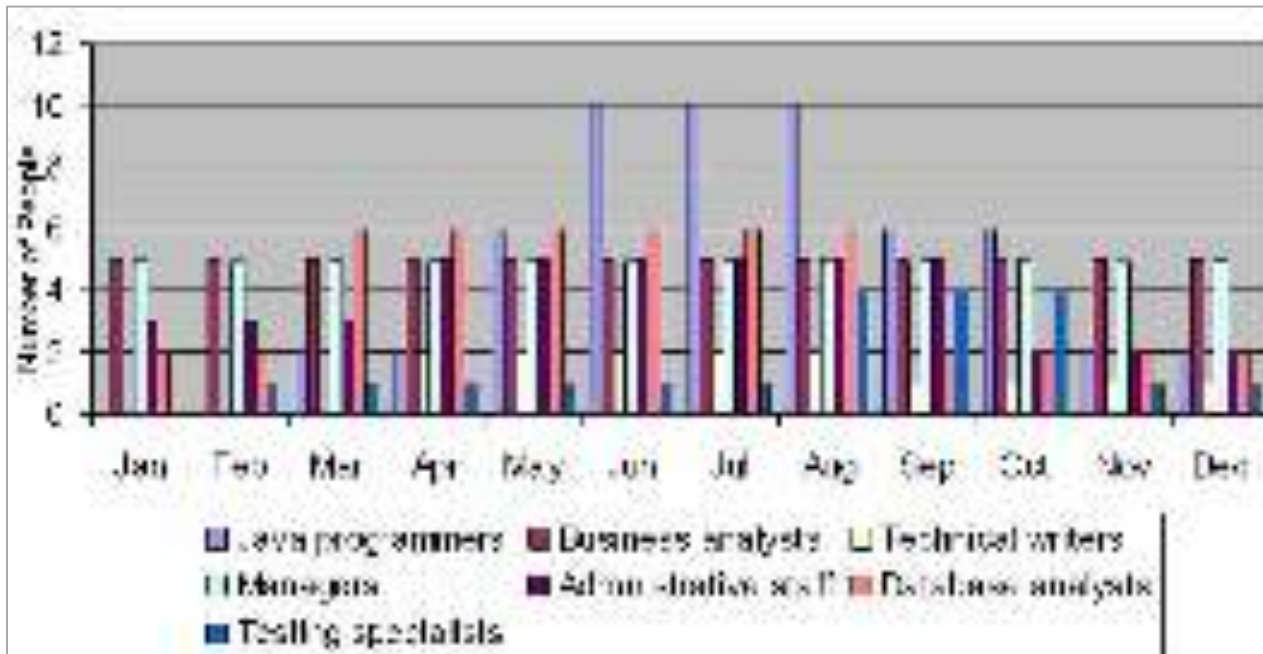
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RESOURCE HISTOGRAMS OR GRAPHS

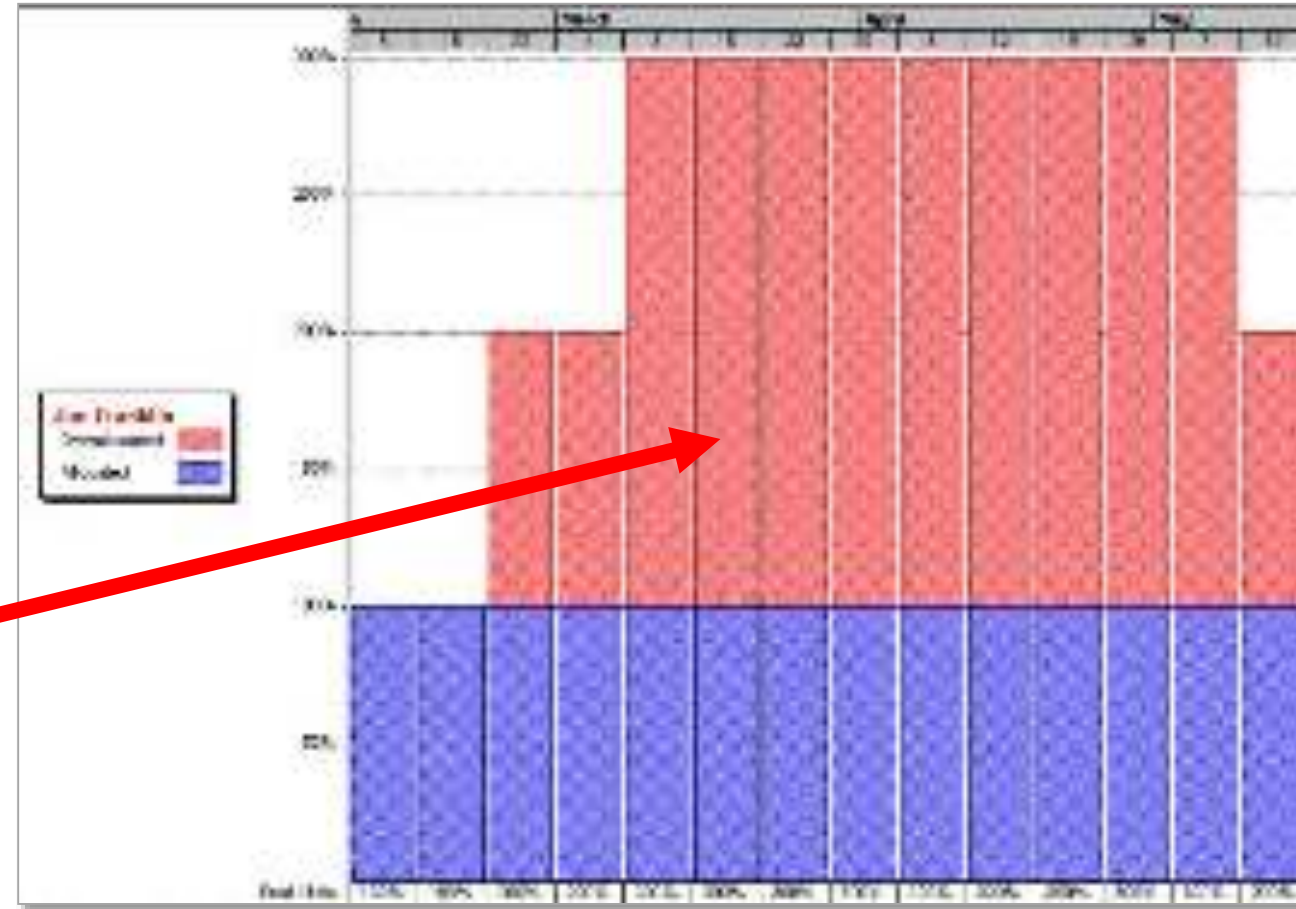
- ✓ These are charts or graphs showing team numbers during the project (these are typically generated from spreadsheets or Project software)



This type of data is also used for **resource loading** and **levelling/smoothing**

RESOURCE LOADING

- ✓ **Resource loading** refers to the amount of individual resources an **existing schedule** requires during specific time periods
- ✓ **Overallocation** means **more resources than are available** are assigned to perform work at a given time

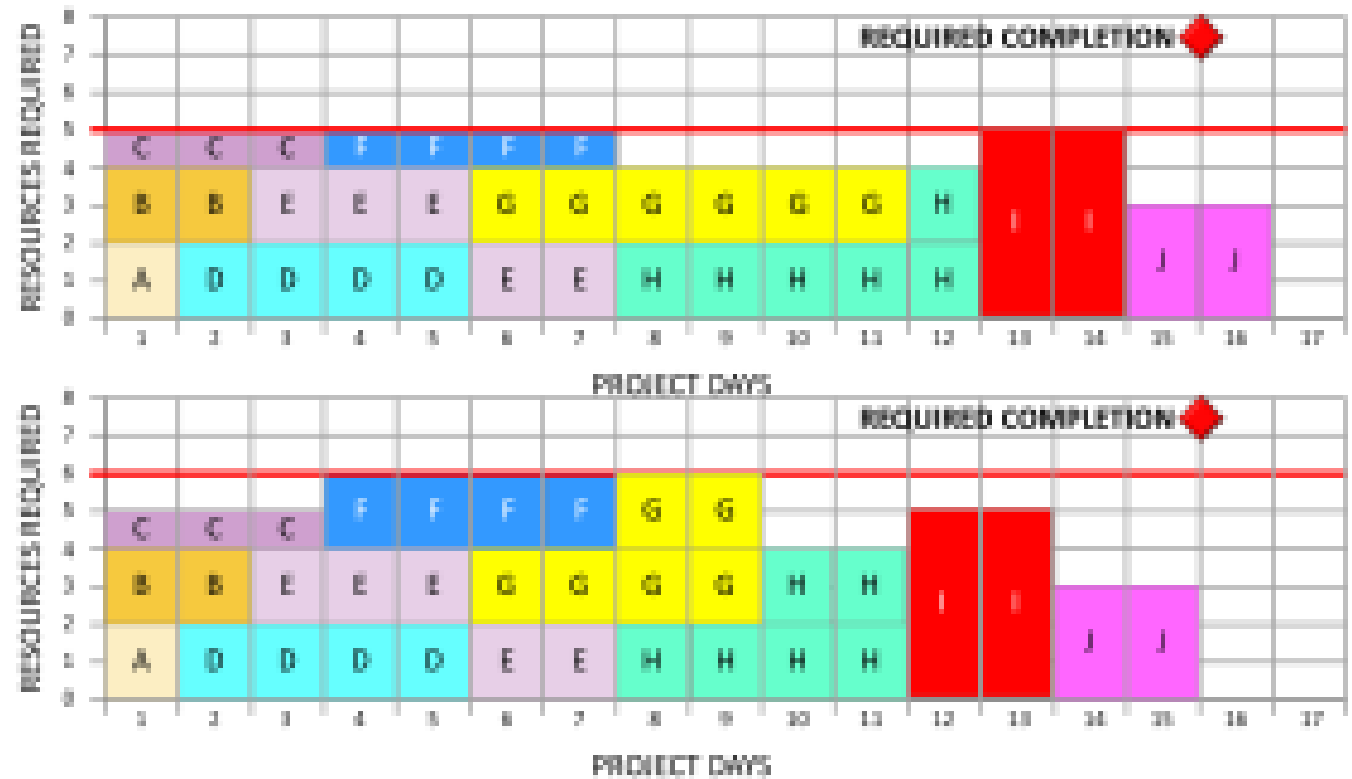


Where there is overload, you would aim to **utilise levelling/smoothing**

APPLYING RESOURCE LEVELLING/SMOOTHING

- ✓ **Resource levelling** is a technique for resolving resource conflicts by shifting tasks (**start/end dates may be adjusted to balance demand**)
- ✓ **Resource Smoothing** is used when time is more important than resources (**therefore tasks are moved around/reallocated & resources acquired**)

LEVELLING & SMOOTHING



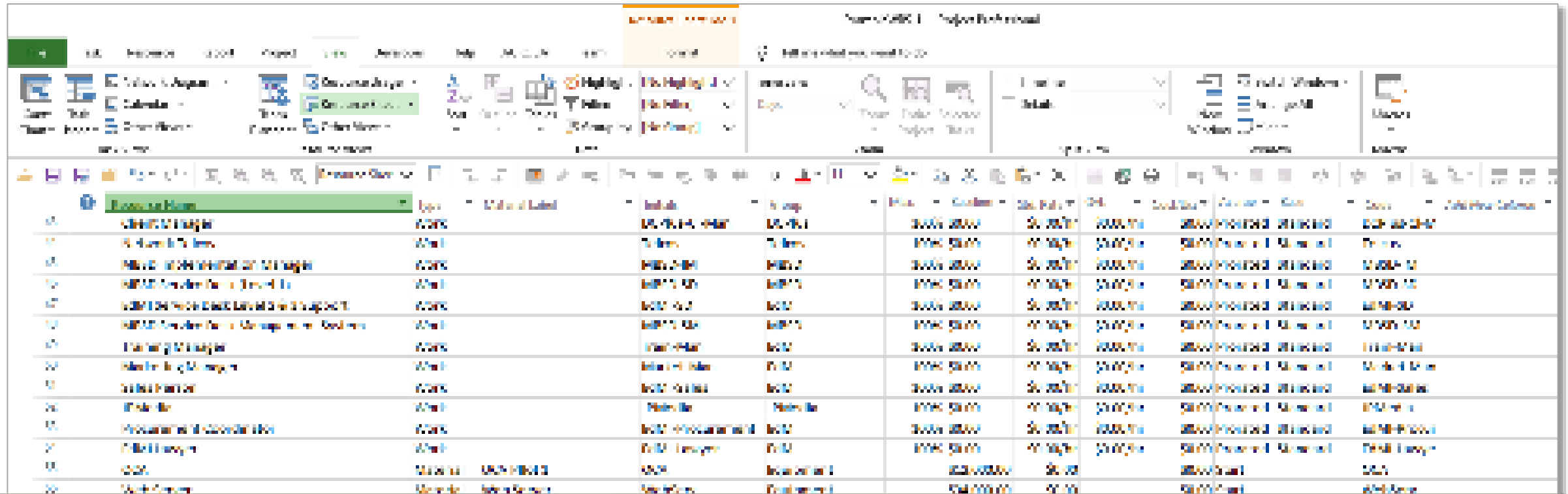
BENEFITS OF RESOURCE LEVELLING/SMOOTHING

- ✓ Human Resources are used on a more consistent basis, so they **deliver better value**
- ✓ It results in **fewer problems for project personnel** and the project coordination
- ✓ It often **improves morale of the team**



PLANNING FOR EQUIPMENT MANAGEMENT

- ✓ Applies cost modeling and phasing (e.g. Often in Excel)
- ✓ Often built into the WBS (allows integrated management)

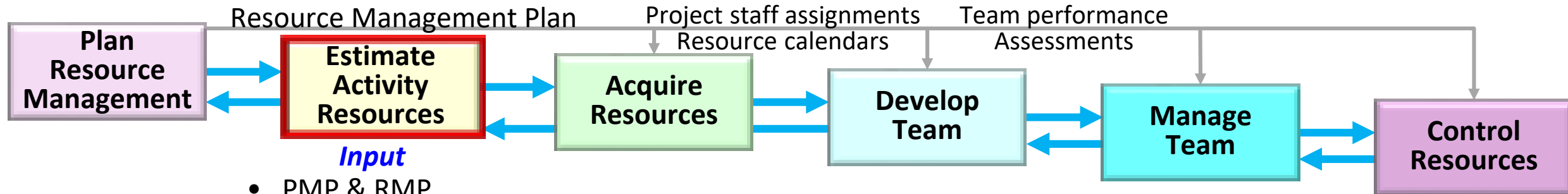


The screenshot shows an Excel spreadsheet with a ribbon at the top and a data table below. The ribbon includes tabs for 'Formulas', 'Data', 'References', 'Layout', 'Send to Back', 'Review', 'Help', 'Accounting Tools', and 'Tools'. The data table has columns for 'Type', 'Material Label', 'Include', 'Group', 'Price', 'Quantity', 'Cost', 'Status', and 'Add New Column'. The table contains 20 rows of data, including items like 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', 'Equipment Manager', and 'Equipment Manager'.

Type	Material Label	Include	Group	Price	Quantity	Cost	Status	Add New Column
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment
WORK	Equipment Manager	Equipment Manager	Equipment	1000.0000	1.0000	1000.0000	Approved	Equipment

This is coordinated through the Resource Estimation Process

ESTIMATE ACTIVITY RESOURCES



Input

- PMP & RMP
- Project documents (e.g. Activity Lists, Schedules, etc.)
- EEF & OPA

T&T

- Expert Judgement
- Estimation techniques
- Data analysis
- Info systems
- Meetings

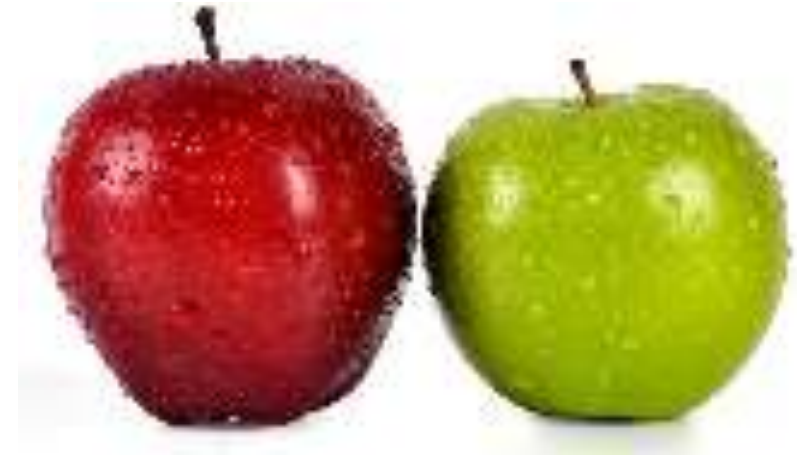
Outputs

- Resource requirements
- Basis of estimates
- RBS
- Document updates

Let's start by looking at the methods of Estimation

TECHNIQUES FOR ESTIMATION

- ✓ **Analogous (Top Down Estimates)**
 - Use information from previous projects
 - Can provide useful insights **(but only if good records are kept)**
 - **Be careful** – small differences can have major schedule implications



TECHNIQUES FOR ESTIMATION

- ✓ **Bottom up estimates**
 - Identify likely resource requirements for individual Work Packages (WP)
 - Aggregate these into a common estimate
 - **Be careful** – can include duplication of effort, but **it is commonly used**



TECHNIQUES FOR ESTIMATION

- ✓ **Parametric modelling (HR)**
 - There are a range of different parametric models
 - Examples include **Function Points (FP)**, **Source Lines of Code (SLOC)** and the **Constructive Cost Model (COCOMO)**



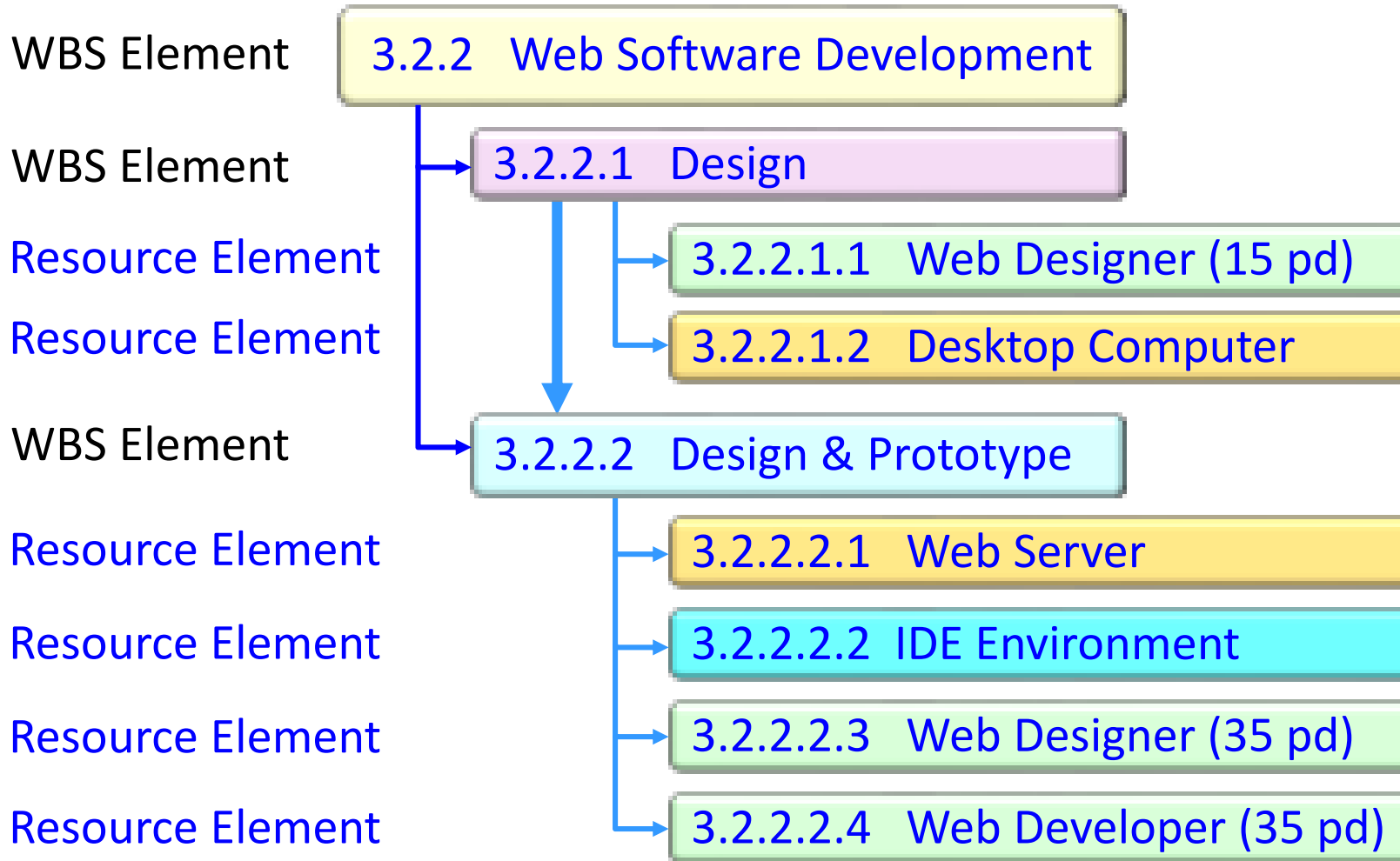
These were discussed in Topic 5

USE THE ESTIMATES IN AN RBS

- ✓ **A Resource Breakdown Structure** is just a way to show what resources are expected to be used
- ✓ These can be done in a range of forms **(tabular/graphical/ mixed)**



EXAMPLE RBS (Resource Breakdown Structure)



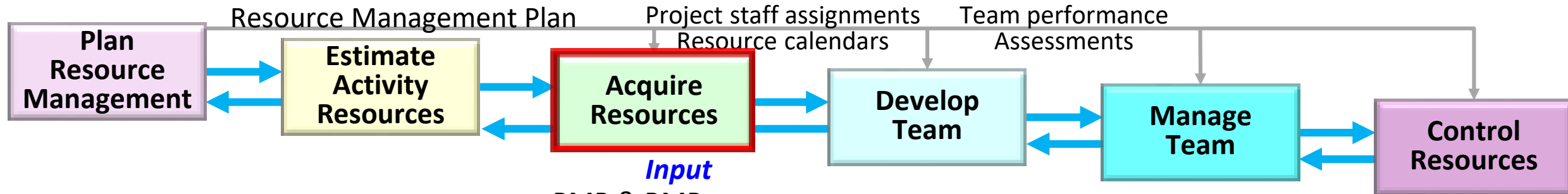
EXAMPLE RBS (Resource Breakdown Structure)

ID	Resource Name	Type	Material	Units	Group	Max Units	Start	End	Resource	Cost	Rate	Code	Additional Columns
1	EMM/CCO	Work	CCO	100%	EMM	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
2	EMM/Project Sponsor	Work	Proj	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
3	EMM/Project Manager	Work	PM	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
4	EMM/EMM/Project Manager	Work	EMM/PM	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
5	EMM/EMM/CCO Team Leader	Work	EMM/CCO	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
6	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
7	EMM/EMM/Client Software Team	Work	EMM/CS	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
8	EMM/EMM/Project Manager (EMM)	Work	EMM/PM	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
9	EMM/EMM/Project Manager	Work	EMM/PM	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
10	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
11	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
12	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
13	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
14	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
15	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
16	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
17	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
18	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
19	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
20	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
21	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
22	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
23	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
24	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		
25	EMM/EMM/Team Leader	Work	EMM/TL	100%	EMM/Proj	200%	2008/01/01	2008/12/31	2008/01/01	2008/12/31	Standard		

This is an example from the Resource Sheet View for staffing in MS Project

More on this during the Workshop

ACQUIRE RESOURCES



Input

- PMP & RMP, Procurement MP, Cost Baseline
- Project documents (e.g. Schedules, calendars, etc.)
- EEF & OPA

T&T

- Decision making (multi-criteria)
- Negotiation
- Pre-assignment
- Virtual teams

Outputs

- Resource assignments
- Calendars
- Change Requests
- Document updates

Managed in terms of HR & Procurement

ACQUIRE PROJECT TEAM



- ✓ Once you have identified the people you need **(based on balancing - skills, numbers, time and tasks)**:
 - Seek resources internally
 - Undertake recruitment **(long lead time & high \$ often required)**
 - Engage external organisations/people (e.g. contractors)
 - Ensure that people are **trained, inducted and properly integrated** within the team

This is a truly important process in your future work
(but we **won't be going into detail**, as there are too many issues to discuss
during the lecture & **it is not important for you right now**)

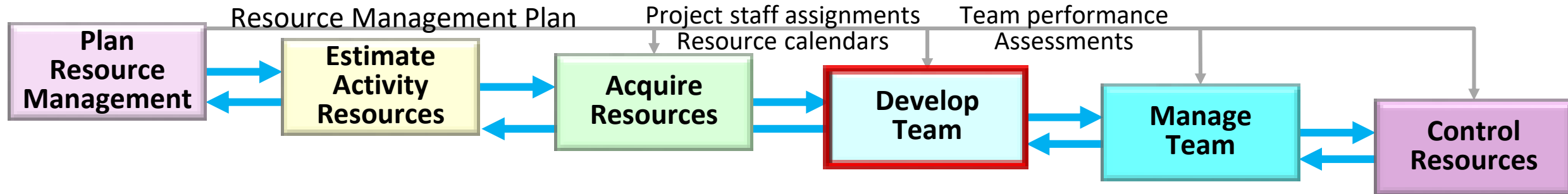
ACQUIRE MATERIALS/OTHER



- ✓ Once you have identified the materials and other resources you need **(based on Estimation)**:
 - Identify best options **(suitability and value for money)**
 - Minimise costs in procurement **(FX, Total Cost of Ownership, etc.)**
 - Ensure that the materials and other resources are available by the time they are needed **(this is critical)**
 - Implement effective Quality Management **(e.g. testing)**
 - **Make sure you have the money to pay the bills!**

Procurement will be discussed in Topic 10

DEVELOP TEAM



Input

- PMP & RMP, Procurement MP
- Project documents (e.g. calendars, Team Charters, etc.)
- EEF & OPA

T&T

- Colocation, Virtual Teams, etc.
- Communications
- Interpersonal & team skills
- Performance & training management

Outputs

- Assessments
- Change requests
- Document updates

WHAT ARE WE GOING TO COVER



Key Terms



***Motivation
Frameworks***



***Psychological Type
Frameworks***

Let's look at each of these in more detail

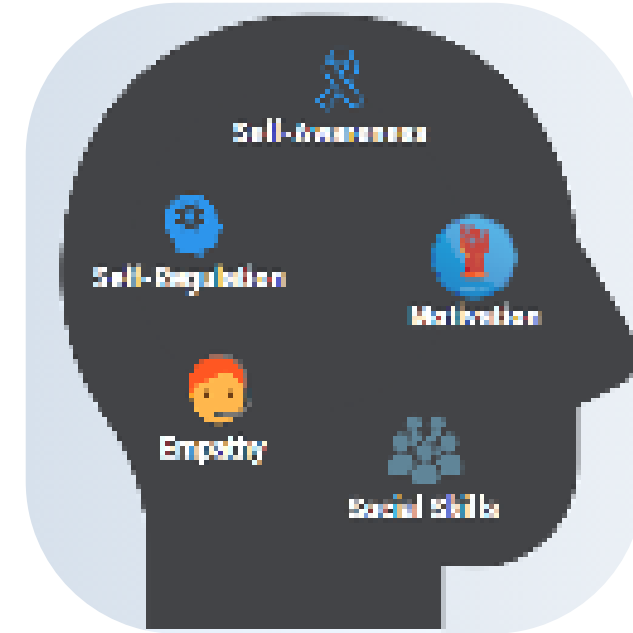
KEY TERMS



UNDERSTANDING SOME KEY TERMS

✓ ***Emotional Intelligence.*** The ability to understand & manage your own emotions. It involves the following key soft skills:

- **Self awareness:** knowing and accepting yourself
- **Self regulation:** setting and keeping to your own standards
- **Empathy:** feeling for and understanding others
- **Social Skills:** interacting well with others in various situations
- **Motivation:** we'll talk about this in a moment



Emotional Intelligence is critical for all members of project teams

UNDERSTANDING SOME KEY TERMS

✓ **Motivation.** The reasons for acting or behaving in a particular way (can be **positive** or **negative**)



- **Intrinsic motivation** causes people to participate in/avoid an activity due their personal motivation (**comes from within**)
- **Extrinsic motivation** causes people to do something due to an external reward /penalty (**comes from external sources**)

We should leverage these for Project Management

UNDERSTANDING SOME KEY TERMS

- ✓ **Psychological Trait.** Habitual patterns of behaviour, thought and emotion **(may or may not be identifiable)**



- ✓ **Psychological (Personality) Type.** **Identifiable differences in people (supports grouping) - influences interaction with others (our focus today)**

We should leverage these for Project Management

MOTIVATION FRAMEWORKS



WHAT WE WILL COVER

- ✓ Maslow's Hierarchy of Needs
- ✓ Herzberg's Motivational & Hygiene factors
- ✓ McClelland's Acquired-Needs Theory
- ✓ McGregor's Theory X & Theory Y
- ✓ Thamhain & Wilemon's Influence & Power

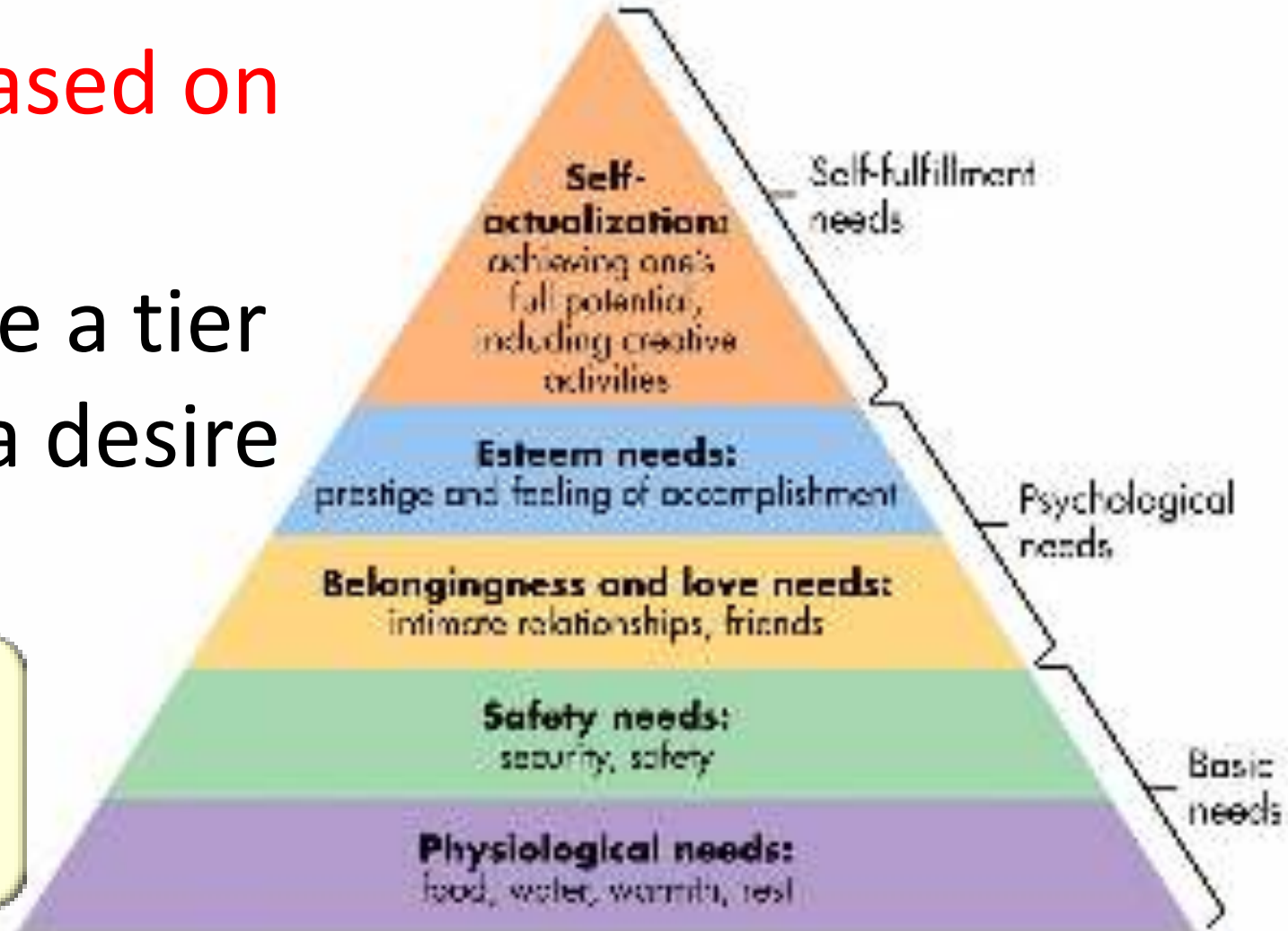
A practical
model for
real world
application

Let's look at these

MASLOW'S HIERARCHY OF NEEDS

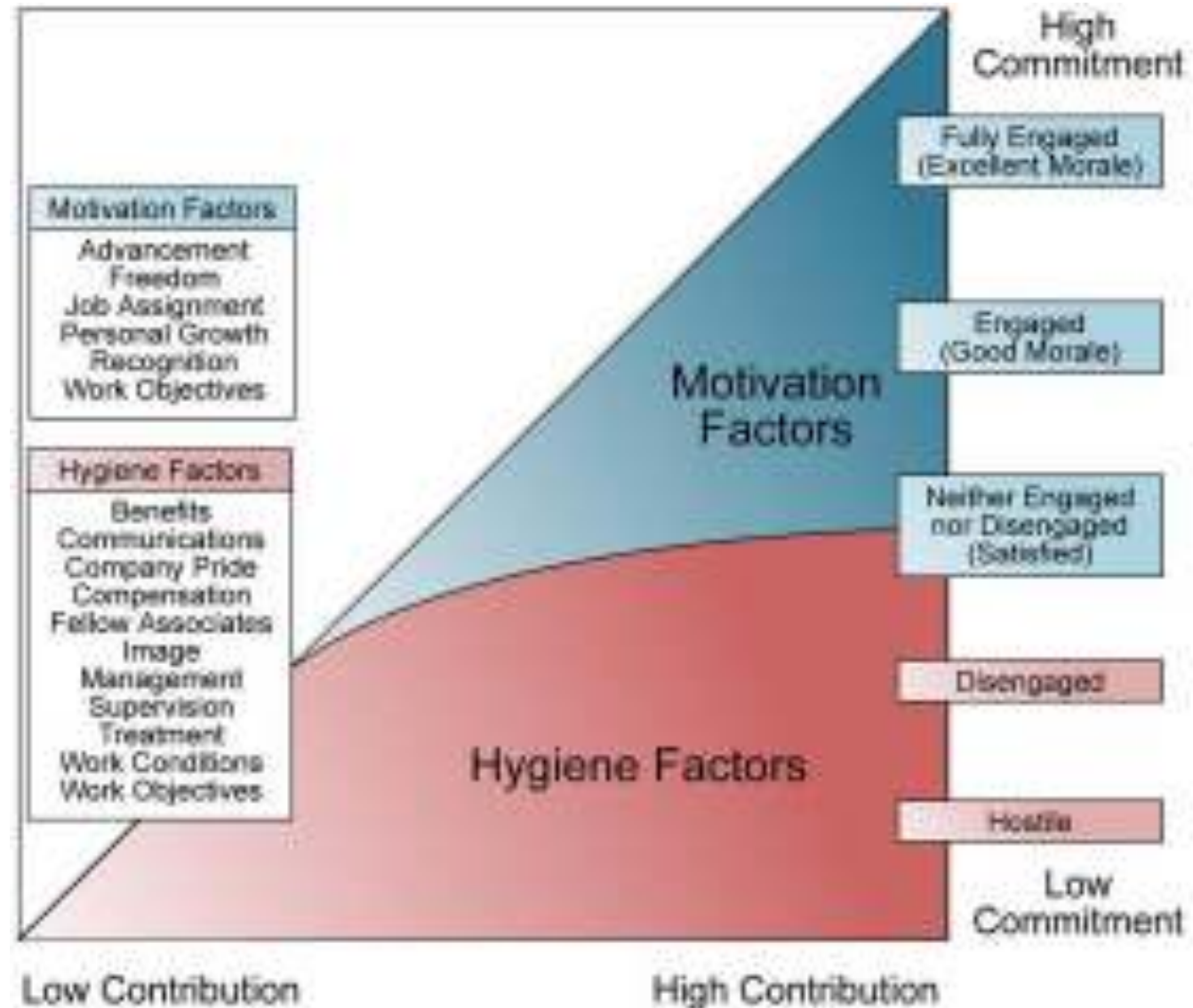
- ✓ **Key premise 1:** Behaviours are guided by **choices based on needs**
- ✓ **Key premise 2:** Once a tier is achieved there is a desire for next tier needs

Can be useful, but not always applicable



HERZBERG'S MOTIVATIONAL & HYGIENE FACTORS

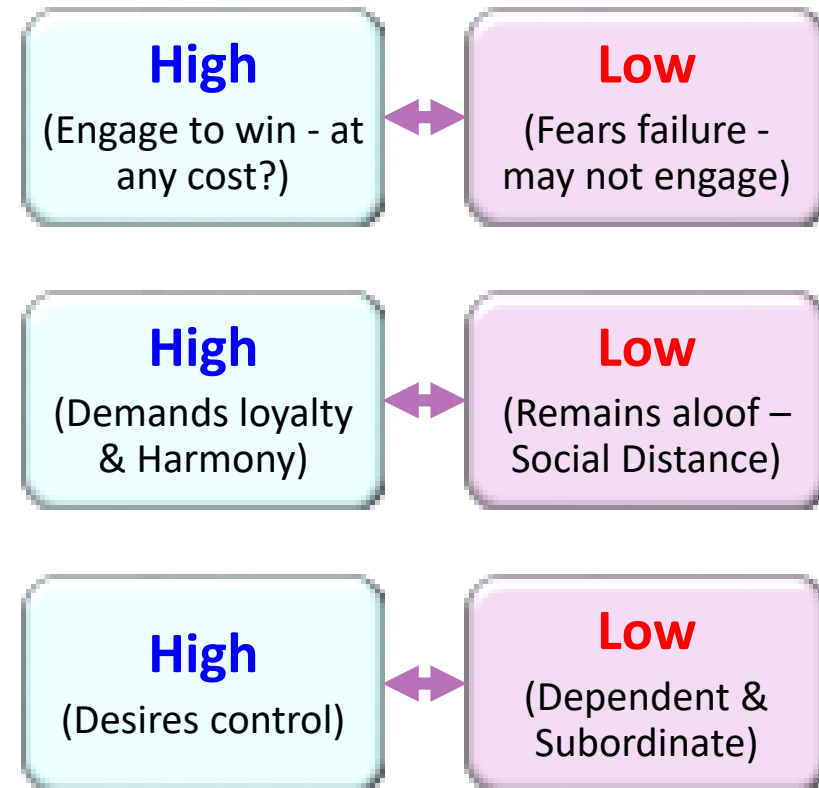
- ✓ **Key premise 1:** Hygiene factors don't motivate when there **(if not done may demotivate but don't motivate)**
- ✓ **Key premise 2:** Motivating factors relate to belonging, esteem & self-actualisation **(these are the motivating factors)**



McClelland's Acquired-Needs Theory

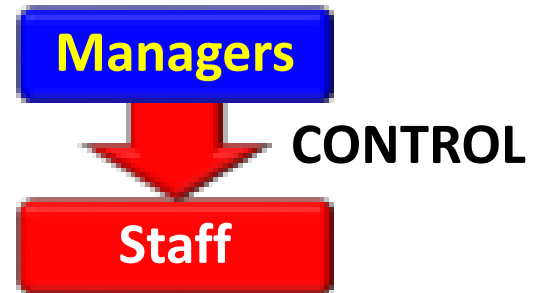
Specific needs are **acquired or learned over time** and are shaped by life experiences. Include:

- ✓ **Achievement (nAch):** Need for achievement - like **challenging projects** with attainable **goals and feedback**
- ✓ **Affiliation (nAff):** Need for **affiliation** / harmony, and acceptance by others
- ✓ **Power (nPow):** Need for **power** or control of situations and tasks (**personal or institutional dimensions**)



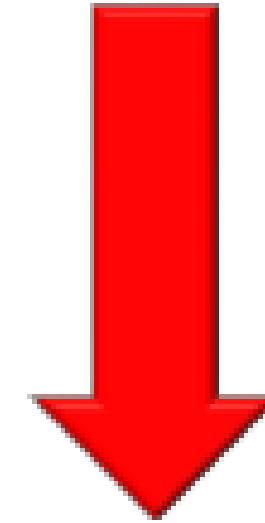
MCGREGOR'S THEORIES

- ✓ **Theory X:** Assumes **workers dislike and avoid work**, so managers must use **coercion, threats, and various control schemes** to get workers to meet objectives
- ✓ **Theory Y:** Assumes **individuals consider work as natural** and people work for the satisfaction of **esteem and self-actualisation needs**
- ✓ **Theory Z:** Similar to Y, but emphasises **trust, quality, collective decision making**, and cultural values (Ouchi (1981) – Based on Japanese frameworks)



THAMHAIN & WILEMON'S – PROJECT INFLUENCE

- ✓ This reflects the **balance between Power & Influence**
- ✓ The two aspects are directly linked due to **delegations**
- ✓ Projects are more likely to fail if **power & influences** (*delegation*) are mismanaged

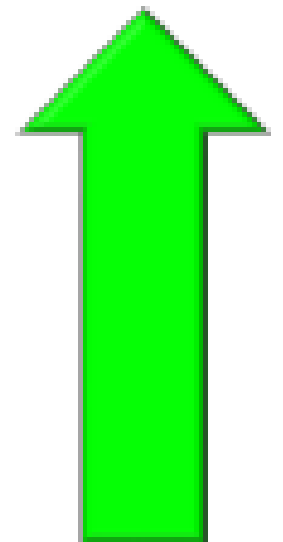


POWER

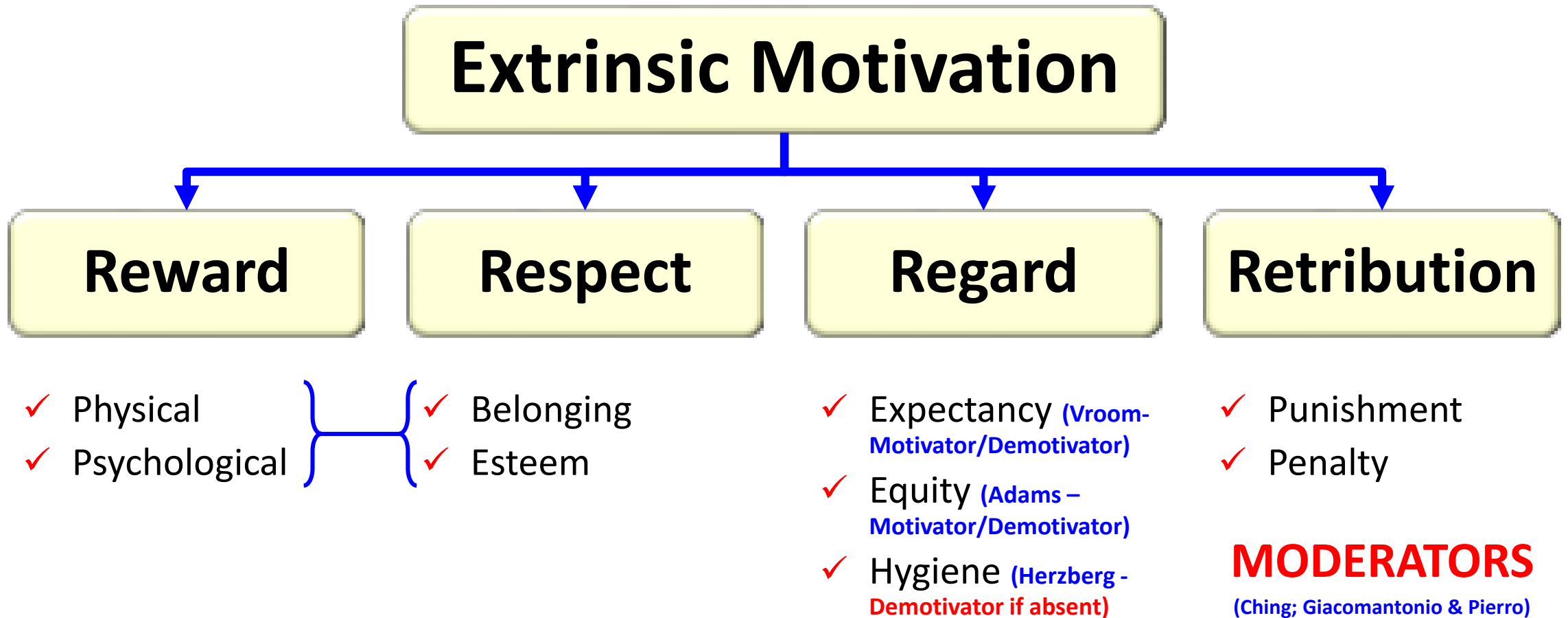
- Coercive
- Legitimate
- Expert
- Reward
- Referent

INFLUENCES

- Authority
- Assignment
- Budget
- Penalty
- Work Challenge
- Expertise
- Friendship



THE 4 R'S MOTIVATION MODEL



THE 4 R'S MOTIVATION MODEL

EXCEEDING NORMS



Moderating Pressure (e.g. Peer Pressure)

- Removing esteem
- Restricting belonging
- etc.

ACCEPTABLE
BEHAVIOUR

BEHAVIOURS CONFORMING TO NORMS



NOT MEETING
NORMS



Organisational Pressure

- Removing Rewards
- Eliminating esteem
- etc.

ACTIVITY (DISCUSSION)

Extrinsic Motivation

Reward

- ✓ Physical
- ✓ Psychological

Respect

- ✓ Belonging
- ✓ Esteem

Regard

- ✓ Expectancy
(Motivator/Demotivator)
- ✓ Equity
- ✓ Hygiene
(Demotivators if absent)

Retribution

- ✓ Punishment
- ✓ Penalty

MODERATORS

***Think about* - Identify two things for each 'R' that you would do to optimise Project Management**

FOR MORE INFORMATION

See this Web Page:

<http://www.seahorses-consulting.com/DownloadableFiles/Motivation.pdf>

PSYCHOLOGICAL TYPE



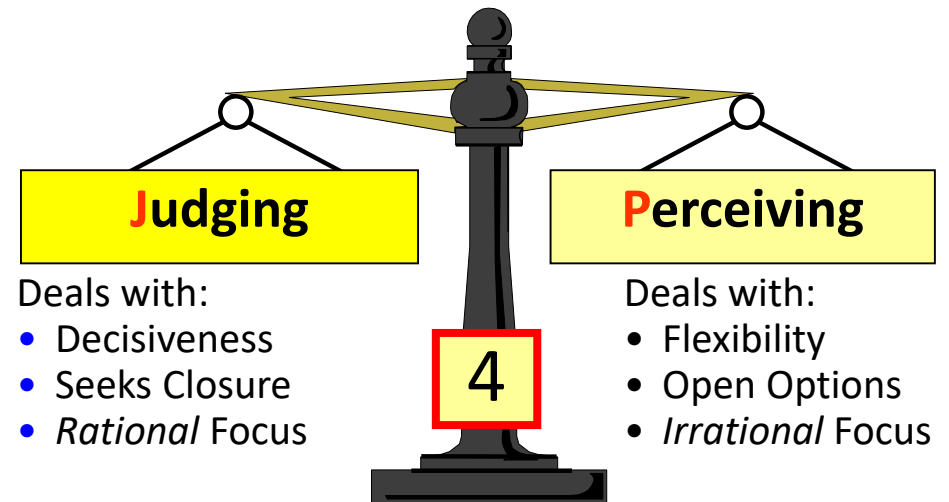
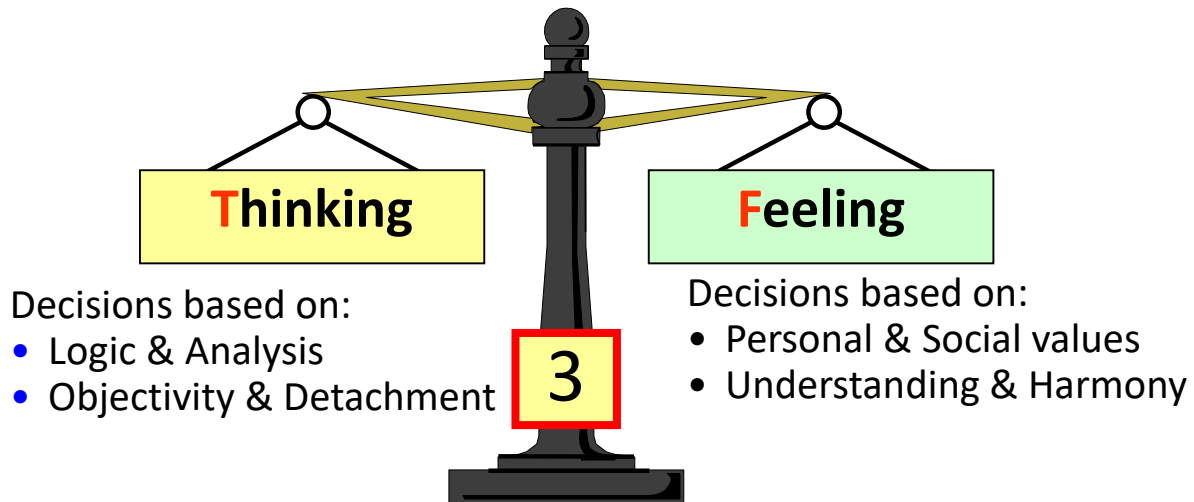
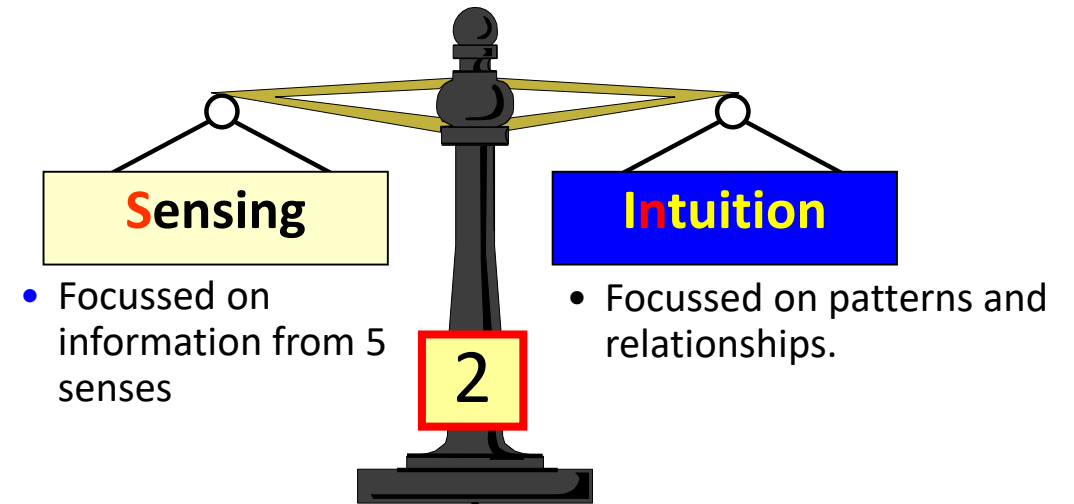
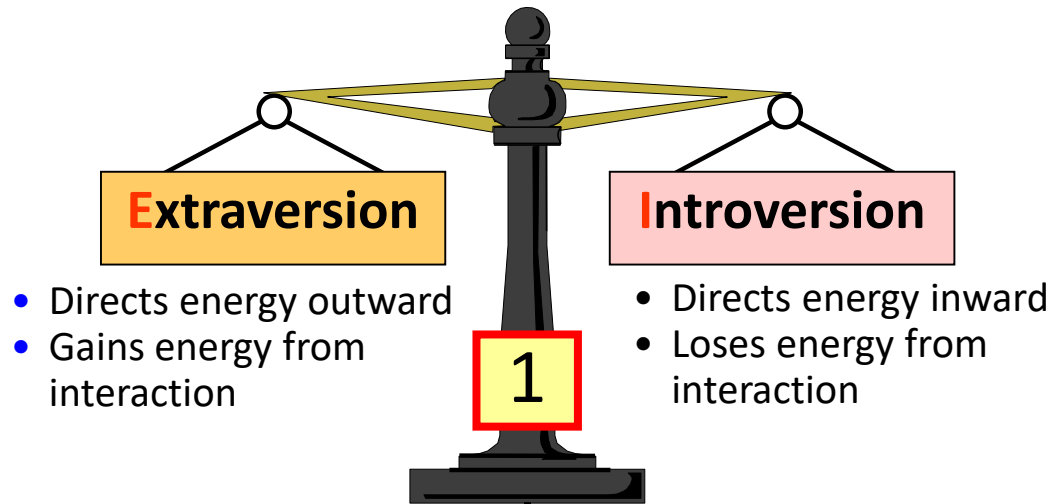
WHAT WE WILL COVER

- ✓ Myers-Briggs Type Indicators (MBTI)
- ✓ Social Styles Profile (SSP)
- ✓ Dominant, Influential, Steady, Compliant (DISC)

A practical model for real world application

Let's look at these

MBTI (THE 4 DICHOTOMIES)



THE 16 TYPES

✓ Creating **16** Types

	SENSING TYPES		INTUITION TYPES		
INTROVERSION	ISTJ	ISFJ	INFJ	INTJ	JUDGING
	ISTP	ISFP	INFP	INTP	PERCEIVING
EXTRAVERSION	ESTP	ESFP	ENFP	ENTP	PERCEIVING
	ESTJ	ESFJ	ENFJ	ENTJ	JUDGING
	THINKING	FEELING		THINKING	

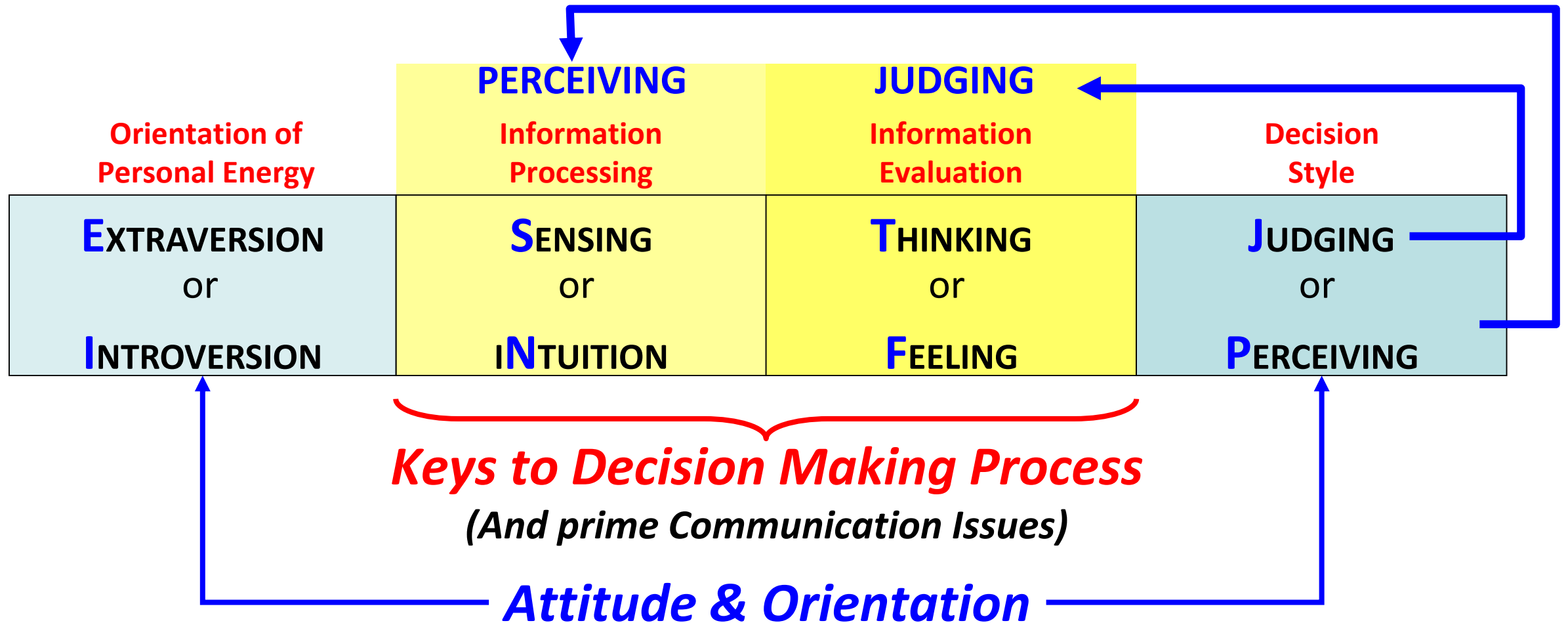
KEY ELEMENTS OF TYPE

✓ Simplified to **4** Types (keys to communication)

The Four Types

	ST	SF	NF	NT	
	SENSING TYPES		INTUITION TYPES		
INTROVERSION	ISTJ	ISFJ	INFJ	INTJ	JUDGING
	ISTP	ISFP	INFP	INTP	PERCEIVING
EXTRAVERSION	ESTP	ESFP	ENFP	ENTP	PERCEIVING
	ESTJ	ESFJ	ENFJ	ENTJ	JUDGING
	THINKING	FEELING		THINKING	

WHY ARE THESE IMPORTANT?



FOR MORE INFORMATION

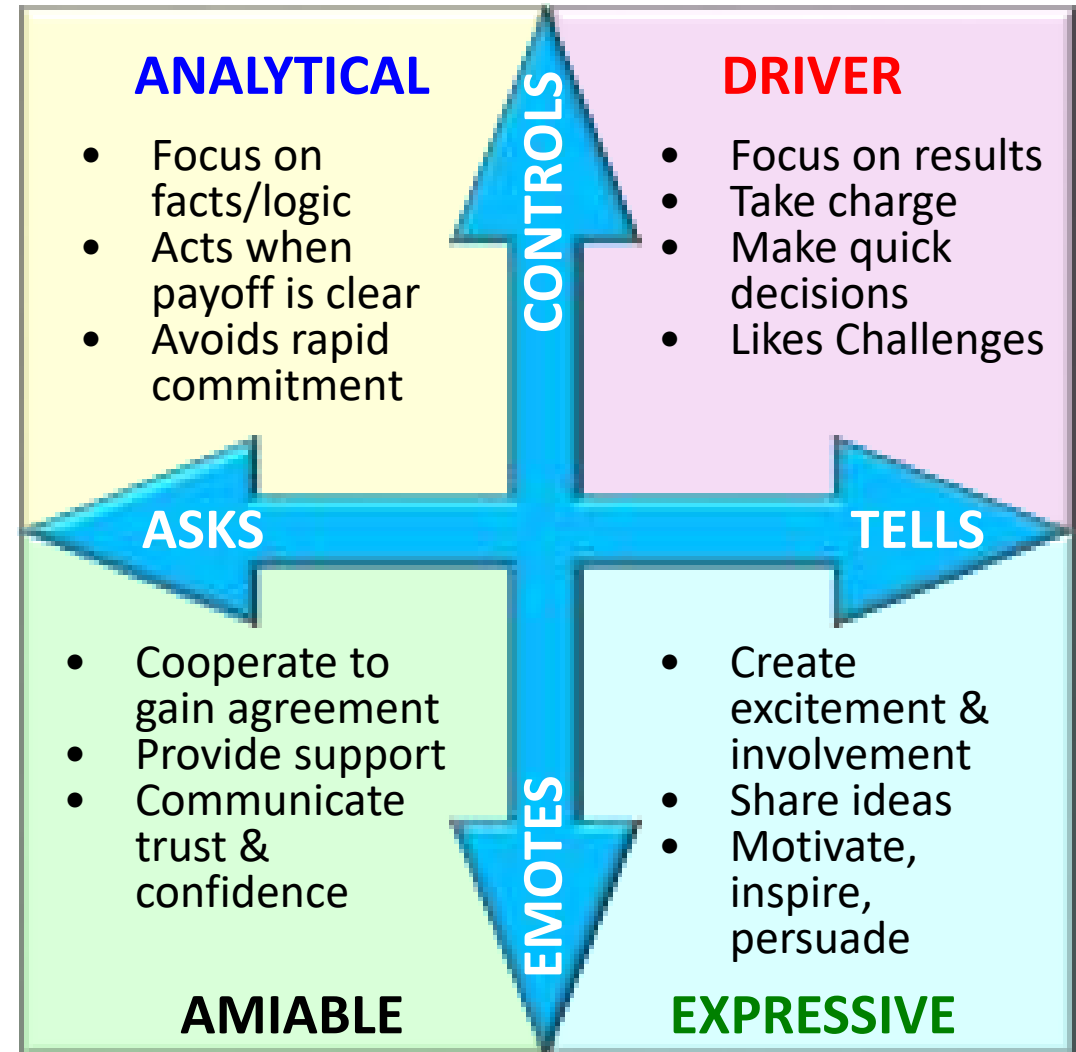
See the following file under Topic 7 in the LMS:

**Topic 7: Using Psychological Type to Optimise
Communication**

SOCIAL STYLES PROFILE

- ✓ Preferences for behaving in line with some key types
 - Analytical – orderly/deliberate
 - Driver – efficient (pushy?)
 - Expressive – enthusiastic (egotistical?)
 - Amiable – supportive and often dependent

There may be friction between people in opposite quadrants

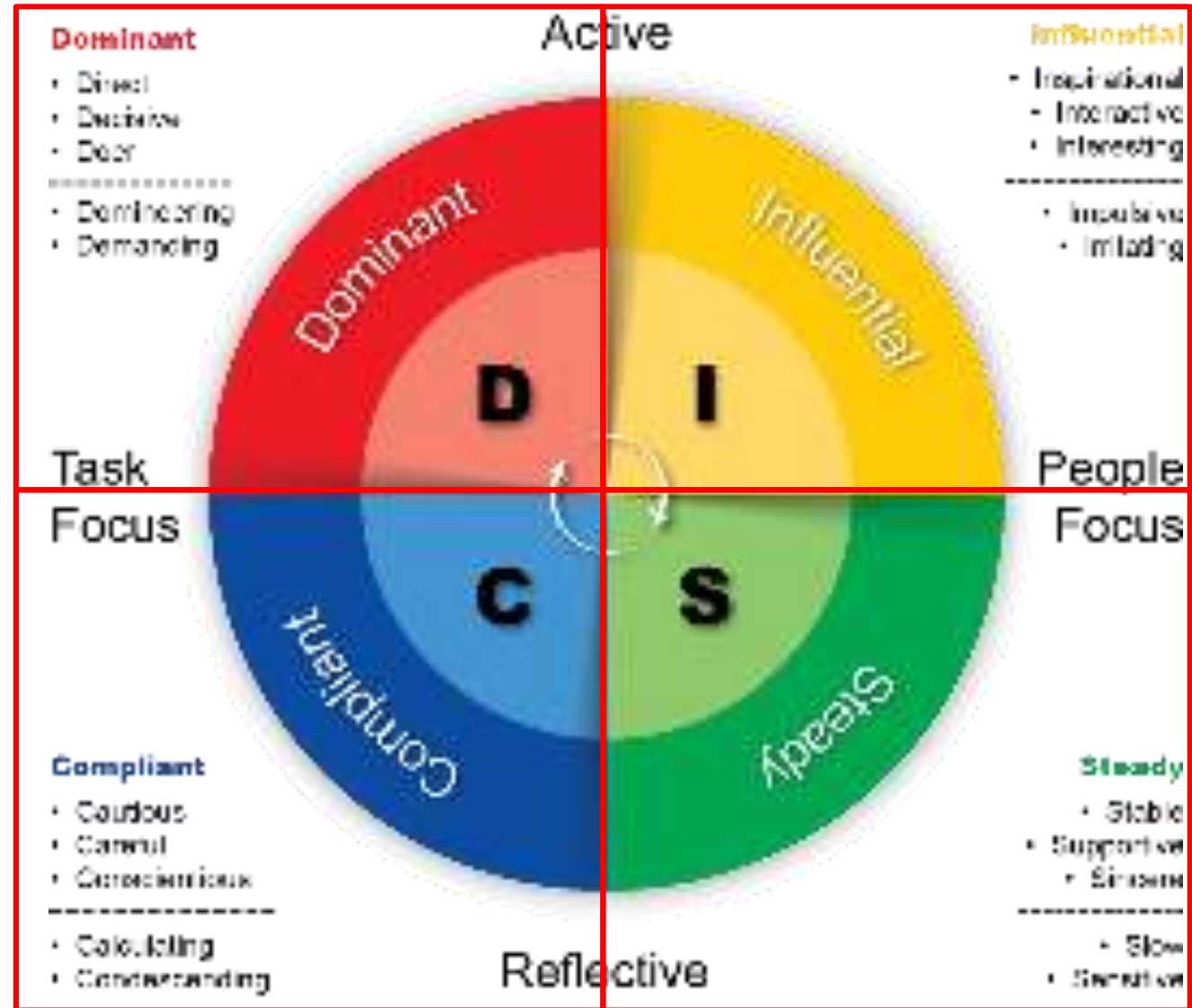


DISC PROFILES

✓ Defines type in terms of four dimensions:

- **Dominant.** Direct, decisive, doer
- **Influential.** Inspirational, interactive, impulsive
- **Steadiness.** Stable, supportive, sincere
- **Compliant.** Cautious, careful, calculating

There may be friction between people in opposite quadrants

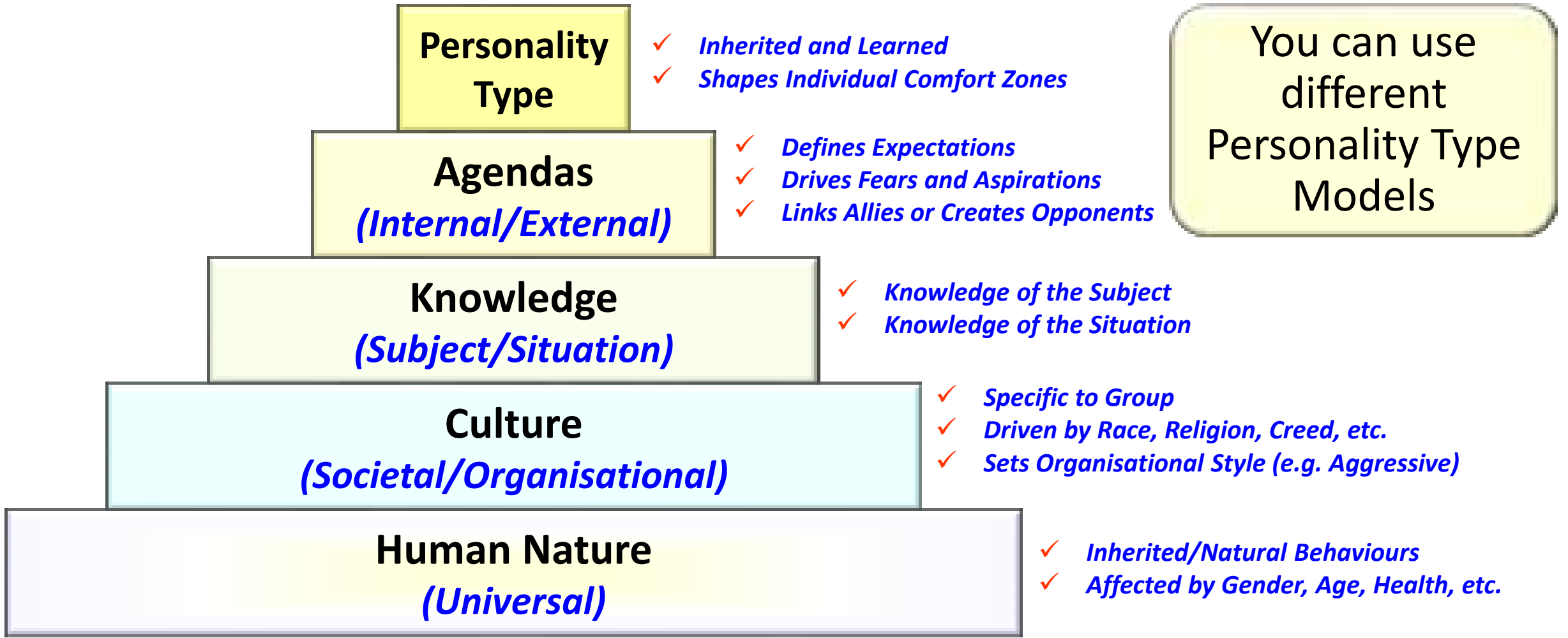


PRACTICAL APPLICATION



Or know very little about them?

THE PROFILING PYRAMID



Source: Developed from information provided in: McShane & Von Glinow (2000); Briggs Myers, McCaulley, Quenk, & Hammer (1998); Keirse & Bates (1984); Linows (1997); Burns (2000); Sartain, North, Strange & Chapman (1973); Morris & Sternberg (1988); Bernstein & Audley (1988); Hofstede (1991); Tyler & Peck (2001); Newell (2012); Sung Eun Chung & Meneely (2012); Hou & Elliott (2010); Barson (2011); King (2012); Saat & Singh (2011)

FOR MORE INFORMATION

See this the following file under Topic 7 in the LMS:

Topic 7: Understanding the Profiling Pyramid

USE THESE FRAMEWORKS TO DEVELOP PROJECT TEAMS

- ✓ Team development is important to:
 - help your team work together (**teamwork is essential**)
 - assist the team members to build their skills/capabilities (**hard & soft skills**)
 - guide them to **apply their type/traits** to best effect, **evolve their comfort zones** & develop Emotional Intelligence
 - ensure that they are properly (**positively**) **motivated**

Many approaches can be used, here is one...

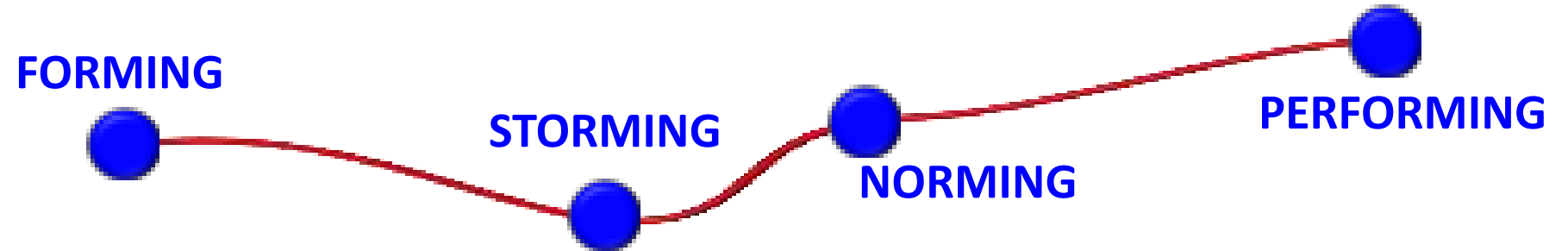
SUPPORTING THROUGH STAGES

✓ A useful model for understanding this is Tuckman (1965)



SUPPORTING THROUGH STAGES

- ✓ The following actions should be taken during key stages



	Forming	Storming	Norming	Performing
Overview	Set objectives	Resolve conflicts	Facilitate processes	Coach
Direction	High engagement	High engagement	Low engagement	Low engagement
Support	Low level	High level	High level	Low level
Leader focus	Individual tasks	People interactions	Task interactions	Team self-development
Persuasion style	Tell/push	Sell/consult	Listen/advise	Observe/support
Team interaction	Leader provide links	Facilitate relationships	Facilitate team process	Dynamic grouping
Summary	Individuals	Relationships	Processes	Self-development

TRAINING IS A KEY ELEMENT

Training should be focused on:

- ✓ Improving hard skills (OJT & course support)
- ✓ Improving soft skills (OJT interactions), and getting them to understand their traits & types and those of others (to improve collaboration and understanding)

Coaching is important (particularly in norming and performing stages)

This should be part of **belonging and esteem strategies**



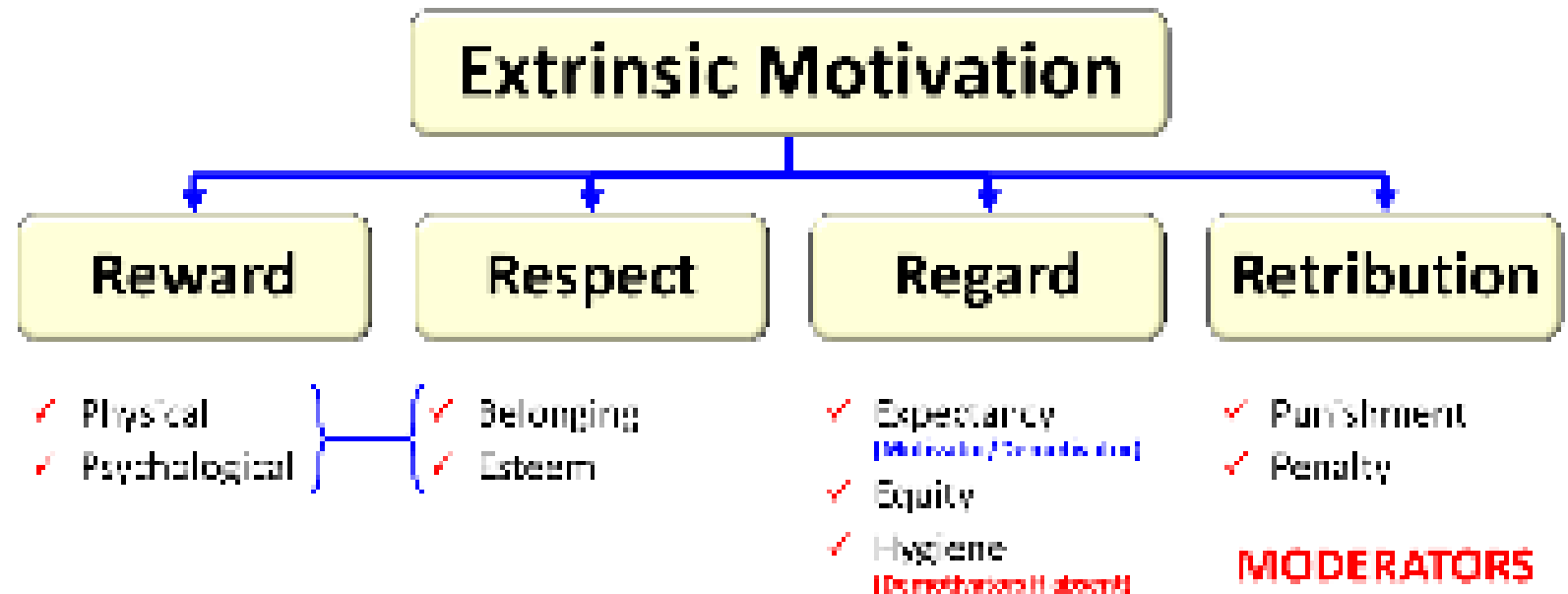
REWARD/RECOGNITION IS ALSO KEY

✓ **Supported by the four R's framework**

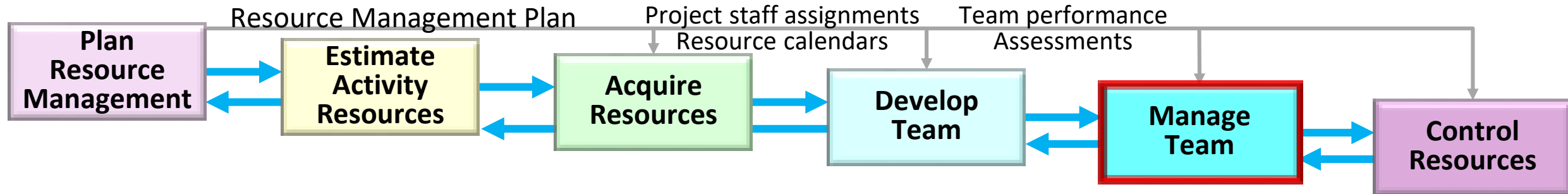
- Can promote teamwork
- Can provide motivation
- But be careful about equity issues



**A critical part
of
Performance
Management**



MANAGE TEAM



Input

- PMP & RMP, Procurement MP
- Project documents (e.g. Issues log, lessons learnt, etc.)
- Performance report
- EEF & OPA

T&T

- Interpersonal & team skills
- Performance
- Info systems

Outputs

- Change requests
- PMP and other document updates



MANAGE PROJECT TEAM

- ✓ The Project Manager (PM) **must lead** their team **(using different techniques as discussed earlier)**
- ✓ The PM must carefully monitor & **proactively manage**:
 - **project progress** in relation to milestones/ objectives **(know who is doing what)**
 - **team progress**, morale & interactions **(MBWA)**
 - financial and **resource control issues** **(risk management)**
 - **disagreements and conflicts**



MANAGING CONFLICT

KEY CAUSES OF CONFLICT

- 💣 Scheduling Priorities
- 💣 Scarce resources
- 💣 Personal work styles
()
- 💣 Methodology/details
- 💣 Cost/Budget
- 💣 Personalities ()

MANAGING CONFLICT

DO

- 😊 Collaborate
- 😊 Problem solve
- 😊 Compromise/Reconcile
- 😊 Force/Direct (**only as a last option**)

DON'T

- ☠ Smooth/Accommodate
- ☠ Withdraw/Avoid

AND REMEMBER NOT ALL CONFLICT IS BAD

- ✓ Task related conflict may:
 - Generate new ideas/better alternatives
 - Provide motivation for participants
 - Help **avoid Groupthink** (where everyone just says 'Yes') – **Groupthink can be a major problem**
- ✓ However, when conflict becomes **personal** it is a **big problem**

Avoid letting it get personal



ADVICE ON MANAGING TEAMS

- ✓ Ensure there is a **clear team identity**
- ✓ Be patient and kind with your team
- ✓ **Fix problems instead of blaming people**
- ✓ Establish regular, effective meetings
- ✓ Allow time for teams to go through the basic team-building stages
- ✓ Nurture team members and **encourage them to help each other (you have to lead by example)**



ADVICE ON MANAGING TEAMS

- ✓ **Plan social activities** to help project team members and other stakeholders **get to know each other better**
- ✓ Take additional actions to work with **virtual team members**
- ✓ Limit the size of work teams (**typically 3-7 members**)

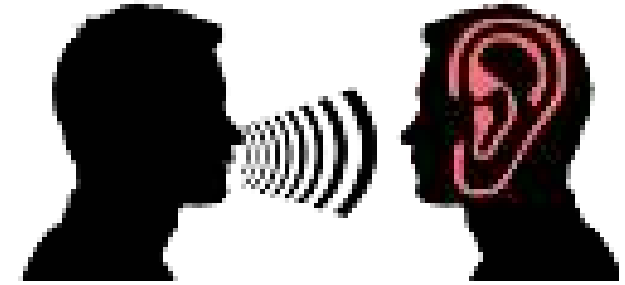


Really listen to your team!

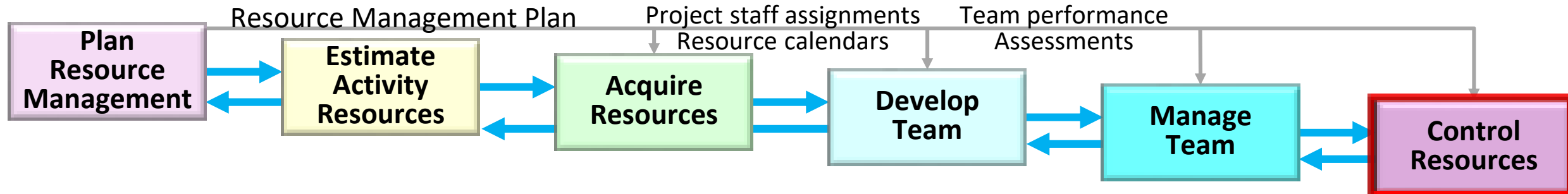
(In particular use empathic listening)

EMPATHIC LISTENING & RAPPORT

- ✓ This means **really listening** (not just thinking about an answer, but understanding their issue)
- ✓ Do **not think about your answer until you truly understand** what they are trying to say (**explicit and implicit meaning**)
- ✓ **Be open and build rapport**, so they are willing to talk freely and truthfully
- ✓ Try to **avoid interruptions** that break the communications
- ✓ Until you understand, **use open questions** to help them explain their thoughts



CONTROL RESOURCES



Input

- PMP & RMP
- Project docs (e.g. Issues log, RBS, schedules, etc.)
- Performance data
- Agreements
- OPA

T&T

- Analysis & Problem solving
- Interpersonal & team skills
- Performance
- Info systems

Outputs

- Change requests
- PMP & other doc' updates

CONTROL RESOURCES

- ✓ **This is an ongoing important task**
- ✓ Monitor your team and give appropriate guidance/support/direction/feedback (using the preceding two processes)
- ✓ Carefully monitor and control the coordination of materials and other resources



This will take a fair bit of your time

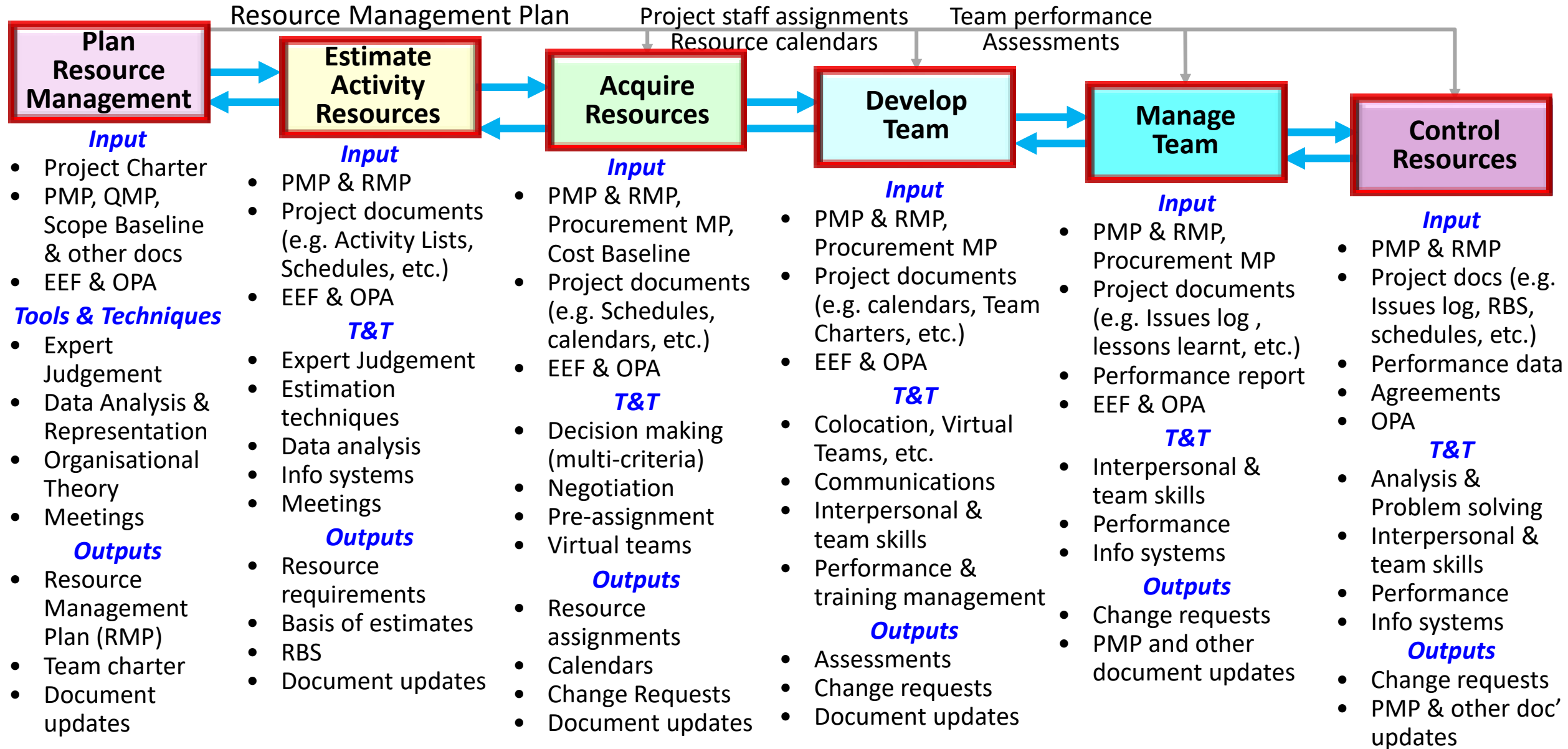
(But it is essential and it helps to ensure success – in lots of different ways)

TOPIC SUMMARY

TOPIC SUMMARY

- ✓ Project Resource Management is important
- ✓ It is based on critical processes that help to ensure that:
 - the *right skills are available* when they are needed
 - the *needed resources are available* **when they are needed**
 - the *team is motivated and managed* to achieve success
 - we don't burn them out (**proactive load management**)
- ✓ These techniques influence scope & schedule management (**this is a key to getting the work done on time & on budget**)

IT IS MANAGED THROUGH...



ANY

QUESTIONS

