Software Project Management (SENG211)

Assoc. Prof. Dr. Yenal ARSLAN

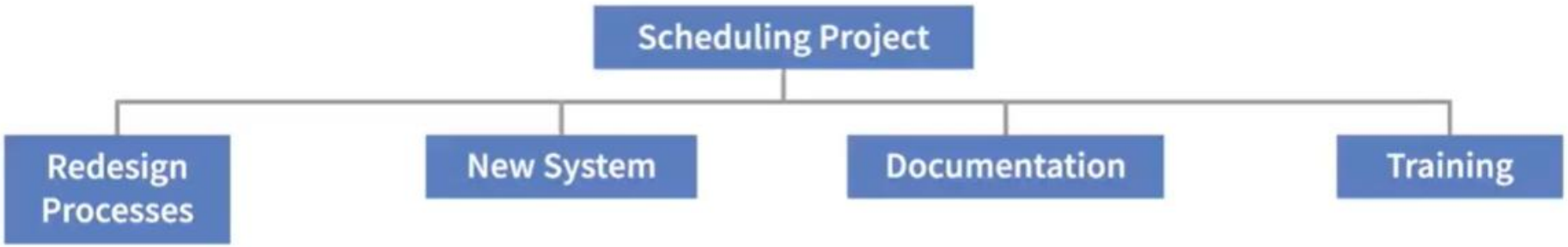
@yenalarslan1

https://www.linkedin.com/in/yenalarslan

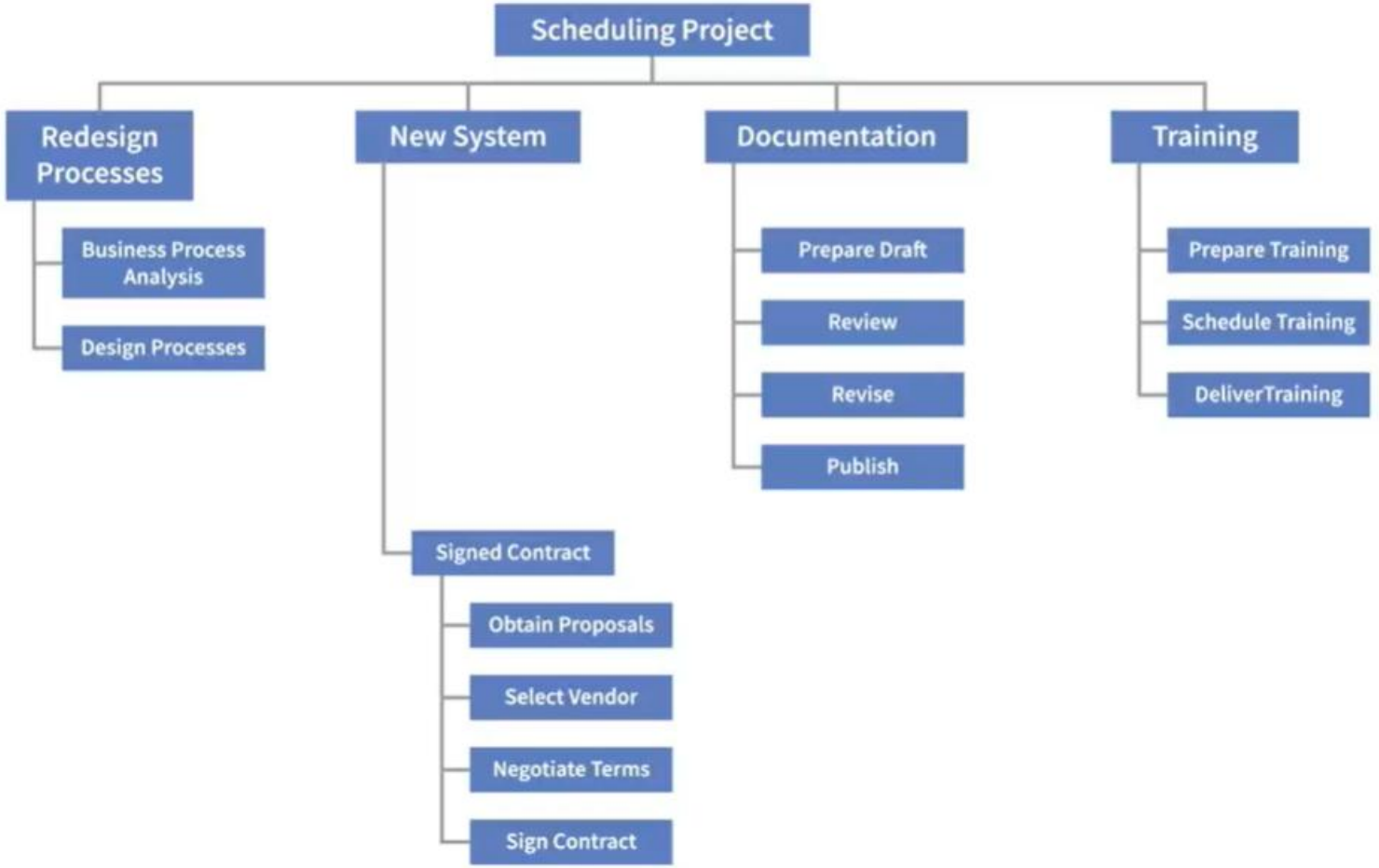
yenalarslan@aybu.edu.tr

- Phase I — Initiation
- Phase II — Planning
- Phase III — Execution
- Phase IV — Monitoring
- Phase V — Closing

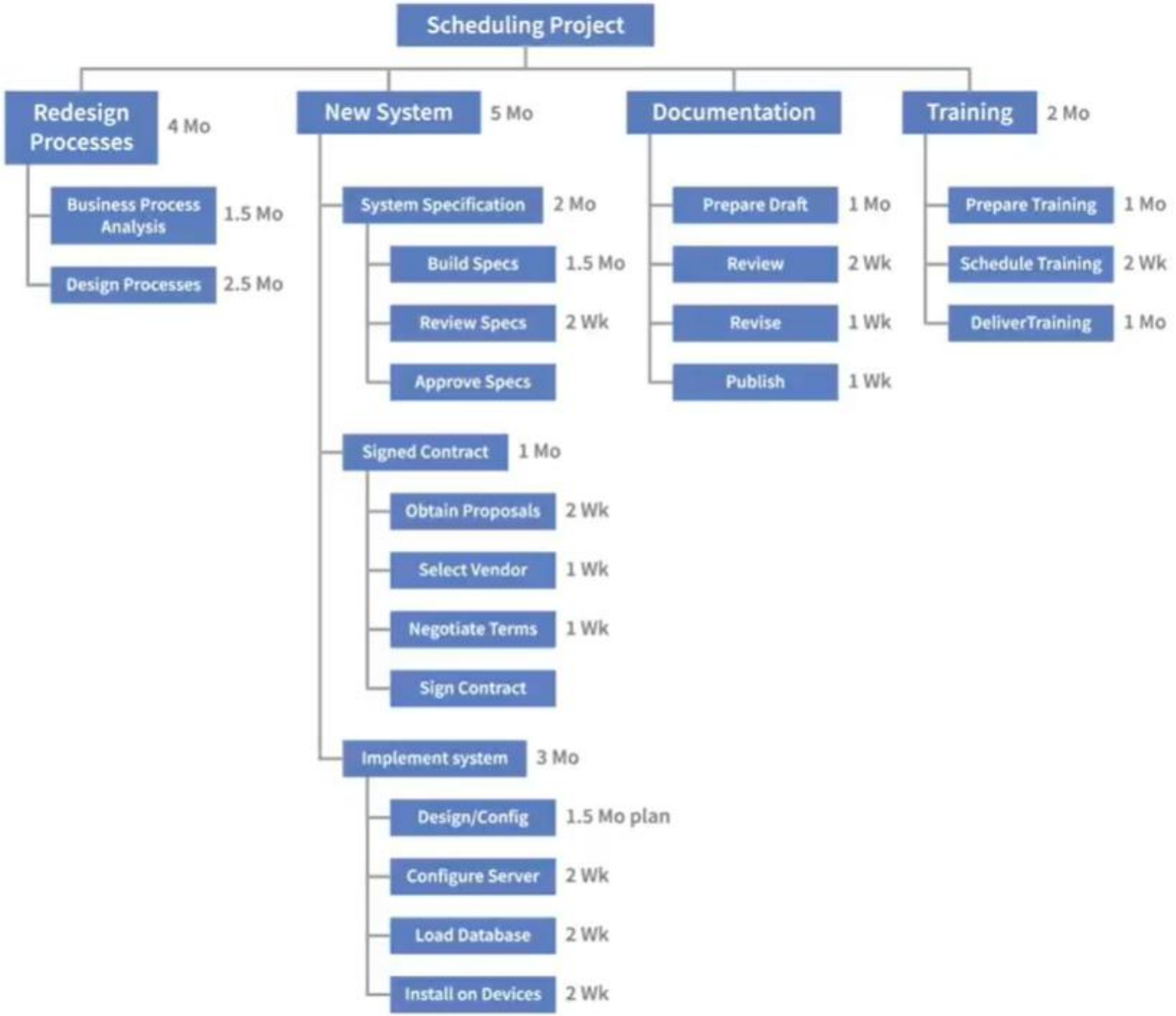
Building a WBS


Scheduling Project
Redesign Processes
New System
Documentation
Training

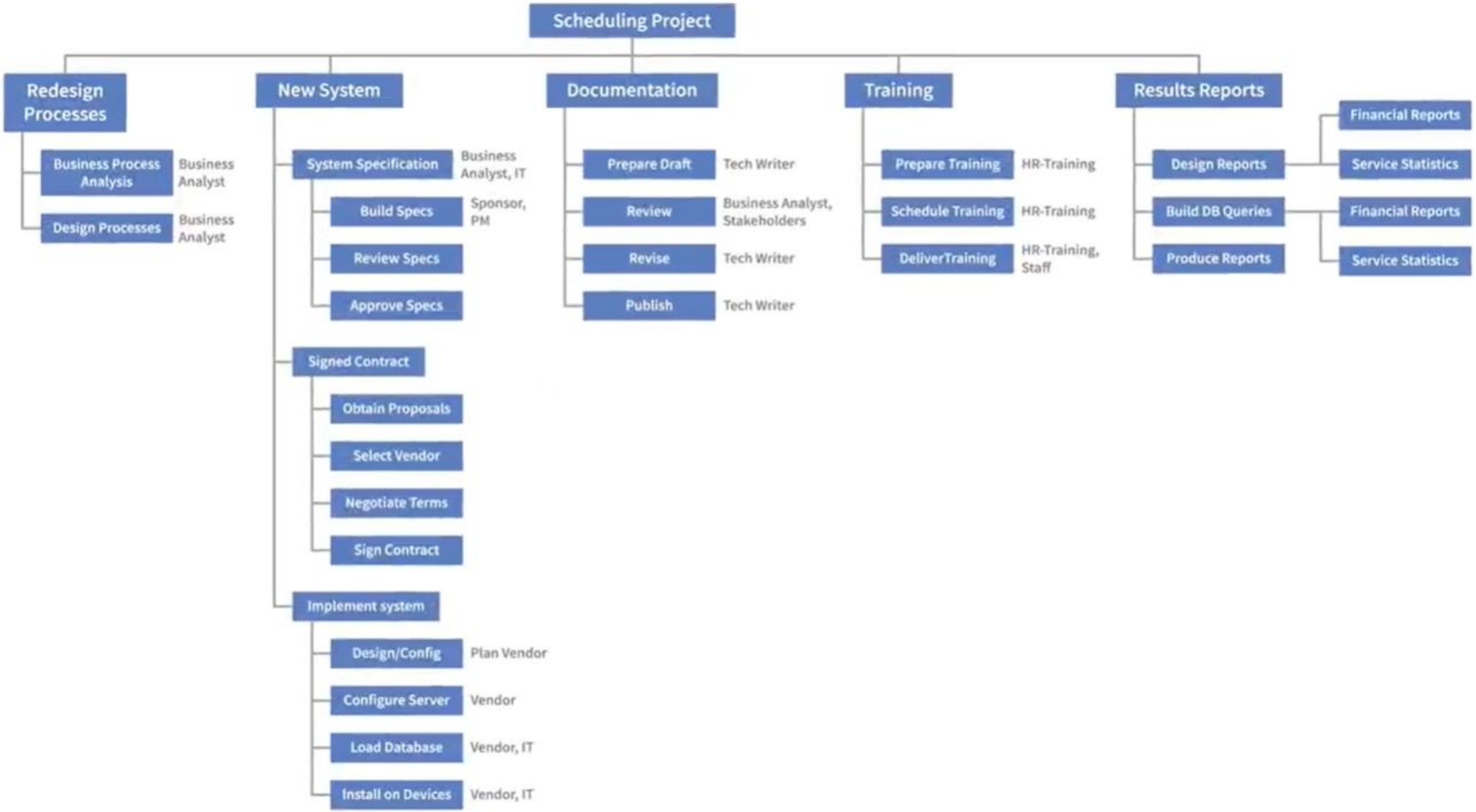
Work Breakdown Structure (WBS)



Easier to estimate time and cost


Scheduling Project
Redesign Processes
4 Mo
Business Process Analysis
1.5 Mo
Design Processes
2.5 Mo
New System
5 Mo
System Specification
2 Mo
Build Specs
1.5 Mo
Review Specs
2 Wk
Approve Specs
Signed Contract
1 Mo
Obtain Proposals
2 Wk
Select Vendor
1 Wk
Negotiate Terms
1 Wk
Sign Contract
Implement system
3 Mo
Design/Config
1.5 Mo plan
Configure Server
2 Wk
Load Database
2 Wk
Install on Devices
2 Wk
Documentation
Prepare Draft
1 Mo
Review
2 Wk
Revise
1 Wk
Publish
1 Wk
Training
2 Mo
Prepare Training
1 Mo
Schedule Training
2 Wk
DeliverTraining
1 Mo

Easier to assign work


Scheduling Project
Redesign Processes
Business Process Analysis
Business Analyst
Design Processes
Business Analyst
New System
System Specification
Business Analyst, IT
Build Specs
Sponsor, PM
Review Specs
Approve Specs
Signed Contract
Obtain Proposals
Select Vendor
Negotiate Terms
Sign Contract
Implement system
Design/Config
Plan Vendor
Configure Server
Vendor
Load Database
Vendor, IT
Install on Devices
Vendor, IT
Documentation
Prepare Draft
Tech Writer
Review
Business Analyst, Stakeholders
Revise
Tech Writer
Publish
Tech Writer
Training
Prepare Training
HR-Training
Schedule Training
HR-Training
DeliverTraining
HR-Training, Staff
Results Reports
Design Reports
Financial Reports
Service Statistics
Build DB Queries
Financial Reports
Service Statistics
Produce Reports

Work Packages

- Lowest level in WBS

Determining Breakdowns

- Time and cost are easy to estimate
- Status is easy to measure
- Task durations are shorter than reporting periods
- Details are manageable

Scheduling Project

WBS:	4.2
Work Package:	Schedule training
Package Owner:	Bekir Berk
Owner Organization:	Sport, Culture and Health Department
Participants:	Bekir Berk, Trainer

Description:

Create a schedule of training sessions so that each session has a maximum of 8 attendees.

Schedule sessions before the start of shifts so staff can attend training before starting their shifts.

Send invites to all staff who will use the scheduling system and provide three session options.

Develop the training schedule to assign most people to their first choice.

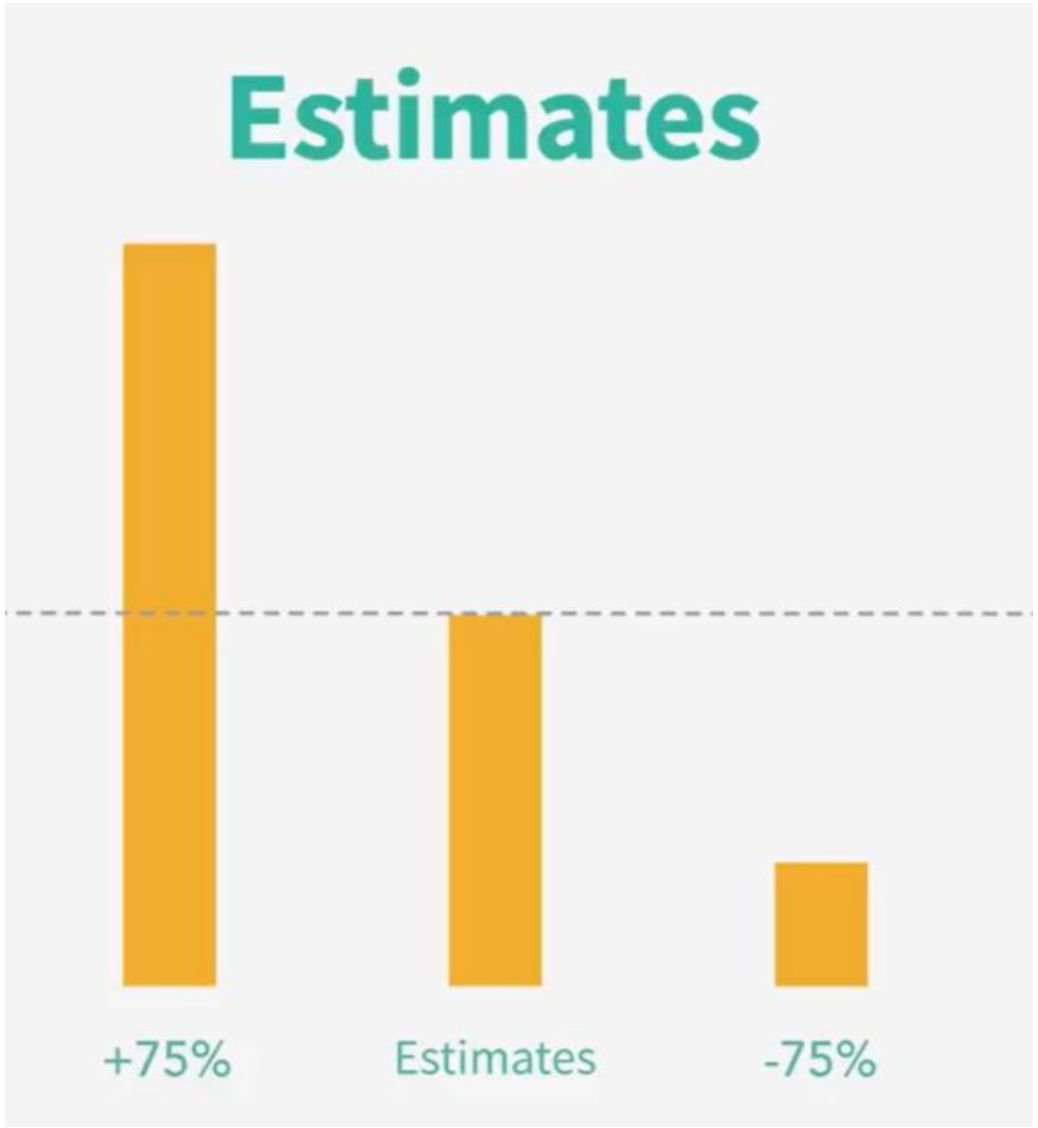
Completion State:

All scheduling staff are assigned to training sessions and have accepted the final invitation.

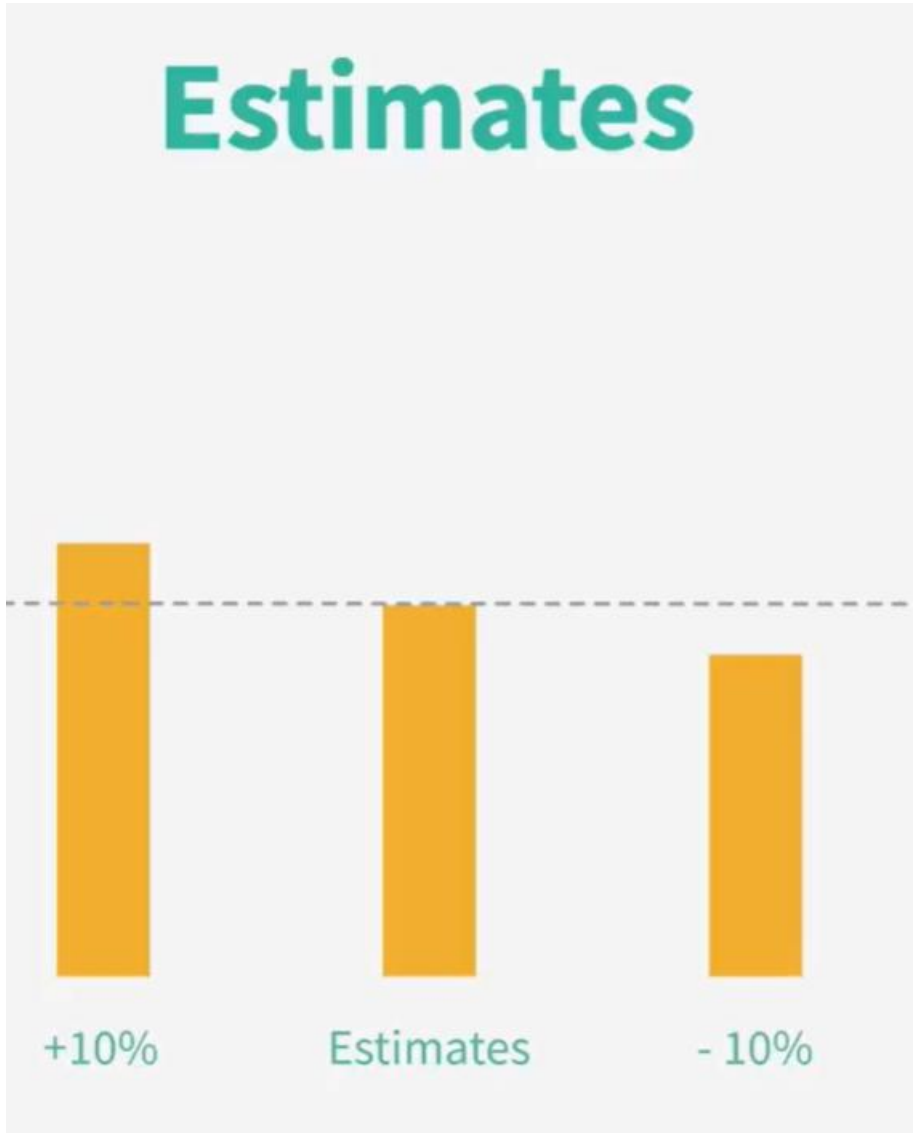
Reference Docs:	

estimate time and cost

Team members



estimate time and cost



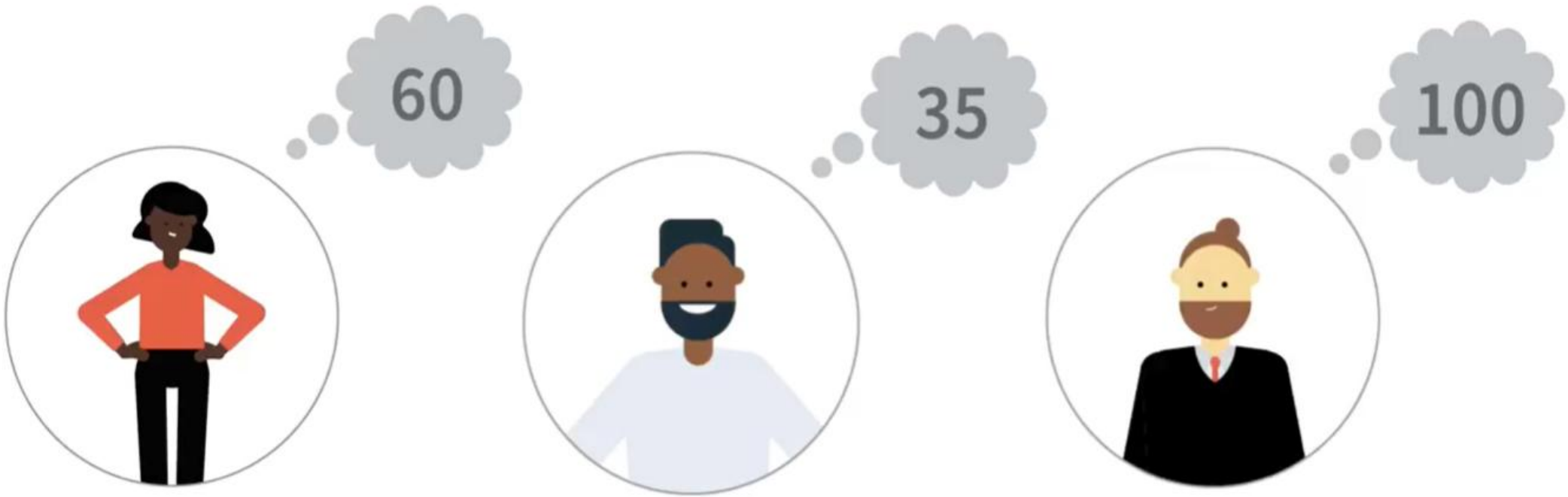
estimate time and cost

Parametric Model

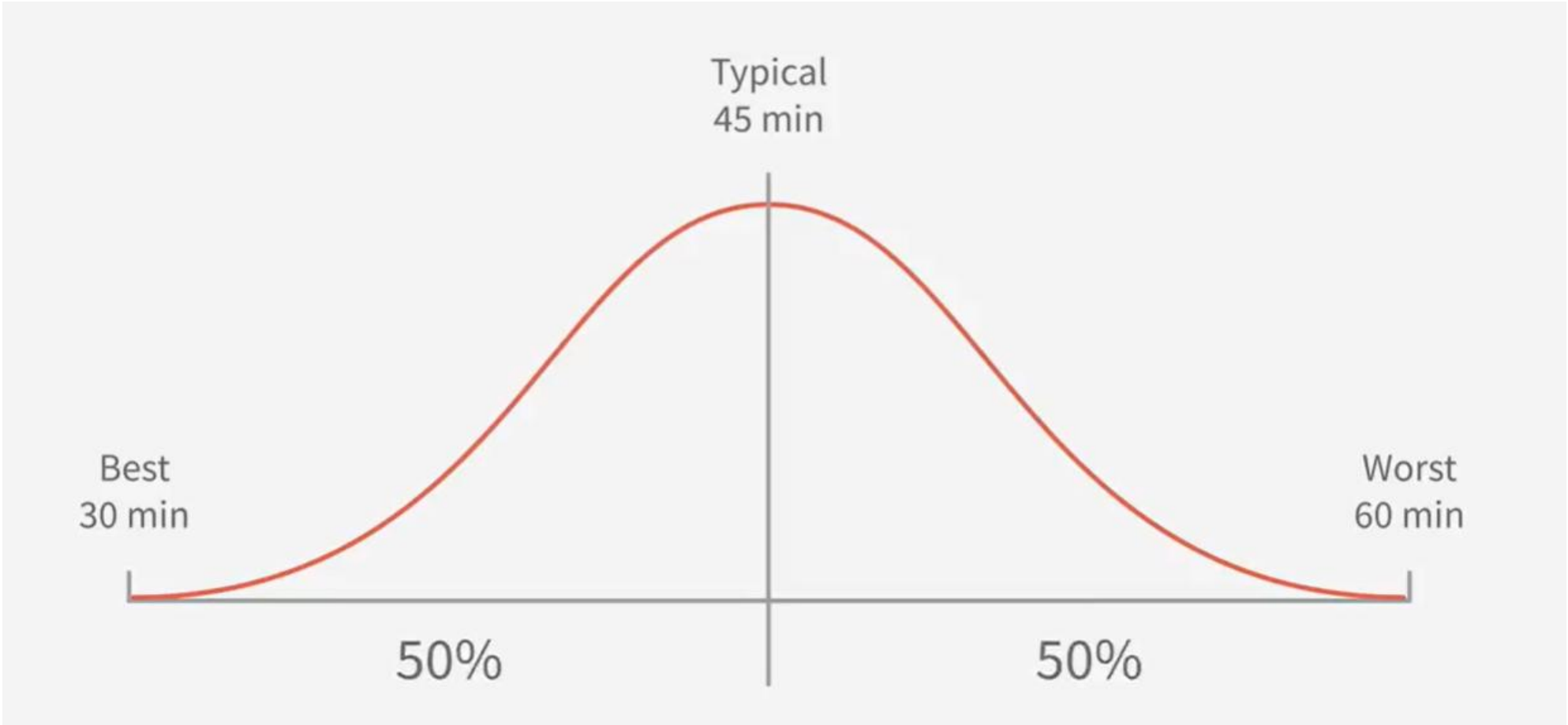
You calculate work and cost based on a measured unit

estimate time and cost

Delphi Technique



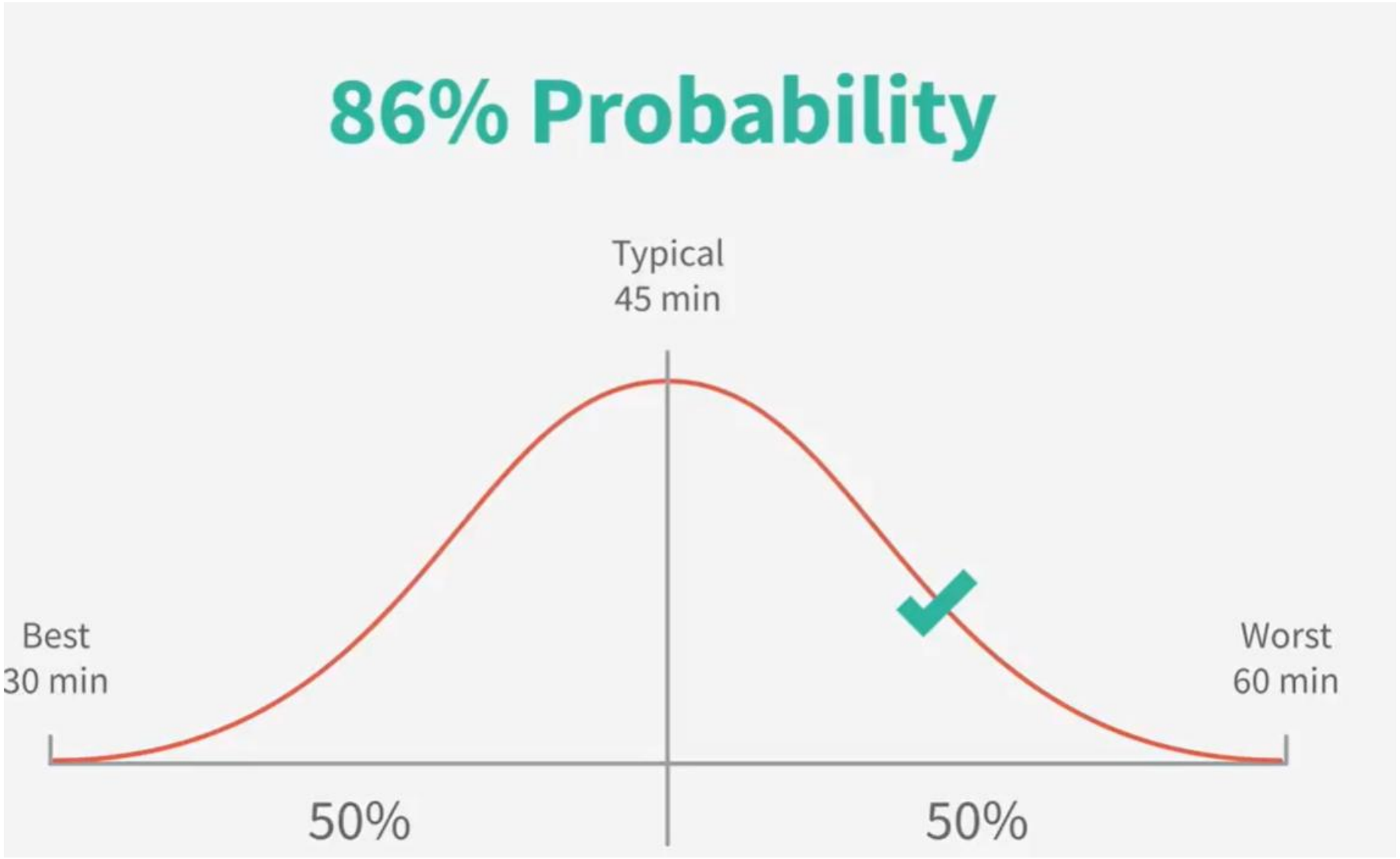
estimate time and cost



Adjust Your Estimate

- A higher value increases the chance of success
- A lower value decreases the chance of success

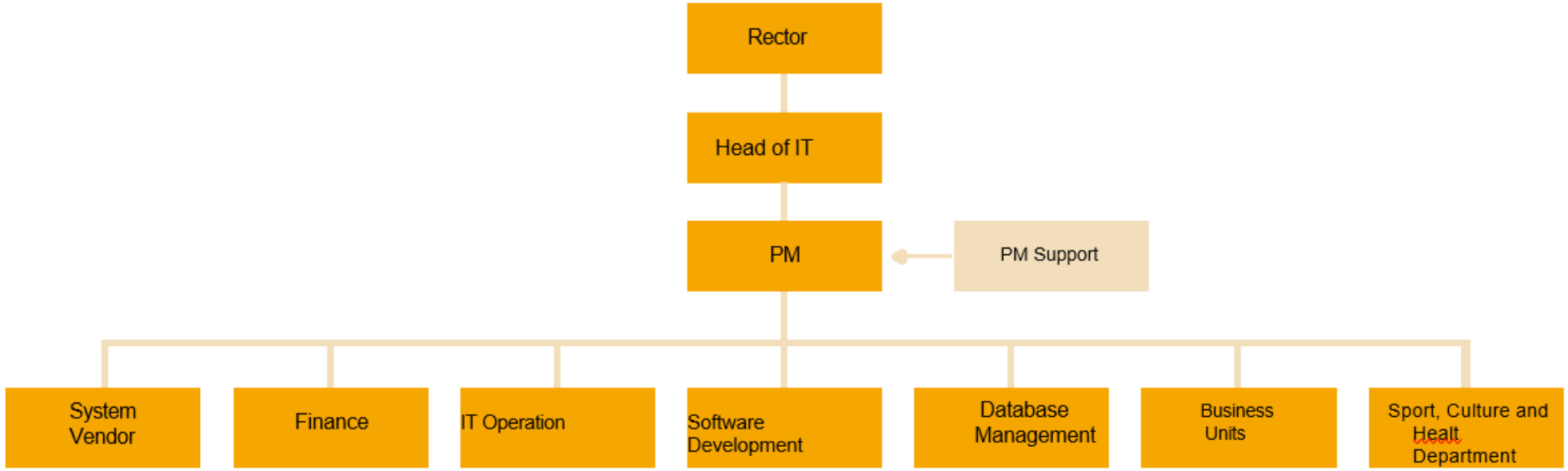
estimate time and cost



Resource Management Plan

- Roles
- Responsibilities
- Reporting structure
- Skills
- Staffing

Project Organization Chart



RACI

Responsible for doing

Accountable for decisions and delegations

Consult before a decision

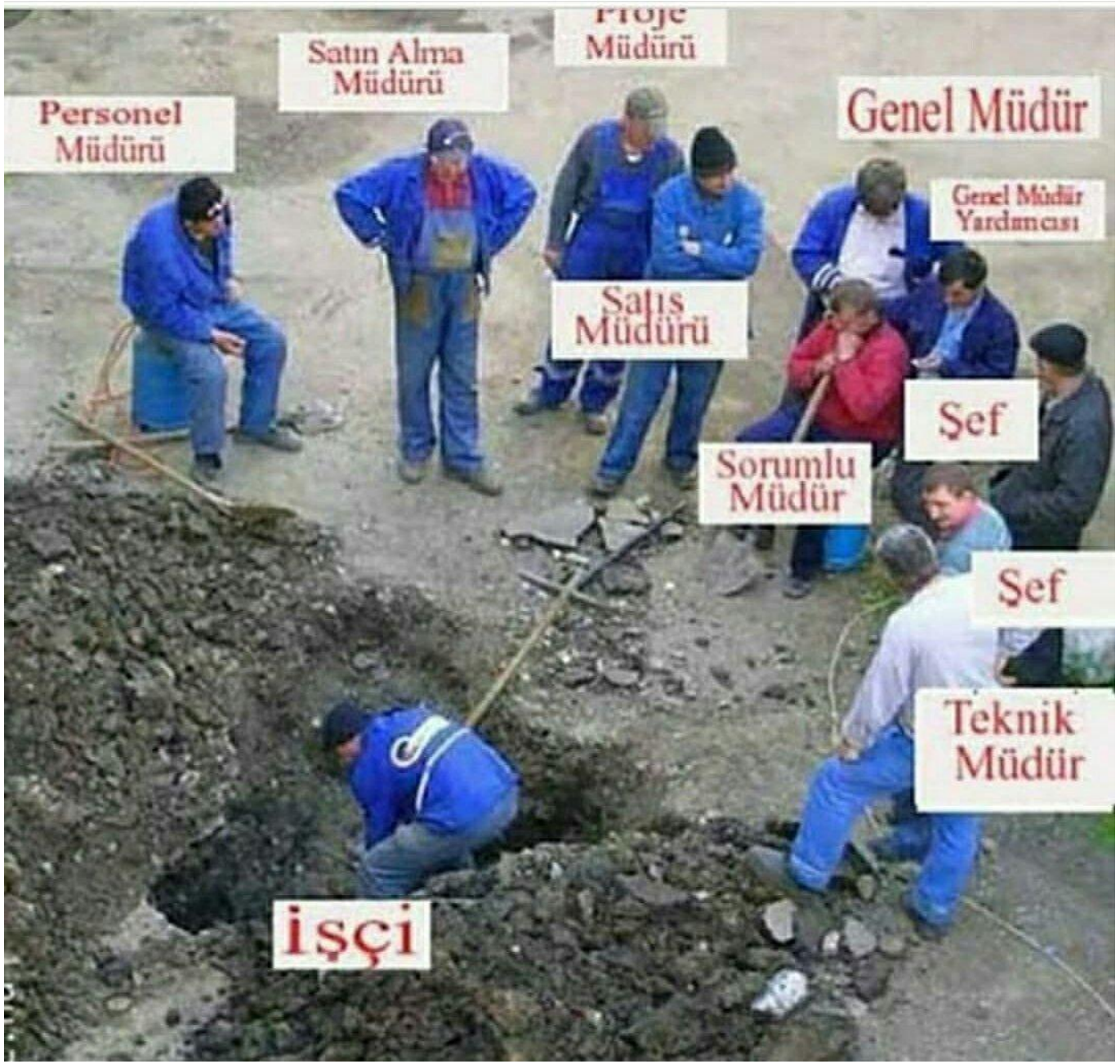
Needs to be Informed

- **Responsible** – The doers. They get the work done.

- **Accountable** – The buck stops here. This single person is ultimately answerable for the task.

- **Consulted** – People consulted typically are subject matter experts, whose advice is sought.

- **Informed** – Those that need to know. These people are kept aware of what is going on.


Personel Müdürü
Satın Alma Müdürü
Proje Müdürü
Genel Müdür
Genel Müdür Yardımcısı
Satış Müdürü
Şef
Sorumlu Müdür
Şef
Teknik Müdür
İşçi

TEAM
WORK
!?!

RACI Matrix

	Sport, Culture and Health Department	Project Management Team	IT Department	University General Secretary and Rector
Project plan	A	R	C	I
Project budget	R	A	I	I
Process analysis	A	R	C	I
Scheduling system implementation	C	A,R	R	I

Skills Matrix

Tasks	Business Analyst	System Engineer	Software Engineer	Document Author	Trainer
business process analysis	x				
Identify the system specification, Install and Implement		x			
software programming, customization and configuration			x		
documentation				x	
training					x
People needed	2	1	2	2	1
Monthly rate	$1.000	$800	$700	$100	$200
Estimated months	1,5	2	3	2	2,5
Estimated cost	**$3.000**	**$1.600**	**$4.200**	**$400**	**$500**

Total Labor Costs **$9.700**

Staffing Plan

- Identify sources for resources
- When are they needed
- Training requirements
- Resource processes

Project Schedule

1. Put tasks in sequential order.
2. Estimate the time each task will take.
3. Assign tasks to project team members.
4. Calculate task duration.
5. Account for deadlines and other constraints.