The IT Project Management

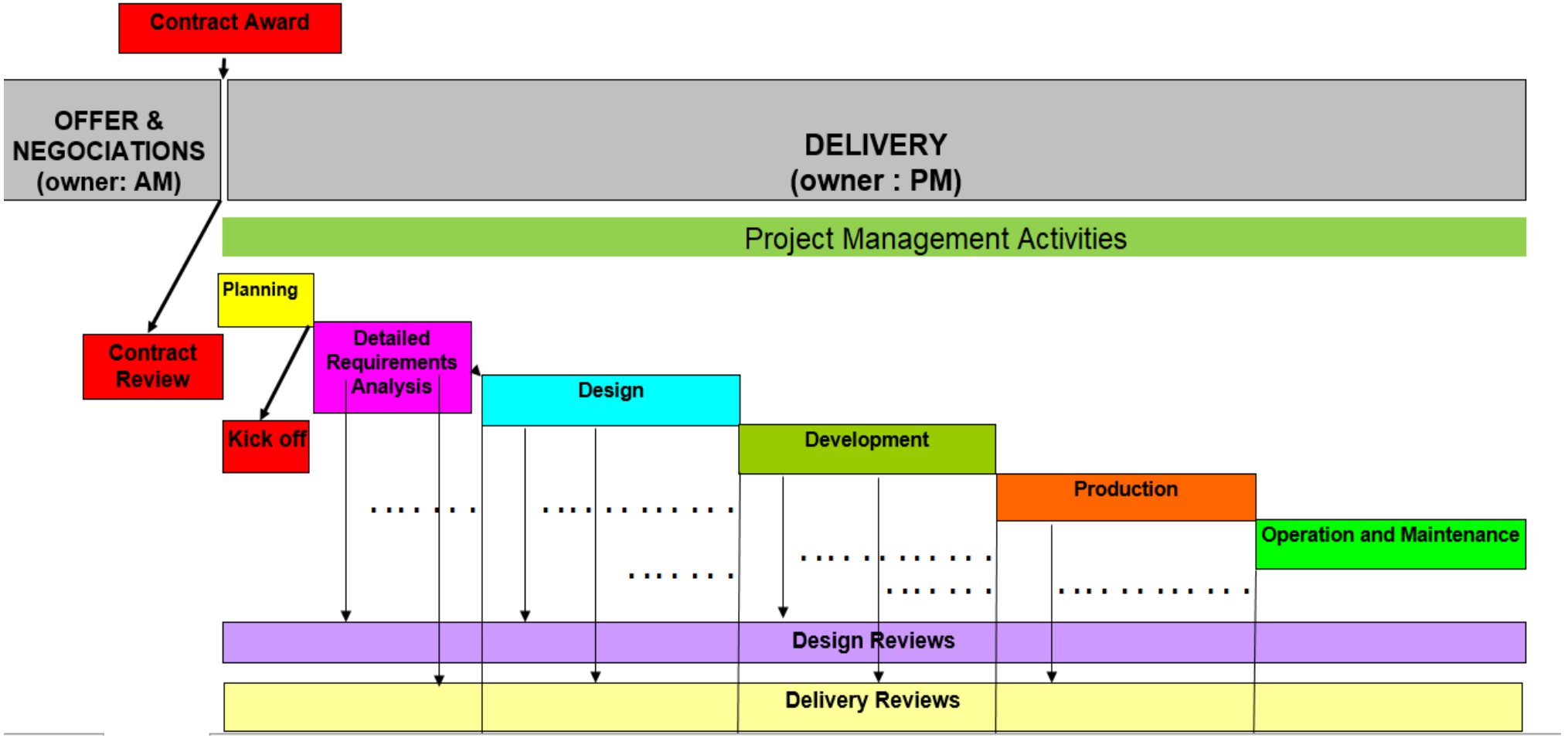
Lesson 10 & 11

Paolo Filauro

A Project Design

Exercise

The Project Life Cycle



The Contract/1

Between Company A (the Customer) and Company B (the Supplier) is agreed what follows

1. Object of the contract

   Turnkey delivery of:

   n. 1 Equipment for the authomated packaging of bottles, BAP002, including Compressor

   n. 1 Spare parts kit for the warranty period (one year)

   Training and manuals

2. Schedule (from Contract signature)
   1. Delivery on site: 12 months
   2. End of installation: 14 months
   3. Acceptance: 15 months
   4. End of Warranty: 27 months

The Contract/2

3. Price

   € 1,450, 000 (all included)

4. Payments
   1. 20% at the order
   2. 20% at the delivery on site
   3. 20% at the end of installation
   4. 40% at the final acceptance

The SOW/1

Characteristic of the BAP002

A complete system capable of:

- Feed bottles one by one from a pallet to the packaging equipment
- Move the bottles to the packaging station
- Pack the bottles in cardboard box: the number of bottles per box shall be selected from a fixed and predetermined options list
- Send the box to the palletizing machine (not included in the delivery)

The SOW/2

Perfomances

- Bottles size: 200, 750, 1000 ml
- Speed: the BAP002 shall be capable of handling :
  - 200 ml: 1000 b/h
  - 750 ml: 600 b/h
  - 1000 ml: 400 b/h

Site

The Customer will make available :

- an area of m 20x50, flat, lighted with 300lux/m2
- A main electrical line : 75 KVA, 380 V ± 7% for BAP002 and Compressor

SOW/3

Manuals

A complete set of manuals: Technical, Maintenance, Troubleshooting

in electronic format. 3 Copies

Training

In class and on the job for

Up to 10 operators: one session of 5 hours (one day)

Up to 3 Supervisors: one session of 12 hours (two days)

Up to 4 maintenance technicians: one session of 24 hours (four days)

LET START: the PBS

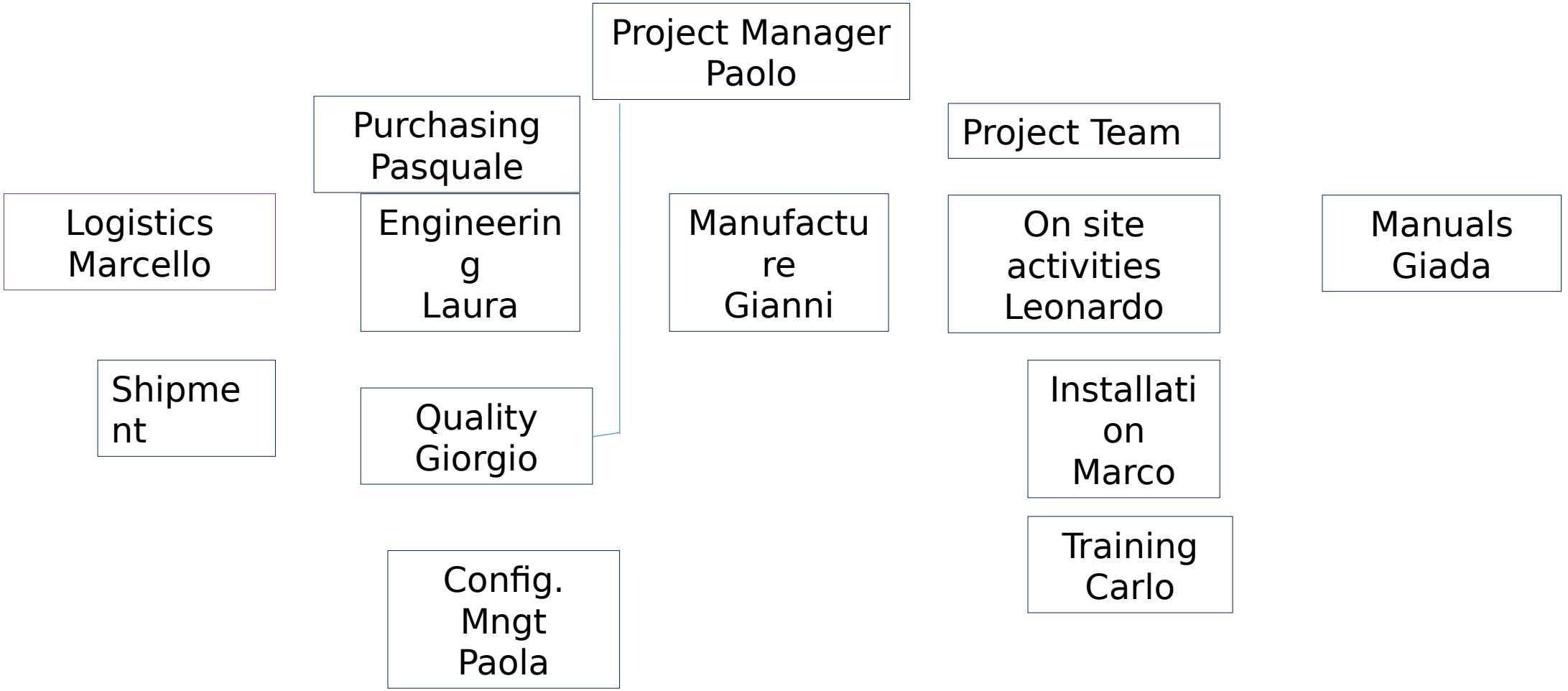
- Delivery of n. 1 BAP002 (including Compressor)
- Spare parts kit
- Site set up
- Logistics
- Installation
- Tests
- Manuals
- Training
- Assistance to the Customer people (operators, Supervisors, Technicians)

The ABS

- Detailed Design Spec
- Equipment Customization
- Equipment Manufacture
- Buy third party supply
- Inside integration & Test
- Site design
- Manuals Customization & Production
- Training set up
- Shipment

- Site set up
- Equipment installation
- Commissioning
- Acceptance Test
- Training
- Support to start
- Warranty
- Project Management

OBS


Project Manager
Paolo
Purchasing
Pasquale
Project Team
Logistics
Marcello
Engineering
Laura
Manufacture
Gianni
On site activities
Leonardo
Manuals
Giada
Shipment
Quality
Giorgio
Installation
Marco
Training
Carlo
Config. Mngt
Paola

The WBS

Do it together in Excel

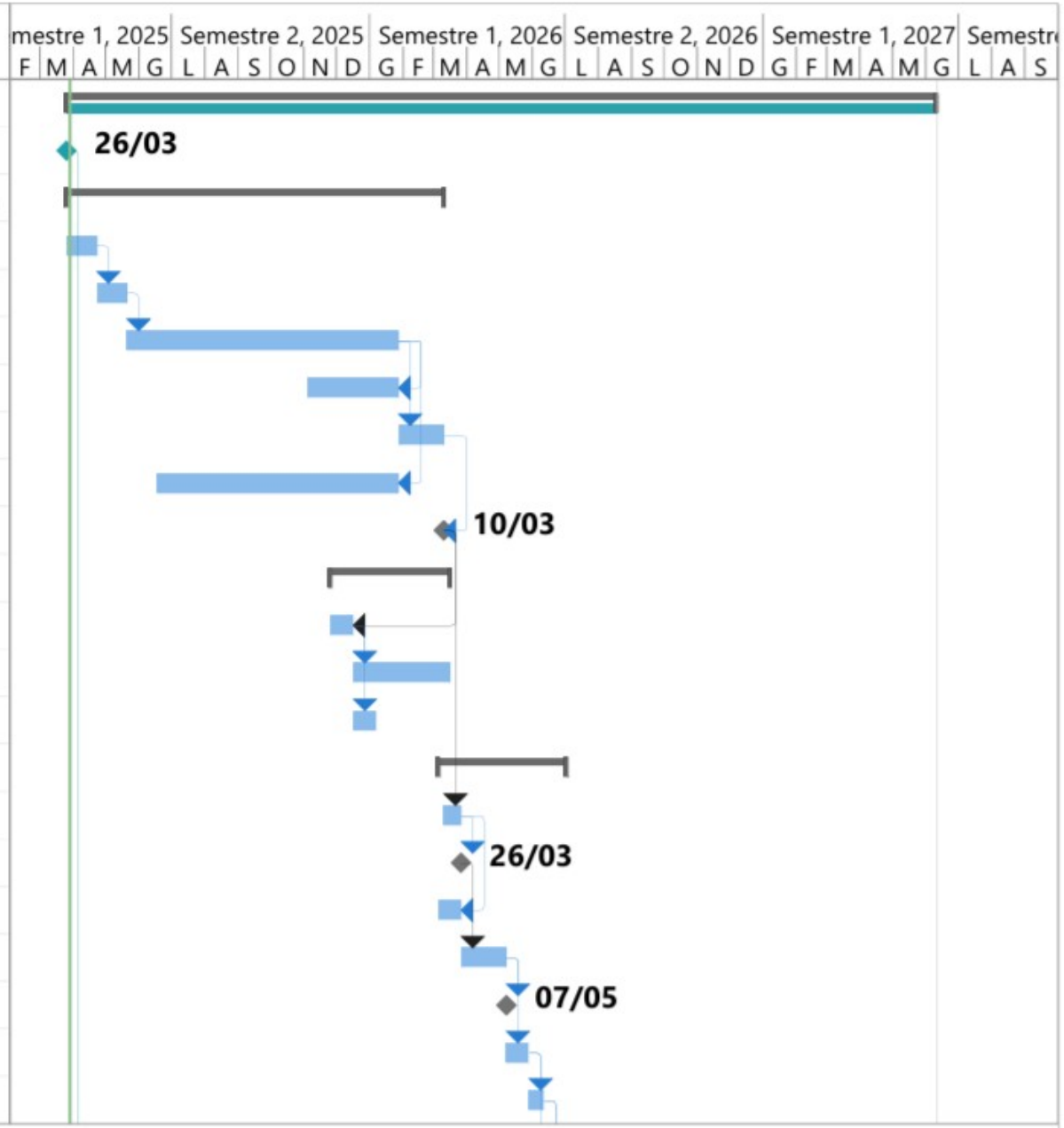
Costs Table

Do it together in Excel

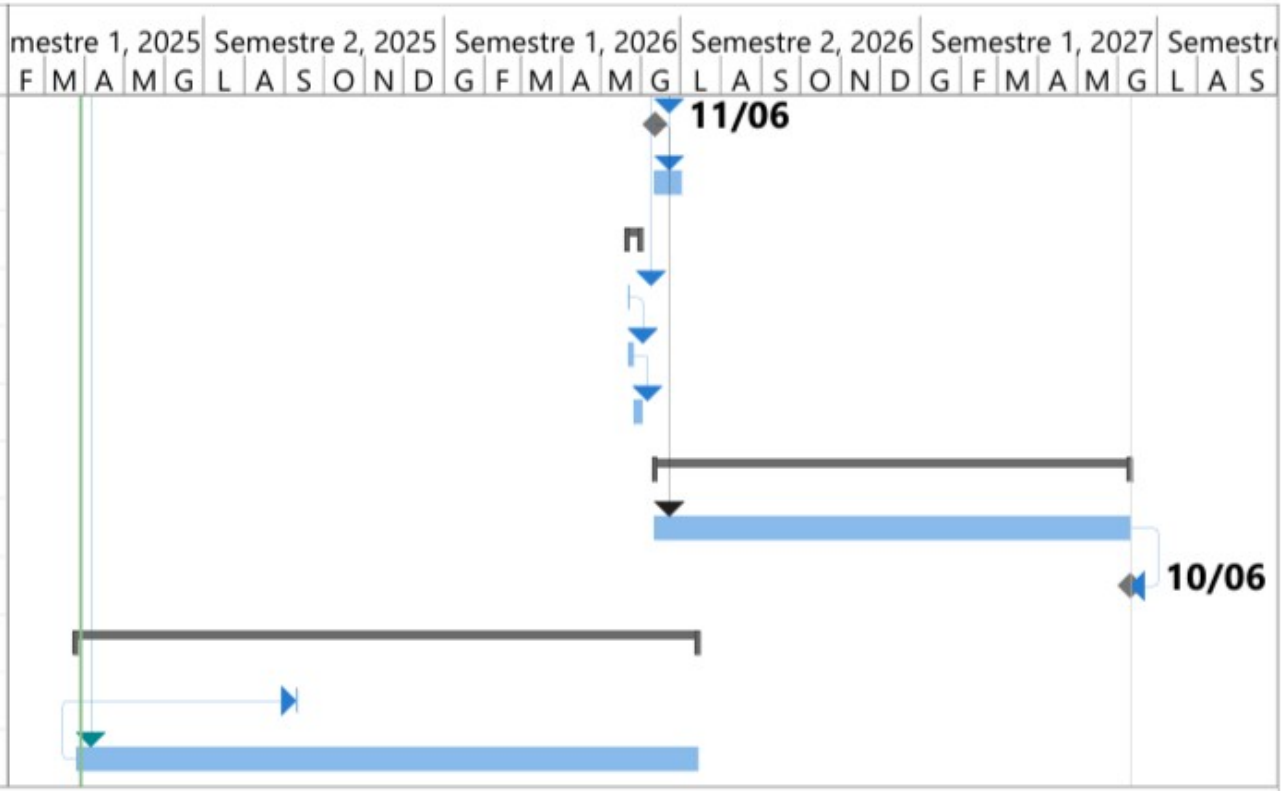
The GANTT

Let’s try to draw a GANTT chart using MS-Project

Nome attività	Durata	Inizio	Fine
Project PDK 008	**577 g**	**mer 26/03/25**	**gio 10/06/27**
Contract Signature	0 g	mer 26/03/25	mer 26/03/25
Production of BP002	**250 g**	**mer 26/03/25**	**mar 10/03/26**
Detailed design spec	1 mes	mer 26/03/25	mar 22/04/25
Customization	1 mes	mer 23/04/25	mar 20/05/25
Manufacture	9 mes	mer 21/05/25	mar 27/01/26
Buy Compressor	3 mes	mer 05/11/25	mar 27/01/26
Inside Integration &	1,5 mes	mer 28/01/26	mar 10/03/26
Spare parts kit	8 mes	mer 18/06/25	mar 27/01/26
Equipment ready to s	0 g	mar 10/03/26	mar 10/03/26
Site design	**79 g**	**mer 26/11/25**	**lun 16/03/26**
Layout Design	15 g	mer 26/11/25	mar 16/12/25
Electric Panel (buy	3,2 mes	mer 17/12/25	lun 16/03/26
Network Design	15 g	mer 17/12/25	mar 06/01/26
On site Activities	**85 g**	**ven 06/03/26**	**gio 02/07/26**
Shipment	12 g	mer 11/03/26	gio 26/03/26
Equipment on site	0 g	gio 26/03/26	gio 26/03/26
Site Set up	15 g	ven 06/03/26	gio 26/03/26
Equipment installat	1,5 mes	ven 27/03/26	gio 07/05/26
Equipment installed	0 g	gio 07/05/26	gio 07/05/26
Commissioning	3 s	ven 08/05/26	gio 28/05/26
Acceptance test	10 g	ven 29/05/26	gio 11/06/26



tà	Nome attività	Durata	Inizio	Fine
	Equipment Accepte	0 g	gio 11/06/26	gio 11/06/26
	Support to Start	15 g	ven 12/06/26	gio 02/07/26
	Training	**6,5 g**	**ven 22/05/26**	**lun 01/06/26**
	Training for operat	4 h	ven 22/05/26	ven 22/05/26
	Training for Superv	2 g	ven 22/05/26	mar 26/05/26
	Training for Techni	4 g	mar 26/05/26	lun 01/06/26
	Warranty	**260 g**	**ven 12/06/26**	**gio 10/06/27**
	Warranty period	13 mes	ven 12/06/26	gio 10/06/27
	End of Warranty	0 g	gio 10/06/27	gio 10/06/27
	Project Management	**340 g**	**mer 26/03/25**	**mar 14/07/26**
	Risk Contingencies	1 g	mer 10/09/25	mer 10/09/25
	Management and C	17 mes	mer 26/03/25	mar 14/07/26



The Risk Class (result: B Class)

Diffusione territoriale degli impianti/servizi (1 sede in Genova, 2 Italia, 3 EU, 4 Europa, 5 extra Europa, 0 per le iniziative aziendali)	2
Partecipazioni a Consorzi o RTI / subcontractor complessi (Verra' assegnato un valore da 1 a 5 a seconda del numero di attori, del ruolo, della posizione dell'azienda come mandante o come mandataria, etc.)	0
Complessità (del processo da gestire, del prodotto/sistema da fornire, del servizio da erogare) (1 semplice, 2 medio, 3 complesso, 4 molto complesso)	2
Esperienza sulla Tipologia di progetto (1=gia' fatto con successo piu' volte, 2 fatto piu' volte con qualche criticita', 3 fatto piu' volte con diverse criticita', 4 fatto poche volte, 5 prima volta)	2
Valore Economico del progetto (1< 50 Keuro, 2 tra 50 Keuro e 500 Keuro, 3 tra 500 e 2500 Keuro, 4 tra 2500 e 5000 Keuro, 5>5000 Keuro)	3
Margine del progetto (1>50 %, 2 compreso tra 30% e 50%, 3 compreso tra 20% e 30%, 4 compreso tra 5% e 20%, 5<5%)	3
Rilevanza del progetto per il cliente (1=poco rilevante, 2 rilevante, 3 business critical, 4 life critical)	3
Importanza del cliente (Verra' dato un valore da 1 a 5 a seconda della strategicita' del cliente)	3
TOTALE	18

The PMP

Using the ToC of Lesson 5, complete (off line) a short

Project Management Plan: it will be discussed during the Exam

The Kick Off Meeting

Using the Guide Lines of Lesson 5, invent (off line) a short

Presentation for the Kick Off: it will be discussed during the Exam

Project Progress Control

Do it together in Excel

WBS (Task)	Name	POA	BCWS	ACWP	progr. (PM appr.)	BCWP	CPI	SPI	CV	SV
PDK 008	**BAP002 for Company A**	1080,62	718	730		722,67	0,989958904	1,006504178	-7,33	4,67
WP1	**Productiom of BP002**	679,8	669,4	673		670,84	0,99679049	1,00215118	-2,16	1,44
WP1.1	*Detailed Spec*	11,2	11,2	12	100%	11,2	0,933333333	1	-0,8	0
WP1.2	*Customization*	11,2	11,2	12	100%	11,2	0,933333333	1	-0,8	0
WP1.3	*Manufacture*	540	540	540	cost-to-cost	540	1	1	0	0
WP1.4	*Buy Compressor*	15	15	15	cost-to-cost	15	1	1	0	0
WP1.5	*Inside Integration & Test*	22,4	12	14	60%	13,44	0,96	1,12	-0,56	1,44
WP1.6	*Spare parts kit*	80	80	80	cost-to-cost	80	1	1	0	0
WP2	**Site Design**	41,2	8,6	12		7,28	0,606666667	0,846511628	-4,72	-1,32
WP2.1	*Layout Design*	5,6	5,6	6	100%	5,6	0,933333333	1	-0,4	0
WP2.2	*Electric Panel (buy)*	30	0	0		0				0
WP2.3	*Network Design*	5,6	3	6	30%	1,68	0,28	-1,32	-4,32	-2,72
WP3	**Manuals and Training**	31,2	0	0		0				
WP3.1	*Manuals production*	20	0	0	0%	0				
WP3.2	*Training set up*	11,2	0	0	0%	0				
WP4	**On Site Activities**	82,2	0							
WP4.1	*Shipment*	10			cost-to-cost					
WP4.2	*Site Set up*	7,1								
WP4.3	*Equipment installation*	31,4								
WP4.4	*Commissioning*	10,9								
WP4.5	*Acceptance test*	7,1								
WP4.6	*Support to Start*	15,7								
WP5	**Training**	11,22	0							
WP5.1	*Training for operators*	2,06								
WP5.2	*Training for Supervisors*	2,06								
WP5.3	*Training for Technicians*	7,1								
WP6	**Warranty**	100	0							
WP6.1	*Warranty period*	100								
WP7	**Project management**	135	40	45	33%	44,55				
WP7.1	*Risk Contingencies*	50	0							
WP7.2	*Management and Control*	85	40							

The Report

Using the ToC of Lesson 7, compose (off line) a short

Report at the date of *Equipment Ready to ship* (March 2026): it will be discussed during the Exam

Home work

A part of the exam will be the discussion of a project.

1. Invent a project: it will be related to the production of «something»
2. Produce the WBS, starting from the PBS and the ABS
3. Calculate the costs for each task and the total project budget
4. Determine a possible cost for the Customer, and calculate the margin
5. Draw a schedule (in excel) with the tasks and the milestones
6. Prepare a concise PMP for the project: use the ToC presented in Lesson 5
7. Prepare a concise Kick off Meeting of the project: use the Guide Lines presented in Lesson 5
8. Prepare a concise Report for a choosen, intermediate date of the project schedule: use the ToC presented in Lesson 7

Conclusions

Setting up and manage a project is a (sometimes) long and complex activity , but it is challenging for a professional Project Manager.

As a suggestion, remember what Albert Einstein once said:

Everything should be made as simple as possible, but not simpler.

That’s all folks, thank you