



mmeC

Implementation of a Project Management System

Maarten Debucquoy

Outline

- Why for heaven's sake Project Management?
- What the beep is a Project Management System?
- Implementation of Project Management Processes and System at imec
 - Initialization
 - Staged approach
 - Execution
 - Allocate resources
 - Follow-up and escalate on status, risks and issues

Why for heaven's sake Project Management?

Lever imec's complex research environment

Complex research challenges requiring multiple expert teams:

- **Fundamental science:** physics, chemistry, biology...
- **Process knowledge:** deposition, etching...
- **Device integration:** patterning, back-end metallization, packaging...
 - **System design:** component interconnection, read-out, software,...
 - ...



Enable insights in skills & capacity



Enable collaborating teams

Lever imec's complex research environment

Project requests coming from multiple directions:

- **Public funded projects** with a consortium responding on calls from EU, national, regional,... government
- **Research-on-Demand** project on request of a commercial partner
- **Affiliation program** grouping multiple commercial partners on a large research challenge
- **Low volume manufacturing** for a commercial partner
 - ...



Enable insights in skills & capacity



Enable collaborating teams



Standardize our approach to projects



Capture project knowledge

Lever imec's complex research environment

Every project meets challenges on scope, budget or schedule:

- Not all specs of a **milestone** are obtained
- Partner requests **additional tasks** during the project
- Same **expert or tool** is requested by multiple projects at the same time
 - ...



Enable insights in skills & capacity



Enable collaborating teams



Standardize our approach to projects

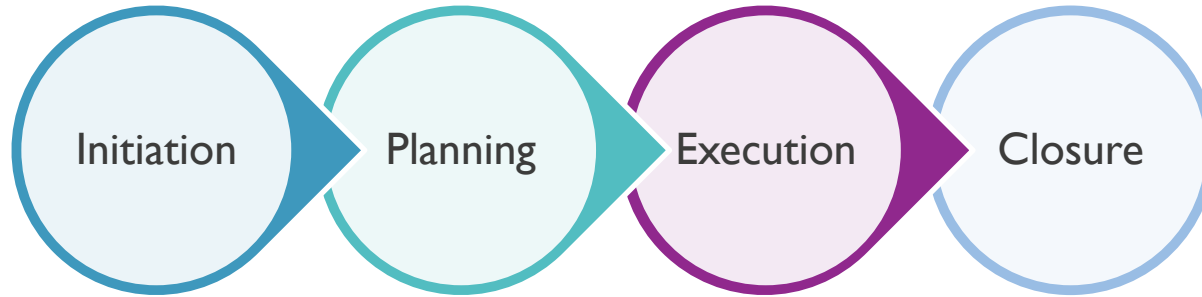


Capture project knowledge



Enable R&D project decisions

Define Project Management Processes over project life cycle



- Project Management Processes involve

- Logical flows
- Stages/gates with check lists
- Roles with responsibilities

- Project manager
- Program and portfolio manager
- Project management office

- Develop best practices, methodologies, standards
- Train and coach project managers
- Monitor compliance with standards
- Coordinate communication between projects

What the beep is a Project Management System?

One software platform for all project management data

Gantt-charts, tasks
and milestones



Planned and actual
used resources



Projects in
initiation and
projects in
execution



Budgeted
cost



Replaced or
integrated



clarity

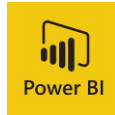
Reports and
communications
to stakeholders



Status, risks
and issues



Check-list, stages
and gates,
decisions taken



Projects



New from Template

Q Search...



View

I&C - PtM & Storage - Project list

Save



Select all Deselect all



Group By

Project ID *	Project Name *	Project Manager ⓘ	Stage ⓘ ⓘ ↑ ▾	Involved org. units	Project status ⓘ	IMEC Project Type
<input type="checkbox"/> P02697	Project A	Stevie Wonder	1. Project opportunity r...	BECHEM ; IC ; LEAN		EXT: Research on Demand
<input type="checkbox"/> P01485			3. Project opportunity d...	BECHEM ; IC ; LEAN...		EXT: Development on De...
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<input type="checkbox"/> P00752			5. Project planning	D2TECT ; STP ; TIP		EXT: Private
<input type="checkbox"/> P00479			6. Project execution	DSRD ; HSA	Green	EXT: Public Funded
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<input type="checkbox"/> P00612			6. Project execution	BECHEM ; IC ; LEAN	Green	EXT: Public Funded

Columns
Details

- Home
- Projects**
- Project Tiles
- Ideas
- Investments
- Pages
- Custom Objects
- Status Reports
- Tasks
- To Dos
- Hierarchies
- Agreements
- Staffing
- Teams
- Resources
- Timesheets
- Clarity Release
- Menu Links
- Administration

Hierarchy > Industry and Consumer/Power & Energy/...

P00611

Green

Properties Staff Tasks Assignments Planning Baselines Financials To Dos Checklists Conversations Risks Status Issues Changes Sign-off log CRM Opportunities Dashboard Links Audit Lessons Learned Agreements

Collapse all Actions

Project Master Data

Project Lifecycle

SAP

Stakeholders

Project Manager *

Sponsor

Technical Lead

Account Manager

Business controller

Technical Lead(s)

Back-up Project Manager

PMO

Finance project officer

Business Development Manager

Tags

Settings

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Hierarchy > Industry and Consumer(Power & Energy)...

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Properties Staff **Tasks** Assignments Planning Baselines Financials To Dos Checklists Conversations Risks Status Issues Changes Sign-off log CRM Opportunities Dashboard Links Audit Lessons Learned Agreements

Actions New Task

Search... View (Copy) Simple view Save

Row	Name	Task Owner	Milest...	Progress	Start	Finish	Baseline S...	Baseline F...	Critical	Duration	% Com...	ETC	Includ...	Linked financial WBS element	Assigne	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct
1	Project			Started	1 May 2024	30 Jun 2025	1 May 2024	30 Apr 2025		252	0%	436										
2	WPO - Project management			Started	1 May 2024	30 Jun 2025	1 May 2024	30 Apr 2025		252	0%	24										
3	WPO - Resources			Started	1 May 2024	30 Jun 2025	1 May 2024	30 Apr 2025		252	0%	24										
4	MS0.0 - Kick-off meeting		✓	Comple...	1 May 2024	1 May 2024	1 May 2024	1 May 2024		0	0%	0	✓									
5	MS0.1 - Intermediate report		✓	Comple...	1 Jan 2025	1 Jan 2025	1 Jan 2025	1 Jan 2025		0	0%	0	✓									
6	MS0.2 - Final report		✓	Started	30 Jun 2025	30 Jun 2025	30 Apr 2025	30 Apr 2025		0	0%	0	✓									
7	WPI			Started	1 May 2024	30 Jun 2025	1 May 2024	30 Apr 2025		252	0%	412										
8				Started	1 May 2024	30 Jun 2025	1 May 2024	30 Apr 2025		252	0%	412										
9				Started	1 May 2024	31 Oct 2024	1 May 2024	31 Oct 2024		132	0%	0										
10			✓	Started	31 Oct 2024	31 Oct 2024	31 Oct 2024	31 Oct 2024		0	0%	0	✓									
11				Started	1 Aug 2024	28 Feb 2025	1 Aug 2024	28 Feb 2025		152	0%	0										
12			✓	Started	28 Feb 2025	28 Feb 2025	28 Feb 2025	28 Feb 2025		0	0%	0	✓									
13				Started	1 Mar 2025	30 Apr 2025	1 Mar 2025	30 Apr 2025		43	0%	0										

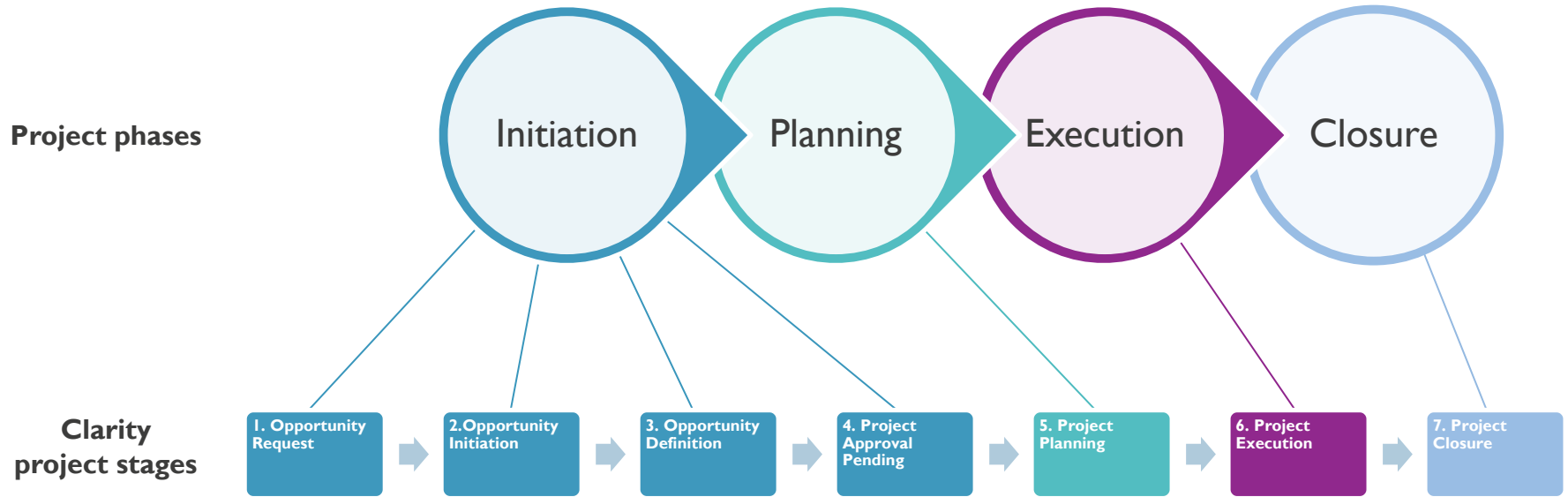
WPO - Resources (T005401)

Details Conversations To Dos **Assignments** Dependencies

Group By																
Resource * ↑	Requirement Name	Start *	Finish *	Grand Totals	2024-05	2024-06	2024-07	2024-08	2024-09	2024-10	2024-11	2024-12	2025-01	2025-02	2025-03	2025-04
				ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC
Total				24.0	1.9	1.6	1.9	1.8	1.7	1.9	1.7	1.8	1.9	1.6	1.7	
-Project manager	Project manager	1 May 2024	30 Jun 2025	24.0	1.9	1.6	1.9	1.8	1.7	1.9	1.7	1.8	1.9	1.6	1.7	

Implementation of Project Management Processes and Project Management System

Project life cycle

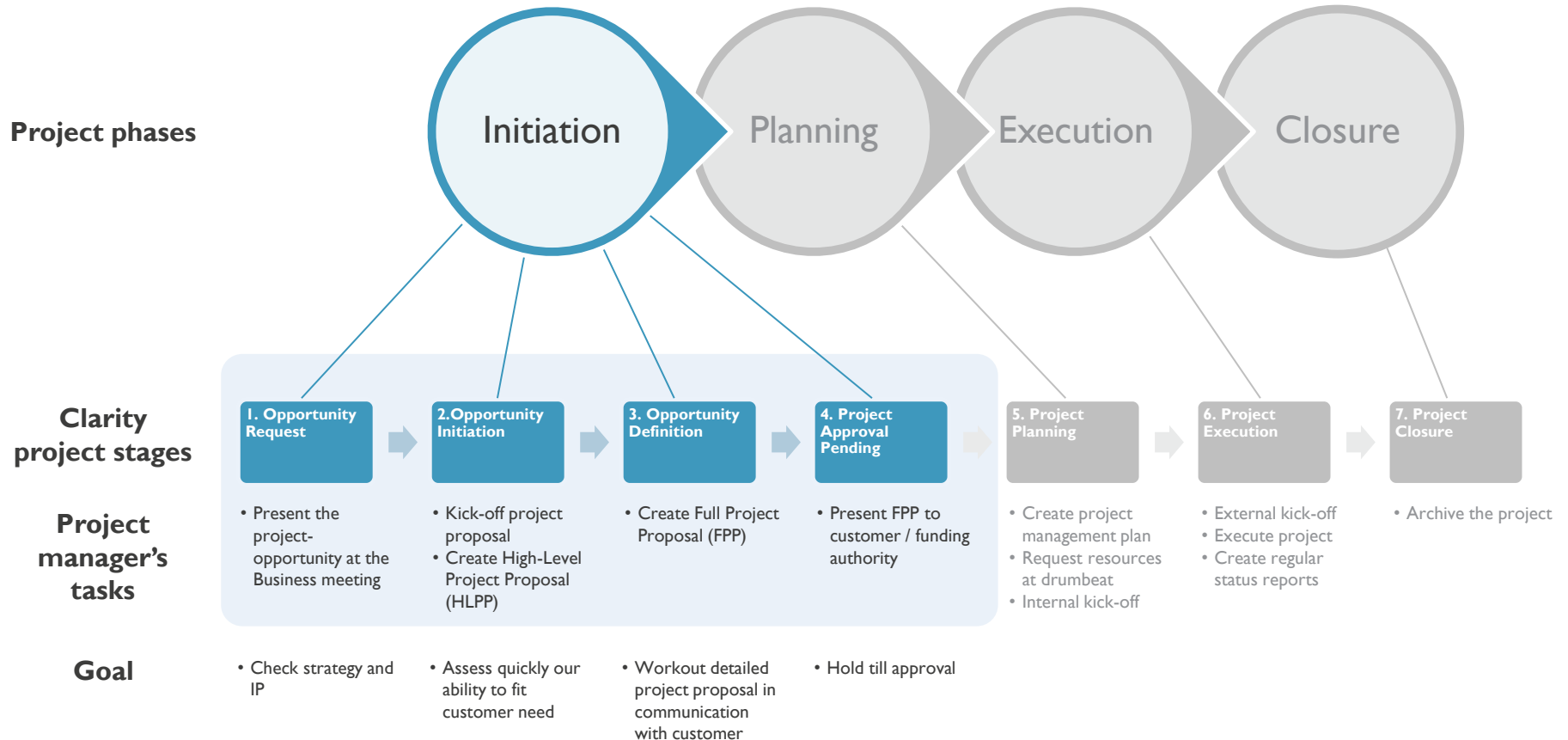


PMO tasks

- Create projects in Clarity.
- Move projects to next stage.
- To assure quality, check on conditions when moving stage.

Project intake

Project life cycle



Projects



New from Template

Q Search...



View

I&C - PtM & Storage - Project list



Save



Select all Deselect all

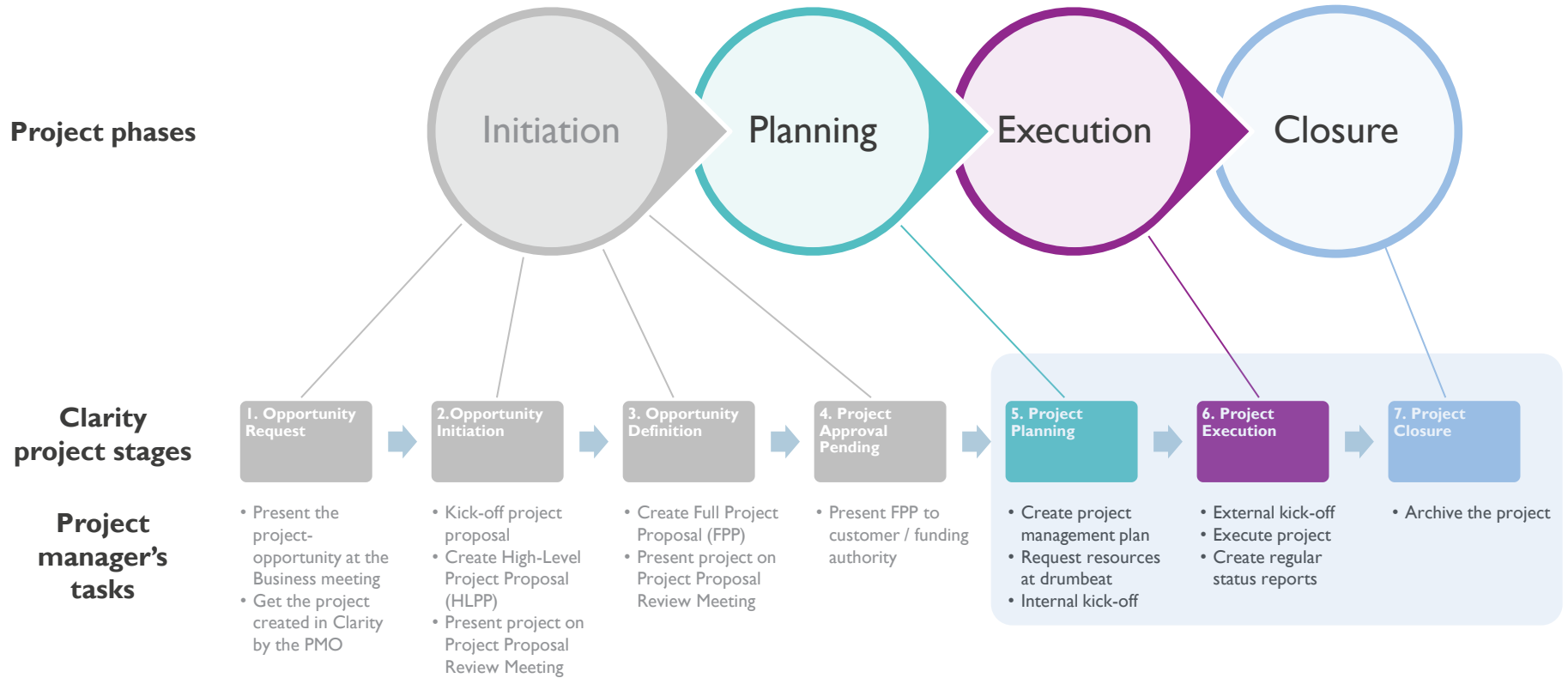


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Project Execution

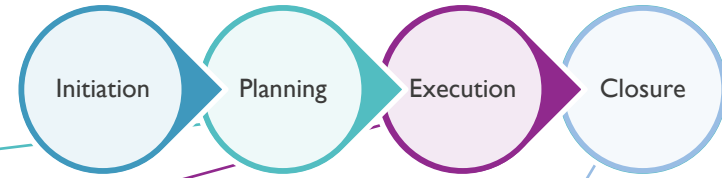
Project life cycle



The drumbeat: resource management at imec

imec Project Planning-Execution-Closure

Project Management Processes



Stage 5. Project Planning

Project Kick-off Meeting

- Per project
- Scope? Align project budget, timeline and scope with the project core team
- Who? **Project Manager (R)**, Project core team (C), PMO (I), RMO (I), BD (I)

Stage 6. Project Execution

Project Meeting

- Per project
- Scope? Technical progress, project triangle
- When? (Bi-)weekly
- Who? **Project Manager (R)**, Project core team (C)

Stage 7. Project Closure

Project Closure Meeting

- Per project
- Scope? Lessons learned
- Who? **Project Manager (R)**, Project core team (C)

Start drumbeat cycle*

- For all projects: Statuses and resource requests for next period up-to-date
- When? Monthly
- Who? **PMO (A)**, Project Managers (R)

Program meeting

- Per group of "related" projects
- Scope? Highlights, issues and risks
- When? Bi-weekly / monthly
- Who? **Program Manager (A)**, Project Manager (R), Resource Manager (I), PMO (I), Technical Experts (C, I)

Portfolio escalation meeting

- For dedicated projects
- Scope? Take decisions on escalated projects
- When? Ad hoc when required
- Who? **PMO (R)**, Portfolio Managers (A), Project Manager (C), Program Manager (C), Resource Manager (C), Business Manager (C)

End drumbeat cycle*

- For all projects: Resource allocation for next period up-to-date
- When? Monthly
- Who? **RMO (A)**, Resource Managers (R)



Everybody



Somebody



Anybody



Nobody

There was an important job to be done and Everybody was sure that Somebody would do it.

Anybody could have done it, but Nobody did it.

Somebody got angry about that because it was Everybody's job.

Everybody thought that Anybody could do it, but Nobody realized that Everybody wouldn't do it.

It ended up that Everybody blamed Somebody when Nobody did what Anybody could have done.

- Charles R. Swindoll

3 levels of planning

Related but not (at) the same (time)

Strategic: Long-term, high-level decisions aligned with business goals.



Drumbeat



Tactical: Mid-term, detailed scheduling and allocation of resources.

Monthly frequency and with a planning horizon of minimum **rolling 3 months**

Drumbeat



Operational: Day-to-day management and execution of tasks.

Drumbeat cycle

Continuous workflow

Project manager:

- Bypass conflicts by planning changes (delay)
- Bypass conflicts by rescoping
- Ask for (de)prioritizing the project
- Escalate to PMO if no solution

Resource manager:

- Bypass conflicts by resource changes
- Ask for project (de)prioritizing
- Escalate to PMO if no solution
- Inform RMO for alternative approach and/or longer-term resource actions

PMO and RMO accountable

Resource manager:

- Allocate resources
- Identify conflicts
- Conflict dialog with PM

RMO accountable



Project manager:

- Close finished projects, open new projects

Resource manager:

- Update resource availability

PMO and RMO accountable

Project manager:

- Consult experts
- Make best-estimate of required resources

PMO accountable

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Hierarchy ▾

Industry and Consumer/Power & Energy/PtM and Storage H0095

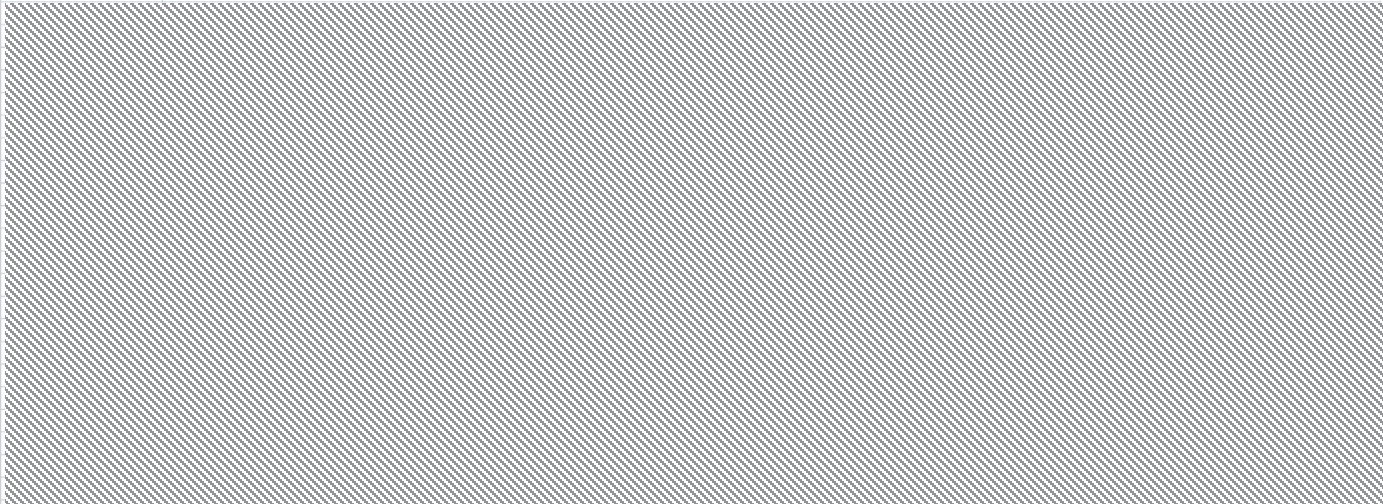
Properties Investments Tasks **Staff** Status Financials Sign-off log Risks Issues Changes Conversations Agreements Indicators Lessons Learned



Select all Deselect all

☰ Name 🔍

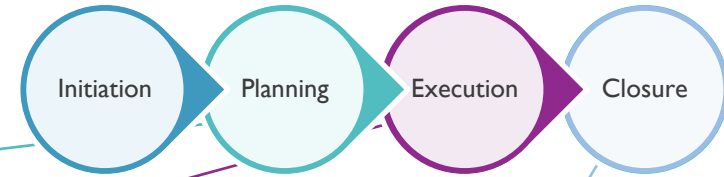
Group	Staffing	2025-06			2025-07			2025-08		
		Request	Allocation	Actuals	Request	Allocation	Actuals	Request	Allocation	Actuals
Project A	Staff OBS Unit									
		34.61	26.92	0.00	37.90	21.11	0.00	34.61	34.61	0.00
	<input type="checkbox"/> Organization/ IMEC / SECTORS / IC	1.92	0.00	0.00	2.11	0.00	0.00	1.92	0.00	0.00
	<input type="checkbox"/> Organization/ IMEC / EXPCENTERS / ... / BECHEM / NES	32.69	0.00	0.00	35.80	0.00	0.00	32.69	32.69	0.00
	<input type="checkbox"/> Organization/ IMEC / EXPCENTERS / ... / BECHEM / NES	0.00	13.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00
	<input type="checkbox"/> Organization/ IMEC / EXPCENTERS / ... / BECHEM / NES	0.00	4.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00
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	<input type="checkbox"/> Organization/ IMEC / EXPCENTERS / ... / BECHEM / NES	0.00	4.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00
	<input type="checkbox"/> Organization/ IMEC / EXPCENTERS / ... / BECHEM / FFED	0.00		0.00	0.00		0.00	0.00		0.00



Project escalation at imec

imec Project Planning-Execution-Closure

Project Management Processes



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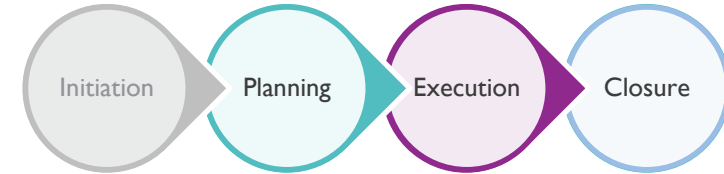
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End drumbeat cycle*

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Governance during project planning - execution - closure

Goals

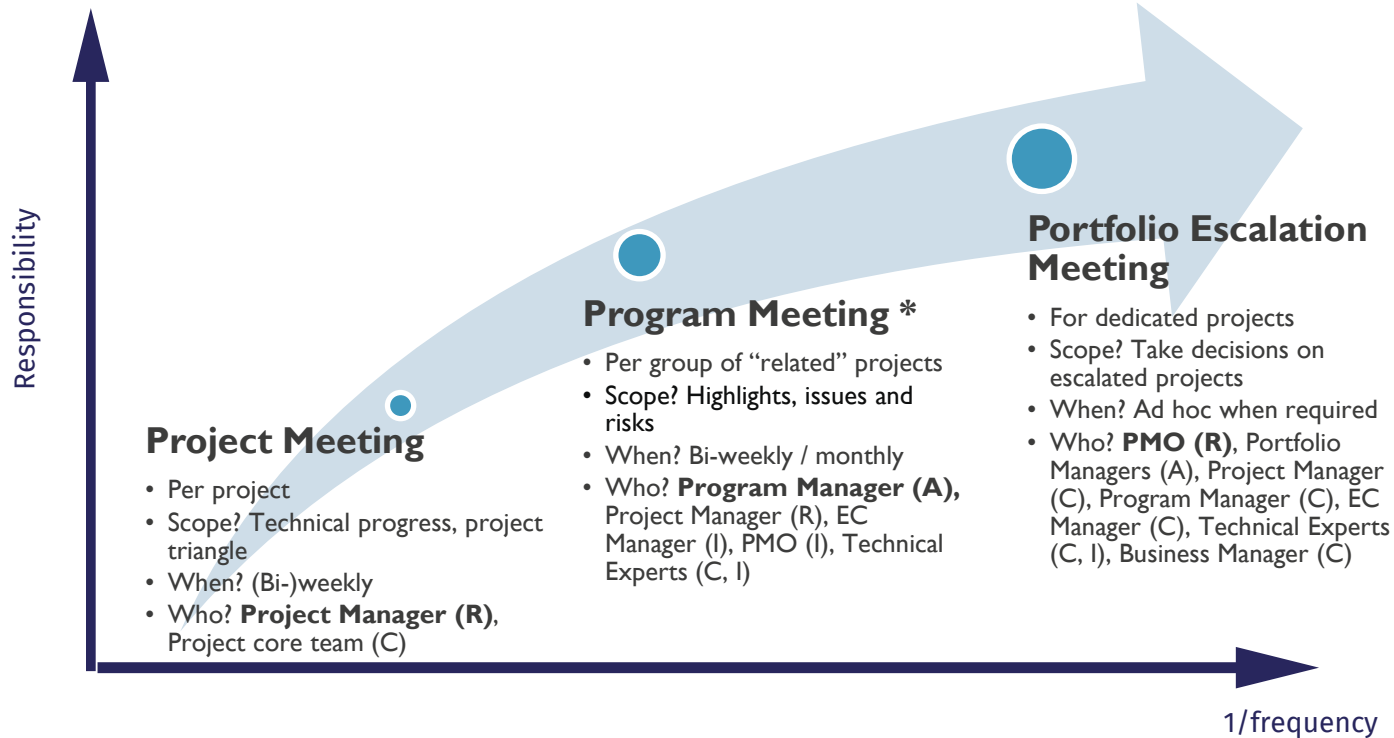


- Provide project managers with:
 - Guidelines to flag project status
 - Budget thresholds allowing to take project ownership
 - Escalation paths for projects in need of input from project stakeholders

- Provide project stakeholders with:
 - Up-to-date project/portfolio status on a “pull” base
 - Budget thresholds as safeguards on project budget
 - Escalation paths to steer directions on escalated projects

Governance during project planning - execution - closure

Uniform way of information sharing & escalation



Clarity is source of all project info: properties, risks, issues, status

Status is flagged in Clarity according to **escalation criteria.**

Mitigation plans are prepared in scenario thinking. Exceedance of **budget thresholds** only possible after approval.

Escalation criteria

Project manager flags project status in Clarity according to escalation criteria

Project status based on escalation criteria scope/schedule/budget:		Expected impact of risk or issue		
		< 10k	< 100k	≥ 100k
Estimated probability of risk	< 25%	Green	Green	Green
	< 50%	Green	Green	Yellow
	≥ 50%	Green	Yellow	Red
Issue 100%		Green	Yellow	Red

- Examples of risk and issues with an expected impact ≥ 100k:
 - cost of project is increasing ≥ 100k above budget (put “budget status” on red)
 - billable milestone valued ≥ 100k is delayed by ≥ 2 weeks (put “planning status” on red)
 - specs of a billable milestone valued ≥ 100k are insufficient to be accepted by customer (put “scope status” on red)

** Escalation criteria of 10k and 100k are examples*

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Hierarchy ▾

Industry and Consumer/Power & Energy/PtM and Storage H0095

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Q Search...



Select all Deselect all

Group By

Investment

Status Report

Investment ID ★

Name ★

Project Manager

Project Sta...

Budget Status

Scope Status

Planning Status

Project Comments

☐ P00611

Project A

Stevie Wonder

Green

Yellow

Green

Green

Need for extra resources to be able to achieve milestone I

☐ P00623

Green

Green

Green

Yellow

☐ P00620

Yellow

Green

Red

Red

☐ P00621

Green

Green

Green

Yellow

☐ P00631

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Yellow

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☐ P00613

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Open for questions



mec

embracing a better life