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Project management

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Lecture in "TDT4290 - Kundestyrt prosjekt", IDI, NTNU

03.9.2009

- **Who is BearingPoint**
- How do we get projects ?
- How to organize a project ?
- How to plan a project ?
- How to follow up a project ?
- Project Definition Plan / Project handbook
- Project management tips & tricks

BearingPoint is one of the Europe's leading consulting firms



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- BearingPoint has more than 3 250 employees in 14 countries.
- In the Nordics we are 250 employees, including 60 in Oslo.



Some of our clients

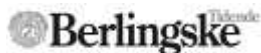


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FINANCIAL SERVICES



COMMERCIAL SERVICES



PUBLIC SERVICES



The technology part of BearingPoint is called Information Management and work mostly with Business Intelligence



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**“Business Intelligence
is all about taking the
right actions”**



Konsulentskolen er et tilbud til studenter på nest siste året



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VIL DU....

- Lære grunnleggende problemløsnings-, fasiliterings- og presentasjonsteknikker som er nyttige i både studie- og jobbsammenheng
- Knytte kontakt med erfarne BearingPoint konsulenter
- Bli kjent med dyktige studenter fra BI, NHH og NTNU
- Delta på sosiale aktiviteter



- BearingPoint inviterer nest sisteårs- studenter til å delta på **KONSULENTSKOLEN** – en unik mulighet til å få innblikk i en konsulents spennende og utfordrende hverdag
- Hoveddelen av kurset består av to samlinger i Oslo
- Søknadsfrist for konsulentskolen 2009/2010 er 1.oktober 2009





SØKNAD LEGGES INN PÅ:

bearingpoint.easycruit.com

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Project initiation – How do we as a Management and Technology Consulting firm get our projects?



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1. The Client knows us or have heard about us, and contacts us directly with a problem or a project opportunity
2. We know about the Client and do see that he or she does have a challenge/problem, and then contact the Client directly with a project suggestion or proposal
3. Open tenders

How does an open tender usually works?

1. RFI (Request for Information)

- Either sent to selected companies or publicly announced (mandatory for public sector)

2. Pre-qualifications

- Shortlist of the most interesting candidates

3. RFP (Request for Proposal)

- Usually a detailed requirement specification sent to the candidates on the short list.

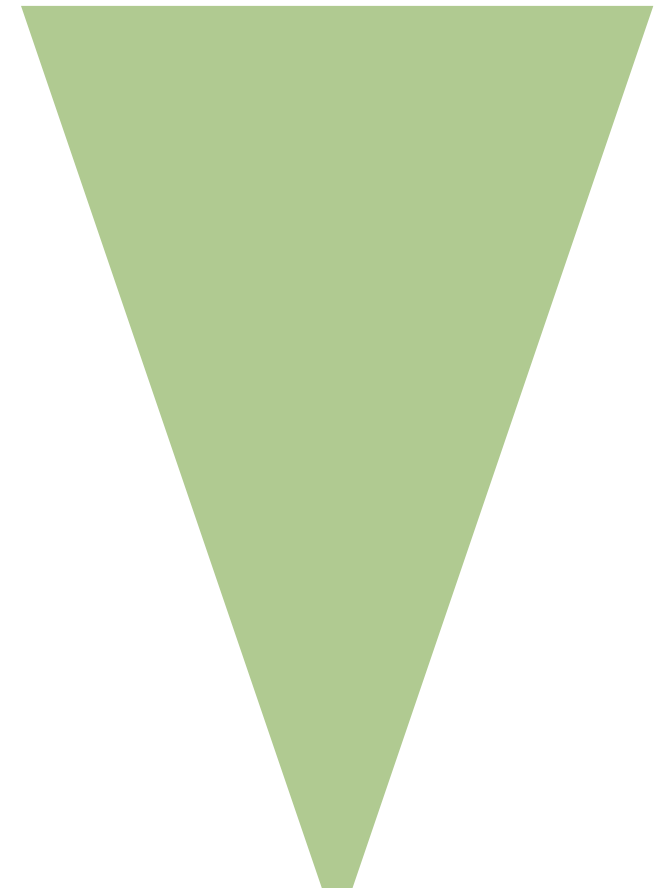
4. Evaluation and Negotiations

- Usually 1–3 candidates are taken to negotiations

5. Signed Contract

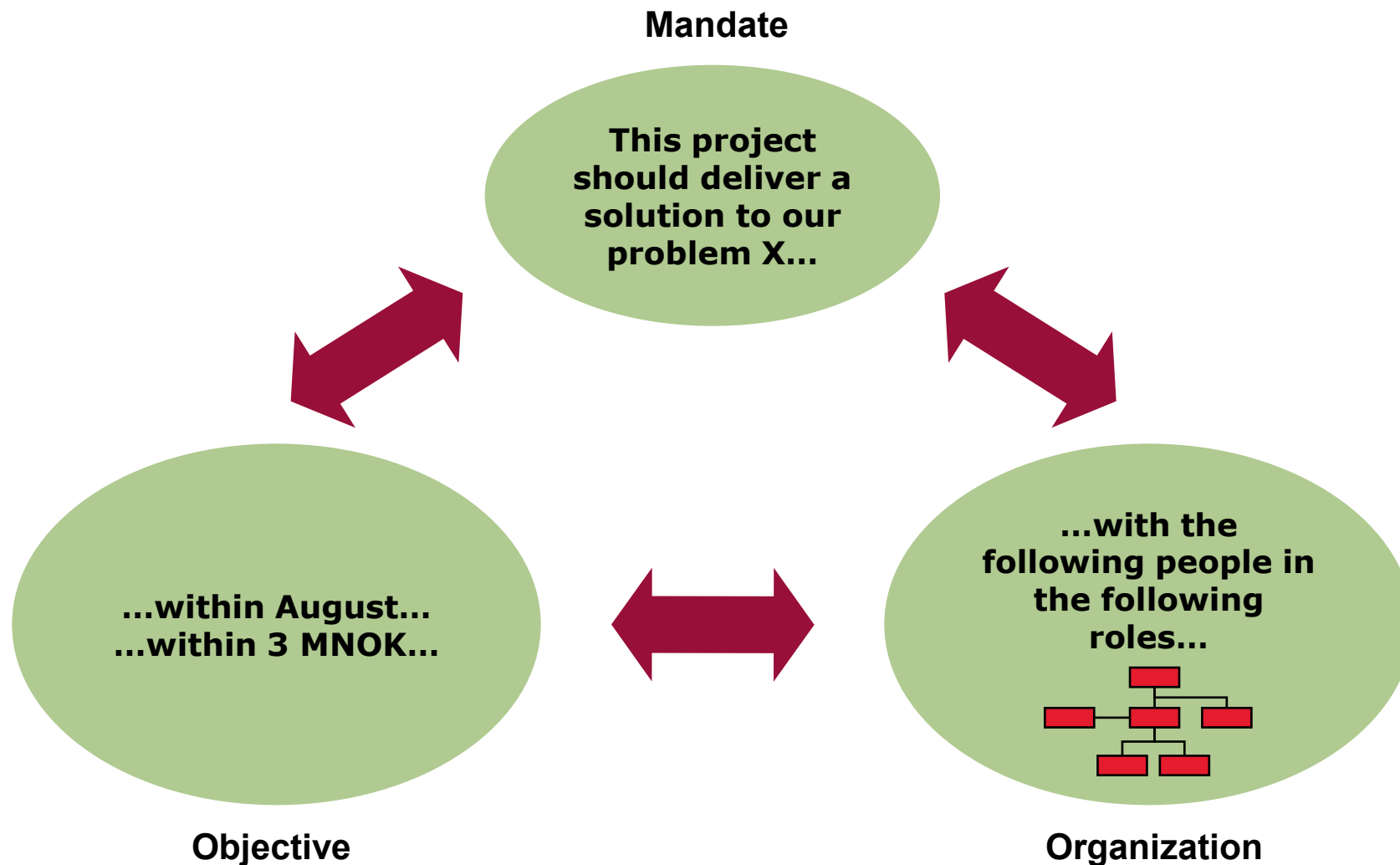
- Finally ready to start working on the project

Number of participants



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The chance for success for a project increases with a well defined project mandate, clear objectives and a structured set of roles in the organization



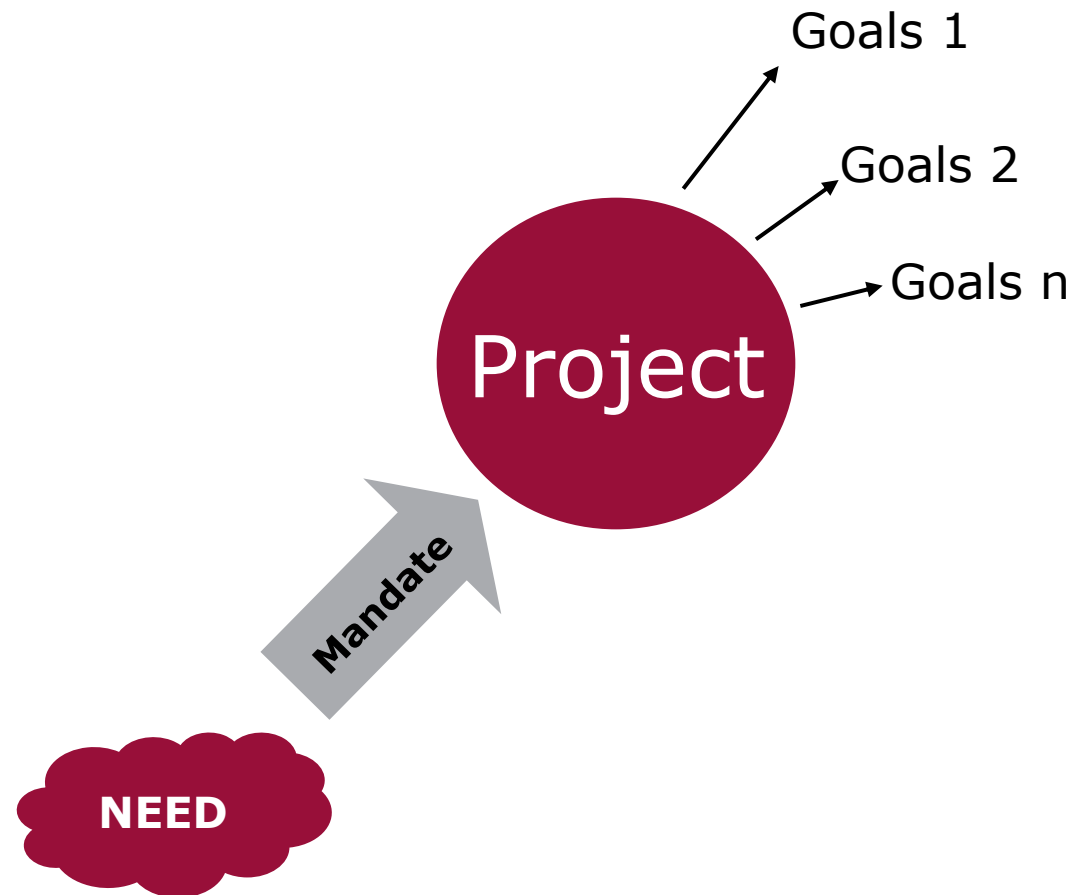
A project's success is judged by how well the objectives are achieved within the boundaries of its mandate

Project mandate (= mission)

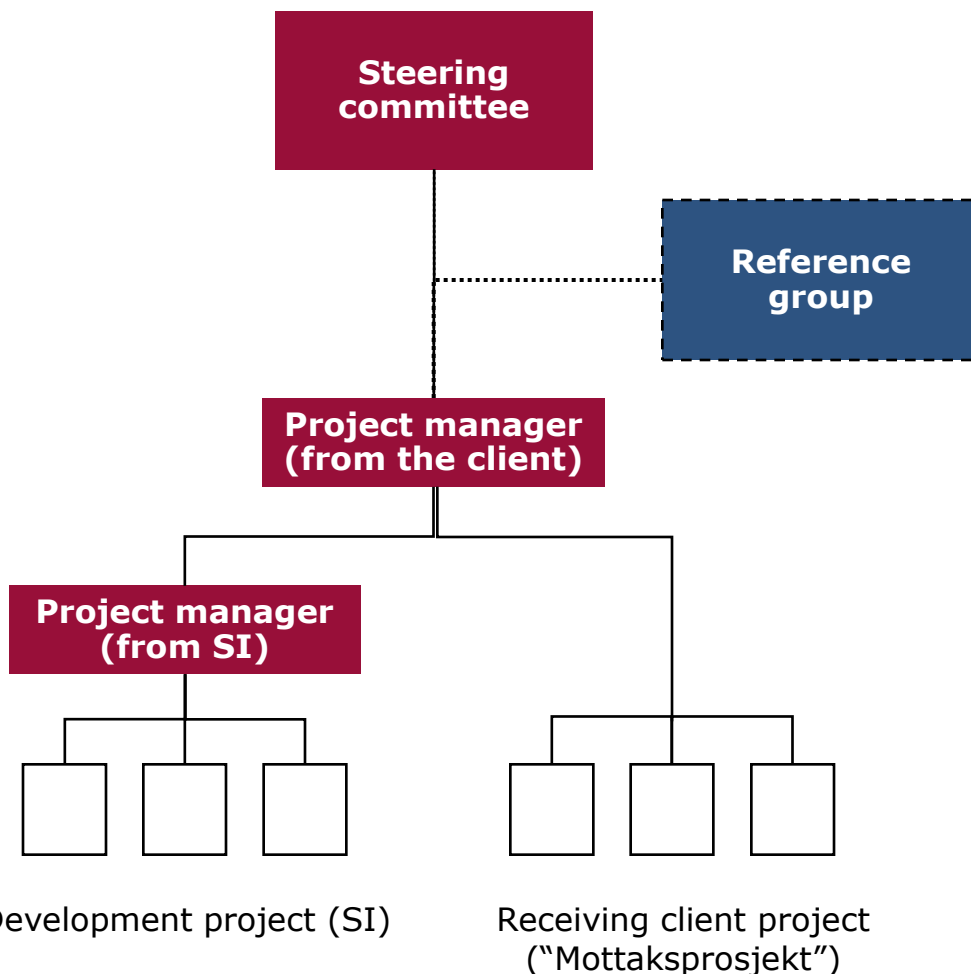
- The mandate is the purpose of a project combined with what authority the project is given within which borders

Project objectives (= goals)

- Result objectives – a set objectives that this project should meet to be successful
- Effect objectives – a set of long term consequences this project must enable to be successful

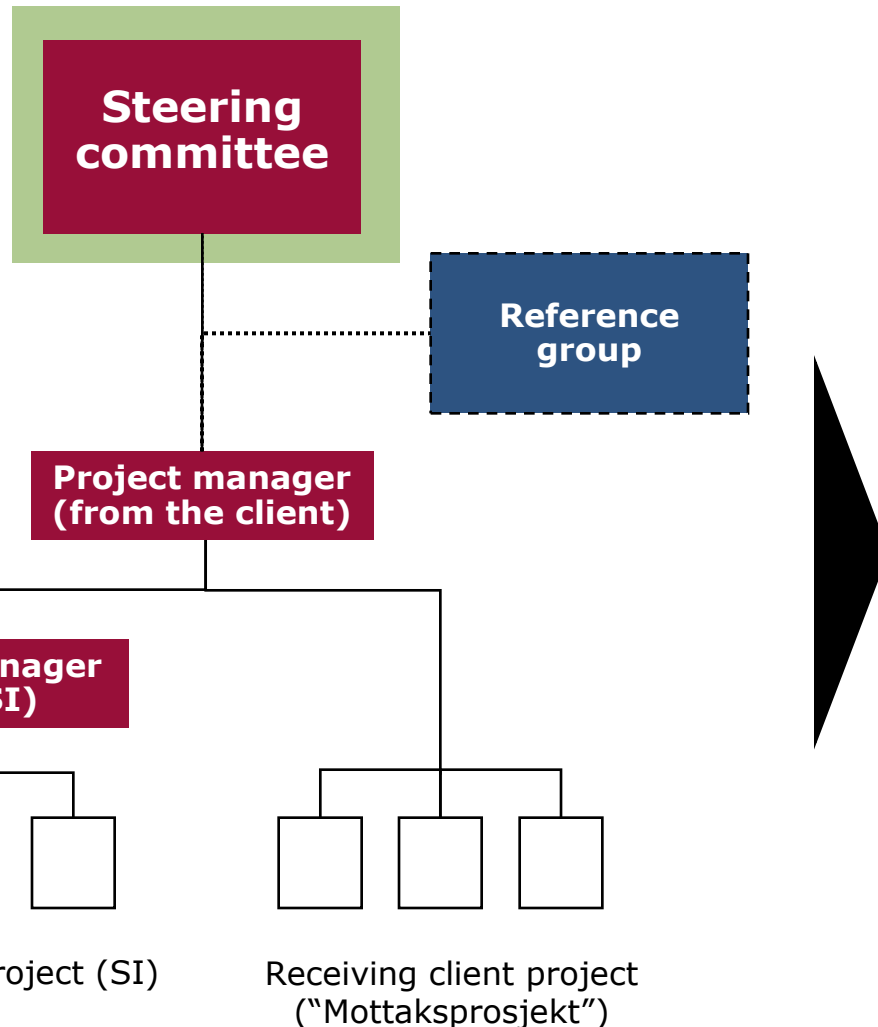


Overview of a normal project organization in larger implementation projects



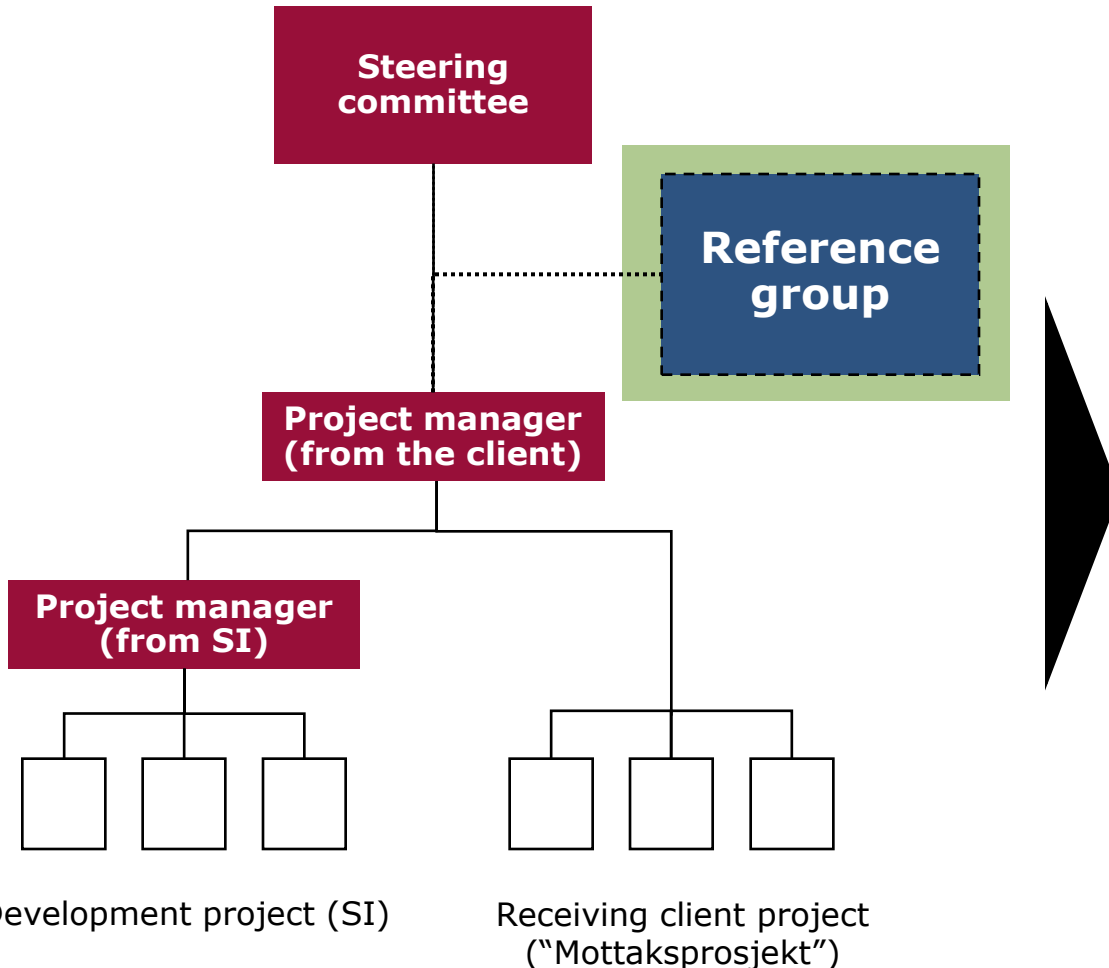
All projects should be organized with a steering committee and project manager from the client and a project manager from the System Integrator (SI)

(System Integrator is used here as a term for the consultant firm that deliver the consulting services)



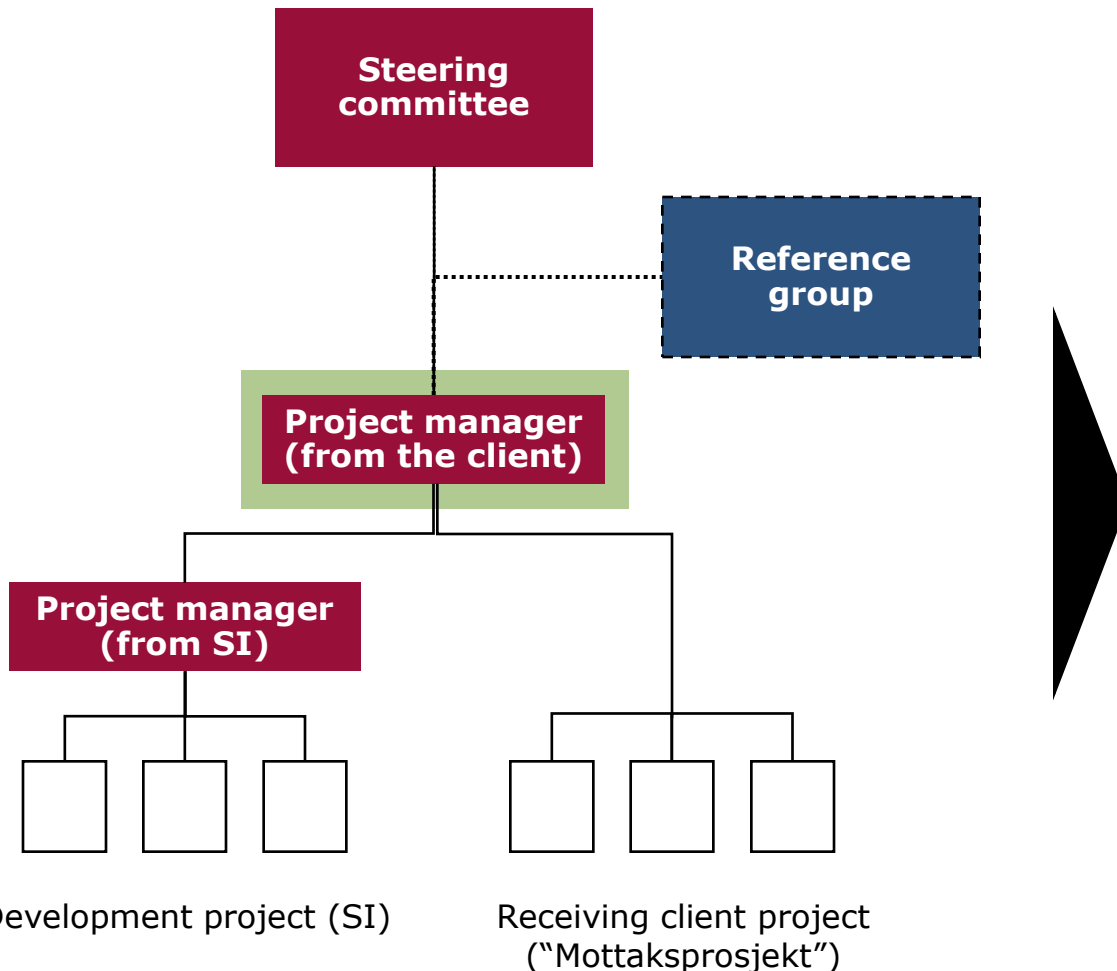
Description

- The Steering Committee is overall responsible for the project.
- Tasks and responsibilities
 - Manage goals, scope and realization of the business case
 - Approve schedule, deliveries and change orders within the project
 - Ensure that the project receives enough internal resources
- Participants:
 - The Steering committee consists of decision makers from the client
 - The engagement managing director from SI participates in the Steering committee without the right to vote
 - The project managers from the client and service provider reports to and participates in the Steering committee



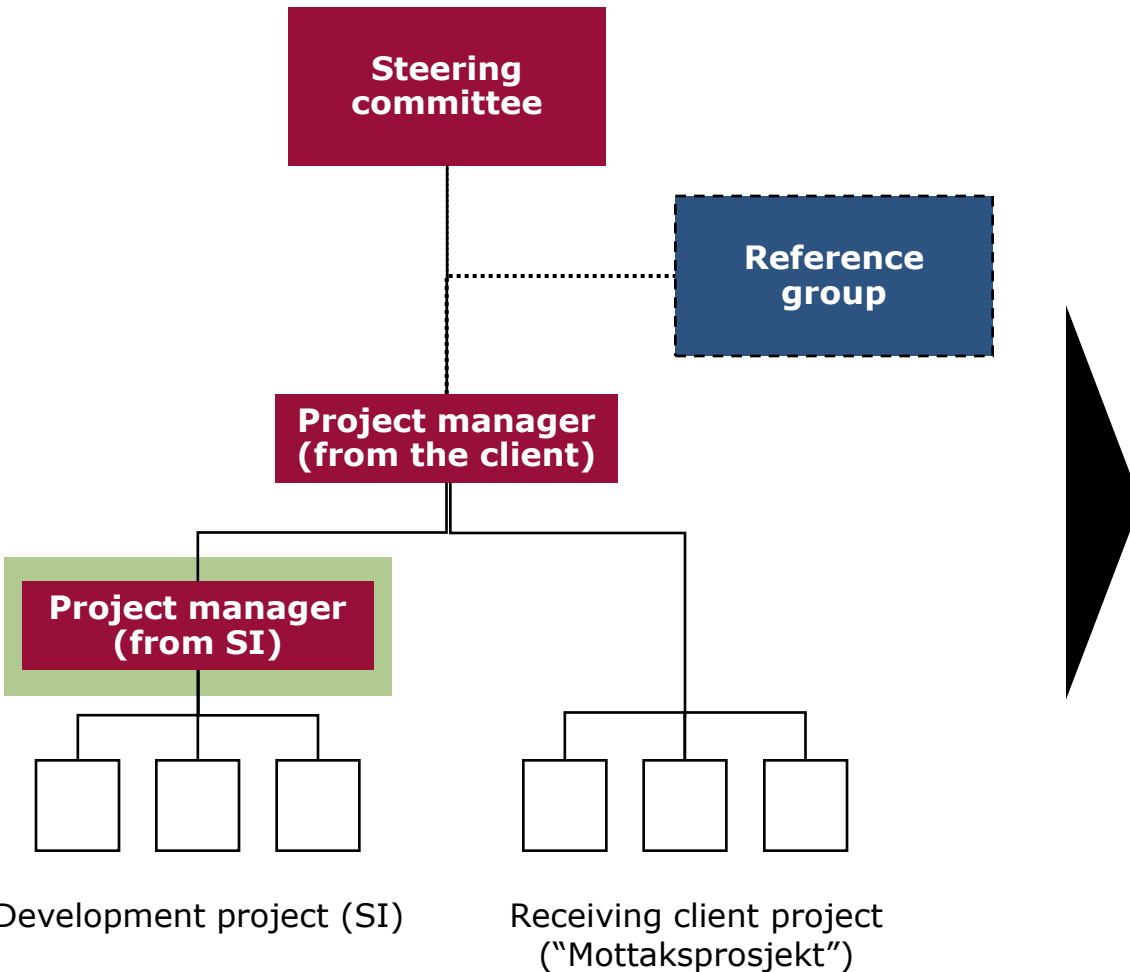
Description

- The Reference Group is not responsible for any deliverables but is used
 - partly to make sure that the project is rooted in different part of the organization and
 - partly to check out and verify different solutions
- Participants:
 - Key personnel from different divisions/departments within the client organization



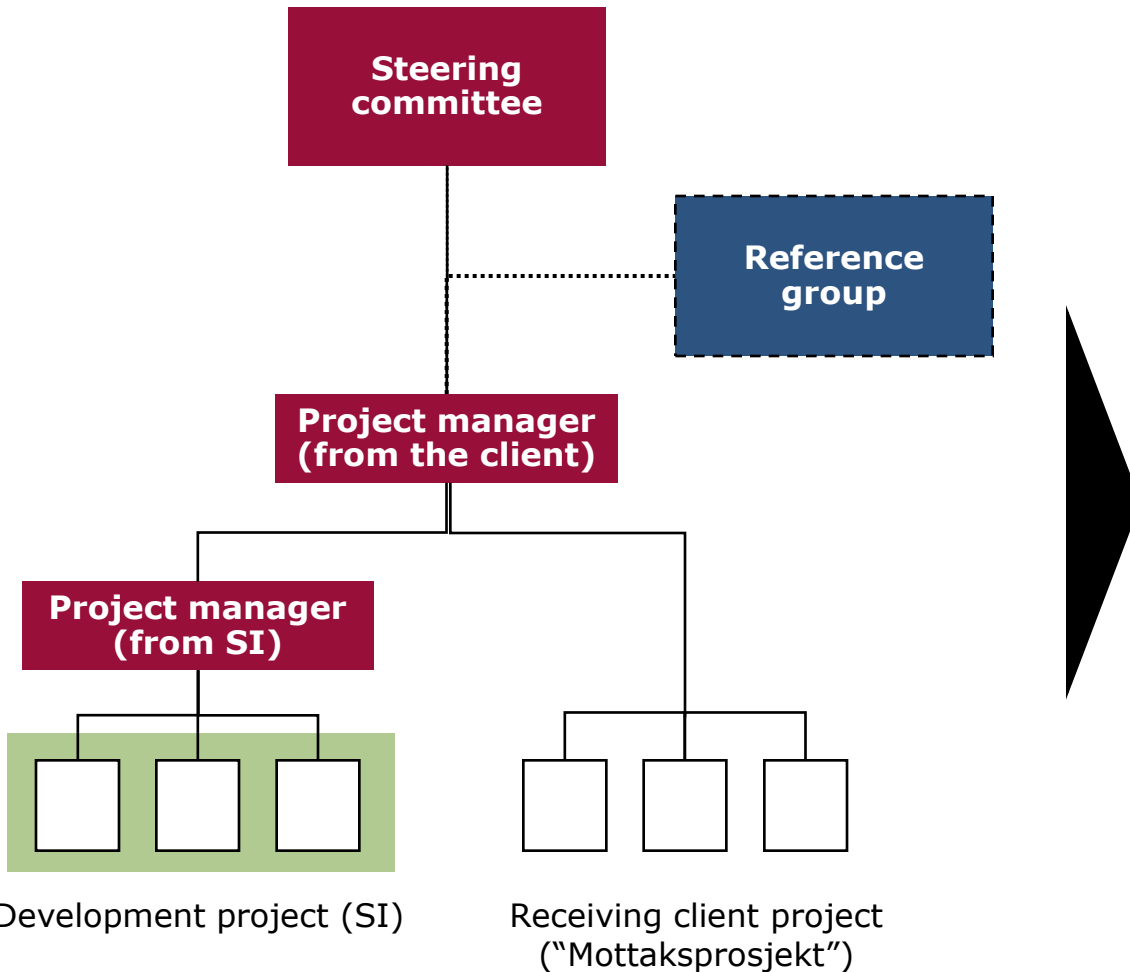
Description

- The project manager from the client is responsible for the daily management of the project
- Tasks and responsibilities
 - Daily responsibility for the project as a whole
 - Responsible to coordinate receiving activities at the client with the development project
 - Responsible for reports the Steering Committee (reports will be done in collaboration with project manager from SI)
 - Responsible for organizing, mobilize and implementation of the receiving client project
 - Responsible for the client's achievement, tasks and resources within the project
 - Follow-up risk



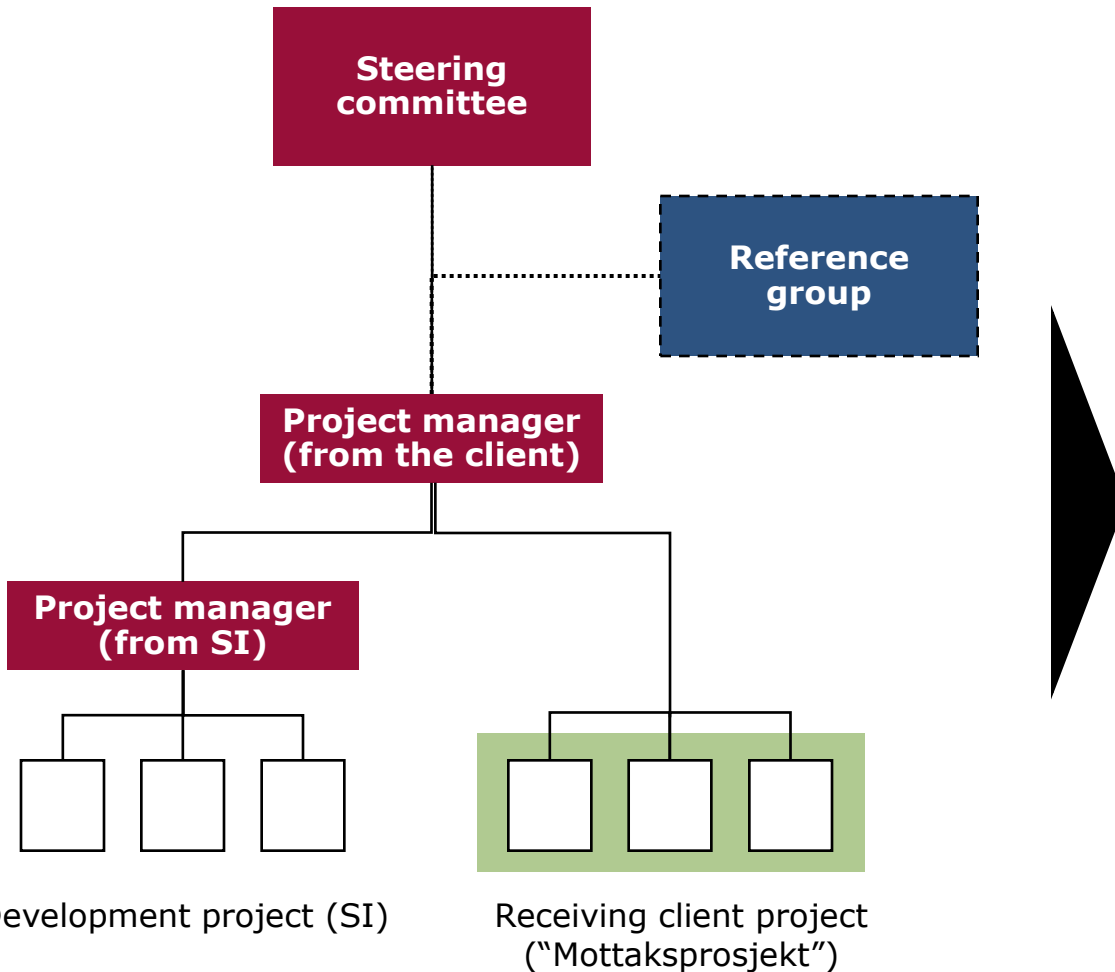
Description

- The project manager from the systems integrator has the daily responsibility for the development project and project resources
- Tasks and responsibilities
 - Daily responsibility for organization, mobilizing and accomplishment of the development project
 - Responsible for achievement, tasks and project resources
 - Responsible for the collaboration together with Project Manager from the client
 - Preparation responsible of status reports from the development project
 - Prepare detailed,
 - Time and project plan
 - Project scope
 - Responsibility of project resources
 - Administrative routines
 - Follow-up risk
 - Quality assurance on deliveries



Description

- In an development project, there are often a lot of project members with roles related to functionality, technology or test.
- The key roles in these three areas are:
 - Functional Architect
 - Technical Architect
 - Test manager
 - Developer



Description

- The receiving project is the team at the client with roles related to functionality, environments, organization or test.
- The key roles in these four areas are:
 - Functional expert
 - Test manager (acceptance test)
 - Technical roll out manager
 - Change manager

A Skill matrix is a tool for assessing the skills requirements and where there are competency gaps that need to be filled within the project team



	Strategy	Architecture	Process Analysis	Test Mgmt	GUI
(Name: _____)	○	◐	◐	○	○
(Name: _____)	○	○	◐	◐	○
(Name: _____)	○	○	○	◐	○
(Name: _____)					

Skill Gap ↑

Skill Gap ↑

In BearingPoint we always focus on Values and ground rules in setup of our projects



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Commitment to Client's Success

Commitment to Each Other's Success

Leaders Who Serve

Teamwork & Collaboration

Integrity in our actions

Speed With Purpose

Stewardship

One Firm

Goal of values section

- Refresh our values and guiding principles
- Define ground rules for the project

The values process

1. For each value: examine what the project has to focus on in order to live up to this value
2. Document the result
3. Follow up actions and ground rules!

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**“Plans are nothing; planning is everything.”
Dwight D. Eisenhower**

Sometimes a plan is something!

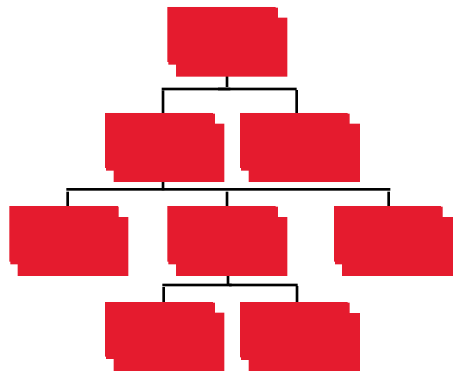


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Planning is all about breaking the project into manageable pieces

Work Breakdown Structure (WBS)



Estimate each deliverable and roll-up estimate and uncertainty



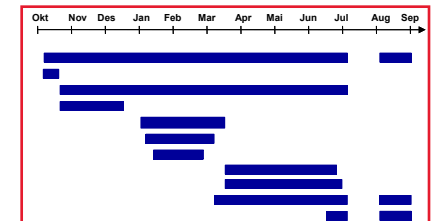
Estimate



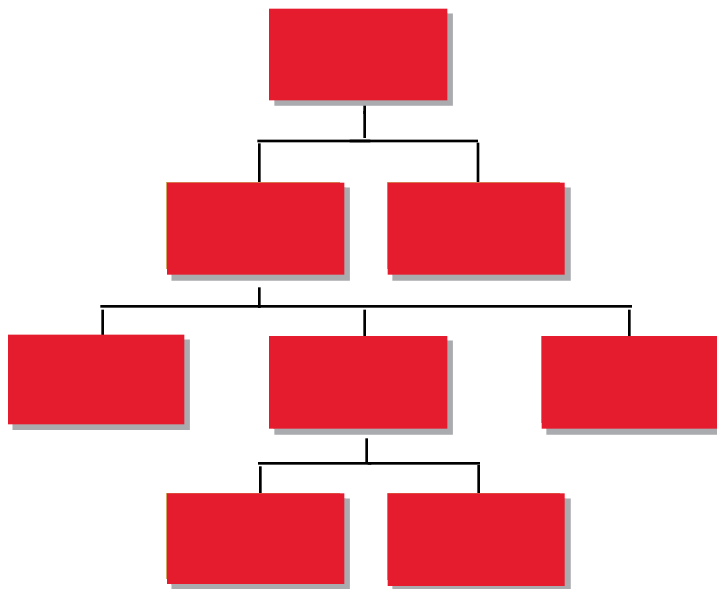
Estimate each activity and roll-up estimate



Project plan



Start project planning by creating a work breakdown structure (WBS)



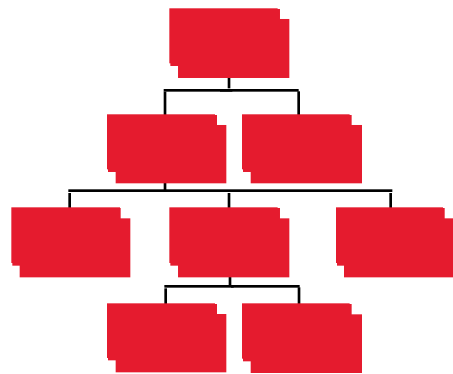
Work Breakdown Structure

- Focused on end-deliverables
- Hierarchical structure which sub-divides all the work elements
- The lowest level of work element is called a task package
- Not necessarily a right or wrong structure

WBS is not the same as a project plan

The work breakdown structure should give input to the project plan

- A WBS defines WHAT solutions to develop
- A project plan defines HOW to develop the solutions
- There is normally a one-to-many relationship between task package and activity

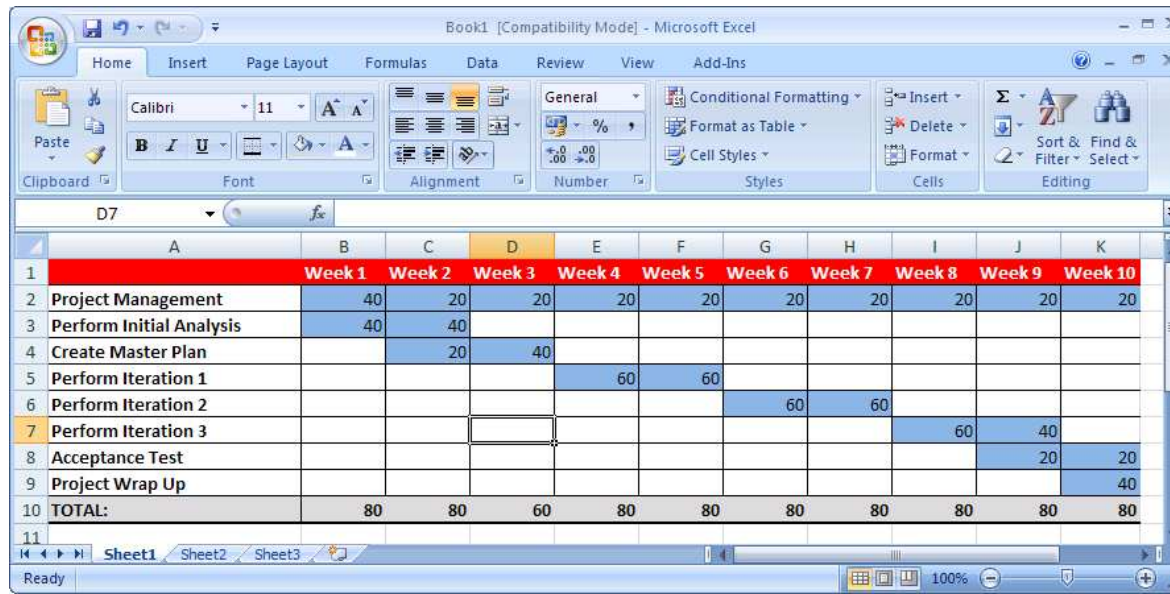


ID	Task Name	Budget	EAC	Resource List	1997				
					Jan	Feb	Mar	Apr	May
A2600	Elektroniske Formularer								
A2610	Test JetForm	12,0	9,0	WS					
A2620	Test IBM løsning	0,0	0,0	WS					
A2630	Skaffe Spama designer	2,0	2,0	WS					
A2631	Intern kvalitetssikring av design	4,0	4,0	TG					
A2632	Gjennomgå design med Spama	8,0	8,0	TG WS					
A2640	Valg av egne formularer/Spamaform	8,0	0,0	RES					
A2650	Design av formularer	40,0	29,0	HN MA TG					
A2651	Gjennomgang SPAMA tilbud	18,0	17,5	TG					
A2652	Innhente nytt SPAMA tilbud	10,0	3,0	WS					
A2660	Endring av utskriftsprogrammer	65,0	65,0	CB WS					
A2661	Teknisk design endringer formularer	15,0	15,0	WS					
A2670	Installasjon	0,0	0,0	BS					
A2680	Pilot	50,0	50,0	WS					
A2800	Elektronisk Grunnbok								
	Start El. grunnbok								

- Your new business idea is to sell school books over the Internet
- How does your WBS (work breakdown structure) look like?

Documenting the plan

- Once the planning is complete the plan needs to be documented
- There are several ways to document the plan, many which will be overkill for most situations
- A simple tool like Excel will usually work quite well for most projects
- If planning a very large project or a project with strict requirements regarding tracability to performance and change a more advanced tool can be utilized



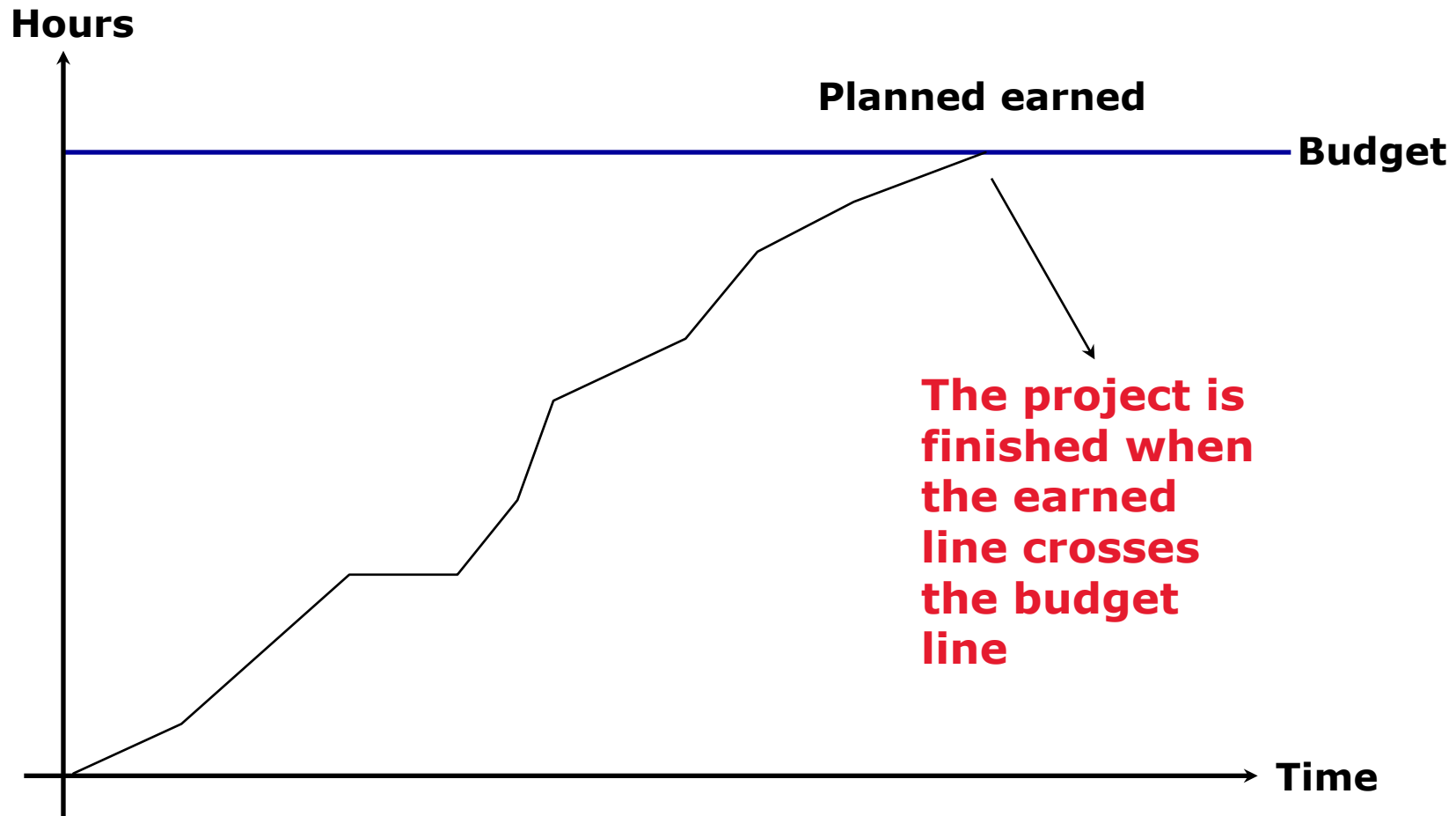
The screenshot shows a Microsoft Excel spreadsheet with a Gantt chart. The chart displays the duration of various project tasks over a 10-week period. The tasks and their durations are as follows:

Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Project Management	40	20	20	20	20	20	20	20	20	20
Perform Initial Analysis	40	40								
Create Master Plan		20	40							
Perform Iteration 1				60	60					
Perform Iteration 2						60	60			
Perform Iteration 3								60	40	
Acceptance Test									20	20
Project Wrap Up										40
TOTAL:	80	80	60	80	80	80	80	80	80	80

The project plan results in an baseline for progress in the project often called the S-curve



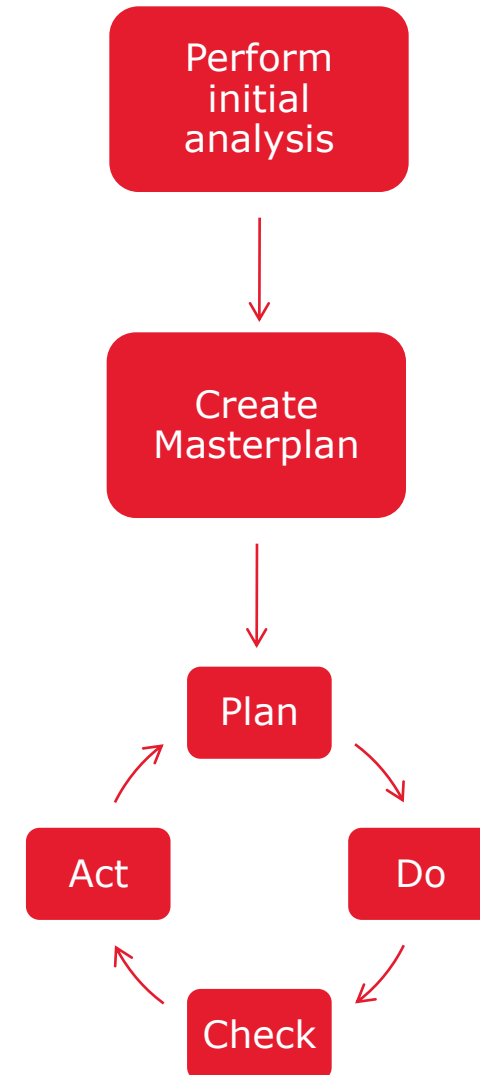
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Planning for iterations is not very different, in fact it can make the task of planning and preparing easier

Planning for iterations

- Creating a detailed plan for the entire project upfront can be hard and near impossible if the deliverables are unknown
- Planning for iterations divides the project into smaller packages that can be planned in detail as the project progresses
- However, using an iterative approach does not exclude the need for an initial analysis of the domain and work to be performed and the creation of a masterplan, work has to be divided between different iterations and the iterations need to be placed on a timeline
- The first work to be performed in each iteration will be to create a detailed plan for the work to be performed



Don't over plan



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What do you need to know to follow up a project?

As a project manager you need in-depth knowledge of your project's:

- Progress according to plan
- Last period's activities
- Next period's planned activities
- Important unsolved issues
- Risk issues
- Resource issues
- Scoping issues
- Business Case

Knowledge of these areas is needed in order to successfully manage the project and report to project stakeholders such as project sponsor, steering committee and others.



The one meeting everyone should have: Daily SCRUM



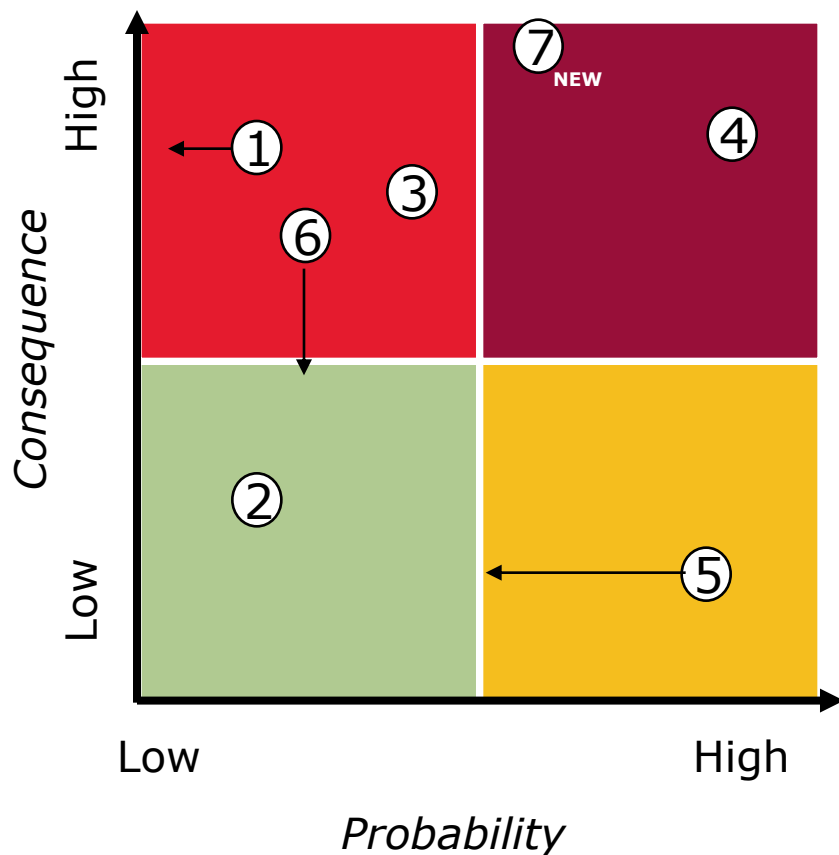
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The three questions of the daily SCRUM:

- What did I do yesterday?
- What will I do today?
- Is there anything that can or will obstruct my work today?

All risk elements should be identified and tracked on a weekly basis. Each risk element should be assigned a probability, consequence, action and responsible person

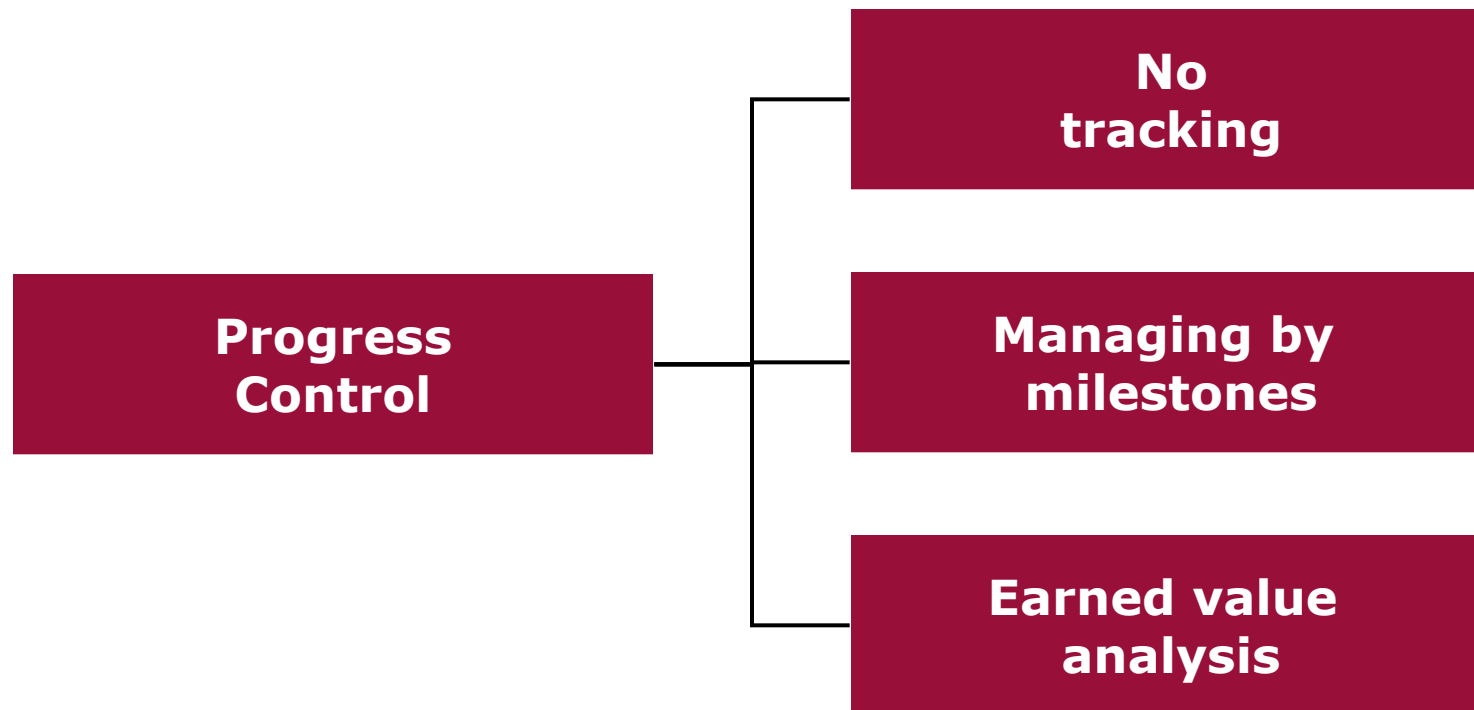


#	Description	Risk
1	Not access to key personnel	1x8=8
2	Non-key resources tied up on other project	2x3=6
3	Low management support in client organization	4x7=28
4	Wrong architecture decisions due to unclear requirements from the client	8x8=64
5	Slow response from the clients verification team	5x2=10
6	Complex integration to back systems delays the project	3x5=15
7	Fail to fulfill end-users expectations	6x9=54

Progress control is all about ensuring that you are on time and within budget



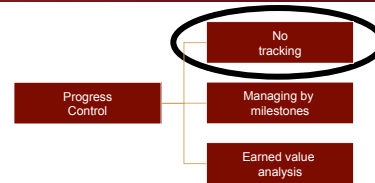
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What are the benefits and disadvantages of “no tracking”? When can we use it?



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- Absolutely no chance of knowing the exact status (“we’re almost 90% done”)
- WILL result in budget overruns
- MAY very well result in a delay
- Normally works OK for very small projects (1–2 people, 2–3 weeks)



The second level of tracking a project is by tracking milestones



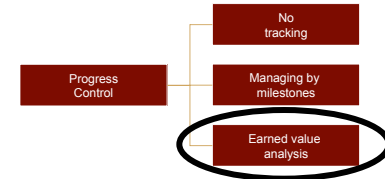
- Works OK for medium sized projects (2–3 people, 2–3 months)
- Useful method for project with vague or undefined outcome (e.g. strategy or restructuring projects)
- Time Between Milestones (TBM) should be less than 3–4 weeks
- Status report should include:
 - Activity/milestone
 - Original deadline for milestone
 - Status (either “According to schedule”, “Met” or a new revised date)
 - Changes since last status (i.e. “are we getting even more delayed than at the last status?”)



The third level of tracking a project is Earned Value Analysis (EVA)



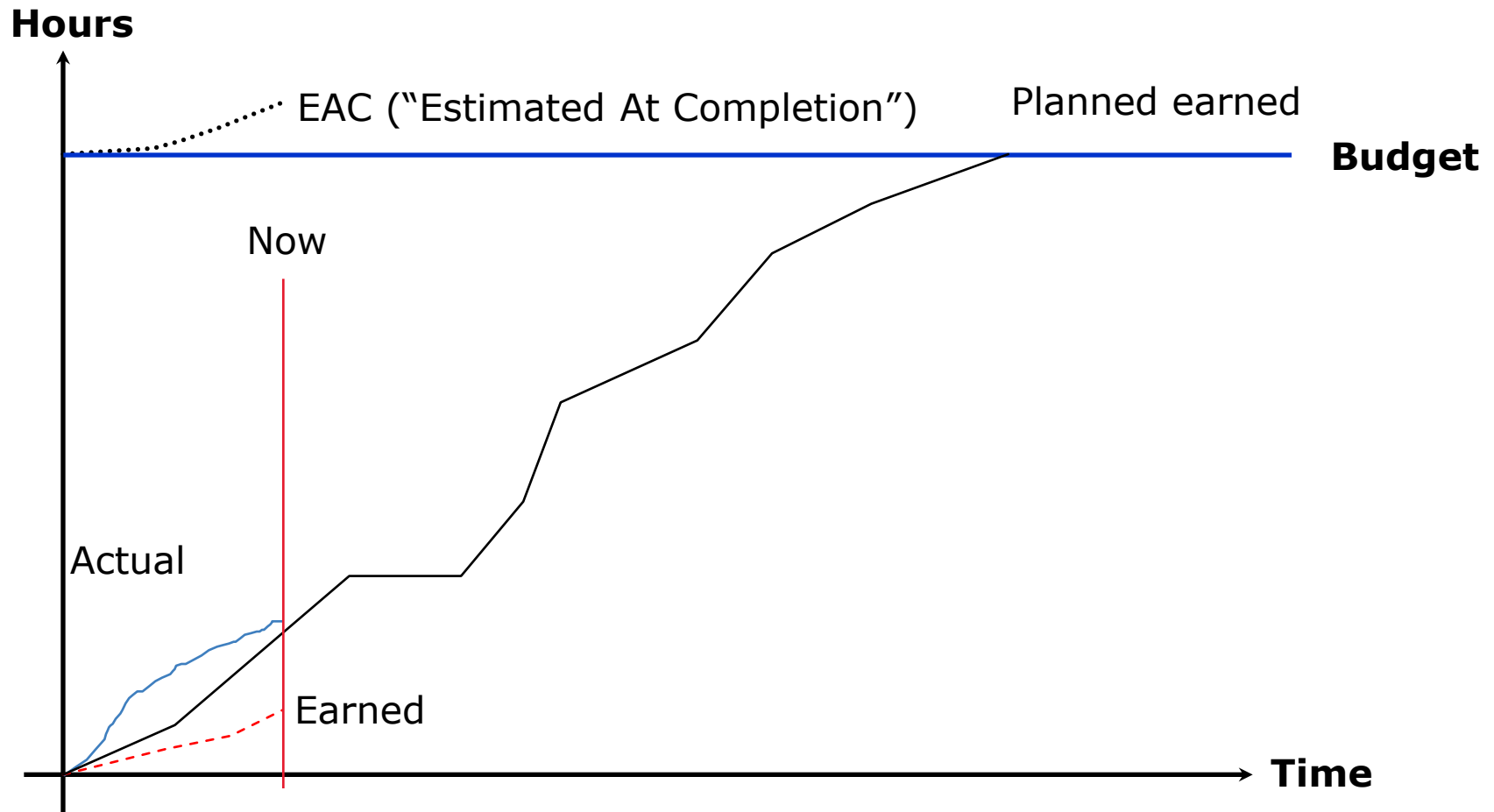
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- The best technique for controlling the work
- Used for medium size projects and up to large programs consisting of multiple projects
- Is based on the calculation of some few key indicators which are compared to the project baseline
- Gives a simple, effective and lucid status



Earned Value Analysis (EVA) graph



Information available when planning

Budget = Original budget, usually fixed

Planned earned = Budget over time

Information reported by each project member

Actual Work = Actual time, i.e. number of hours used

Estimate To Complete (ETC) = Estimated time to complete task

Indicators that must be calculated

Estimate At Completion (EAC) = Actual + ETC (i.e. the estimated total cost)

Variance (VAR) = Budget - EAC (i.e. budget variance)

Earned value = Budget - ETC (NB: earned is always against budget)

Example of calculation of indicators

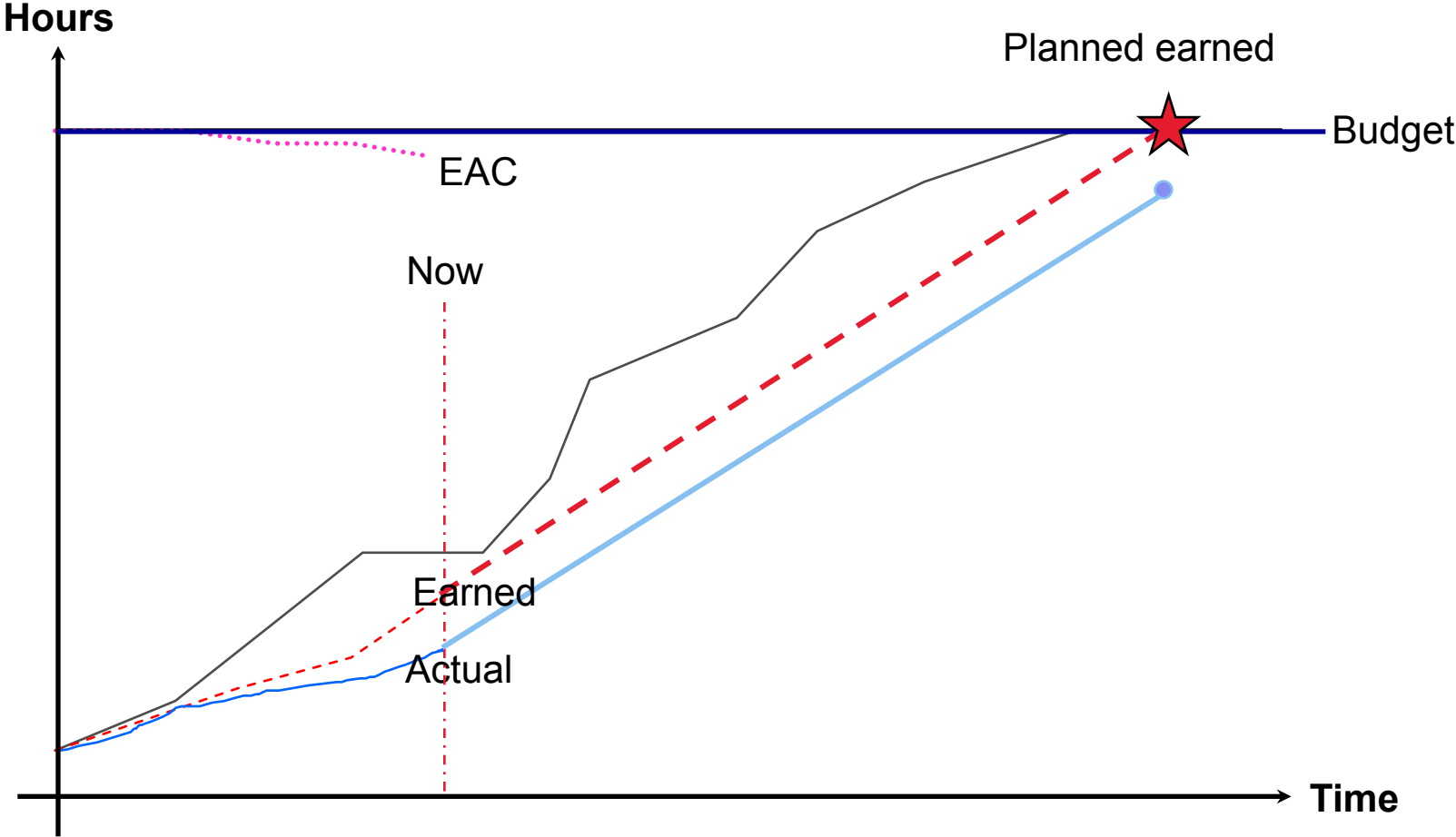


	Week 1	Week 2
Reported	Total budget	20
	Planned earned	5
	Actual this week	15
	ETC ?	10
Indicators	EAC	$15+10=25$
	VAR	$20-25=-5$
	Earned Value	$20-10=10$

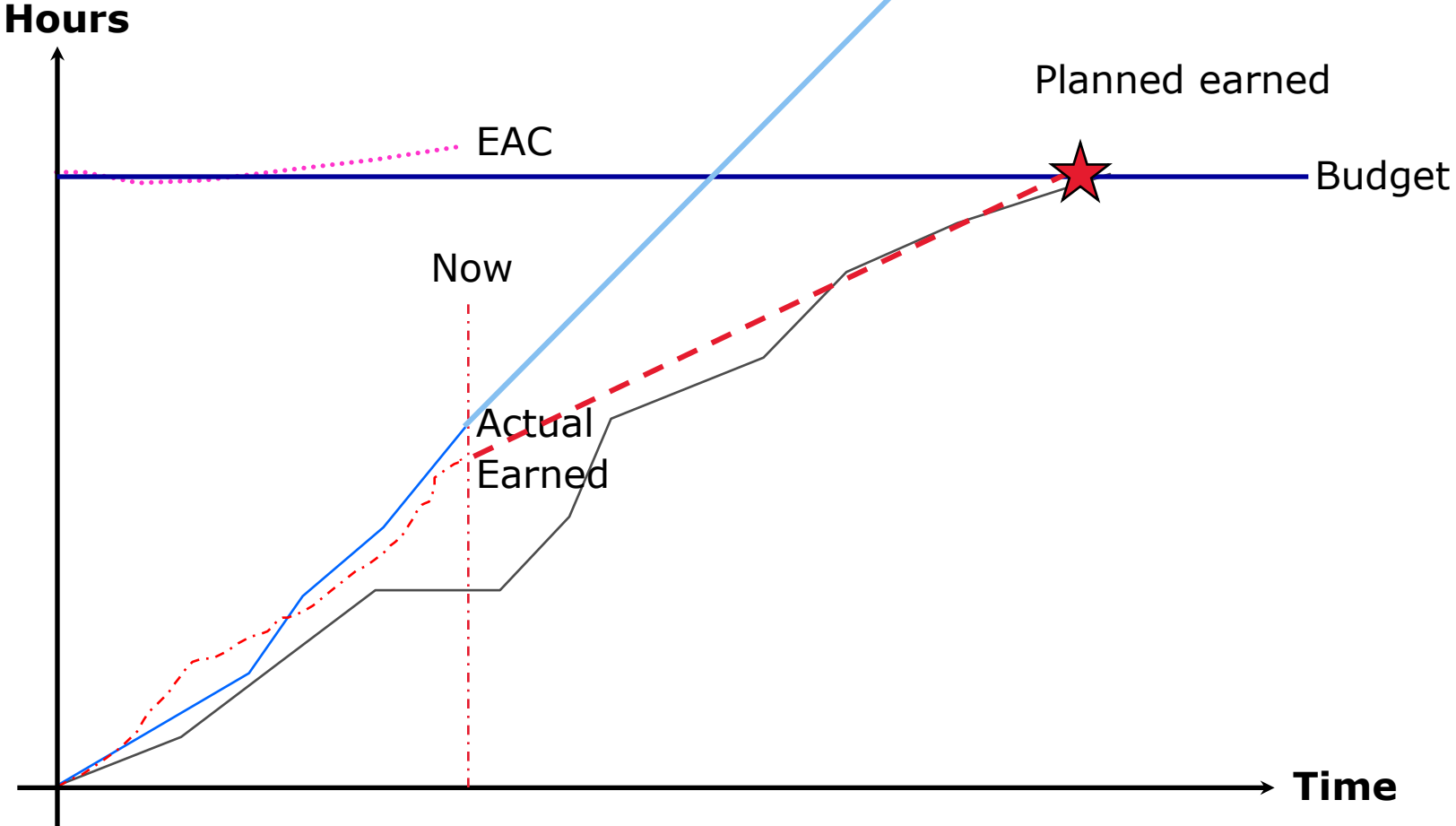
→ Don't mix up ETC with remaining Budget!

ETC = Estimate To Complete
EAC = Estimate At Completion
VAR = Variance

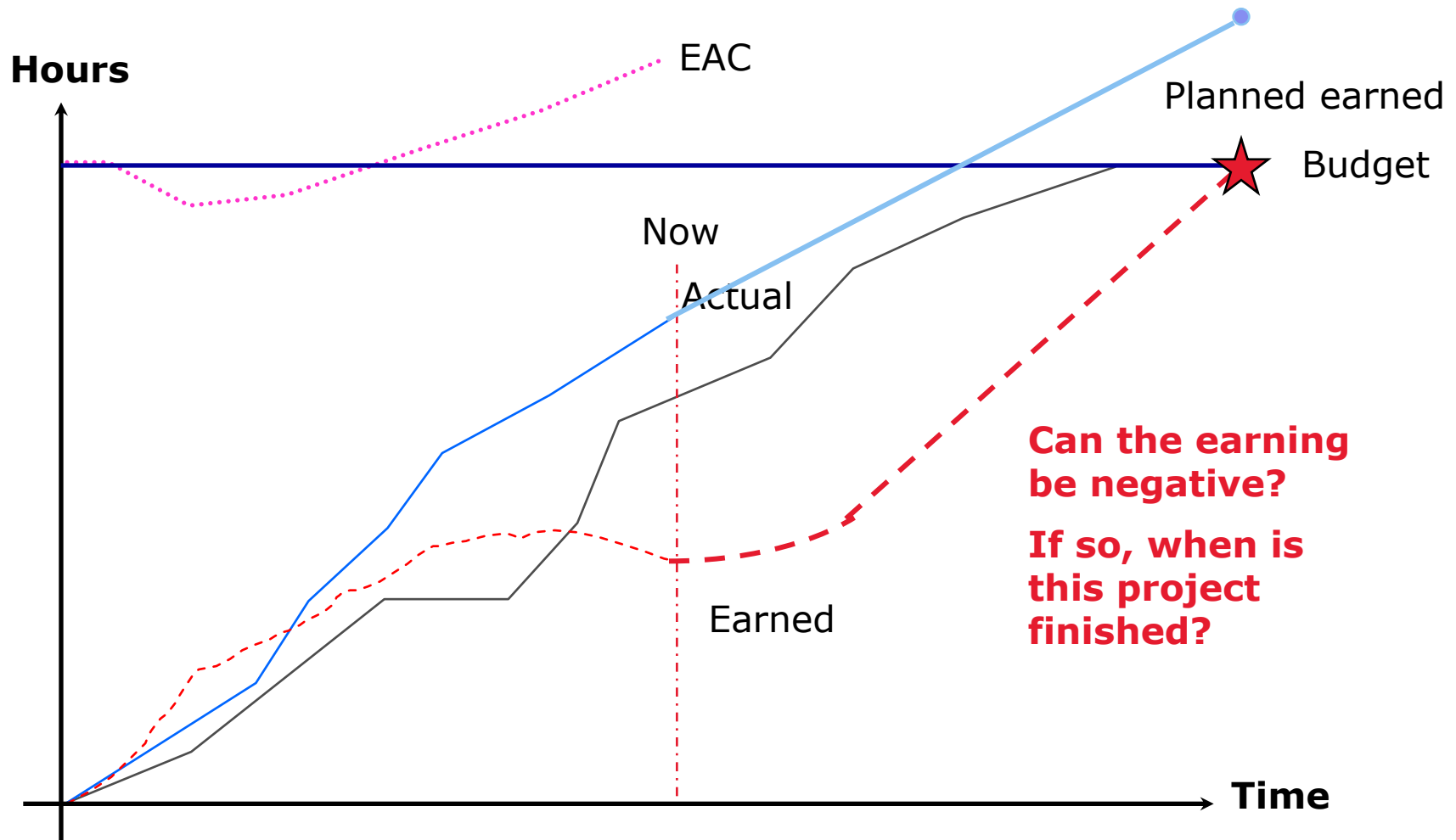
What characterizes this project?



What characterizes this project?



A very bad example (hope you never experience this).....



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The PDP is composed in cooperation between the service provider and the project manager and will contain practical information on the project execution

Content of the PDP:

- Description of background and goal setting
- Mandate
- Organization
- Project plan
- Method/approach
- Routines and guidelines
- Quality assurance



The PDP is a tool which should work as a project handbook for all interested parties



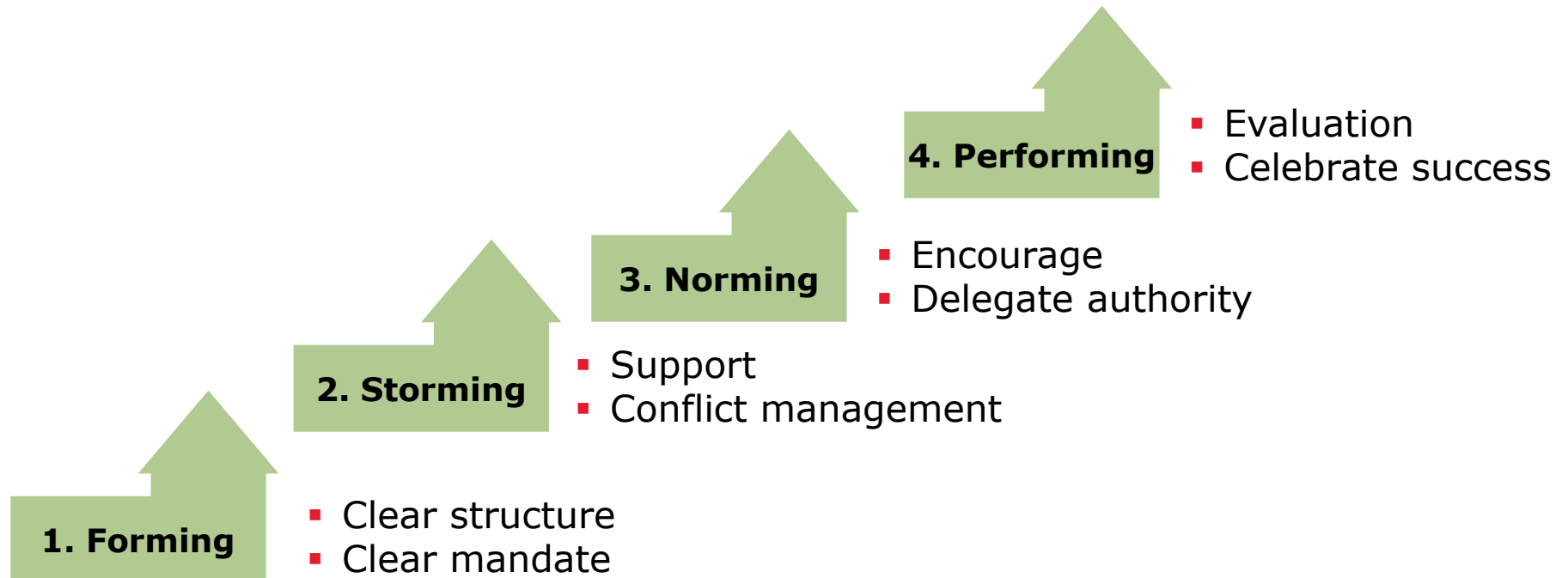
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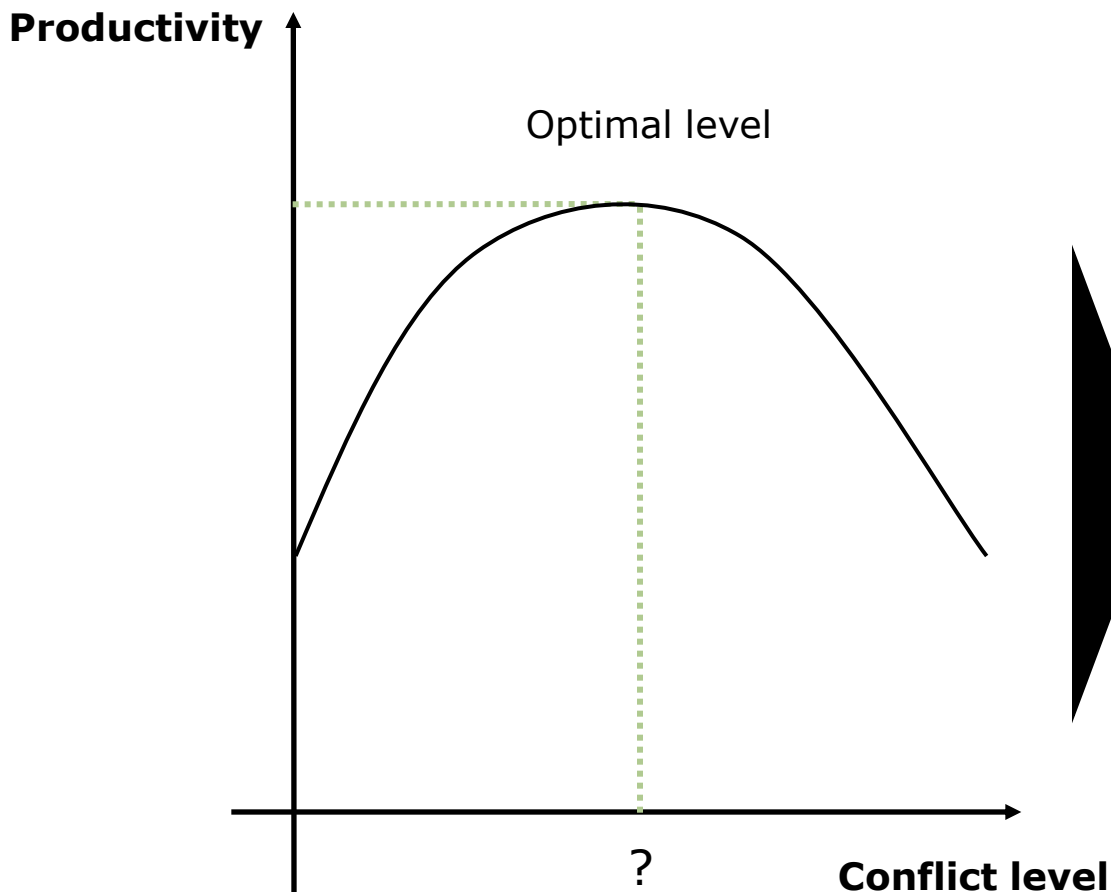
When starting the project, make sure you:

1. Know which problem the client wants you to solve
2. Make the client knows which problem you are solving
3. Solve the right problem
4. Manage your client's expectations

Make sure you have a firm contract with agreed deliverables and capture it all in your PDP

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Discussion

1. What are the sources of conflicts in teams?
2. What are the upside of conflicts in teams?
3. How do you handle a conflict that becomes to large in a team ?

Problem

How to handle



Late without a reason

- Rules and consequences
- Don't update the person
- Let someone else update



The quiet person

- Ice breaker/laughs
- Ask about something well known
- Thank for input



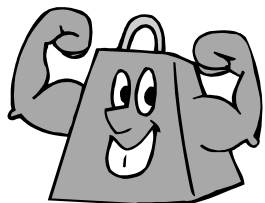
The unfocused talkative person

- Time limits
- Ask for a short version
- Avoid eye-contact
- Recording-role?



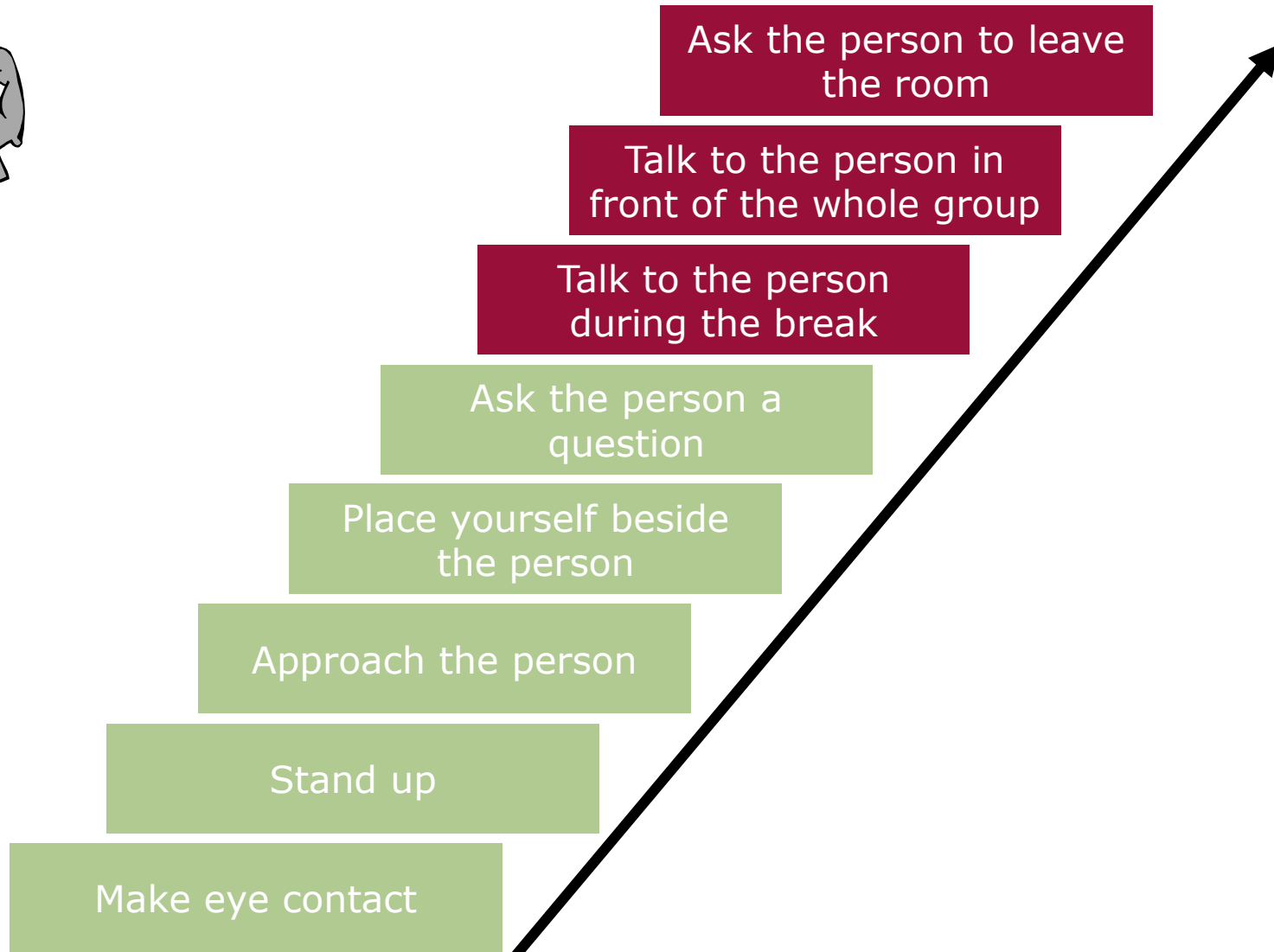
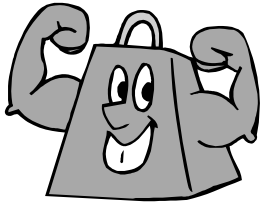
The stubborn/ negative person

- Questions
- "W.D.Y.P"?
- Refer to facts
- Use voting techniques
- Permit change without losing face



The person who disturbs

How manage persons who disturb





Situation

Question to agenda/process

Last minute changes

- Meeting time
- Participants

Discussions not relevant for the workshop purpose

Questions you cannot answer

Participants question the workshop purpose

Role of consultants is questioned

How to handle

- Refer to preparation & purpose
- Rework agenda with the group

- Go/no-go?
- Discuss changes to agenda
- Decide potential follow-up

- Freeze frame – resulting in
 - ✓ Parking lot, or
 - ✓ Reworked agenda

- Workshop setting \neq present deliverables!
- Prepare for these questions with client
- “W.D.Y.P”?
- Seek support from client sponsor
- Who can find the answer?

- Prepare for with your colleague
- Find out the real question – “Why do you ask?”
- Seek support from client sponsor
- Describe your view – prevent argumentation

- Secure and communicate clear consultancy roles
- Find out background for question
- Follow-up with the individual
- Remember: Don’t take it personally





Any questions?

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ola.haavik@bearingpointconsulting.com

The logo graphic consists of two white, curved lines that arch over the text. The top line is shorter and more pronounced, while the bottom line is longer and more subtle, creating a sense of depth and movement.

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