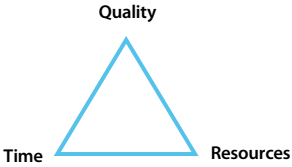
3

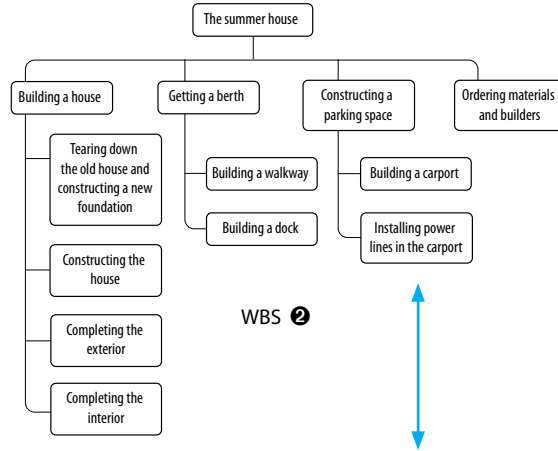
Planning

Purpose/goal → **Scope** →

Why?
What?



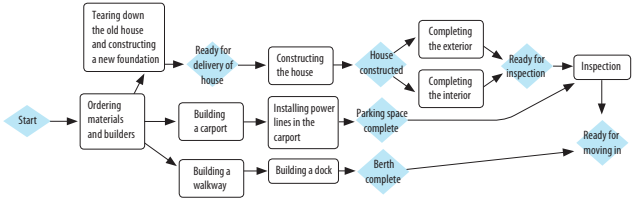
❶ Check the purpose and objective



❷ Define the scope with a WBS

❸ Check against the requirements

Logical network → **Schedule**

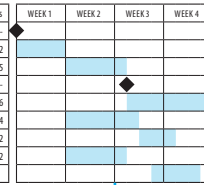


Logical network/Activity plan ❹ ❺

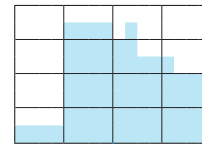
❻ Activity list

ID	Activity name	Time	Ber	Rs
1	MS 1 Project start	-	-	-
2	Order mtrls & builders	5	1	2
3	Tear down house	7	2	5
4	MS 2 Ready for delivery	-	3	-
5	Construct the house	10	4	6
6	Construct the carport	8	2	4
7	Install power lines	7	6	2
8	Construct the walkway	6	2	2
9				

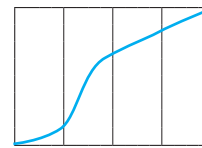
❼ Calendar



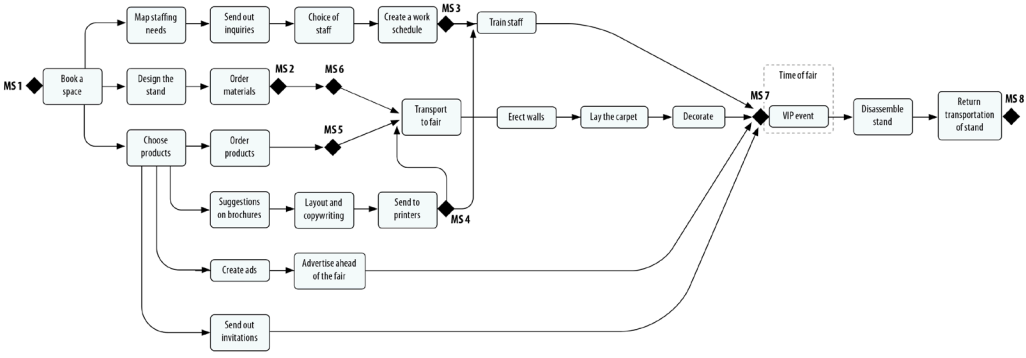
❽ Resource histogram

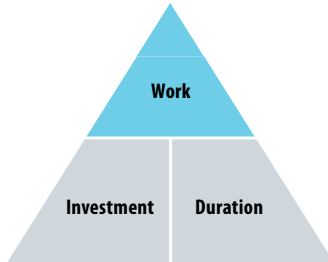


Accrued budget ❾



❹ **Create a rough plan**
❺ **Break down the work packages into activities**
❻ **Estimate resource needs, duration and work hours**
❼ **Create a schedule**
❽ **Periodized budget**
❾ **Accumulated budget**


MS 1
Book a space
Map staffing needs
Send out inquiries
Choice of staff
Create a work schedule
MS 3
Train staff
Design the stand
Order materials
MS 2
MS 6
Transport to fair
Choose products
Order products
MS 5
Suggestions on brochures
Layout and copywriting
Send to printers
MS 4
Create ads
Advertise ahead of the fair
Send out invitations
Eject walls
Lay the carpet
Decorate
Time of fair
MS 7
VIP event
Disassemble stand
Return transportation of stand
MS 8



- Work = Investment × Duration = Number of people × Calendar time

ID	Activity name	Duration	Dependency	Resources	Work time
MS 1	Project initiated	0			
1	Book a space	5	MS1	1	4
2	Choose products	10	1	3	12 x 3 = 36
3	Order products	2	2	2	16 x 3 = 32
4	Design the stand	15	1	3	40 x 3 = 120
5	Order materials	10	4	2	8 x 2 = 16
MS 2	Materials ordered		3; 5		
6	Map staffing needs	2	1	3	4 x 3 = 12

ID – identification number for activity.
Activity name – what the activity is called.
Description – the result that the activity is supposed to deliver.
Duration – the calendar time the activity may use. Alternatively: start and finish time (Days).
Dependency – connections to earlier activities or milestones.
Resources – number of people planned, should be supplemented with required competencies.
Work time – the time used to performed the activity (Hours).

ID	Dependencies
Description	
Start	Work / End

▸ **Activity description – ID number, Dependencies, Start and end points and Duration.**

Activity list

Calendar

(Period when ordered materials are produced)

ID	Activity	Duration (days)	Dependency	Resources (n)	Work time (hours)
MS 1	Project initiated	0			
1	Book a space	5	MS1	1	4
2	Choose products	10	1	3	12 x 3 = 36
3	Order products	2	2	2	16 x 2 = 32
4	Design the stand	15	1	3	40 x 3 = 120
5	Order materials	10	4	2	8 x 2 = 16
MS 2	Material is ordered		3; 5		
6	Map staffing needs	2	1	3	4 x 3 = 12
7	Send out inquiries	1	6	1	4
8	Choose staff	10	7	3	16 x 3 = 32
9	Create a work schedule	3	8	1	4
MS 3	Staffing organized		9		
10	Suggestions on brochures	5	2	3	8 x 2 = 16
11	Layout and copywriting	10	10	2	30 x 2 = 60
12	Send to printers	1	11	1	2
MS 4	Sales materials complete		12		
13	Create ads	5	2	2	24 x 2 = 48
14	Advertise ahead of the fair	60	13	1	10
15	Train staff	2	MS3; MS4	6	6 x 6 = 36
16	Send out invitations	5	2	3	4 x 3 = 12
MS 5	Ordered products complete		3		
MS 6	Materials for stand complete		MS2		
17	Transport to fair	2	MS5	2	16 x 2 = 32
18	Erect walls	1	17	4	8 x 4 = 32
19	Lay the carpet	1	18	3	8 x 2 = 16
20	Decorate	2	19	4	16 x 4 = 64
MS 7	Stand complete		15; 20		
21	Participate in the fair	9	MS7	5	40 x 5 = 200
21	VIP event	0,5	22	8	4 x 8 = 32
22	Disassemble stand	1	21	4	8 x 4 = 32
23	Return transportation	2	22	2	16 x 2 = 32
MS 8	Project complete		23		

Total = 884 hours

Lag

Float

Lead

Delays, in projects referred to as Lag

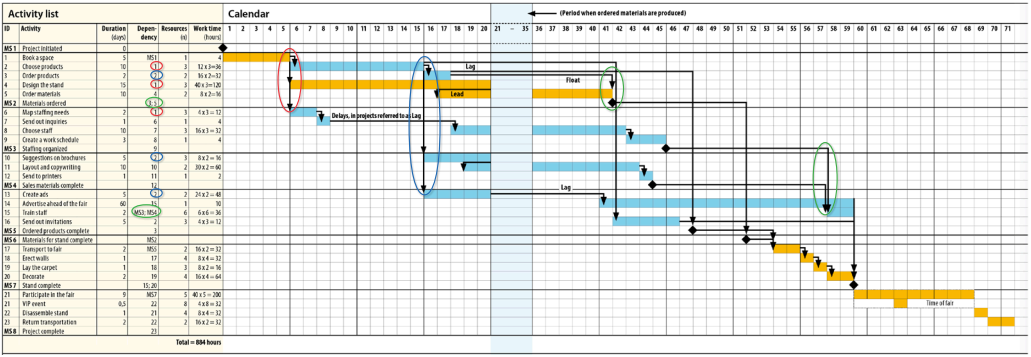
Lag

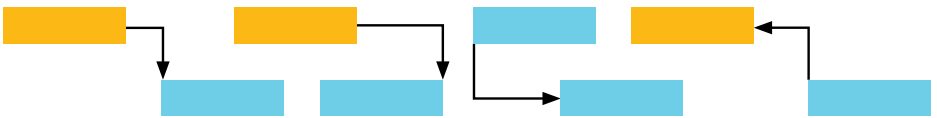
Time of fair

Periodized advance estimate/budget

A resource histogram shows how many resources/people must be available per day. Note that this project is not a full-time occupation. Estimated time for each activity is shown in the column Working time.

Resource need/day (number)





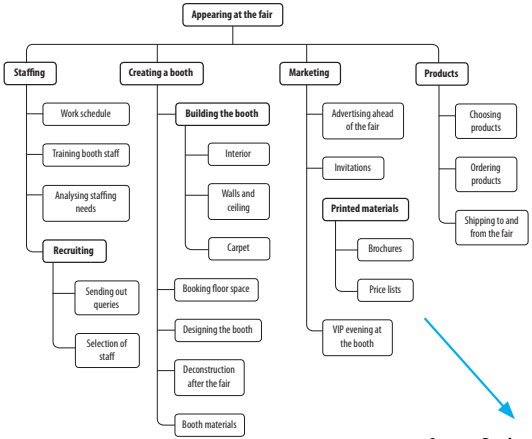
a) Finish-to-Start

b) Finish-to-Finish

c) Start-to-Start

d) Start-to-Finish

Scope

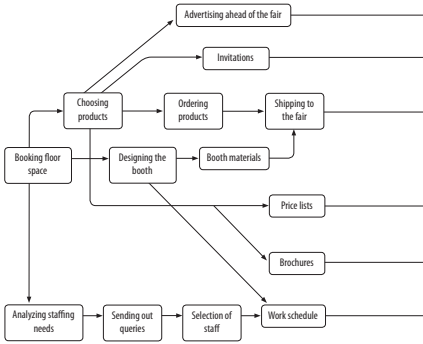


Map the scope of the project with a WBS

Create a Product Backlog

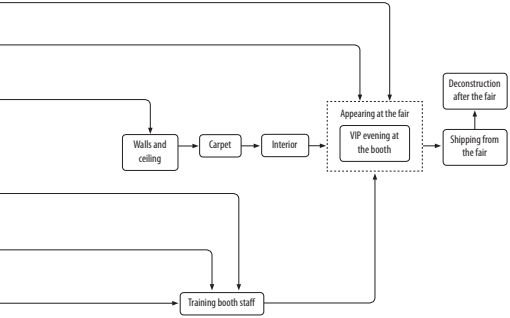
PRODUCT BACKLOG
Hire a construction firm
Selecting products for the stand
Transport the stand
Create a blueprint
Draw up a suggested layout
Choose a size for the stand
Staff the stand
Decide on a layout
Build a model
Construct the stand at the fair
+

Logical network



Show the workflow

Overall schedule



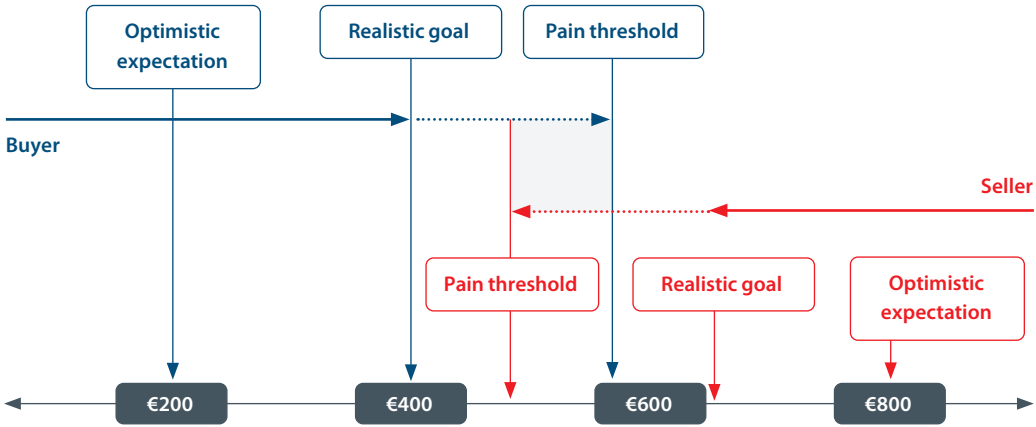
Activities	SPRINT 1	SPRINT 2	SPRINT 3	SPRINT 4	SPRINT 5	SPRINT 6
Book a stand						
Organize a stand						
Products for the fair						
Ads and handouts						
VIP evening						
Staffing						
Follow-up						

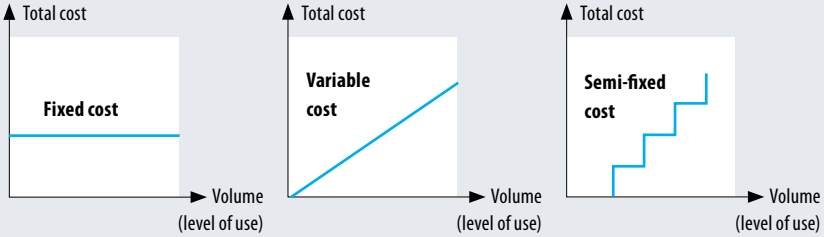
High-level schedule

Prioritize sprints

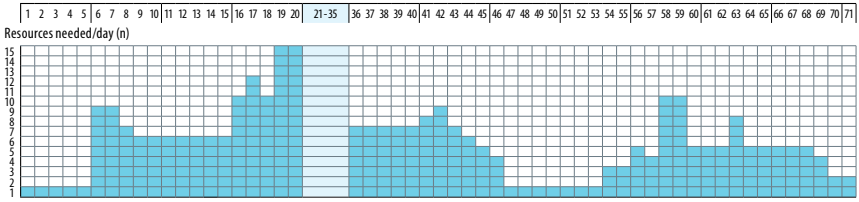
SPRINT BACKLOG

- Create a blueprint
- Draw up a suggested layout
- Select products
- Develop a prototype
- +

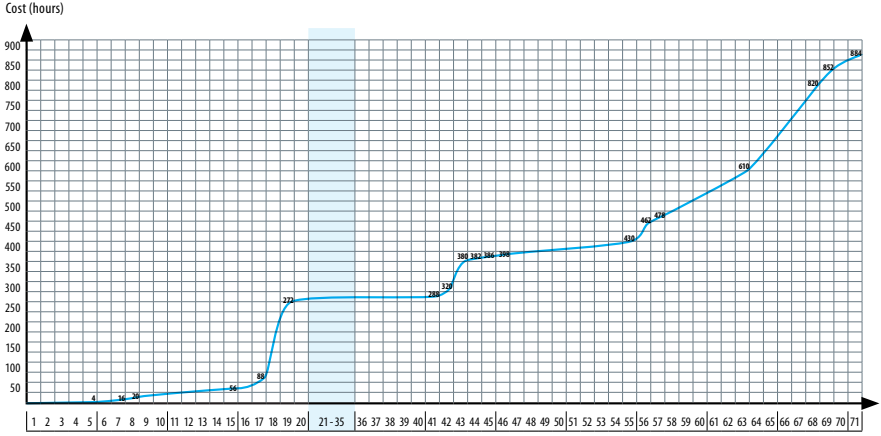

Optimistic expectation
Realistic goal
Pain threshold
Buyer
Seller
Pain threshold
Realistic goal
Optimistic expectation
€200
€400
€600
€800

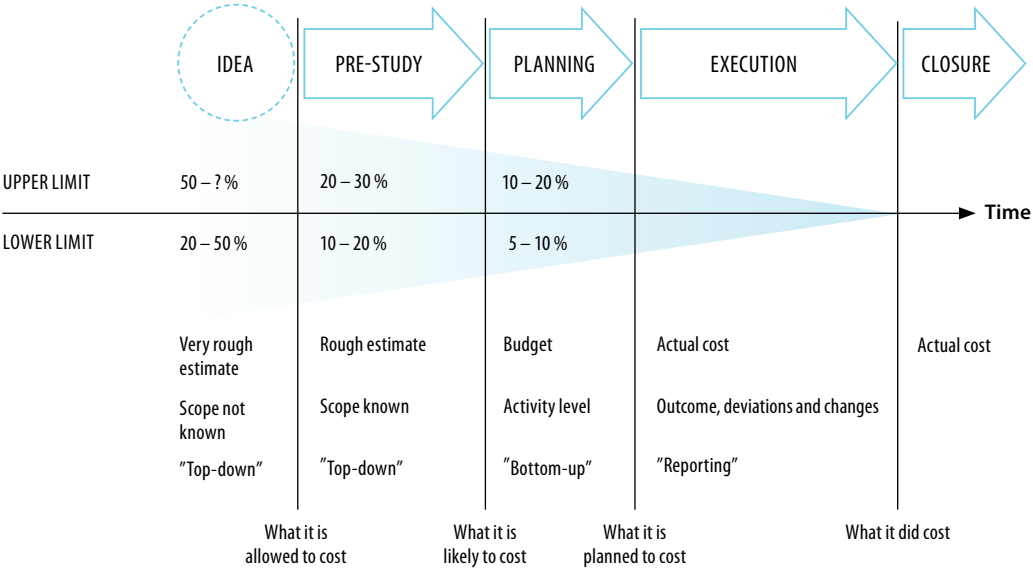

Total cost
Fixed cost
Volume
(level of use)
Total cost
Variable
cost
Volume
(level of use)
Total cost
Semi-fixed
cost
Volume
(level of use)

Periodized advance estimate/budget



Accrued advance estimate/budget




IDEA
PRE-STUDY
PLANNING
EXECUTION
CLOSURE
UPPER LIMIT
50 – ? %
20 – 30 %
10 – 20 %
Time
LOWER LIMIT
20 – 50 %
10 – 20 %
5 – 10 %
Very rough estimate
Scope not known
"Top-down"
Rough estimate
Scope known
"Top-down"
Budget
Activity level
"Bottom-up"
Actual cost
Outcome, deviations and changes
"Reporting"
Actual cost
What it is allowed to cost
What it is likely to cost
What it is planned to cost
What it did cost

Risk (L = Likelihood, C = Consequence)	Likelihood 1 to 5	Consequence 1 to 5	Risk value L × C =	Risk response
The system is too slow.	2	2	4	
Resource deficit for supplier.	2	5	10	Draw up contracts.
Internal resource deficit.	4	5	20	Sign on resources well ahead of time.
Employees need education.	3	3	9	
Immature technology with teething problems.	4	5	20	Review alternatives. Plan more tests and evaluations.
The current scanning system is not sufficient.	3	4	12	Request quotations for new equipment.
Low acceptability among users.	4	5	20	Present the purpose of the project at an early stage. Train users.

"Identification"	"Valuation"					"Action management"		
Risk event	Likelihood 1 to 5	Consequence 1 to 5	Timing 1, 2 or 3	Risk value L x Q x T =	Strategic Q, T or R	Risk action	Cost	Responsible party
Delay due to long contract negotiations.	3	3	2	18	T	Minimize risk by using a standard agreement.	Low	Project manager
Resource collision with another project.	2	5	1	10	R	Clear resource planning and early allocation.	Low	Project manager
Delay from supplier.	3	3	2	18	R	Include a damages clause in the agreement.	Medium	Purchaser
Unclear delimitations from the start.	5	2	2	20	Q	Go over the require-ments again.	Medium	Project manager
Low tech maturity among users.	3	5	1	15	R	Accept, no action.	–	–

Likelihood	How likely is it that the risk event happens? 5 = high, 1 = low
Consequence	Impact on the project? 5 = high, 1 = low
Timing	When can the risk event happen? 3 = soon, 2 = unclear, 1 = at a later stage of the project
Risk value	Combination of L, Q and T. Risk values over 15 should be managed.
Strategic	The risk event impacts Q (quality), T (time) or R (resources/costs) most. Should be weighed against the priority in Q, T and R in the project.
Risk action	Suggested action to decrease the risk value.
Cost	Assessment of the cost for the action. Should be weighed against what the risk event can cost if it occurs.

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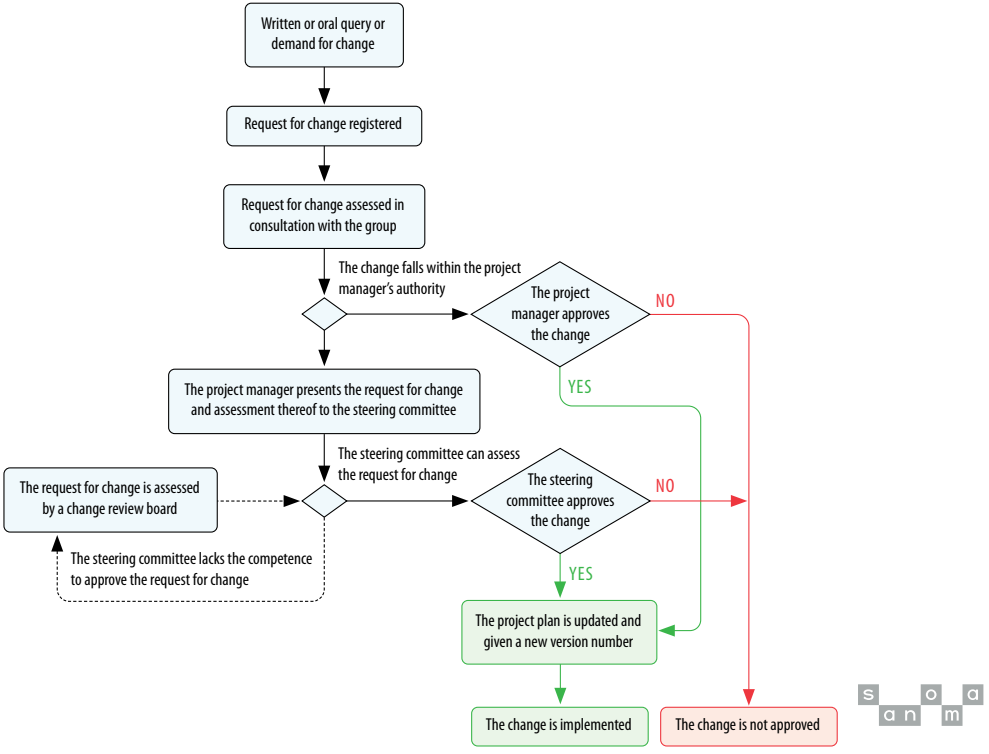
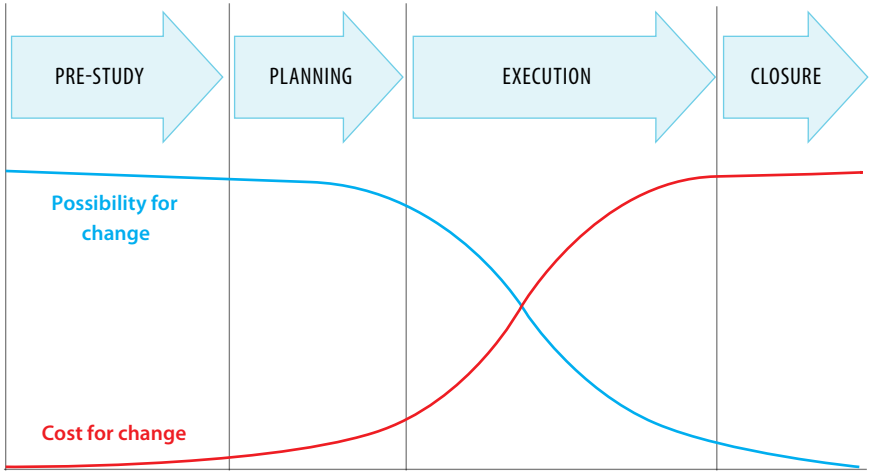
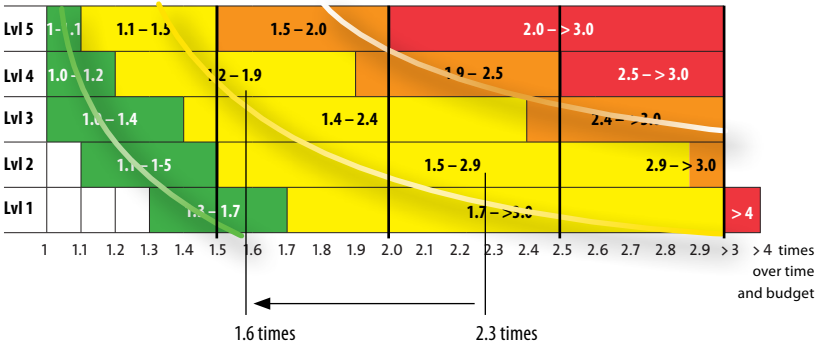
Likelihood
5
4
3
2
1
5 4 3 2 1 1 2 3 4 5
Opportunity
Risk


Written or oral query or demand for change
Request for change registered
Request for change assessed in consultation with the group
The change falls within the project manager's authority
The project manager approves the change
NO
YES
The project manager presents the request for change and assessment thereof to the steering committee
The steering committee can assess the request for change
The request for change is assessed by a change review board
The steering committee approves the change
NO
YES
The steering committee lacks the competence to approve the request for change
The project plan is updated and given a new version number
The change is implemented
The change is not approved


PRE-STUDY
PLANNING
EXECUTION
CLOSURE
Possibility for change
Cost for change



Project management maturity levels

5 – Optimized

A learning organization that continually improves its processes, with high flexibility and where management serves as a model.

4 – Controlled

The project process is integrated with other organizational systems, all projects use the processes, projects are governed by key figures and there is project portfolio management.

3 – Defined

A common project process, committed managers, a project management office, status reports including risk, change management and quality governance.

2 – Repeated

Several different project processes, projects begin through formal orders, unclear division of responsibility and unclear communications strategy.

1 – Conscious

No established project processes, unclear division of responsibility, events and individual choices determine the work and everything depends on the key personnel.