



# PROJECT FEASIBILITY APPRAISAL

## Background

Projects often entail a significant investment of capital and employee time. If the project goes off track, with missed milestones or a ballooning budget, many businesses choose to conduct a project appraisal. Project appraisals assess the current progress of the project and aim to identify underlying weaknesses in management or practices, and reveal whether formulated goals for scope (requirements), schedule (time-to-market), cost (effort) and quality (post-release defects) are realistic at all.

Internal appraisers may strive to achieve objectivity, but their status as employees leaves them open to pressure from peers and superiors in regards to their conclusions. If the appraiser and project manager are friends, for example, the appraiser may feel compelled to protect his friend's job by softening his conclusions or casting them in a more positive light. For external appraisers, the conclusions drawn about a project carry no personal or professional implications. Their outsider status allows them to assess the project without any bias and offer an objective assessment of what they discover.

## Our offering

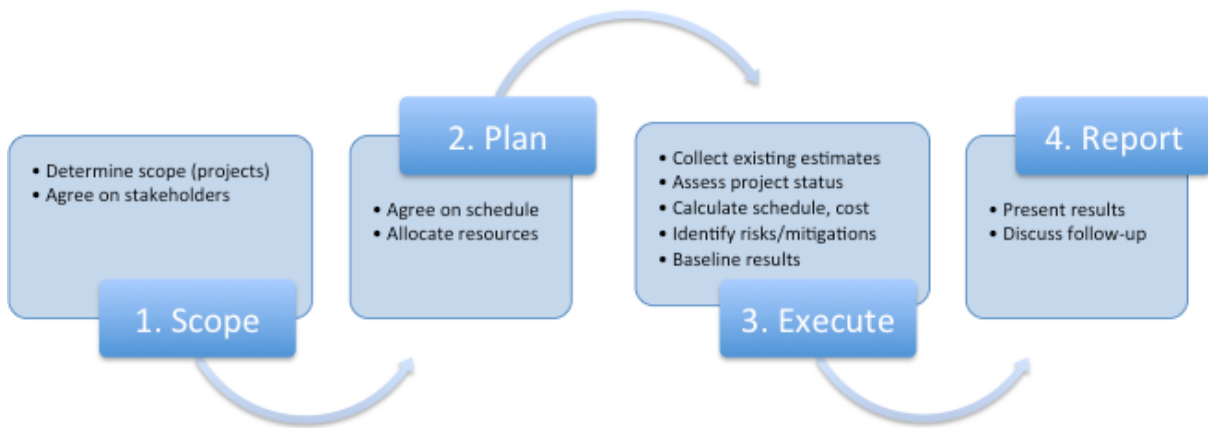
Our consultants have gained rich experience in appraising projects of various sizes in various industry segments. They have access to benchmarking data from different sources as well as powerful but hardly-known empirical models (e.g., SLIM, COCOMO II). The used models support R&D organizations in making trade-offs between scope, schedule, cost and quality. As a result, they offer the possibility of setting realistic objectives prior to the development of a (software) product. The cost versus schedule trade-off is an especially important one.

At the same, this experience and knowledge can be applied to running projects to quickly identify whether existing estimates for scope, schedule, cost and quality can still be considered realistic or not. In addition, it can be identified which bottlenecks prevent a project from steady progress towards meeting goals. Once these are known, remedies can be sought to reduce or even eliminate the impact of such bottlenecks.

In our company history, we have applied this expertise in many strategic but troublesome projects with a high success rate: death-march projects were killed whereas promising projects were restructured to meet their (adjusted) goals.

## For further information

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Typical phases for “Project Feasibility Appraisal”.

Putnam SLIM Model - Estimates					
PP		MBP		Size (LOC)	
Scenario 1	5'049	Scenario 4	5	Worst case	300'000
Scenario 2	8'362	Scenario 5	15	Most likely	250'000
Scenario 3	13'530	Scenario 6	25	Best case	200'000

Schedule (months)			
		Worst case	Best case
PP Scenario 1	MBP Scenario 4	39.0	40.3
	MBP Scenario 5	41.0	34.5
	MBP Scenario 6	38.1	32.1
PP Scenario 2	MBP Scenario 4	38.7	32.5
	MBP Scenario 5	33.0	27.8
	MBP Scenario 6	30.7	25.8
PP Scenario 3	MBP Scenario 4	31.5	26.4
	MBP Scenario 5	26.9	22.6
	MBP Scenario 6	25.0	21.0

Effort (staff months)			
		Worst case	Best case
PP Scenario 1	MBP Scenario 4	3'838	2'279
	MBP Scenario 5	7'190	4'269
	MBP Scenario 6	2'006	1'191
PP Scenario 2	MBP Scenario 4	3'759	2'232
	MBP Scenario 5	5'033	2'988
	MBP Scenario 6	1'081	642
PP Scenario 3	MBP Scenario 4	2'025	1'202
	MBP Scenario 5	2'711	1'609

Average Team Size			
		Worst case	Best case
PP Scenario 1	MBP Scenario 4	80	56
	MBP Scenario 5	175	124
	MBP Scenario 6	192	178
PP Scenario 2	MBP Scenario 4	52	37
	MBP Scenario 5	114	80
	MBP Scenario 6	164	116
PP Scenario 3	MBP Scenario 4	34	24
	MBP Scenario 5	75	53
	MBP Scenario 6	108	77

Productivity			
		Worst case	Best case
PP Scenario 1	MBP Scenario 4	0.85	0.73
	MBP Scenario 5	0.35	0.39
	MBP Scenario 6	0.26	0.29
PP Scenario 2	MBP Scenario 4	1.25	1.40
	MBP Scenario 5	0.67	0.75
	MBP Scenario 6	0.50	0.56
PP Scenario 3	MBP Scenario 4	2.31	1.39
	MBP Scenario 5	1.23	1.39
	MBP Scenario 6	0.92	1.04

Summary	Schedule	Effort	Team Size	Productivity
Minimum	21.0	642	24.3	0.26
Average	32.0	3'292	100.1	0.96
Maximum	48.0	9'627	252.5	2.60

COCOMO II - Estimates					
Effort Multiplier		Scale Factors (summed)		Size (LOC)	
Scenario 7	1.47	Scenario 10	25.23	Worst case	300'000
Scenario 8	1.00	Scenario 11	18.97	Most likely	250'000
Scenario 9	0.96	Scenario 12	12.65	Best case	200'000

Schedule (months)			
		Worst case	Best case
EM Scenario 7	SF Scenario 10	45.3	38.8
	SF Scenario 11	36.5	31.7
	SF Scenario 12	29.6	26.1
EM Scenario 8	SF Scenario 10	48.5	40.2
	SF Scenario 11	38.0	33.0
	SF Scenario 12	31.0	27.3
EM Scenario 9	SF Scenario 10	46.3	39.6
	SF Scenario 11	37.5	32.5
	SF Scenario 12	30.6	26.9

Effort (staff months)			
		Worst case	Best case
EM Scenario 7	SF Scenario 10	2'761	2'048
	SF Scenario 11	2'289	1'466
	SF Scenario 12	1'597	1'049
EM Scenario 8	SF Scenario 10	2'222	1'393
	SF Scenario 11	1'558	997
	SF Scenario 12	1'086	713
EM Scenario 9	SF Scenario 10	2'141	1'336
	SF Scenario 11	1'494	956
	SF Scenario 12	1'042	684

Average Team Size			
		Worst case	Best case
EM Scenario 7	SF Scenario 10	63	53
	SF Scenario 11	55	46
	SF Scenario 12	54	40
EM Scenario 8	SF Scenario 10	48	35
	SF Scenario 11	41	30
	SF Scenario 12	35	26
EM Scenario 9	SF Scenario 10	46	34
	SF Scenario 11	40	29
	SF Scenario 12	34	25

Productivity			
		Worst case	Best case
EM Scenario 7	SF Scenario 10	0.916	0.81
	SF Scenario 11	1.09	1.14
	SF Scenario 12	1.57	1.59
EM Scenario 8	SF Scenario 10	1.12	1.20
	SF Scenario 11	1.61	1.67
	SF Scenario 12	2.30	2.34
EM Scenario 9	SF Scenario 10	1.20	1.25
	SF Scenario 11	1.67	1.74
	SF Scenario 12	2.40	2.44

Summary	Schedule	Effort	Team Size	Productivity
Minimum	26.1	684	25.4	0.76
Average	35.5	1'519	41.8	1.55
Maximum	46.9	3'281	72.4	2.44

Snapshot showing example of scenario comparisons (schedule, cost, team size, productivity).