

	Case Name: Product Marketing	Sector	Construction (Industrial)	
	OR-AS Operations Research - Applications and Solutions www.or-as.be info@or-as.be	Baseline schedule	Schedule with resources	
			Schedule with costs	
		Risk analysis	Random Simulation	
Submitted by	Forough & Rojin		One of nine std. scenarios	
Date	2020	Project Control	User defined distributions	
File Name	Product Marketing		Automatic tracking	
			Tracking based on user input	

1. Project description

Project Authenticity

The project consists of *activity* data that were obtained directly from the actual project owner.

2. Project properties

2.1. Baseline schedule

General	
# Activities	111
Planned Duration (PD)	224 days*
Budget at Completion (BAC)	228,090 €
Renewable Resources	-
Consumable Resources	-

Network Topology	
Serial/Parallel (SP)	71%
Activity Distribution (AD)	79%
Length of Arcs (LA)	11%
Topological Float (TF)	3%

* Standard eight-hour working days

2.2. Risk analysis

Random simulation by ProTrack was performed using the default symmetric triangular risk distribution profiles.

	Cost sensitivity		
	avg (%)	std dev (%)	skew (-)
CRI-r	9.30	8.91	2.9
CRI-rho	18.68	15.44	2.3
CRI-thau	28.63	32.46	5.1

	Time sensitivity		
	avg (%)	std dev (%)	skew (-)
CI	9.0	28.6	2.9
SI	16.6	27.0	2.3
SSI	0.4	1.8	5.1
CRI-r	9.9	8.7	1.1
CRI-rho	17.1	14.4	1.3
CRI-thau	26.6	29.3	1.7

	Resource sensitivity		
	avg (%)	std dev (%)	skew (-)
CRI-r	0.18	0.19	1.0
CRI-rho	0.33	0.17	-0.1
CRI-thau	0.41	0.40	0.7

3. Project control

3.1 simulated forecast accuracy

simulated EAC (t) accuracy		
Method - PF	MAPE (%)	MPE (%)
PV - 1	11.18	10.75
PV - SPI	12.37	8.5
PV - SCI	12.75	9.1
ED - 1	9,625	7.95
ED - SPI	10,125	5.95
ED - SCI	10,135	6.1
ES- 1	8.68	9.6
ES- SPI(t)	9.37	8.75
ES - SCI(t)	9.68	8.9

simulated EAC accuracy		
Method - PF	MAPE (%)	MPE (%)
1	0.375	-0.25
CPI	0.75	0
SPI	8.125	-3
SPI (t)	5.875	-1.8
SCI	8.125	-2.75
SCI (t)	5.875	-1.6
0.8 CPI + 0.2 SPI	1.68	-0.4
0.8 CPI + 0.2 SPI (t)	1.43	-0.2