

	Case Name: <b>Building a sustainable future</b>	Sector	Construction (residential building)	
	<b>OR-AS</b> Operations Research - Applications and Solutions <a href="http://www.or-as.be">www.or-as.be</a> <a href="mailto:info@or-as.be">info@or-as.be</a>	Baseline Schedule	Schedule with resources	
Submitted by	Leonie Malfait, Jolien Plouy, Sarah Vanwildemeersch, Florence Seynaeve, Emma Verplancke	Risk Analysis	Schedule with costs	
			Random simulation	
Date	December 2023	Project Control	One of nine std. scenarios	
File Name	C2023-14		User defined distributions	
			Automatic tracking	
			Tracking based on user input	

## 1. Project description

Project authenticity

The project considers the incorporation of a sustainability objective to the project management scope of building a environmentally friendly home. Additionally, the building process is evaluated to identify potential points of improvement in terms of project cost and duration.

## 2. Project properties

### 2.1. Baseline Schedule

General	
# Activities	34
Planned Duration (PD)	190*
Budget At Completion (BAC)	Confidential
Renewable Resources	-
Consumable Resources	-

\* standard eight-hour working days

Network topology	
Serial/Parallel (SP)	42%
Activity Distribution (AD)	57%
Length of Arcs (LA)	1%
Topological Float (TF)	41%

### 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	-	-	-
CRI-rho	-	-	-
CRI-tau	-	-	-

	Resource sensitivity		
	avg [%]	std dev [%]	skew [-]
CRI-r	-	-	-
CRI-rho	-	-	-
CRI-tau	-	-	-

	Time sensitivity		
	avg [%]	std dev [%]	skew [-]
CI	47.12	50.29	0.12
SI	8.59	19.41	3.71
SSI	6.99	16.19	3.74
CRI-r	8.01	15.39	3.95
CRI-rho	7.58	15.33	4.05
CRI-tau	7.42	10.79	4.30