Attachment 4: Risks of a real time information system

MWH has executed a thorough risk assessment to provide an overview of the most significant risks so that appropriate measures can be implemented to reduce the probability or consequences of the risks. The risk assessment is also used to provide a robust cost estimate for the implementation of a Real Time Information system.

The different risks that have been detected are summed up in the figure below. In order to compare the different risks, each of the risks has been quantified. There are three factors that are considered in this analysis:

- What is the likelihood of a risk occurring?
- What is the impact on the project when a risk occurs?
- To what extent can a risk be mitigated?

Those factors are estimated using the following standard quantification:

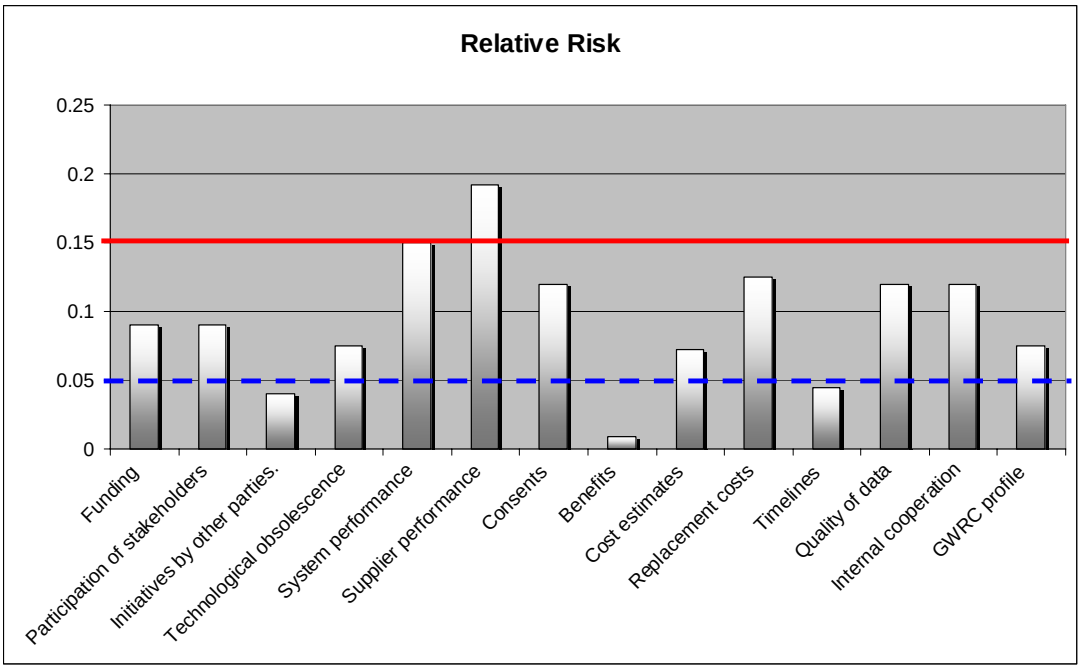
Likelihood		**Impact**		**Mitigation**	
Highly unlikely	0.1	No effect	0.1	Excellent	0.1
Unlikely	0.3	Minimal effect	0.3	Effective	0.3
Could happen	0.5	Moderate effect	0.5	Moderate	0.5
Will probably happen	0.8	Significant effect	0.8	Low effectiveness	0.7
Will happen	1	Disastrous	1	Ineffective	1

After all risks are quantified the final risk factor for each risk is calculated by multiplying the individual scores on likelihood, impact and mitigation.

The following figure provides an overview of the risk factors associated with each of the recognized risks. The risks can be categorised as follows:

Range	**Category**
Lower than 0.05	Low risk
0.05 - 0.15	Moderate risk
Higher than 0.15	High risk

The different cut-off lines are drawn in the figure below, which sums up the relative risks:


Relative Risk
0.25
0.2
0.15
0.1
0.05
0
Funding
Participation of stakeholders
Initiatives by other parties.
Technological obsolescence
System performance
Supplier performance
Consents
Benefits
Cost estimates
Replacement costs
Timelines
Quality of data
Internal cooperation
GWRC profile