

Integrated Cost and Schedule Risk Analysis

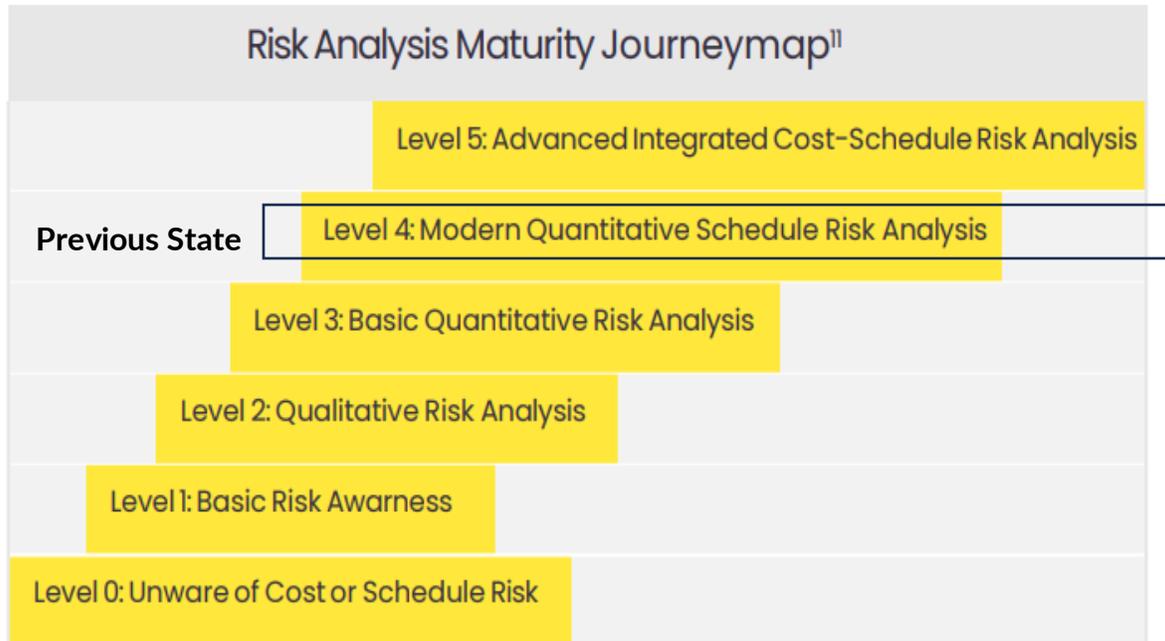
An Enterprise Methodology for Greater Efficiency & Productivity



The Traditional Approach to Risk Analysis



The Traditional Approach

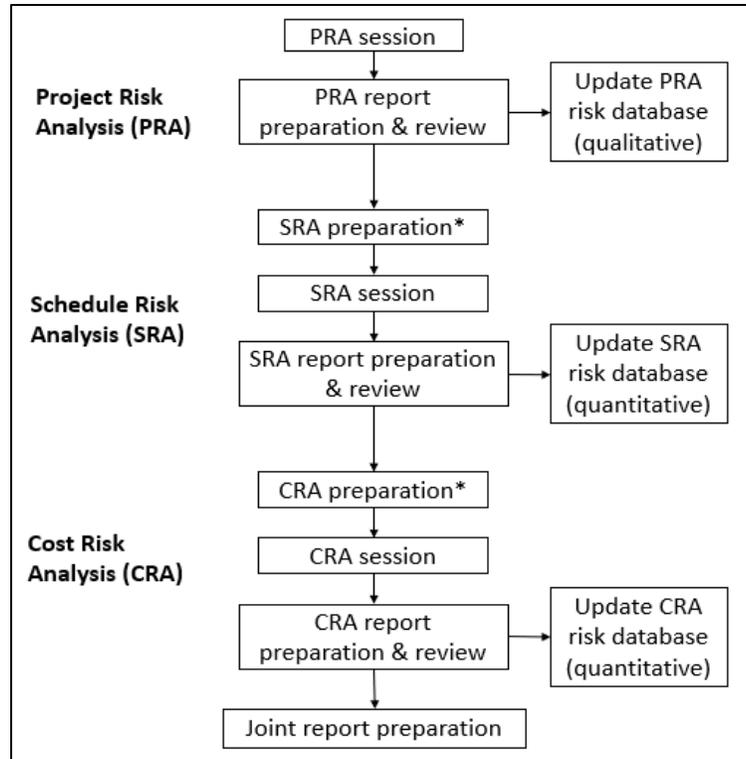


Risk Analysis Maturity Journeymap as presented in PMI Global Congress Asia Pacific, 2008.

Previous state - The Traditional Approach

- At this state, the risks are identified, quantified and modelled against the project schedule.
- However, the Project Risk Analysis (PRA), Schedule Risk Analysis (SRA) and Cost Risk Analysis (CRA) are conducted separately, which requires a lot of resources and manpower.
- Often, the separate sessions are not unified in objectives and the attendees for are different people, which impacts the range of input and magnitude of each assessment.
- The result of SRA and CRA are mostly not in unison, i.e. lack of cost connection to the impact of schedule duration.
- No single source of truth for risk as the risk register will be added during SRA and CRA, and not updated in PRA.
- Consequently, we cannot achieve a comprehensive risk analysis to assess the right contingency amount, develop contingency plans and make better decisions to undertake a project investments or mitigate schedule/ cost overruns during execution.

The Traditional Approach



Process flow to conduct PRA, SRA, and CRA in a traditional method.

	Fastest Time (Day)	Manning Required (Pax)**
PRA preparation	1	2
PRA session	1	12
PRA report preparation, review & approval	3	3
SRA preparation*	1	2
SRA session	1	12
SRA report preparation, review & approval	3	3
CRA preparation*	1	2
CRA session	1	12
CRA report preparation, review & approval	3	3
Joint report preparation	2	3
TOTAL	17	54

Fastest time and manning required for PRA, SRA and CRA in a traditional method.

The Enterprise Approach to ICSRA



The Current State of ICSRA

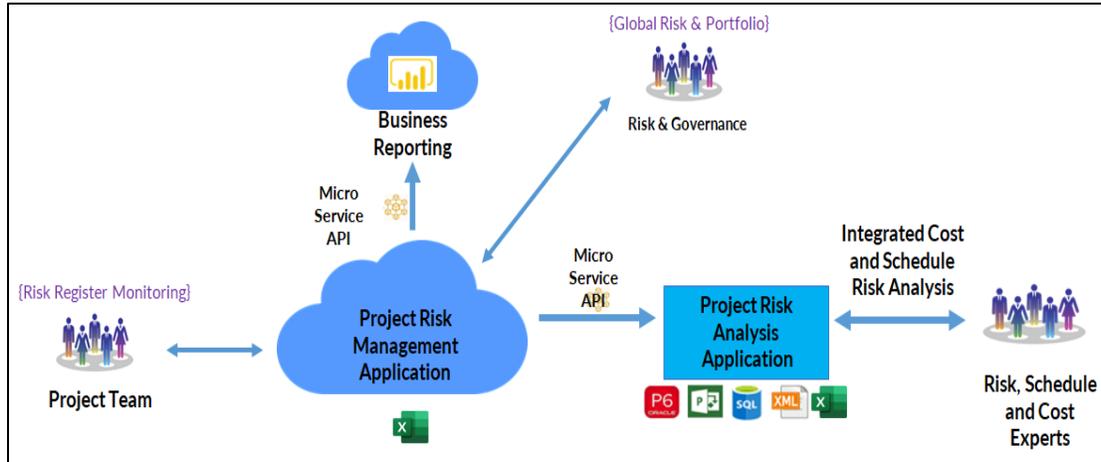


Risk Analysis Maturity Journeymap as presented in PMI Global Congress Asia Pacific, 2008.

Current state – An Enterprise Method for ICSRA

- At this state, we integrated the architecture framework to streamline and simplify the process for PRA, SRA and CRA.
- We invested in a project risk analysis application with backend database, multi-access for concurrent review, super user-friendly and increased speed to quickly model a comprehensive correlation of cost and schedule impact in our analysis.
- The tremendous improvement is being able to understand which risk factors have the greatest impact on cost and schedule, since the cost risk can now be correlated the schedule and the burn rate per unit time in a single analysis.
- This simplification is backed by a Project Risk Management application which is central to achieve one single source of truth for risk register, risk impact and reporting.
- Technically, it increases our capability to understand the common risks across portfolio and the range of impact it has, so that a higher management intervention may be required to mitigate this.
- The ICSRA also allow projects to quickly model the impact of risk to improve forecast accuracy for periodic reporting or whenever required during project execution

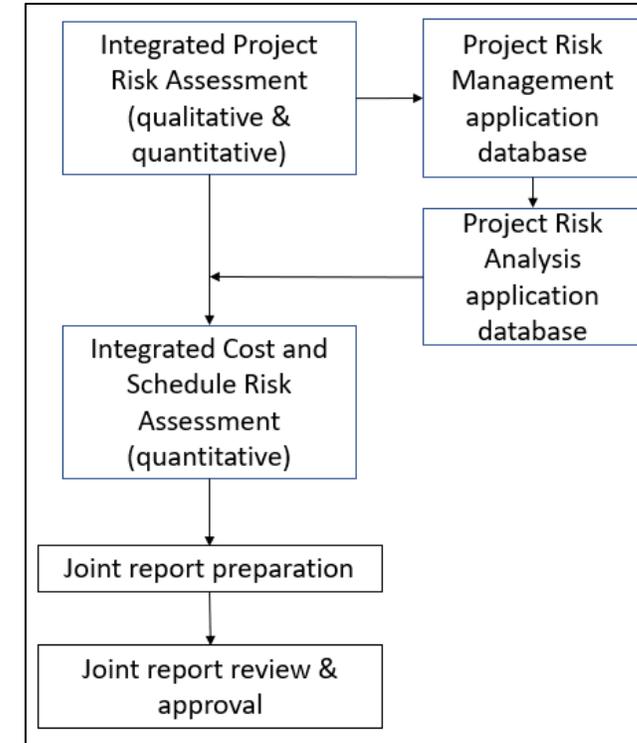
The Current State of ICSRA



Integrated Architecture Framework for ICSRA

	Fastest Time (Day)	Manning Required (Pax)**
PRA preparation	1	2
Integrated Project Risk Assessment	1	12
Integrated Cost and Schedule Risk Assessment	2	12
Joint report preparation	1	1
Joint report review & approval	2	2
TOTAL	7	29

Improved fastest time and manning required in ICSRA



Improved Process flow to conduct ICSRA

Conclusion



Conclusion

- The traditional method for project schedule and cost risk analysis requires substantial investment of time and resources, and it is frequently challenging to correlate the results due to a lack of understanding of their interdependencies.
- By enhancing the integrated architecture framework and powered by a sophisticated Project Risk Analysis and Project Risk Management application, we are able to vastly simplify the process, reduce time and resources required to perform risk analyses, and able to improve schedule and cost risk correlations to produce an integrated analysis for decision making.

	Total Fastest Time (Day)	Total Manning Required (Pax)
Traditional method to PRA, SRA and CRA	17	54
ICSRA	7	29
% Reduction	59%	46%

Comparison of time and manning required for traditional method for PRA, SRA and CRA versus ICSRA

- Additionally, the risk management is streamlined to produce one single source of truth for tracking, reporting and enabling predictive risk management at portfolio level.



THANK YOU