

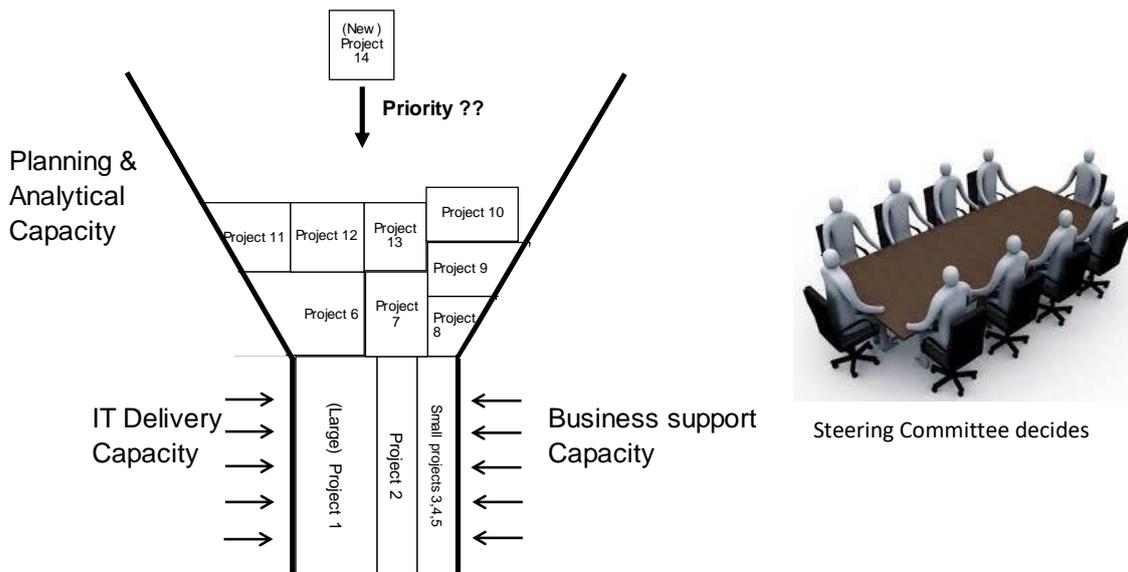
## USING @RISK WITH EPM TOOLS FOR PORTFOLIO PLANNING

### The role of EPM tools (in Governance and selection)

By EPM we mean Microsoft Project Server. This model would work equally well with other EPM tools such as EPMLive or PM3. The role of EPM would be to capture information about in flight projects as well as proposed new initiatives. Most EPM implementations are aligned to an organisation's delivery methodology. Most delivery methodologies have some sort of start up or initiation phase that require a decision to be made about whether or not a project should proceed.

EPM cannot provide decision makers with a position on financial risk. A decision on whether or not to approve a project should consider the risk of over spending and any associated risk mitigation strategies. @RISK can provide this analysis.

These decisions tend to focus on capacity, plus whether or not the project is viable in it's own right. They are made by groups of senior managers typically, sometimes with Finance involvement.



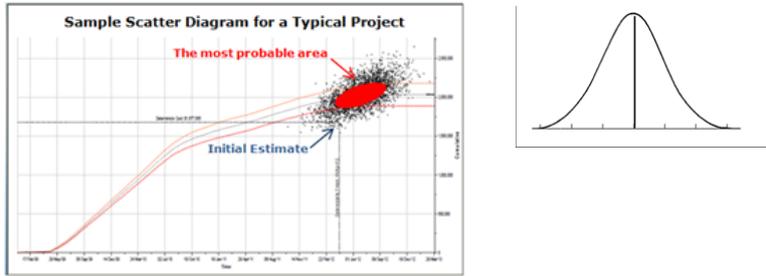
What is often missed is the impact on the portfolio as a whole, particularly any annual funding and cash flow constraints. A dedicated financial model using @RISK sensitivity forecasting can provide much richer project, program and portfolio information.

### The role of @Risk in planning

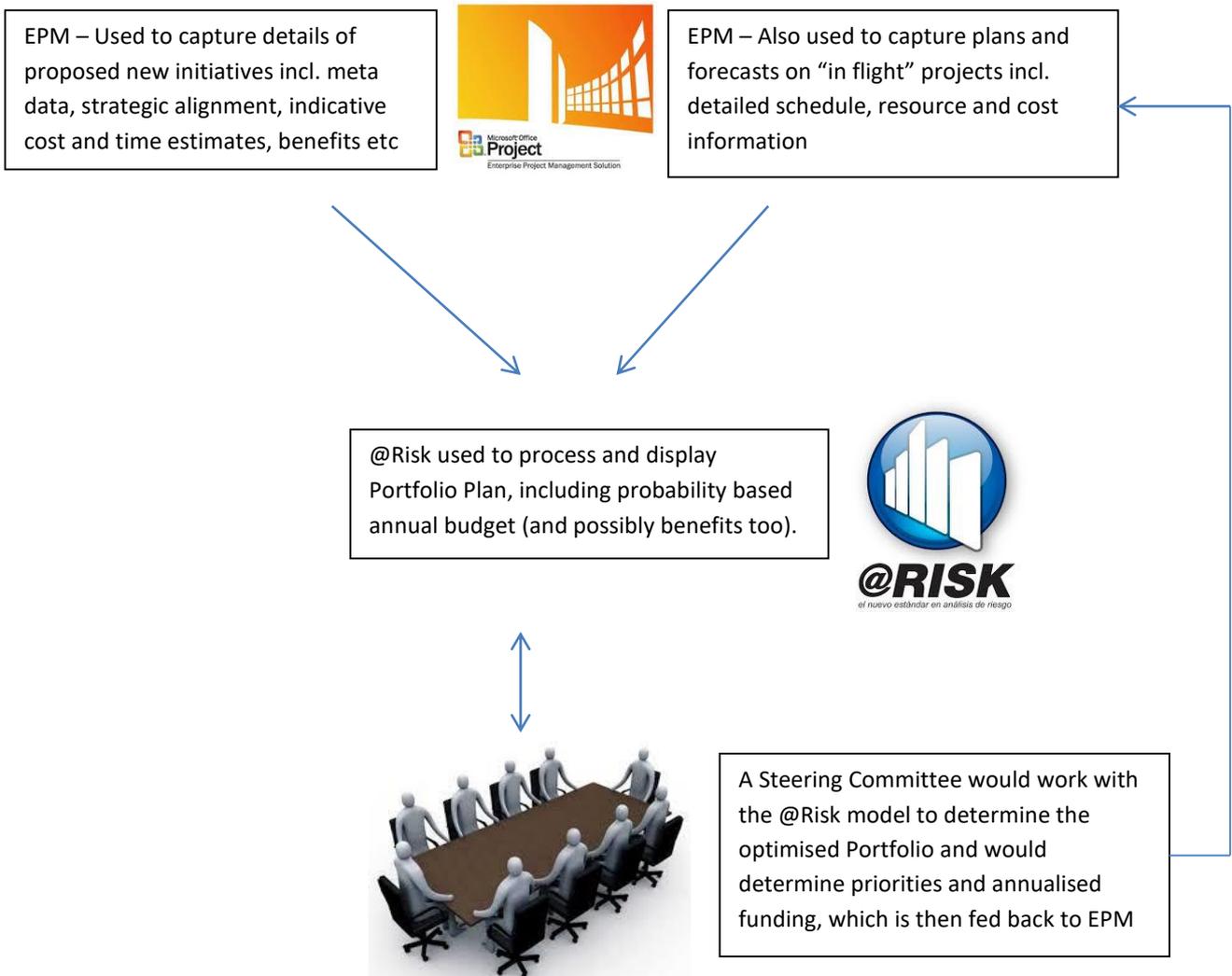
EPM tools lack the ability to calculate based on a statistical basis. Quoting from the @Risk web site:

*@RISK performs risk analysis using Monte Carlo simulation to show you many possible outcomes in your spreadsheet model—and tells you how likely they are to occur. It mathematically and objectively computes and tracks many different possible future scenarios, then tells you the probabilities and risks associated with each different one. This means you can judge which risks to take and which ones to avoid, allowing for the best decision making under uncertainty.*

Applying this to a Portfolio plan, @Risk can provide insight into the likelihood of delivery of a whole Portfolio of projects, based on various scenarios.



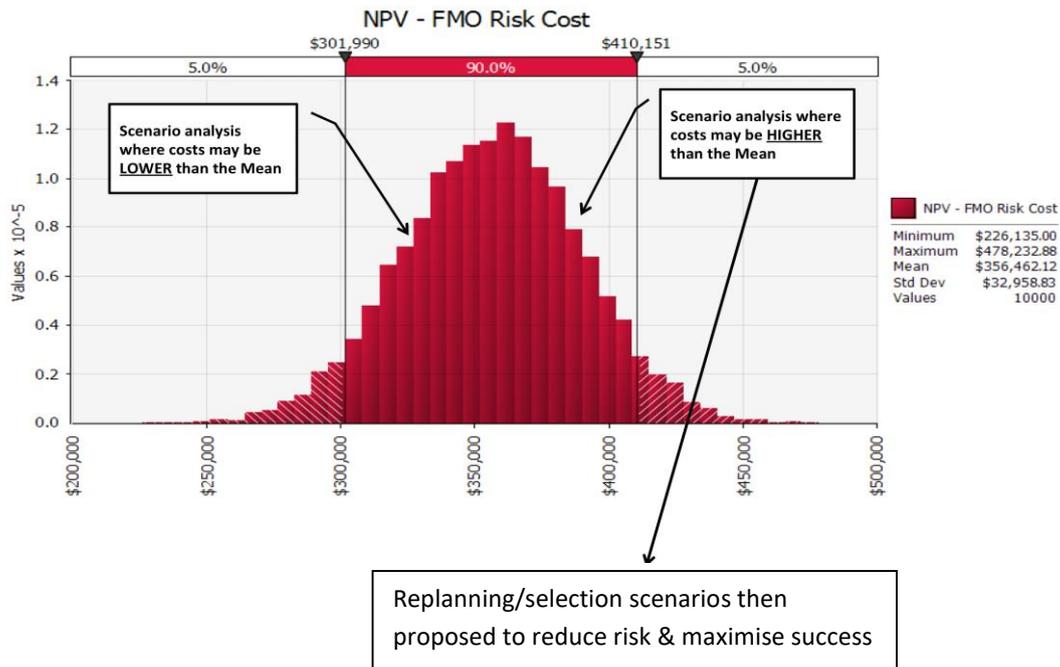
The diagram below captures the logical model of using @Risk and EPM for annual planning.



## The role of @Risk in Risk reduction

By providing a probability distribution with consideration to the worst-case scenario, @RISK allows the Portfolio to understand Inherent Risk (current state) and develop risk mitigation strategies to reduce risk to an acceptable Residual Risk (future state).

Less risk equates to a greater probability of achieving Portfolio and organisational outcomes.



## When this would be done

We suggest @Risk and EPM would be used together:

- On an annual basis to determine the future year Portfolio plan
- Quarterly, to provide cash-flow forecasts (which can often allow further optimisation and initiation of new smaller unplanned projects)
- Review of major projects/programs plan's (especially prior to setting a Baseline) to support fiscal governance and to understand financial risks.

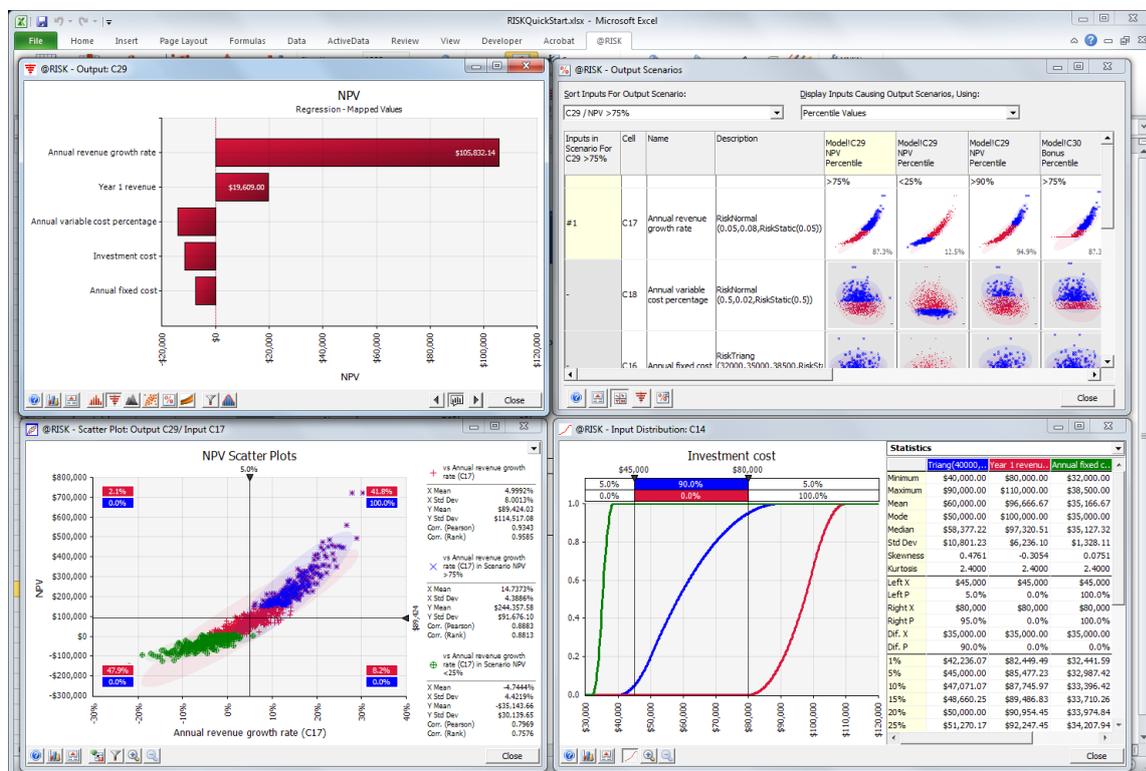
## Data Implications

For @Risk modelling, we need three point data elements. These will need to be obtained early in the project lifecycle, so it is expected there is quite a lot of uncertainty. The three point estimates could be gained through asking for “best case”/”worst case” then averaging for “most likely”, “most likely” with +/- % or literally asking for the three points. Three point estimates can be used for:

- Time
  - Cost
  - Time & Cost (best solution)
- Above plus benefits too

A further input into risk modelling is the weight attributed to the 3 cost variables. In this case, there are normally 2 options:

1. Assume an equal weighting to the low, likely and high estimates (1 to 1 to 1); or
2. Assume a greater weighting to the mean or most likely cost estimate. If this option is chosen, the weight is normally 1 to 4 to 1, i.e., the mean is 4 times more likely to occur than the low or high estimates. This delivers a different probability distribution and should be used when there is a high degree of confidence with respect to the mean estimate.



## **Integration Implications**

It is likely for integration there may need to be:

- A spreadsheet based interchange file format agreed
- Additional Custom fields provisioned in EPM – to capture 3 point estimates and any decision results (e.g. Priority)
- Additional report provisioned in EPM (to produce Spreadsheet)
- Possibly an integration from @Risk to EPM (results)
- Possibly an integration from @Risk to the Finance System (annual budgets)

## **Policy/Process/Governance Considerations**

Successful implementation of the above will require:

- Governance framework aligned to annual budgeting
- Strategic alignment KPIs and other meta data needs
- Prioritisation business rules
- Standardisation of planning/estimating processes (three point estimate)