

# Risk Registers

## **Purpose of the risk register**

All projects have some element of risk attached to them, which could adversely affect the project through unexpected increase in costs or failure to complete the tasks necessary to completed on time. Risk registers are a project management tool that allow these risks to be quantified and are widely used as part of the day-to-day administration of projects. They provide a mechanism for all those involved in the project, including the oversight committee and PPARC, to understand the threats and opportunities that might occur throughout the lifetime of the venture. In addition they show how these risks are being managed and give a helpful insight into the management of the project as a whole.

Risks affect the strategic objectives of the project and consequently need to be managed in a strategic way. The registers need to take account of all aspects of this, looking not only at bad things happening but also with good things not happening. In addition risk is not solely associated with negatives but also with opportunities and the impact and cost that this could have on the project.

Risk analysis at the start of the project helps managers to consider what might have an impact on their plan and stop it being completed and so allows them to put mechanisms into place that stop this happening. However as the project progresses new risks will occur and some may recede and so the register needs to be reviewed regularly.

It is important that all projects use similar mechanisms to report to PPARC and so the Office issues a proforma, not only to satisfy the requirements of the auditors but also so that PPARC management can compare different projects. Projects do not start with the same level of risk, for example a project using existing technology is inherently less risky than one using new technology/materials, but if all are using the same reporting mechanisms and guidelines these differences are more easily understood.

In putting a numerical value to each of the risks it is possible to gauge the overall risk of the project and to monitor how this changes over time. Risks will change throughout the lifetime of the project, initially they may be unknown and consequently the working allowance, which was built into the original project cost to cover these unknown risks, will need to be available but will not allocated to specific areas. As the project progresses the risks can begin to be identified and quantified and so more risks will be added in the early stages and the cost of taking mitigating action will be better understood. Further into the life of the project risks will be retired releasing the need for the working allowance and so freeing it for use in exploring opportunities that may arise to enhance the project, with agreement of the oversight committee.

## **Risk Analysis**

The risk value is obtained by considering the potential impact of the risk and then comparing it to the probability of it happening.

The potential impact can be graded as follows;

Low Grading 1	Insignificant /minor	No injury, low loss of £, minor loss of reputation	Minor changes to functionality, requiring remedial action or minor delay to schedule
Medium Grading 2	Moderate	Injuries need medical attention, significant loss of £, significant loss of reputation	Some functionality is compromised requiring changes to the science specification or delay to the schedule
High Grading 3	Major	Extensive injury, large loss of £, severe loss of reputation	Major risk of project failure to meet requirements or significant delay to schedule
Very High Grading 5	Catastrophe	Potential loss of life, very large loss of £	Catastrophic risk to project. Will mean project will face failure or very significant delay to schedule and great overspend

The impact scores deliberately leap from 3-5 to emphasise the jump from major to catastrophic impact.

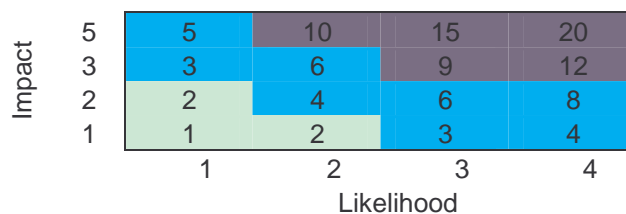
The project should decide what level of overspend they feel fits into these categories, however as a guideline a project with a budget of £25M might define impact as;

Low	Grading 1	Up to £50k
Medium	Grading 2	£50k - £100k
High	Grading 3	£100k - £250k
Very High	Grading 5	£250k +

Likelihood categories can then be graded as follows

Low Grading 1	Rare	Occurs in exceptional circumstances
Medium Grading 2	Possible	Might occur
High Grading 3	Likely	Quite likely to occur
Very High Grading 4	Almost certain	frequent

This in turn gives rise to a risk matrix, which indicates the significance of the risk and so sets out when action needs to be taken



Risk significance

- 1-2 low risk
- 3-8 medium risk
- >8 high risk

## **Risk Management**

Once the risks have been identified and quantified the risk can be responded to in different ways;

- immediately by modifying the project plan through
  - elimination – risks are removed so they no longer a threat to the project
  - reduction – action taken immediately to minimise the risk
- by putting in place a contingency action, which will only be followed if the risk materialises
- by transferring risk to someone else, e.g. so impact is borne by a contractor
- by accepting the risk – where the costs of taking action outweigh the benefits

## **The form**

1. Ref – reference number for easy identification
2. Risk description – a textual description of the perceived risk
3. Potential Impact: A textual comment of what could happen if the risk is realised – best and worst case scenario.
4. Inherent Risk Score – as things stand initially and if nothing was done;
  - a. Likelihood - how likely is the risk to occur on a scale of 1-4
  - b. Impact – how great would the impact on the project be if the risk was realised. On a scale of 1,2,3,5, where 1 is low.
  - c. Total – Likelihood x Impact
5. Existing controls: A textual description of mechanisms already in place to minimise the risk.
6. Mitigating factors: A textual description of known factors which mean that the risk may not occur or contingency measures which can be implemented.  
It is useful to give an indication of the cost of mitigation and to show whether this is in place or intended.
7. Residual risk score: Same process as column 4 after taking columns 5 and 6 into account.  
The risks can then be rated as low, medium or high on the basis of this figure  
1-2 = low risk  
3-8 = medium risk  
>8 = high risk
8. Comment- Acceptable level of risk? Textual comment.
9. Proposed Action: Any additional action that can be applied to minimise the risk further.

In addition it is useful to have some idea of the lifetime of the risk (for example by including the date the risk was added to the register and the date it is due to/does retire) and a clear mechanism for identifying changes in the risk register, the comments column can be used to show why the risk has been retired or changed.

The main source of guidance on Good practice associated with Risk Management is:

RCIAS Good Practice Bulletin Number 8;

Further advice can be obtained from Jill Drinkwater, Swindon Office Finance Division ([jill.drinkwater@pparc.ac.uk](mailto:jill.drinkwater@pparc.ac.uk)). There are also several other sources of reference the main ones being:

HM Treasury's 'Orange Book' – "Management of Risk – A Strategic Overview";  
HM Treasury's "Managing the Risk of Fraud – A Guide for Managers";  
HM Treasury Strategy Units "Risk: Improving Government's Capability to Handle Risk and Uncertainty";  
HM Treasury's 'Green Book' – "Appraisal and Evaluation in Central Government"  
OGC's "Management of Risk: Guidance for Practitioners".  
NAO's "Managing Risk in Government Departments"