Risk Methodology

Introduction

Queen Mary’s risk management methodology conforms to standard practice, but is tailored to QM’s requirements and reflects its internal systems and procedures, for example, relating each risk to Strategic KPIs.

The Risk Management Structure

[Diagram showing the risk management structure]

Risk management takes place at all levels and in all areas of QM, using the same methodology and reporting through the use of Risk Registers. These are essentially the same at each level, although additional reports are produced at the Strategic Level, for reporting to Audit and Risk Committee, and Council.

Risks from the Strategic Register which are specifically relevant to a particular department, faculty, or school will be cascaded down to the lower level risk register by the representative of that area on the SRMG. Similarly, risks on school, department, or faculty risk registers which are considered to have a strategic impact will be cascaded up by that same representative.

The Risk Management Cycle

Because circumstances change and initial responses may not be effective, regular review is an important part of managing risk.

[Diagram showing the risk management cycle]
Risk Methodology

Methodology

Risk area
Risk is grouped according to the strategic area that it relates to:
- Knowledge Creation
- Knowledge Dissemination
- Student Experience
- Innovation & Enterprise
- Governance
- Estates
- Financial & Commercial
- Staff Management and Development
- Information
- Reputation and External Relations

Strategic KPI
Each risk is related to one or more Strategic KPI, as published in the Strategic Plan 2010-15.

Owner and Lead Officer
The Owner has overall responsibility for the management and reporting of the risk, and maybe an individual or a committee.

The Lead Officer has operational responsibility for the risk, ensuring that mitigating actions (Controls) are in place and ensuring that they are operating effectively.

Term
This is the period in which the risk may occur:
- Short  Up to 2 years
- Medium Likely to continue for 2 to 5 years
- Long  Lasting more than 5 years
- Enduring Those likely to continue indefinitely are expressed as Long Term.

Controls
These are actions that are intended to manage risk by reducing its impact, its likelihood of occurrence, or both. They should be genuine, practicable and realistic.

See Appendix 1

Impact
This indicates the seriousness of the risk materialising, and is scored on a scale of 1 – 5:
1. Negligible
2. Minor
3. Moderate
4. Major
5. Catastrophic

See Appendix 2
Risk Methodology

Likelihood
This represents the likelihood of the risk materialising, and is scored on a scale of 1 – 5:
1. Rare
2. Unlikely
3. Possible
4. Likely
5. Almost Certain

See Appendix 3

Risk Score
This is a product of the Impact score multiplied by the Likelihood score, which is calculated twice:

The Initial Risk Score represents the initial estimation of the severity of the risk:

<table>
<thead>
<tr>
<th>Initial risk score</th>
<th>Impact x Likelihood before controls are in place</th>
</tr>
</thead>
</table>

The Residual Risk Score is calculated by reassessing the risk taking onto consideration the effect of the Controls on the Impact and likelihood:

<table>
<thead>
<tr>
<th>Residual risk score</th>
<th>Impact x Likelihood after controls are in place</th>
</tr>
</thead>
</table>

Controls in Place
Indicates the extent to which the Controls have been implemented:
A Implemented and operating effectively
B Identified and being implemented
C Not yet identified, incomplete or not operating effectively

Use of Controls
This provides a ‘sense check’ of the reliance on Controls based on the size of the difference between Initial and Residue Risk Scores:

L  < 50%   Reliance on Controls is not excessive
M  >= 50%  Controls should be checked to ensure that they are realistic and in place
H  >= 66%  Controls should be reviewed urgently to ensure that they are realistic and functioning properly

Further Actions
These can be considered as Controls that have yet to be implemented.

Direction of Travel
The Risk Register allows for the current ratings to be compared with those from the previous register. The Direction of Travel indicates whether the measure it relates to has Improved (↓), Worsened (↑) or is Unchanged (↔).
Definition of Controls

Controls are those actions which are taken to lower the impact of the risk or reduce the likelihood of the risk materialising, or both of these.

The possible effects of Controls are to:

- **avoid** risk, where the only option might be not to proceed with an activity or to withdraw from it
- **seek** risk, where risks have desirable potential consequences
- **modify** risk, to optimise potential opportunities and minimise threats
- **transfer** risk by measures including insurance, contractual arrangements, partnerships and joint ventures
- **retain** risk, where no further worthwhile actions can be devised and the risk is within the risk appetite (see below), or the only remaining responses are unacceptable for some reason.

One way of determining Controls is to consider the indicators of risks materialising and how these might be anticipated. For example:

<table>
<thead>
<tr>
<th>Risk</th>
<th>Indicator</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative student experience</td>
<td>NSS score</td>
<td>Internal survey that gives an early indication of NSS score</td>
</tr>
<tr>
<td>Quality of research is inadequate</td>
<td>National research assessment score</td>
<td>Review of research quality by external expert</td>
</tr>
<tr>
<td>Quantity of research is inadequate</td>
<td>Number of postgraduate research students</td>
<td>Benchmarking PGR numbers against competitor HEIs</td>
</tr>
</tbody>
</table>
## Definition of Impact

Impact indicates the potential seriousness should the risk materialise.

<table>
<thead>
<tr>
<th>Score</th>
<th>Impact</th>
<th>Possible consequences</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Negligible</td>
<td>Minimal impact or no discernable impact at all.</td>
<td>• slippage by one or two points in a newspaper league table</td>
</tr>
<tr>
<td>2</td>
<td>Minor</td>
<td>Impact of risk materialising or opportunity lost is unlikely to have any permanent or significant effect on performance or reputation: • loss of less than 1% of total turnover • no regulatory consequence • minor adverse publicity • minor reversible injury</td>
<td>• failure to apply for low value research grant • limited assurance of risk management audit • failure to improve in National Student Survey</td>
</tr>
<tr>
<td>3</td>
<td>Moderate</td>
<td>Impact of risk materialising or opportunity lost will have a significant effect on performance or reputation in the short term: • loss of up to 2% of total turnover in any year • limited regulatory consequence • local adverse publicity • major reversible injury</td>
<td>• overspend on capital programme • academic programme fails QAA audit • sustained fraud reported in relation to public funding</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Impact of risk materialising or opportunity lost will have a serious effect on performance or reputation in the medium term: • loss of over 2% of total turnover in any year • significant threat to a key business area • major savings programme required to address this in the medium term • significant regulatory consequence • negative headlines in national press • irreversible injury or death</td>
<td>• collapse of overseas recruitment • discipline’s financial position requires major restructuring programme to regain sustainability • health and safety regime found to be non-compliant and reported by national press</td>
</tr>
<tr>
<td>5</td>
<td>Catastrophic</td>
<td>Impact of risk materialising or opportunity lost will have a serious effect on performance or reputation in the long term: • loss of over 2% of total turnover in consecutive years • closure of a key business area • substantial regulatory consequence • sustained negative headlines in national press • irreversible injury or death</td>
<td>• HEFCE ceases to fund research • major discipline is unsustainable • failure to satisfy institutional audit • falsification of health-related research results condoned at a high level</td>
</tr>
</tbody>
</table>
Risk Methodology – Appendix 3

Definition of Likelihood

Likelihood indicates the chance of a risk materialising in the given Term:

<table>
<thead>
<tr>
<th>Score</th>
<th>Likelihood</th>
<th>Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>2% likely to happen: a one in fifty chance</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>5% likely to happen: a one in twenty chance</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>10% likely to happen: a one in ten chance</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>20% likely to happen: a one in five chance</td>
</tr>
<tr>
<td>5</td>
<td>Very high</td>
<td>50% or over: a one in two chance or more likely to happen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>than not</td>
</tr>
</tbody>
</table>
Risk Methodology – Appendix 4

Risk Severity

The severity of the Residual Risk is broken down into three levels, with actions accorded using a ‘traffic light’ system as follows:

<table>
<thead>
<tr>
<th>Color</th>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN</td>
<td>Low</td>
<td>Review at least annually</td>
</tr>
<tr>
<td>AMBER</td>
<td>Medium</td>
<td>Review and monitor 6-monthly as a minimum and quarterly if necessary</td>
</tr>
<tr>
<td>RED</td>
<td>High</td>
<td>Review constantly and monitor monthly</td>
</tr>
</tbody>
</table>

Risk Matrix

The Risk Matrix is a graphical representation of the Risk Severity and the extent to which the Controls mitigate it. This is used only at the Strategic level for reporting to the Audit and Risk Committee and Council.

Risk Appetite

Risk appetite is defined as the level of risk that an institution is prepared to tolerate. At Queen Mary, no risk with a Residual Risk Score of 20 or greater is tolerated without:

- Confirmation from the risk owner that the objective to which the risk relates is of high strategic importance
- A statement from the risk owner that there are no further mitigating actions that can be taken to lower the risk score