



MEMORIAL UNIVERSITY ENTERPRISE RISK MANAGEMENT FRAMEWORK

2019

Prepared by

Office of the Chief Risk Officer

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INTRODUCTION

Whether it be innovative research initiatives, dynamic field studies, public engagement or any one of the multitude of activities that occur on and off campus every day, risk and opportunity are intrinsically linked to the very purpose of Memorial University.

Universities by their very nature are “risk takers”, however, there are limits to what is considered acceptable in pursuit of Memorial’s vision, mission and values. The purpose of Memorial’s Enterprise Risk Management Framework is to provide guidance on managing risks to an acceptable level while ensuring the strategic goals of the university are met. The university recognizes that it is critical to establish and maintain an approach to Enterprise Risk Management (ERM) that supports the achievement of its strategic priorities and objectives, and is a fundamental part of all university activities.

The Office of the Chief Risk Officer (OCRO) is responsible for coordinating risk management activities and procedures across the campuses. It provides support to Units in identifying, assessing, and managing risks. It shares best practices and expertise acquired from risk management activities across the university and at other institutions for the benefit of the entire university. It prepares, submits and presents regular reports, through the Enterprise Risk Management Committee, Vice-Presidents Council (VPC) and the President, to the Audit and Risk Committee of the Board of Regents on risk management.

TERMS

The use of consistent terminology is an important aspect of any ERM framework. It allows all members of the university community to communicate about risk in a comprehensive and cohesive manner. Here are some commonly used terms in Memorial's ERM Framework:

Enterprise Risk Management - A university-wide, systematic, comprehensive and coordinated process of identifying, measuring, managing and disclosing key risks to the University's mission and related goals and objectives.

Inherent Risk – The level of risk before the application of risk reduction controls.

Key Risk Indicator(s) - Metrics used by organizations to provide an early signal of increasing risk exposures.

Members of the University Community - Any person who teaches, conducts research, studies or works at or under the auspices of the University and includes, without limitation, all employees, all students; and any other person(s) while they are acting on behalf of or at the request of the University.

OCRO – Office of the Chief Risk Officer.

Probability – The likelihood or chance of an event occurring.

Residual Risk – The level of risk after the application of risk reduction controls.

Risk - The effect of uncertainty on objectives, resulting in positive and/or negative impact on the University's mission.

Risk Appetite - The amount and type of risk that the university is willing to take in order to meet its strategic objectives.

Risk Control – The action that avoids, transfer or mitigates various risks.

Risk Owner - The employee(s) designated to manage a particular risk. This is a functional description, not a position title. Normally it is the Unit Head(s).

Risk Register – Documented list of risks and associated risk ratings, key risk indicators, controls (either planned or in place) and the status of these risks.

Risk Tolerance - The acceptable variation relative to the performance of the achievement of objectives.

Severity – The impact or “how bad” something could be if it did occur. The determination is based on the four factors of Safety, Reputation, Financial and Recovery.

Unit - Academic or administrative units as defined [here](#) in the University's *Calendar*.

Unit Head - Deans, Department Heads, Division Heads, Heads of Schools, Directors, Executive Directors, University Librarian, University Registrar and other senior administrators at a comparable level; Associate Vice-Presidents and Vice-Presidents, as applicable.

University - Memorial University of Newfoundland.

University-related Activity – Any type of activity that is directly related to or arises out of the operations of the University at any location.

ROLES AND RESPONSIBILITIES

The OCRO assists Unit Heads in the establishment of their respective risk registers, after which, Unit Heads are responsible for maintaining the register on an ongoing basis, in consultation with the OCRO. Every Risk is assigned one or more Risk Owner(s). The Risk Owner assigns Risk Controls to be included in the Risk Register for each identified risk.

Using the Board of Regents approved risk ranking methodology, the OCRO gathers and consolidates the various Unit Risk Registers for accurate, timely and up-to-date information relating to the transfer, acceptance, mitigation or avoidance of risks by the University, for submission to the ERM Committee.

With support from the OCRO, Risk Owners are required to review their Risk Registers on a regular basis, not less than annually, to make appropriate updates, including indicating the status of any Risk Controls and adding and removing Risks, where appropriate.

Figure 1 depicts the roles and responsibilities of various groups throughout the university.

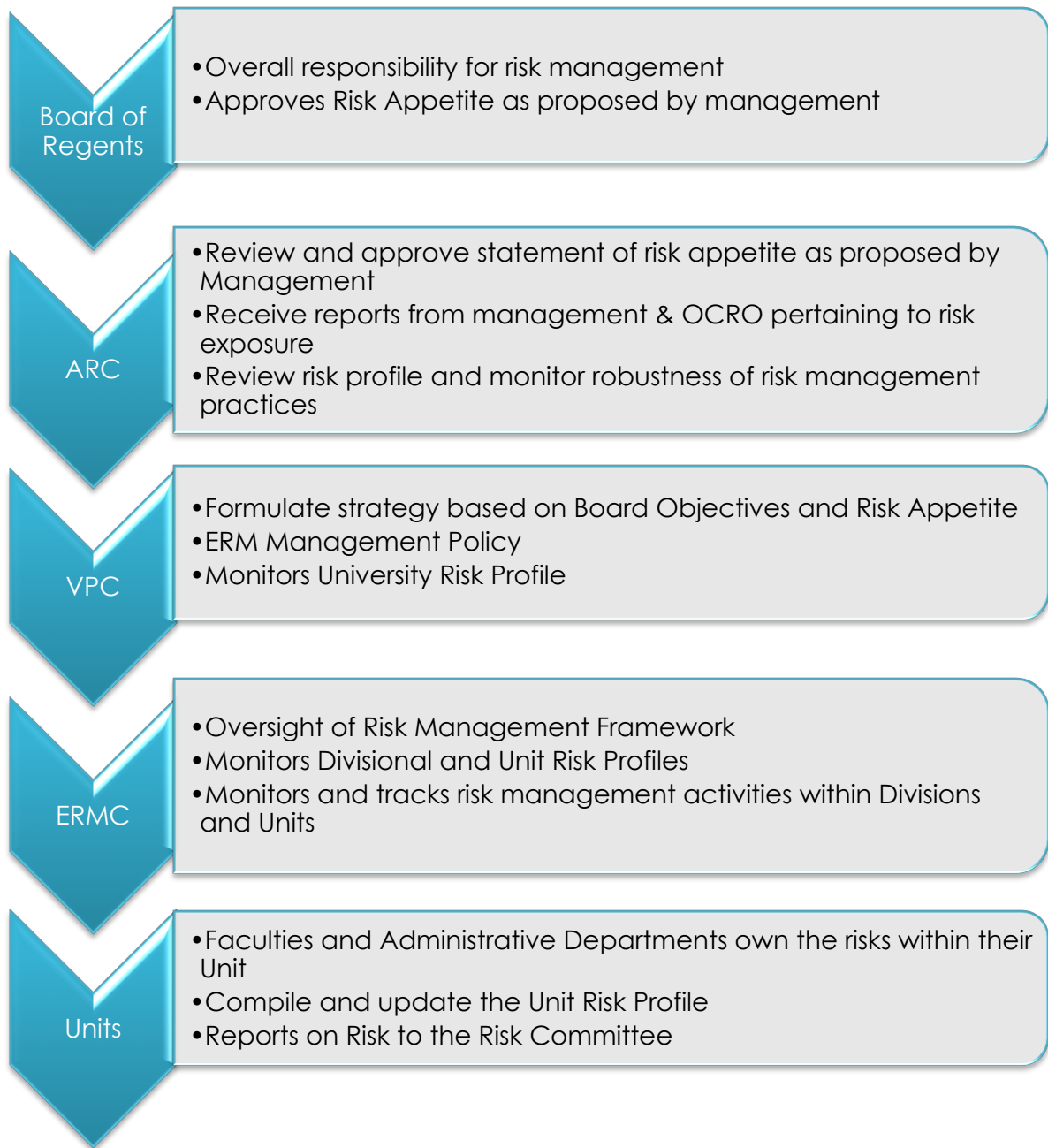


Figure 1

MANAGING RISK

Memorial University uses a 5-step method when managing risk, which can be seen in Figure 2.

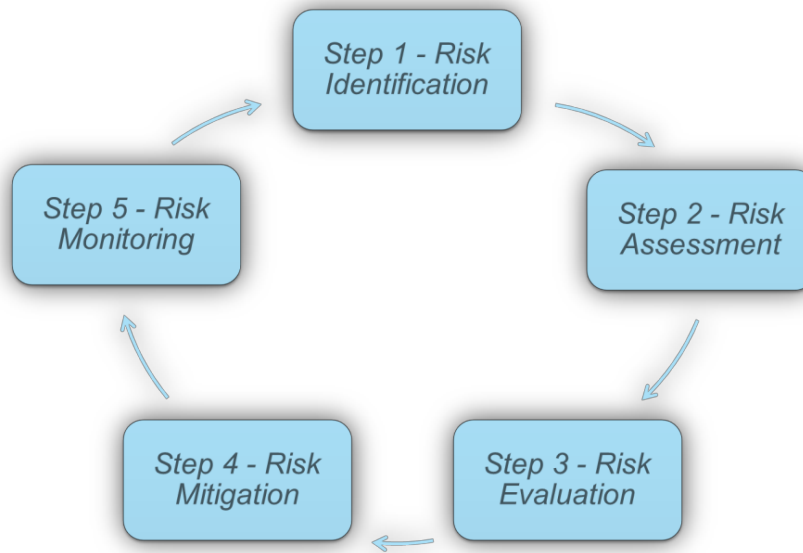


Figure 2

Step 1 - Risk Identification

Risks, risk ratings, and Key Risk Indicators are identified using a variety of methods, including seminars and brainstorming sessions, consultation of similar industries, and the review of risk publications and resources for existing and emerging risks.

When identifying risk, it is important to consider it in the context of the related objective. What could happen that might impact on the success in achieving the objective and why? What types of losses could occur and what kind of opportunities are we missing? The goal of ERM is not only to look at the negative side of risk, but also the potential upside of taking a risk.

Step 2 - Risk Assessment

Identified risks are to be rated to determine which are the most critical.

Figure 3 depicts Memorial's Risk Severity Matrix, which is assessed across four factors; Safety, Reputation, Financial, and Recovery.

Severity Factors					Probability
	Safety	Reputation	Financial	Recovery	
5	Loss of life	Stakeholder Intervention	More than 10% of Budget	10+ days to recover	5
4	Lost Time Injury with permanent disability	Loss of Stakeholder support and trust	Between 5% and 10% of Budget	5-10 days to recover	4
3	Lost Time Injury	Sustained complaints by multiple Stakeholders	Between 3% and 5% of Budget	3-5 days to recover	3
2	Injury that requires treatment	Multiple Stakeholder complaints	Between 1% and 3% of Budget	1-3 days to recover	2
1	Injury but no treatment required	Stakeholder complaint	Less than 1% of Budget	Less than 1 day to recover	1
					5
					4
					3
					2
					1
					Almost Certain
					Likely (1 in 10)
					Possible (1 in 100)
					Unlikely (1 in 1,000)
					Almost Impossible

Figure 3 – Severity and Probability Factors

The level of risk is quantified by combining the probability of an event/activity happening along with the severity of the event/activity (Figure 4).

Probability is the likelihood of an event occurring and is rated on a scale from “Almost Impossible” to “Almost Certain”.

Severity is assessed across four factors; safety, reputation, financial and recovery (operations) to provide a comprehensive rating of the risk.

Risk Rating = Probability x Severity

Tables 1-4 provide a more detailed description of each severity factor.

Safety:

Category	Meaning	Example
5	Loss of life	Incident causing one or more losses of life
4	Lost time injury with permanent disability	Facilities Management worker permanently disabled following a fall from height
3	Lost time injury	Employee strains back while moving a heavy item
2	Injury that requires treatment	Student stuck with needle in lab
1	Injury, but no treatment required	Minor slip and fall on icy walkway

Table 1

Reputation:

Category	Meaning	Example
5	Stakeholder Intervention	Faculty strike
4	Loss of Stakeholder support and trust	Student enrolment drops dramatically due to incident on campus
3	Sustained complaints by multiple Stakeholders	Continuous media coverage regarding one incident
2	Multiple Stakeholder complaints	Several students voicing displeasure on social media
1	Stakeholder complaint	A complaint about the temperature in a classroom

Table 2

Financial:

Category	Meaning
5	More than 10% of budget
4	Between 5% and 10% of budget
3	Between 3% and 5% of budget
2	Between 1% and 3% of budget
1	Less than 1% of budget

Table 3

Recovery (Operations):

Category	Meaning	Example
5	10+ days to recover	Entire building is lost due to fire damage
4	5-10 days to recover	Flood damage causes classroom to be damaged and not used for 8 days
3	3-5 days to recover	Power outage causes research lab to be closed for 4 days
2	1-3 days to recover	Parking lot is closed for 2 days while oil spill is cleaned up
1	Less than 1 day to recover	Broken vent causes lab to be closed for one day

Table 4

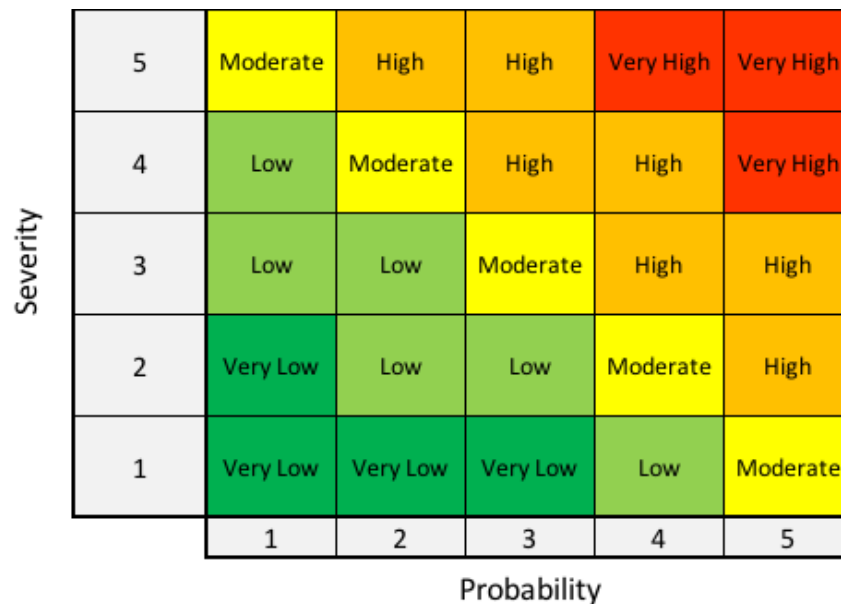


Figure 4 – Risk Heat Map

Step 3 - Risk Evaluation

The analysis of each risk should take into consideration current controls. Inherent risk is typically defined as the level of risk before actions are taken to alter the risk's impact and/or likelihood. Residual risk is the remaining level of risk following the development and implementation of the entity's response.

So risk evaluation entails a consideration of the effectiveness of current controls to determine if they reduce the probability and/or severity of a risk. The effectiveness of controls takes into account key risk indicators, industry standards, benchmarking as well as audit results. Residual risk ratings are calculated by taking the inherent risk rating and discounting them to reflect the effectiveness of controls that are in place. There are five levels of control effectiveness which reduce the severity and/or probability by the amounts outlined in Table 5.

Effectiveness Level	Reduction Percentage
Excellent	75%
Good	50%
Average	30%
Weak	10%
None	0%

Table 5

The effectiveness of controls is considered against both the inherent probability and the inherent severity (all four categories) ratings for each risk. For the purposes of categorizing the residual risk rating attributed to a risk, the highest level of risk (Safety, Reputation, Financial or Recovery) is used. For example, residual risk could be low in the first three severity categories, but if the residual rating in Recovery was high, the risk would ultimately be labelled a “High Risk”.

The residual risk as determined using this approach is then compared with the university's risk appetite (Figure 5) to determine whether or not the level of residual risk is acceptable or whether additional controls are warranted.

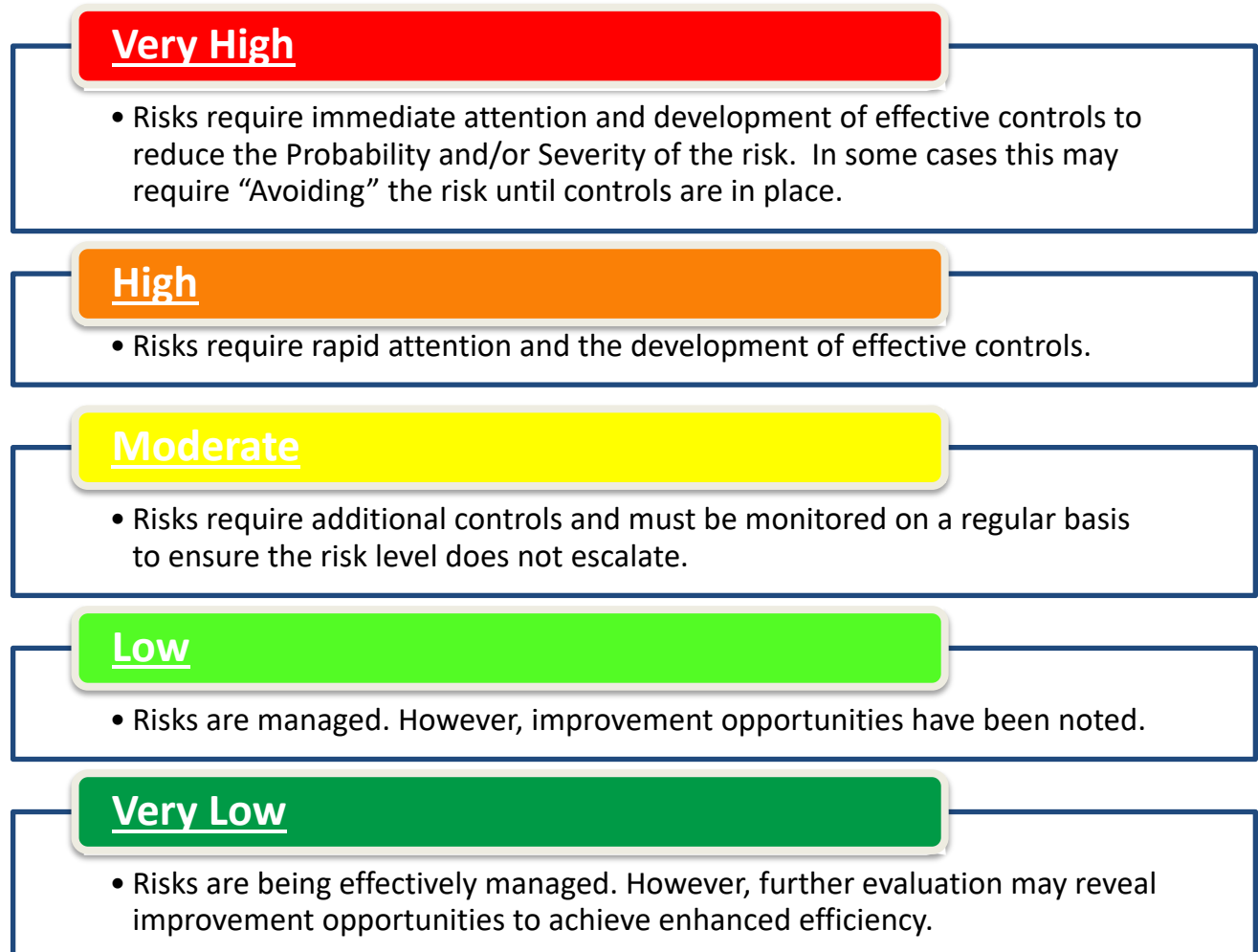


Figure 5 – Risk Appetite

Step 4 - Risk Mitigation

The fourth step of the process is the reduction (mitigation) of identified risks which has three aspects: Planning, Implementation, and Progress Monitoring. Once the risk has been assessed and controls have been identified there are four possible actions (Figure 6)

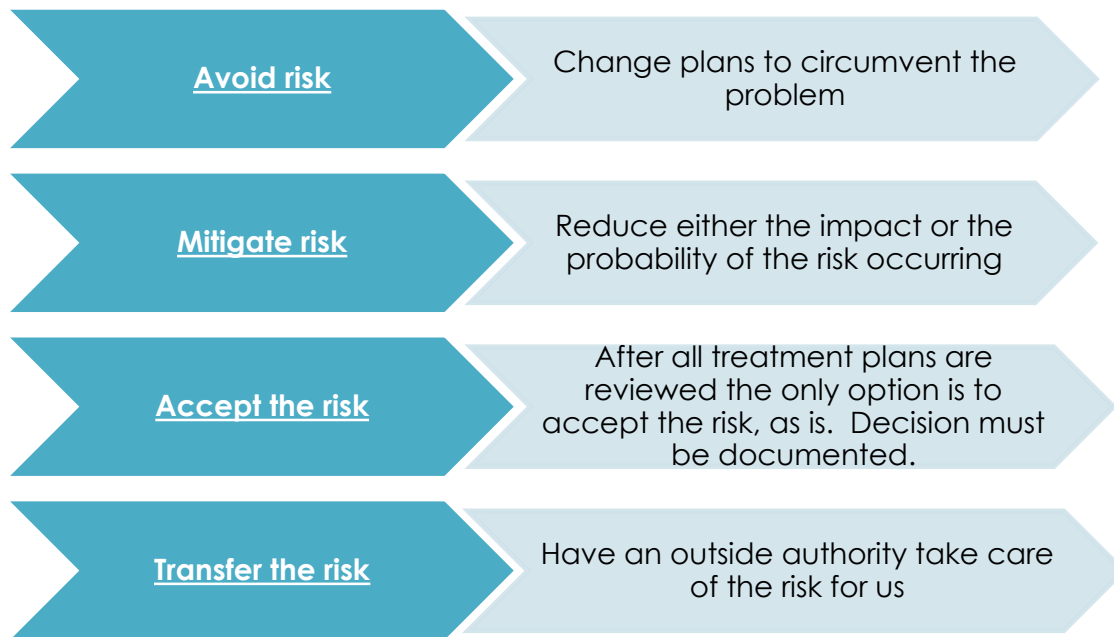


Figure 6

Step 5 - Risk Monitoring

With the ever-changing risk landscape of universities, it is vital that risk management be a continuous process. Risks must be monitored to ensure they do not increase in severity and/or probability, and that emerging risks are identified and addressed. Control activities must be monitored as well to ensure they are still effective and efficient. Table 5 highlights some internal and external factors that should be considered when monitoring risk. Changes to any of these factors can have a profound effect on the risk level for Memorial.

Internal	External
<ul style="list-style-type: none"> • Business Strategies • Services/Products Offered • Ethics and Culture • Changing Operations • Resources: Human Resources, Physical, Information, etc. 	<ul style="list-style-type: none"> • Political Environment • Economy • Competitors • Suppliers • Geography • Regulations

Table 6

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