

PROJECT RISK MANAGEMENT

Chapter 1: Introduction to Risk Management (Risk Definition, Risk Tolerance & Risk Attitude)

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Chapter Description

- **Expected Outcomes**
 - Understanding risk management fundamental knowledge: risk definition
 - Understanding risk attitude concept which have effect towards the implementation risk management process.



Content

- 1.1 Definition of Risk
- 1.2 Uncertainty Spectrum
- 1.3 Tolerances for Risk
- 1.4 Risk Attitude
- 1.5 How to Manage Risk Attitude?



Introduction

Risk Definition

ISO GUIDE 73 & ISO 31000

- Uncertainty > Objectives
- Effects: Negative/Positive
- Modification in consequences/circumstances.

Institute of Risk Management

- Consequences + Event Probability
- Consequence: Positive/Negative

Risk Definition

Institute of Internal Auditors

- **Uncertainty** on events occurred which have effects on objectives' accomplishment
- Risk: Consequences x Likelihood.

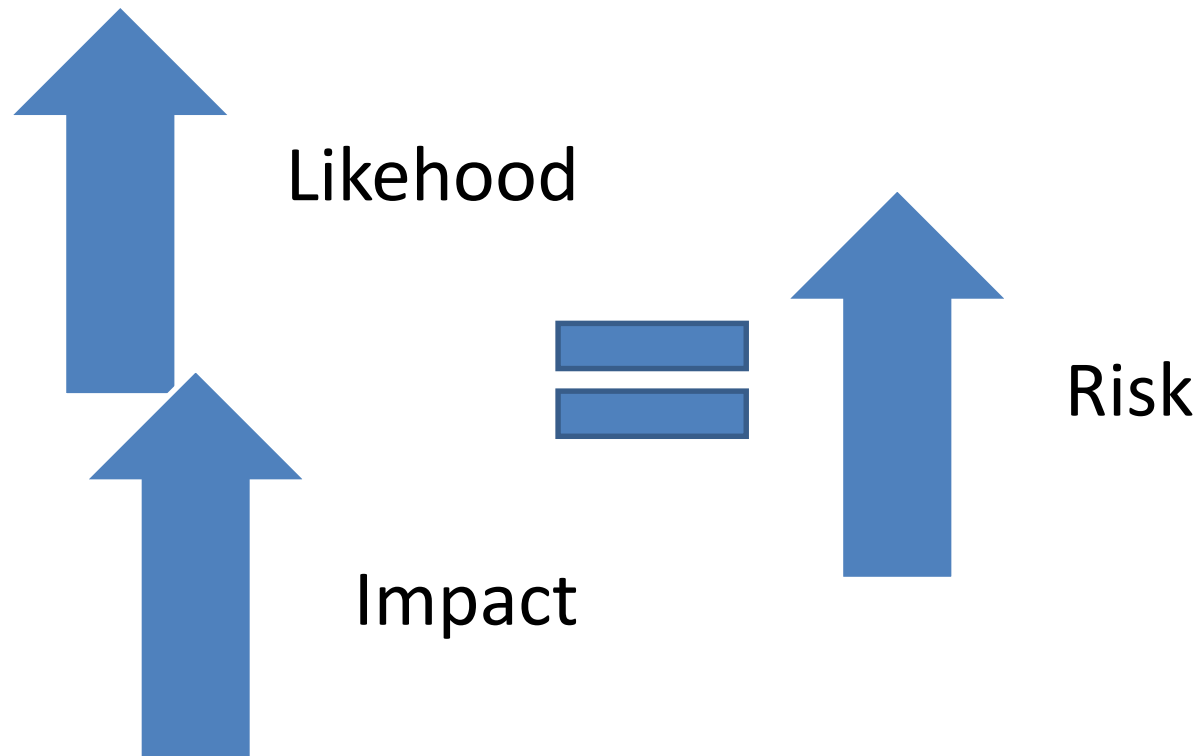
“Orange Book” from HM Treasury

- **Uncertainty > outcome**
- Impact + Potential Events Probability = Uncertainty

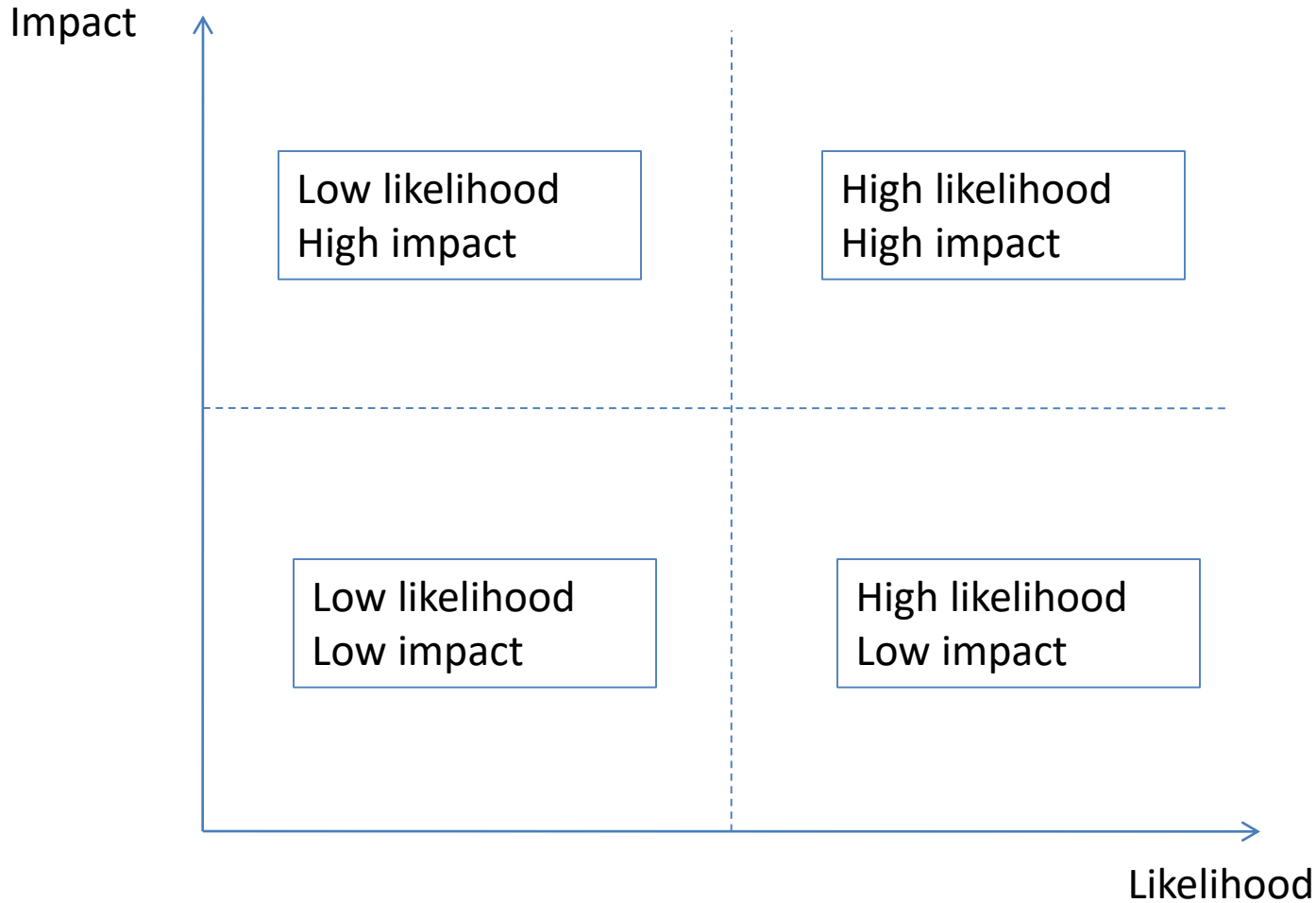
Risk Definition (cont'd)

- Primary components of risk for an event:
 - The probability (likelihood) of the event occurring
 - Magnitude of event occurring (Impact)

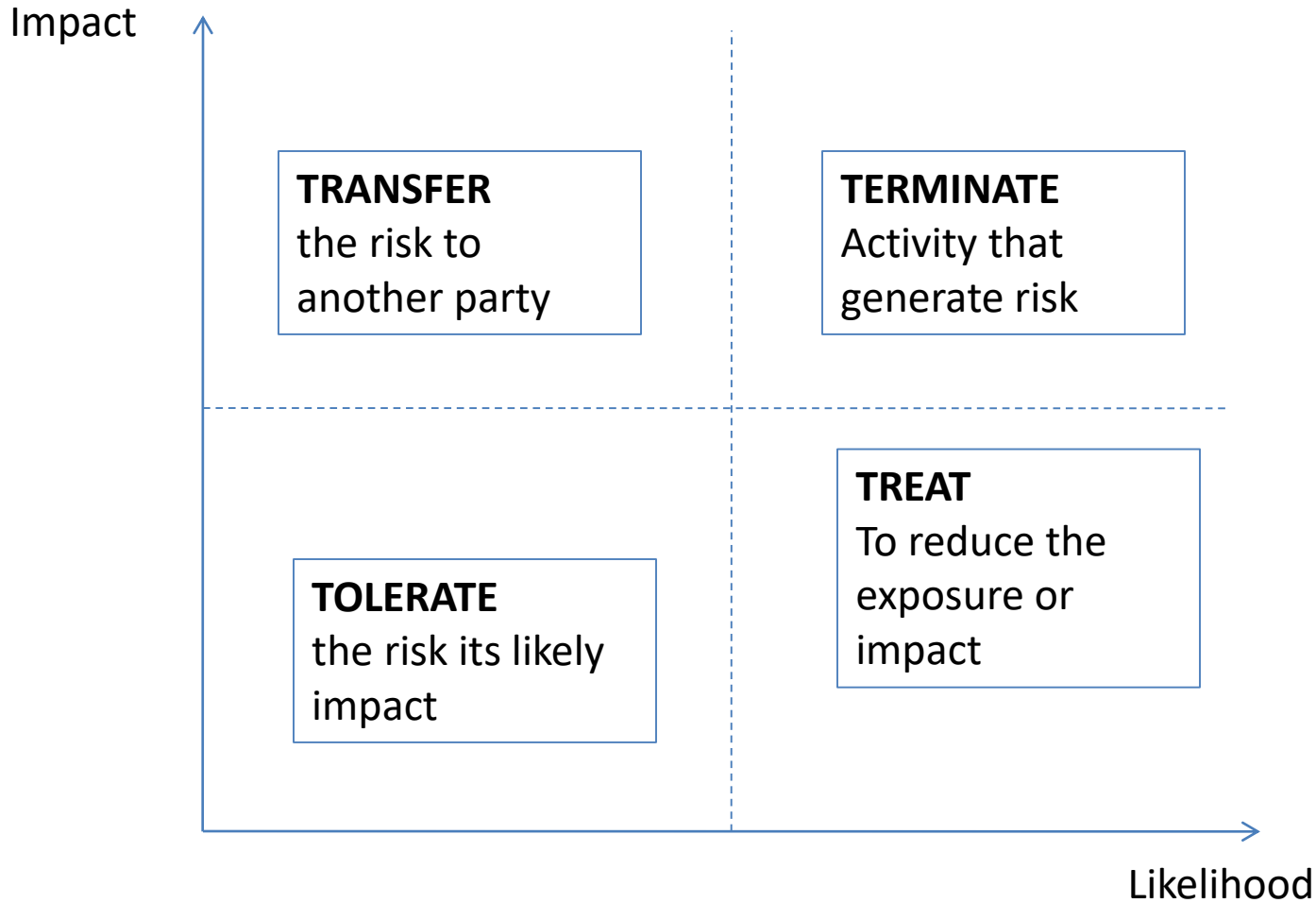
• Risk
= f(likelihood
, impact)



Risk Definition (cont'd)



Risk Definition (cont'd)



Risk Definition (cont'd)

Risk: Lack of knowledge of
future events

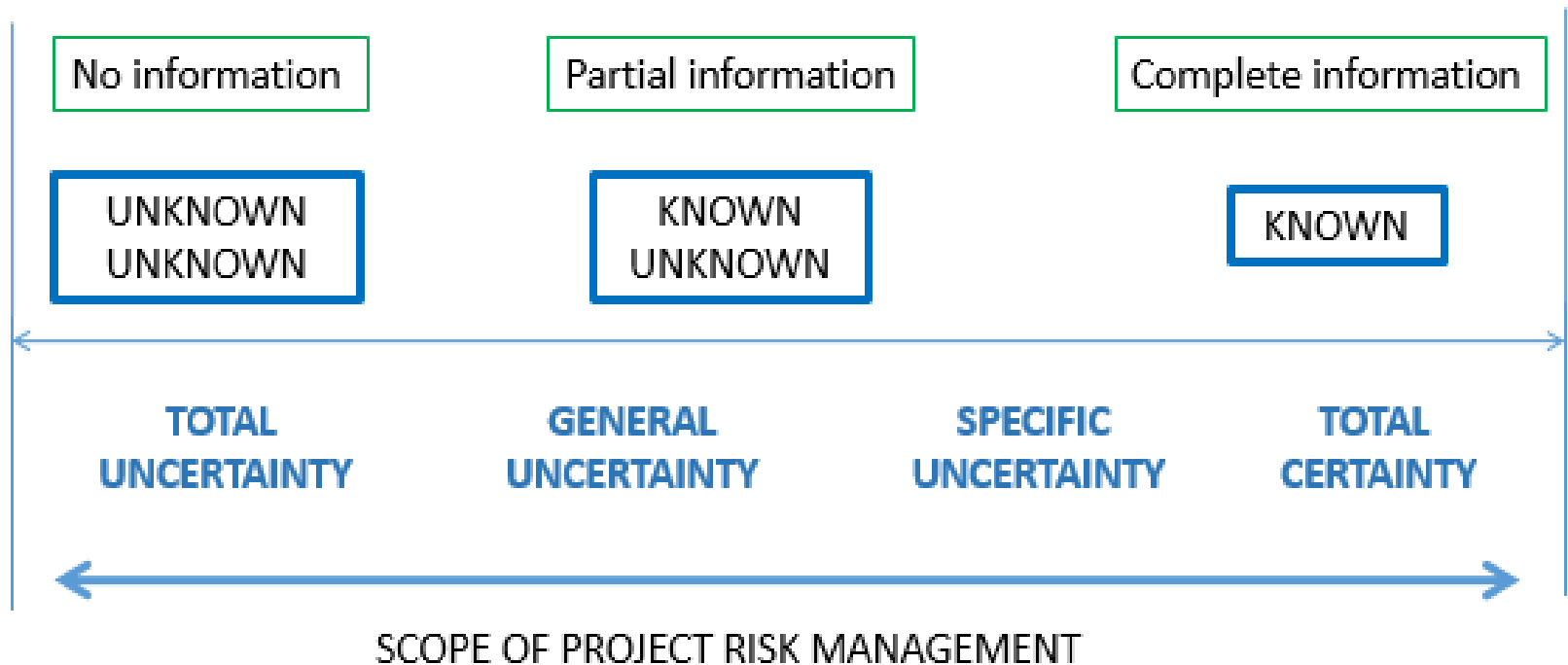
Opportunities:
Favorable events
Threats/Risk:
Unfavorable events

Definition of Risk (cont'd)

For example:

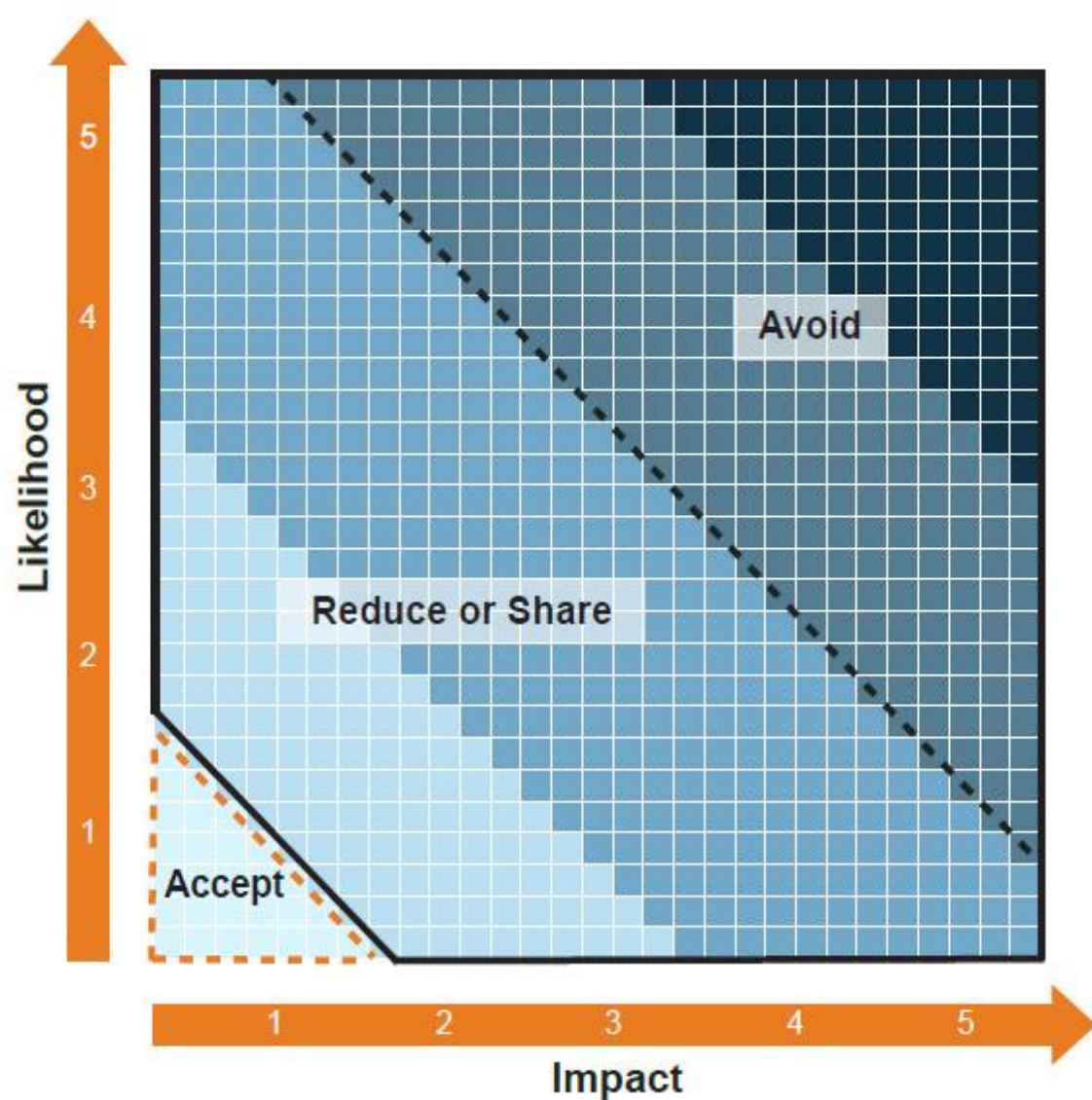
A driver who is unaware of a big hole on a road is in bigger danger than a driver who frequently drives down the road and knows to reduce the speed and avoid the hole.

Uncertainty Spectrum



Tolerance for Risk

Risk Tolerance:
The stakeholder's/organization's willingness to take or avoid risk.



Risk Significance

VERY LOW

LOW

MEDIUM

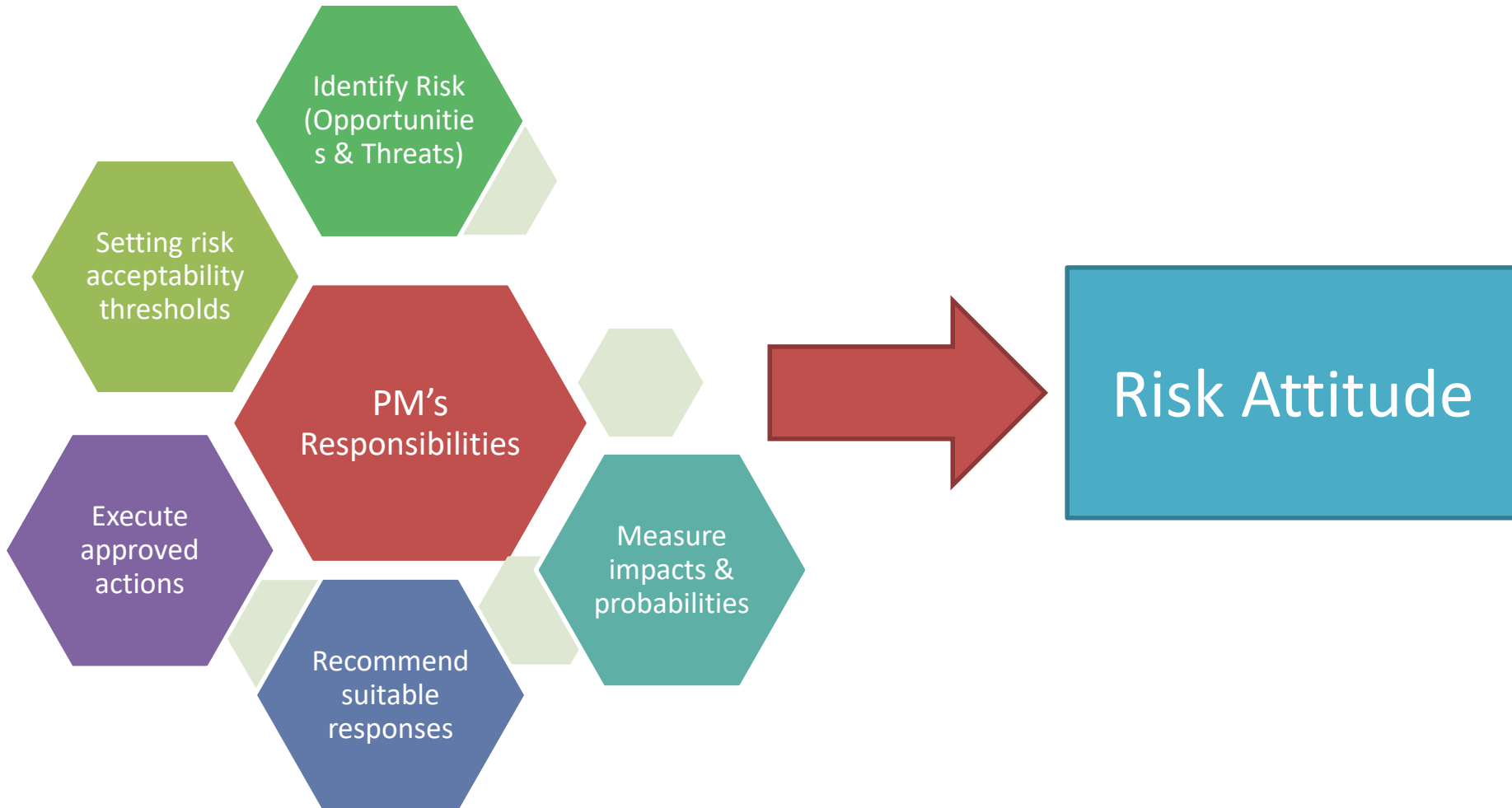
HIGH

VERY HIGH

Risk Tolerance



Tolerance for Risk (cont'd)



Risk Attitude

- **Attitude = Response chosen to a specific situation**
- **Risk Attitude = Risk + Attitude**
 - **Response chosen to matters that are uncertain, affected by perception**
- Risk attitude exists on a spectrum
- The attitude operates at many levels – individual, groups, nations

Risk Attitude (cont'd)



Risk Attitude (cont'd)

Risk Neutral

Organization/People
is neutral towards
uncertainties (risk).

Risks are dealt with
objectively

Decisions are made
based on risk
analysis with various
techniques (Expected
Monetary Value,
Decision Tree
Method)

Risk Attitude (cont'd)

Risk Averse

Person/Organization who is uncomfortable with accepting risk.

Risk is avoided unless rewarded adequately

Example:
Two proposed projects with similar expected return are to be considered for investment. The one with lower risk is preferred, OR ELSE Higher expected return for riskier in project

Risk Attitude (cont'd)

Risk Seeking

Attracted to risk

Risk are seek when
opportunity is seen

Example:
Investor who takes
extra risk in
investment that
has higher
expected return

Risk Attitude (cont'd)

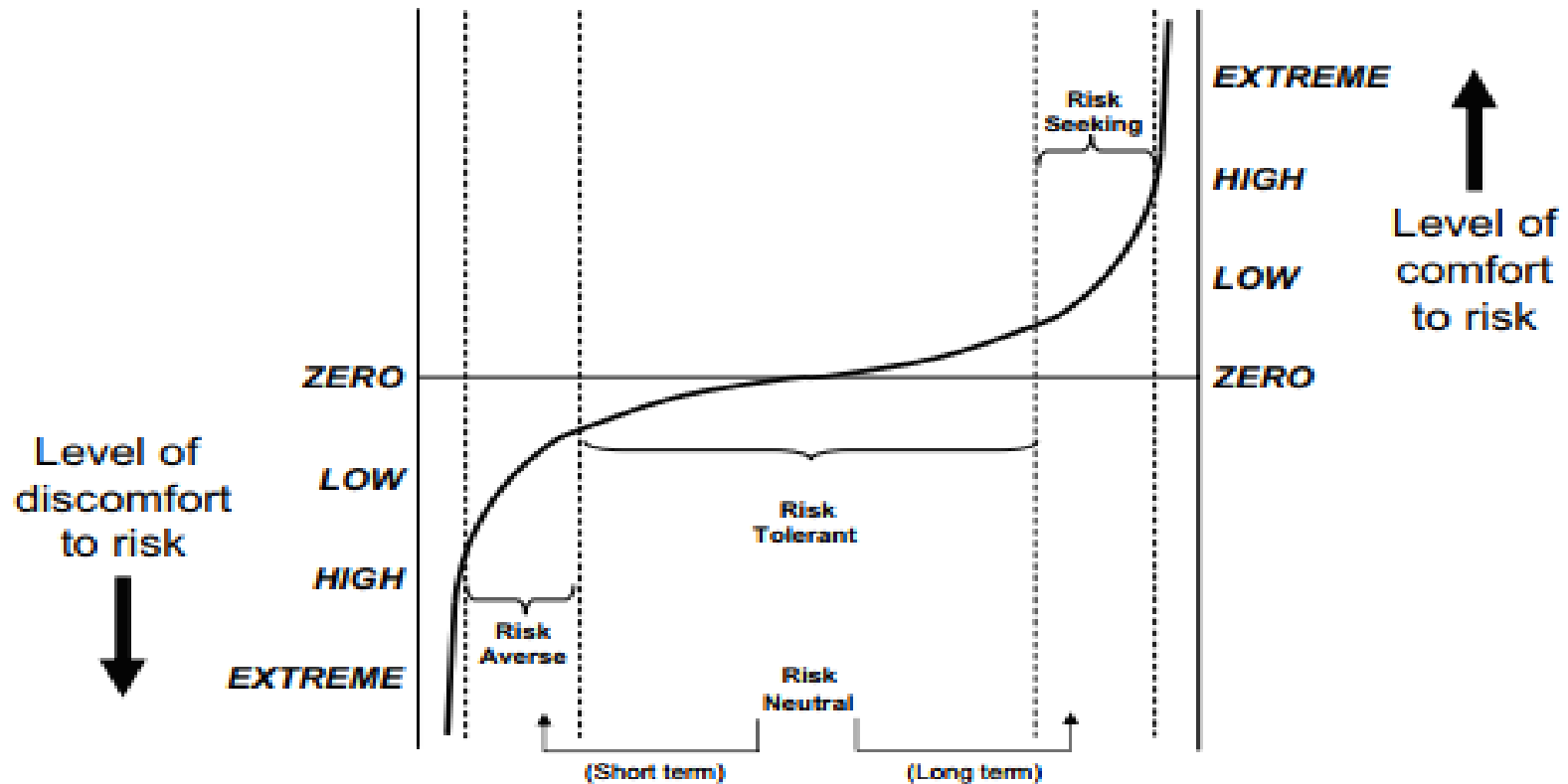


Figure 1.2 Risk attitude spectrum

(adapted from Hillson and Murray-Webster, 2007)

Risk Attitude Management

Awareness

Appreciation

Assertion

Action

Conclusion of The Chapter

- **Conclusion #1**
 - Risk associated with a project must received careful examination
- **Conclusion #2**
 - Risk attitude have a direct impact on risks as it determines how a project manager will handle risks in a project.



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