

## *Practical Project Risk Management*<sup>1</sup>

### **Risk Prioritisation – Attributes to Consider: A brief guide**<sup>2</sup>

#### **Purpose**

1. Identify what matters most when prioritising project risks
2. Help to improve the selection and utilisation of a variety of prioritisation techniques.

#### **Background**

Real world common practice and much of the risk prioritisation guidance provided by professional bodies is dominated by the use of the probability-impact matrix (PIM); a weak technique that produces limited insights. One of the many shortfalls of the PIM is that the technique assumes that probability and impact are the only attributes of risk that matter. This guidance sheet redresses the balance by identifying other attributes that can be relevant.

#### **Alternative Risk Attributes**

The APM guide *Prioritising Project Risks* (2008) identifies the following as being attributes of risks that may be at least as important/and or useful as probability and impact estimates.

1. Variability (of outcome) e.g. as estimated by PDF standard deviation.
2. Urgency (nearness in time by which an action or decision is required).
3. Proximity (nearness in time of risk impact).
4. Controllability (ability of the risk owner or owning organisation to take effective action).
5. Response effectiveness (extent to which the planned risk response is likely to be effective).
6. Manageability (a combined assessment of controllability and response effectiveness).
7. Relatedness (degree to which causal relationships could affect the outcome of other risks).
8. Ownership ambiguity (degree of clarity about the risk's owner and owing organisation).

The list above illustrates some of the limitations of constructing a risk prioritisation scheme purely on the basis of probability and impact estimates.

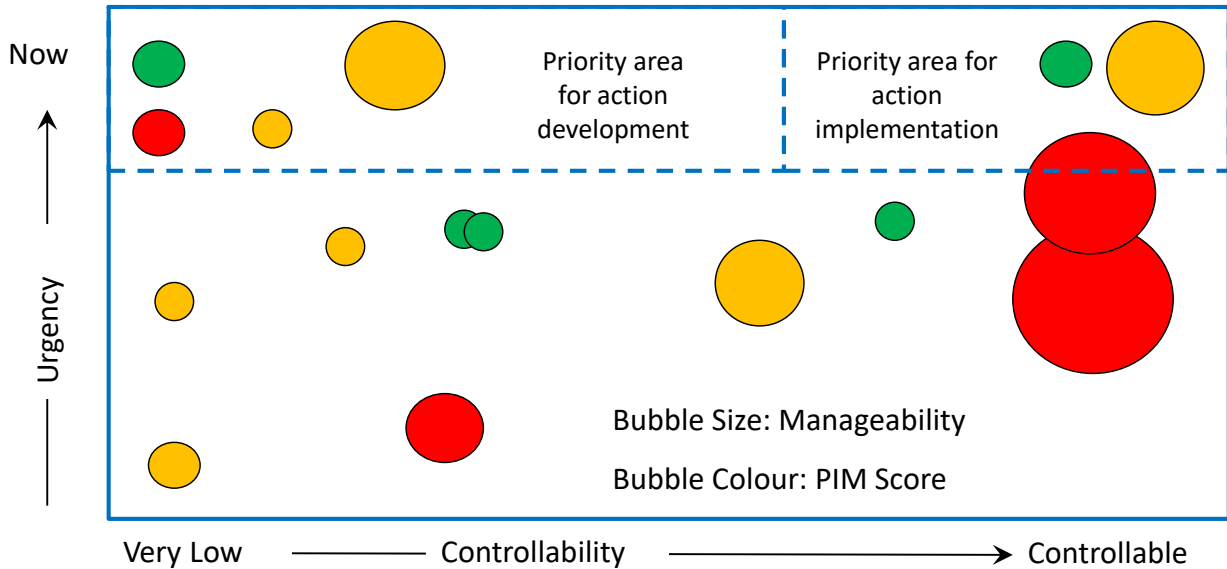
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<sup>1</sup> This series of articles is by Martin Hopkinson, author of the books “*The Project Risk Maturity Model*” and “*Net Present Value and Risk Modelling for Projects*” and contributing author for Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change*. These articles are based on a set of short risk management guides previously available on his company website, now retired. See Martin's author profile at the end of this article.

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## Bubble Diagrams – A Technique for Displaying Multiple Risk Attributes

The two axes, bubble size and bubble colour can be used to display up to four attributes e.g.:



## A General Limitation of Risk Prioritisation Techniques

Almost any risk can be broken down into a group of smaller constituent risks. For an example, see the *Source-Orientated Parent-Child Risk Breakdown* guidance sheet (July 2022). In practice, risks included in risk registers or risk models are often captured in an ad hoc manner that fails to ensure a consistent approach to risk breakdown. A consequence is that risks can be assessed as being “larger” or “smaller” because of unconscious decisions made during the risk identification process. This limits the usefulness of quantitative prioritisation techniques such as tornado diagrams and quasi quantitative techniques such as the PIM.

## Should we Prioritise Risks or Risk-related Actions and Decisions?

Some risk attributes e.g. manageability and urgency are easier to relate to potential actions. Similarly, quantitative modelling techniques such as scenario comparisons may be more relevant to risk-related decisions. Since the benefits of risk management are realised by supporting decisions and taking action, and given the limitations of risk prioritisation techniques, the principle of prioritising actions or decisions can be considered as an alternative.

## Common Faults

1. Unquestioning belief in the value of PIM risk prioritisation results.
2. Use of PIM boundaries or colours to make risk action vs risk tolerance decisions.

## About the Author



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**Martin Hopkinson**, recently retired as the Director of Risk Management Capability Limited in the UK, and has 30 years' experience as a project manager and project risk management consultant. His experience has been gained across a wide variety of industries and engineering disciplines and includes multibillion-pound projects and programmes. He was the lead author on Tools and Techniques for the Association for Project Management's (APM) guide to risk management (*The PRAM Guide*) and led the group that produced the APM guide *Prioritising Project Risks*.

Martin's first book, *The Project Risk Maturity Model*, concerns the risk management process. His contributions to Association for Project Management (APM) guides such as *Directing Change* and *Sponsoring Change* reflect his belief in the importance of project governance and business case development.

In his second book *Net Present Value and Risk Modelling for Projects* he brought these subjects together by showing how NPV and risk modelling techniques can be used to optimise projects and support project approval decisions. ([To learn more about the book, click here.](#))