

# Risk Based Decision Making

Decisions evolve around the need to make choices, either to do or not to do something, or to select one option from a range of options. The choices available are often constrained by social, technical, business, safety and environmental requirements and objectives. Successful decision making requires an understanding of these many requirements and objectives, their relative importance, and how to assess options and make the 'best' decision.

A typical framework for the decision making process is illustrated in Fig. 1. The importance of the change dictates the extent and formality of assessment, documentation, review, consultation and approval.

## Risk based decision making process

The overall decision making process steps remain the same in Risk Based Decision Making - define the issues, examine the options and implement the decision. What is different is that the decision is arrived at by a structured understanding of the risk-reward balance and uncertainties, illustrated by Fig 2.

The options available will be based on one or more of the "4Ts" risk response strategies: Terminate, Treat, Tolerate, Transfer. A well designed risk response portfolio will focus not only on reducing the likelihood of a risk occurring, but also includes plans for stabilisation and recovery to ensure business continuity and effective reputation management. It may also be possible to reduce the potential for financial loss by hedging techniques or insurance purchase.

Next, an evaluation of the risk response options is required, taking into account their cost, benefits and views of relevant stakeholders. Whilst risk responses which are not cost-effective (i.e. the value of any reduction in risk is outweighed by the cost of the control) would normally be discarded, there may be mandatory requirements imposed by internal standards or external regulatory authorities.

Ultimately, a decision is made. Often the decision is clear-cut: the proposal is clearly worthwhile or not. At other times there is no clear answer, requiring

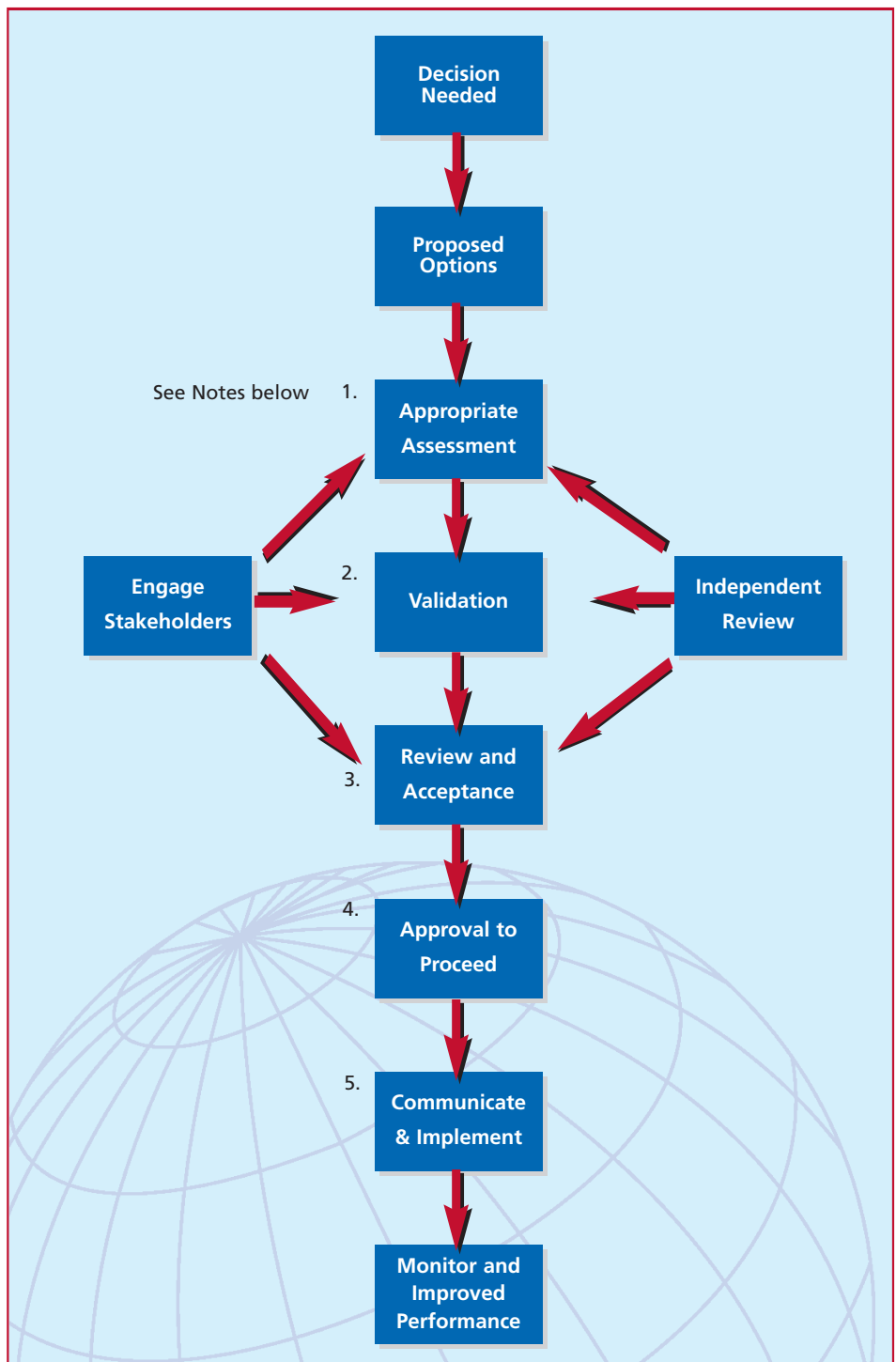


Fig 1. Standard Process for Decision Making

1. The need to change could come from a number of sources, including statutory requirements, internal reviews, audit findings, lessons learned from major incidents, etc.
2. The extent of assessment and documentation will be dependent on the significance of the change. This will range from experience based assessment through to more comprehensive numerical assessment.
3. The extent of review will be dependent on the significance of the proposed change. This will range from internal review through to independent review and involvement of regulatory bodies.
4. The approval body will be dependent on the significance of the proposed change.
5. Implementing the change effectively is arguably the most important step, since it is only at this point that the risk is reduced (see Active Risk Management article, page 4)