

- Purpose** Map risk probabilities and impacts to bands aligned with the project Probability – Impact Matrix (PIM)
- Warning** See the warning on the PIM Capability Guidance sheet – criteria tables are designed to be used to support the PIM technique, so the same issues apply. In addition, although the PIM appears to be a simple technique, the faults listed at the bottom of this sheet undermine PIMs and are often found in practice.
- Limitations** The PIM is designed to assess risks in the context of managing risk on a risk-by-risk basis e.g. using a risk register. It cannot assess overall project risk, or the implications of interactions between risks.
- Criteria tables are designed around an event-orientated concept of risks. Other valid conceptualisations of risks e.g. variability risks, ambiguity risks and project strategy risks often cannot mapped to the bands.
- It may be difficult, if not irrational, to define impact criteria within each band such that that each impact dimension has an equivalent effect, particularly if different project stakeholders use the same criteria table.
- Technique** The probability and impact of each risk is estimated and matched to a pair of bands defined by the criteria table. The associated index numbers are then used to map each risk to the project PIM. Where the impact has more than one dimension, the worst-case band is assessed as representing the overall impact.
- Where the banding classification is ambiguous, e.g. a risk might be assessed as being potentially either Low probability and High impact or Medium probability and Medium impact, it is reasonable to choose the worst-case plausible combination of probability and impact, based on the product of the two index numbers.

**Example risk classification criteria table**

Band	Probability		Impact			
	(%)	Index No.	Cost (£)	Time (w/days)	Product Quality	Index No.
V High	75%+	0.8	£1m +	80 days +	Failure to achieve a critical or primary purpose of the project's product	100
High	50% - <75%	0.6	£300k - <£1m	40 days - <80 days	Failure to achieve any other key product performance requirement	40
Med	25% - <50%	0.4	£100k - <£300k	20 days - <40 days	Failure to achieve any secondary product performance requirement	16
Low	10% - <25%	0.2	£30k - <£100k	10 days - <20 days	Defect with acceptable user workaround	7
V Low	<10%	0.1	<£30k	<10 days	Minor defect with easy user workaround	3

- Notes** The above table is an example. Each project may need to produce its own table aligned to the project objectives and with impact criteria boundaries sized accordingly. A reasonable approach is to define the lower boundaries of Very High impact at points that would fundamentally undermine the project business case.
- In some cases, other impact dimensions such as reputation or benefits realisation may also be required.
- Typically, impact bands become wider as you move up the table – this is reflected in the non-linear nature of the impact index numbers and explains why the associated PIM is usually impact orientated.
- Each impact band should be defined so that the cost, time and product performance effects are equivalent.
- Whilst the above example is based on the assessment of threats, an equivalent can be defined for opportunities, The product performance criteria should be changed to reflect the nature of benefits.

- Common faults** Probability and impact estimates not based on a clear understanding or description of the risk – the process of developing good risk descriptions risk should be seen as an prior step in the risk assessment.
- Failure to verify that the criteria defining impact in each dimension i.e. time, cost etc. represent equivalent levels of pain (or gain for opportunities).
- Classifying 50% probability risks as being “Medium” probability – 50% probability risks can be reasonably argued to be more uncertain than higher probability risks; declassifying their significance may be a mistake.
- Summing risk impact index numbers to calculate “overall” impact – in practice the potential impacts may be mutually exclusive e.g. one might choose to bear either the additional schedule or product quality impact.
- Use of a simple index number series e.g. 1,2,3,4,5 that does not reflect the relative weights of impact and probability bands as they are defined in the risk criteria table.