Risk Analysis - Tools & Techniques Key: Catagory ■Semi-quantitative **■Quantitative** Qualitative where qualitative scales (as above) are assessment based on experience analysis based on mathematical description and scales e.g. Low, given values. Definition formulas Medium, High etc. Deterministic (non-random) Probabilistic (random) None mathematical. Subjective Area of determination of absolute ranges Sensitivity Analysis Monte Carlo together with probability distributions. Mathematics/philosophy Latin hyper cube dependancy Brain storming **Functionality** Artificial neural networks Spider diagrams/plots Interview Stochastic (dynamic) Confidence envelope (probability Tool or Technique Intuition contours) Markovian logic Questionaire non-dependancy Network scheduling Assumptions Analysis Tornado charts Conditional probability Hierarchical Holographic Modelling **Decision Tree Analysis** (HHM) Baye's theorem Network scheduling Delphi method and Nominal group Bayesian networks (Risk maps) technique PERT & CCM Soft Systems Methodology CPM Risk Matrix Chart Probability-Impact Tables Risk Mapping Risk Registers Prompt Lists Checklists Failure Modes and Effects Criticality Analysis (FMECA) Hazard and Operability Studies (HAZOP) Interviews