

“Great deeds are usually wrought at great risk.”

Herodotus

Staff News

We are pleased to announce the appointment of two new consultants.



Sara Sharp abandoned a globe-trotting career with the Foreign Office to join Risk Solutions. Having recently completed an MBA, Sara is eager to fuse her public sector policy experience with business knowledge in a practical way.



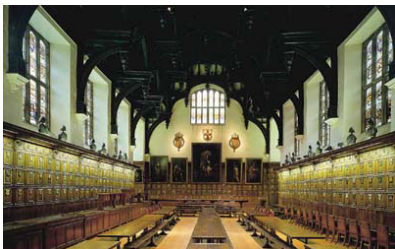
Sara Ring joined Risk Solutions after several years working in Aerospace Research and Development, both in the UK and Australia.

And finally, we are delighted to announce that **Nigel Fenning** became an Associate Member of the Institute of Risk Management, having passed his final set of exams and winning a prize in the process.

Further details of our team can be found on our [web site](#).

Beyond Reasonable Doubt!

The Middle Temple Hall provided a classic setting for our light hearted look at risk in a legal context. The need for a case to be proved "beyond reasonable doubt" indicates that doubt can remain and that juries need to weigh the risks to society of acquitting the guilty against those of punishing the innocent.



To explore the issues, we invited [The Spontaneity Shop](#) to stage mock trials of Robin Hood and Sir Walter Raleigh, examining their conduct from legal and ethical perspectives, and asking our guests to pass judgement. Fortunately, both were acquitted!

Principles of Decision Making

For some years, railway safety has been a controversial issue attracting much media and political comment. On one hand, accidents attract much criticism, on the other, the costs of the industry have grown substantially and there is a great deal of pressure to improve efficiency. In the middle are railway managers who need to balance these pressures as they make important decisions on how best to manage the system. These managers rely on standards and guidance, in one form or another, to assist them in this process. The Rail Safety and Standards Board R&D Programme is working to improve the quality of such standards and guidance, to ensure that safety decisions are made in a consistent and rational way throughout the industry.

As part of this work, Risk Solutions was asked to consider four areas in which there is some uncertainty on the principles that the industry should use. The areas are: application of the **precautionary principle** and of **good practice**; circumstances when it is acceptable to **remove risk controls**; and problems caused by apparently **conflicting legislation**. This work, which is nearing completion, is of fundamental importance to how the rail industry develops; the results should help ensure that safety investment is well targeted and foster greater openness and trust with the industry's many stakeholders.

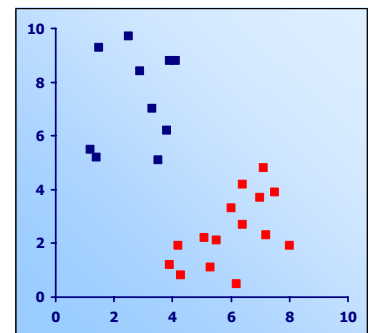
Gaining in Assurance

Following the Chancery Lane derailment, Risk Solutions provided a round-the-clock team to oversee the arrangements to modify the Central Line fleet. This massive logistical challenge (involving changes to 2,800 traction motors over a 12 week period) ran the risk of creating new problems and our task was to give London Underground and other stakeholders assurance that this would not happen. Daily reports were provided to all parties, helping to nip problems in the bud and ensure that services could be resumed at the earliest possible date.



Innovative Techniques: Cluster Analysis

One of the challenges of making management decisions better informed is extracting meaningful information from complex data. One of the techniques for doing this, cluster analysis, has recently been used with great success by Risk Solutions. If you have data made up of two variables, a simple but powerful technique is to display them on a scatterplot. You can then search for patterns in the data by eye. Often each data point is characterised by many more variables, but then the mathematical techniques of cluster analysis can be used to discover patterns "invisible to the naked eye".



To manage the risk of a recurrence of the BSE epidemic, it is important to distinguish between BSE and the related sheep disease, scrapie. Defra asked Risk Solutions to explore the use of cluster analysis in looking for significant structures in the results of the experiments on infected mice used to distinguish between these diseases. These patterns are characterised by, typically, 20 numbers for each sample. In collaboration with scientists at the Veterinary Laboratories Agency, we analysed the data from their research, and found that they did indeed contain hitherto unsuspected patterns which may give a deeper insight into the nature of scrapie and what distinguishes it from BSE. Furthermore, the use of this technique should allow us to distinguish different scrapie strains and scrapie from BSE more quickly than was previously considered possible.