

## **Abstract**

### ***Mental Models of Risk and Uncertainty: How they Affect and are Affected by Decision Making***

In this talk I will reflect upon an ongoing programme of work I have been conducting for more than two decades into the nature and role of mental models and related cognitive processes (e.g. intuition) in strategy formation, horizon scanning and the management of risk. Drawing on a range of examples, from competitive strategy formulation to business decision making, to the assessment of risk in information technology and information security, to multiagency decision making in major incidents, I will demonstrate some of the major psychological pitfalls that all-too frequently lead to blind spots, cognitive biases and inertia in human reasoning, judgment and decision making. In the light of my findings I will consider the implications for the design of interventions such as scenario planning that seek to foster greater sensitivity to and awareness of weak signals indicative of the need for a change of approach. Drawing on the latest insights from social cognitive neuroscience and personality and social psychology, I will argue the need for a more nuanced approach to the design of such interventions that takes account of the less conscious and more emotive forms of cognition and the psychological make up of the individuals and teams who undertake horizon scanning activities.