A Course on Foresight for Sponsors and Practitioners

Denis Loveridge
The University of Manchester
UK

Michael Keenan
The University of Manchester
UK

Ozcan Saritas
The University of Manchester
UK

Abstract

Foresight, its theoretical and practical underpinnings, has been a core part of the work of the Manchester Institute of Innovation Research (formerly PREST – see Endnotes) for the past two decades. In 1999, a training course, encapsulating PREST's experience, was launched for 'sponsors, organizers and practitioners'. The evolution of this course over the past ten years is described in this essay which also indicates how the course became internationally recognized with participants attending from 40 different countries. The way the course has also influenced the evolution of other and similar courses globally is also discussed.

Keywords: foresight, executive training, sponsors, organizers, practitioners, policy, research planning

Introduction

This review article describes the conduct and evolution of a short executive training course targeted at prospective sponsors, organizers and practitioners of foresight exercises. The course, developed and organized by the University of Manchester in England, has run annually between 1999 and 2009. In that time, around 180 people have participated, drawn from approximately 40 coun-

tries across five continents (Figure 1). As Figure 2 shows, participants come predominantly from the worlds of policy and research planning, reflecting the natural constituency of the organizing institute in the University (the course is organized by PREST, recently renamed the Manchester Institute of Innovation Research (MIoIR), a leading research centre in science, technology and innovation policy studies in Europe). The public policy focus has invariably shaped the philosophy and content of the course, and has been an important driver in the course's evolution over the past decade.

The article begins with an account of how the course came to be offered in the late-1990s. It then describes the course programme and describes the changes that have occurred over the past decade. Broadly speaking, there have been three 'generations' of the course, each of which is described in turn. A further section highlights the wider influence the Manchester course has had on other foresight training programmes, after which a few concluding remarks are drawn.

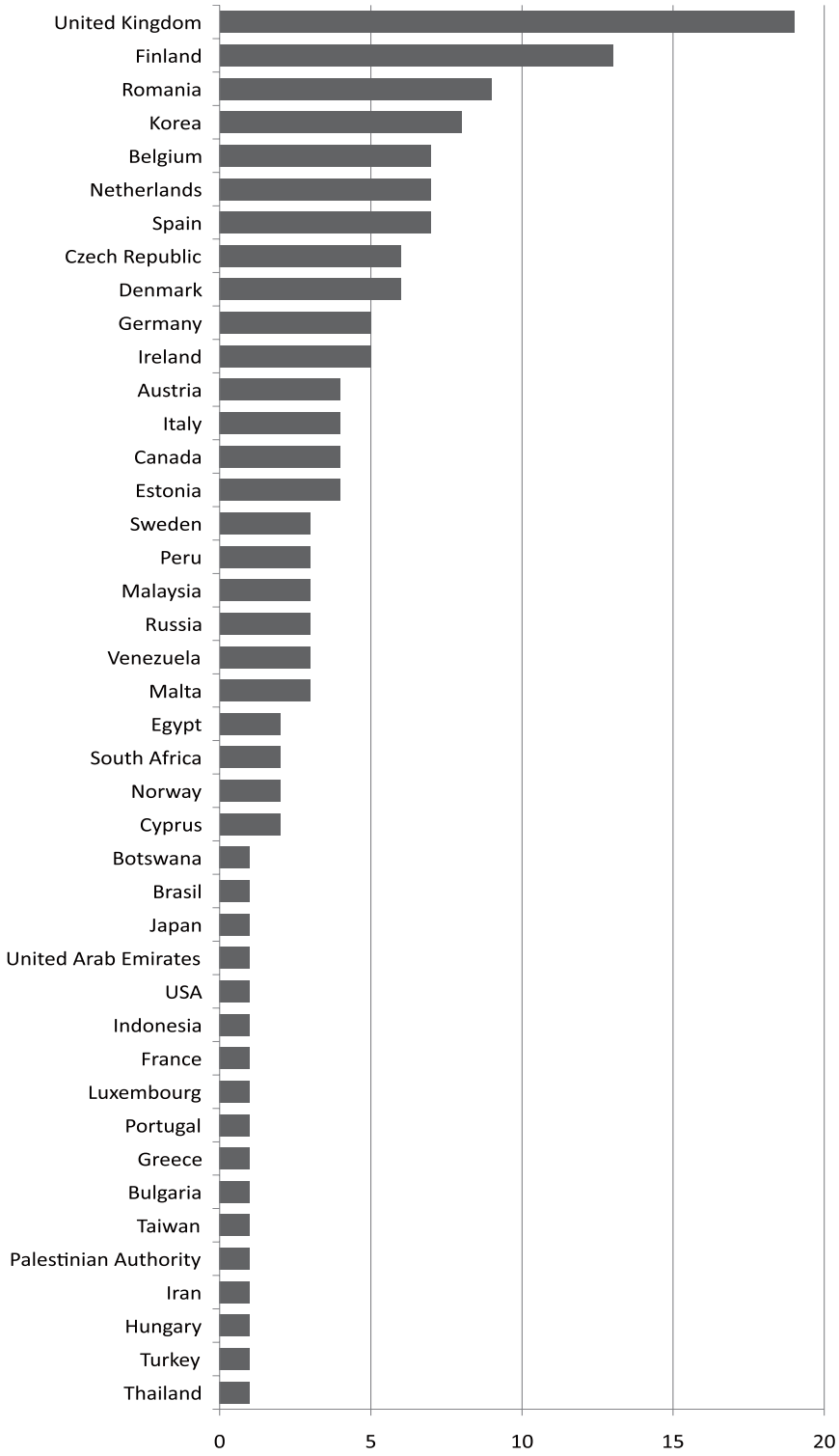


Figure 1. Country of origin of course participants (2001-09)

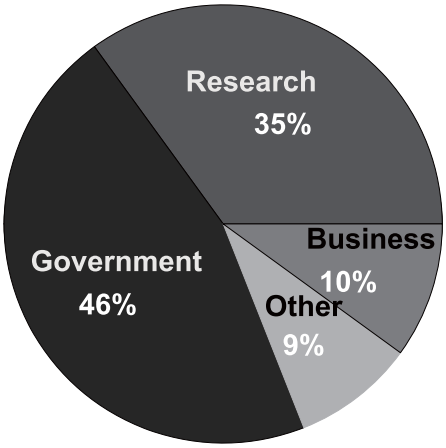


Figure 2. Institutional origins of course participants (2001-09)

The Origins of the Course

In 1999, PREST ran its first intensive 5-day residential executive level foresight course under the title "Foresight: a course for sponsors, organizers and practitioners". The course grew out of PREST's deep involvement in the design and conduct of the UK Cabinet Office's Technology Foresight Programme (TFP) that ran from 1992 to 1995. The TFP was one of several national technology foresight exercises initiated across the world in the mid-1990s and reflected an increasing policy emphasis on the 'wiring-up' of national innovation systems through greater networking and cooperation around national science and technology priorities. The design of the TFP was heavily influenced by earlier Japanese experience in the use of widespread elicitation of expert opinion through the Delphi process. Somewhat later, the TFP itself became an important reference point for other countries organizing their own national foresight exercises. This created an opportunity for PREST to offer the training described in this essay.

Some Essential Organizing Principles

Throughout the course's history, two major organizing principles have shaped its style and content: the use of lectures, including some by external invited speakers with special expertise and/or experience, underlain by a programme of practical work. The latter not only paralleled the lectures but enabled participants to put the lecture content into practice immediately; this is done through a problem-based learning approach associated with the design and organization of a possible or actual foresight activity covering the whole project cycle. The value of this procedure can be gauged from the way that the essentials of at least one major national Foresight programme was developed, by that country's participant, during the course.

A further organizing principle has been to remain locally organised while at the same time reaching out globally. While this has meant remaining relatively small in scale – the course accommodates a maximum of 20 residential participants, with the

average take-up being around 85% in the last five years (a little less at around 50-70% in the first five years) – it has enabled the course lecturers to develop good relations with participants, both during and after the course. Accordingly, the course is not aggressively marketed: an email announcement is posted to around 1,000 addresses some 5-6 months before the course starts and a notice placed on the MIoIR web site. At the same time, many participants seem to learn about the course via the advisory and presentation work carried out by the lecturers on a regular basis around the world. As Figure 1 shows, the vast majority of participants have come from overseas countries. The extent of international participation has given the course an added (and initially unexpected) global reputation for its quality and appropriateness.

This localized set-up has been made possible by efficient administration of a single course administrator, Lisa Gledhill, who plays an invaluable part in taking care of all practical arrangements and liaises with participants before their arrival and during their stay in Manchester. This personal touch is much appreciated by course participants and undoubtedly contributes to the course's high reputation.

Finally, as the course is intensive, careful attention has been paid to providing a social programme that not only lightens the mood but also offers important opportunities for participants to get to know one another better. It is not uncommon for course participants to remain in regular contact with one another after the course has finished, and in a couple of instances, participants have self-organised to set up online groups as a means of staying in touch.

First Generation Course (1999-2003)

In drawing on the TFP experience, it was natural for the course designers to place much emphasis on procedural matters relating to the organization of institutionally organized foresight exercises. The underlying rationale for the course was directed toward the introduction of foresight into policy making, a rationale that has been maintained throughout the past decade. Policy makers have been the target audience throughout. While teaching procedural matters was strongly in evidence during this period, new material was introduced year by year. Its extent can be recognized by the way the accompanying course 'handbook' changed from a simple affair in 1999 into a two part volume in 2000 (Part 1 dealt with practice and practicalities; Part 2 with theoretical aspects and underlying concepts). In 2001 the course handbook was extended further to Part 3 (introduction to social foresight). Over these few years the content of the handbook grew considerably with enlargements of all three sections, reflecting changes in the course content itself.

Figure 3 provides an outline of the course carried out in 2003. Along with its predecessors, the 2003 course was organized according to the tasks that a foresight practitioner might expect to undertake in organizing a foresight exercise. The issues covered included data management, approaches for identifying participants and assigning tasks to them, and approaches for monitoring and evaluation. The course also featured sessions on social foresight, foresight and sustainability and the use of ICTs in foresight, none of which had been featured in the original 1999 course.

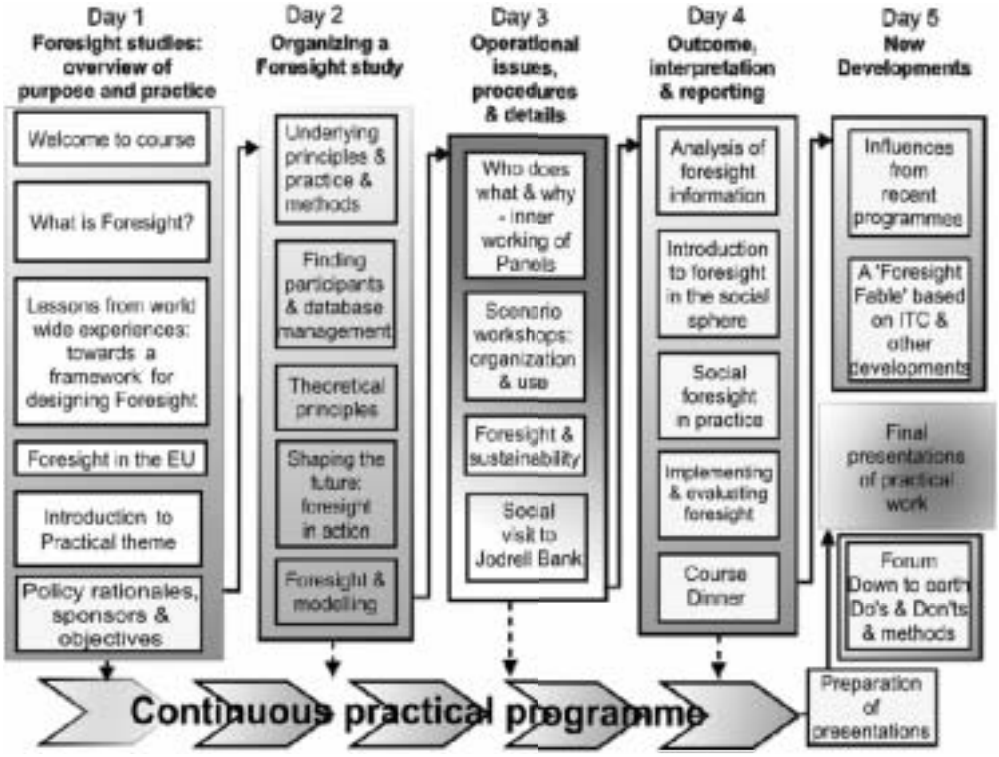


Figure 3. 2003 course outline

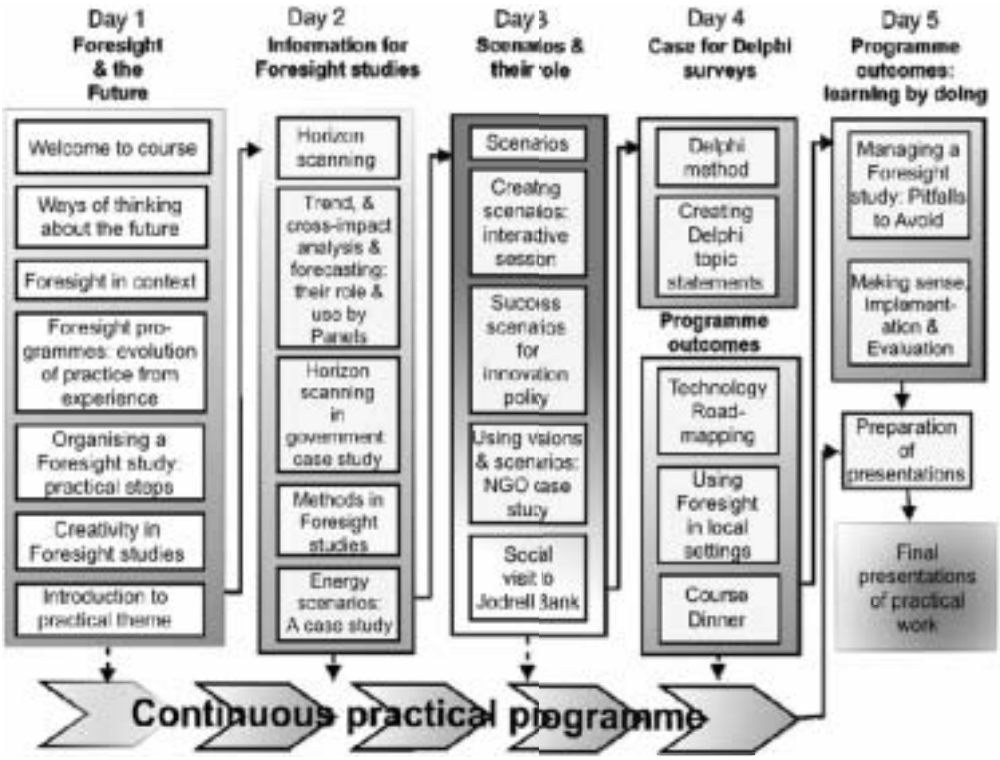
Second Generation Course (2004-08)

In 2004 the nature of the course changed to give greater emphasis to the practical use of specific commonly-used methods. The change responded to the emphasis that recent participants had indicated in their evaluations of the course and reflected the changing market demand for training: increasingly away from the procedural matters at the heart of the original course and towards more training in methods. The shift in demand was itself a consequence of the growing number of foresight exercises being carried out around the world. Through processes of learning-by-doing, many people were already knowledgeable about the organizational practicalities in conducting a foresight exercise but had a voracious appetite for instruction on 'new' methods. On top of this, much of the growth in foresight activity was outside the traditional large-scale national programmes, creating a growing interest in organizational, sectoral and regional foresight, much of which was more modest in scope and scale making training on procedural matters more difficult to tailor to such a wide variety of contexts.

As Figure 4 shows, the project cycle approach was maintained but with much greater emphasis on particular methods for carrying out given tasks. Creativity methods, horizon scanning, Delphi, scenarios, and road-mapping were all prominently covered by lectures and practical sessions. While the 2003 version of the handbook was retained, papers recording the practical experience in a variety of foresight exercises

were provided as learning material, as were papers and guides on the use of specific methods.

Figure 4. 2008 course outline



Third Generation Course (2009)

Since its inception in 1999 the context in which the course is set has changed markedly. The world has got better for some, for the vast majority it appears vulnerable to social and economic instability and violence due to the economic recession, lack of fresh water, food, and energy supply, climate change, regional conflicts, respective population movements and new financial, trade and investment flows. The new global context has led to a more interconnected and interdependent world in which rapid technological progress in many areas brought demands for inclusiveness and equity through freedom of association and expression with full protection of human rights. The emerging need for new international regulations and standards to govern trade, quality, labour, environment and intellectual property rights were not captured in any sense in the 1999-2008 courses.

Between 1999 and 2008 neither the course nor the existing operational notions of foresight dealt with the increasingly complex situations described above. The 'systematic,' method-bound foresight processes, that characterizes much foresight practice, is not a good fit with the 'open' situations involved in human and social systems. The notion of an 'open' system comes from the unpredictable behaviour of human social

systems, both spatially and in time under different circumstances. Systemic investigation (i.e. 'systemic' foresight (Saritas, 2006)) requires a different approach, which formed the basis for the course in 2009.

Accordingly, the phrase 'foresight for beyond business as usual' was incorporated into the name of the course to give two main messages that indicate a:

- Growing need to learn to anticipate, with the intention of being prepared for or to prepare for whatever might follow from the ongoing and future social, economic and political mayhem
- Need for a new foresight approach, beyond the usual methodologically based approach, in order to place thinking and understanding of situations at the forefront of foresight methodology

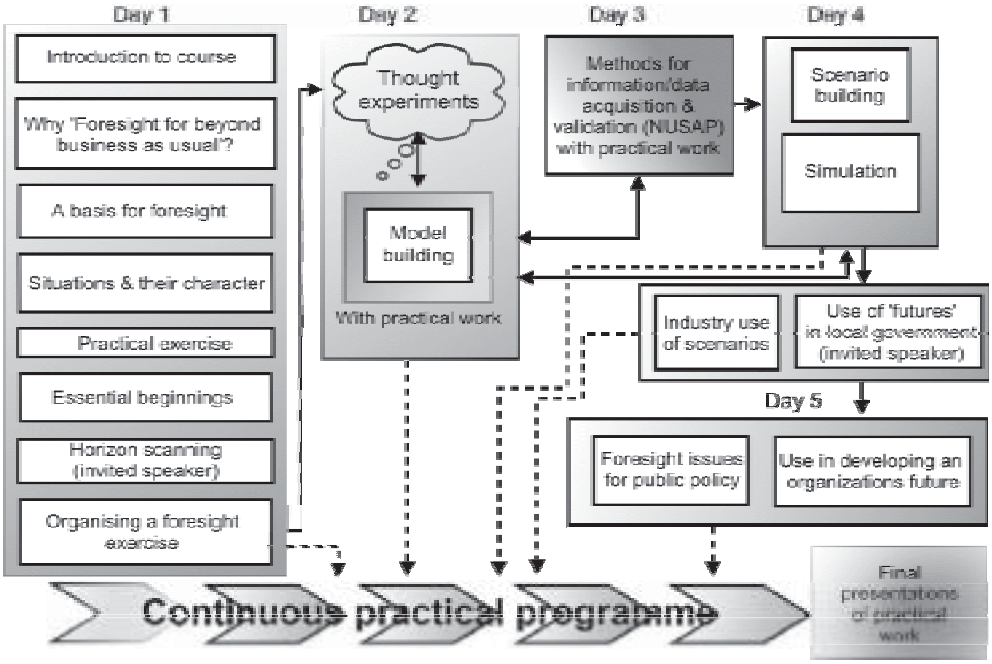
The 2009 course provided participants with a conceptual framework for conducting foresight that recognizes the complexities involved both in real world systems and in idea creation, which emerge from multifaceted interplays between the Social, Technological, Economic, Ecological and Value (STEEPV) themes in human societies. It depicts foresight as a way to increase understanding of living situations and not as episodic problems divorced from the historical, organisational and/or economic and social systems from which they emerge. Three important contextual points can be specified the:

- Need to gain understanding of existing systems and procedures, their history and possible futures
- Analysis of different stakeholder perspectives and their social relations in the system, which can affect and be affected by the process
- Impacts of formal and informal networks and procedures, which can be in favour or in conflict with other systems

The 2009 course presented to participants the steps that are essential for effective foresight from over the horizon scanning, for the unusual events that in combination create the need for foresight, through to the way the outcomes of the study can be presented to policy makers via scenarios. The steps constitute a systemic procedure, as shown in Figure 5.

Figure 5. 2009 course outline

Modeling was incorporated in much greater depth in the 2009 format than it was



in the 1999-2008 versions of the course when it was not well received, largely because it was too brief. Similarly, over-the-horizon scanning has been given more emphasis (it is the foundation of foresight). Also less emphasis has been given to *raconteur* style presentations than in previous years where the emphasis was on 'how to do' matters relating to the conduct of foresight exercises. The content of the course suggests an iterative, dynamic and evolutionary process for foresight, which involves:

- Understanding situations and their character
- Thought experiments and model building
- Methods for information/data acquisition
- Scenario planning and simulation
- Planning the change process

Thus, foresight is not seen solely as a technical process of organizing and implementing a set of activities within the framework of a certain method or set of methods. Rather, a strong component of thought experiments, which have been largely unrecognized by practitioners, are introduced to drive the process. None of this is to ignore the role of methods, but avoids the Wittgensteinian trap, in which heavy emphasis on methods by-passes the situation (Loveridge, 2009). Methods are not the starting point, but are used to:

- Explore well defined ideas
- Acquire information and data
- Clarify situations
- Negotiate solutions

Thus the sections of the course dedicated to methods present a variety of methods modified or tailored whenever needed. Furthermore, new methods can be created or brought in from other fields to handle the unique requirements of the foresight exer-

cise.

Wider Influences of the Manchester Courses

Given its success and reputation, variations of the Manchester foresight course have been spun-off in several different settings. For example, one-week training packages were delivered at the Venezuelan Ministry of Education and Science in late 2000 and at a multinational energy company in Malaysia in 2001. In partnership with this paper's authors, the foresight unit at the European Commission's Institute for Prospective Technological Studies (IPTS) also used the course as a template for designing a series of foresight training sessions directed at regional policy makers (see Keenan & Scapolo, 2004) and at New Member States and Candidate Countries of the European Union (Cagnin & Scapolo, 2007). More recently, a version of the course has been delivered twice to Pakistan in cooperation with COMSTECH (Science, Technology and Innovation Centre for Policy Research) using video-conferencing. The audience for this course was drawn from the member states of the Organization of Islamic Countries (OIC). The one-week course was a blend of theoretical presentations and practical sessions with a particular focus on the socio-economic, political, cultural and technological challenges faced by OIC countries.

The most significant spin-off training activity from the course is associated with the Technology Foresight Training Programme of UNIDO (United Nations Industrial Development Organisation). Since late-2001 this training programme has served the wider context of UNIDO's regional technology foresight initiative targeted at Central and Eastern Europe (CEE) and the Newly Independent States (NIS) of the former Soviet Union. UNIDO officials realized that foresight 'capacity' had to be generated in the region, particularly among those who would be organizing foresight exercises, if the wider technology foresight initiative was to stand any chance of success. Through a number of channels, they came to learn of the Manchester foresight course and considered something similar – designed with the specific needs of the CEE/NIS region in mind – to be a useful way of initiating the capacity-building process.

At the time of writing, UNIDO's training programme consists of five modules, differentiated by their target audience, namely foresight organizers, practitioners, decision-makers, business firms, and foresight trainers. Each module, with the exception of the one directed at decision-makers, is, like the Manchester course, five days in length and involves a mix of lectures, practical work, and case studies. Each is run annually and typically attracts around 25 participants from many different parts of the world (and beyond the original intended audience of CEE/NIS policy makers). In addition, training manuals have been prepared to accompany the first two modules (UNIDO, 2003a and 2003b).

The first module, for organizers, was largely designed and delivered by two of this paper's authors in Budapest in 2001, and was built around that year's Manchester course. The second module, for practitioners, was largely designed by one of this paper's authors, in collaboration with colleagues in the Technology Centre in Prague, and was delivered there for the first time in late 2003. This module, with its emphasis on methodological issues, bore a closer resemblance to the 2004-2008 Manchester

courses and had some influence on subsequent versions of the latter. It has since been transformed into a course dedicated to training on a single method (courses on scenarios and technology roadmapping have been featured up until now). The Manchester courses have had less influence on the other three modules delivered by UNIDO, although two of this paper's authors have been involved in their design and delivery.

Concluding Remarks

As the paper has demonstrated, the Manchester foresight course established a high-reputation around the world. To attain this status, it had to adapt to a changing landscape, defined in terms of both wider socio-economic developments and changes in the demand for foresight training. However, the present paper concerns itself solely with the evolution of the course between 1999 and 2009: the future is beyond its scope. Speculation suggests that advances in information and communications technologies and changes in the market for executive education will be important drivers, as will changes in the use of (and perceived need for) foresight. On this last point, it is important to emphasize that not only has the Manchester course always attempted to anticipate future foresight uses and needs, it has also sought to shape them. It has done this through the transfer of good practices (enabled by the fact that course lecturers are active foresight practitioners), as well as through the transfer of new ideas on the appropriate role of foresight (reflecting the fact that some of the course lecturers are also foresight theoreticians). The 2009 course, with its introduction of 'systemic foresight', is a good example of this and illustrates the potential role of training in shaping future foresight practice.

Correspondence

Denis Loveridge, PhD
E-mail: denis.loveridge@manchester.ac.uk

Michael Keenan, PhD
E-mail: michael.keenan@manchester.ac.uk

Ozcan Saritas, PhD
E-mail: ozcan.saritas@manchester.ac.uk

The authors are at the Manchester Institute of Innovation Research
(formerly PREST)

The Manchester Institute of Innovation Research,
Harold Hankins Building,
The Manchester Business School,
The University of Manchester,
Booth Street West,
Manchester M13 9QH

United Kingdom

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Endnote

All three authors were involved in the development of the course at different times and in different ways. The original design of the course was created by Denis Loveridge in 1999. From 2004 to 2007 Michael Keenan introduced many new features to the course while in 2008 and 2009 Denis Loveridge and Ozcan Saritas reshaped the course into its 2009 format. The authors wish to acknowledge and thank their many internal and external colleagues (too many to name individually) who lectured on the course between 1999 and 2009: their contribution is beyond measure.

The acronym PREST stood for the University of Manchester's Programme for Policy Research in Engineering, Science and Technology. It became the Manchester Institute for Innovation Research in 2004.