Editorial

This issue is devoted to system dynamics, an approach much used in operational research. Many readers of JORS will be aware of Forrester's pioneering work in the late fifties and early sixties, which had such an impact on the then fledgling OR community. System dynamics was taken up, further developed and applied to a wide variety of managerial problems, often in conjunction with numerical simulation. The approach proved to be very successful in representing the dynamics of management systems—and in particular the importance of feedback loops—thus enabling greater understanding of the effects of changes and of alternative policies. The success of the approach led to the formation of the System Dynamics Society, an international society that now has a UK chapter, and an influential journal, the *System Dynamics Review*. However most system dynamicists regard themselves as part of the OR community too.

This Journal has regularly published papers on system dynamics studies and in my time as editor of *JORS* I have been aware of its increasing impact. In 1994 the original Forrester books were republished by Productivity Press and were later reviewed by David Lane in this Journal, together with reviews of contemporary books on system dynamics and a brief account of the current status of the field. (*JORS* 1997 **48**: 1037–1043, 1144–1148 and 1254–1257) Also, I was aware of Geoff Coyle's review of 25 years of system dynamics at Bradford, which indicated a high level of current activity. Thus Geoff, John Morecroft and I conceived the idea of a special issue of the Journal on the development and use of system dynamics for policy, strategy and management education. This issue is the result.

I am pleased to commend this issue to all *JORS* readers. It covers the use of an important OR approach in a wide variety of settings, including policy analysis and (real) applications at the strategic level—types of paper I am currently encouraging. In addition, examples of the growing inclusion of system dynamics in MBA and other degree programmes are given.

I would like to thank Geoff Coyle and John Morecroft for their sterling efforts in supporting this initiative.

JC Ranyard
Editor

About the Guest Editors

Geoff Coyle has been active in system dynamics for over 30 years. He has published two books and some 40 refereed papers on the subject and has consulted widely. Having studied system dynamics with Forrester at MIT, Geoff was on the faculty of London Business School in its early years. He subsequently established the System Dynamics Group at Bradford University, which he led for 12 years and the achievements of which are described in this issue. After a period as a defence scientist in NATO he was Professor of Defence Strategic Analysis at the Royal Military College of Science. In 1998 he was honoured with the first Lifetime Achievement Award of the System Dynamics Society. Geoff took *early* retirement in 1997. He is Visiting Professor at South Bank University's System Dynamics Group and gives occasional lectures to Cardiff University's MSc in Design of Information Systems. He acts as an expert adviser in system dynamics to consultancy firms.

John Morecroft is Associate Professor of Decision Sciences at London Business School, Director of the System Dynamics Group, and Dean of the Executive MBA programme. He is a leading expert on strategic modelling and system dynamics and has published widely in major academic journals. He currently heads a research programme on scenario modelling and the dynamics of strategy. In 1990 he received the Jay Wright Forrester Award of the System Dynamics Society and in 1996 he was the Society's President. He teaches system dynamics, scenario methods and strategy in both MBA and PhD programmes at London Business School. He also runs the successful one week executive programme *Systems Thinking and Strategic Modelling,* and has co-designed (with Kim Warren) an innovative short course called *Dynamics of Strategy.* He has been a consultant and adviser to international organisations such as Royal Dutch/Shell, AT&T, BBC World Service, Ericsson, McKinsey & Co, and Scottish Power. John is co-founder of Systems Thinking Network. He was previously a faculty member at MIT's Sloan School of Management where he received his PhD.