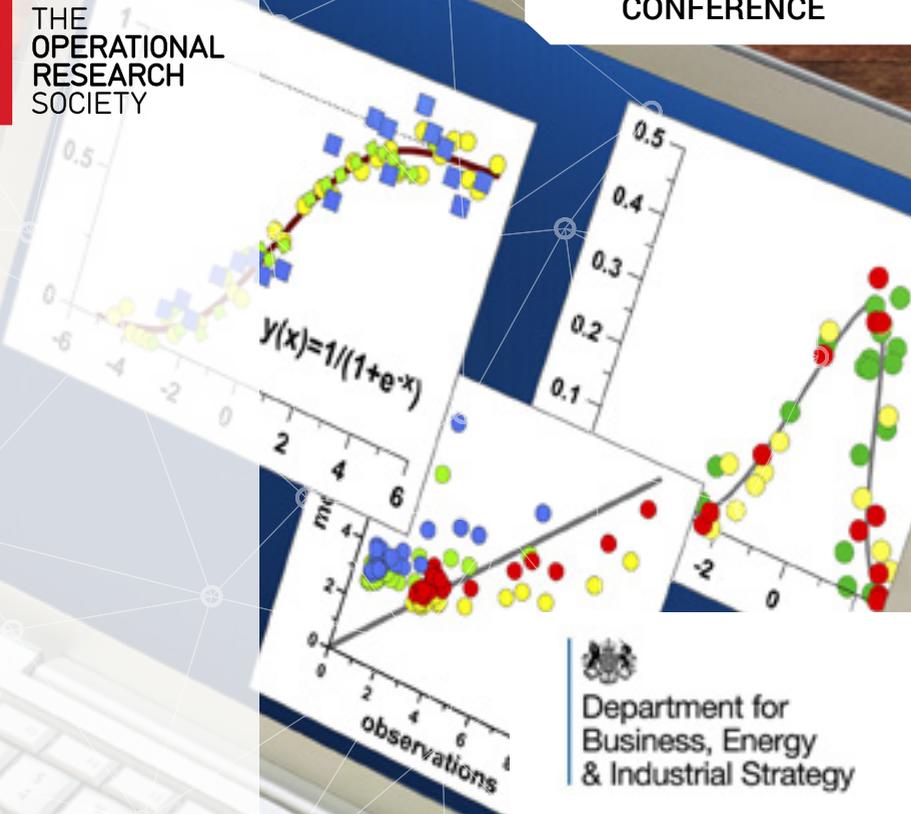




THE
OPERATIONAL
RESEARCH
SOCIETY

CONFERENCE



22 March 2019

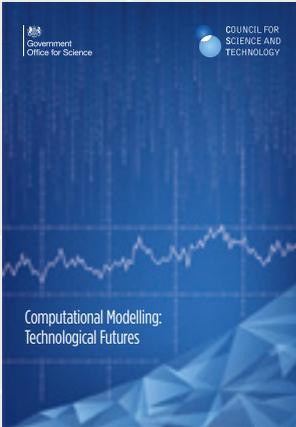
Building productivity, insight and foresight for your business

How computational modelling can help business and industry

This event is for decision-makers and managers in business and industry, especially those who are not yet using computational modelling methods.

<http://bit.ly/ORCM2019>

Is this event for me?



The Council for Science and Technology's Blackett Review into Computational Modelling

highlighted the power and importance of modelling in support decision-making and management. There have been countless successful applications of modelling in industries large and small and private and public sectors across the world, but there are still many organisations where they are underused.

Modelling can transform your business; but only if it is the right modelling for you, with design, use and support adapted to your needs, and properly implemented.

What is computational modelling?

Computational modelling uses a representation – a model – of how we think something works e.g. a manufacturing processes, customer behaviour or a distribution network.

The model is a set of equations or a computer program that we use to understand the likely effect of actions to change the system, to find feasible options and opportunities and to guide decisions on real-world changes.

This event is for decision-makers and managers in business and industry, especially those who are not yet using computational modelling methods.

- what difference can computational modelling make for you?
- how best can you access and use it?
- what it can deliver for your organisation?



This event is free to attend, as a partnership between the Department of Business, Energy, Innovation and Skills and The Operational Research Society, which has for 60 years been a home of computational modellers and modelling.

Who will be there



Keynote Speaker:

Dervilla Mitchell CBE FREng FIEI
FICE Civil Engineer

Dervilla is a civil engineer who is a member of the Group Board and Chair of the UK, India, Middle East and Africa Region Board of Arup. Dervilla received a CBE for her contribution to engineering and was awarded an Honorary PhD by University College Dublin.

Presentations and workshops from the following companies giving some examples of modelling in action to cut costs, improve quality, and deal with uncertainty: across diverse model types, diverse application areas, and with presenters varying from major companies to specialist consultancies and their SME customers.

ARUP
Engineering & Design

BAE Systems
Defence, security & aerospace

Decision Lab
Smart models

DTSL
Defence Science & Technology Laboratory

Henley Business School
International business school

Miralis
Big data consultants

Ocado
Online supermarket

OPUN
Solving complex problems

Optrak
Vehicle Routing Software

Smith Institute
Solving complex problems

Strategy Dynamics
Strategic architectures

WRAP
Solutions for Waste Reduction

For more information and to book <http://bit.ly/ORCM2019>

(Booking closes 14 March 2019; make sure you book early to avoid disappointment)

Programme

- 9.00 **Registration opens** (tea/coffee available)
- 9.45 **Welcome and Introduction:**
John Hopes, President, The OR Society
TBA, Department for Business, Energy and Industrial Strategy
Prof David C Lane, DPhil, FORS, Chair in Business Informatics, Henley Business School
- 10.10 **The power of computational modelling** Dervilla Mitchell CBE, FREng
- 10.40 **Coffee break**
- 11.00 **Computational Modelling in action:** examples of how computational modelling has transformed productivity and outcomes, chaired by John Hopes, President, The OR Society
- **Living Business Models:** supporting financial and strategic decisions, testing new ventures, raising investment through a dynamic model of the whole business. Kim Warren, Rod Brown
 - **From manufacturer to customer:** improving productivity throughout logistics. Will Maden
 - **Routing:** in the case of a waste collection firm, designing the best routes while adapting to different demand and recycling circumstances Tim Pigden, Vicky Pudner
 - **Risk, change and dependence on others:** how BAE Systems uses modelling to address these challenges in ensuring Value for Money across the enterprise. Suzanne Harrison
 - **The Ocado example:** how Ocado uses its warehouse digital twin for all aspects of warehouse management – and how this approach can be adapted for smaller companies. Matt Whelan
 - **Balancing supply and demand cost-effectively:** with examples from manufacturing and service industries. Jakob Blaavand
 - **Modelling for Physical asset management:** setting investment priorities that can be communicated and understood by all, and that enable you to take decisions more confidently. Ian Griffiths.
- 13.00 **Light lunch, exhibition, informal discussion with speakers**
- 14.00 - **Getting to grips with computational modelling:** choose 2 (bring a laptop)
- 16.00 A. Modelling a business: following on from the morning talk on living business modelling.
B. How to get the most out of your modeller: how can you ensure that the modelling you commission is fit-for-purpose, valid, and meets your needs.
C. Benefiting from simulation: from high-level insights to digital twin.
D. How to optimise: the example of vehicle routing.
- 16.00 **All you ever wanted to know about computational modelling but were afraid to ask:** Q&A with Panel including a selection of today's speakers.
Chair: Ruth Kaufman
- 16.45 **Informal networking and discussion, with wine and nibbles**
- 17.30 **Close**