

# BIG-STEP

## BUSINESS, INDUSTRY AND GOVERNMENT – SCIENCE AND NEW TECHNOLOGIES FOR ENHANCING POLICY

Organised by GSD, in collaboration with ASSYST and Complexity NET

GSD: Global System Dynamics and Policies: simulation and visualisation technologies: FET Coordination Action  
ASSYST: Action for the Science of Complex Systems and Socially intelligent ICT: FET Coordination Action  
Complexity NET is a European Research Area: ERA-NET



Professor Steven Bishop, UCL  
[www.globalsystemdynamics.eu](http://www.globalsystemdynamics.eu)



Professor Jeff Johnson, OU  
<http://assystcomplexity.eu>



Dr. Gavin Salisbury, EPSRC  
<http://www.complexitynet.eu>

## MOTIVATION

Policy makers, whether in government or business, are confronted with decisions that should take into account a multitude of highly interdependent processes in physical, biological, technical, social, economic and political systems. The implications of any decisions are increasingly difficult to evaluate and are often global in scale. There is an urgent need to augment the tools available for developing and assessing various policy options and to provide new techniques to help improve and communicate decision-making processes. It is therefore timely to bring policy makers and scientific advisors together to understand how new technologies and systems approaches can be integrated into decision-making.

## OBJECTIVES

The aim of the meeting is to bring leaders of government, industry and commercial business together with scientists to:

- Understand the needs of the policy makers in business and government
- Allow an exchange of ideas about applying systems ideas of complexity to decision-making methods and policy communication consultation
- See how ICT can be used to enhance uptake of scientific advice and highlight new technologies that would help further
- Evaluate how society might respond to new initiatives



*Venue:* Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique,  
Rue Ducale 1, 1000 Bruxelles

*Date:* April 14<sup>th</sup> - 15<sup>th</sup> 2010

Wednesday 14<sup>th</sup> April

## ENERGY AND THE ENVIRONMENT

The need for a sustainable future is becoming ever clearer. As non-renewable resources continue to be depleted, the issue of energy security will become a very real threat. Coupled with the increasing risks of climate change, policy makers worldwide are under immense pressure to find solutions to global complex problems. Scientists have a responsibility to provide policy makers with credible advice.

09.15-09.30 *Introduction from Host* – **Prof. Lord Julian Hunt**, UK House of Lords & University College London (UCL)

### *Keynote Addresses*

09.30-10.00 **Prof. Jacqueline McGlade**, Executive Director of The European Environment Agency

10.00-10.30: **Prof. Chris Barrett**, Virginia Tech & Institute for Scientific Interchange Foundation (Turin)

10.30-11.00: **Dr. Michel Morvan**, Scientific Director of Veolia Environment

11.00-11.30: *Coffee*

11.30-13.00: *Panel: The energy and environment policy process*

To discuss energy and environment policy processes and how systems based approaches can be introduced.

Chair: **Prof. Lord Julian Hunt**

**Prof. Jacqueline McGlade**

**Prof. Chris Barrett**

**Dr. Michel Morvan**

**Ambassador Leonidas C. Rokanas**, Permanent Representation of Greece to the European Union

13.00-14.30: *Lunch*

14.30-16.00: *Case Study – ‘The Future of Energy’*

This session will examine both success stories and failures of the application of systems to the energy and environment policy process.

Chair: **Prof. Kristian Lindgren**, Chalmers University

**Roland Kupers**, Visiting Fellow Oxford University, Royal Dutch Shell

**Dr. Jean-Yves Caneill**, Project Manager of EDF Sustainable Development Division

**Prof. Paul Ekins**, University College London Energy Institute

**Dr. Jonathan Köhler**, The Fraunhofer Institute for Systems and Innovation Research

16.00-16.30: *Coffee*

16.30-17.30: *Discussion: Commerce, big business and government*

A discussion on the differences and similarities in the requirements and needs of policy makers in a variety of sectors and how these might be achieved through systems based approaches.

Chair: **Dr. Kedar Pandya**, Head of the Cross-disciplinary Interfaces Programme, Engineering and Physical Sciences Research Council, UK

**Prof. Andrzej Nowak**, University of Warsaw

**Ricardo Baesa-Yatez**, Head of Research Division for Europe and South America, Yahoo

**John Frieslaar**, Chief Technology Officer, Huawei Technologies UK

17.30-17.45: *Summary from host* – **Prof. Lord Julian Hunt**

17.45: *Close*

19.30: *Conference Dinner, to be held at the Radisson BLU Royal Hotel, rue du Fosse-aux-Loups 47*



Thursday 15<sup>th</sup> April

## RISK AND THE ECONOMY

The recent financial crisis is compelling evidence of the need to find new ways to ensure resilient, versatile and sustainable economies based on science and new technologies in close collaboration with business, governments and scientists.

09.15-09.30: *Introduction to second day from Host* – **Prof. Carlo Jaeger**, Potsdam Institute for Climate Impact Research

### *Key Addresses*

09.30-10.10: **Jean- Philippe Bouchaud**, Science & Finance Capital Fund Management

10.10-10.35: **Prof. Dirk Helbing**, ETH Zurich

10.35-11.00: **Prof. Sorin Solomon**, Hebrew University of Jerusalem

11.00-11.30: *Coffee*

11.30-12.30: Panel: **Systemic Risk in Finance**

To discuss economic policy processes and how a systems based approach can be introduced.

Chair: **Prof. Carlo Jaeger**

**Jean- Philippe Bouchaud**

**Luciano Pietronero**, University La Sapienza Rome

**Dr. Dougal Goodman**, Chief Executive of The Foundation for Science and Technology, UK

**Prof. Klaus Hasselmann**, Max Planck Institute

12.30-14.00: *Lunch*

14.00-14.15: **Dr. Zoran Stančić**, Deputy Director-General, Directorate-General Information Society & Media, European Commission

14.15-15.30: Panel: **From risk assessment to systemic risk governance**

Chair: **Prof. Diana Mangalagiu**, University of Oxford

**Dr. Zoran Stančić**

**Prof. Vittorio Prodi**, MEP

**Caroline Gover**, Head of Business Continuity, BBC

**Prof. Bert de Vries**, Utrecht University

**Dr. Angela Wilkinson**, University of Oxford

15.30-15.45: *Coffee*

15.45-16.45: Panel: **Interpreting the impact of potential risks from the economy**

Chair: **Dr. Armin Haas**, Potsdam Institute for Climate Impact Research

**Dr. Aris Karytinis**, General Director of the Real Estate Department of the National Bank of Greece

**Dr. Pierre-Alain Schieb**, Head of Future Projects, OECD

**Prof. Pedro Prieto**, Vice-President of the Spanish Association for the Study of Energy Resources

**Robin Wilkinson**, Director of Arium Risk Architecture

**Rainer Sachs**, Munich Re

16.45-17.15: *Conference summary* – **Prof. Carlo Jaeger**, **Prof Giles Foden**, University of East Anglia & **Dr. Ralph Dum**, Scientific Officer, European Commission

17.15: *Close*

