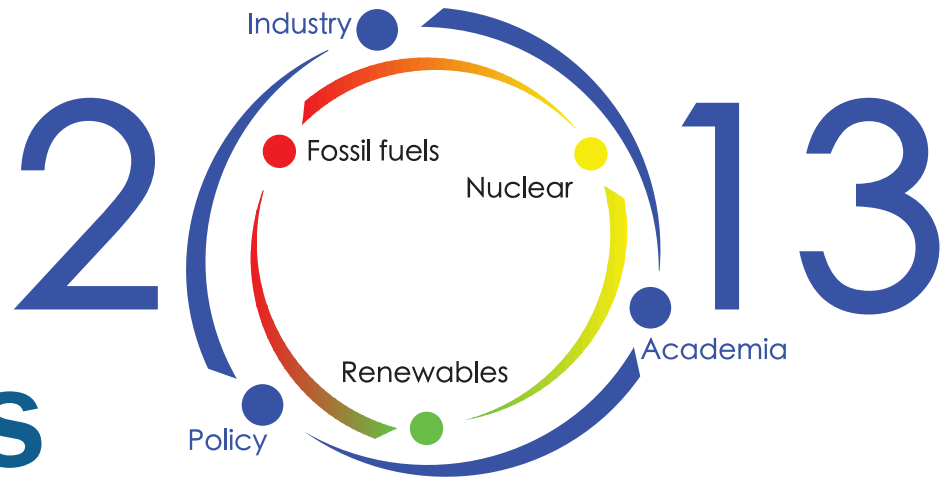


# Global Energy Systems



## Day 3

### The Economics & Policy of Energy Systems



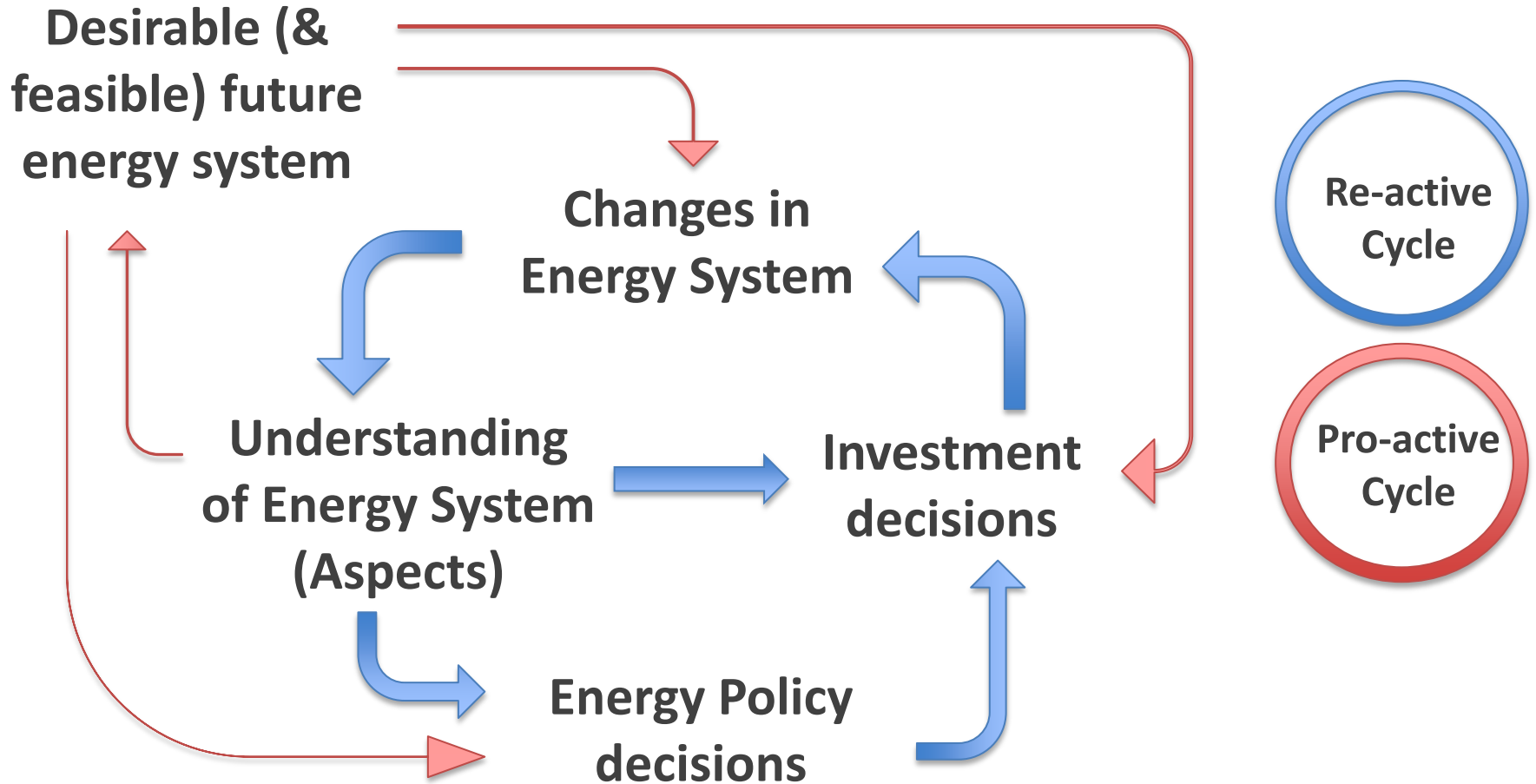
# Sponsors – a sincere and large thank you!



New Era  
CELEBRATING A HAPPIER HEALTHIER SCOTLAND

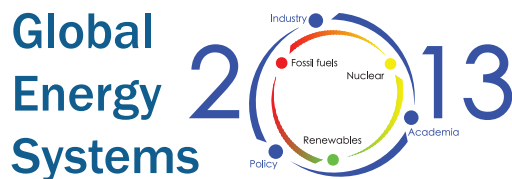


# Re-active versus Pro-active Policy and investment decisions



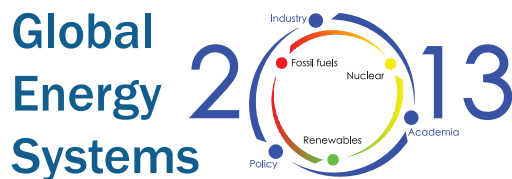
# Pro-active Policy is a bit like playing 3D-chess

- Need to think ahead several moves
  - Too many interactions to comprehend\*
  - Learn from mistakes over 1000+ games
  - Moves have unavoidable consequences
- (\*except for chess grandmasters)



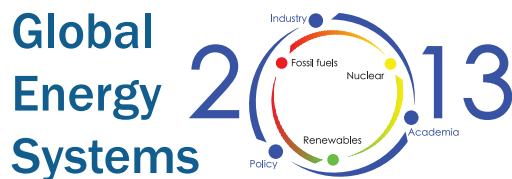
# Pro-active Policy is 'learning by doing'...but is not accepted as such...and mistakes can be costly

- 2003 - EU policy 5.75% replacement transport fuels with biofuels by 2010
- 2006 – EU policy 10% replacement transport fuels with biofuels by 2020
- 2008 – rethink of biofuels policy due to concerns over food prices, rainforest destruction, inequality effects
- 2010 – Biofuels Sustainability criteria (such as 35% GHG savings of projects)
- Now – voting on limiting contribution of food crops to half of 2020 biofuels target (roughly current level) with remainder from 2<sup>nd</sup> & 3<sup>rd</sup> generation (+ 60% GHG savings starting 2017)



# Improvements to strengthen pro-active policy making

- Given the timescales and complexities involved where can we strengthen knowledge of economics & policy to assess the effect of policy interventions?
- Given the scale & urgency of the energy system challenges how can we speed up policy and investment decision cycles and their learnings?



# Day 3 – The Economics & Policy of Energy Systems

## Conference Opening

08:30 – 09:00	Coffee & tea
09:00 – 09:15	<b>Welcome and Sponsor address</b> Programme Committee and Sponsors
09:15 – 10:00	<b>Keynote Address</b> <a href="#">Prof. Michael Jefferson, University of Buckingham</a>

## Understanding Energy Supply, Demand, Price, and the role of policies

10:00 – 10:25	<b>The energy outlook to 2030: Global Trends in energy-economic relations</b> <a href="#">Dr. Alexander Naumov, Group Economics, BP plc</a>
10:25 – 10:50	<b>The influence of price risks on policy design and investment</b> <a href="#">Dr. William Blyth, Director Oxford Energy Associates</a>
10:50 – 11:15	Coffee & tea
11:15 – 11:40	<b>The energy capital cost requirements of energy transitions</b> <a href="#">Dr. Michael Dale, Stanford University</a>
11:40 – 12:00	<b>The demand side: energy intensity of the economy</b> <a href="#">Dr. Sgouris Sgouridis, Masdar Institute</a>

## Panel Discussion on Key Knowledge, Data & Policy Gaps in the Energy sphere

12:00 – 13:00	<b>Honorary Panel Leader</b> – <a href="#">Prof. Charles Hendry MP</a> <ul style="list-style-type: none"><li>• <a href="#">Prof. Michael Jefferson, University of Buckingham</a></li><li>• <a href="#">Prof. Zoe Shipton, University of Strathclyde</a></li><li>• <a href="#">Prof. (Emeritus) Stephen Salter, University of Edinburgh</a></li></ul>
---------------	--

13:00 – 13:15	Conference Summary Final Sponsor Thanks
---------------	--

# Energy Modelling Workshop

## Energy Modelling workshop

14:15 – 14:30

**Introduction**

14:30 – 15:00

**Selected Individual Presentation rounds**

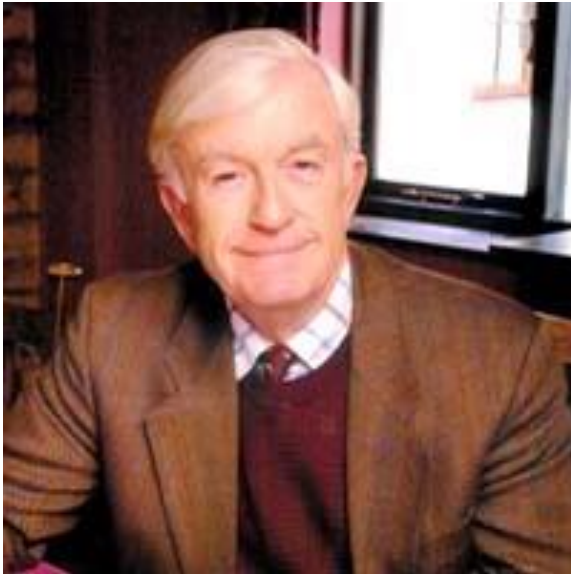
15:00 – 16:15

**Discussion**

- Dr. M. Kumhof, IMF Modeling Group
- Dr. N. Goddard, University of Edinburgh, Arup 4see model
- J. Glynn, University College, Cork, Irish-TIMES model
- S. Lochran, UCL Energy Institute, TIAM-UCL model
- Dr. J-F. Mercure, Cambridge University Centre for Climate Change Mitigation Research, 4CMR modelling
- S. Milne, Energy Technologies Institute, UK, ESME models
- Simon Davidsson, Dept. of Earth Sciences, Uppsala University, limits to rate of energy change
- Dr. Mikel Gonzalez, BC3 Basque Centre for Climate Change, BC3-GCAM model



# Keynote address: Professor Michael Jefferson



- Oxford (undergraduate) and London School of Economics and Political Science (postgraduate)
- Chief Economist of Royal Dutch / Shell (1974-1979)
- Deputy Secretary of the World Energy Council (1990-1999)
- Contributing author, Lead author, Editorial Reviewer, Expert Reviewer at the IPCC
- Visiting Professor School of humanities at the University of Buckingham
- Professor at London Metropolitan Business School
- Editor of Elsevier 'Energy Policy' journal