Summary

14th April – Energy and the Environment

How to apply system thinking and techniques to stimulate energy and environment policies

Jacqueline McGlade

Strategic Policies

- Upstream vs downstream (end of pipe)

- Energy conservation/efficiency vs carbon free energy

- Connectivity qualitative/quantitative of system

New data, systems, openness

New modelling and simulation tools suitable for non-expert policy makers

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Chris Barrett

Decision makers want models that include everything!

Previous systems did not have computer capacity

As networks evolve they can become unpredictable

Revolution in social computing – much more data now available

Connected networks e.g. epidemic

Michel Morvan

Integrated approaches are essential for multicomponent systems e.g. water, cities

Energy and scarcity of resources are critical for water

Bottom-up energy solutions from different countries

Different time-scale for cities/new smart data management (very helpful)

Many partner organisations for social policy making

The Energy and Environment Policy Process

Agreeing the Energy and Environmental Packages before Copenhagan meeting – many conflicting interests resolved

Following COP15, the international community moving forward even without a binding agreement

Scientists should be involved in not only the pre-legislation studies and drafts but also when passing regulation to counter the critical input from commercial and ngo lobbyists.

Uncertainty and precautionary principle – indicators, pilot projects – what works?

Why is economic uncertainty less controversial that scientific/climate uncertainty

Should art/leisure/sport be involved for policies to be understood, accepted and 'internalised'?

Media presentation of the systems approach – needs stories connecting abstract ideas to real problems of solution.

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Panel: The Future of Energy

Canneill - Market vs planning integration

Huge new capacity

US SO2 Market vs EU system

Policy via parameters – simplified for decision-making

Ekins - Taxation vs carbon trading

Climate change as a political issue

Economics must be reformulated

Why is mitigation/decarbonisation so difficult?

Kohler – Cars: consider use – lifestyle; demand; acceptance of new technologies

Innovation – many interactions/ideas; products; demand; regulation

Kupers - System conversation needed – applications thinking

Scenarios – new policy accepting carbon process

Leadership concepts within organisation from systems

Discussion: Efficiencies come at lower cost – once industry is motivated?
Hence estimated cost of decarbonisation may be too high.

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The Requirements of Policy-makers: Government & Industry

Agarwal – Systems thinking – examples of robust patterns (lists), persistence and breakdown

People's involvement /services; meaningful contact with decision

Nowak – Social science, computer science and complexity – unexpected consequences, emergent (how to define?), optimum strategy

Baeza-Yatez – Shape internet; uncover potential

Predictive of people's intentions

Problem of use of social data

Discussion: Public sector, use of energy

Need for ambitious high risk research that is transformative

- Data openess and availability is questionable

- Perception of privacy

Hegel knows it all?

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THANK YOU!

Cocktail reception and conference dinner to be held at the Radisson BLU Royal Hotel, Rue du Fosse-aux-Loups 47