# Information and Communications Technology for Environmental Regulation Workshop:

Developing a Research Agenda Rapporteur's report

Su-ming KHOO, School of Political Science & Sociology, NUI Galway



### Stone Soup

- ▶ Keynote a recipe
- New Ingredients
- Key Contributors
- Research interests and questions

Usefulness, questions, concerns



## Opening – a recipe (and a warning!)

#### Developing a research agenda

- Speaking across disciplines, stepping out of 'comfort zones'
- Identifying opportunities to make the 'right choices'

#### Environmental regulation in comparative perspective

- Understanding 'seen, chronicled, observed' innovative regulatory strategies, move from wilful blindness (Karkainnen)
- ▶ Eg USEPA TRI's, Fair Warning of Exposure, Right to know, right to a quality environment, right to information, participation, access to justice
  - Information triggers, creates and alters incentives to voluntarily produce/provide information
  - Useful information and tools create outcomes

#### You manage what you measure

Information a necessary, but not sufficient condition

No silver bullets - Care needed in designing regulatory tools



Leading/ innovative examples	Persistent problems/issues	Tools and methods	Perspectives and paradigms
USEPA -TRI's Fair Warning of Exposure,	Information necessary but not sufficient	Reflexive regulation Need decisionmaker to hold to account	Right to a Q. env, information, participation, access to justice
Constitutionalisation, Access & Participation (Arhus, Brazil, S Africa)	Wicked problems, complex, blurry. Trust data? Emotive responses Open data → Google Privacy issues	Procedural rights TAI Bridge – 'Open Development' Open data, 'big data' citizen science, Cleanweb,	Reflexive regulation Widening transparency and participation Rights Developing world
Ireland - regulation of forestry and bogs vs landfills and water	Some sectors/actors less/not regulated Costly barriers to access despite advanced laws	Civil society oversight Avoidance, gaming, cheating	Violations approach vs progressive realization of shared env regulation, 'triple bottom line'
Integrated / interactive/ real time regulation	Burden on business Quality of data Fear of sharing Who owns data?	Digitised sensors Linked data Agile business process models	Leaders, comply and explain vs. imposed regulation, laggards

#### Contributors

- Public/ citizens
- Agencies
- Businesses
- Licensees
- NGOs /CSOs
- Academics



- Law People
- •IT People
- •Business process people
- •'Users' or 'Customers'
- Data/modelling/platform specialists
- Communications
- Technology providers
- •Environment agencies
- NGO/CSO people
- Citizen Scientists
- General public

## Key questions

Holly - Identifying what we don't know and learning possibilities

- What matters, what to measure and why
  - making the invisible visible ;Triple Bottom Line
- Who will use information/tools, cost/ease and why
- Larger ecology of who can know and act
- ▶ How to have conversation across a variety of perspectives:
  - Rule of law, reflexive regulation, behaviour change, citizen-consumer, progressive realization
- ▶ Recognising contexts of legal provisions, standards, enforceability
- ▶ Familiarity with new tools, methods what's useful and limitations
- Big, linked and open data what limitations and issue s– quality, ownership, engagement, privacy
  - ?? around quality and legal acceptability of information
  - ?? around synthesis, interpretation and diffusion of information
- Mediation/communication, right to know (...what and why?)



## Fair, legitimate environ. regulation

Publicness in consumption Equitable and Fair

Understanding/ info gaps Fragmented/complex/ emotive No Alternative?

Free or at least affordable?
Appropriate problem identification

Publicness in Decisionmaking Democratic

New Public Goods

approach
Benefits

Acceptable: Quality/
Safe, Precautionary



Adapted from Kaul, 2001: 14-15