RECONSIDERING THE RELATIONSHIP BETWEEN SCIENCE, POLICY & POLITICS

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PROBLEM

➤ Calls for 'science-based'/evidence-based policy-making and the 'unhappiness' about the science-politics interaction - a result of a 'Faustian Pact': short-term attraction, long-term unhappiness

  ➤ stupid publics

  ➤ misunderstood scientists

  ➤ stupid politicians

  ➤ risk-averse regulators/agencies

  ➤ vs. concern about risk & authority

MENU

➤ Why orthodox typologies are unsatisfactory

➤ What are the bargains of 'science in government'

➤ Science in Policy-Making

➤ Beyond the 'Faustian Pact' - reconsidering actors in worlds of a) knowledge generation and b) policy action

ORTHODOX TYPOLOGIES

	Pielke	Aberbach et al
Idea of separate world	Pure Scientist	Type I 'Policy-Administration'
Idea of politicians having values, technocrats with value-free expertise	Science Arbiter	Type 2: Value-Fact
Politicians wishing change, technocrats moderate	Honest Broker	Type 3: Energy-Equilibrium
Idea of merged world	Issue Advocate	Type 4: Pure Hybrid

SCIENCE IN GOVERNMENT

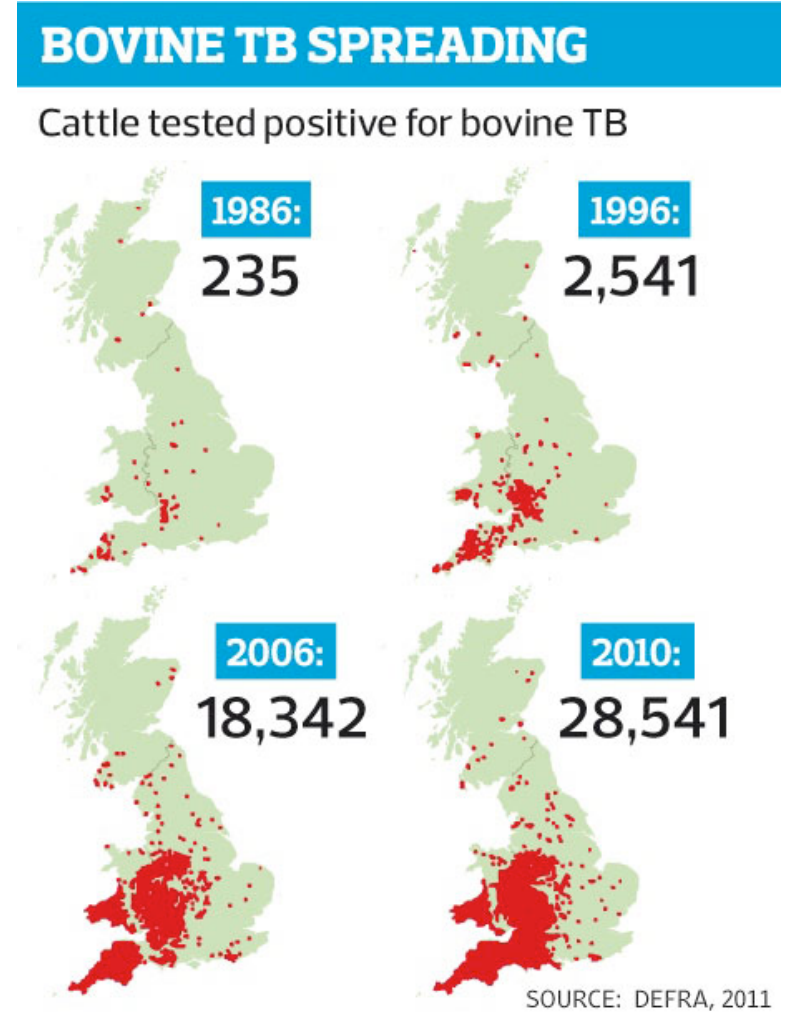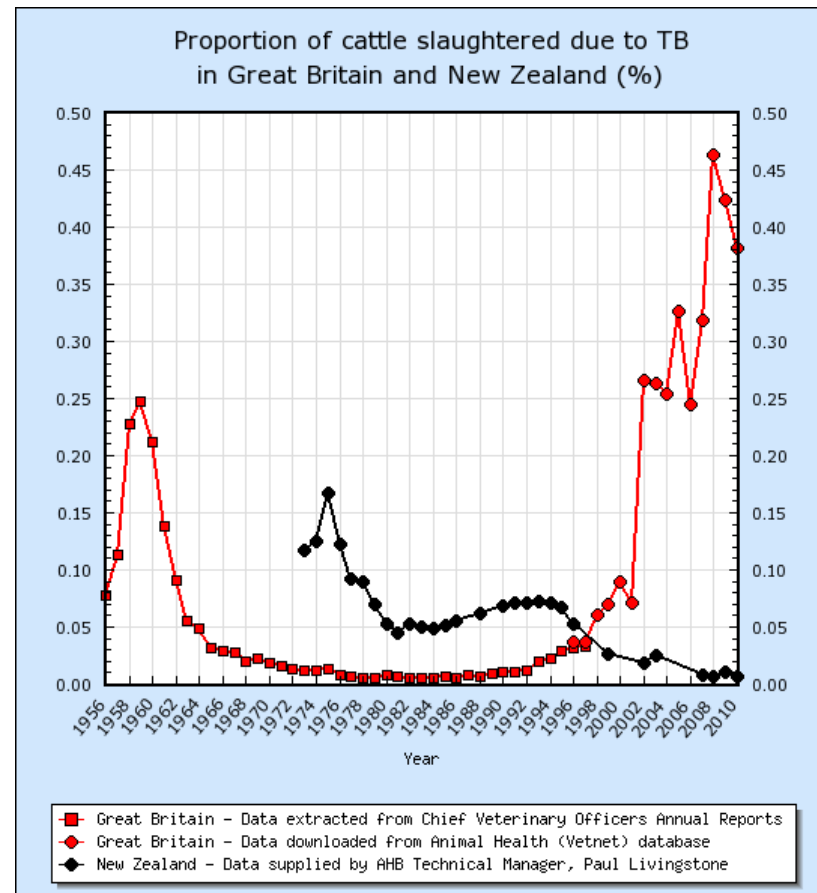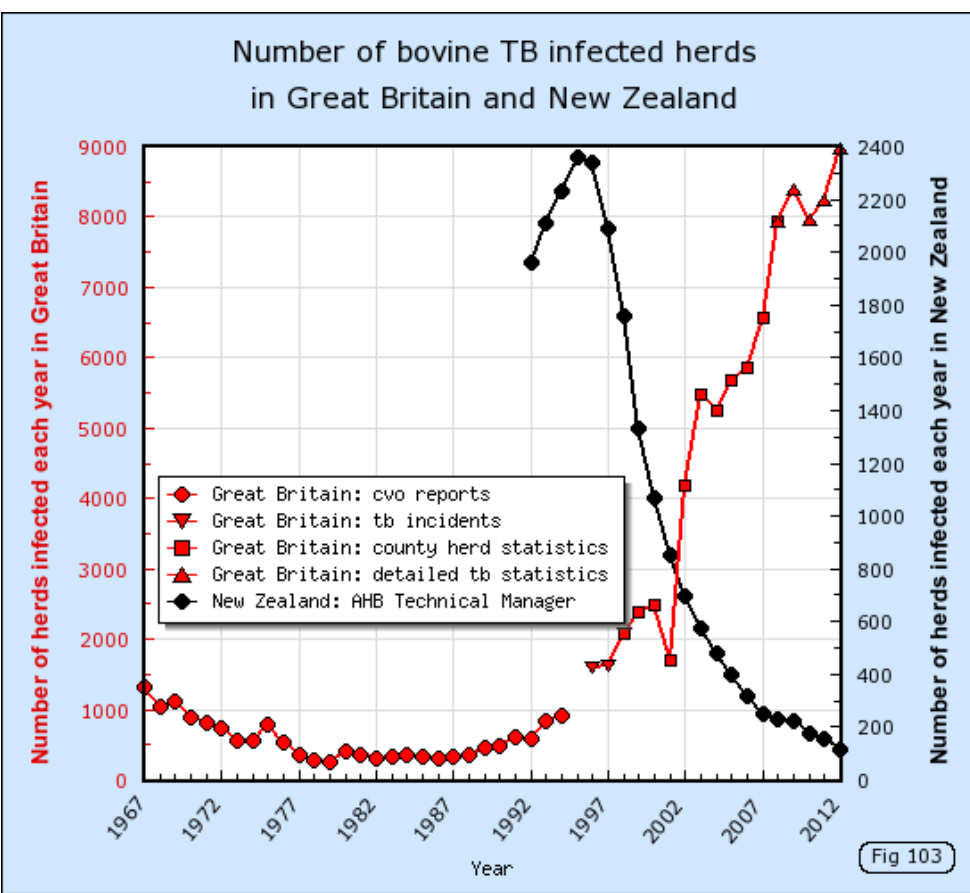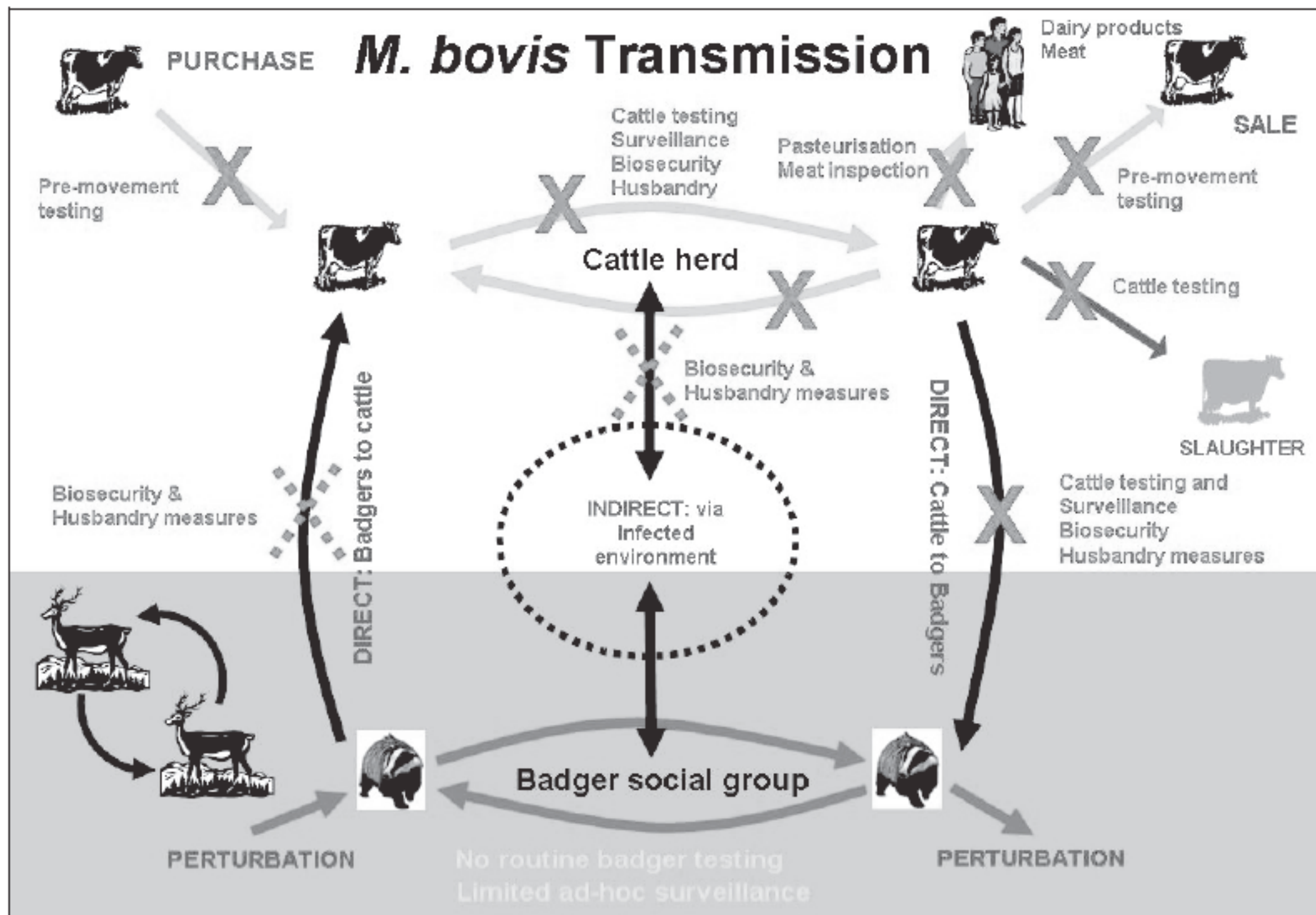|	Broad advice	Direct advice
Close coupling	Advisory Councils	Scientific Advisor
Loose coupling	Government-owned research 'responsiveness'	Government-commissioned research 'leaning and buckling'?

Number of bovine TB infected herds in Great Britain and New Zealand

Great Britain: cvo reports
Great Britain: tb incidents
Great Britain: county herd statistics
Great Britain: detailed tb statistics
New Zealand: AHB Technical Manager

Fig 103

Proportion of cattle slaughtered due to TB in Great Britain and New Zealand (%)

Great Britain – Data extracted from Chief Veterinary Officers Annual Reports
Great Britain – Data downloaded from Animal Health (Vetnet) database
New Zealand – Data supplied by AHB Technical Manager, Paul Livingstone

BOVINE TB SPREADING

Cattle tested positive for bovine TB

1986: 235

1996: 2,541

2006: 18,342

2010: 28,541

SOURCE: DEFRA, 2011

DRAWING THE BADGER.

team badger.org

M. bovis Transmission

PURCHASE

Dairy products
Meat

SALE

Pre-movement testing

Cattle testing
Surveillance
Biosecurity
Husbandry

Pasteurisation
Meat inspection

Pre-movement testing

Cattle herd

Cattle testing

Biosecurity &
Husbandry measures

DIRECT: Badgers to cattle

Biosecurity &
Husbandry measures

INDIRECT: via Infected environment

DIRECT: Cattle to Badgers

Cattle testing and
Surveillance
Biosecurity
Husbandry measures

SLAUGHTER

Badger social group

PERTURBATION

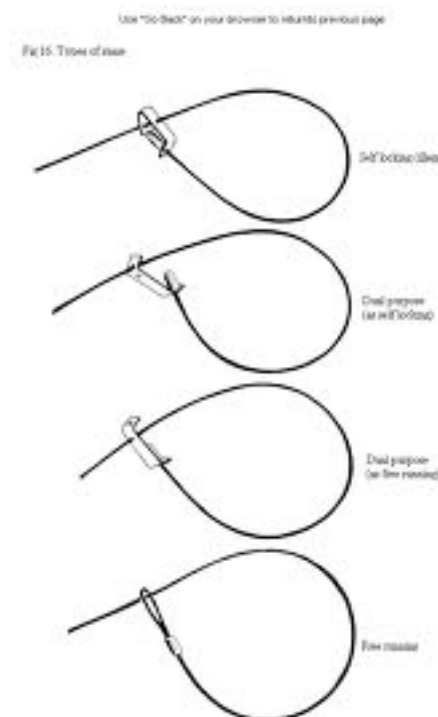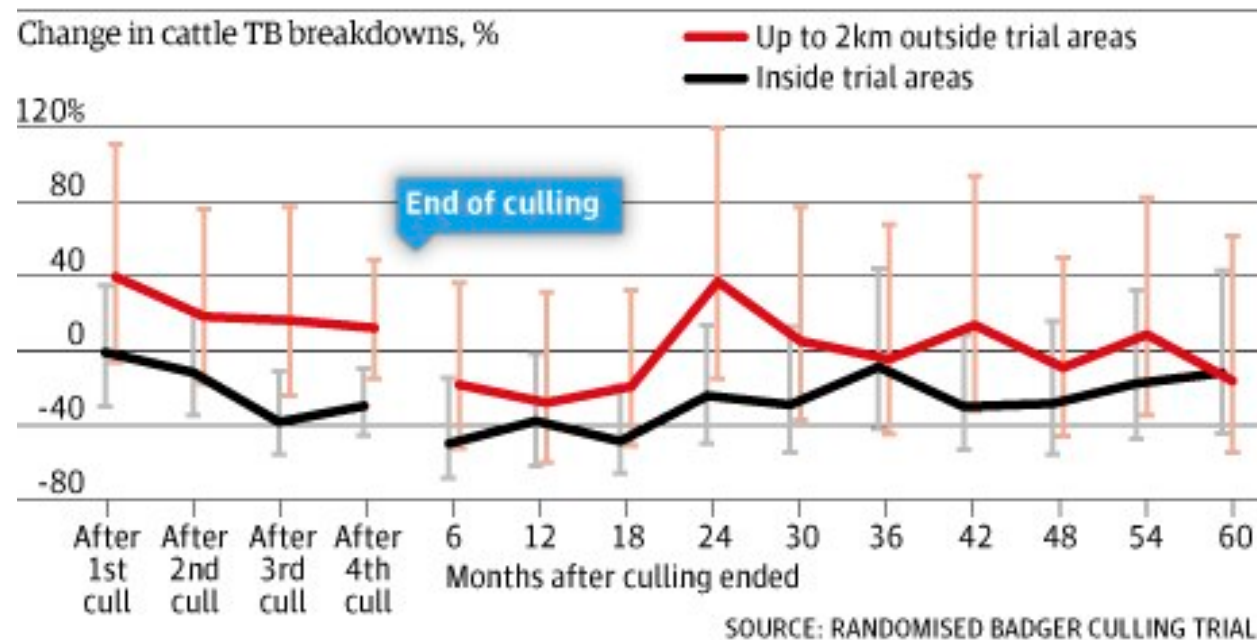No routine badger testing
Limited ad-hoc surveillance

PERTURBATION

- Residual TB in cattle

- Animal rights/humane legislation to protect badger

- Zuckerman (1979), Dunnet (1986), Krebs (1996) - random control trial (10 years, £50m)

  - roll-out, foot & mouth outbreak

  - reactive vs proactive culling, perturbation effect

  - King review (2007) - evolving knowledge

  - Labour vs Conservative governments

  - 2013 trials & 2014 announcement

  - Wales

- EU

SCIENCE & CONFLICT

10.92 Our overall conclusion is that after careful consideration of all the RBCT and other data presented in this report, including an economic assessment, that badger culling cannot meaningfully contribute to the control of cattle TB in Britain.
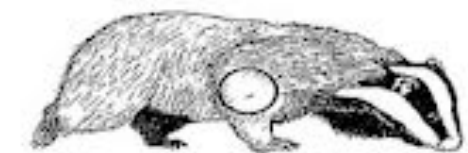
Role	Description	Example
Aggregation-Informational/ Translational	Collection of information for repackaging for policy audiences	POST notes
Aggregation - Analytical	Collection of information, analysis of relative strength of evidence	Reviews in Wales, UK
Policy Directed (Co-) Production	New scientific research specific to policy problems; may be funded by government, problems set out by interaction of scientists and policy makers (policy makers commissioning the work); scientists may be internal, external, or both	RBCT
Policy Options Analysis	Scientists devise and/or contribute to analysis of different options (technical feasibility/impact?); decision left to policy makers; scientists may be internal, external or both; problem is already specified	Work by internal policy team with government scientists (DEFRA)
Decision Making-Devolved	Science advising groups responsible for devising course of action/policy decision largely devolved to 'experts'; scientists independent/external	DEFRA decision-making involving
Advisory	Science advising groups give opinions (may do translational, analytical, and/or options analysis), devise recommendations, but no formal structure to include into decisions (analysis and opinions, no formal authority)	Hilary Benn's advisory panel; Animal Health and Welfare Board for England (AHWBE)
Gatekeeping	Scientists responsible for authorizing practices/products/etc… within existing frameworks	
Challenge	Scientists given role of challenging political actors' decisions/positions (UK Science Advisors)	David King report
Evaluation	Use of scientists (internal or external) in evaluation of existing policies	Dunnet Report (1988), Krebs report, Godfray Review
Implementation	Scientists carry out policies	DEFRA staff used to trap badgers; DEFRA vets testing cattle
Policy Advocates	Scientists have no formal power, publicly advocate for particular policies; may	Various public letters (Woodroffe

1080 AND MAMMALS

➤ Possum as main vector in spreading Tb

➤ Mammals as native animal killers

➤ 1080 as inhumane & mode of delivery

➤ Support by state and research actors - fall in Tb & debate about appropriateness in supporting native wildlife

➤ response to concern: formal enquiries and additional research, strengthened support for 1080

➤ lack of 'independent' knowledge generation, restricted use 'regulatory knowledge application' not 'honest brokering'

INVASIVE ALIEN SPECIES

➤ Rio Declaration

➤ 'Failure' of international processes (Geneva)

➤ Development of EU policy

  ➤ framework funding for database

  ➤ national initiatives

  ➤ development of 'assessments' - the 'list' and 'scientific' and 'management' stages in decision-making

  ➤ what is 'invasive' & feasible

  ➤ ossification (?)

IMPLICATIONS

➤ Faustian Pact may work in 'real world' - not helpful for research

  ➤ role of 'scientist' and 'science-based': bespoke knowledge-generation, wider knowledge, implicit knowledge

➤ Research & Practice: worlds of knowledge-generation and policy action

  ➤ knowledge generation: what are the conditions in which knowledge is generated

  ➤ policy action: what are the conditions under which authoritative decisions about political and administrative feasibility are being taken

  ➤ under what conditions do certain scientists shape systems

➤ What is best in world 'knowledge generation'