EST FRAMEPROJECT
Integrated EST framework (EST-Frame)
An FP7, Science in Society, Collaborative Project,
Small or medium-scale focused research project.

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Integrated Assessments

Challenges posed by the example of biofuels

Robert Smith
Centre for Applied Bioethics
University of Nottingham

SEVENTH FRAMEWORK PROGRAMME

Presentation Overview

1. Introduction
2. Assessments
    a. Initial notions
    b. Integration
3. Biofuels Case Study
    a. Introduction & policy
    b. Assessments in biofuels
4. Moving Forward

Motivations: 3 very general observations / assumptions

Beyond S&T

Institution -alisation

Critique & developm ent

Motivations: 3 very general observations / assumptions

Beyond S&T

Institution -alisation

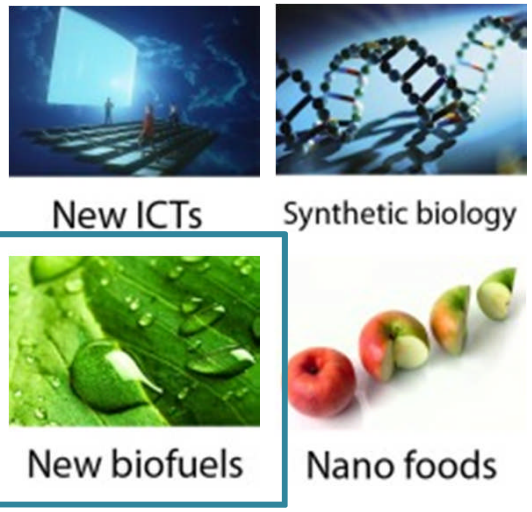
Critique & developm ent

Explore these interactions

Individual vs. institution

Tools

EST-Frame Work Packages



2: WORK

2.1

2.2


THE ASSESSMENT LANDSCAPE

2.1: ‘Assessment’ Brainstorm

Intuitively different types of ‘assessment’ & areas of expertise / decision making:

- Risk assessment for many areas of science – e.g. food
- Impact assessment – for policy in EC.
- Sustainability assessment
- Technology assessment – many areas of technology

Other things, similar to assessments:

- Cost-benefit analysis.
- SWOT analysis.
- Etc.

2.1: ‘Assessment’ Framework

Assessment comprises the analysis and review of information **derived from research** for the purpose of helping someone in a **position of responsibility** to evaluate possible actions, or think about a problem. Assessment means **assembling**, **summarizing**, **organizing**, **interpreting**, and possibly **reconciling** pieces of existing knowledge, and **communicating** them so that they are relevant and helpful to an intelligent but inexpert decision-maker (Parson, 1995).

A Heuristic Framework for Assessments

Technology assessments
- Consensus conference
- Citizens' juries
- Real time TA
- Constructive TA
- Interactive TA
- Etc.

Foresight
- Backcasting
- Future panel
- Future Search Conference
- Future workshop
- Perspective workshop
- S&T roadmapping
- Scenario building
- Scenario workshop
- Horizon scanning
- Trend intra and extrapolation

Impact assessments
- Strategic environmental assessment
- Environmental impact assessment
- Social impact assessment
- Health impact assessment
- Etc.

Ethical assessments
- Principlism
- Deliberative ethical matrix method
- Ethical delphi method
- Casuistry
- Stakeholder Analysis
- Committee Process
- Uncertainty Management
- Ethical Guidelines

Economic assessments

Bottom-up methods
- Cost-benefit assessment
- Techno-economic assessments
- Economic value assessments

Top-down methods
- Indicator analysis
- Econometric analysis/CGE-models/Statistical analysis
- Input-output analysis

What is an integrated assessment?

Environmental background - van der Sluijs (2002):
“a reflective and iterative participatory process that links knowledge (science) and action (policy)”

What is an integrated assessment?

Scrase and Sheate (2002):

Integrated in terms of assessment:

1. better coordination and dissemination of data
2. inclusion of specific environmental, equity and other values into assessments
3. not isolating specific problems at the cost of the whole
4. participation of stakeholders and citizens in assessments
5. integration among assessment tools

Integrated in terms of governance:

1. better coordination between high level and more local level governance;
2. integration of business concerns into governance;
3. integration of the three pillars of sustainability, as well as equity concerns, into governance;
4. integration across policy domains;
5. integration of other stakeholders into governance;
6. proper integration of assessment into governance.

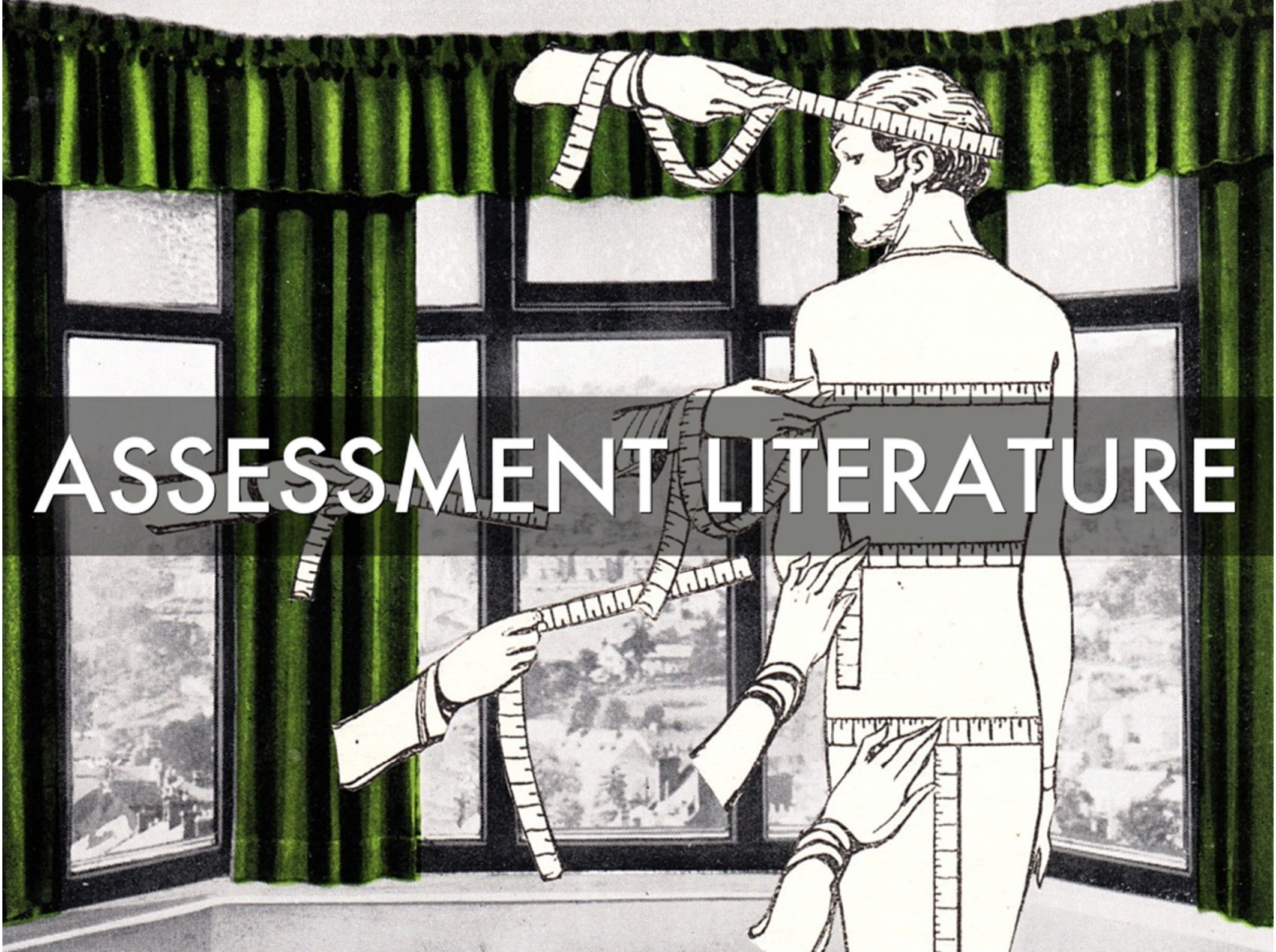

BIOFUELS

2.2a: Biofuels Relevance

1. Established and emerging
2. Major funding sources
3. Generational differences to acknowledge problematic nature of 1G and solve with 2G+
4. Approaches to address issues (sustainability) embedded as part of research: LCA, Ag. Economics.
5. Complex & extensive networks – actors and space

Key policy discussions

European	Year	UK
	1990	Non-Fossil Fuel Obligation
	2002	Renewables Obligation
EU Biofuels Directive DIRECTIVE 2003/30/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport	2003	Energy White Paper: 'Our Energy Future – Creating a Low Carbon Economy'
	2008	Renewable Transport Fuel Obligation (RTFO) Gallagher Review
Renewable Energy Directive	2009	
	2011	RTFO Amendment
	2012	UK Bioenergy Strategy


ASSESSMENT LITERATURE

2.2b: Assessments in Biofuels: method

Categorisation Phase	Journal	Report	Other	Total
Literature Database	460	256	68	**784**
Unclassified (e.g. position statements, definition docs, legislation, etc)		90		
Not assessments		46		
Classified as forms of assessment (Initial Classification)		120		
Classified as borderline assessments		55		
Classified as explicit assessment (after profiling)		65		
Profiled as Key Assessments		35		
Profiled as Significant Assessments (evaluated using the TAMI assessment table)		15		
Evaluation conducted (at 05/09/2012)		9		

2.2b: Overview of Reports

Reference	Bibliographic Information			Publishing Body			Audience	
	Author	Year	Title	Institution	City	Organisation Type	Stated	Implicit
Combination of First Author and Year	Authors / Organisation	Year Published	Full Title	Name of Publishing Institution	Publishing City	E.g.: • Advisory Body • National Government • Governmental Body / Department • International Organisation (e.g. UN) • Consultancy • Company • NGO (& type e.g. environmental) • University • Think-tank • Research Funder	Either stated in report or name of commissioning body E.g.: • Government • NGO • Advisory Body • Public • Research Funder	Other non-immediate actors

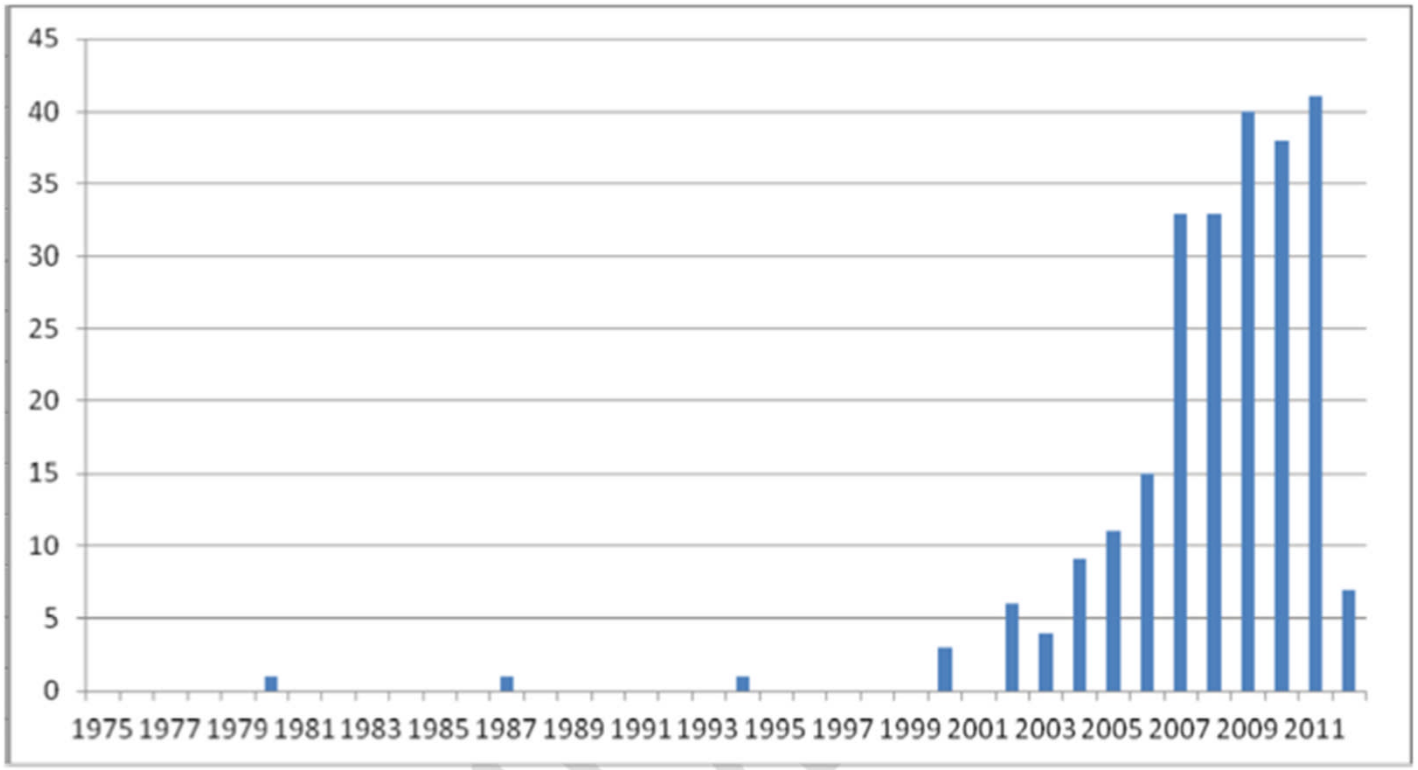
2.2b: Overview of Reports

Report Information				Assessment Information		Notes
Regional Focus	Document Type	Report Focus	Assessment Methodology	Methods / Approaches Used	Assessment Summary	
In terms of Scope of the Report. E.g. does it focus on UK system / biofuels in Tanzania? **State to lowest denomination stated (e.g. Hull, UK or UK or Global)**	E.g.: • Position paper • Consultancy Report • Policy • Outlook • Technical Paper • Consultation • Briefing • Project Report	What is the framing and scope of the report? Brief overview of the focus of the report and goals. E.g.: "report focusing on energy systems in developing countries, outlines future trajectories"	Note the Assessment Domain, I.e.: • TA • Foresight • Futures • Impact Assessment* • Sustainability Assessment • Economic Assessment *Note whether impact of policy or impact of technology	Note the techniques used, e.g.: • SWOT • Participatory Methods • Risk Analysis • Desk-based research • Expert Panels • Committee Discussion • Etc.	What is the focus of the assessment? E.g.: • Policy impact • Economic • Public / Stakeholder • Industry	Any additional information not covered in categories and a justification of the assessment choices.

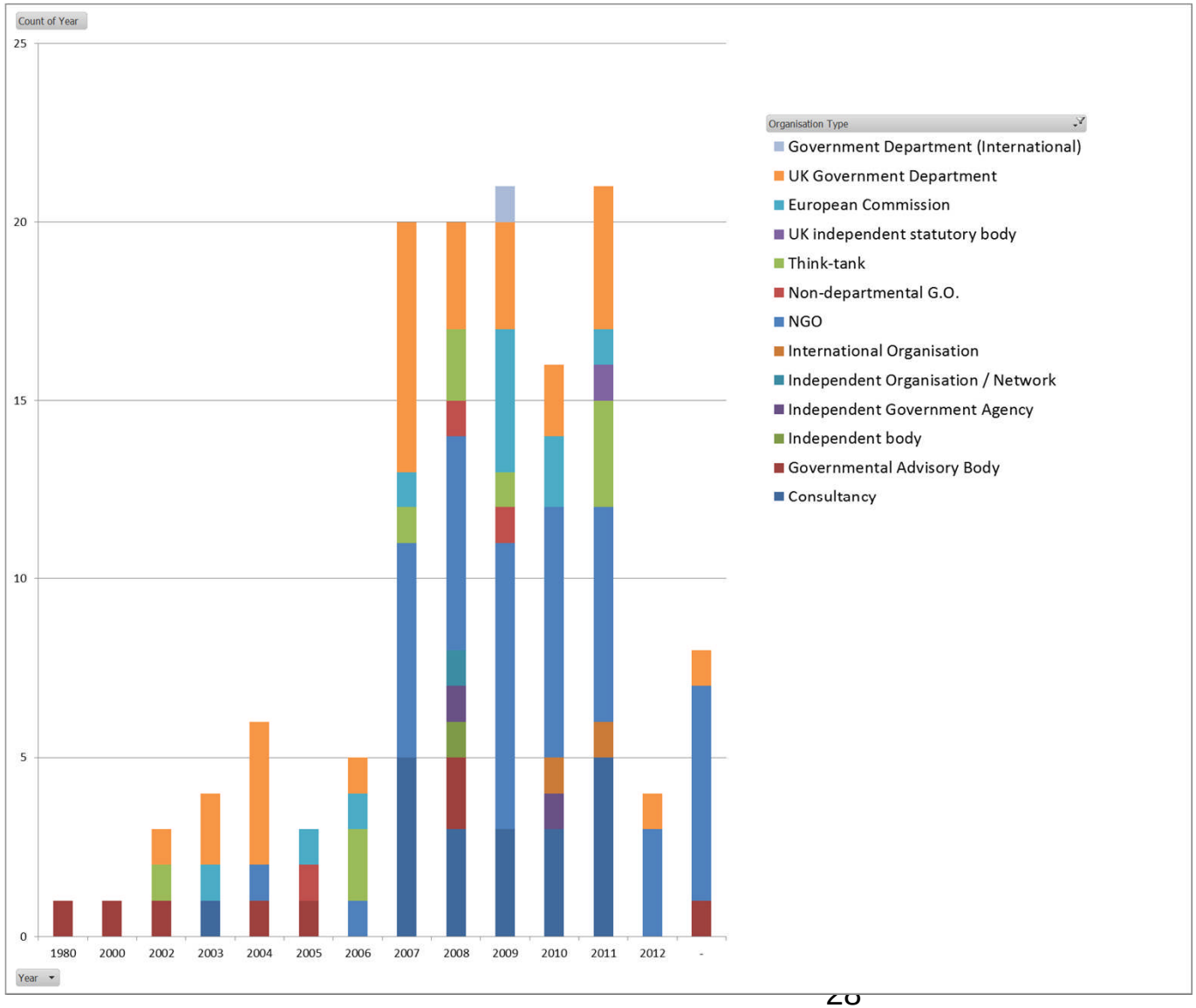
Development of the field

4.1 Significant Assessments

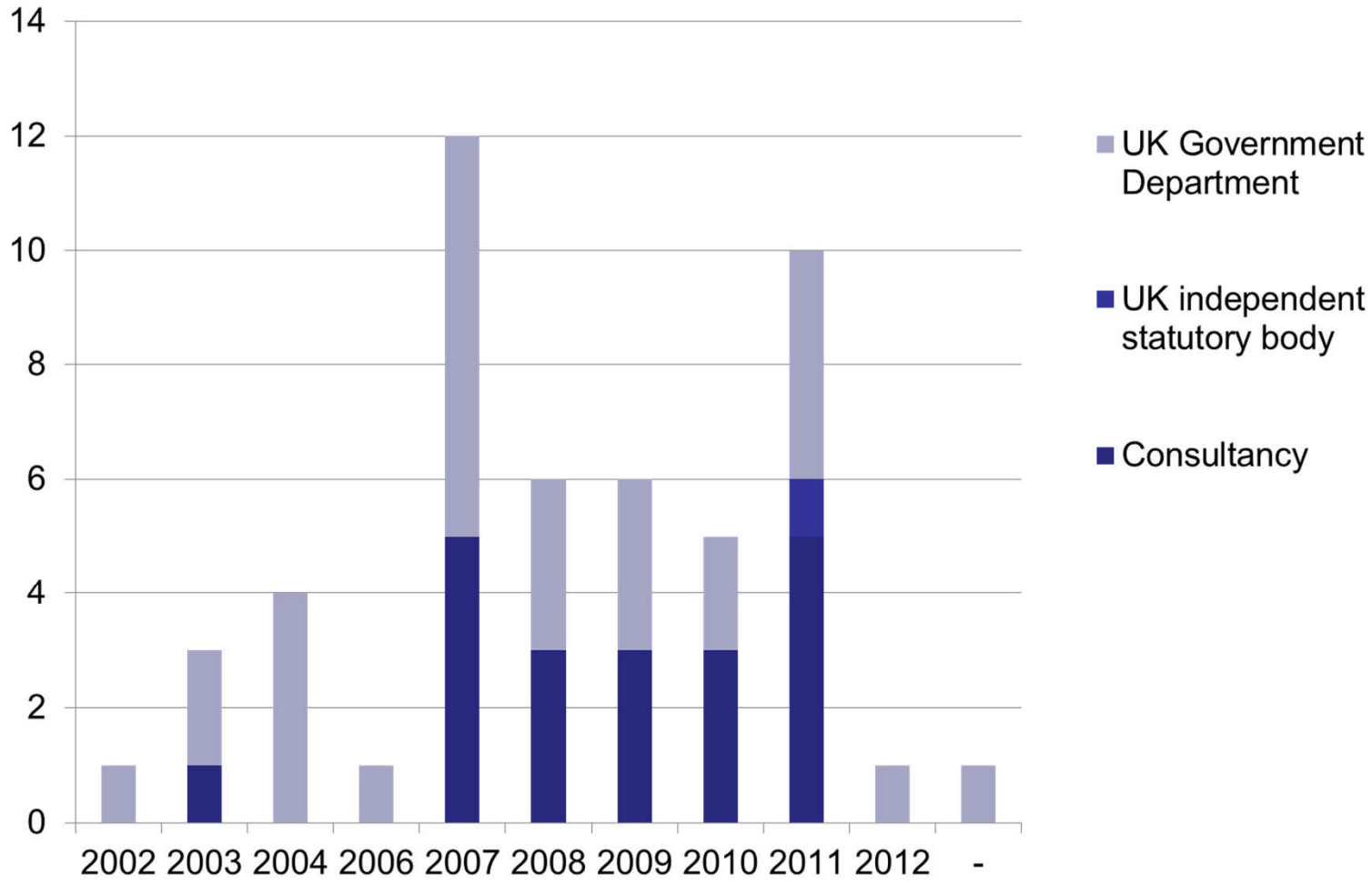
As stated above, of the 65 assessments (listed in Appendix 3) that have been profiled. It is interesting to note the chronology publication of assessments from the late 1970s through to 2012. A notable increase in published assessment emerged in 2007 onwards.



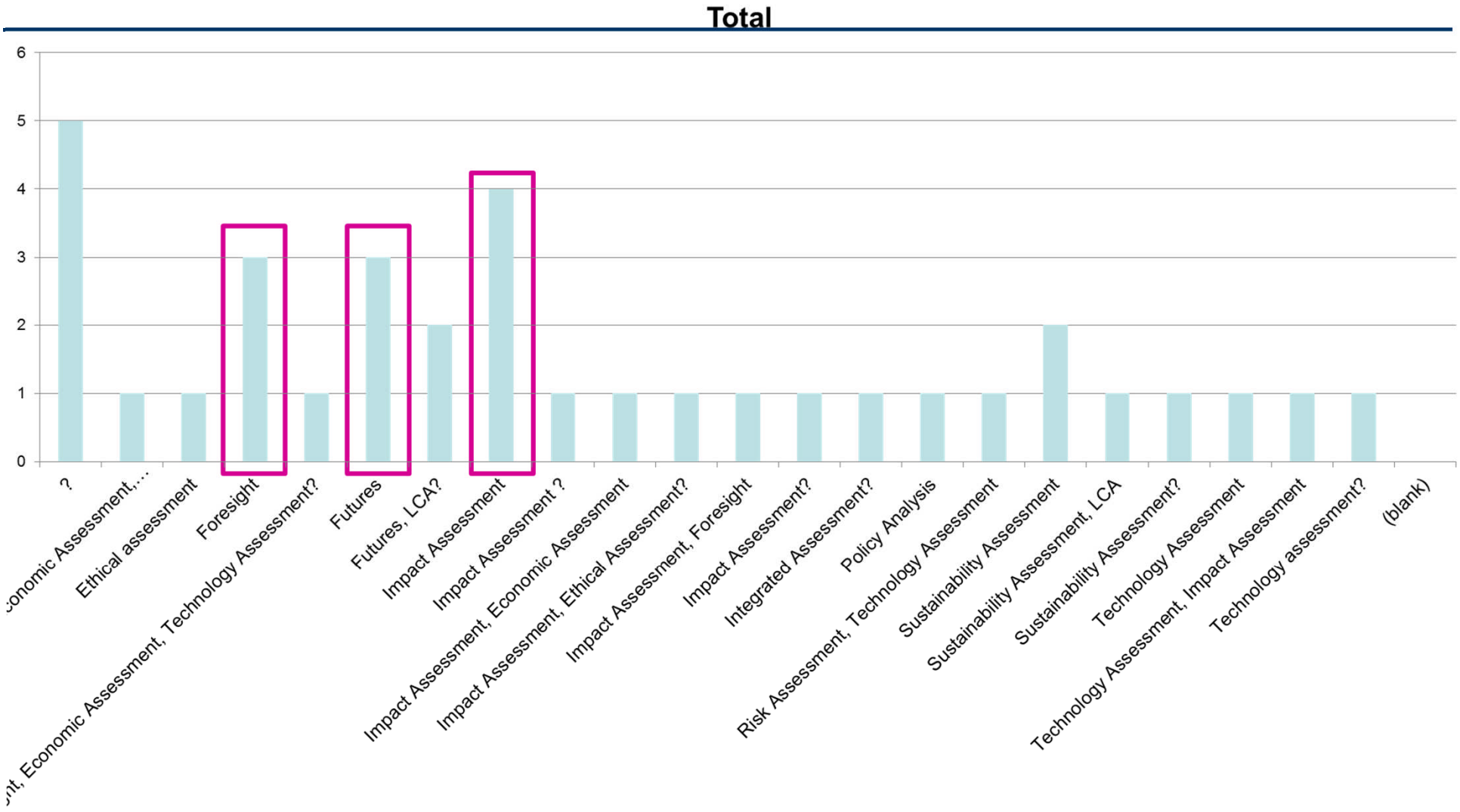
Who’s involved?



Who’s influencing policy?



What kind of assessments are being produced?



Conclusions / Future Directions

- Initial intention
- Problems – almost a step back
- Tighten up and profile reports in detail
- Interviews
- Question the role of assessments (PhD?)

Thank you

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