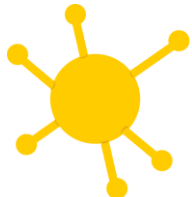


Empowering Citizens in International Governance of Nanotechnology

Dr Ineke Malsch, Malsch TechnoValuation, Vrishali SUBRAMANIAN, Elena SEMENZIN, Danail HRISTOZOV, Antonio MARCOMINI, Ca' Foscari University, Martin MULLINS, Karena Hester, Finbarr Murphy, Tofail Syed, University of Limerick

Sustainable Nanotechnology Conference, 9-11 March 2015, Venice, Italy



SUN



Sustainable Nanotechnologies

- Introduction
- Contributions from international relations and deliberative democracy to an ideal model for multi-stakeholder governance of emerging technologies
- Potential role of software decision support in democratising such governance
- Conclusions



Who am I?

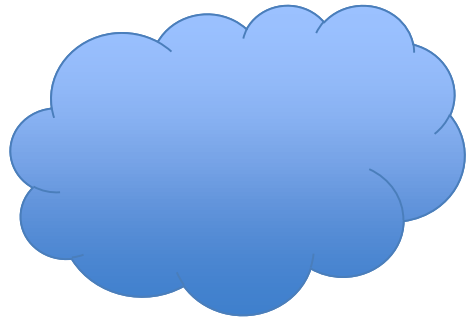
Dr Ineke Malsch, director of Malsch TechnoValuation:

Consultant on Technology and Society:

- EthicSchool for Responsible Innovation www.ethicschool.nl/english
- EU projects: currently NanoEIS www.nanoeis.eu, NMP-DeLA, www.nmp-dela.eu and SUN www.sun-fp7.eu , SYNENERGENE www.synenergene.eu
- Publications on societal and ethical aspects of emerging technologies incl. nanotechnology.
- Located in Utrecht, since 1999. www.malsch.demon.nl

C.V.:

- Graduated in Physics, University of Utrecht, 1991
- Postgrad. education in Environmental Impact Assessment and Social Studies of Science and Technology
- Scholarship STOA, European Parliament, Luxemburg, 1995-1996
- Fellowship nanotechnology IPTS, JRC, EC, Sevilla, 1996-1998
- 1 year part time study Theology, KTU, Utrecht, 2004-2005
- PhD in Philosophy, Radboud University Nijmegen, 2011.
- Thesis: Ethics and Nanotechnology; Responsible development of nanotechnology at global level in the 21st century:
<http://repository.ubn.ru.nl/handle/2066/91234>



This is a thought experiment

Assuming an ideal world

Where international norms are adopted democratically

By representatives of all countries and all global citizens

And exploring the role a decision support tool could play

In empowering citizens in international governance

During the norm creation process

International relations theory:



Earth, © Wikimedia,
[http://commons.wikimedia.org/
wiki/Earth](http://commons.wikimedia.org/wiki/Earth)

Actors in international governance:

Governmental	States
	International organisations
Trans-National Actors (TNA) or networks (Risse, 2002)	(Non-governmental) advocacy networks diffusing norms
	Epistemic communities (Haas, 1992) diffusing causal knowledge
	Multinational companies

Epistemic communities (Haas, 1992):

...”network[s] of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue area, with:

A shared set of normative and principled beliefs ...

Shared causal beliefs ...

Shared notions of validity ...

A common policy enterprise ...

The major dynamics of epistemic policy coordination are uncertainty, interpretation and institutionalisation”.

Three phases in the international policy cycle (Risse 2002) :

Agenda Setting	Trans National Actors most influential: e.g. ETC group for nano, 2003
International Norm Creation	Dominated by states and international organisations. Present for nano: joined by epistemic communities and multinational companies
Norm Implementation	TNA monitoring role. Future for nano

International relations theory

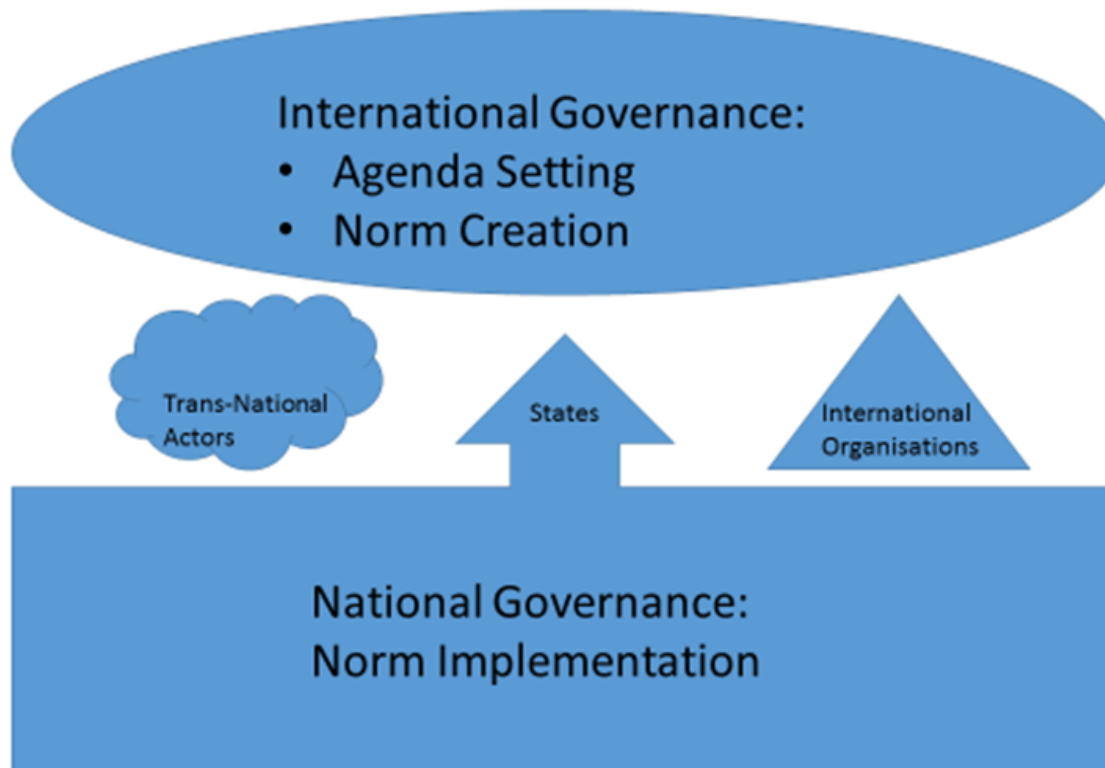


Figure 1: The actors involved in international governance following Risse (2002).

Key unresolved issues in the literature on transnational actors:

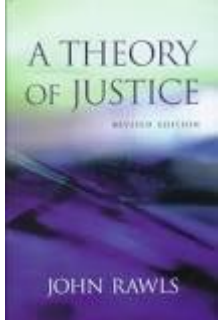
Risse (2002): How can global governance by increasingly complex tripartite networks solve the dual problem of ensuring ‘**input legitimacy**’ of those concerned by the legislation

And ‘output legitimacy’ through effective and enhanced problem solving?”

e.g. Malsch (2011): “how to **govern** the emerging technology **responsibly** during the period of **international norm creation**?”

**Techno
Valuation**

**Empowering Citizens -
Governance**



Input legitimacy: Rawls, A Theory of Justice (1971, 1999)

Deliberative democracy

Participation model of pure procedural justice:

those affected by a decision may participate in the process by which the decision is made

Justice as Fairness

Aims:

- a criterion of justice agreed upon by all under conditions fair to all;
- to assess the fairness of the institutions of society,
- to structure moral discussions
- while recognising the plurality of moral frameworks in a democracy
- and to justify the outcome of those discussions

Ethics and Political philosophy
- Input legitimacy (Habermas)

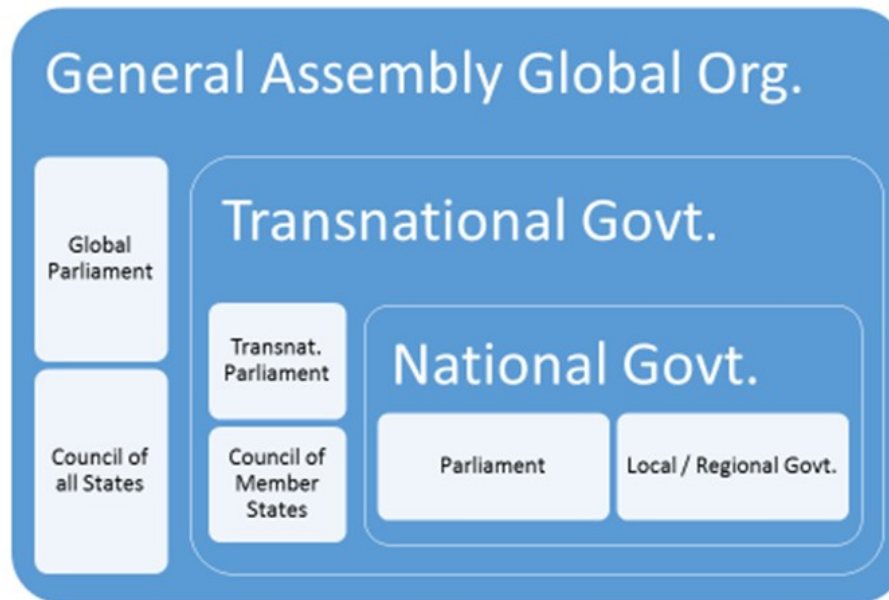
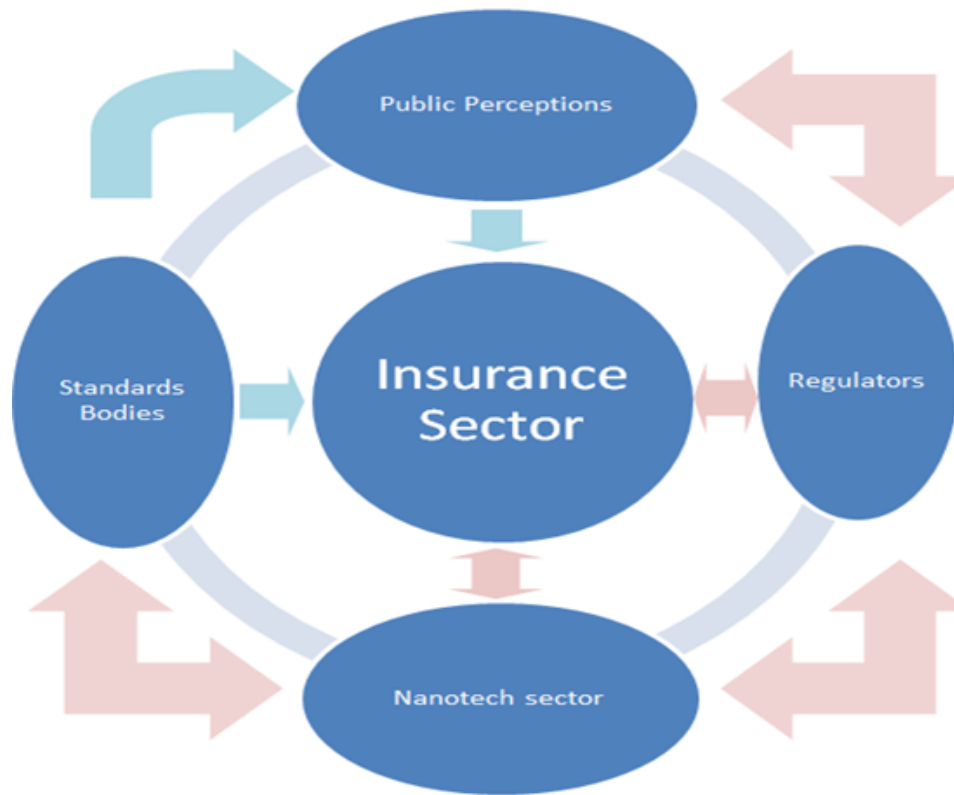


Figure 2: Combining Global and national citizenship following Habermas (2011)

Techno Valuation

Empowering Citizens - Governance



Ethics and Political philosophy - Governance during international norm creation

- Ethics complementing law
- Role of Insurance companies as proxy-regulators

Figure 3 illustrates how key centres of civic influence and decision-making can mutually effect and benefit one another through multiple self-reinforcing feedback loops.

RISK CONTROL

ADDITIONAL SUSTAINABILITY ASPECTS

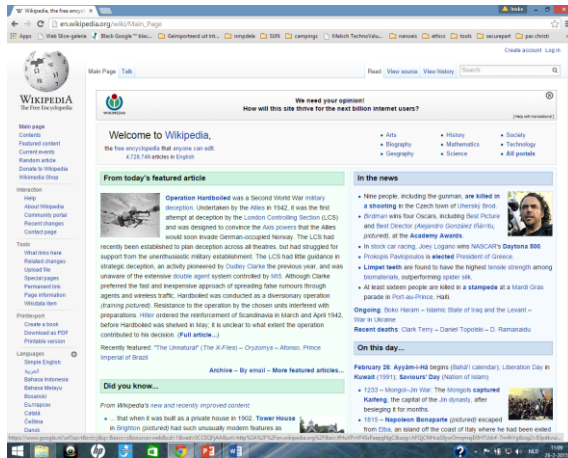


Techno Valuation

Empowering Citizens – decision support

Option: an MCDA wiki-tool

- Aim: contribute to democratising international norm creation
- Two entries: data input / value preferences input

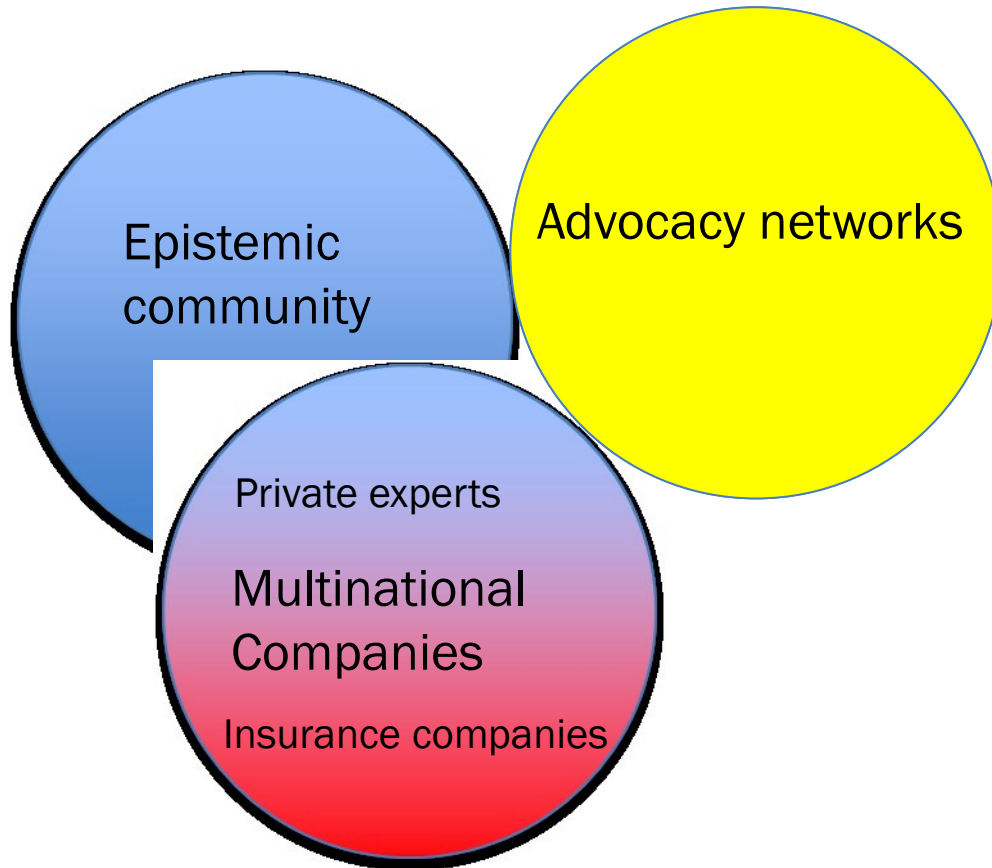


<p>Data input: aims:</p>	<p>Value preferences input: aims:</p>
<p>Support transparent formation of epistemic community</p>	<p>Support stakeholders to influence political choices</p>
<p>Collect relevant data and explicitly consider uncertainty</p>	<p>Develop indicators to monitor value conflicts between stakeholder groups</p>
<p>Support evidence based international norm creation</p>	<p>Support fair and democratic international norm creation</p>

**Techno
Valuation**

**Empowering Citizens –
decision support**

Supporting access to the governance arena for transnational actor networks:



Supporting global citizenship	adoption of new international norms
Representative democracy	UN General Assembly & ideal Global Parliament
Direct democracy	all citizens participate in international norm creation

- International relations theory and deliberative democracy allow for sketching an ideal model for multi-stakeholder governance of emerging technologies
- Software decision support could play a role in democratising such governance
- Further work is needed to assess feasibility and to specify design criteria

Techno Valuation

Empowering Citizens References

ETC group, “Size Matters! The case for a global moratorium,” ETC group, Winnipeg, Manitoba, Canada, 2003 (and other reports)

Haas, P.M. (1992) Introduction: Epistemic Communities and International Policy Coordination, in International Organization, Vol. 46, No. 1, Knowledge, Power, and International Policy Coordination. (Winter, 1992), pp. 1-35.

<http://links.jstor.org/sici?sici=0020-8183%28199224%2946%3A1%3C1%3AIECAIP%3E2.0.CO%3B2-%23>

Habermas, J. (2011), Recht en politiek in een tijd van globalisering, Klement / Pelckmans, Zoetermeer / Kapellen. [Law and politics in times of globalisation]

Malsch, I. (2011) Ethics and Nanotechnology; responsible development of nanotechnology at global level in the 21st century, PhD thesis, Radboud University Nijmegen, <http://repository.ubn.ru.nl/handle/2066/91234>

Rawls, J. (1971) A Theory of Justice, Harvard University Press

Rawls, J. (1999) A Theory of Justice revised edition, Belknap

Risse, T. (2002) Transnational actors and World Politics, in Carlsnaes, W. Risse, T. and Simmons, B. (eds) Handbook of International Relations. London et al, Sage, pp 255-274

Acknowledgements:

Part of the research leading to these results has received funding from the European Union Seventh Framework Programme [FP7/2007-2013] under EC-GA No. 604305 ‘SUN’, EC-GA No. 218528 ‘ObservatoryNano’, EC-GA No. 608740 ‘NMP-DeLA’ and EC-GA No. 319054 ‘NanoEIS’.

This publication reflects the views only of the author, and the European Commission cannot be held responsible for any use, which may be made of the information contained therein.