Responsible Innovation

'*Society Inside®*'

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About MATTER

- UK based think tank

  - *advocating the use of new technologies for social benefit*
  - *promoting good governance as a catalyst for appropriate innovation*
  - *championing the participation of stakeholders and the public*

- Independent, technology agnostic, multi-stakeholder

- Collaborative approach - honest broker, facilitator, catalyst - particularly with business

- Areas of current interest: Responsible Innovation: research and applications of nanotech, synthetic biology, biotech plants & insects, robotics, geoengineering....

- Previously developed the Responsible Nano Code, public website www.nanoandme.org. RRI work in UK & Europe

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Why Now?

Learning the lessons of the past...

...and creating the 'right' future

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Fear of....

- Unintended consequences

- Irreversible consequences

- Intended misuse

- ...another disaster like:
  - *Asbestos*
  - *CFCs*
  - *PCBs*
  - *BSE*
  - *Biofuels*
  - *Palm Oil*
  - *etc...*

"in every act of creation and innovation there exists the potential, also, for our undoing."

Lord Robert Winston
Bad Ideas; an arresting history of our inventions

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To avoid losing out....

- ...Like GM

  - *'NGOs & the public handicapped our innovation, they put European agriculture back 30 years'*

  - *'New technologies are the engine of growth'*

  - *'If only the public had better information...'*

- Lots of lessons for nanotech, new biotech, synthetic biology & others

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Responding to the 'rise' of public

- People are getting more sceptical, more savvy & better connected

- NGOs more vocal and effective (which the public wants)

- Progress & solutions **vs** legitimate caution

  - *'Is it all spiralling out of our control?'*
  - *'Do they really know what they are doing'*
  - *'Will profit trump safety'?*

  - *'We need all the help we can get'*
  - *'These problems are too big for the old solutions'*
  - *'We need to pull out all the stops to get ourselves out of this hole'*

"(Regulation)...balancing the costs of being too restrictive on innovation with the hazards and costs of being too permissive"

Late lessons from early warnings - the precautionary principle 1896-2000 European Environment Agency

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Globalisation & need for speed

- Innovation is global

- Potentially conflicting views:

    - *"If we don't do it, someone else will and they might not be responsible"*
    - *"We need growth in all areas to get us out of this financial crisis"*
    - *"We are on an unstoppable 'progress' treadmill'*
    - *"Growth is not everything at the expense of well being"*

- Governments and business need societal support to make innovation work

- Society needs government & business to do its job right to have the right solutions to the big and little problems

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The innovation opportunity

- How to use innovation appropriately?

- Who's right solution?

- How to create the best environment for such innovation to prosper?

- How to we fund it?

- How can we get Society Inside®?

> *"innovation is society in the making."*
>
> **Pierre-Benoît JOLY**
> **Senior Research Fellow**
> **INRA/SenS and IFRIS, Paris**

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What does Responsibility look like?

Responsible Research & Innovation...?

- *...about creating social and environmental benefit*

- *...anticipating and mitigating risks - including social & ethical*

- *...oversight which is flexible and responsive*

- *...engagement of society*

- *...where openness and transparency are integral to the process*

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Building confidence
in innovative technologies

What's fair to ask?
What's fair to share?

What stakeholders expect
and how companies can respond

Report By Hilary Sutcliffe and Mike King

Part funded by M&S - with Unilever, Nestle, Leatherhead Food RA, GSK, A-Z, College Hill Communications

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What the public wants **to know** about science and technology?

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Be open, be honest, don't duck the tricky issues..

- Generally supportive of the fruits of Science and Technology, but....

- Suspicious of scientific hubris - Why are you doing this? Who will benefit? Is it worth it?

- A richer picture about benefit over other solutions - not just the science

- Does the system of oversight work? Who says?

- **When** it goes wrong who carries the can, how does it get put right and who is thinking of this in advance?

Analysis of 14 public dialogues in Europe on nanotech, synthetic biology, stem cells & geoengineering, plus academic research

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How does this fit with...

- "*increase of public awareness of the importance of..science...technology...biology... chemistry et al*

- "*wake the interest of young people for science, technology and innovation*"

- "*wake enthusiasm for scientific education, tackle information gaps in the area of technology and innovation*"

- "*collect public perceptions*" (market research?)

- "*Citizens need to understand how science and society are linked*"

- "*communicate science-based solutions*"

All these are about you...

...what about what they want?

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Are there implications for City Partnerships?

- **Can you link what they care about better with your work?** - Do you know what your citizens are worried about? Focus on their needs and wants - not just what you want to tell them?

- **Do you know what's important to them?** - what are people saying, what are their concerns, expectations in relation to science & their lives? How can you help?

- **How can you co-create solutions together** - How can City Action Plans be developed together with citizens? How can you help - you have the space & the ingenuity?

- **Communicate in their language, not yours** - be bold, be open, and stimulate that in others - businesses, councils, ngos etc.

- **Is it worth it for them?** - dialogues, involvement, events - would you go yourself? Is it a good use of people's time?

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Bringing Responsible Innovation to Life

What does Responsible Innovation mean for you?