Science Communication
- are we making progress?

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Engagement / Dialogue...

- 1) What?
- 2) Why?
- 2) When?
- 3) Doing it better
- 4) Are we making progress?

Engagement - What?

- SUP
- Listening **before** we start to talk
- Realising it can **help research**

Dialogue:

- Talking **with** publics about ethical issues
- Being prepared to **change our minds**
- Getting publics & different perspectives to help explore issues, aspriations, concerns when **shaping policy**

Dialogue - Why?

‘Crisis of confidence’ - Jenkin 2000

- 1) Trust in science and its Governance
- 2) Better discussions around science
- 3) Better decisions for society

- *'...*direct dialogue with the public should move from being an ***optional add-on*** to science-based policy-making & to the activities of research organisations & learned institutions,

  - & should become a ***normal & integral part of the process***.'

Jenkin Report 2000

- “We have to get dialogue with the public about Science right - or there will *be* no Science.”

Professor Sir David King,

Government’s Chief Scientific Advisor

June 2003

Trust

- ‘‘Science is conducted by individuals (who) must have ***morality and values***, and must be allowed, indeed expected, to ***apply them to their work***

  …By declaring the values which underpin their work, and by engaging with the values and attitudes of the public, they are ***far more likely to command public support.***’’

  Jenkin Report 2000

Trust

Can we ask the public to trust people:

- Who won't discuss the ethics around their work - which could affect *everyone's* life and environment
- Who claim 'objectivity' - even when some vested interests are clear

Better Discussions?

Currently ‘debates’ around science are too often:

- Media driven
- Extreme views get heard
- Groups don’t listen well to each other
- Scientists not heard well
- Discussions seldom informed

The GM Story

Public do grasp essential shape of arguments in the news

(Hargreaves 02)

GM - Media Activity (Jan - June 1999)

Campaigning

Explicit:

- Daily Mail, Daily Mirror
- Independent on Sunday
- Today, 9pm News
- Newsnight, Question Time

Implicit:

- Mail on Sunday
- Independent
- Guardian, Observer

Non Campaigning

Times

Sunday Times

Daily Telegraph

POST report 138, 2000
The Great GM Food Debate

Protestors 1999

Better Decisions?

- Factors that led to 'bad' decisions:
  - group insulated from info from outside the group
  - group rarely searching systematically through alternative policy options to appraise relative merits

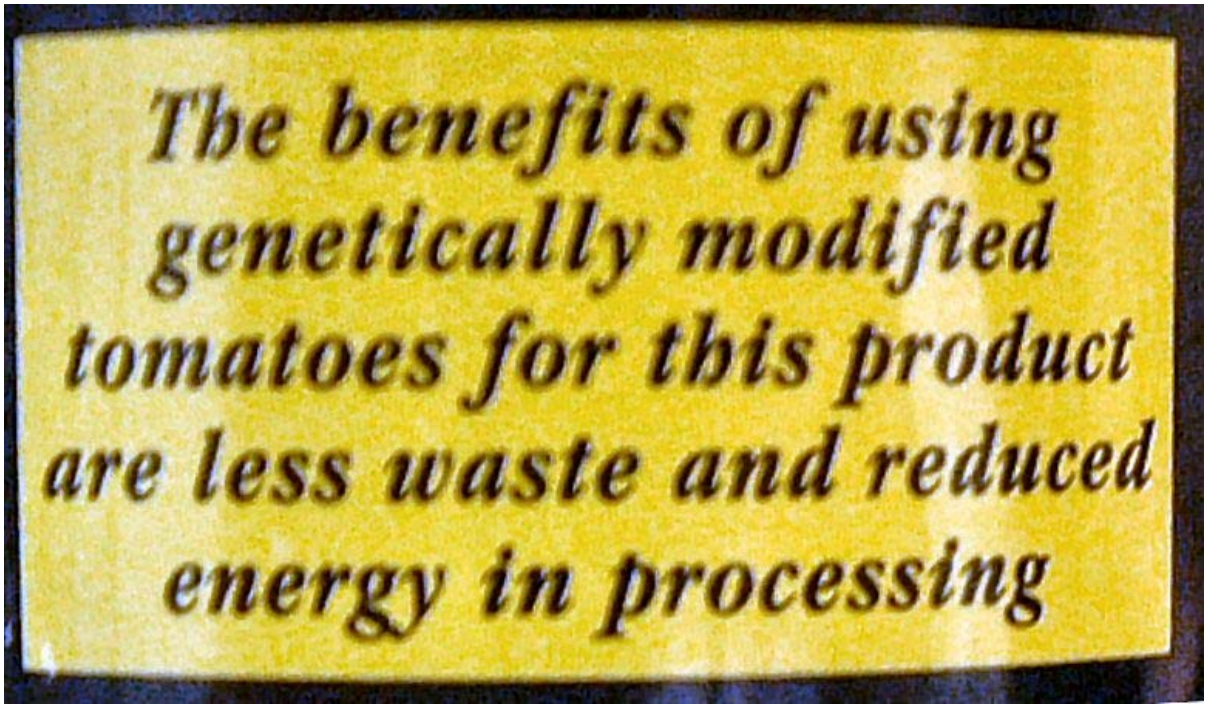
Janis (1972) quoted in Brown (1990)

BBSRC Consensus Conference 94

Recommendations:

- **labelling**
- **patenting**
- **benefits to developing countries**
- **Government Minister**

GM tomatoes


The benefits of using
genetically modified
tomatoes for this product
are less waste and reduced
energy in processing

Could we have listened better?

Consensus Conf 94

- Labelling
- Developing countries

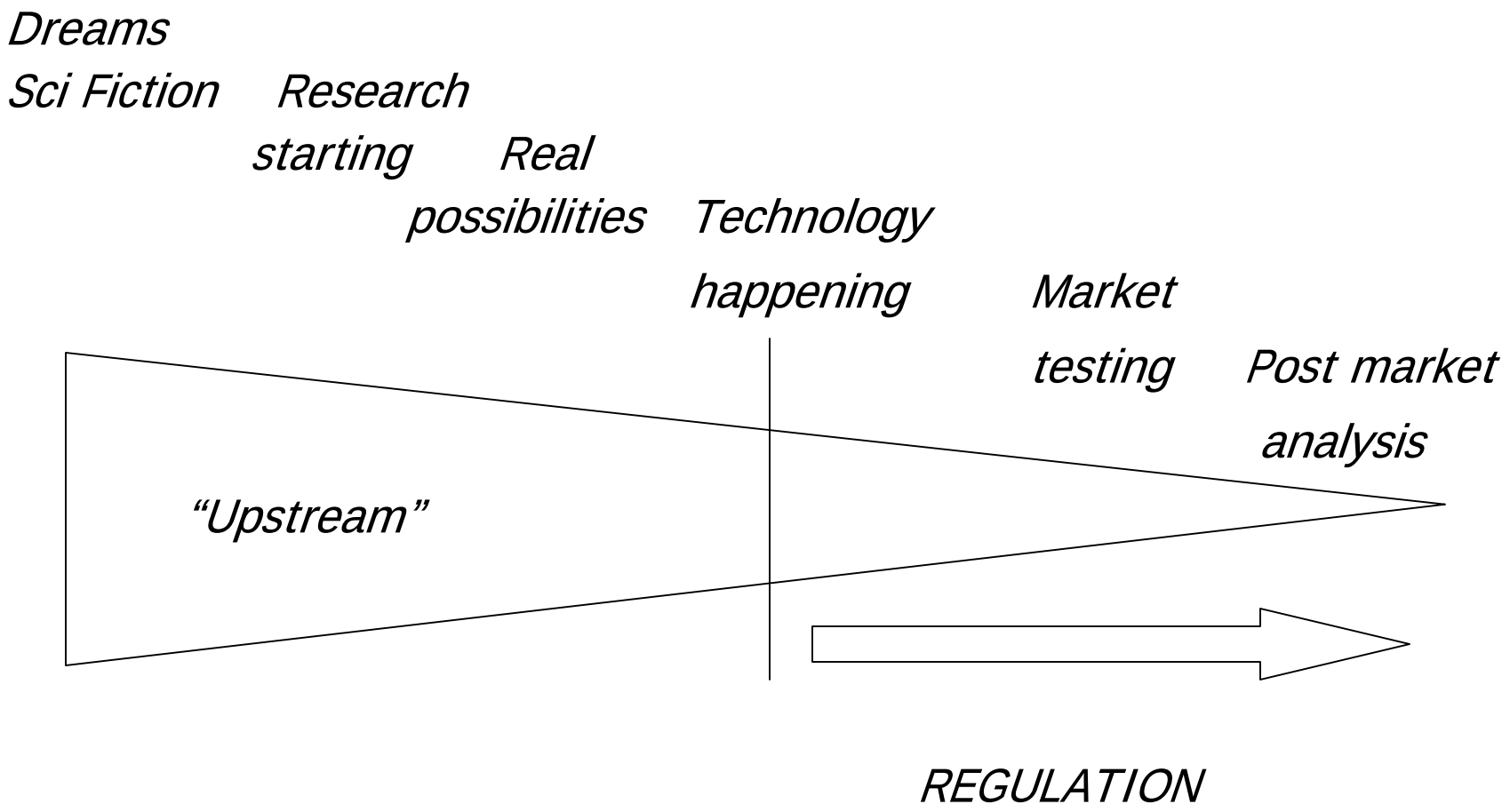
- Disasters take time to show
- Cross-pollination
- Creation of new weeds
- Resistant pests emerge
- Infringement of plant breeders' rights

'GM Nation?' Debate 03

- Labelling
- Developing countries

- Disasters take time to show
- Contamination
- 'Super' bugs & weeds created (so *more* pesticide needed)
- Co-existence of GM & Organic not possible

Dialogue - When?



Dialogue - When?

‘Upstream’

- exploring aspirations and areas of concern
- in scientists, publics, ethicists, environmentalists..
- to maximise opportunities/ access
- and explore ways to reduce risks

NOT - about publics making decisions

Dialogue - doing it better

- Deliberative - time for reflection
- Clear objectives and scope
- Feed into policy (political buy in, timing)
- Inclusive (not just extremists)
- Involve scientists & other perspectives
- Address ‘bigger’ questions
- Feedback impact to participants
- Evaluated (process and outcomes)

POST reports
153 & 189

Dialogue - doing it better

Are scientists well prepared?

- 1) Little practice (*NB Diana Hess' work)*
- 2) *Winning* is important
- 3) Assume logic is enough
- 4) Simplify problems
- 5) Not 'our job'
- 6) Preparedness to change mind?

Dialogue - doing it better

Preparing scientists better

- 1) Training - school, degree, beyond
- 2) Practice, opportunities & feedback
- 3) Ethical code for scientists? (CST)
- 4) Help scientists reflect (eg Brian Wynne's work)
- 5) Value scientists who do it & do it well

Dialogue - doing it better

What institutions can do

- 1) Value it
  - money for it
  - reward researchers
  - reward departments/ institutions
- 2) Embed it
- 3) Train at all levels

So - are we making progress?

4 years on from Jenkin report…

Huge increase in awareness & acceptance of need

Many in science communication trying

Some good examples

- Citizen's Juries
- Local level activity

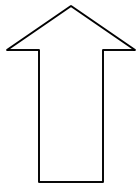
Are we making progress?

- Science & Innovation 10 year Framework
- ‘Upstream’
- COPUS - Sciencewise
- Nanotechnologies Report- RS & RAE
- CST subgroup
- School science

Science & Innovation Investment Framework 2004-2014

"The Government wants constructive, inclusive and open public debate and dialogue on these issues"

"…will work to enable the debate to take place '*upstream'* in the scientific and technological development process, not 'downstream' where technologies are waiting to be exploited…"



funding from £4.25m to over £9m / year (06/07)

Science & Innovation Investment Framework 2004-2014

Horizon scanning - new unit

Promote coherence in science engagement community

Sciencewise grants for Dialogue

- Objective -

  “To help Government & Society make better choices about critical areas of new S&T that affect people’s lives”

- Building capacity in:

  science community, publics, policy/decision-makers

- Three strands:
  - Horizon scanning
  - Dialogue
  - Development

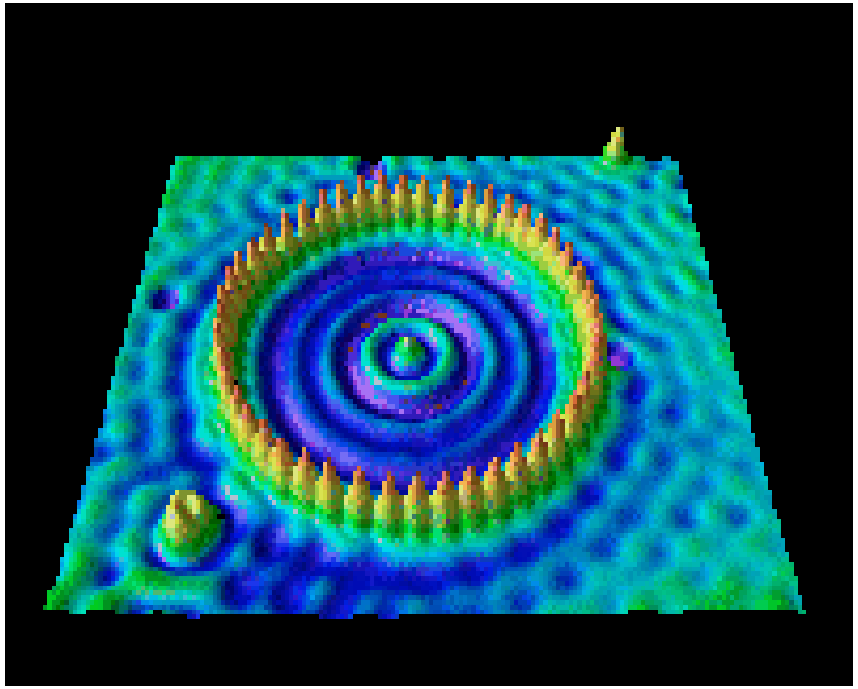
Sciencewise Panel

- help Government & practitioners be more strategic

- Proactive in promoting good practice
- Build ‘Sciencewise’ to be a centre of excellence
- Run workshops with grant receivers to:
  - Improve quality
  - Help them to collaborate
  - Help them to identify policy-makers to work with

Nanotechnologies Report- RS & RAE

- Government commissioned report
- Inclusive approach of RS & RAE with different viewpoints considered



Council for Science and Technology

Sub-group on Science & Society, looking at

- - case studies of past impact
- - interfaces
- - how policy-makers can feed back

School Science

- Pedagogy - Science Learning Centres
- Curricula - eg C21st, citizenship
- Assessment

THE TIMES Nov 24, 2003

Science pupils urge more ethical debate

TEENAGERS want to debate controversial issues such as human cloning in GCSE science lessons rather than just learning facts by rote, a survey says today.

Conclusions

Optimistic

But we need to:

- Embed engagement in research agendas
- Use good practice
- Reflect on what we do to develop better practice
- Help scientists explore their humanity
  - Training
  - Practicing
  - Giving feedback
  - Valuing