

# Government Office for Science

University of Exeter  
Wednesday 3 February 2016





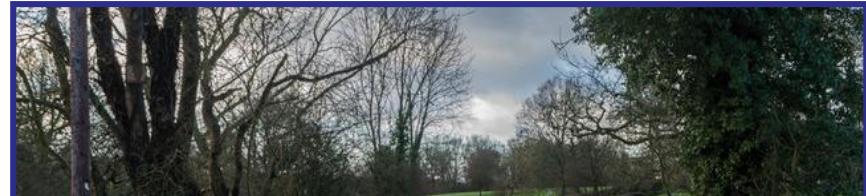
# Key issues that drive the agenda



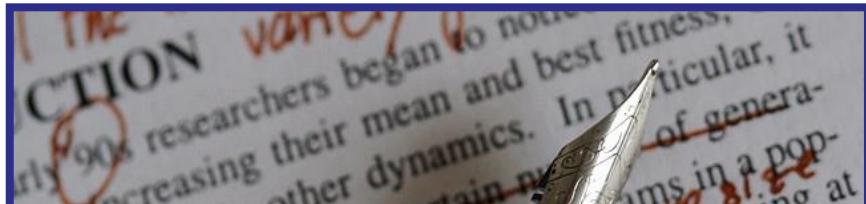
Infrastructure



Emergencies



The Economy

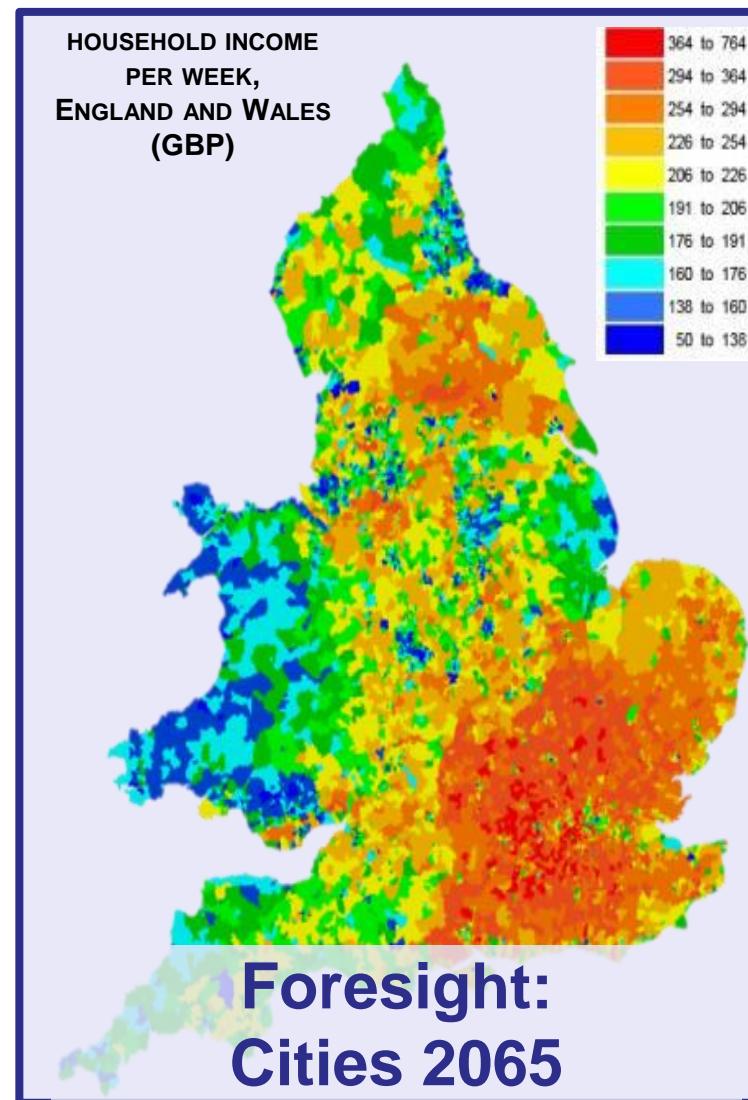
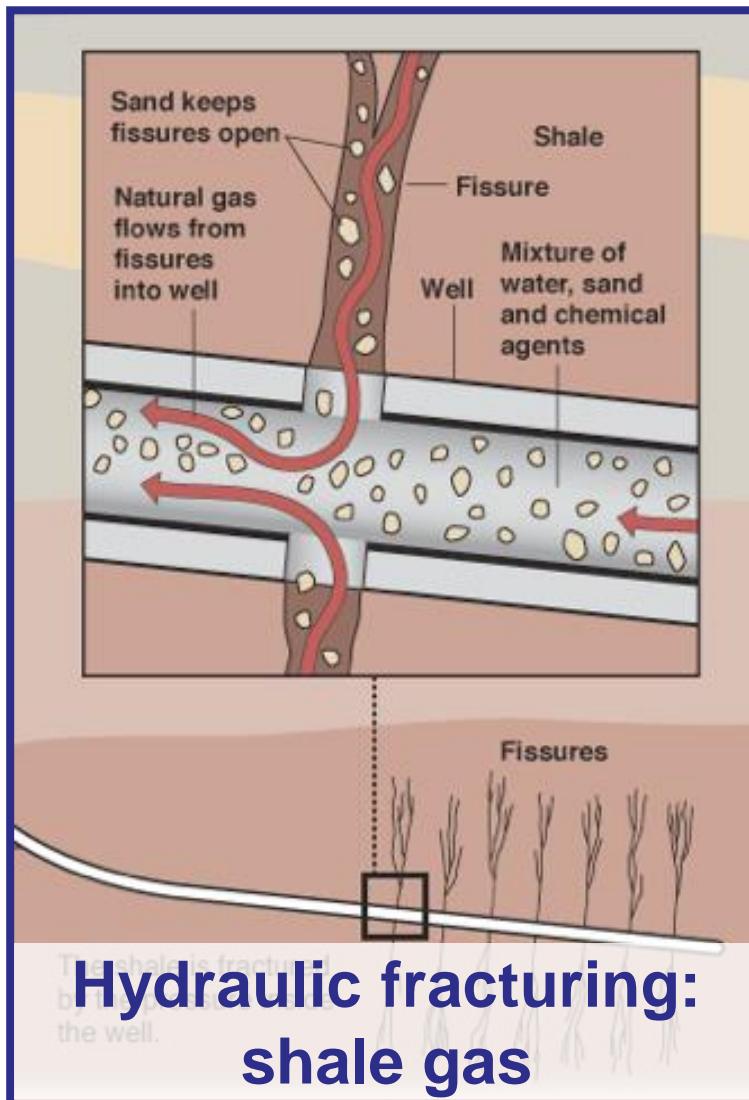


Science Policy



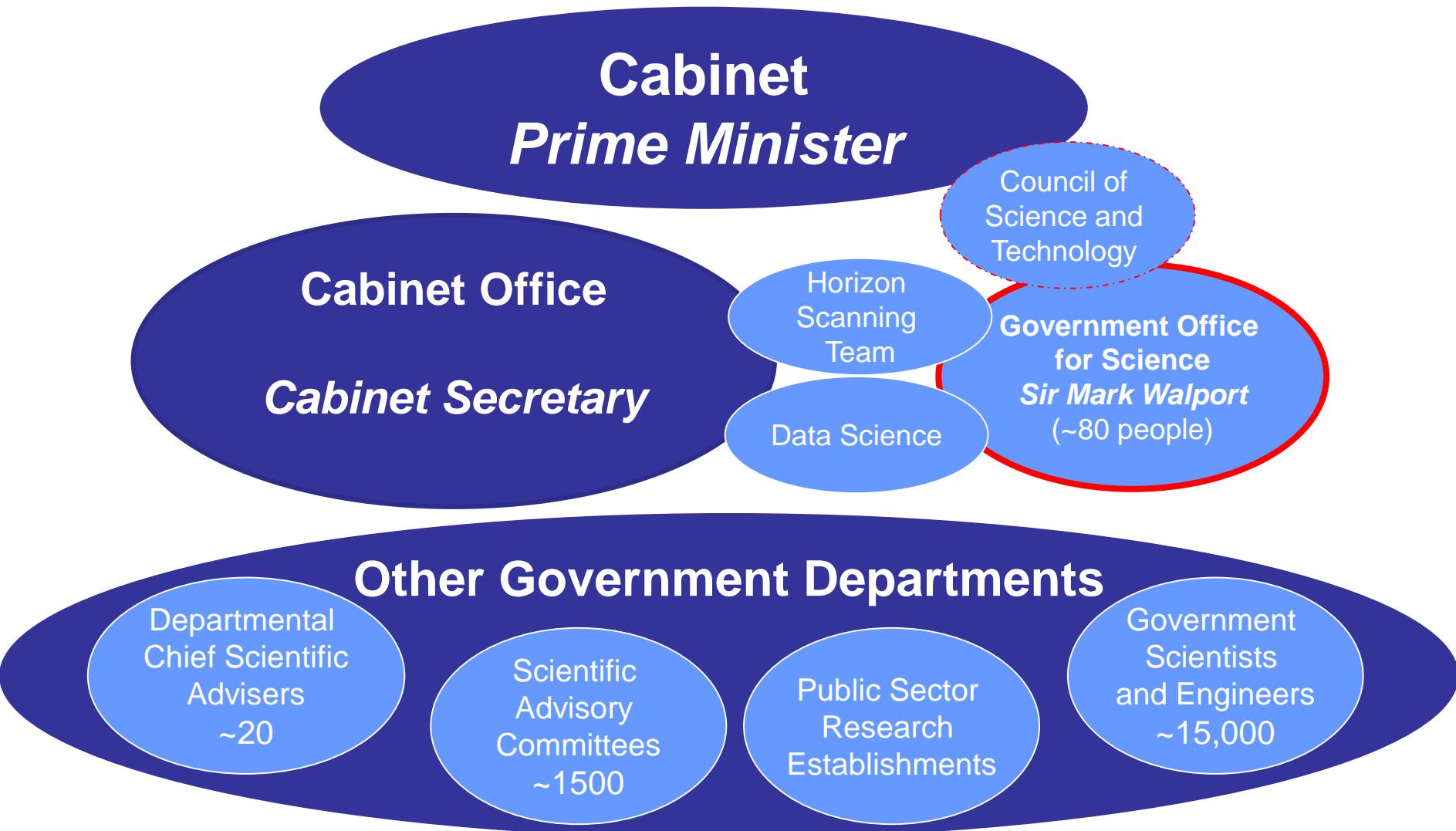


# Science Advice: Dealing with issues





# Science advice in government: The Government Office for Science





# Science advice in government: The wider networks

## FinTech Futures – March 2015

- Universities,
- Industry,
- Government,
- Regulators, and
- Think tanks.





# Giving Science Advice: The ground rules

1. Clear roles and responsibilities
2. Independence
3. Transparency and openness



Guidance

## **Principles of scientific advice to government**

Published 24 March 2010

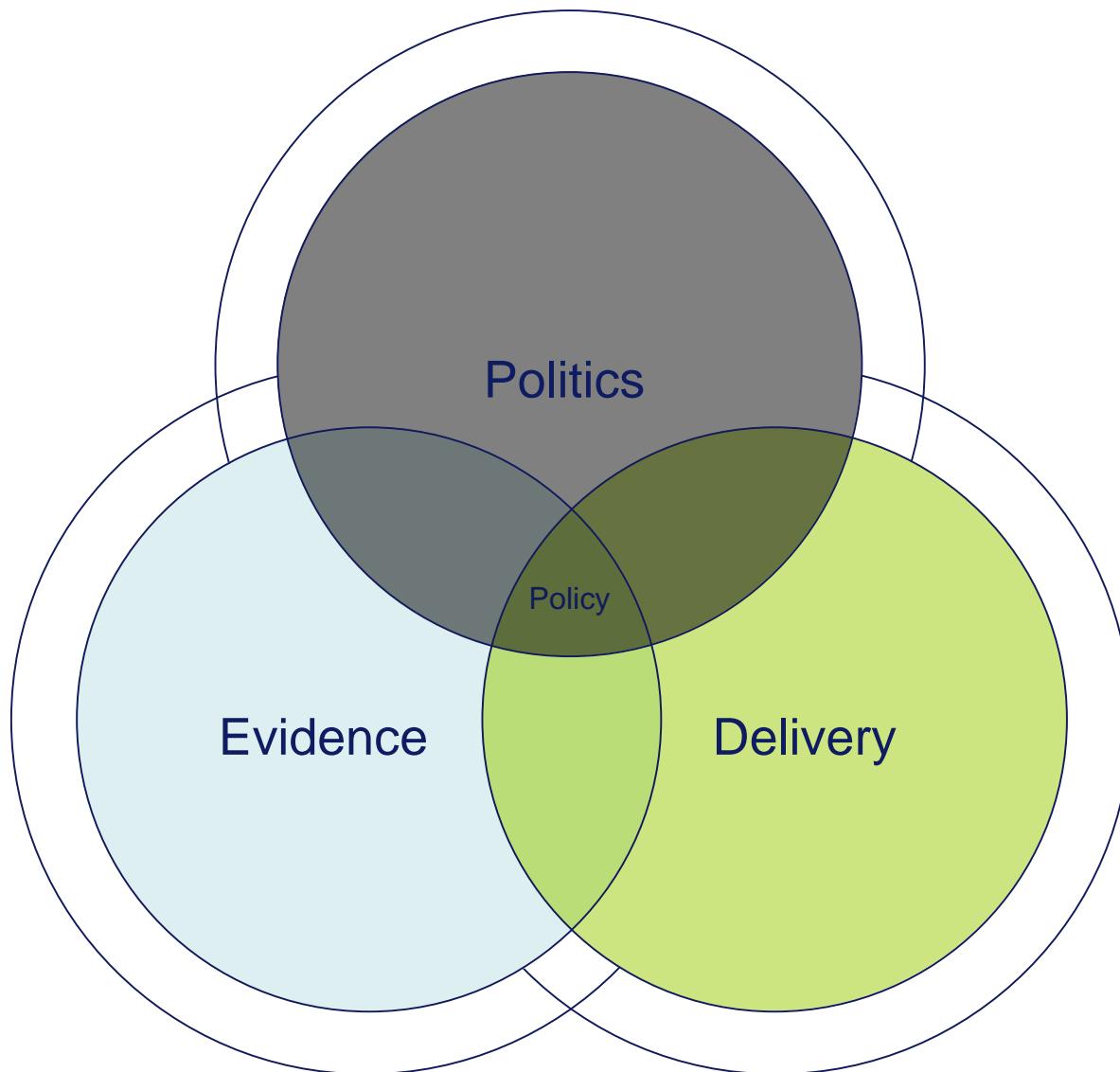
<https://www.gov.uk/government/publications/scientific-advice-to-government-principles>



- Different lenses
- Effective communication is essential
- Help policy makers solve their problems

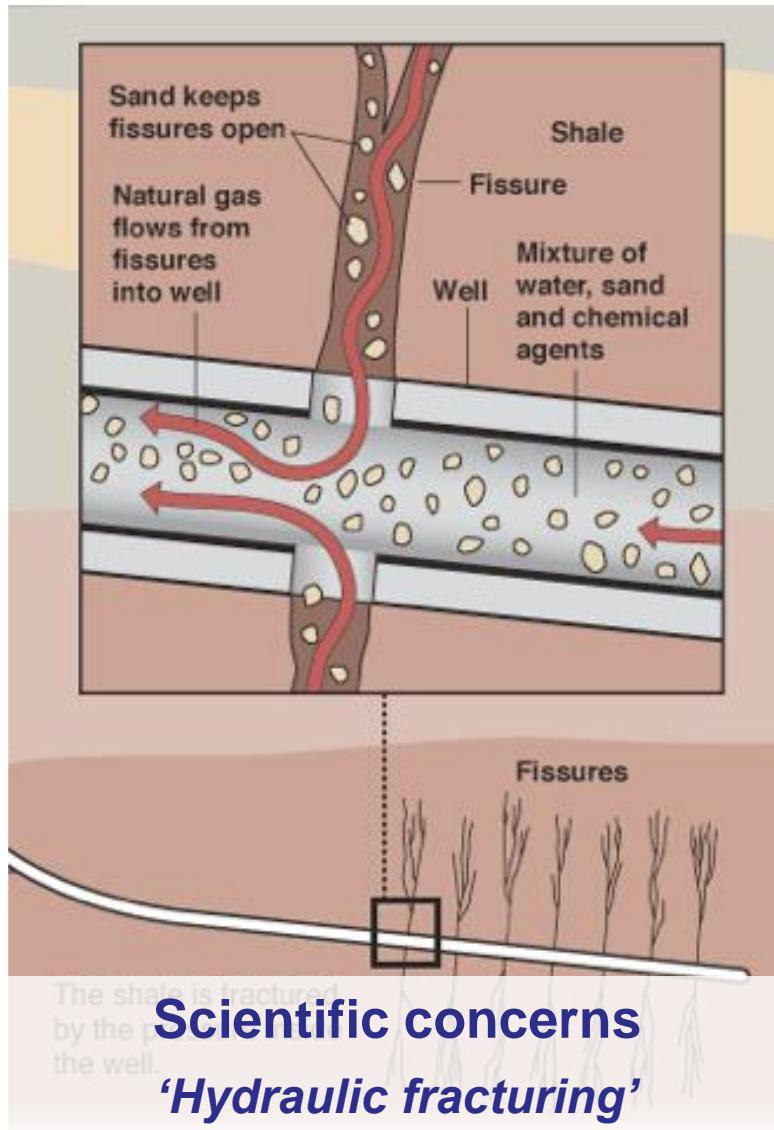


# Different lenses





# Different lenses: Shale gas



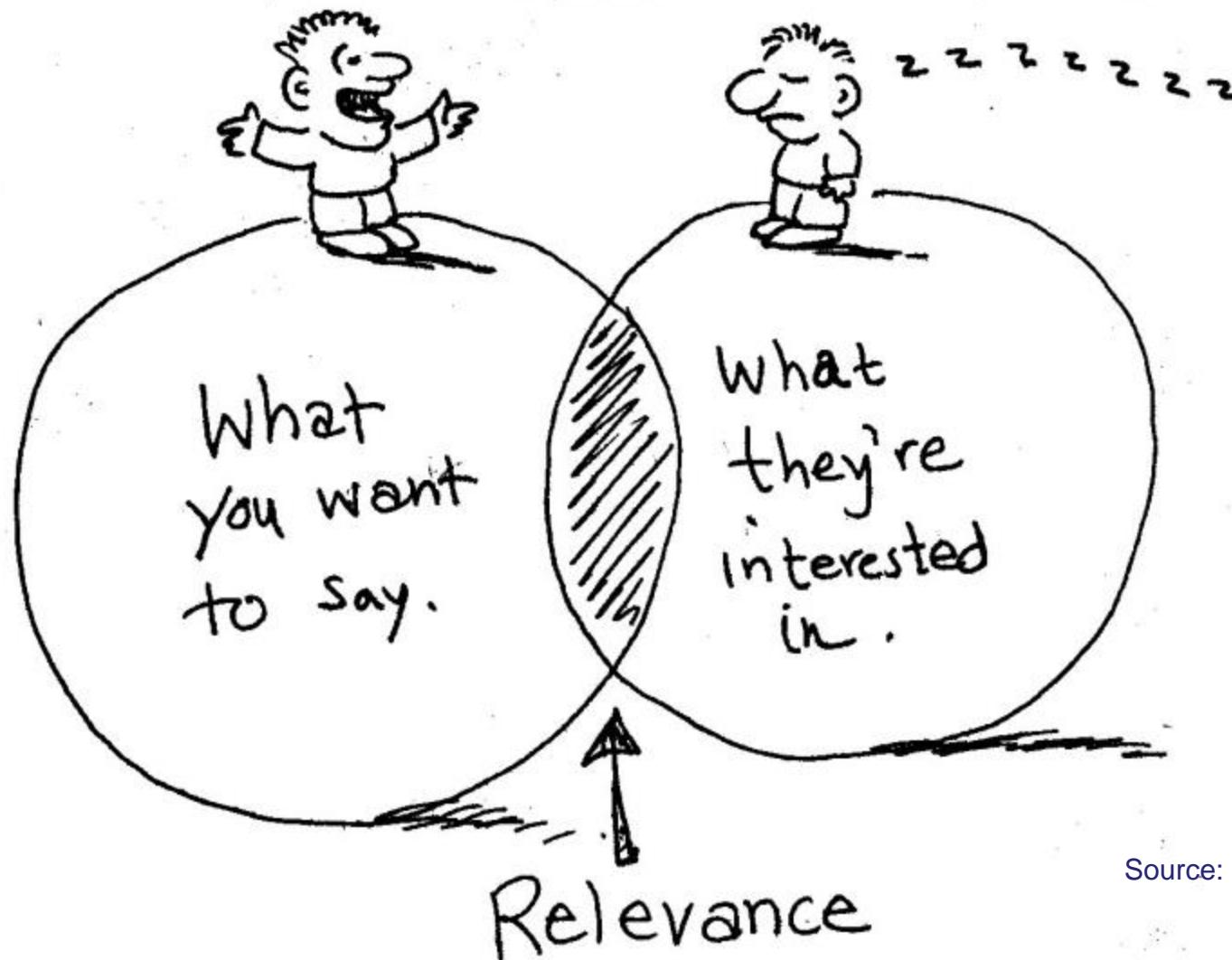
**Understanding public attitudes**  
**'Fracking'**



- Different lenses
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# Effective communication: Understand your audience



Source: Rankmaniac, 2012



# Effective communication: Language matters

## Terms that have different meanings for scientists and the public

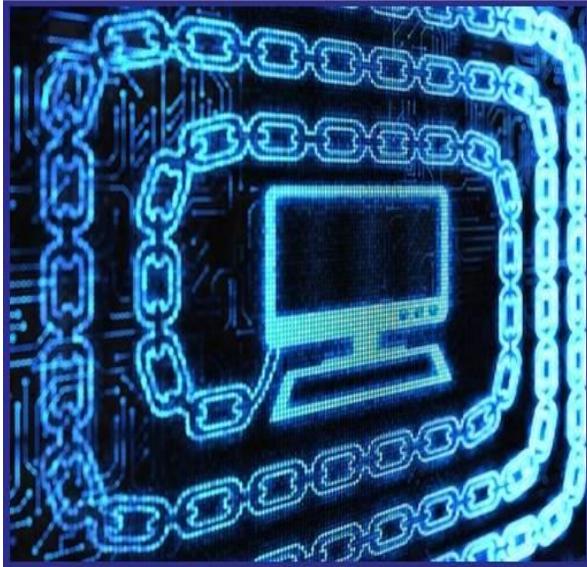
Scientific term	Public meaning	Better choice
enhance	improve	intensify, increase
aerosol	spray can	tiny atmospheric particle
positive trend	good trend	upward trend
positive feedback	good response, praise	vicious cycle, self-reinforcing cycle
theory	hunch, speculation	scientific understanding
uncertainty	ignorance	range
error	mistake, wrong, incorrect	difference from exact true number
bias	distortion, political motive	offset from an observation
sign	indication, astrological sign	plus or minus sign
values	ethics, monetary value	numbers, quantity
manipulation	illicit tampering	scientific data processing
scheme	devious plot	systematic plan
anomaly	abnormal occurrence	change from long-term average



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# Help policy makers solve their problems: Distributed Ledger



Disruptive technology  
that could transform

- the delivery of public services and
- enhance productivity through a wide range of applications
  - e.g. Estonia's health records initiative



# Help policy makers solve their problems: The ageing population



Housing



Technology



Health and care



Education and work

- Response to 'Ready for Ageing?' report
- Project focuses on four interconnected areas
- Ageing Population and Life course



# Help policy makers solve their problems: The Internet of Things



## GO-Science Blackett review:

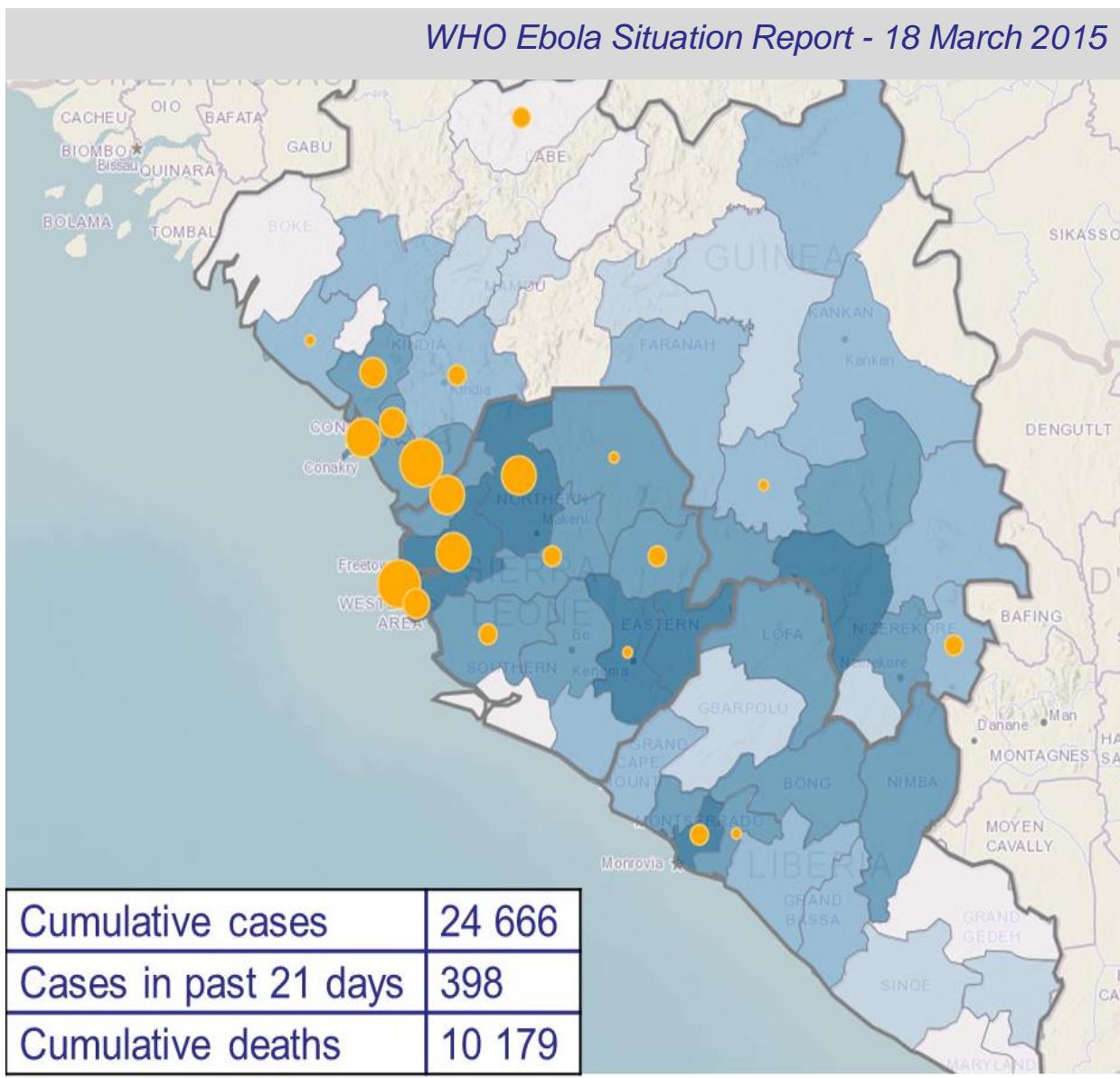
- Security
- Standards
- Skills
- Need for demonstrators (£40m)



# Help policy makers solve their problems: Dealing with an emergency

## 2014 Ebola Outbreak

- Modelling
- Risk to UK
- Screening
- Virus survival
- Vaccines
- What else can we do?





## Contribute

- Ad-hoc requests  
(e.g. in an emergency)
- Calls for evidence
- Workshops and expert panels
- Papers and peer reviews

## Ways to get involved

### Join the Civil Service!

- Placements
- S&E Fast Stream
- Chief Scientific Adviser





@uksciencechief

[www.gov.uk/go-science](http://www.gov.uk/go-science)

# Panel session

## Government Office for Science:

- Charles Jans, Head of Foresight
- Dr Jo House, Head of Climate
- Jon Elliott, Head of Science Advice

## University of Exeter:

- Prof Tamara Galloway (CLES)
- Prof Roy Sambles (CEMPS)
- Prof Michael Winter (SSIS)

