A Scientist in the Foreign Office?

Robin Grimes

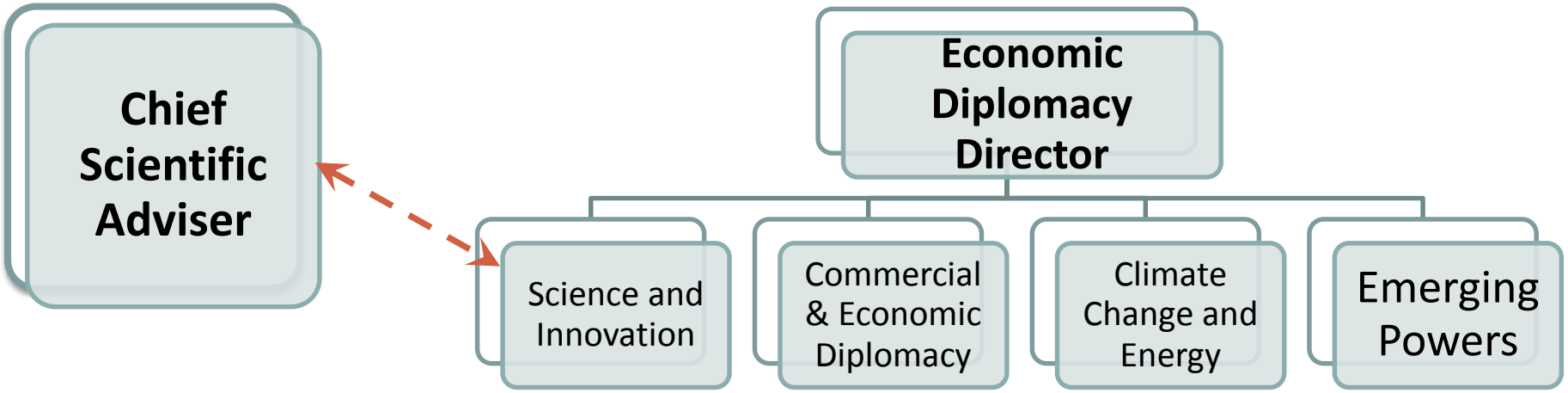
MoD Nuclear Chief Scientific Adviser

& Imperial College London

Within the FCO, the Chief Scientific Adviser & Economic Diplomacy Directorate are the S&I focal points

Foreign & Commonwealth Office

- The CSA can be called upon to look across the full range of FCO policy.
- Ensures that FCO policy is informed by the best available science & has access to appropriate science networks.
- Provides advice to the Foreign Secretary and Ministers.



The Policy-Science Nexus

Three categories associated with: policy makers, policy implementers and the public. One enabling cross cutting theme: understanding the effectiveness of activities.

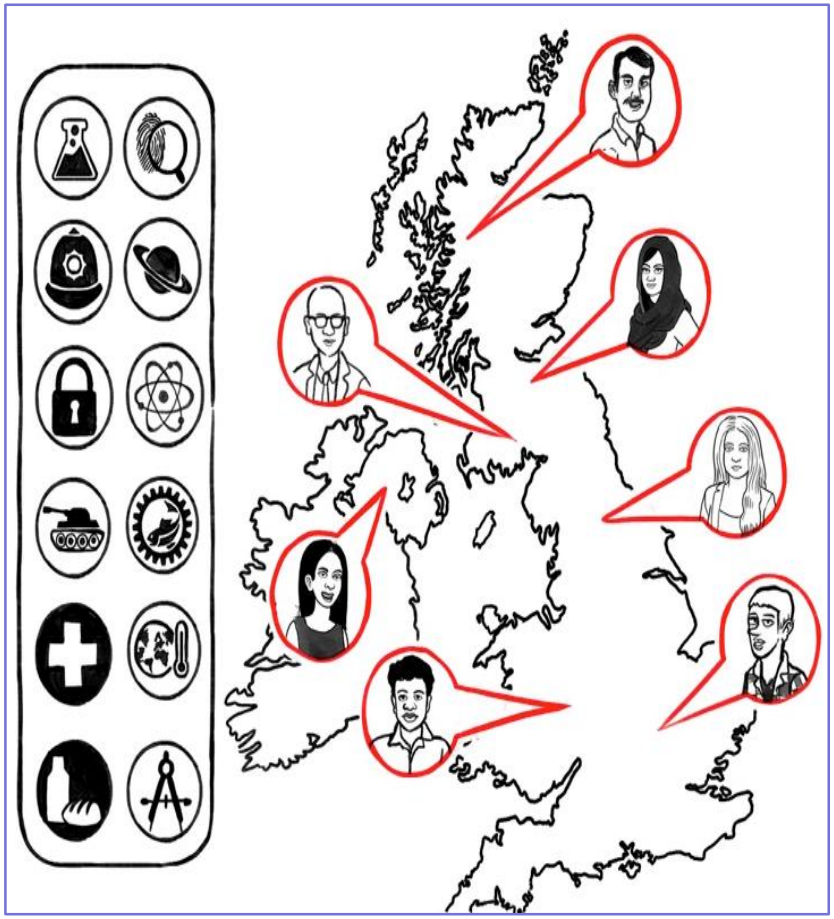
- **Science and Policy Makers**
  - Standing groups, Enquiries
  - Activities of Science Councils
  - Arm length groups, Academies
- **Science Across Government**
  - Governmental science advisors and groups
  - Government Laboratories (e.g. JRCs)
  - Innovation organisations (e.g. Fraunhofer),
- **Science & the Public**
  - Science Media, Science journalists, Universities, School science.

Government Office for Science

Who we are & what we do

GSE Government Science & Engineering

- 1 of 5 Civil Service analytical professions
- Over 10,000 Civil Servants
- Diverse skills, knowledge & expertise
- Located across the UK
- Intelligent customer & supplier
- Global challenges: poverty, disease, climate change, crime & terrorism



A network of Chief Scientific Advisers

Prof Patrick Vallance
GCSA

Prof Dame Sally Davies
CMO

Prof Carole Mundell
FCO

Prof Ian Boyd
Defra

Prof Chris Whitty
DH

Prof Joe Butler
DCMS

Prof Robin Grimes
MoD (nuclear)

Prof Phil Blythe
DfT

Prof Charlotte Watts
DFID

Prof John Aston
Home Office

Dr Tim Leung
DfE

Prof Mike Short
DIT

Prof Anthony Finkelstein
National Security

Prof John Loughead
BEIS

Prof Stephen Belcher
Met Office

Prof Andrew Curran
HSE

Prof Peter Freer Smith
Forestry C.

Prof Guy Poppy
Food Standards Agency

Prof Sheila Rowan
Scotland

Prof Peter Halligan
Wales

Prof Bernadette Hannigan (interim)
Northern Ireland

CSA leadership in a specific area: nuclear

- Led the UK delegation to the 58th and 60th General Conferences
- Chaired the UK-Japan Nuclear Dialogue last 5 years
- Promoted the work of the CTBTO and GICNT

- Designed the UK nuclear community international research engagement strategy
- Chair of the UK Nuclear Academic Discussion Meeting

Scientific Advisers in other Foreign Ministries

Foreign & Commonwealth Office

Many countries have science advisors, only a few are based in Foreign Ministries

- USA – Vaughan Turekian
- Japan – Teruo Kishi
- New Zealand – Peter Gluckman
- Senegal - Aminata Sall Diallo
- Poland - Marek Konarzewski
- Oman - Yousuf AL-Bulushi
- …. Watch this space (FMSTAN)

LDSC – London Diplomatic Science Club

Imperial College Event – explaining to the LDSC how new materials are transforming society and describing opportunities for collaboration with UK universities.

Science & Innovation Network

Around 100 SIN Officers in 39 countries and territories

- Cover all aspects of science & innovation working together on SIN strategy.
- Both UK based staff and locally engaged.
- Work with Newton Officers, DFID and UKRI (in UK, China & India).
- Facilitate inward missions of UK scientists into their countries and outward missions to the UK.

Newton Fund

Science and innovation partnerships that promote the economic development and welfare of developing countries.

People: fellowships, mobility schemes and joint centers
Programmes: research collaborations on development topics
Translation: innovative solutions on development topics

£735m over seven years (2014-2021) + partner funding

Department for Business, Energy & Industrial Strategy
Foreign & Commonwealth Office
UK Science & Innovation Network
RESEARCH COUNCILS UK
BRITISH COUNCIL
Innovate UK
THE ROYAL SOCIETY
The Royal Academy of Engineering
BRITISH ACADEMY
Met Office

What is Science Diplomacy?

Science in diplomacy

Science informs policy objectives by providing robust evidence or access to people & networks – ***science supports diplomatic competencies***

Science for diplomacy

Science as a beach-head, leading to improved political, social and economic links, builds confidence – ***science builds diplomatic relations***

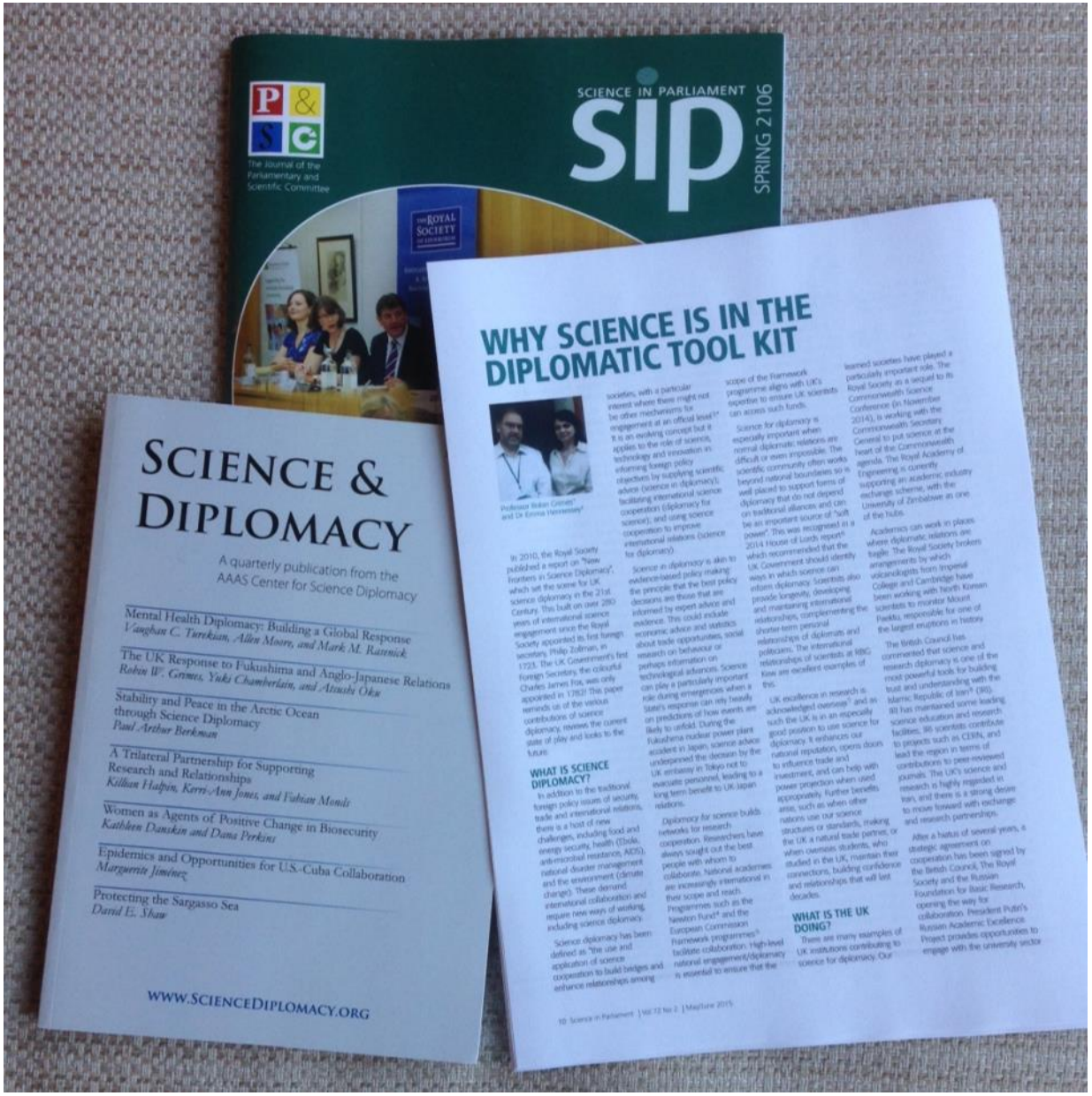
Diplomacy for science

Helping scientists to achieve their goals – ***diplomacy supports science***

The Science of diplomacy

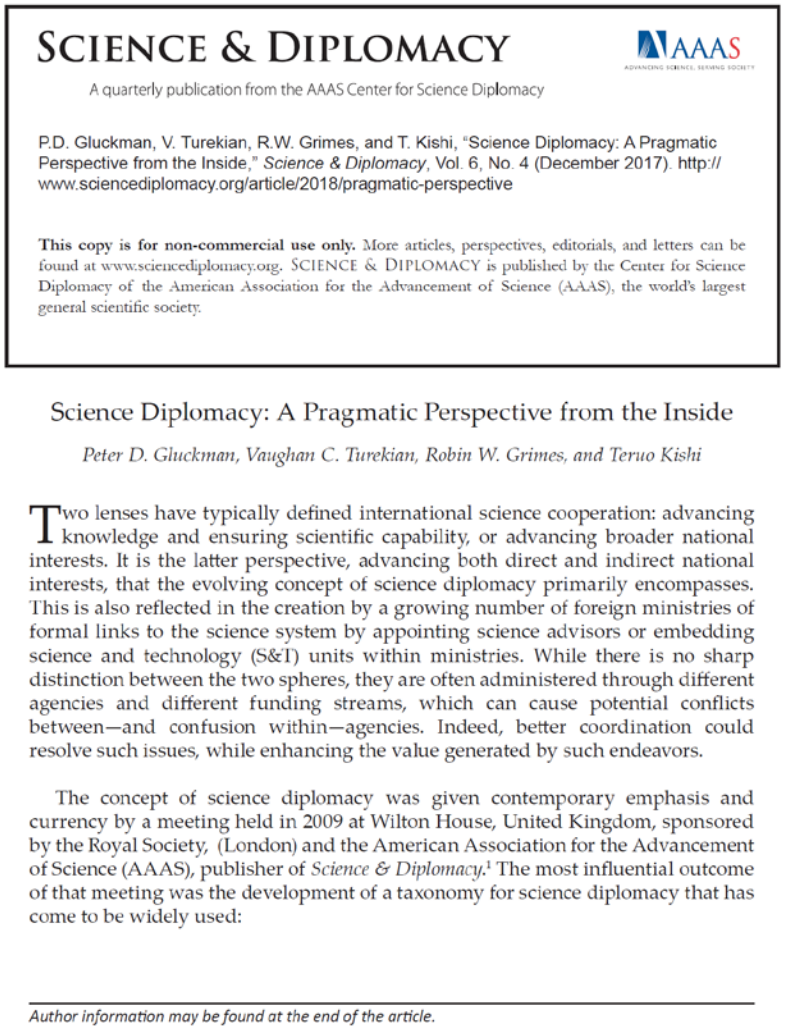
Understanding what and how science diplomacy works – ***the discipline***

Based on Royal Society Report, January 2010 "New frontiers in science diplomacy" RS Policy document 01/10



Why Science is in the Diplomatic Tool Box

Recent Publication



SCIENCE & DIPLOMACY

A quarterly publication from the AAAS Center for Science Diplomacy

P.D. Gluckman, V. Turekian, R.W. Grimes, and T. Kishi, "Science Diplomacy: A Pragmatic Perspective from the Inside," *Science & Diplomacy*, Vol. 6, No. 4 (December 2017). http://www.sciencediplomacy.org/article/2018/pragmatic-perspective

Science Diplomacy: A Pragmatic Perspective from the Inside

Peter D. Gluckman, Vaughan C. Turekian, Robin W. Grimes, and Teruo Kishi

Two lenses have typically defined international science cooperation: advancing knowledge and ensuring scientific capability, or advancing broader national interests. It is the latter perspective, advancing both direct and indirect national interests, that the evolving concept of science diplomacy primarily encompasses. This is also reflected in the creation by a growing number of foreign ministries of formal links to the science system by appointing science advisors or embedding science and technology (S&T) units within ministries. While there is no sharp distinction between the two spheres, they are often administered through different agencies and different funding streams, which can cause potential conflicts between—and confusion within—agencies. Indeed, better coordination could resolve such issues, while enhancing the value generated by such endeavors.

The concept of science diplomacy was given contemporary emphasis and currency by a meeting held in 2009 at Wilton House, United Kingdom, sponsored by the Royal Society, (London) and the American Association for the Advancement of Science (AAAS), publisher of *Science & Diplomacy*.[1] The most influential outcome of that meeting was the development of a taxonomy for science diplomacy that has come to be widely used:

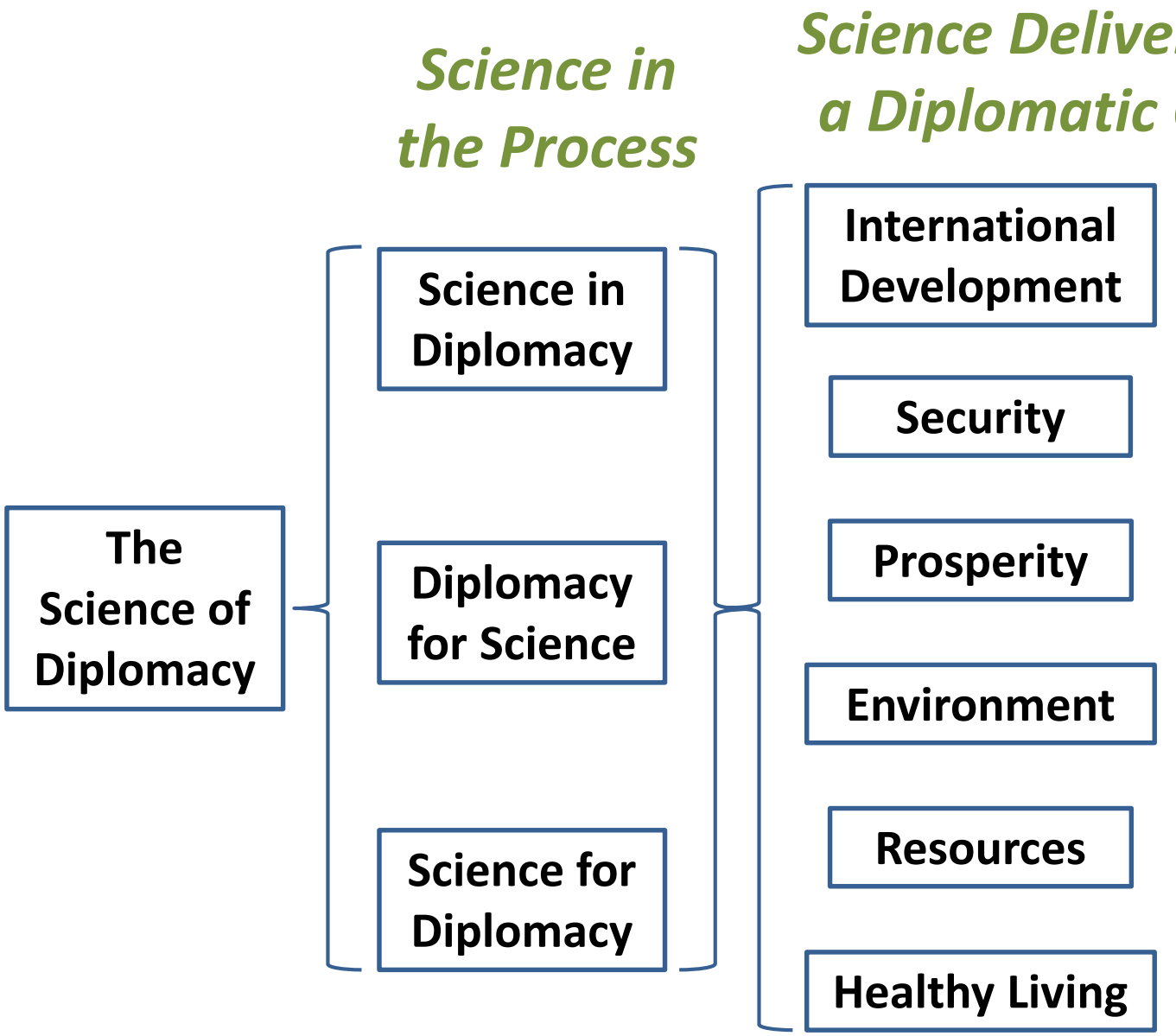
Author information may be found at the end of the article.

Turekian V., Gluckman P. D., Kishi T. & Grimes R. W.

"Science Diplomacy: A Pragmatic Perspective from the Inside"

Science & Diplomacy, **6**, (2017).

Why Science Diplomacy?



Actions that:

- **Advance a country's needs**
- **Address cross-boarder interests**
- **Meet global needs and challenges**

Common National Concerns (Interlinked)

Minerals

Food production

Climate change

Conflict & Terrorism

Demographics is a driver

Ecosystems

Water resource

Health & development

Energy security & supply

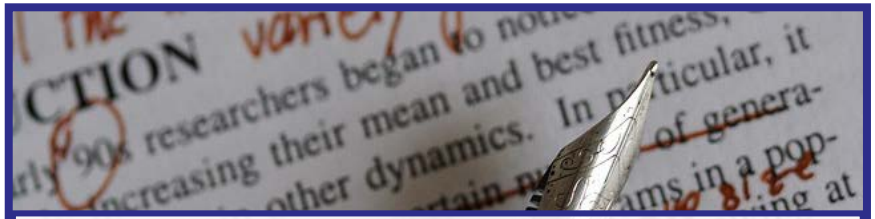
Government Office for Science

Key issues that drive Whitehall agenda

Infrastructure

Emergencies

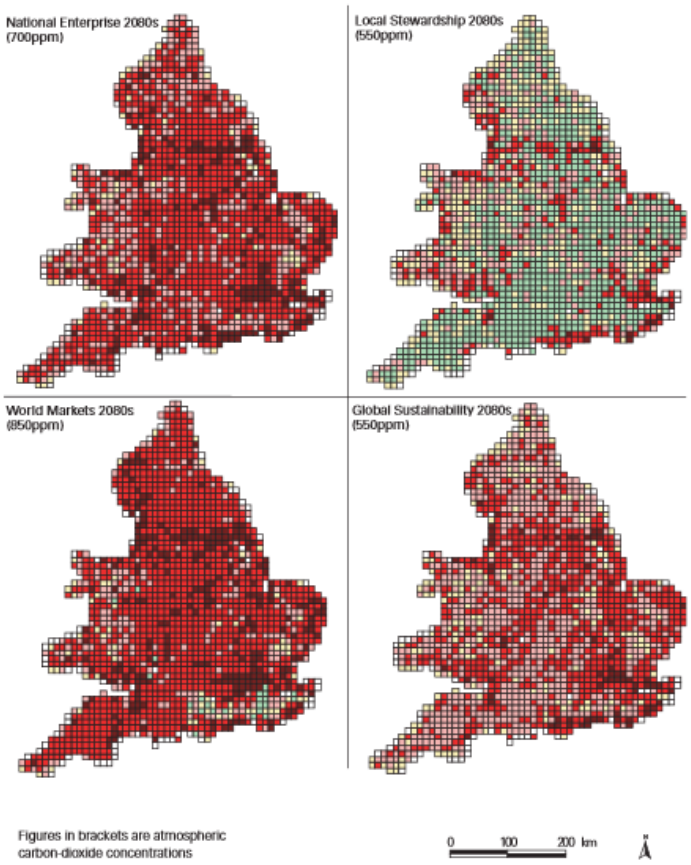
The Economy



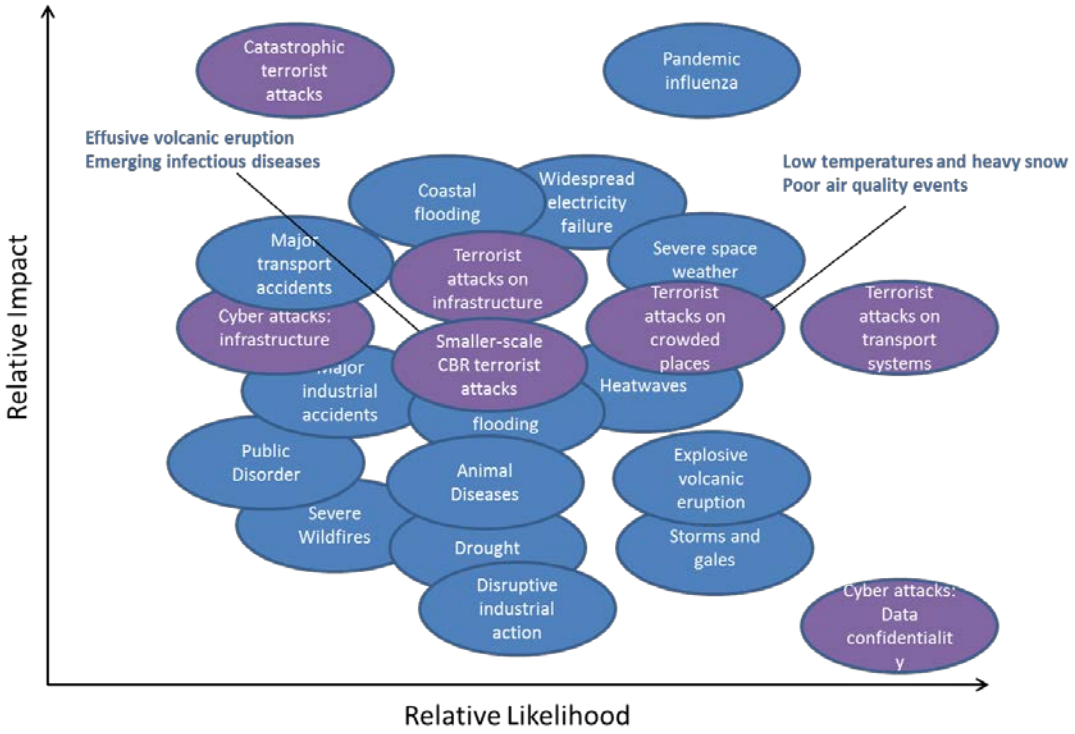
Science Policy

Government
Office for Science

Science Advice: Mitigating Risk

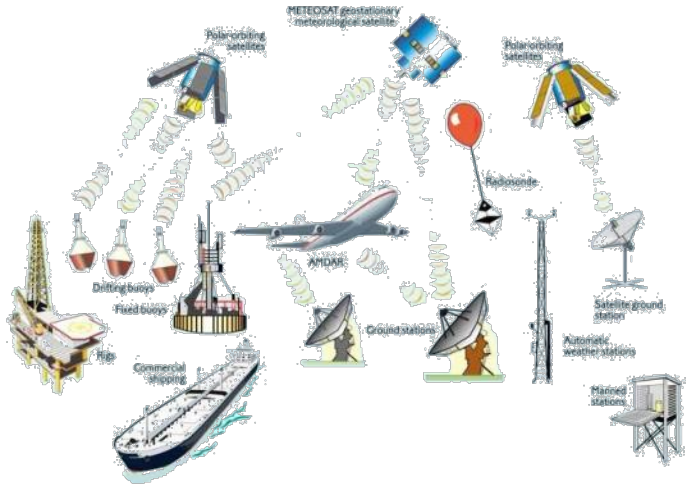


Foresight – Future of Flooding

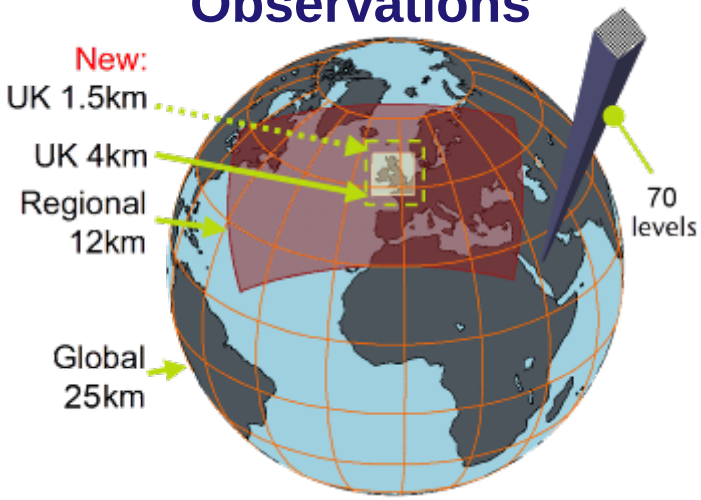


The National Risk Register

Our ability to respond to disaster risk relies on a scientific value chain

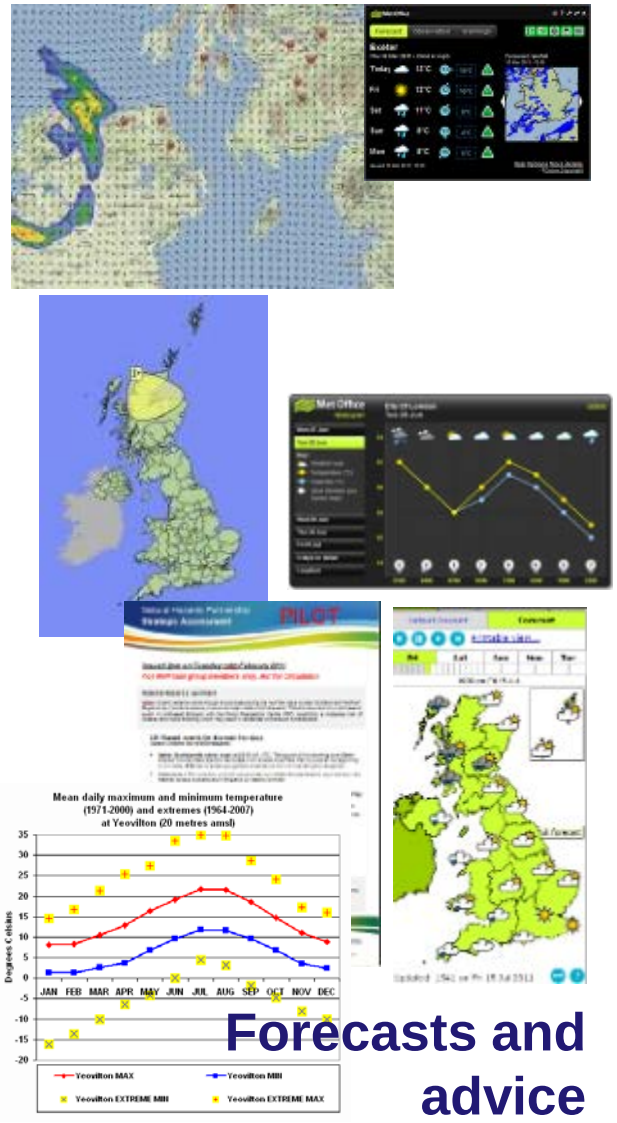


Observations



Forecast model output

Interpretation, Risk Analysis & Communication



Forecasts and advice

UK-Spain Science Diplomacy & Science Advice

- 2013 - 2017 Policy influencing & raising awareness: senior visits (ES Minister to the UK), media, HMA and SIN engagement and relationship building on the ground.

- 2016 Spain builds a network of S&I officers.
- 2017 UK/Spain Science Policy Advice event – FCO, POST & Royal Society engagement.
- 2018 - Spain aims to build a similar structure, including POST.
- A similar science policy context will lead to more bilateral collaboration.

Science Diplomacy with Argentina:

UK–RUSSIA
YEAR OF SCIENCE
AND EDUCATION/2017

- Agreed between Foreign Secretary Johnson & Russian Foreign Minister Lavrov November 2016
- Officially launched on 27 January in Moscow
- Public celebration of science links including lectures & events focused on hot topics or policy challenges:
  - high-level roundtable on antimicrobial resistance
  - 100 Years of Black Holes
  - ‘Science Café’ on cell physiology
  - Geological Institutes meeting
  - Bilateral Paleontology workshop

Government
Office for Science

Giving Science Advice: The ground rules

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

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

Championing science diplomacy

Foreign & Commonwealth Office

Questions?

@RobinWGrimes
@UKSINet