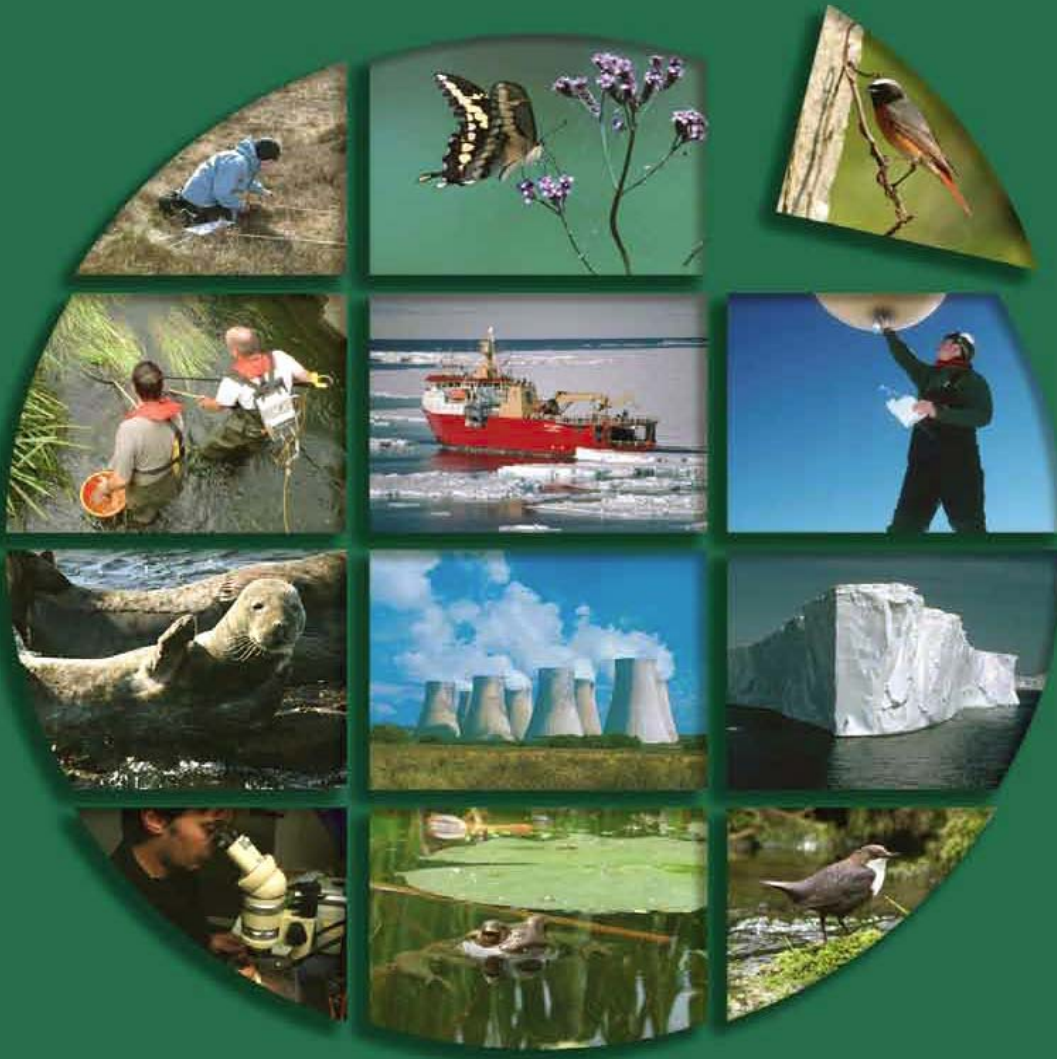


# UK Environmental Observation Framework



2010

Living With Environmental Change

# Contents

- UK-EOF: aims, background and vision
- UK-EOF tools
- Other activities of the UK-EOF
- Summary

# The UK-EOF is a Programme under LWEC



**“Optimise the coherence and effectiveness of UK environmental research funding.**

**Ensure government, business and society have the foresight, knowledge and tools to mitigate and adapt to environmental change.”**



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government





# UK Environmental Observation Framework

Aims to provide:

*... holistic picture of the overall evidence needs of the UK and the role of observation\* ...*

\*Includes all monitoring/surveillance, all technologies from satellite data to butterfly counts, made on behalf of or by the UK



**Valuing observations for all needs**

Living With Environmental Change

# Environmental observations



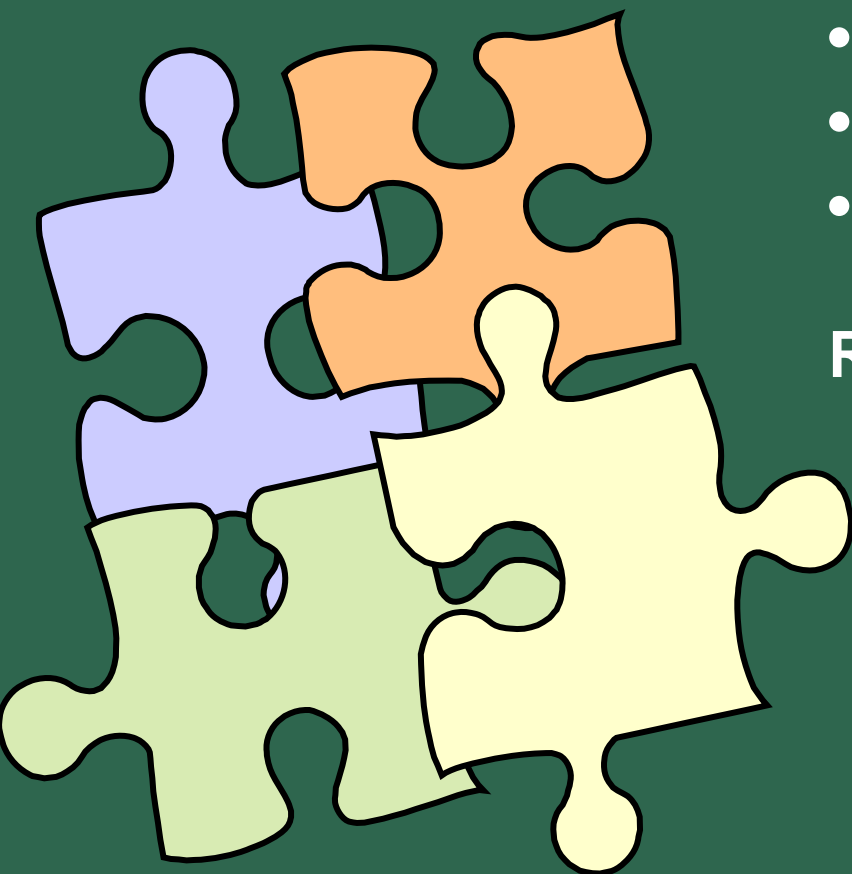
**Vital source of evidence from global to local scale for:**

- **understanding and managing our changing environment**
- **guiding current and future policy, science and innovation**
- **economic benefit and quality of life**



# Environmental Monitoring – the picture in 2007

- **FRAGMENTED**
- **UNCOORDINATED**
- **LACKS STRATEGIC DIRECTION**
- **NO OVERALL OWNER**



## Risk of

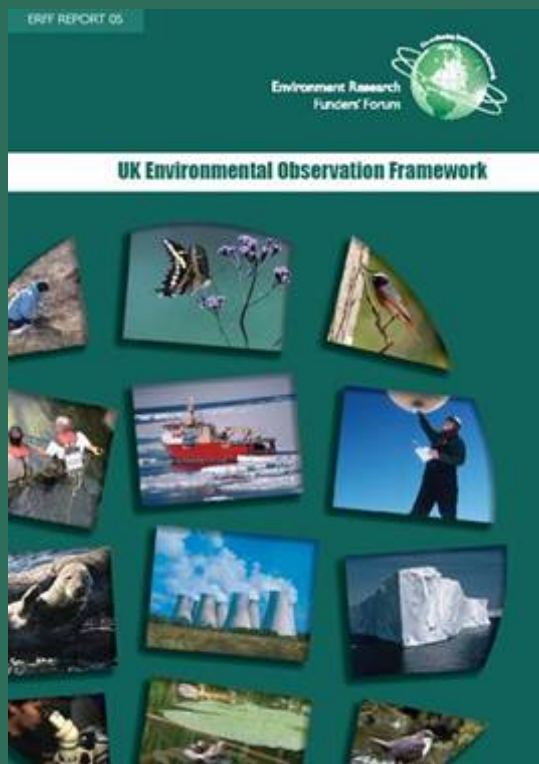
- Missed opportunities
- Poor data sharing
- Funding stopped for key time series
- Duplication of effort

Refs (ADAS, 2006), UKMMAS (Defra, 2005), GECC (2006)



# UK EOF Launched, July 2008

## Outcomes for UKEOF by 2013



- **Develop holistic picture of the evidence needs of the UK and the role of observations**
- **Share Knowledge & Information**
- **Understand use of observation data & tools for knowledge transfer**
- **Enable funding mechanisms for long-term observations**
- **Build strong community to share data & expertise**



# UK-EOF Governance

Owned by LWEC  
members

**Living With Environmental Change**

Guided by the UK-EOF  
Management Group

UK-EOF Management Group

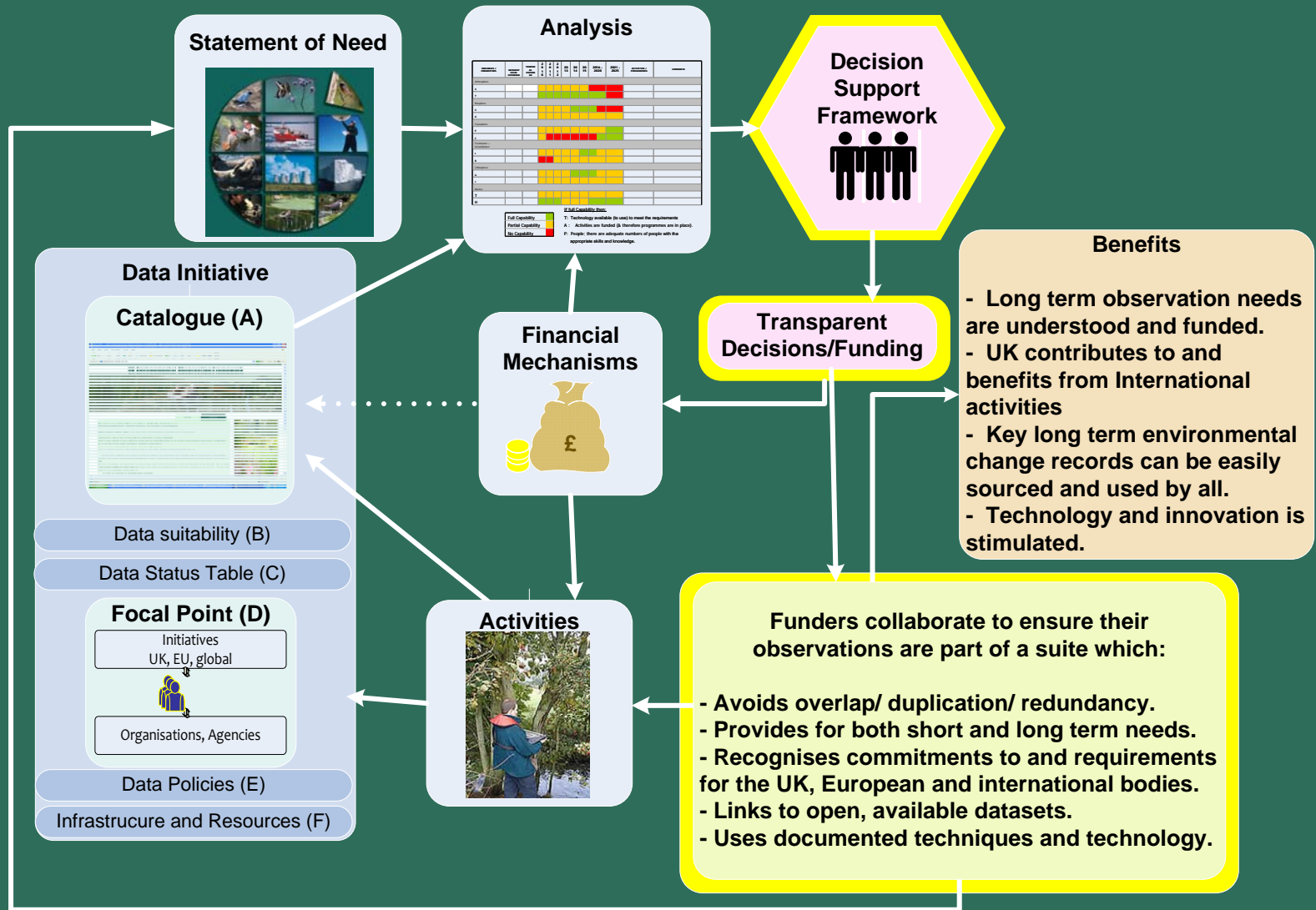
Programme progressed  
by the Secretariat

UK-EOF  
Secretariat

Advised by data experts

Data  
Advisory  
Group

# The Vision and Workstreams of UKEOF





# Main Aims of UK-EOF in 2010/ 11

- **To help organisations use the UKEOF tools to resolve:**
  - **What should the UK invest in?**
  - **How can the UK ensure it collects the right data?**
  - **How can we share the information in a timely manner?**
- **Improve use of environmental socio-economic information**
- **Encourage cultural change in collection and sharing of data**



# Summary: UK-EOF Tools

- **‘Towards a Statement of Need’ document and requirements tables**
- **Cost guidance.**
- **The Observation Activity Catalogue**
- **Decision Support Framework and criteria**



# Tool 1: Statement of Need

Current and Future Observation Requirements are looked at from the following perspectives:

## Environmental Domains

Atmosphere

Biosphere

Cryosphere

Freshwater and Groundwater

Lithosphere & Pedosphere

Marine

## Headline Environmental Issues

- Population Growth & Pollution
- Economic Growth & Sustainable Use of Resources
- Future States of the Earth (Carbon & other cycles)
- Fisheries, Agriculture, Food Security & Water Supply
- Human Health, Wealth & Well-being
- Extreme Events and Disasters
- Biological Diversity, Ecosystems & Services
- Climate Variability
- Technology & Innovation

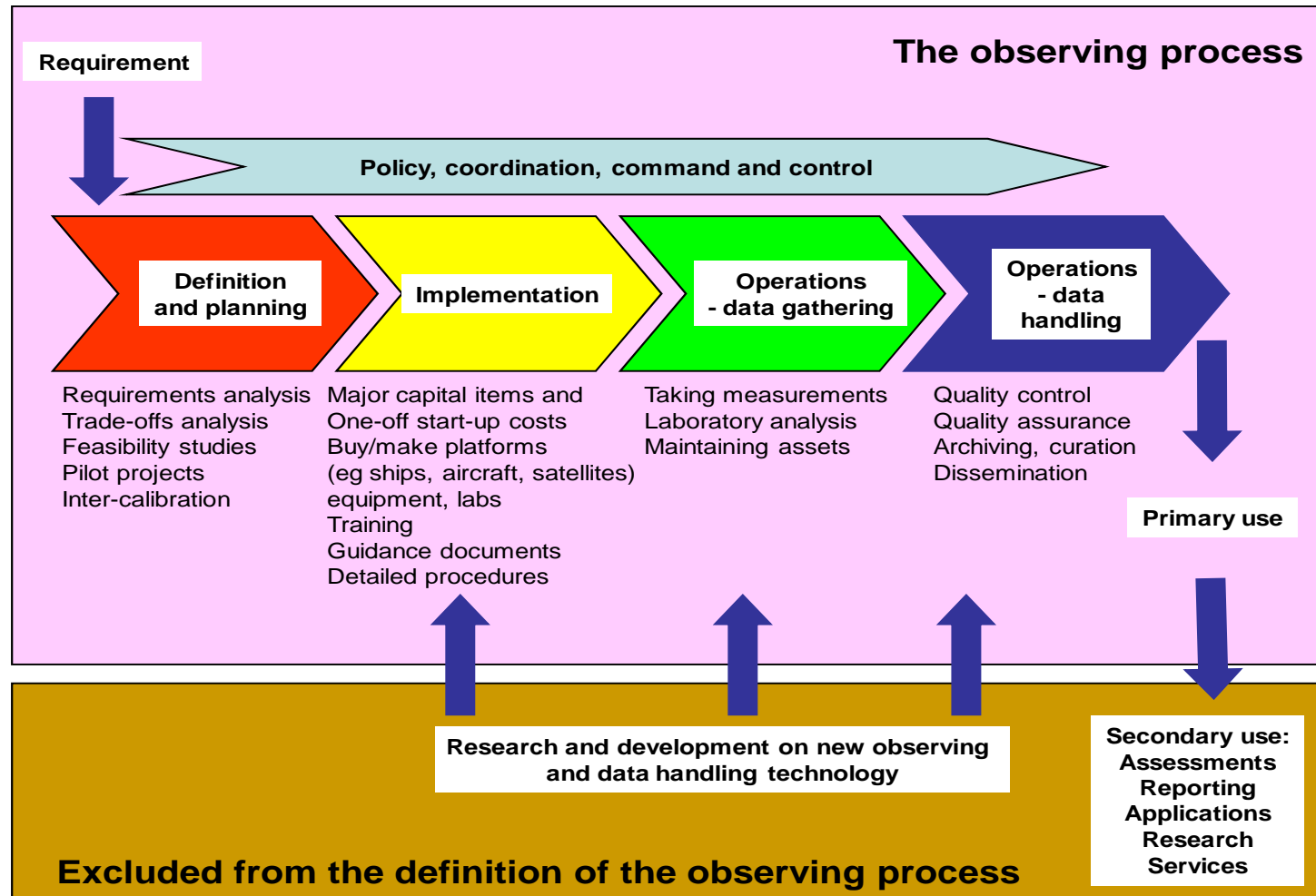
## Organisation viewpoint

Statutory Requirements

Organisational Requirements

Individual Requirements

# Tool 2: Calculating the costs of our investments: the observations lifecycle



Guidelines: Developed for reporting full FEC costings / per year / for all elements of the observing process

# UK public sector Investments in Observations 2009

- Using the Guidelines is it estimated that at least £300m per year is invested by 18 public sector funders
- With over 200 organisations involved including industry, Local Authorities and voluntary sector – the overall investment could be £1billion

# Tool 3: Observation Activity Catalogue

[www.ukeof.org.uk](http://www.ukeof.org.uk)

## UK Environmental Observation Framework



Home

About us

Catalogue

Decision Support Framework

Statement of Need

Data Resources

Contact us

### Tools

- Catalogue - Search
- Decision Support Framework
- Statement of Need
- Data Resources

### Activities

- Data initiative
  - Work Packages
  - Catalogue - Background
  - Focal Point
- Community
- Socio-economic observations
- Financing observations

### Structure & Governance

- Background
- Management Group
- Delivery plan
- LWEC

## Environmental Observation Activity Catalogue

Introduction

Search

Results

Update

I want to find out...

### Who is observing the environment?

Search by organisation:

### What is being observed?

Search by title or description of the activity:

Search by environmental domain:

Atmosphere  
Biosphere  
Cryosphere  
Freshwater



Search by variable/parameter/keyword:

### Where is the work occurring?

Search by location:

United Kingdom  
Great Britain  
England  
Wales



### Why are the observations being collected?

Search activities collecting information for:

Basic science  
Characterising environmental issues/solutions  
Characterising environmental issues/solutions  
Collaboration



Send summary results to screen  Send full results to spreadsheet

Search



# Environmental Observations in the Catalogue

- At least 1000 activities (PROJECTS AND PROGRAMMES) are recorded in the catalogue.
- Over 100 organisations involved
- Spread across environmental domains

**But.. Contents need updating and infilling continually.  
2010 update underway.**



## Tool 4: Decision Support Framework

A step towards transparent, evidence based decision making in the UK public sector. UK-EOF aims to:

*'enable and empower the UK, and each agency to optimise its investments, recognise dependencies and work in partnership'*



# Decision Support Framework

The decision support framework will:

- Facilitate transparent, informed decisions.
- Enable organisations to make informed decisions in a UK context
- Provide a neutral space to facilitate discussions



# Social & Economic information

Strong drive and support from Defra, ESRC and the EA to:

- Improve understanding of requirements for Social & economic information to inform environmental issues
- Improve discovery of information/datasets

## Benefits:

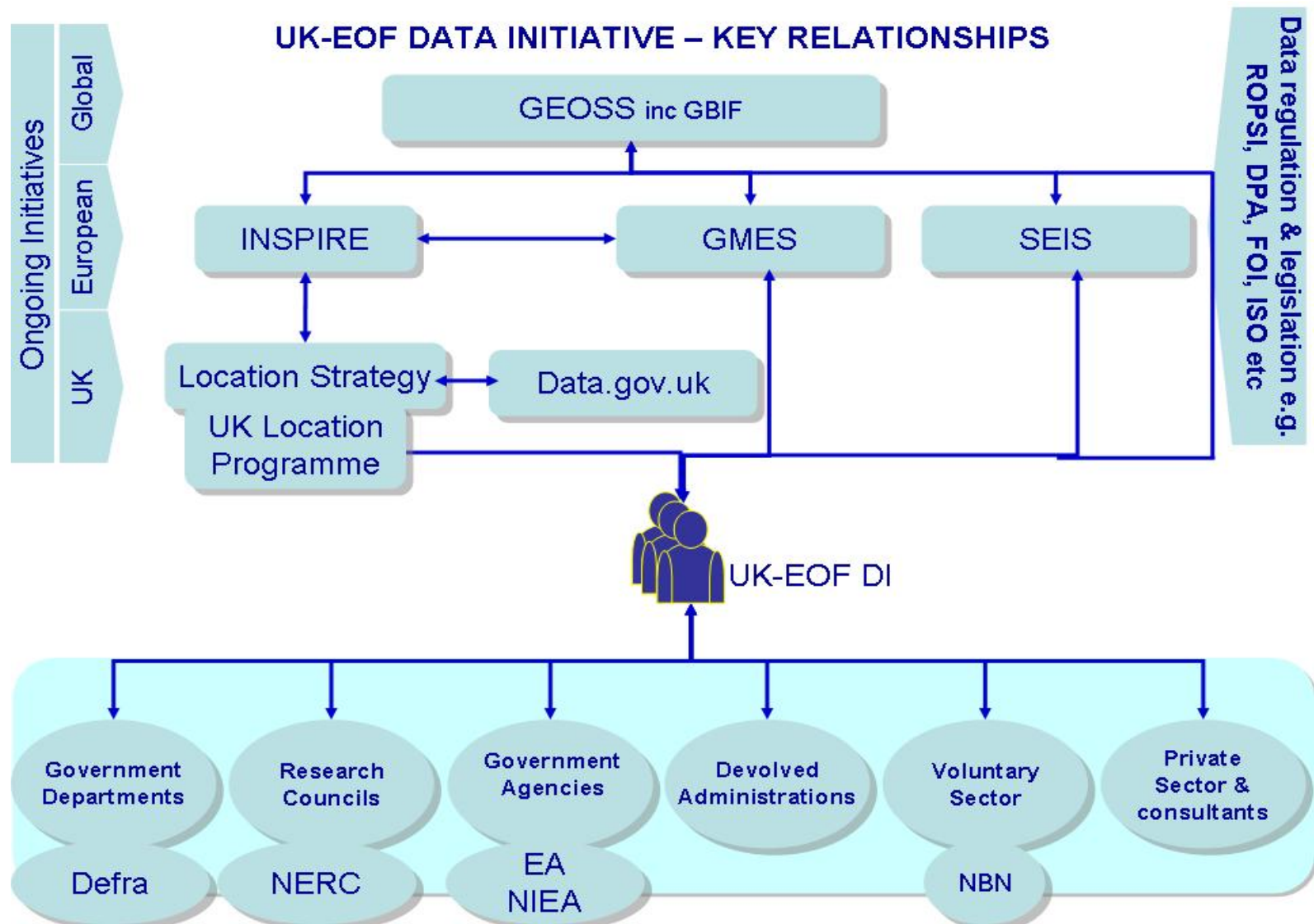
- Increased opportunities for multi/cross disciplinary working
- Better knowledge transfer
- Ability to discover and use relevant datasets



# UK-EOF Data Initiative

- Encourages all to follow good data management practices
- Developing tools for the setting of principles and standards (relating to environmental data collection, storage, sharing and management)
- Provides a focal point for communication:
  - a) around data management issues
  - b) between organisations and the various initiatives at the UK, EU and global levels

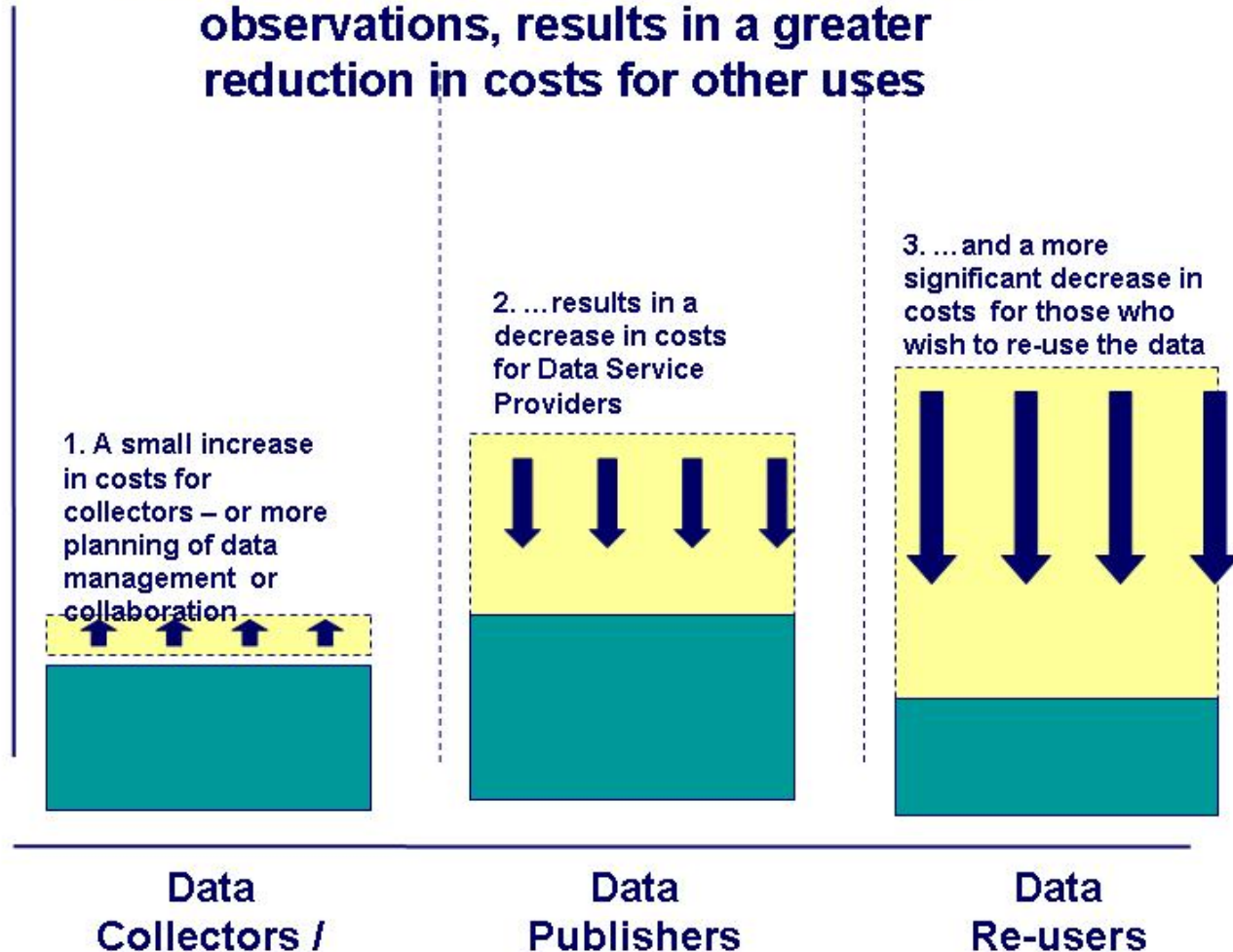
# Data Initiative





## The culture change: a small increase in effort when specifying and undertaking observations, results in a greater reduction in costs for other uses

Effort/costs required for data to be reused





# Summary of UK-EOF

**UK-EOF is an ambitious strategic programme 2008-2013**

**Some key tools available and being developed**

**Now:**

- **embedding concepts and decision tools**
- **updating catalogue contents**
- **widening to include socioeconomic issues**
- **Input to global GEO picture**

**The Management Group and observation communities are key resource**



Further information and Observation Catalogue: [www.ukeof.org.uk](http://www.ukeof.org.uk)

Contact us: [office@ukeof.org.uk](mailto:office@ukeof.org.uk)

