

# Demonstration Test Catchments (DTC) Project

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*Developed jointly with WAG and EA*

*Financially supported by EA & DEFRA policy (WQ, NEG & ES)*

*In close coordination with NERC Virtual Observatory for Water*



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Department for Environment  
Food and Rural Affairs

- What is DTC?
- Why do we need it?
- How are we going about it?

# The DTC Platform

Living With Environmental Change

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Eden  
(Cumbria)



Livestock and mixed farming

Consortium includes:  
Lancaster University,  
Newcastle University,  
Durham University,  
University of Cumbria,  
Eden Rivers Trust, CEH  
and others...

Wensum  
(Norfolk)



Arable farming

Consortium includes:  
University of East Anglia,  
Scott Wilson, Cranfield  
University, British  
Geological Survey, Entec,  
NIAB and others...

Avon  
(Hampshire)



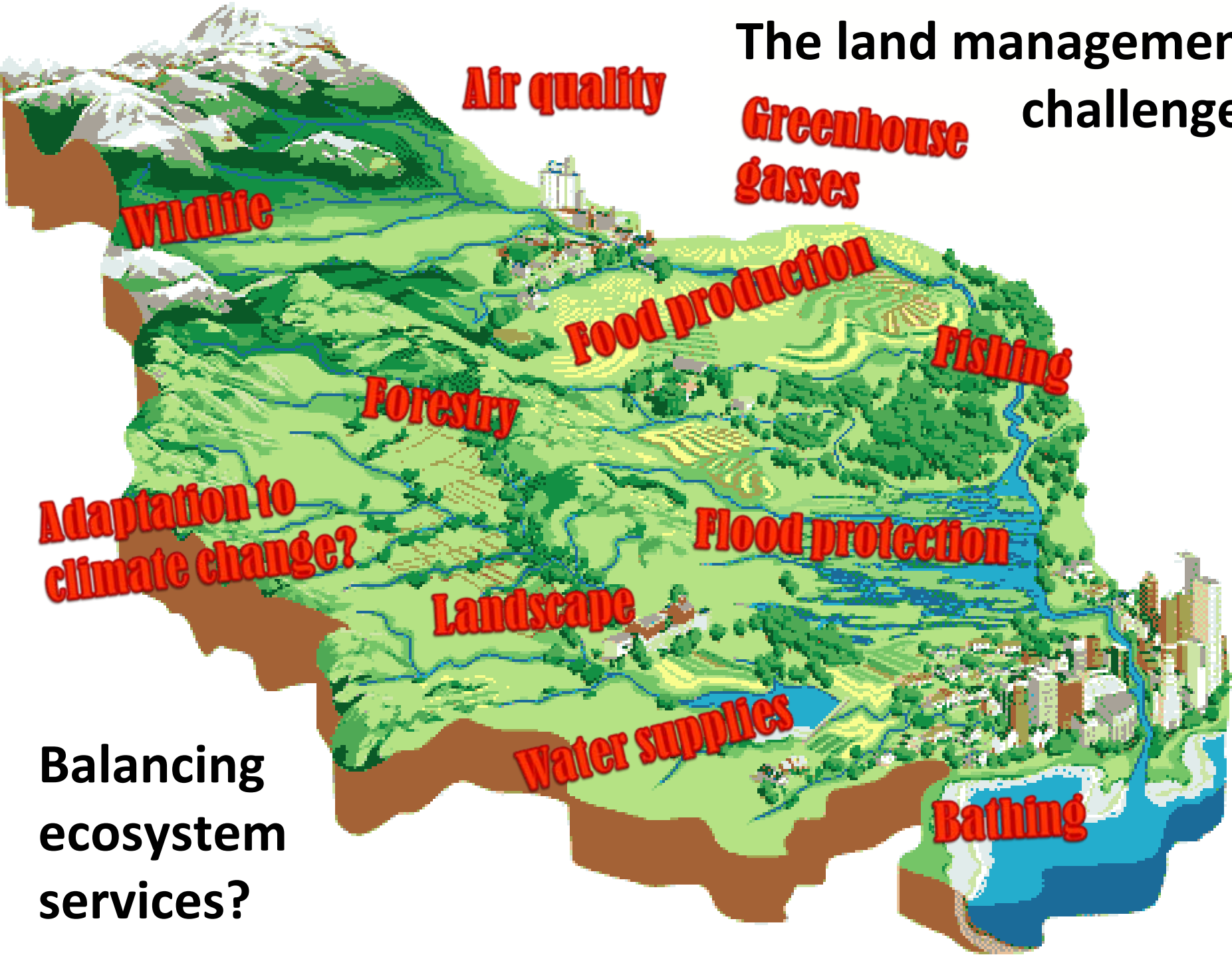
Mixed lowland farming  
Consortium includes:  
ADAS, University of  
Reading, University of  
Bristol, QMUL, ENTEC  
and others...



Uywodraeth Cynulliad Cymru  
Welsh Assembly Government



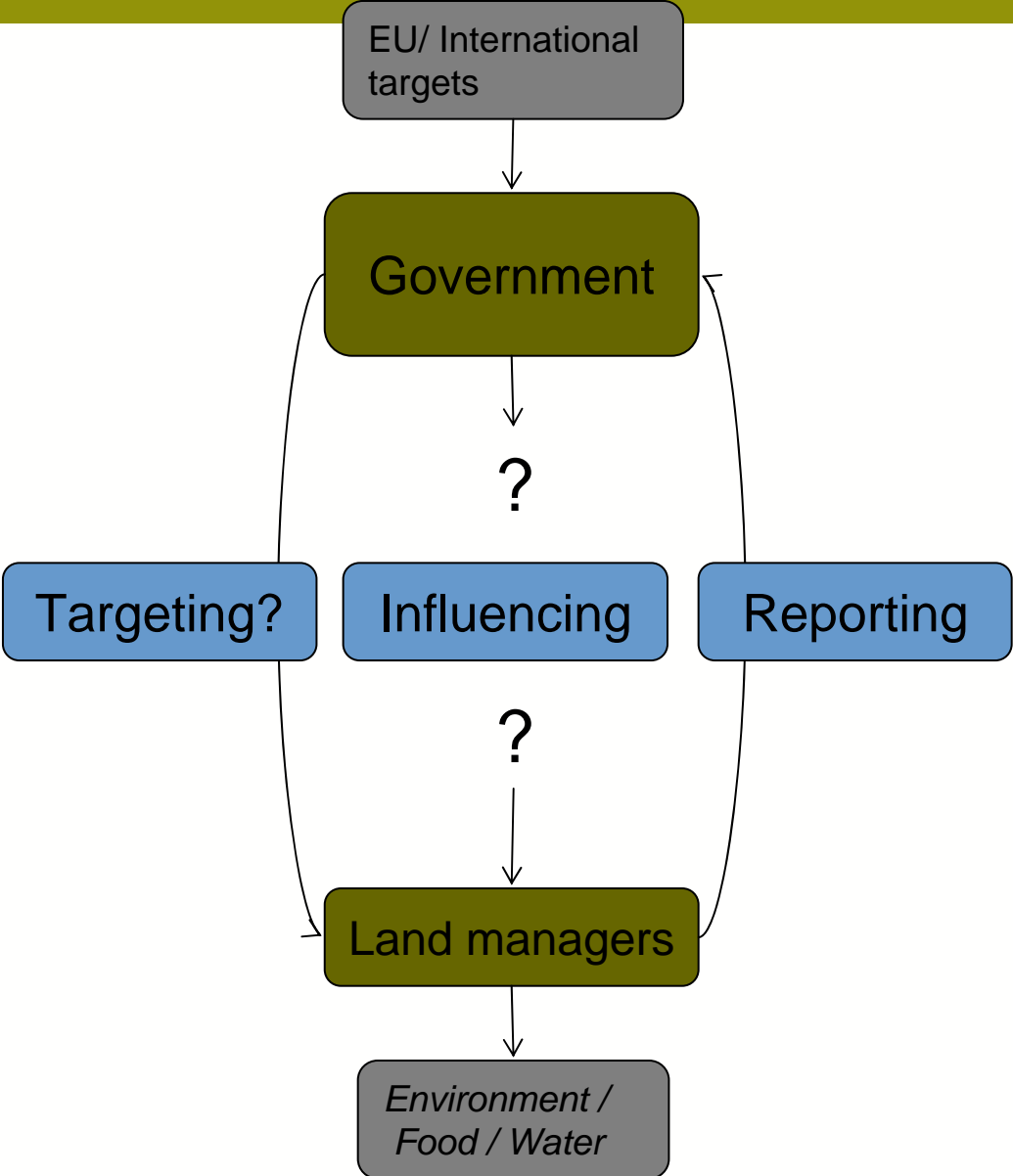
# The land management challenge!



Adaptation to climate change?

Balancing ecosystem services?

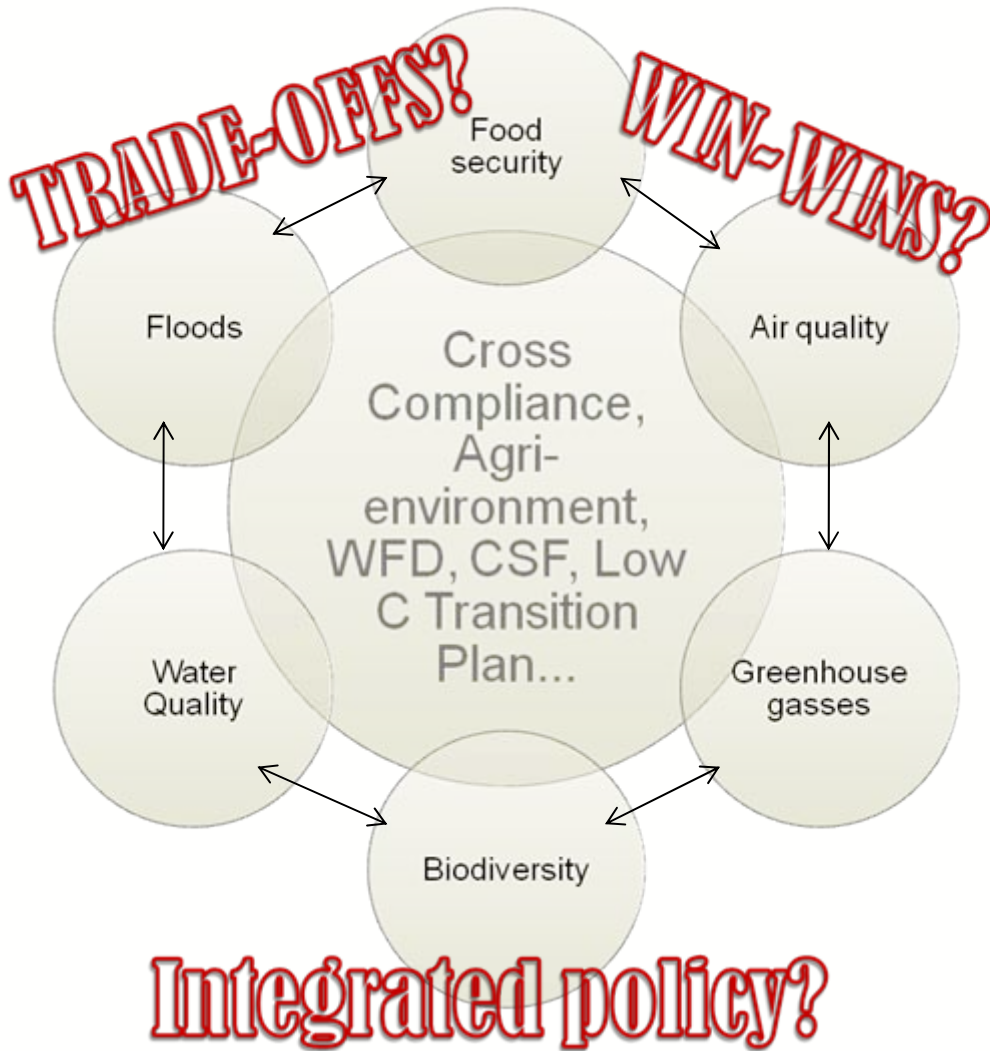
# The policy challenge



# The policy challenge



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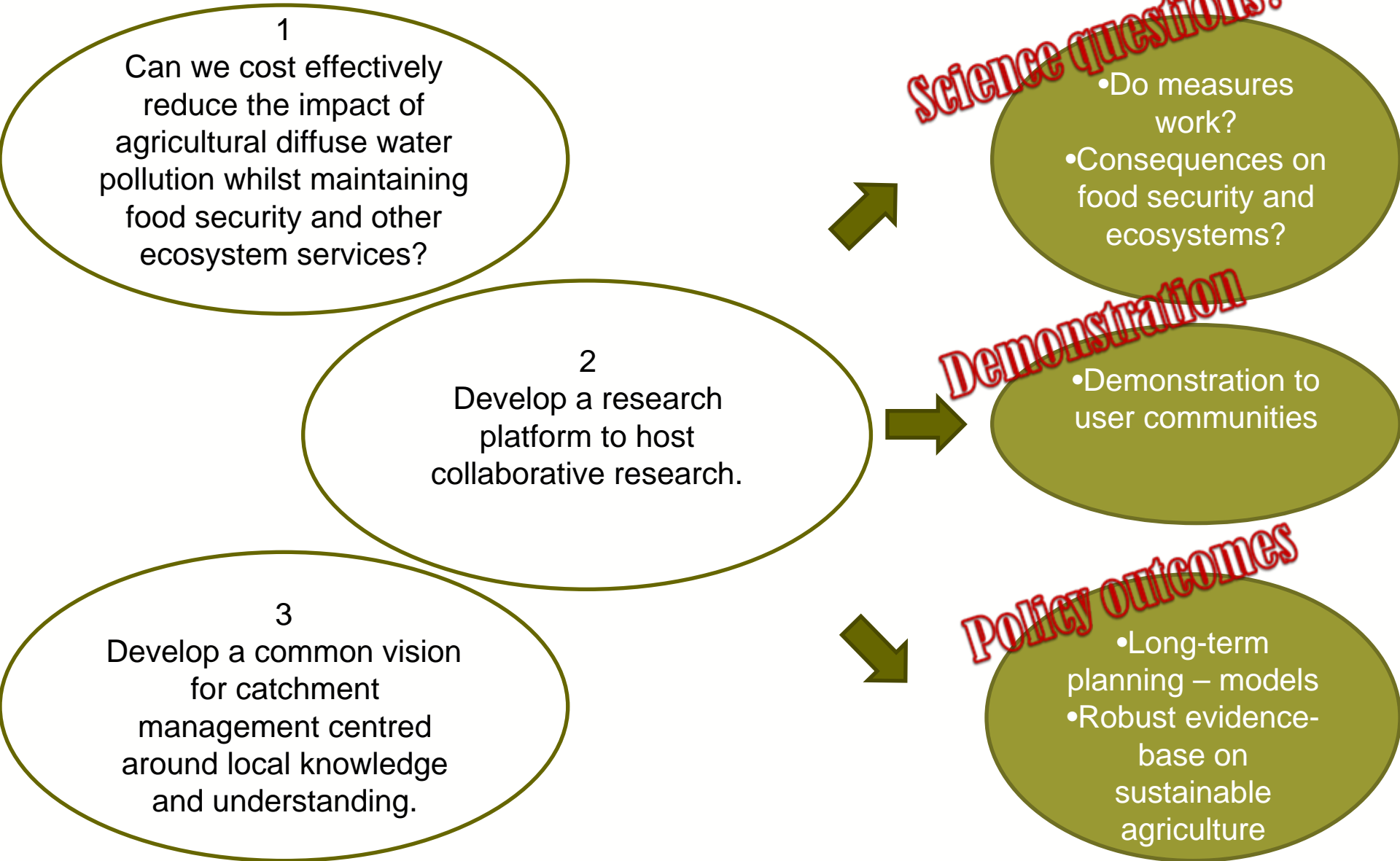




# Objectives of DTC

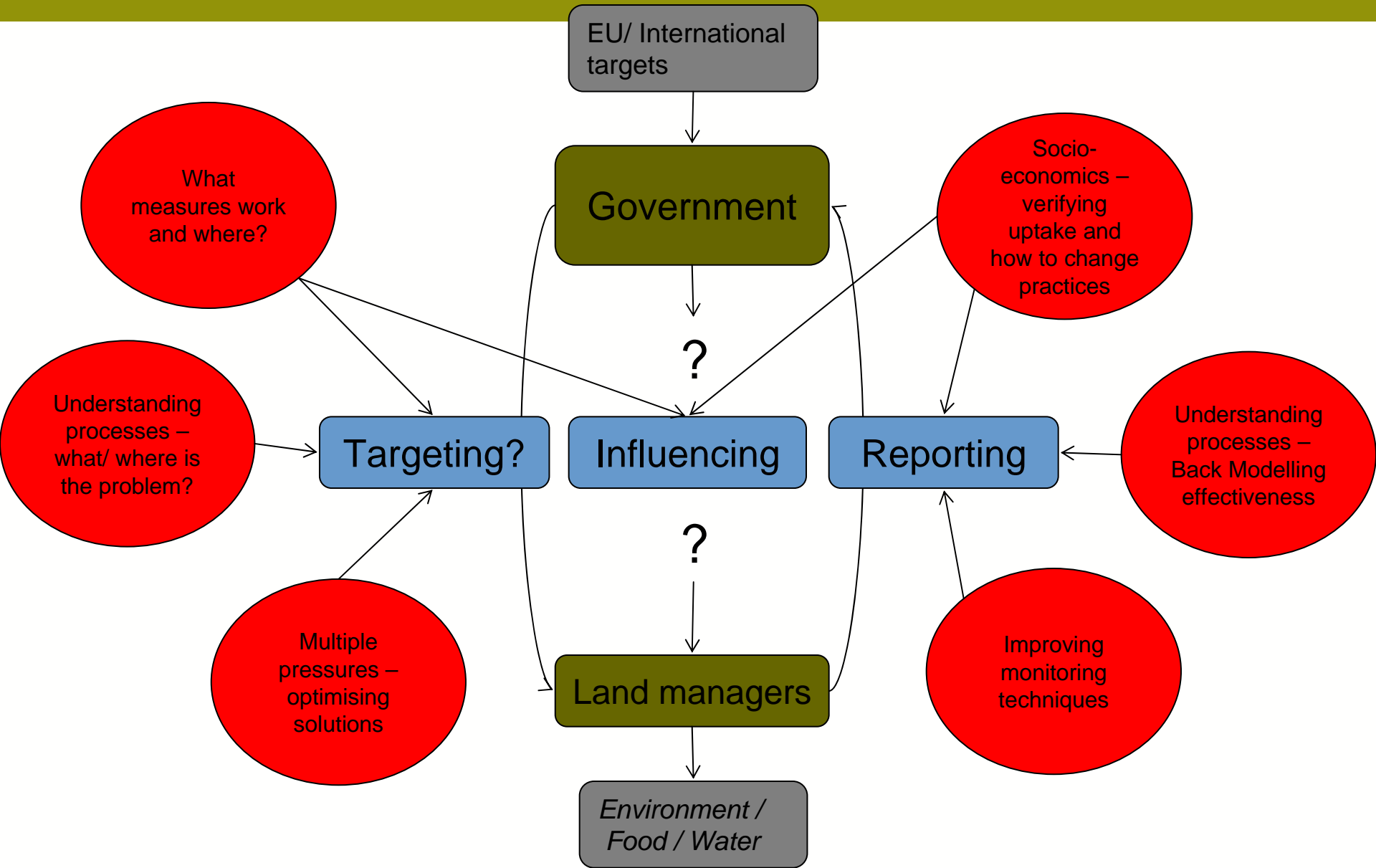


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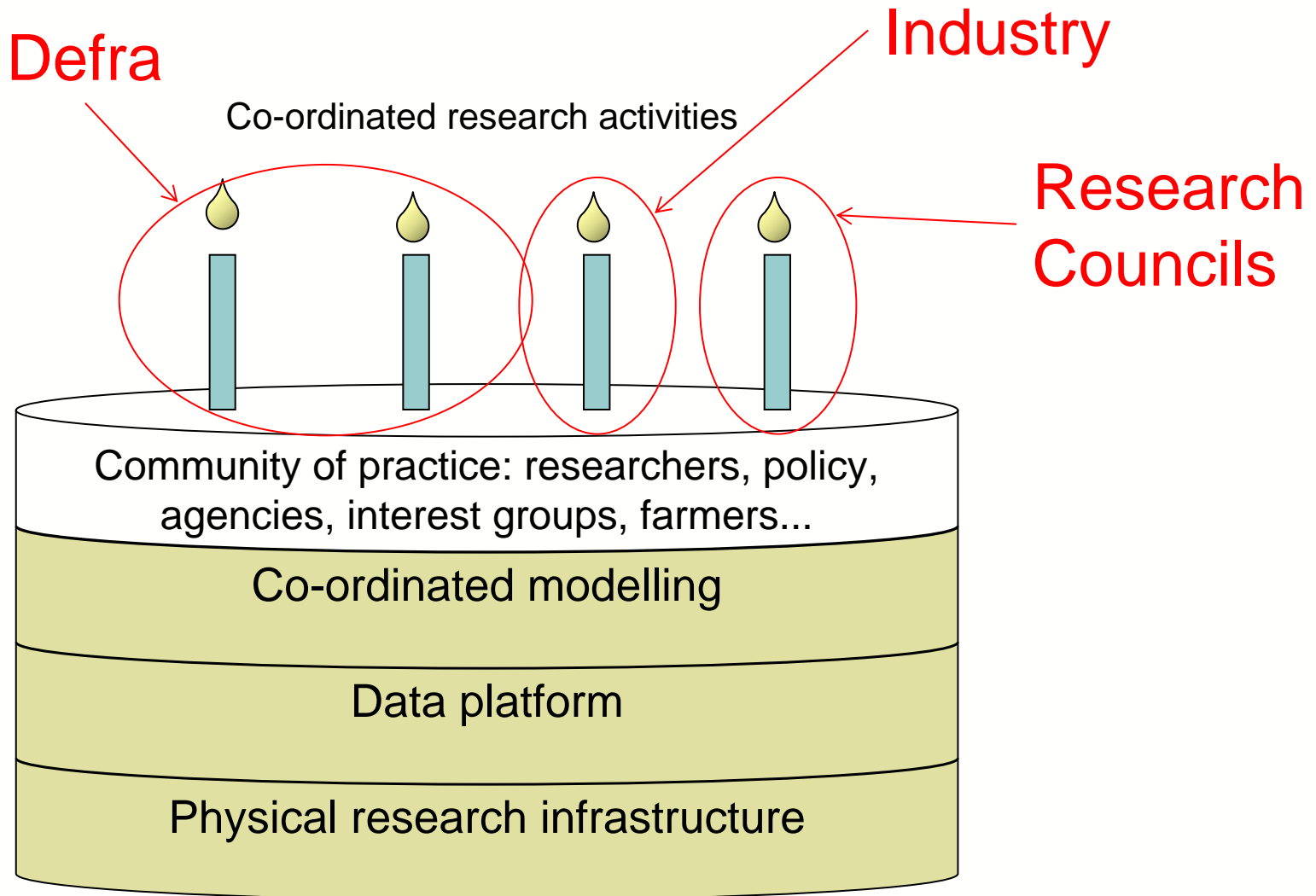




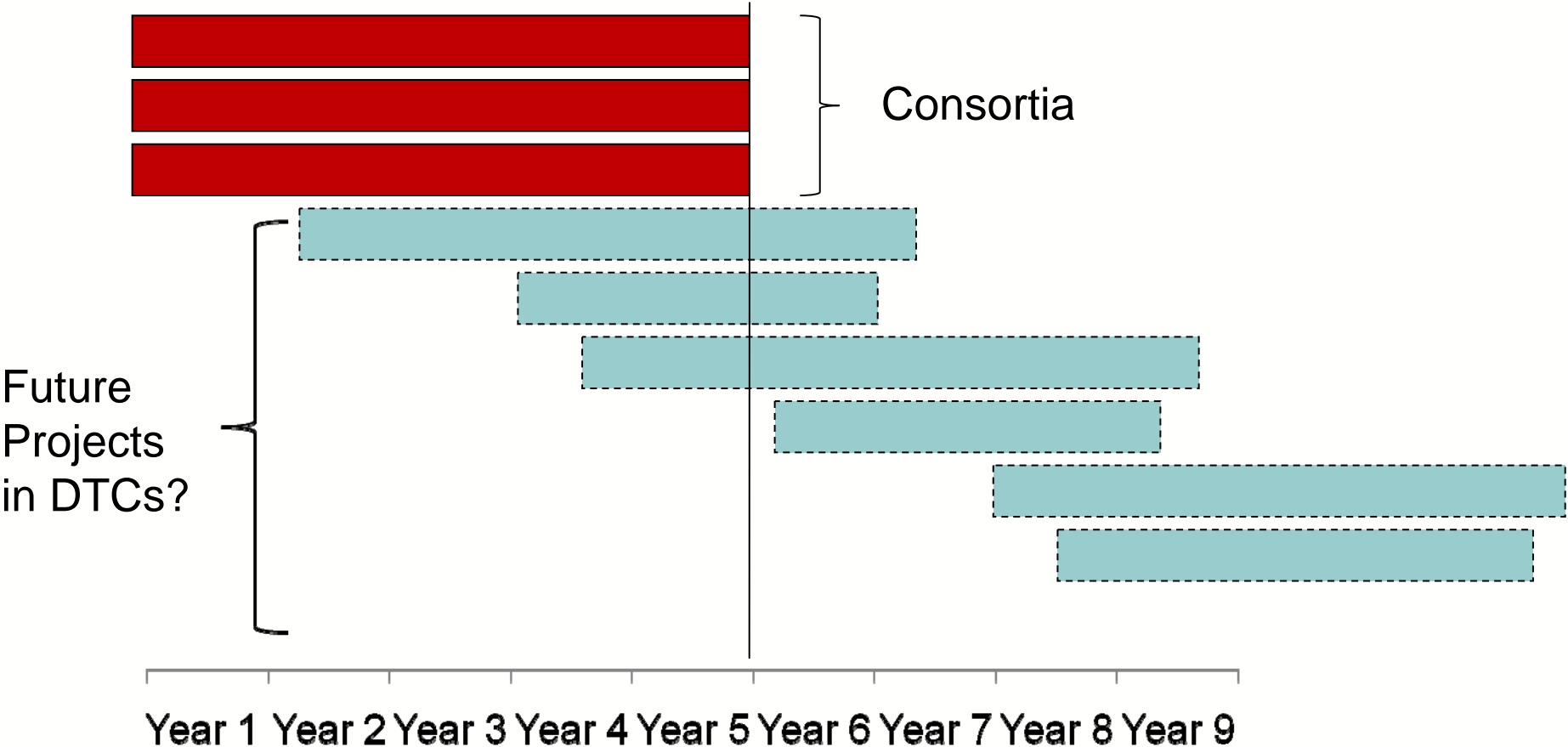
# 1 Science questions?



# 2 What is a research platform?



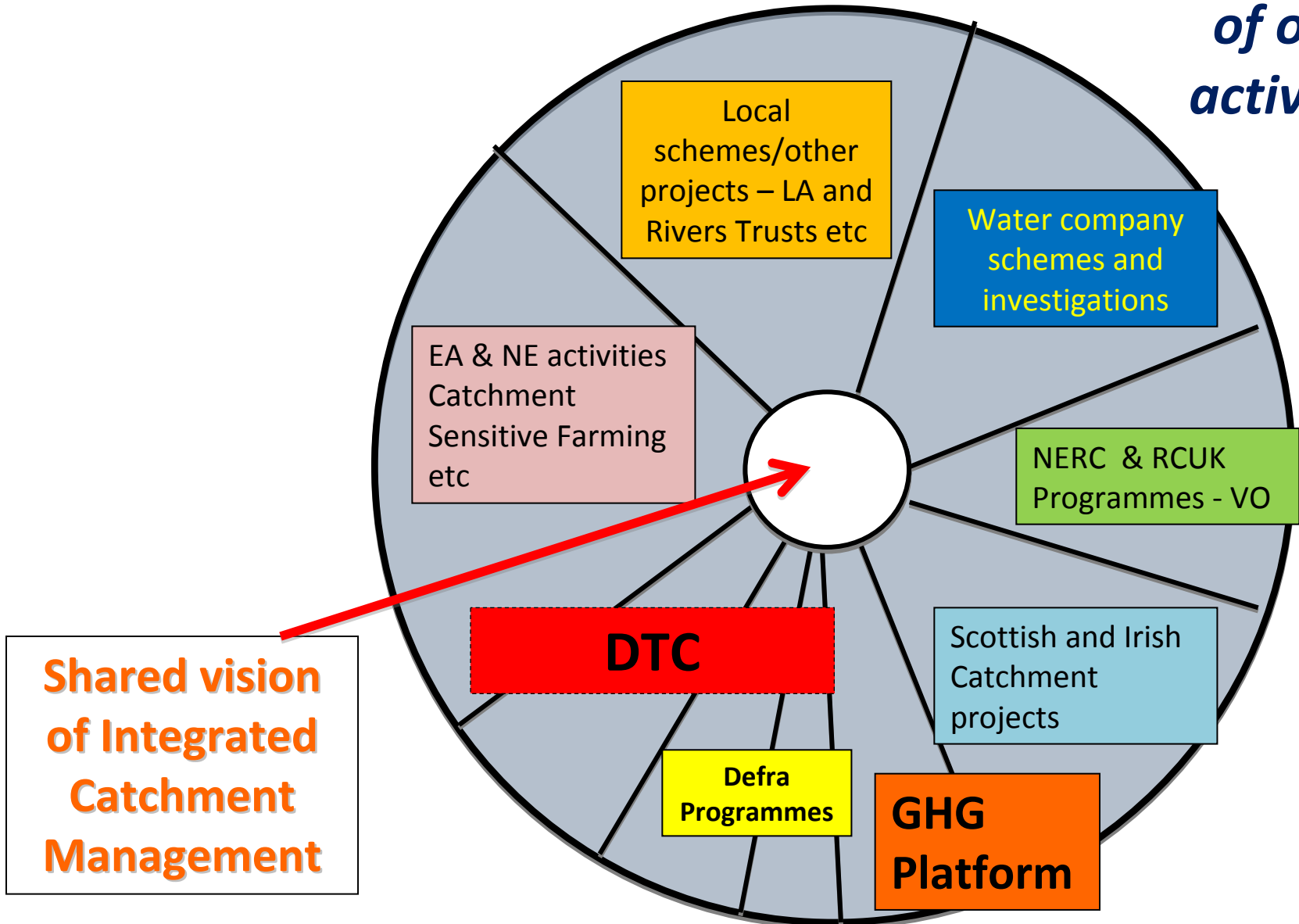
# 2 Longevity of platform



# 3 Vision for catchment management

- How should we manage catchments in future?
- How should we co-ordinate inter-disciplinary research?
- Common problems – joint solutions?
- What are we aiming for?

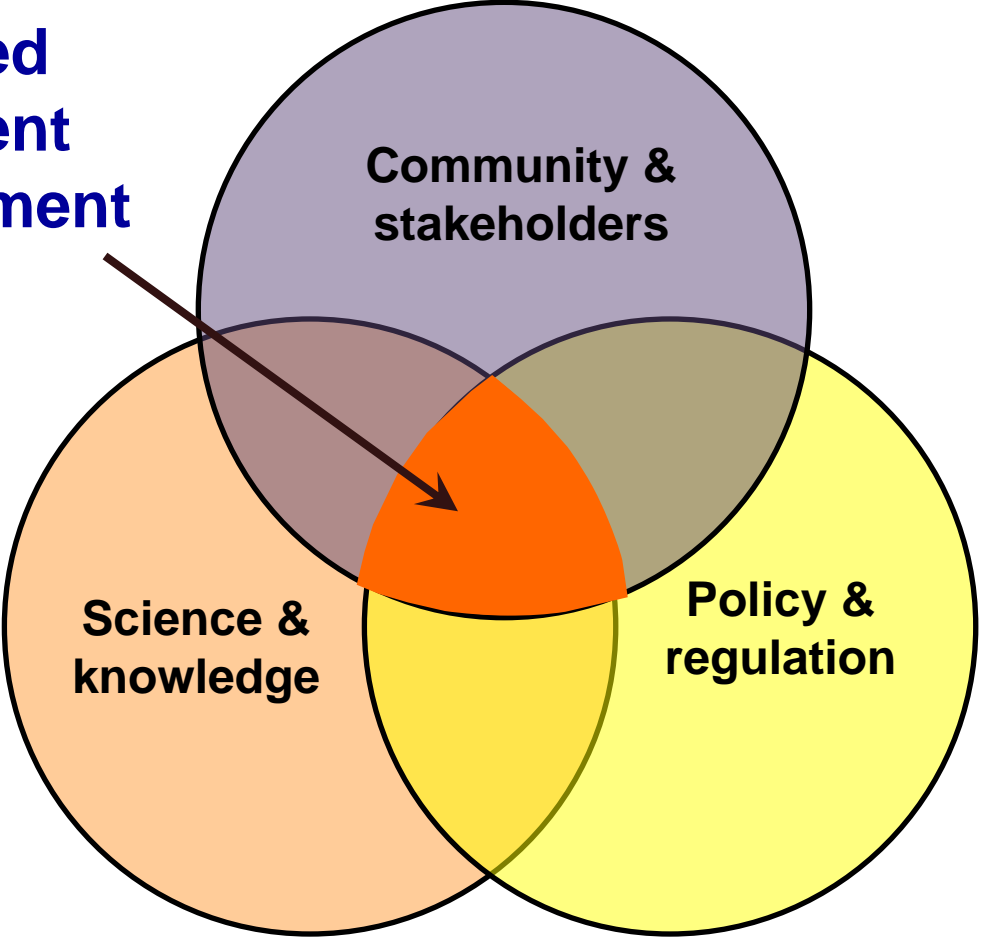
### 3. Catchment Management Objective of DTC project – working with “family” of other activities



# The Challenges

- Water and river ecosystems have little identifiable “value” in our society;
- We have lost the connectivity of people to their (environmental) surroundings
- Tendency to work a top-down system and find it difficult to capture “local learning”;
- Some river basins do not lend themselves to large scale joined-up planning - geographically and institutionally;
- Science/research has not been closely involved in “the process”

**Integrated  
Catchment  
Management**



# 3 Vision for catchment management

- **Developing “communities of practice”** with wider stakeholder groups
- **Linking** currently disparate **research** on interrelated impacts of agriculture on the environment
- **Using** existing **data, information and knowledge** more effectively, better definition of the *weight of evidence* on agricultural diffuse pollution for policy and regulation



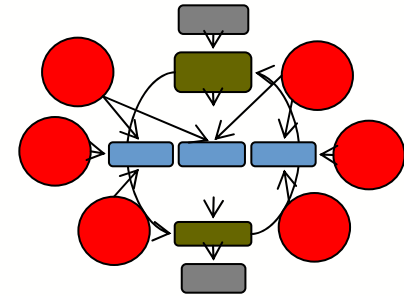
Integrated catchment management?



# Objectives of DTC

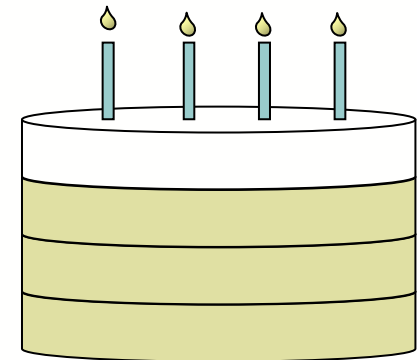
1

Can we cost effectively reduce the impact of agricultural diffuse water pollution whilst maintaining food security and other?



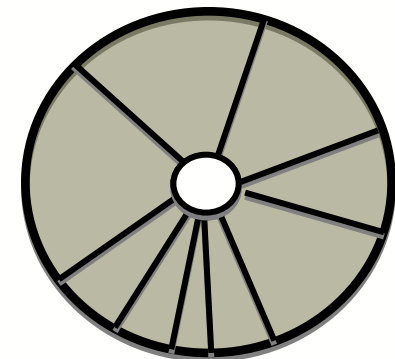
2

Develop a research platform to host collaborative research.



3

Develop a common vision for catchment management centred around local knowledge and understanding.



# Overall project broken down into five work streams (components)

- C<sub>1</sub> - Design and implementation of monitoring approach for each catchment - catchment conceptual model
- C<sub>2</sub> - On-farm measures to mitigate diffuse pollution by monitoring outcomes at a range of scales
- C<sub>3</sub> - Knowledge exchange and knowledge transfer,
- C<sub>4</sub> - Development of infrastructure for data management and dissemination
- C<sub>5</sub> - Predictive Modelling and DSS

*C<sub>3</sub> and C<sub>4</sub> undertaken in close co-operation with the NERC*

VO

**Wensum  
Alliance**

# What DTC project can offer

- The opportunity to influence national policy on the future of agri-environment schemes, CSF etc
- The opportunity to exchange knowledge and experience with a wide range of research scientists and on the ground practitioners linked to local stakeholder communities
- Opportunities to explore new techniques and technologies with the ability to rapidly verify resultant data
- Early take-up of successful techniques in support of scientific research that is policy-relevant.

# DTC Project Contacts

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