

# How to build a Farm Platform (Part One)



Les Firbank



# The North Wyke Farm Platform



Les Firbank



A landscape photograph showing a green field in the foreground, a tall antenna tower on the left, and rolling hills in the background under a clear sky. The text "Step 1" is overlaid in the upper right, "Getting the idea" is in the center, and "Summer 2006" is at the bottom.

Step 1

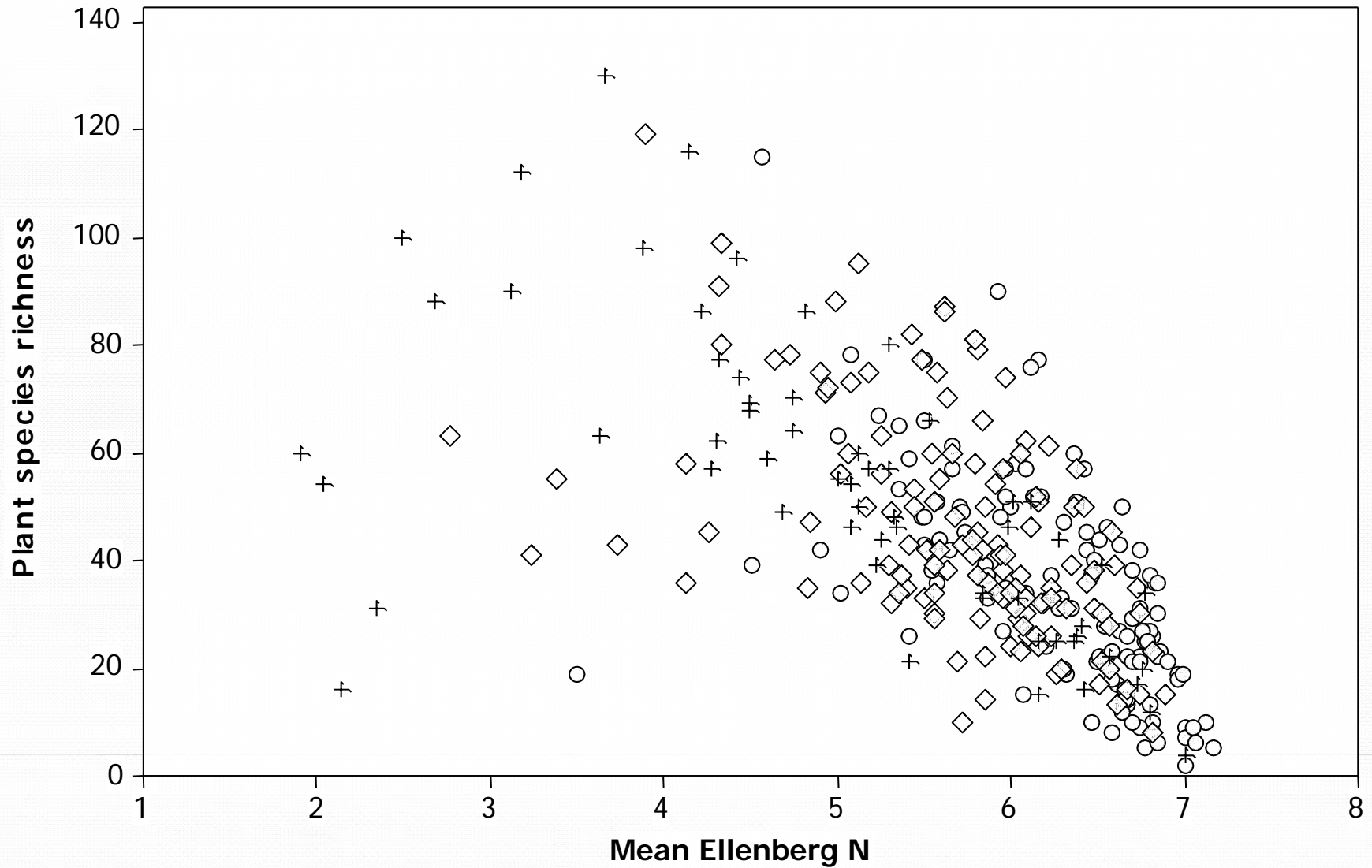
*Getting the idea*

Summer 2006

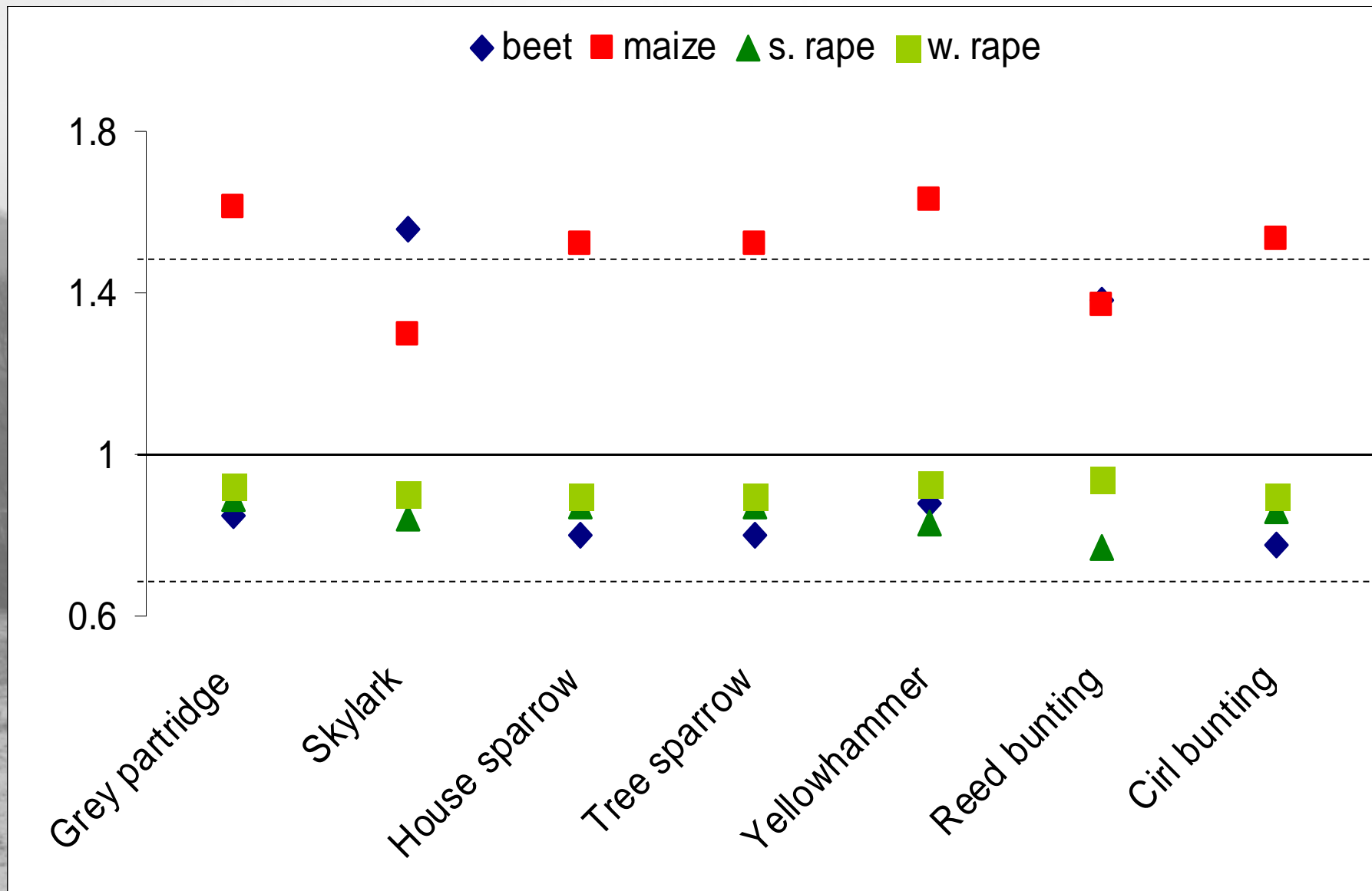
# Drivers

- *Personal interest*
  - Large scale ecological impacts of agriculture
- *Opportunity*
  - A farm for unique experiments
- *Financial sustainability*

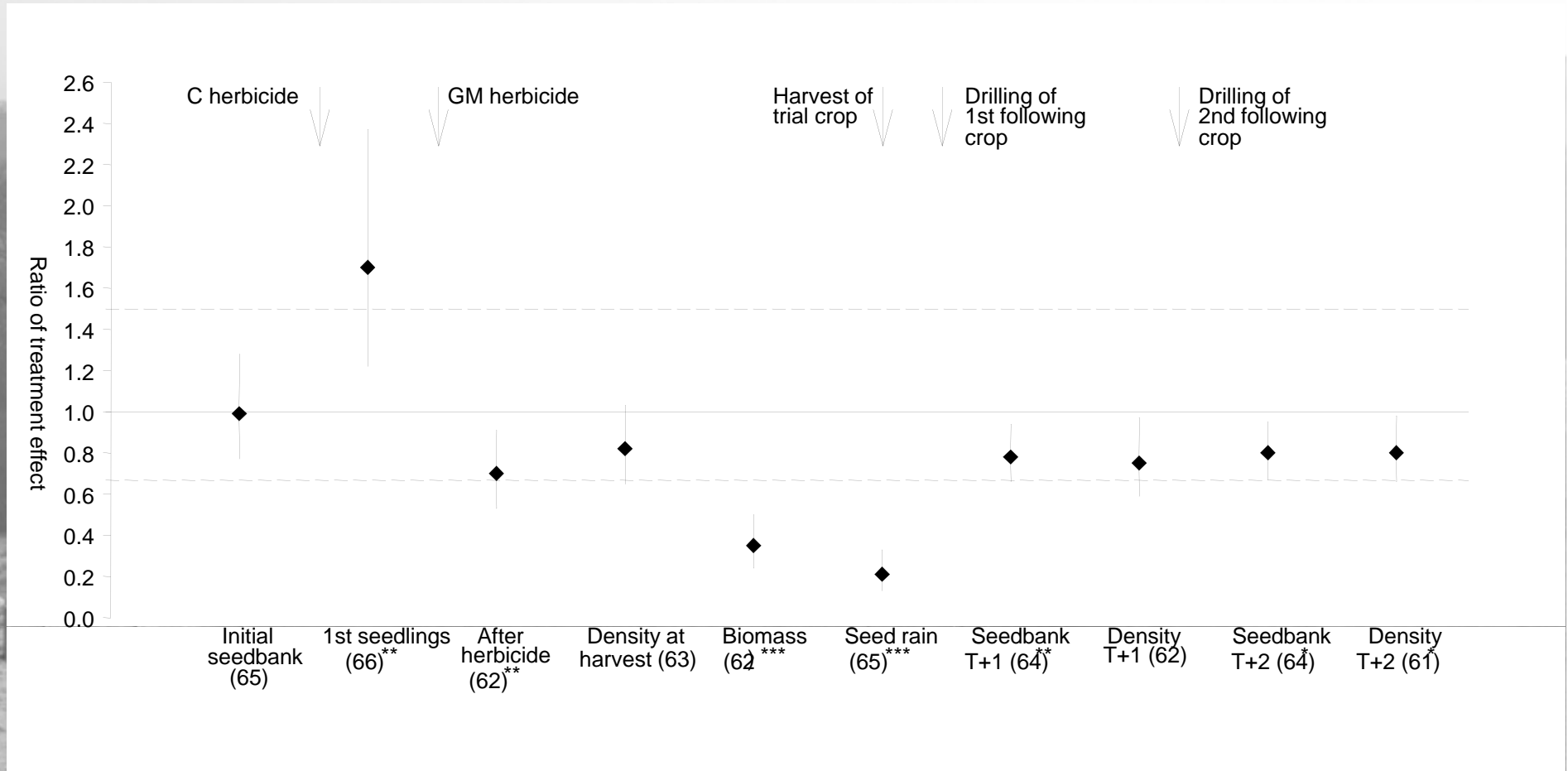
# National patterns of plant diversity and nutrient levels



# Implications for GM cropping for farmland birds



# Implications for GM winter oil seed rape cropping for arable weeds



A landscape photograph showing a green field in the foreground, a tall antenna tower on the left, and rolling hills in the background under a clear sky. The text "Step 2" is overlaid in the upper right, "What's the question?" is overlaid in the center, and "2007 - 2010" is overlaid in the lower center.

## Step 2

*What's the question?*

2007 – 2010

# The proposal (Jan 07)

- A platform for addressing new land use systems
- Address interactions between environmental and production objectives
- A collaborative resource for research, debate and innovation

# The key question (2007)

*What is one planet farming?*



# The key question (2009)

*How can farmers manipulate biogeochemical processes to direct natural resources and energy into production and environmental benefit, minimising wastes, under changing climatic and economic conditions?*



## Step 3

*Gaining support  
(timing is everything)*

2007 – 2010

# Changing climate, increasing consumption (Jan 07)

- Global demand for food is increasing
- National demand for land, water, landscape, biodiversity is increasing
- New farming practices needed to mitigate and adapt to climate change
- New markets for agriculture in energy, novel crops, local foods

(Nov 09)

**FOOD SECURITY!**

# Expected outcomes

- Innovative research relevant to food security and environmental change
- Research that develops systems science approach at large scale
- Real outcomes for policy and industry
- North Wyke identified as a centre of world-class science
- Increased financial sustainability of North Wyke



Step 4

*Design*

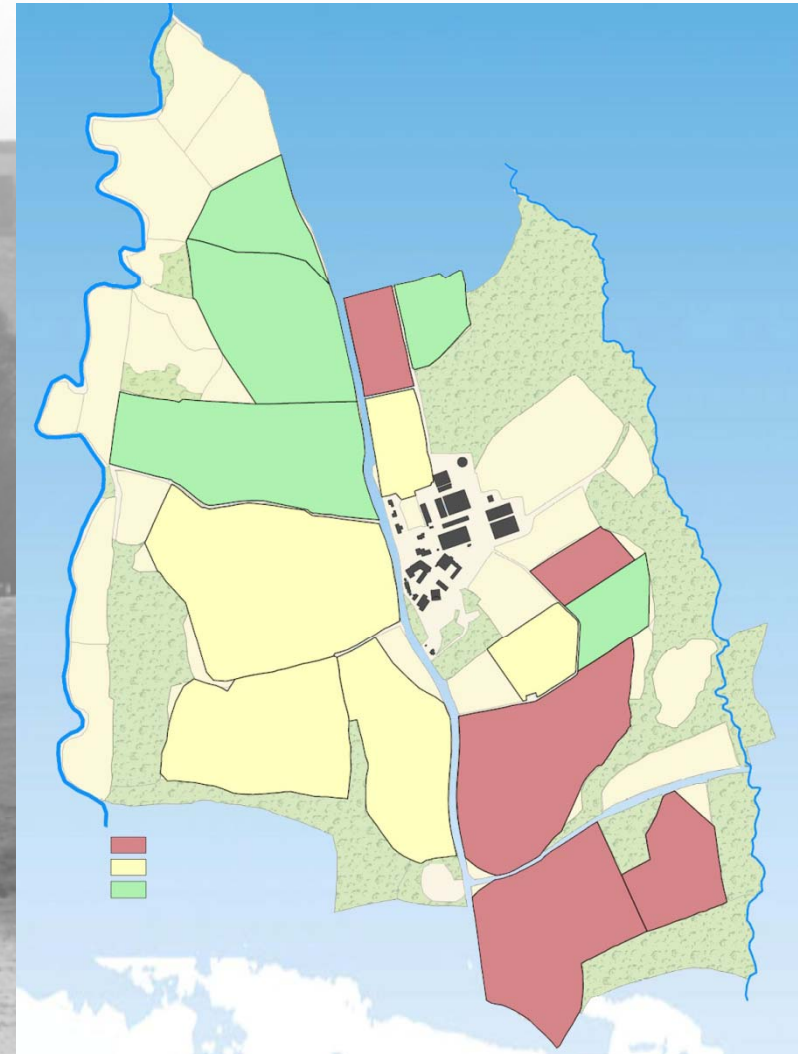
2008 – 2010

# Science priorities

- Choice and nature of treatments
- Choice of measurables
- How to manage new experiments
- Integration with other platforms and projects

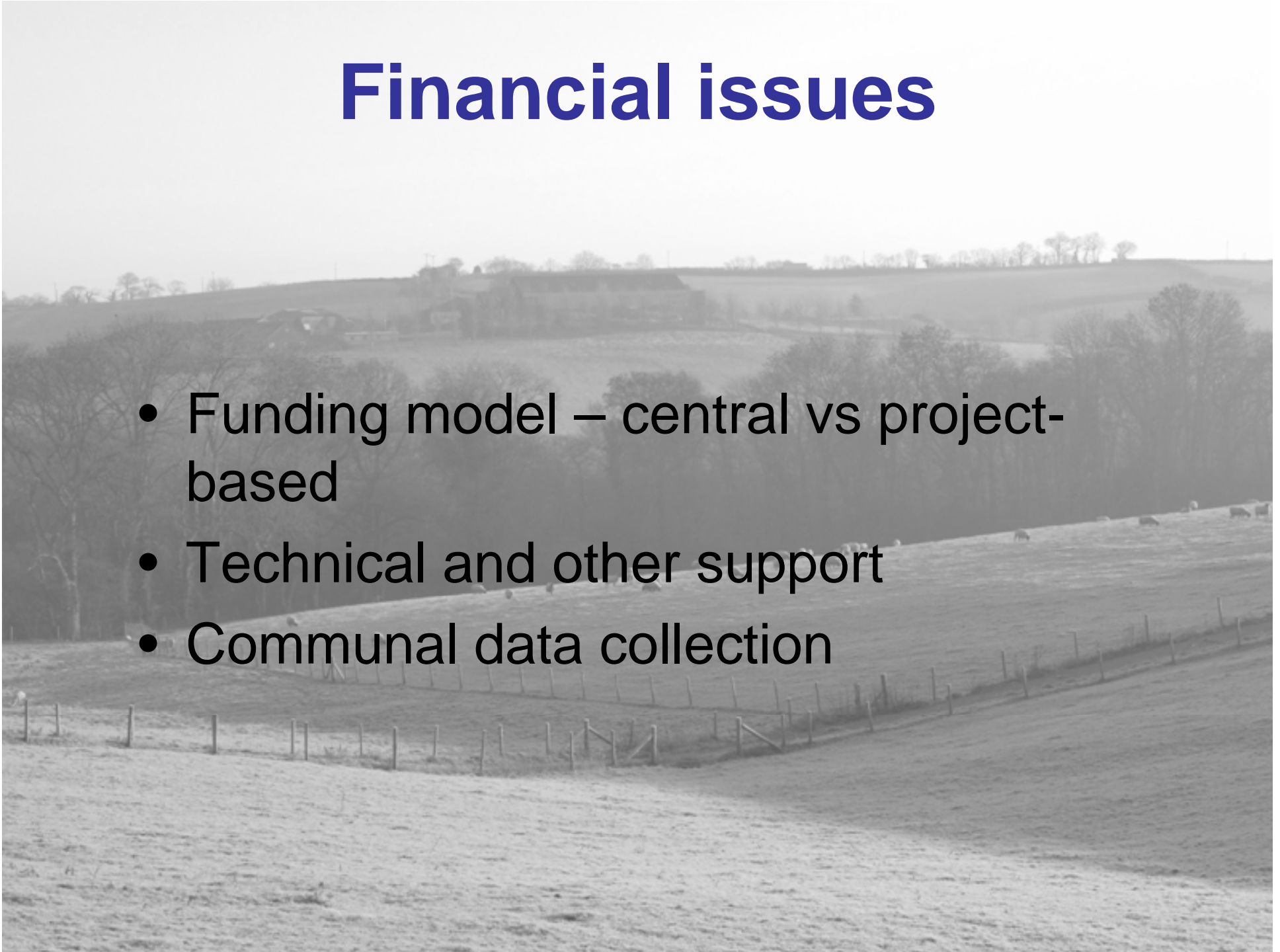
# The layout

- Clay soil, high rainfall, hilly
- Small fields, woodlots
- Intensive livestock
- 6 x Small zones 2 ha,
- 3 x large zones around 20 ha
- Each hydrologically isolated



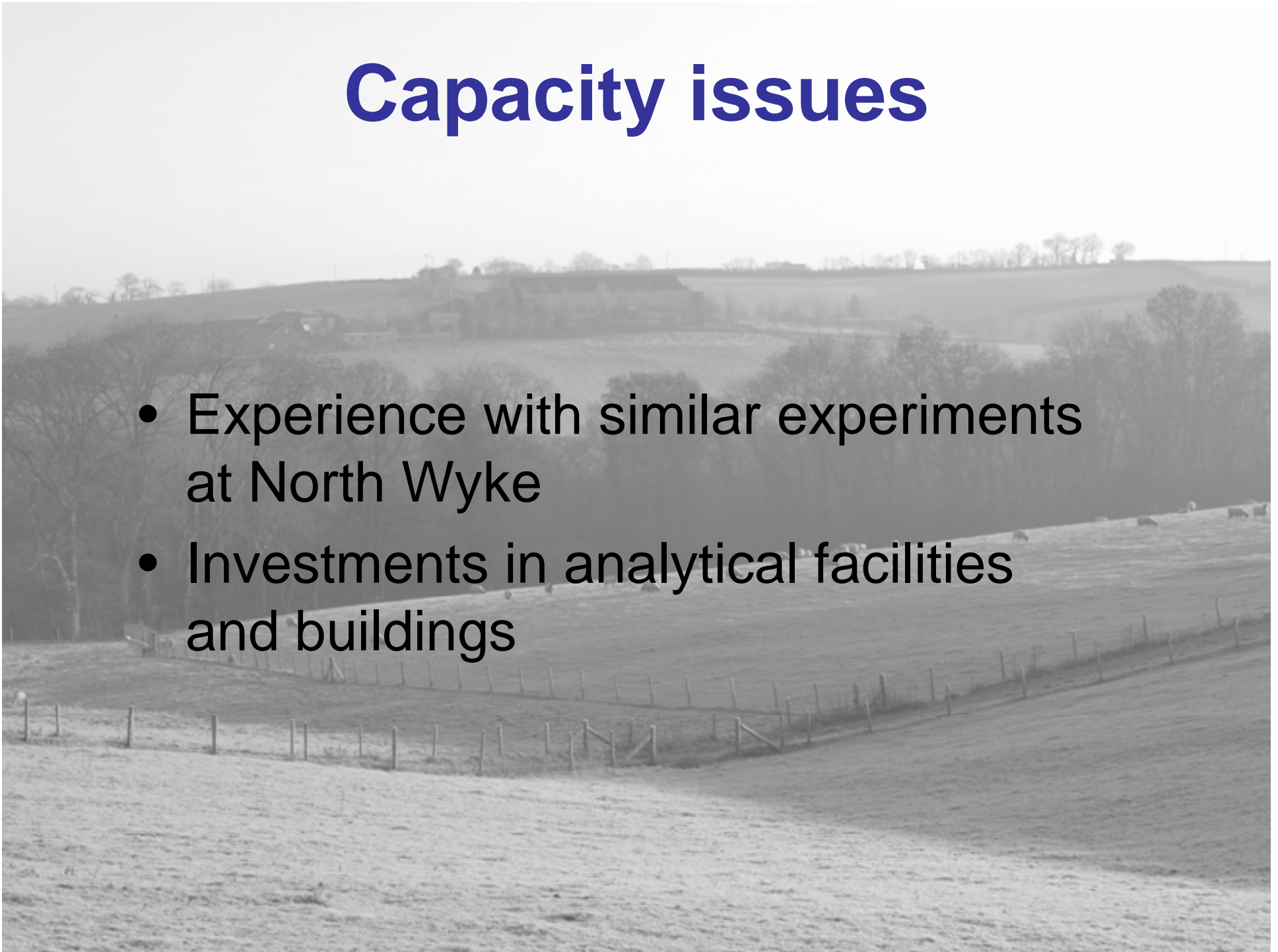
# Financial issues

- Funding model – central vs project-based
- Technical and other support
- Communal data collection



# Capacity issues

- Experience with similar experiments at North Wyke
- Investments in analytical facilities and buildings



# Generality vs detail

***General***

Big picture, exciting for  
non-specialists

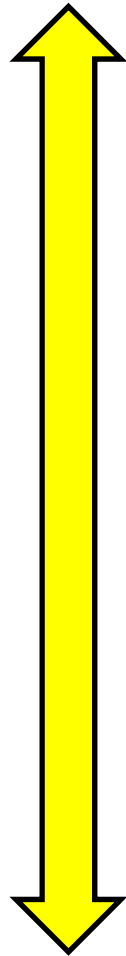
Vague, not real science ?

Lots of details need to be ironed out

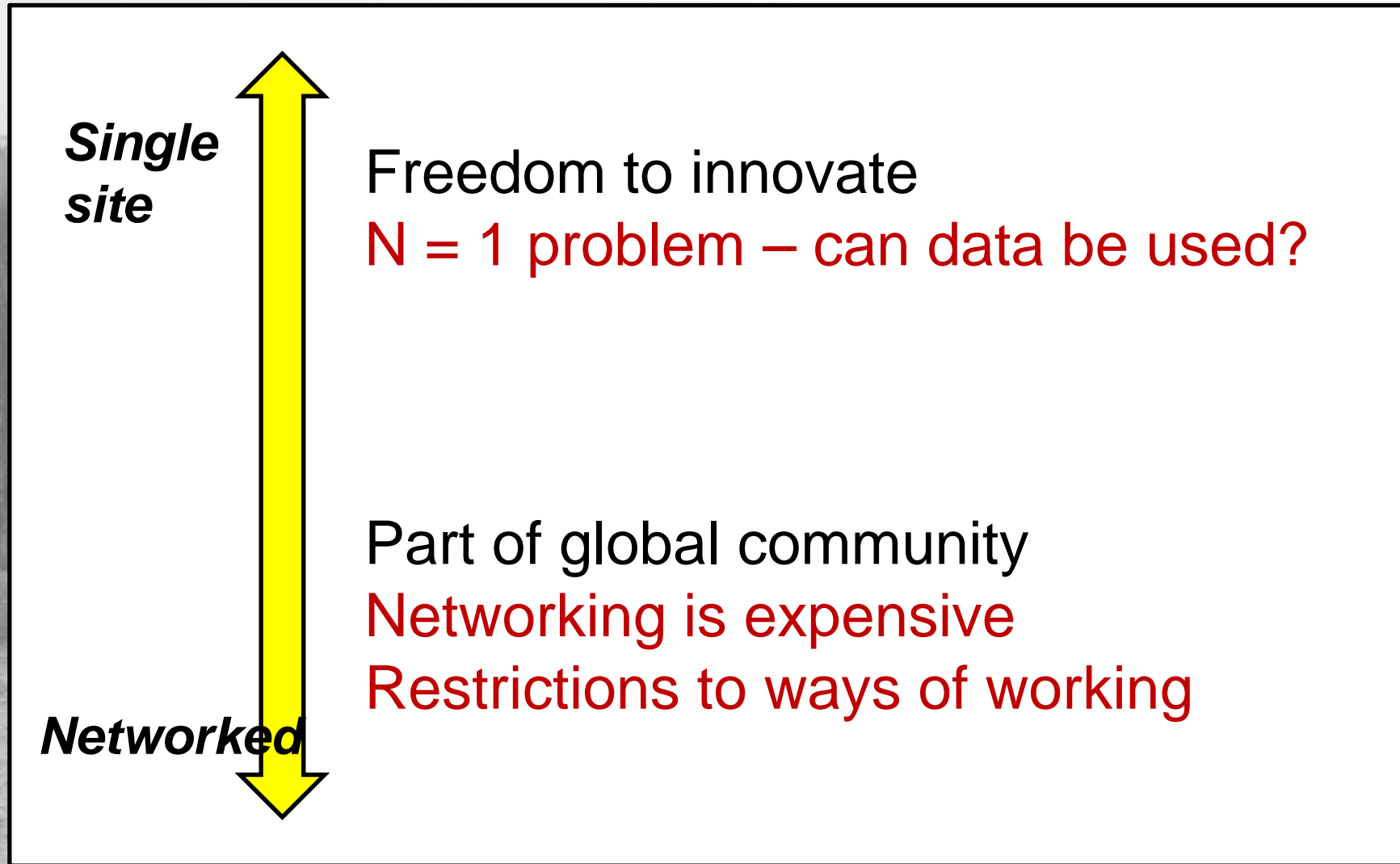
Becomes restrictive – not well  
tailored to each experiment

Gets expensive – value for money?

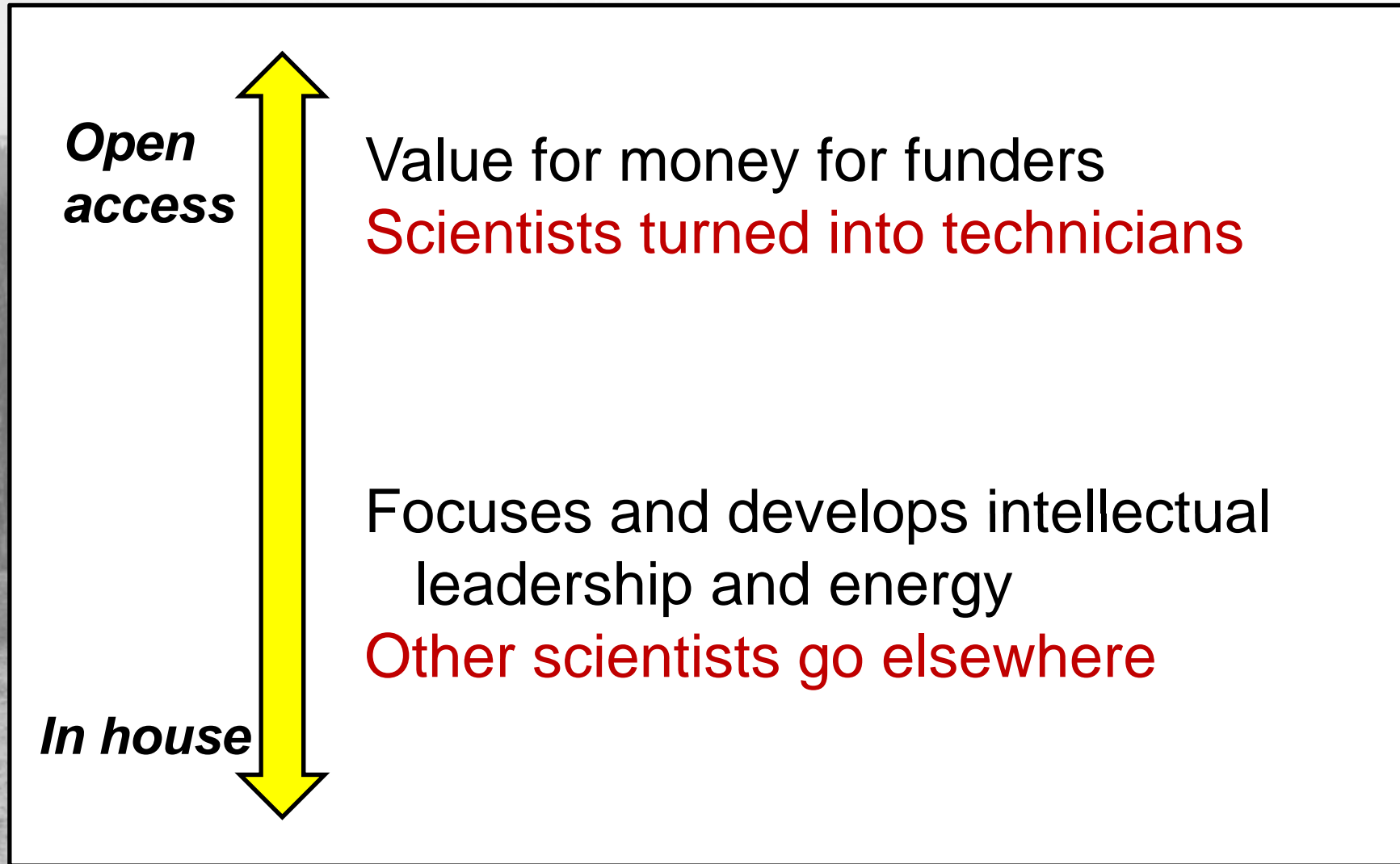
***Detail***



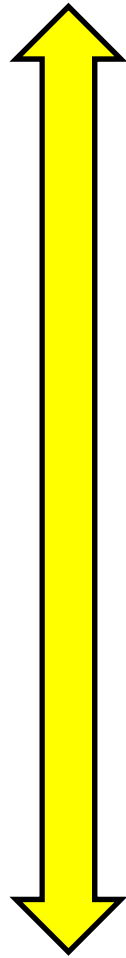
# Single site vs networked



# Open access vs in house



# Thinking it through



## ***Community***

BBSRC consultation

Strategic discussions on  
science directions

External steering committee

## ***North Wyke / Rothamsted scientists***

Response to consultation

Science proposals

Collaborations & networks



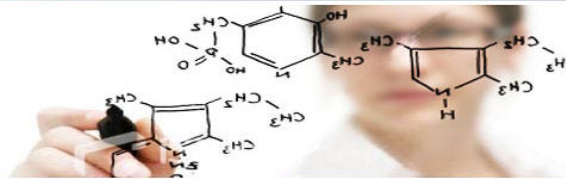
Step 4

*Implementation*

2009 – ongoing

# Current issues

- BBSRC consultation
- Construction ready to start
  - *Local planning decisions*
- Development of North Wyke and Rothamsted research agenda
- Developing networks and projects
  - *follow up to ANAEE*
- Business planning



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### Policies and strategies:

- Strategic planning
- Reviews and consultations
  - Reviews of scientific areas
  - Reviews of working with business activities
  - Research evaluation
  - Operational reviews
- Consultations
- Employment policies
- Policy and position statements

## North Wyke farm platform: a national infrastructure for agri-food research

November 2009

Deadline: 19 December 2009

BBSRC is planning a significant investment in a **farm-based platform** for collaborative research at North Wyke. We are consulting on the specific investment details of the platform.

The platform will underpin key strategic areas in:

- Food security
- Sustainable agricultural systems
- Agri-ecosystems services and the effects of environmental change on agriculture (which intersect the food security and living with environmental change programmes)

### Consultation aim

- To guide the initial development of the platform
- To ensure that it is fit for purpose
- To ensure that it is managed to maximise benefits to potential collaborators in the science and user communities

### How to respond

Read the consultation document and e-mail your comments to the contact below by **19 December 2009**.

[Consultation document \(168KB\)](#)

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