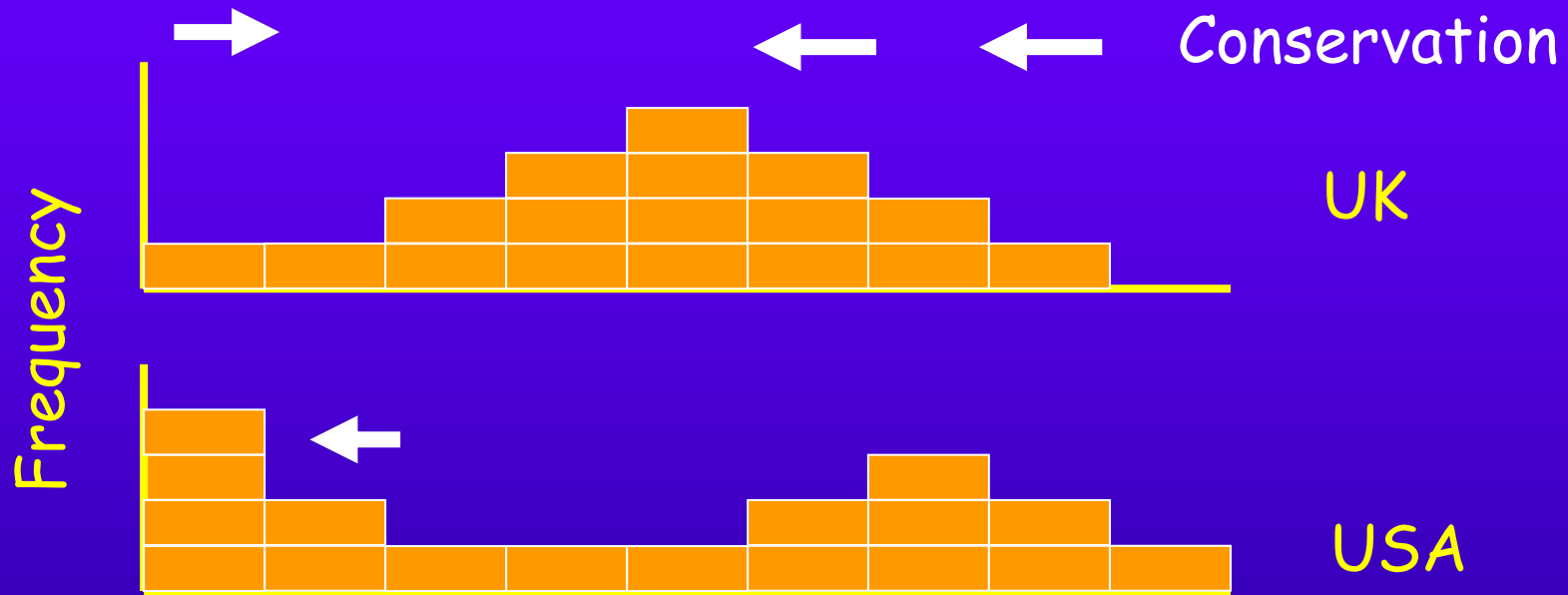


RELU debate

William Sutherland
School of Biological Sciences
University of East Anglia

Management intensity (invented)



Management intensity (arbitrary scale)

The gulf in conservation approaches

WESTERN EUROPE	N. AMERICA etc.
Mainly farmed (70% UK)	Much natural
Ancient landscape	Modern landscape
Conservationist focus on preventing succession	Conservationists focus on creating wilderness
Considerable concern over farmland and GM	Little concern over farmland and GM

Summary of agri-environment studies. N=62.

Published in peer reviewed journals	26%
In national language (not UK)	87%
Have control sites	90%
Have replication	77%
Use statistical tests of significance	69%
Analyse changes between two points in time	26%
Analyse trends in time	32%
Have paired scheme and control sites	16%
Have baseline data	34%
Controls, replication and statistical analysis	58%
Controls, replication, statistical analysis and reduced bias	39%

Summary of agri-environment results.

	+	+/-	-	0
Plants	6	0	2	9
Birds	4	9	2	
Arthropods	11	3	0	3

Only studies with statistical tests

Agri-environment schemes



Agri-environment successes



*If you like Starane 2 ~
you'll love Starane XL*



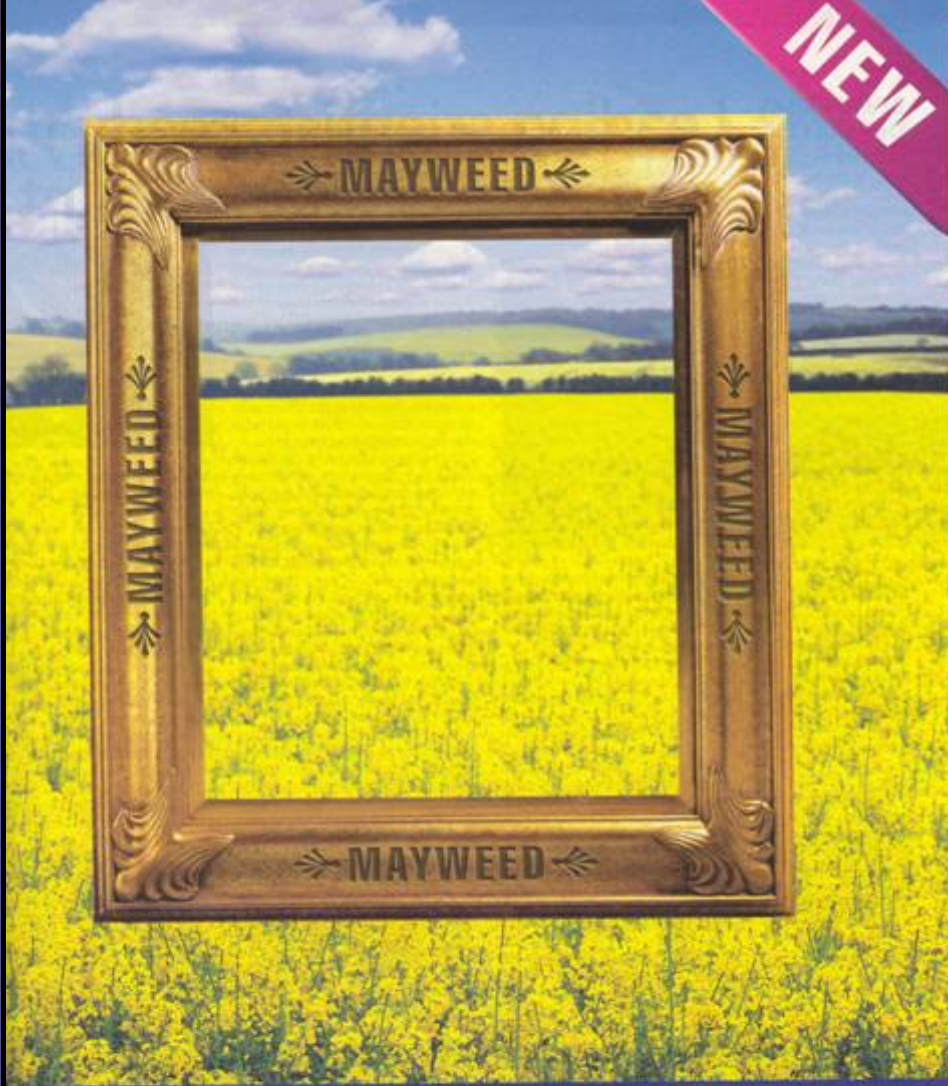
Starane[®] XL gives you all the Cleavers-killing power of Starane 2, but across a wider range of temperatures.

So now you can schedule your workload better and improve yields by taking Cleavers out when you want to, rather than waiting for that perfect hot day in May. You can also save time by



applying Starane XL with your T1 fungicide. What's more, Starane XL controls an impressive range of broad-leaved weeds. And when it comes to the price, you'll love it. Talk to your advisor or distributor now and find out why Starane XL needn't cost you any more per hectare.

NEW



Take Mayweed out of the picture

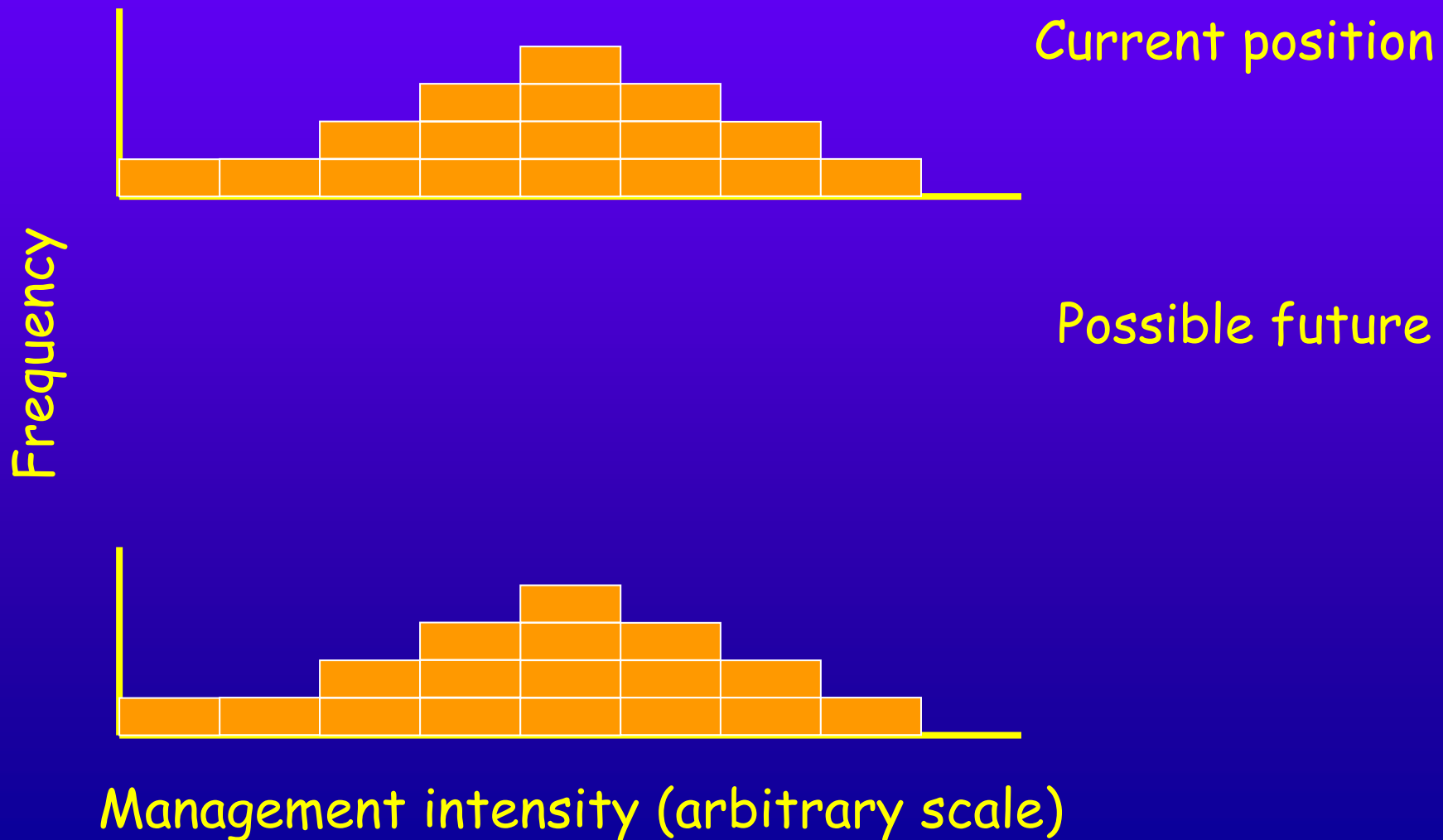
Mayweeds are unsightly and unwanted. But now you can take them out before they trouble your oil seed rape crop. New Galera offers the best ever post-emergence Mayweed control. Spray in either Spring or Autumn and

your OSR will look a picture. In addition, trials have demonstrated an average 80% Cleavers suppression from Spring applications of Galera.

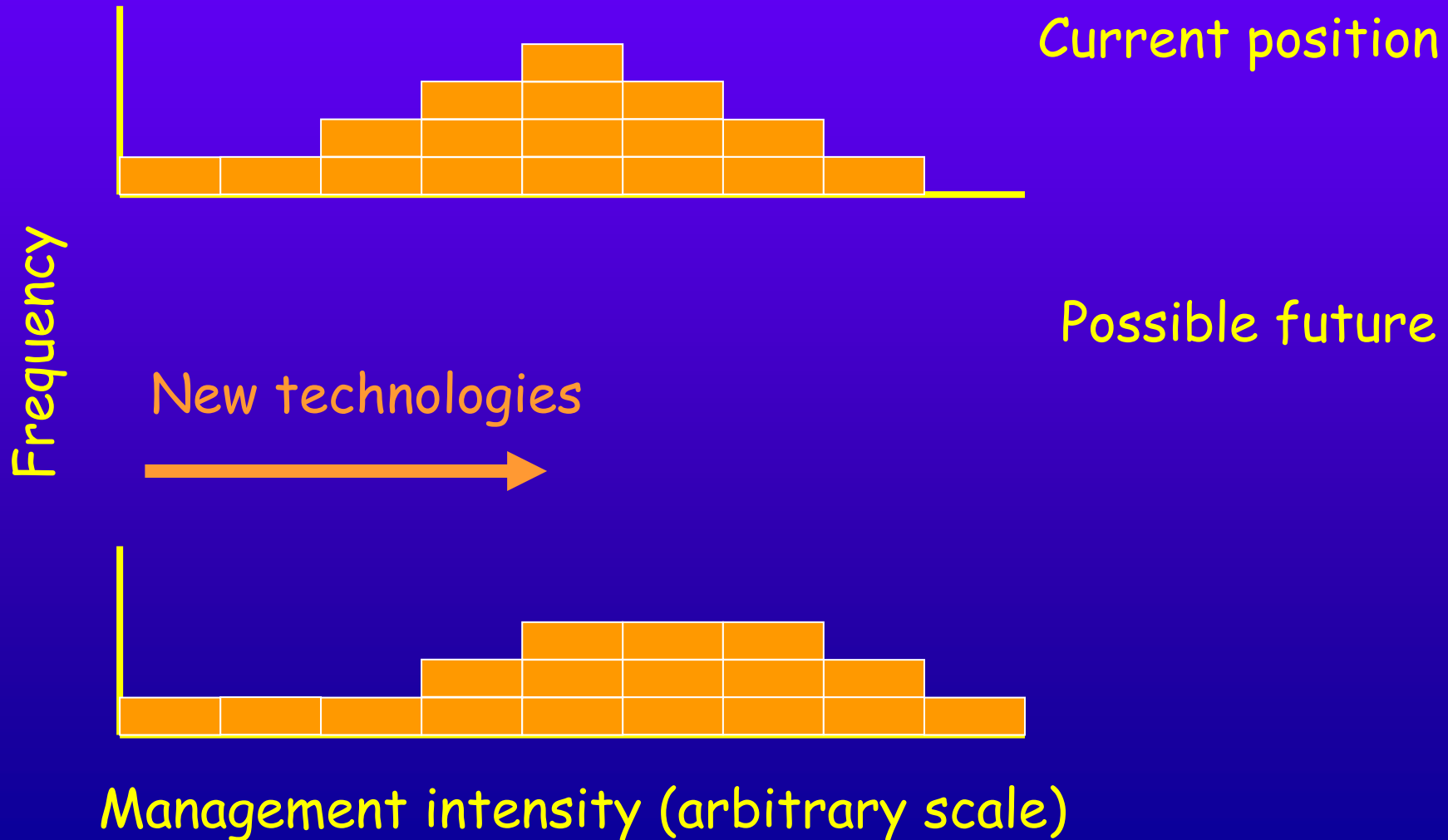
**CLEAVERS
+80%
SUPPRESSION**

GALERA

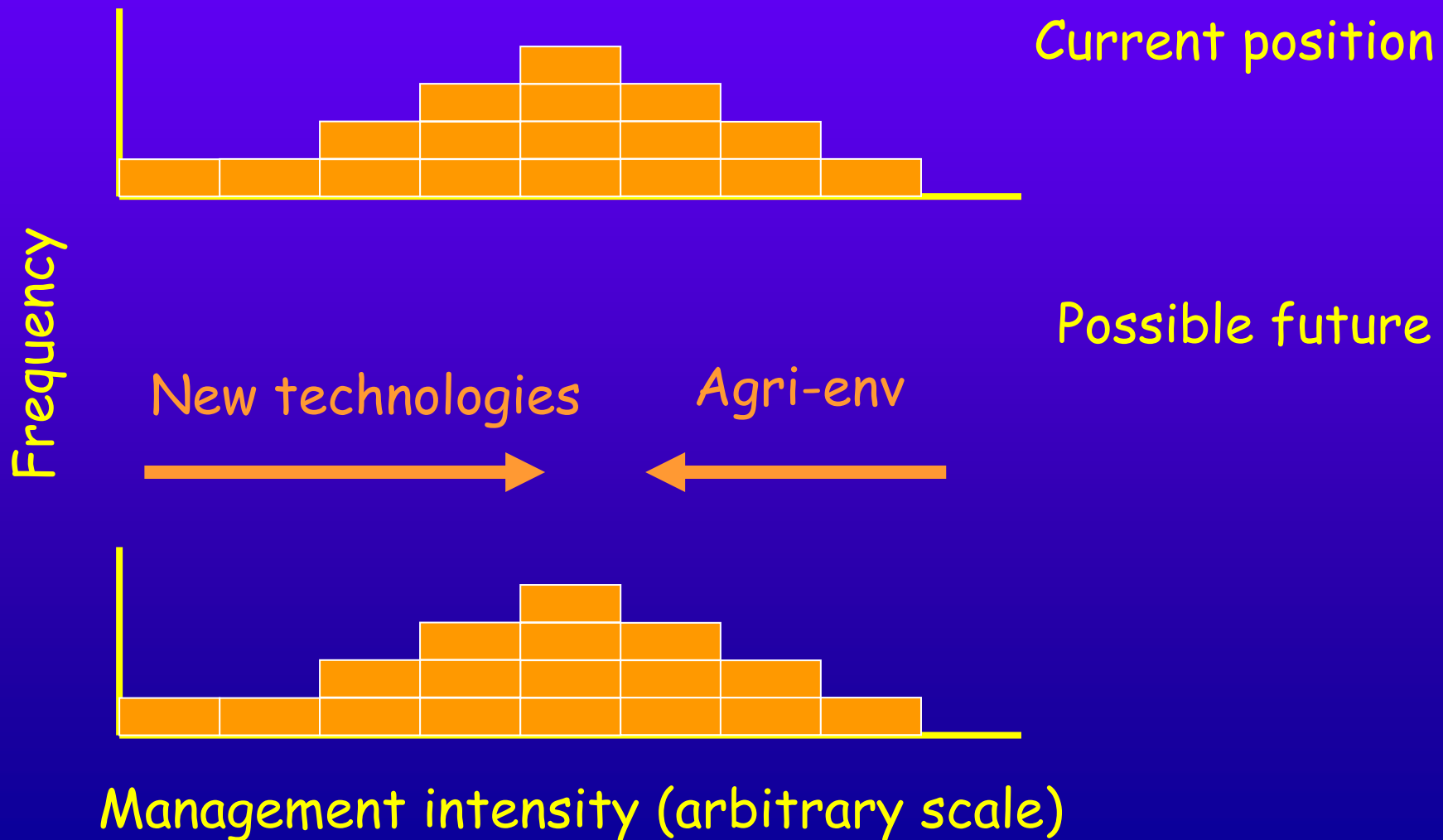
Management intensity



Management intensity



Management intensity



Nature improves health

Views of nature reduce:

- Visits to doctors by 24% for prisoners
- Recovery time, medication and comments on doctors notes for patients

Hospital gardens reduce:

- Bedsores (57%), behavioural incidents (60%) & staff absentees (48%)

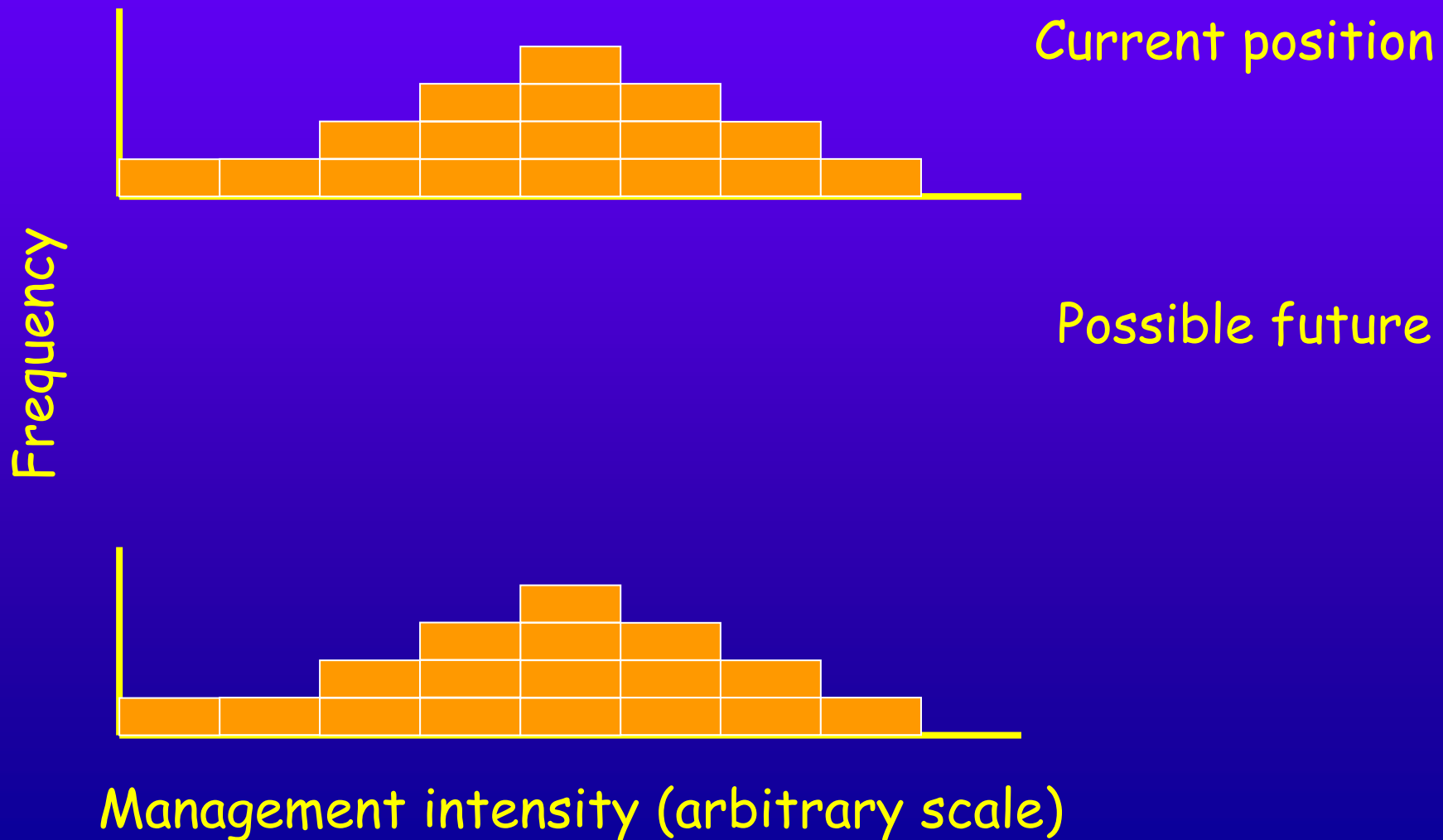
Obesity costs £10 billion a year

GREEN EXERCISE (Pretty *et al* 2003).

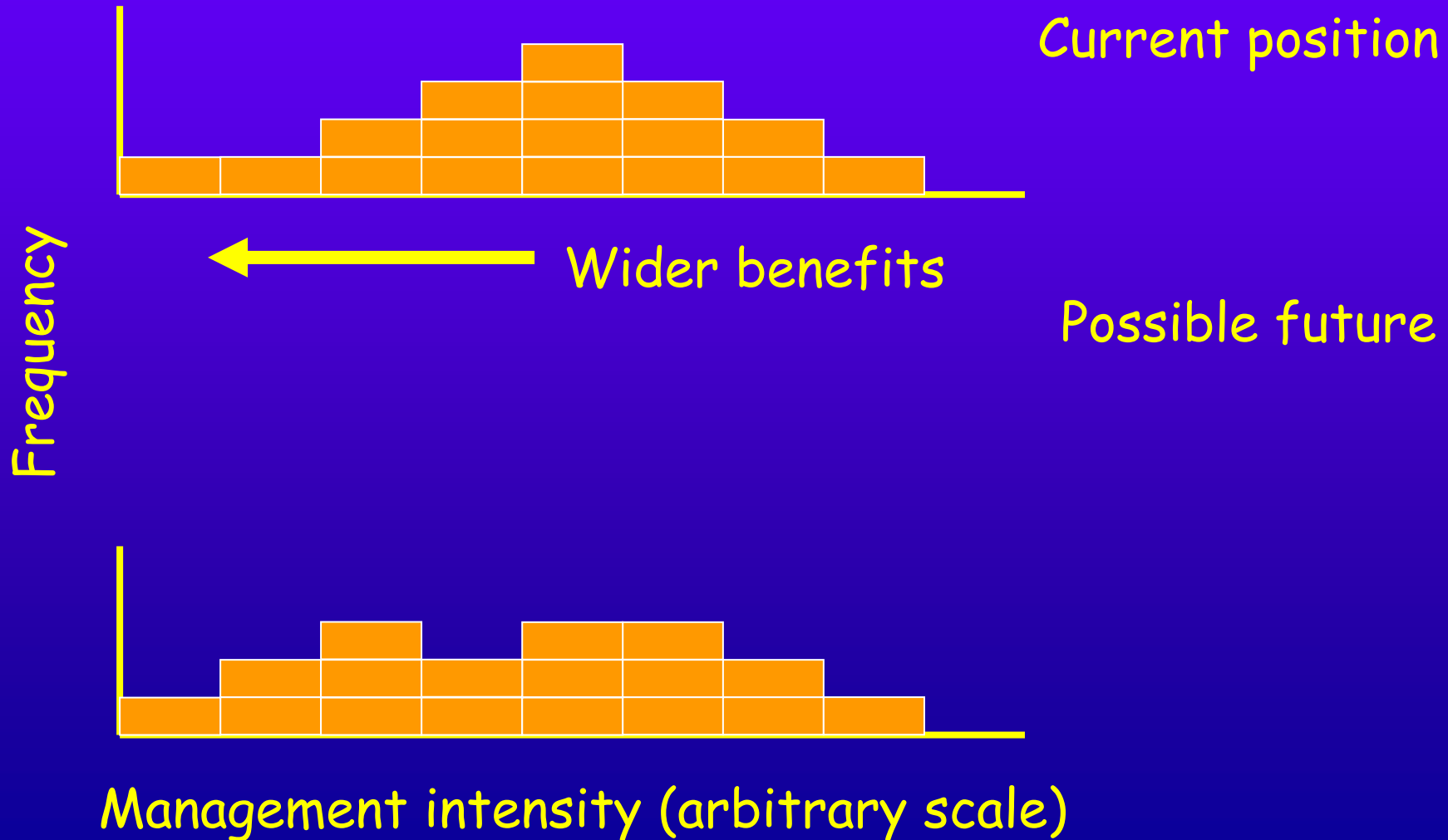
New York water supply

- Major problems with water quality
- Improved filtration would cost \$6-8 billion
- Improved watershed protection cost \$1.5
- Agreement signed that includes \$350 million on land acquisition
- Benefits for flood control, recreation, landscape and hunting.

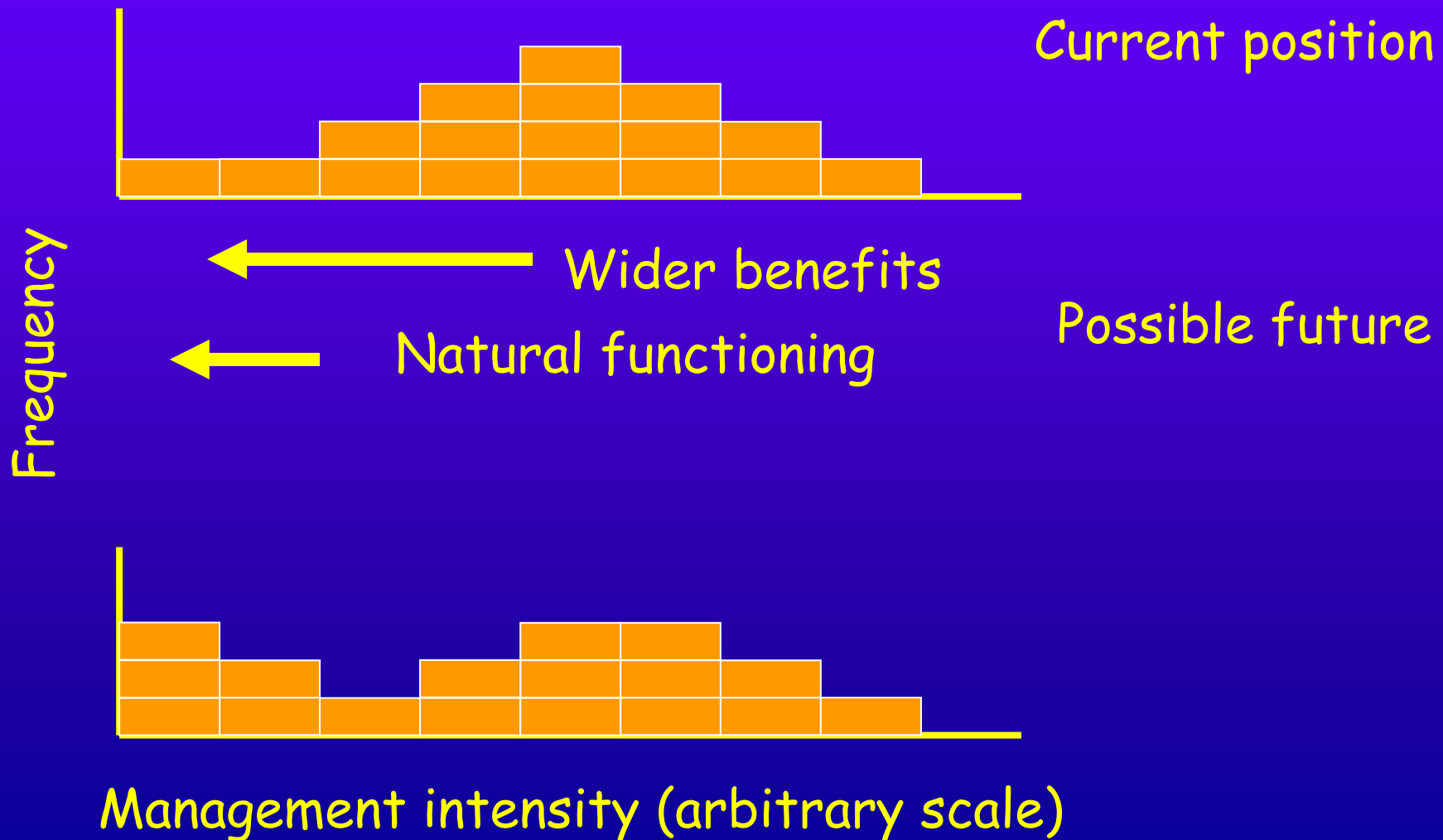
Management intensity



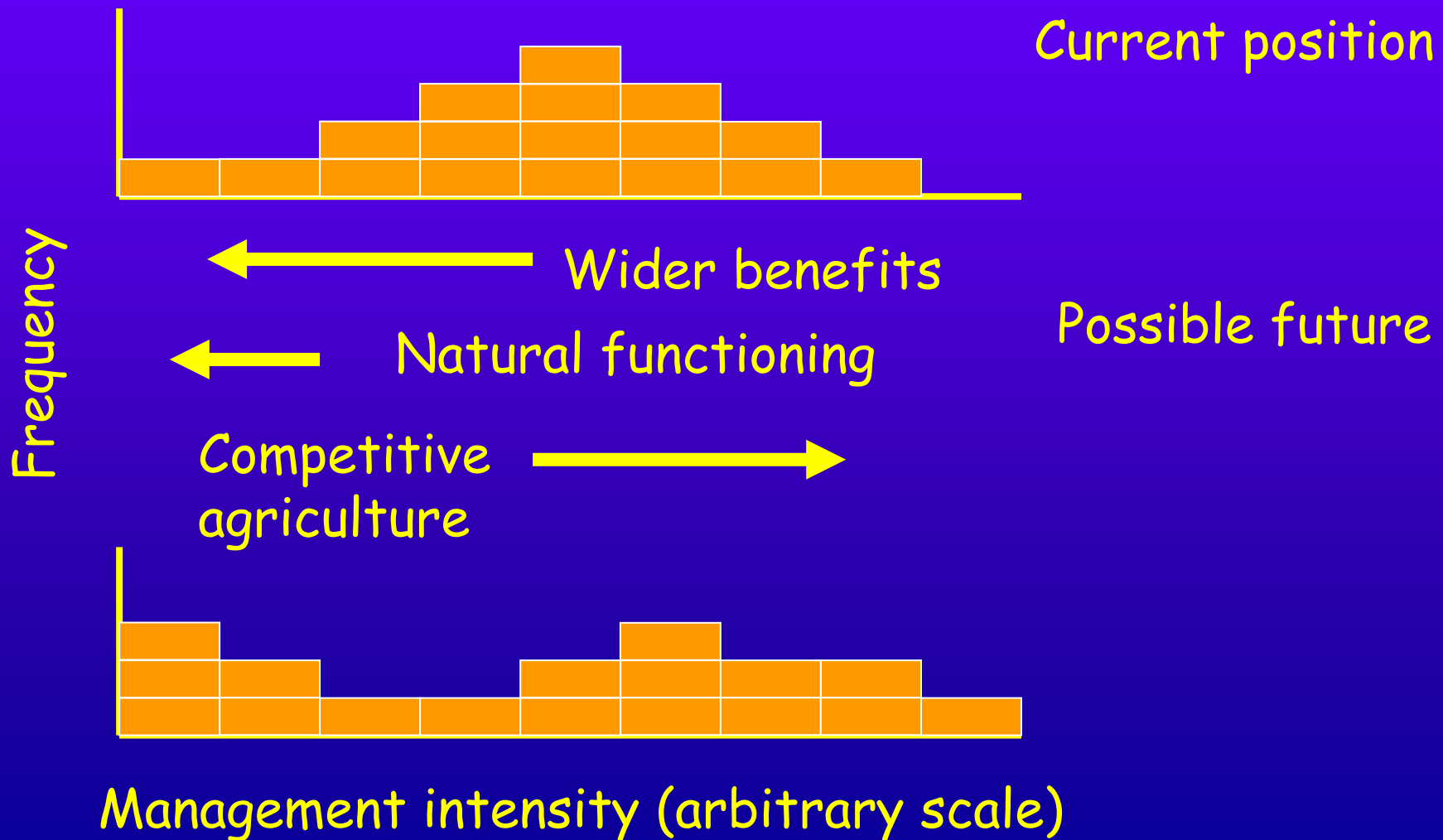
Management intensity



Management intensity



Management intensity



Farming budgets

Farmers

	A	B	C
Agriculture	100	80	
Carbon sequestration		10	15
Flood protection			60
Tourism			20
Biodiversity		10	5

Questions

- What will be the consequences of decoupling?
- How can we align the health, environmental, tourism and biodiversity benefits?
- Would we be prepared to see declines in say skylarks in exchange for wider benefits?
- Can we copy the Dutch in a few locations?

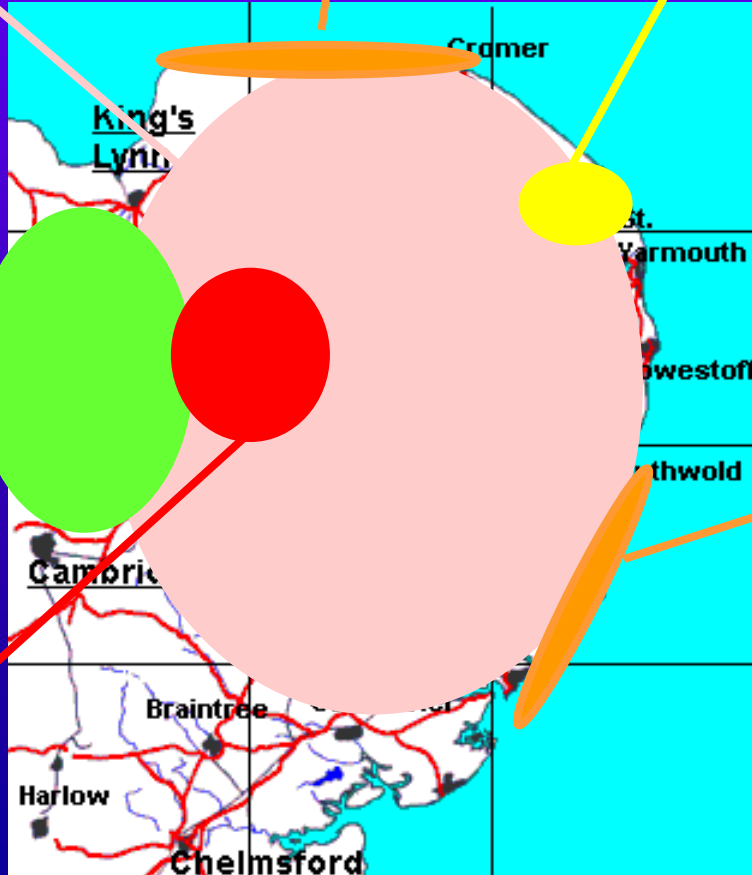
Restore rivers systems
Attractive access near people

Tourism, conservation, flood defence

Tourism
Water quality

High quality crops
Restore fens

Restore heaths



Site managers interviewed about sources of information

Sources of information	Number	%
Common sense	55	32.4
Personal experience	37	21.8
Speaking to local managers	34	20.0
Speaking to distant managers	4	2.4
Expert advisers	17	10.0
Secondary publications	19	11.2
Primary publications	4	2.4

Lessons from medicine

30 years ago medics based treatments on personal experience.

Hospitals differed in treatments for standard treatments.

Yet analysis showed some of these treatments worked better than others

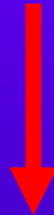
Medicine has undergone a revolution with evidence-based medicine.

Conservation resembles 1970s medicine

Do we need a similar revolution?

Evidence-based conservation

Evidence



Systematic reviews



Disseminate information

Evidence-based conservation

Evidence for the effectiveness of conservation
collated on open access website
conservationevidence.com