

Climate change communication: engaging science with the rural sector

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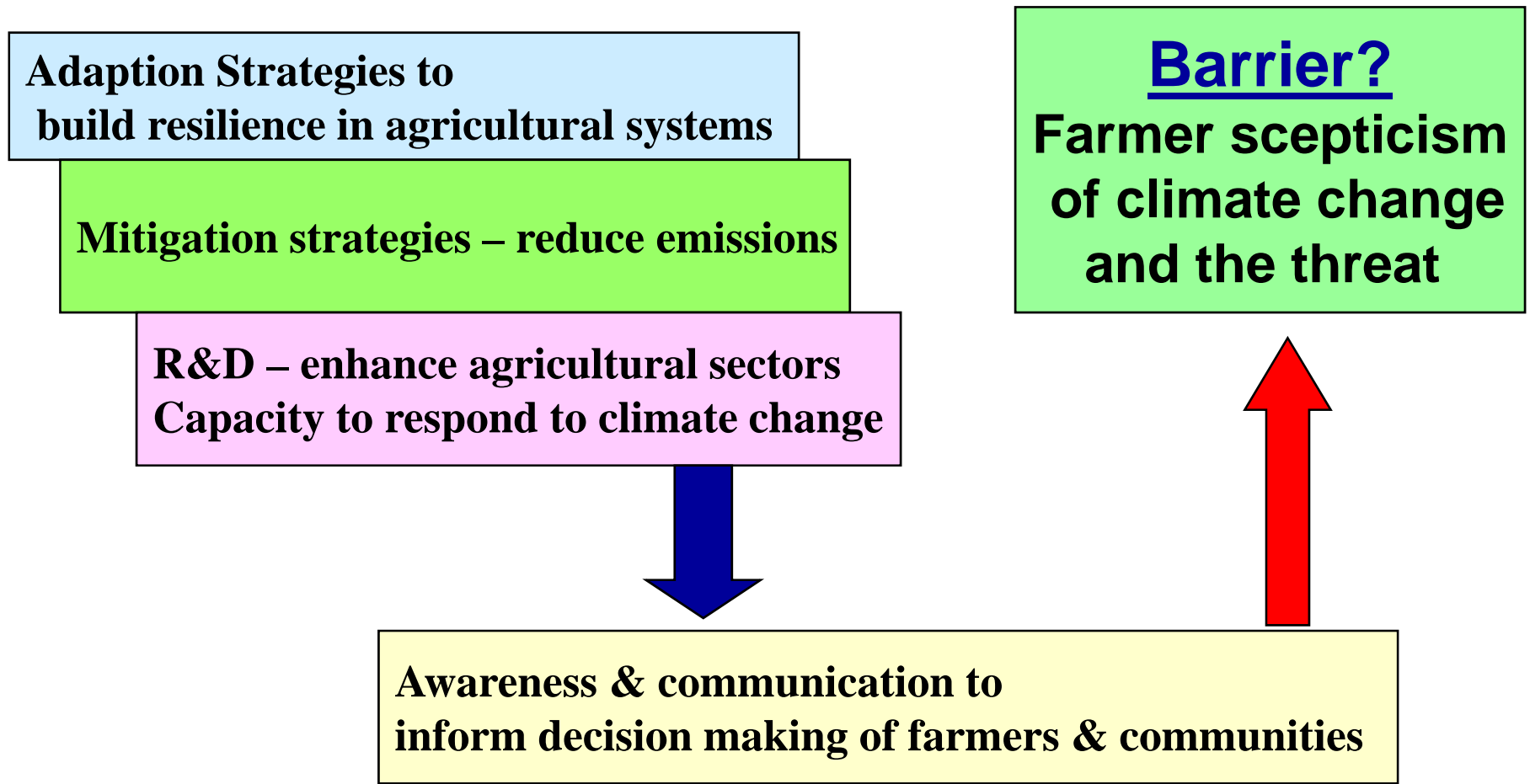
Dr Angela Wardell-Johnson

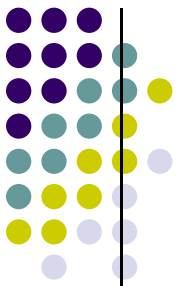
Centre for Advanced Studies in Australia, Asia and the Pacific



Introduction

National Agricultural & Climate Change Action Plan 2006 – 2009 (2006)





Research Questions

“attitude defines risk perception”

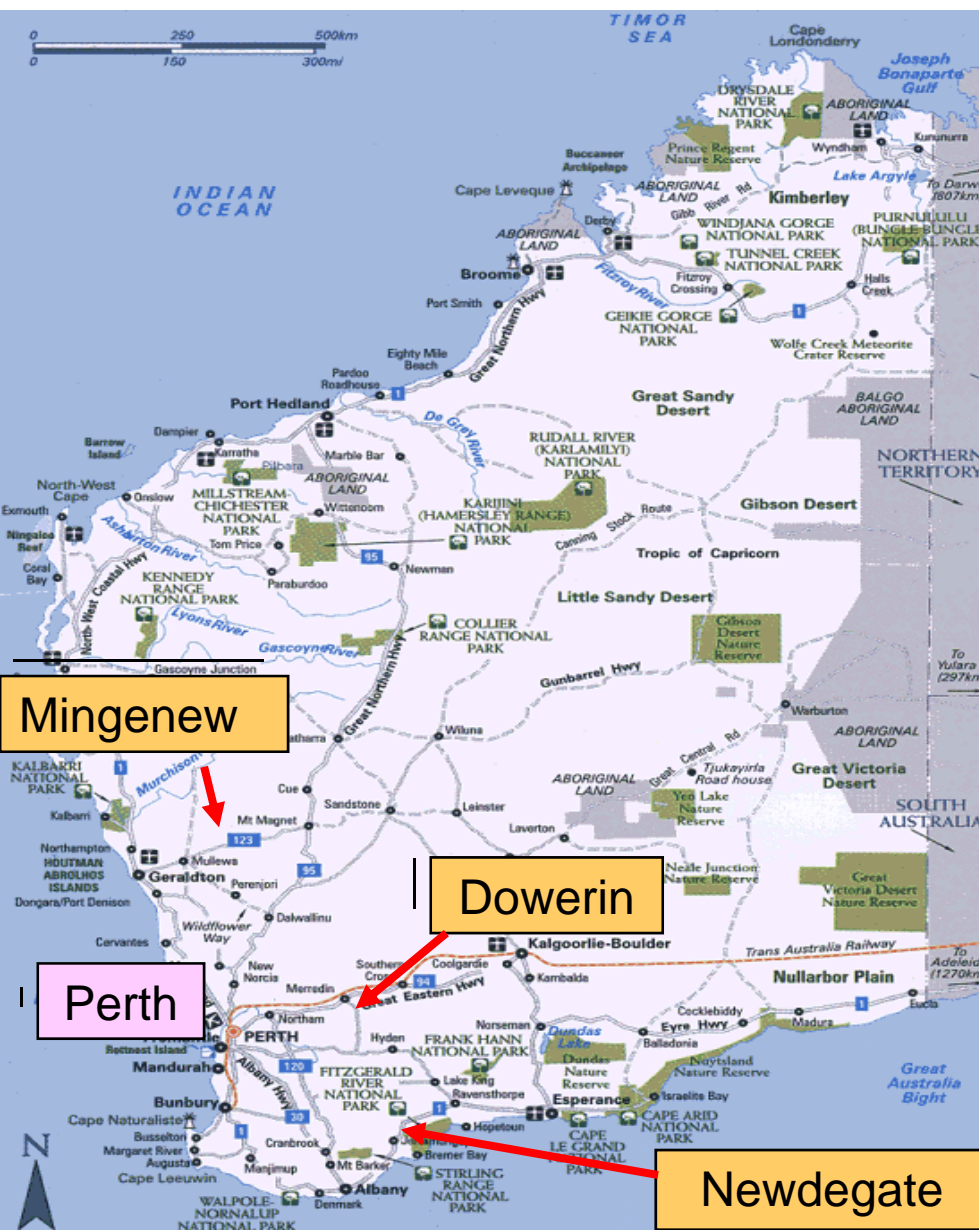
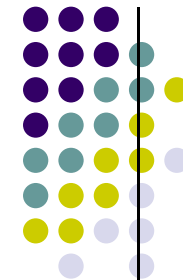
Sjoberg (2000)

The research also questioned :

Did rural Western Australians think that climate change was:

- Occurring
 - Natural or human induced
 - A tangible future threat to business & communities
- If perceptions of science and government were influencing attitudes
 - What contributed to the development of attitudes
 - What identified different groups of responses to climate change

Methodology



Surveys:

- Dowerin Fieldday (n=129)
- Newdegate Fieldday (n=122)
- Mingeneu Fieldday (n= 78)
- Secondary locations (n=82)

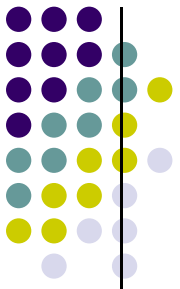
Total surveys 411

Analysis

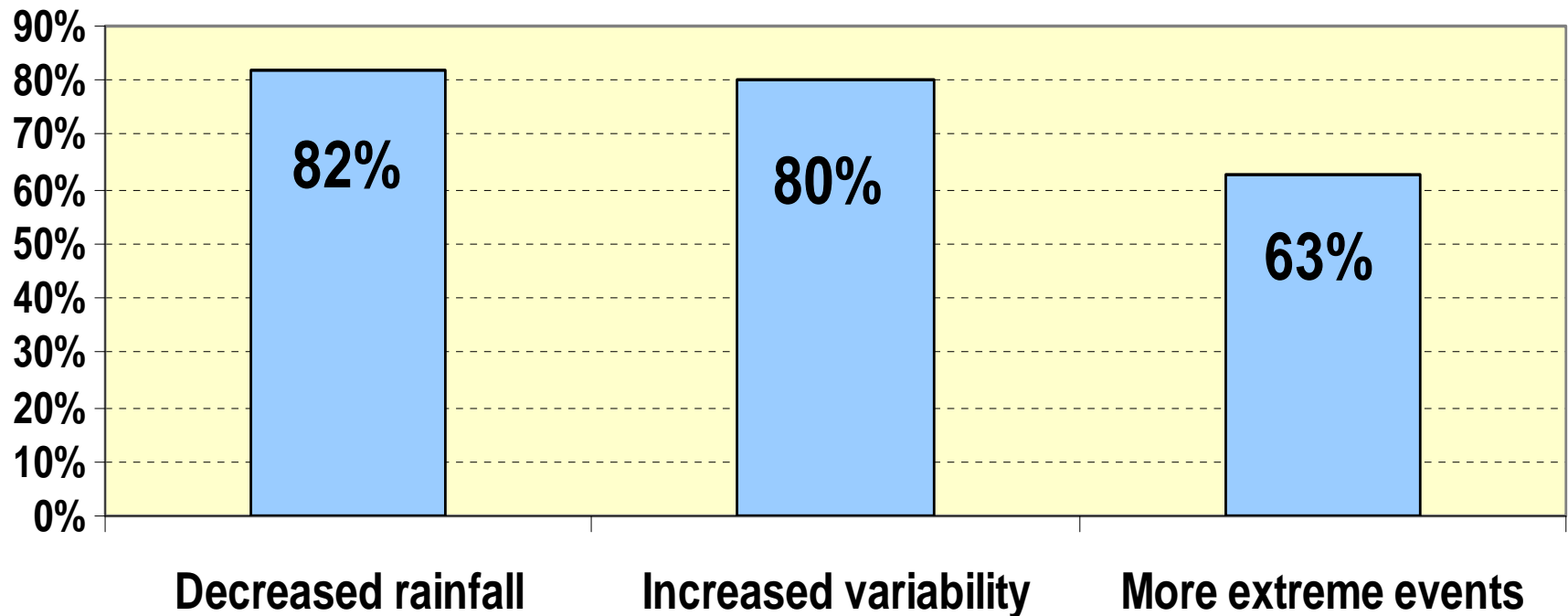
- * PATN; Numerical Taxonomy; Multivariate approach
- * SPSS (Ver 15 2008)
- * Excel (2003, 2007)



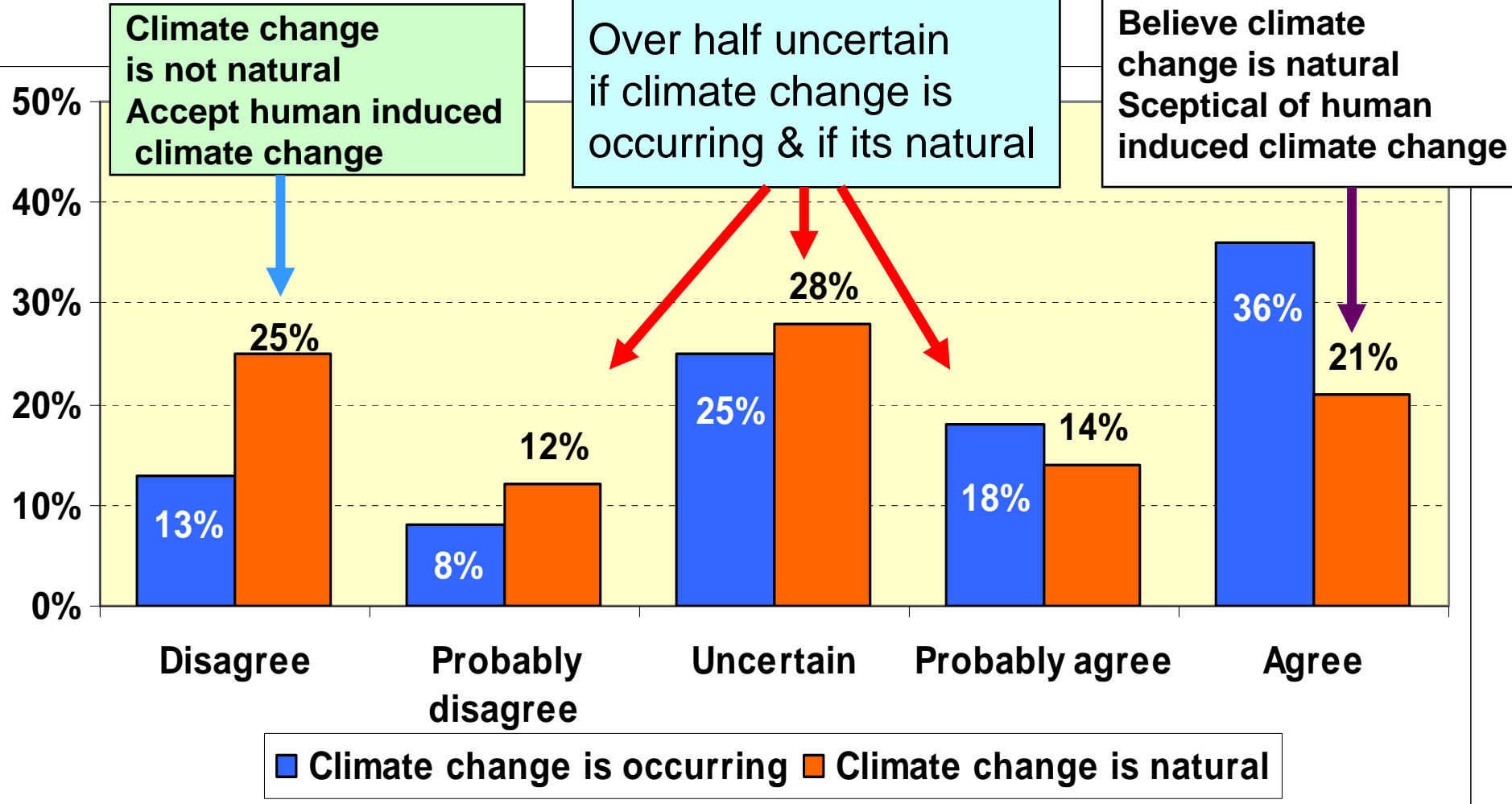
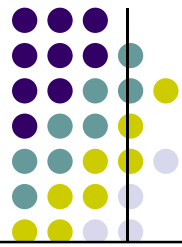
Have rural people noticed changes in the climate over the last 10 years ?



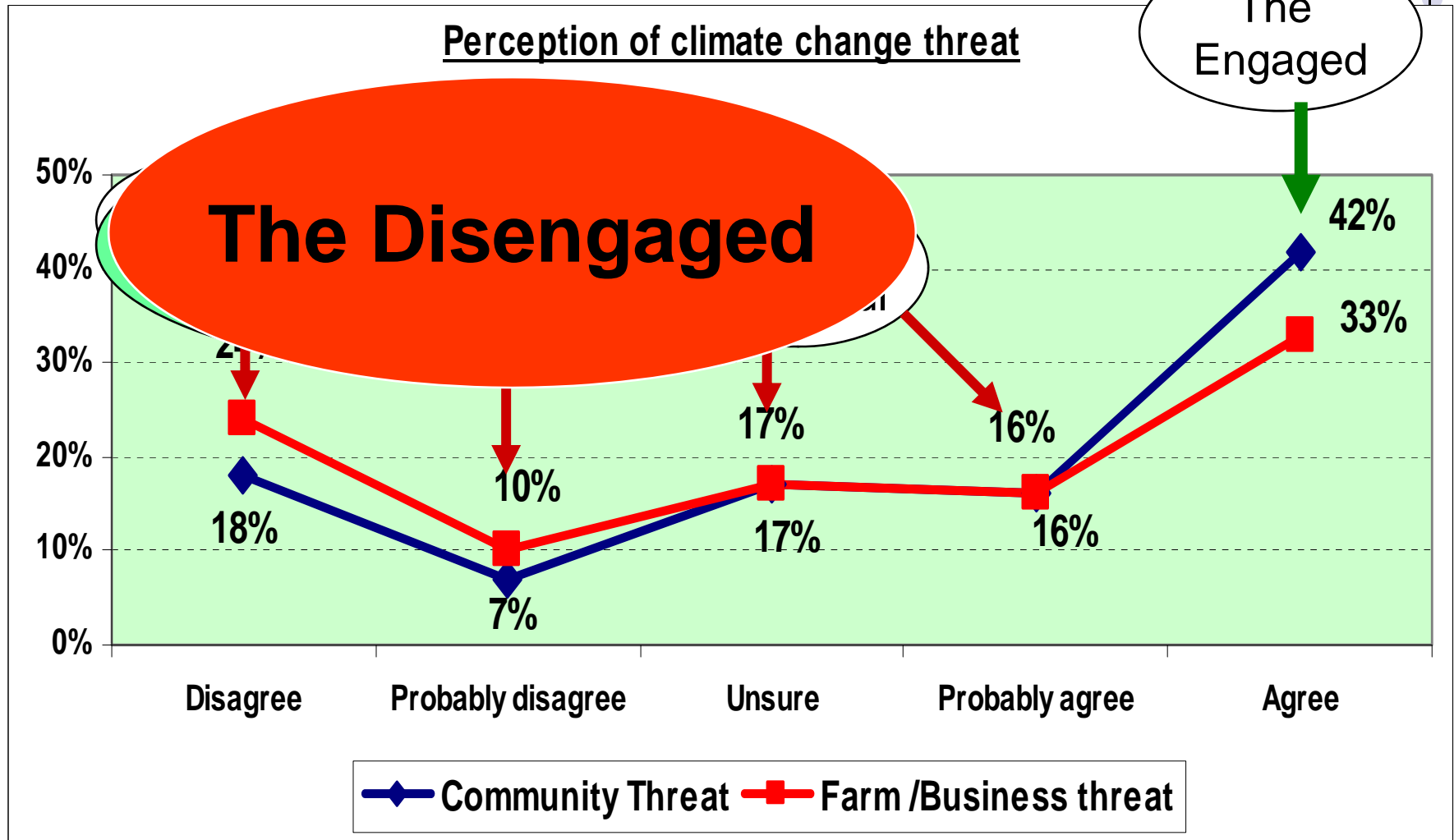
Noticed between some to a lot of change in climate



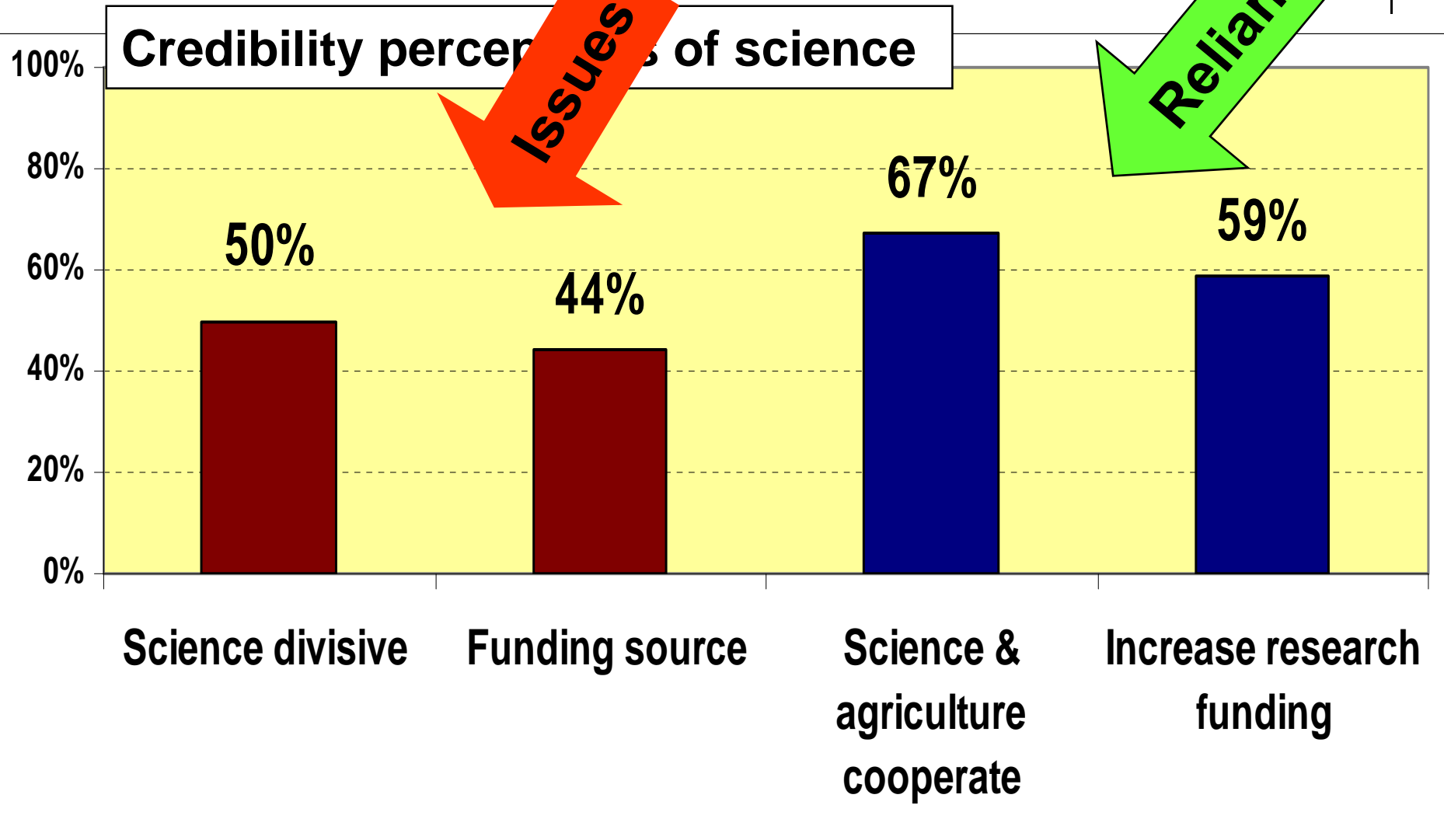
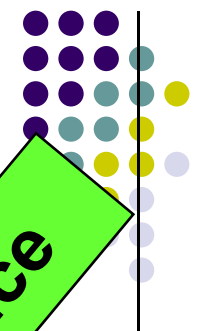
Is climate change occurring & is it natural (Not influenced by greenhouse emissions)



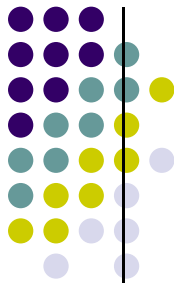
Is climate change perceived as a major threat



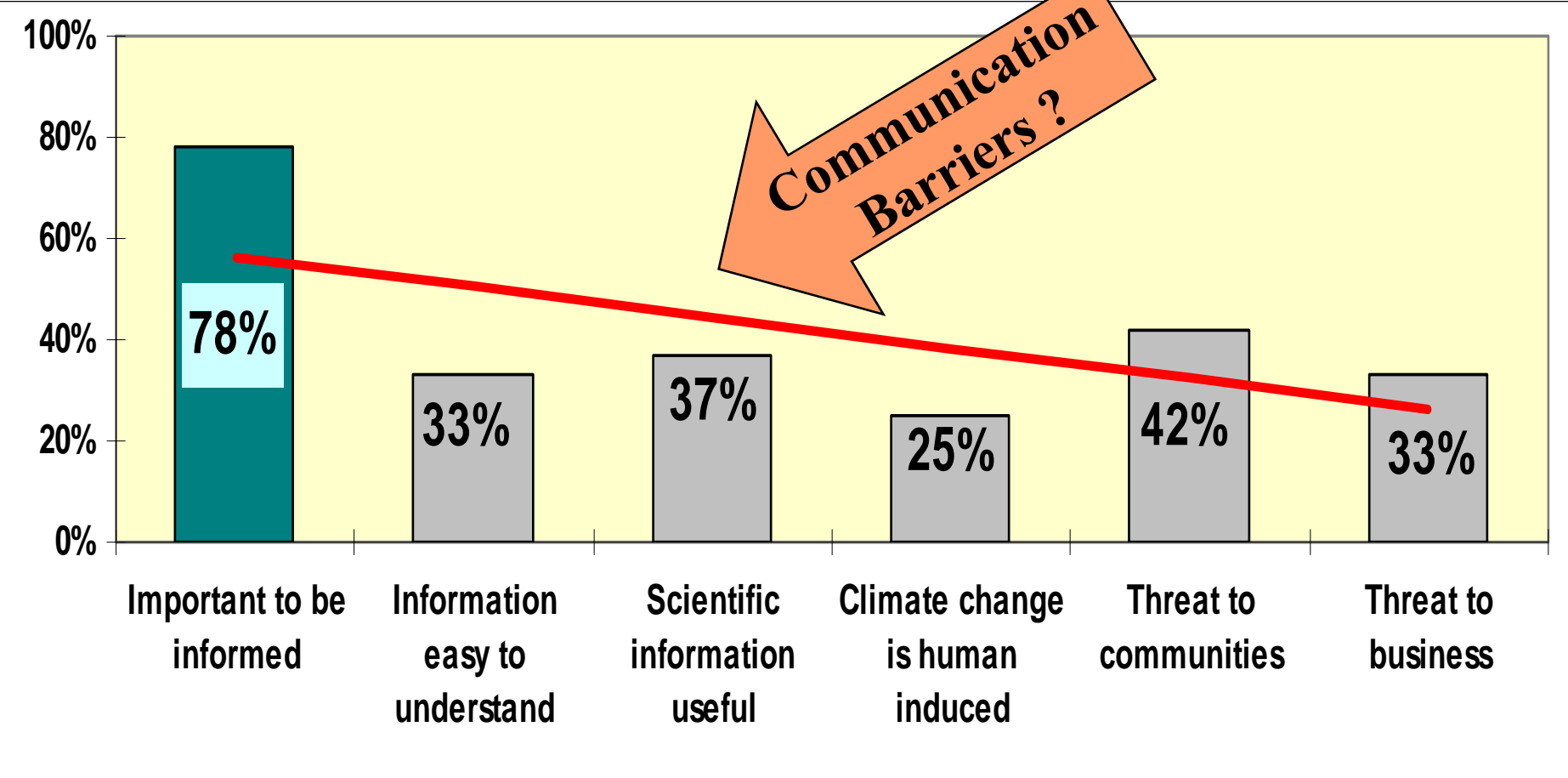
Is science's credibility important in transferring climate change knowledge?



Is the message getting through?

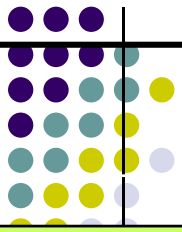
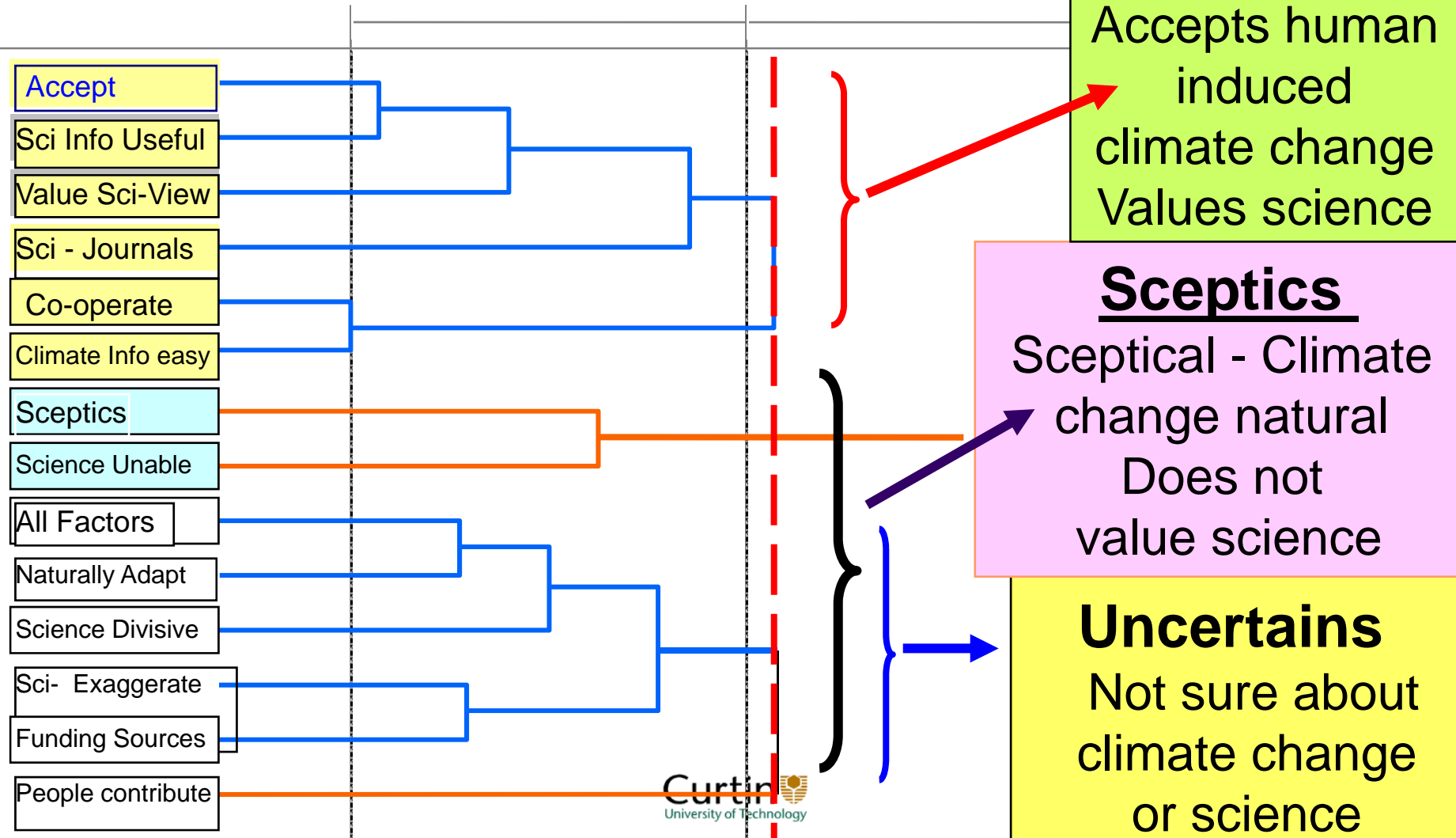


Information Transfer

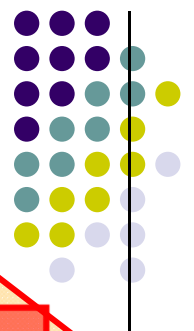


Characteristics of Groups

Column Fusion Dendrogram



Group profiles – Strategic variables

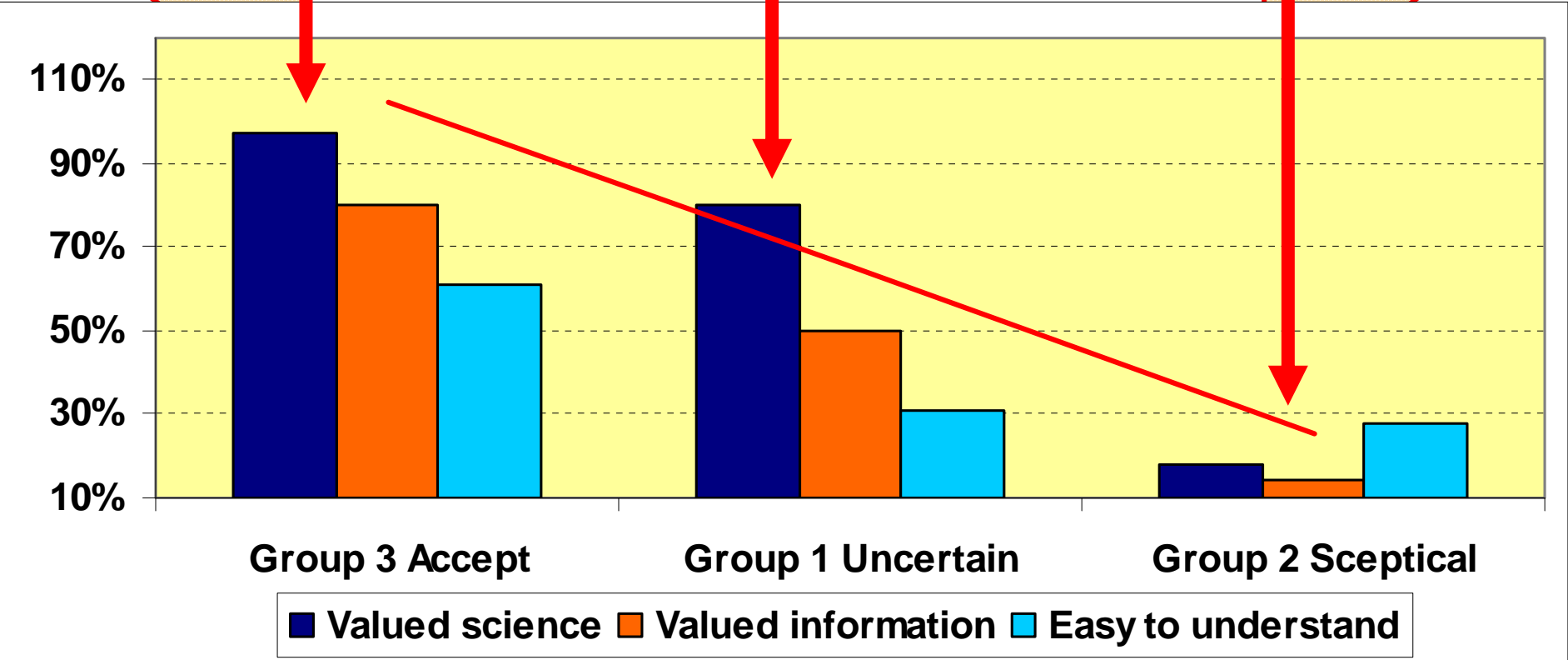


Respondents attitudes to climate change

Group 3
Acceptors
17%

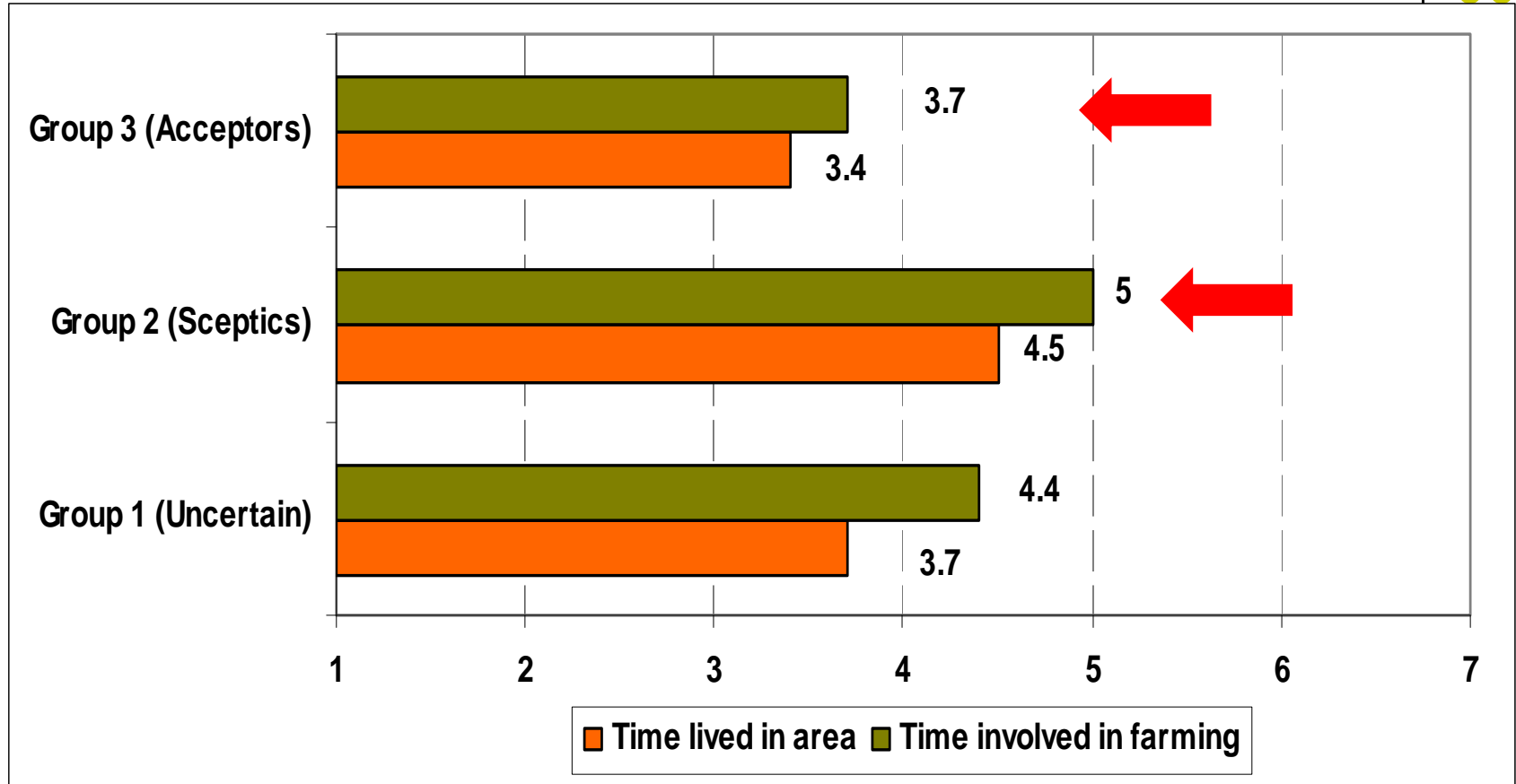
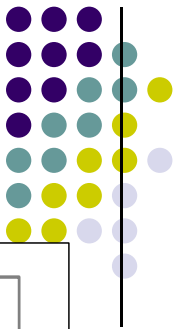
Group 1
Uncertain
50%

Group 2
Sceptical
15%



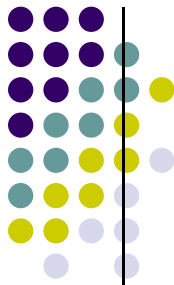
■ Valued science ■ Valued information ■ Easy to understand

Experience / knowledge

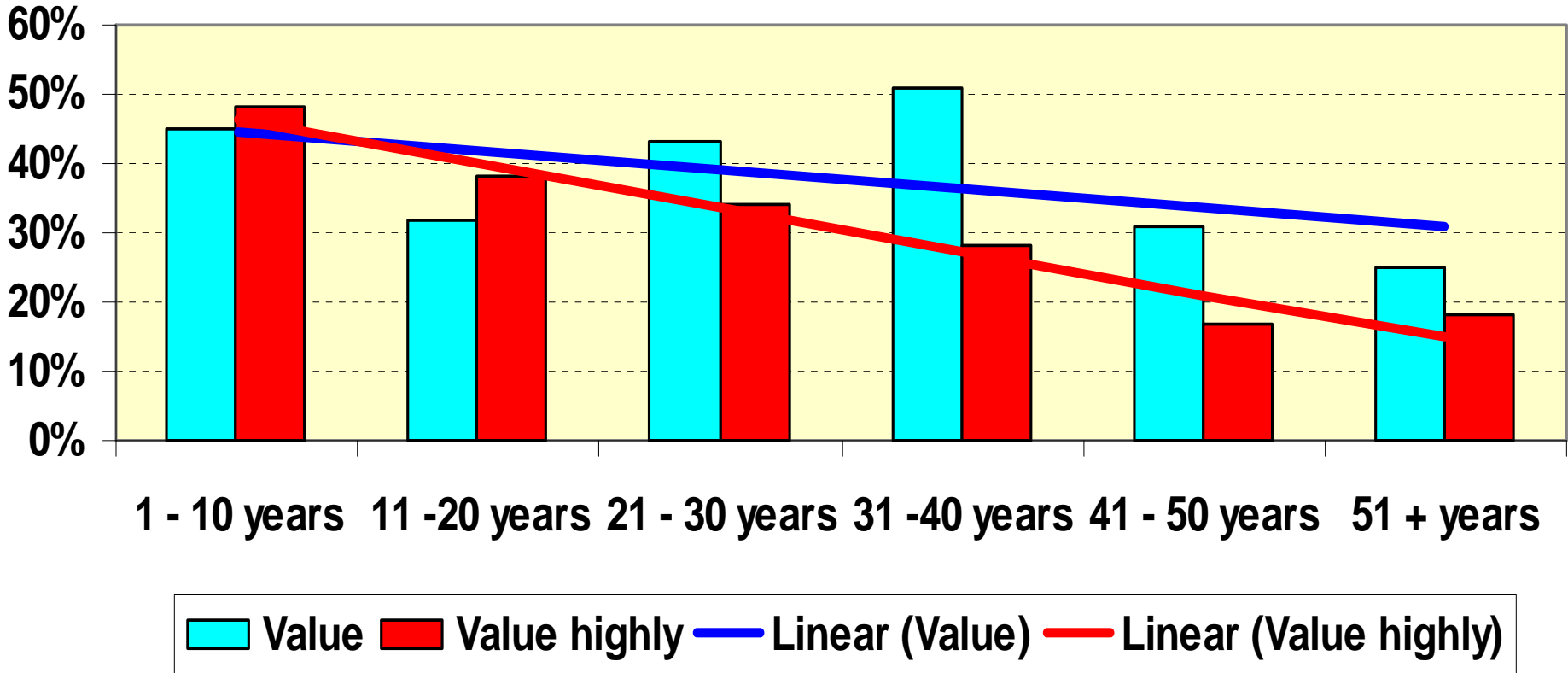


Mean scale- years: 3 = 11 – 20, 4 = 21 -30, 5 = 31 – 40, 6 = 41 – 50, 7 = 50+

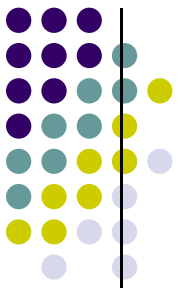
Farmers time & experience versus science's views



Farmers value of science views



Challenges & opportunities for science's engagement with the rural sector



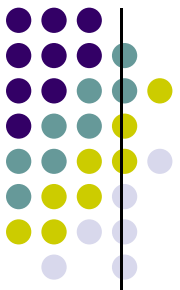
Challenges

- Uncertainty or scepticism of science
- Poor understanding of the information
- Influences of local knowledge & experience

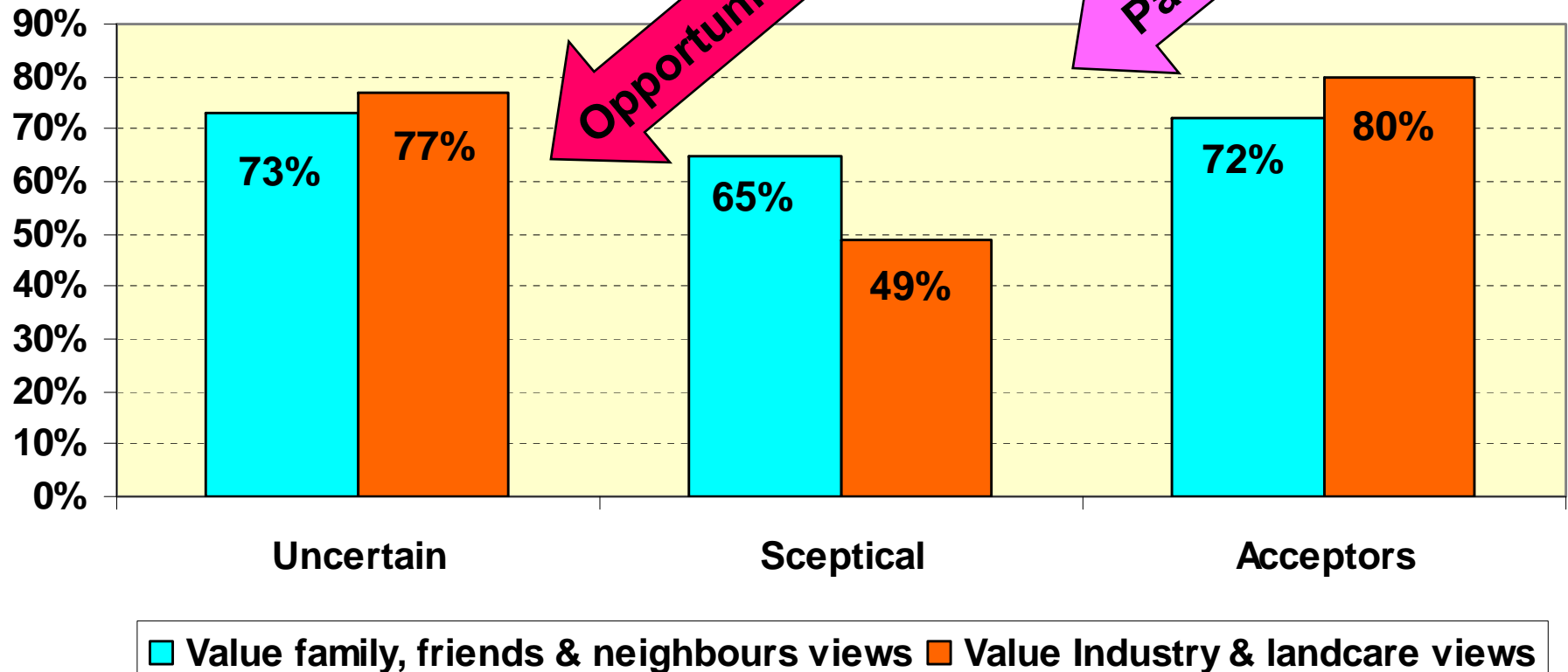
Opportunities

- Influences of local knowledge & experience

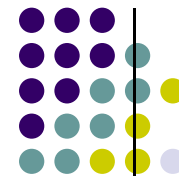
Social networks – information pathways?



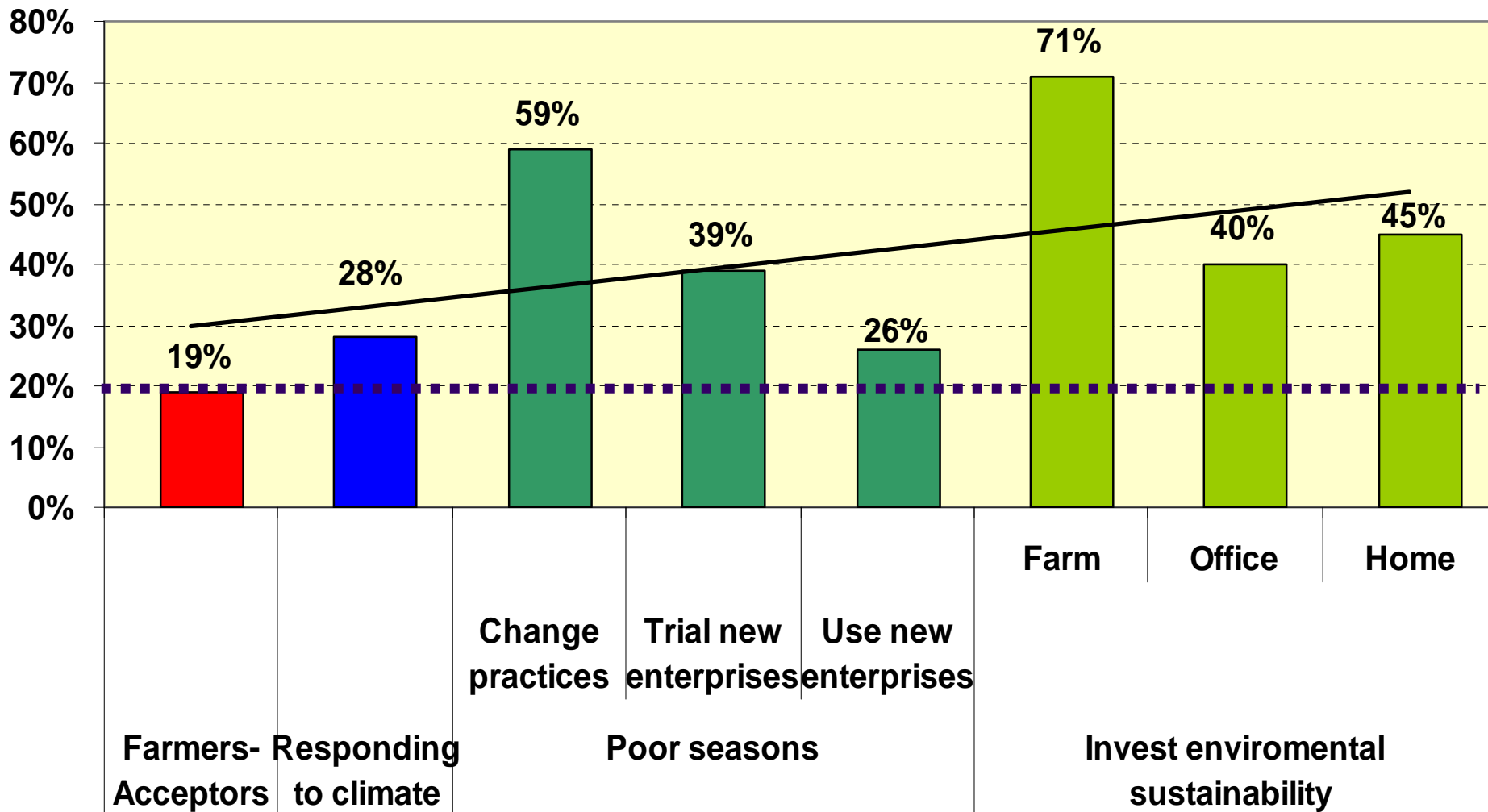
Social structures – valued views of climate change



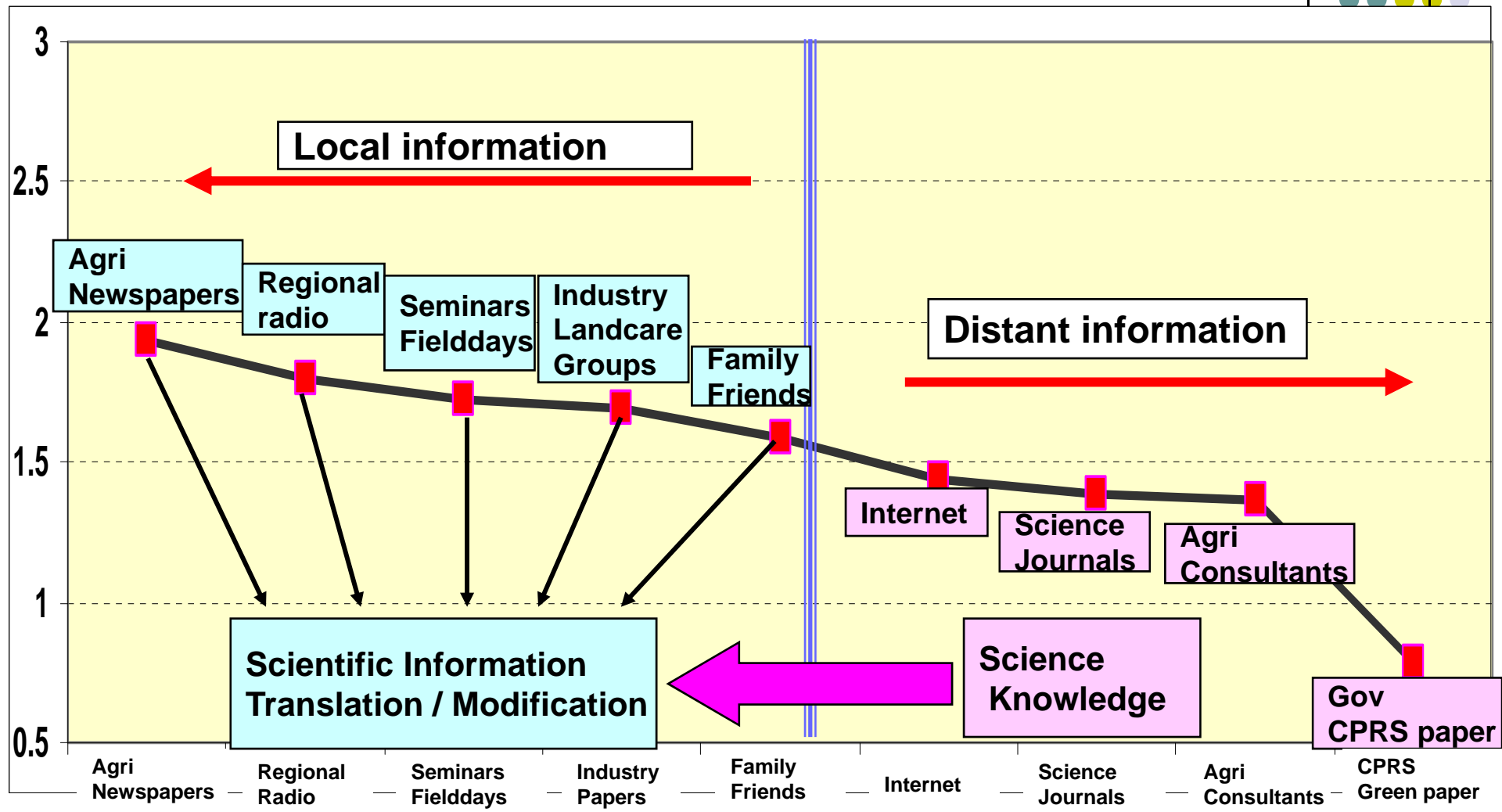
Farmers behavioural responses



Responses - engagement



Useful climate change information sources



Local information

Distant information

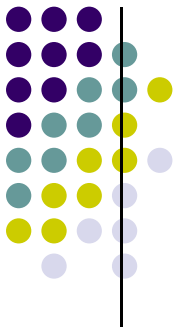
Scientific Information Translation / Modification

Science Knowledge

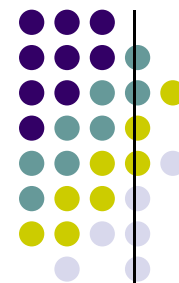
Key – Mean
 0 = not useful
 1 = little use
 2 = useful
 3 = very useful

Conclusions

- Uncertainty
- Science credibility
- Information comprehensibility
- Information transfer networks



Acknowledgements



- Maureen Rogers & Charles Sturt University
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