

A perspective on UK initiatives relating to WagriCo



Environment
Agency



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Environment Agency

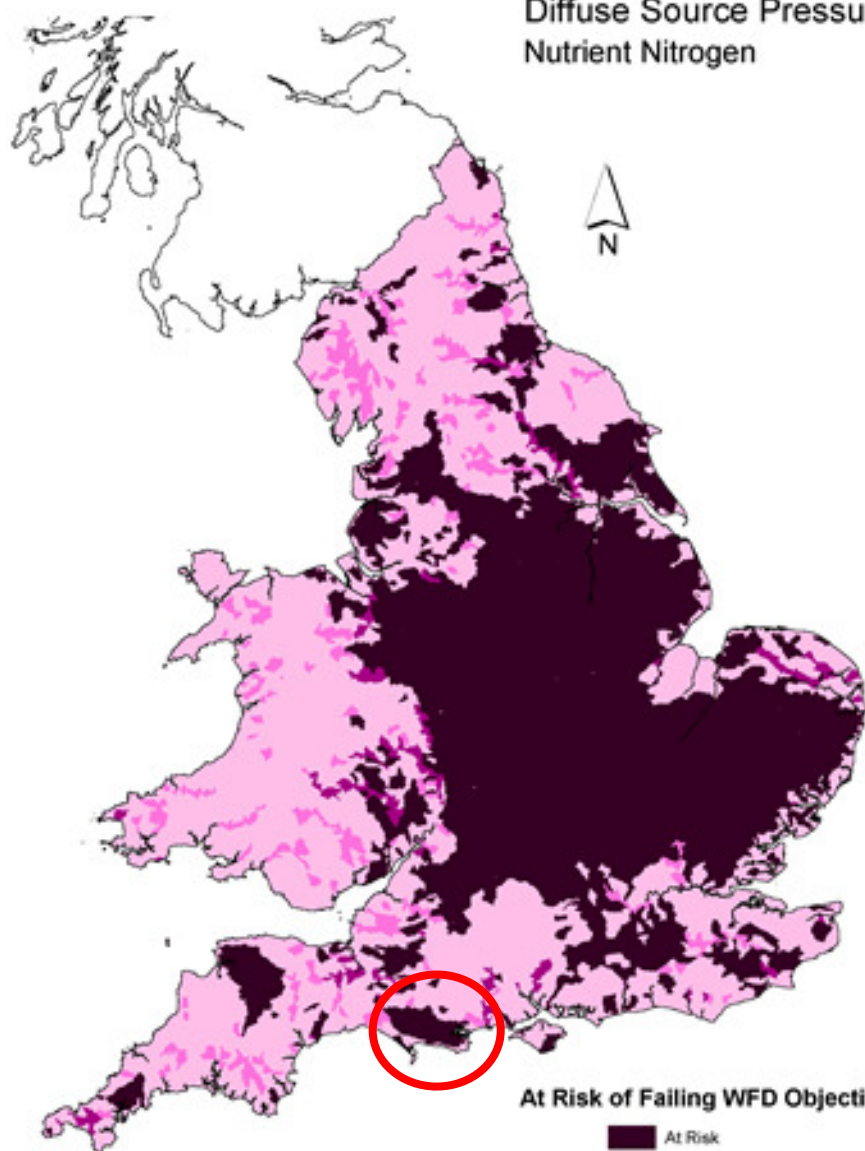
Context



- Diffuse pollution from agriculture is the biggest threat to water quality and achieving Water Framework Directive goals;
- Nitrate is the most widespread of diffuse pollutants;
- Affects drinking water quality and river & lake ecosystems;
- Much can be done to educate farmers in better manure and fertiliser management, and soil conservation;
- **However, many areas are perhaps incompatible with the current intensity of agricultural land use.**

DRAFT

Rivers
Diffuse Source Pressur
Nutrient Nitrogen

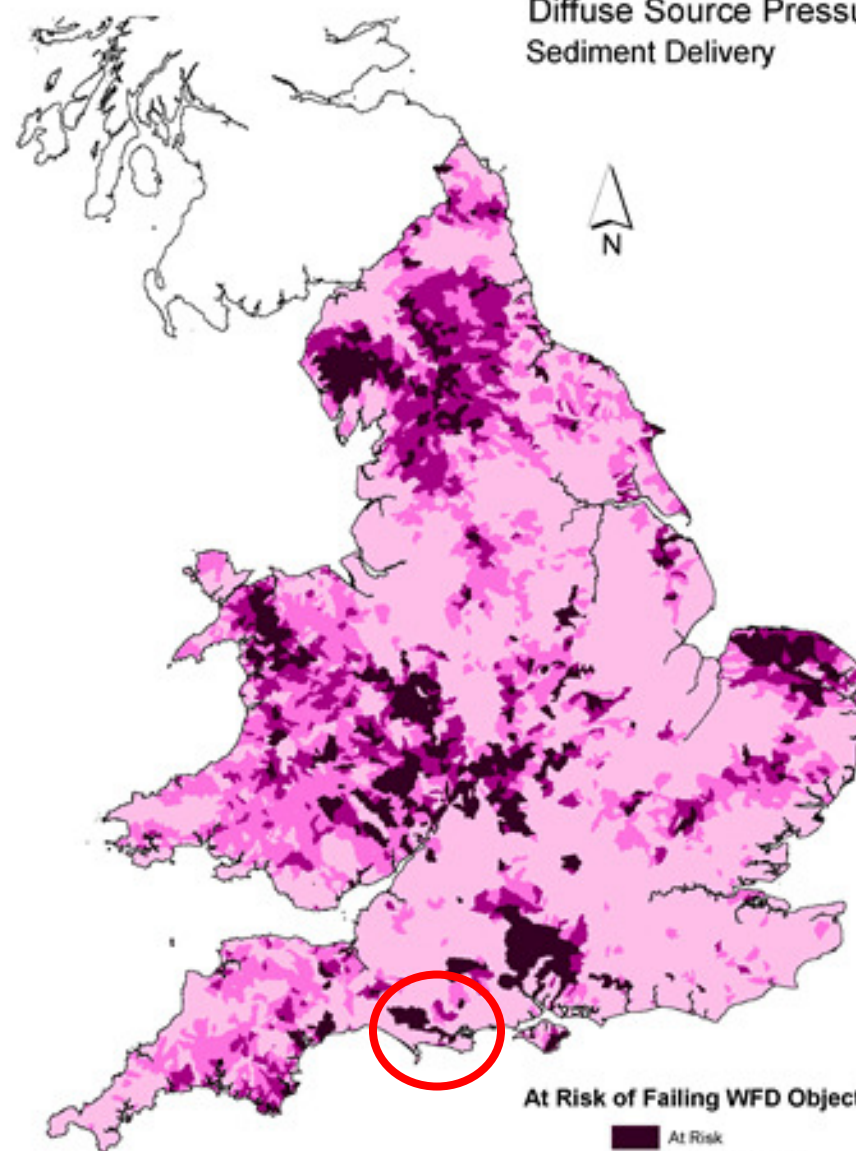


At Risk of Failing WFD Objectiv



DRAFT

Rivers
Diffuse Source Pressures
Sediment Delivery



At Risk of Failing WFD Objectives



Recent/Current UK Initiatives

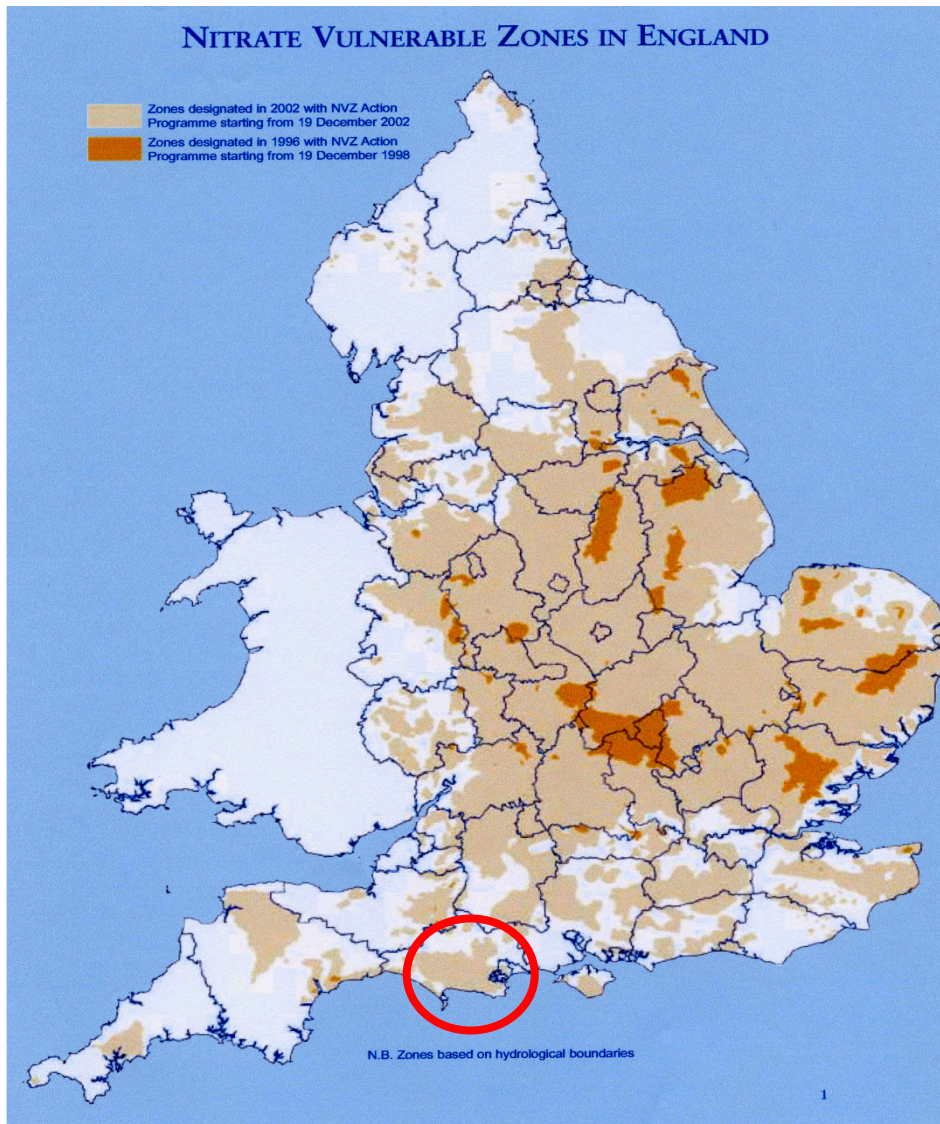


- National incentives/controls for farmers
 - **1990 to 2003. Nitrate Sensitive Area (NSA) scheme:** NSAs defined around highest risk water supply borehole catchments; farmers paid to change practice or change land use; withdrawn in 2003;
 - **1996 onwards. Nitrate Vulnerable Zones (NVZ)** set up for groundwater & surface waters as a result of EU Nitrates Directive: now cover 55% of England (8% originally). Farmers are obliged to comply with a code of practice. Enforcement officers based in Environment Agency. Under review

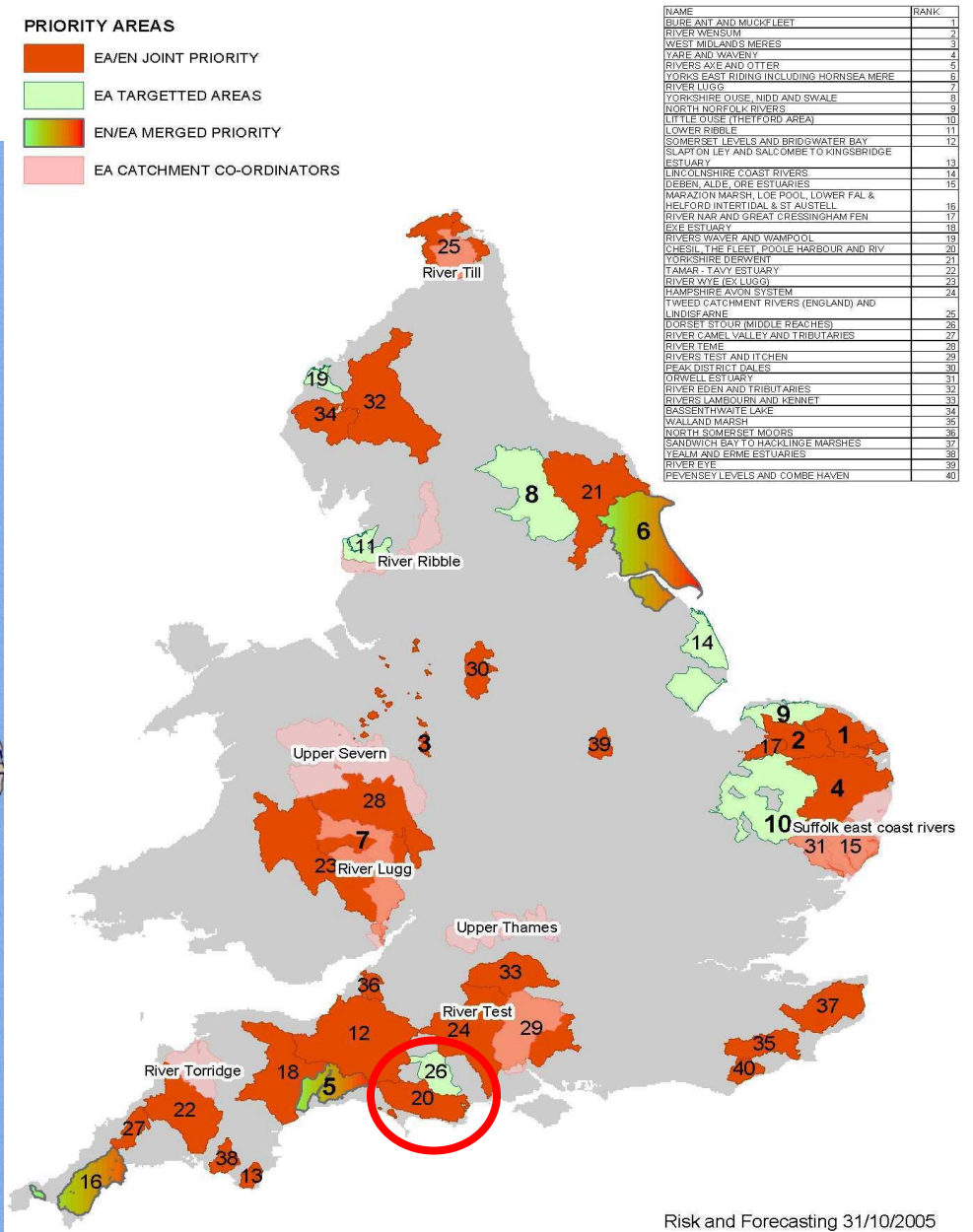
Recent/Current UK Initiatives



- National incentives/controls for farmers
 - **2005 onwards. Catchment Sensitive Farming (CSF)** scheme introduced in response to diffuse pollution impacts on biodiversity. Mostly focused on reducing phosphate and soil erosion. Not well matched to NVZs.
 - 30/40 Catchment Officers being employed to educate farming community in high risk catchments.



Nitrate Vulnerable Zones



CSF Priority Catchments

Current/Recent UK Initiatives



- **2005 onwards. Environmental Stewardship scheme:**
aimed at enhancing biodiversity; farmers paid for changing practice as part of cross-compliance. Some benefit for diffuse pollution.
- Key aspects of Entry Level Scheme :
 - High soil erosion risk fields must be identified as part of application;
 - Soil, nutrient and manure management plans necessary.
- **To 2008; Water Framework Directive and Programmes of Measures (PoMs) in River Basin Management Plans:**
In the UK this is still “work in progress”. Many of the obligatory and voluntary initiatives will need to be drawn together within the PoMs.



Other Initiatives



- European Programmes
 - **2002 to 2005; Interreg IIIB North Sea Programme project Water4All** considered best practice in DK, NL, D and UK. Produced a “Handbook of Best Practice to reduce agricultural impacts on groundwater quality”.
 - A general conclusion of the project was that *“it is not feasible to meet the requirements of the Nitrates Directive in vulnerable catchment areas used (primarily) for agriculture”* and that ... *“new knowledge-based management strategies should be developed... and targeted using a risk-based groundwater management approach.”*



Water4All UK Project Objectives



- Develop an understanding of how the (River Slea) catchment functions (particularly the integration of ground and surface waters).
- Evaluate the consequences of possible future patterns of land use for water quality and identify the changes needed to achieve a sustainable system (e.g. 'good status').
- Examine how these changes could be achieved and how they would affect the socio-economic structure of the local community.

Conclusions of Water4All UK Project



- In catchments like the R. Slea substantial changes in land use may be required to meet WFD objectives.
- Current UK policy initiatives are unlikely to provide sufficient financial support for the required changes.
- There does appear to be some commonality of interest among stakeholders and it may be possible to identify a set of measures that would provide a **‘win-win-win’** situation in terms of protecting groundwater, supporting farm incomes and enhancing public amenity.
- Such an approach could be applicable elsewhere, but needs an independent agency to facilitate stakeholder dialogue.



Local Initiatives

- **Voluntary Initiatives - raising awareness**
 - **LANDCARE.** Initiative of the Environment Agency to inform/educate farmers and their advisors about soil conservation and the avoidance of silt discharges to rivers;
 - **Wessex Water Catchment Officer.** Focused on groundwater and water supply, but similar to the CSF scheme and will provide synergy
 - **Farming and Wildlife Advisory Group (FWAG).** Voluntary initiatives and conservation advice.

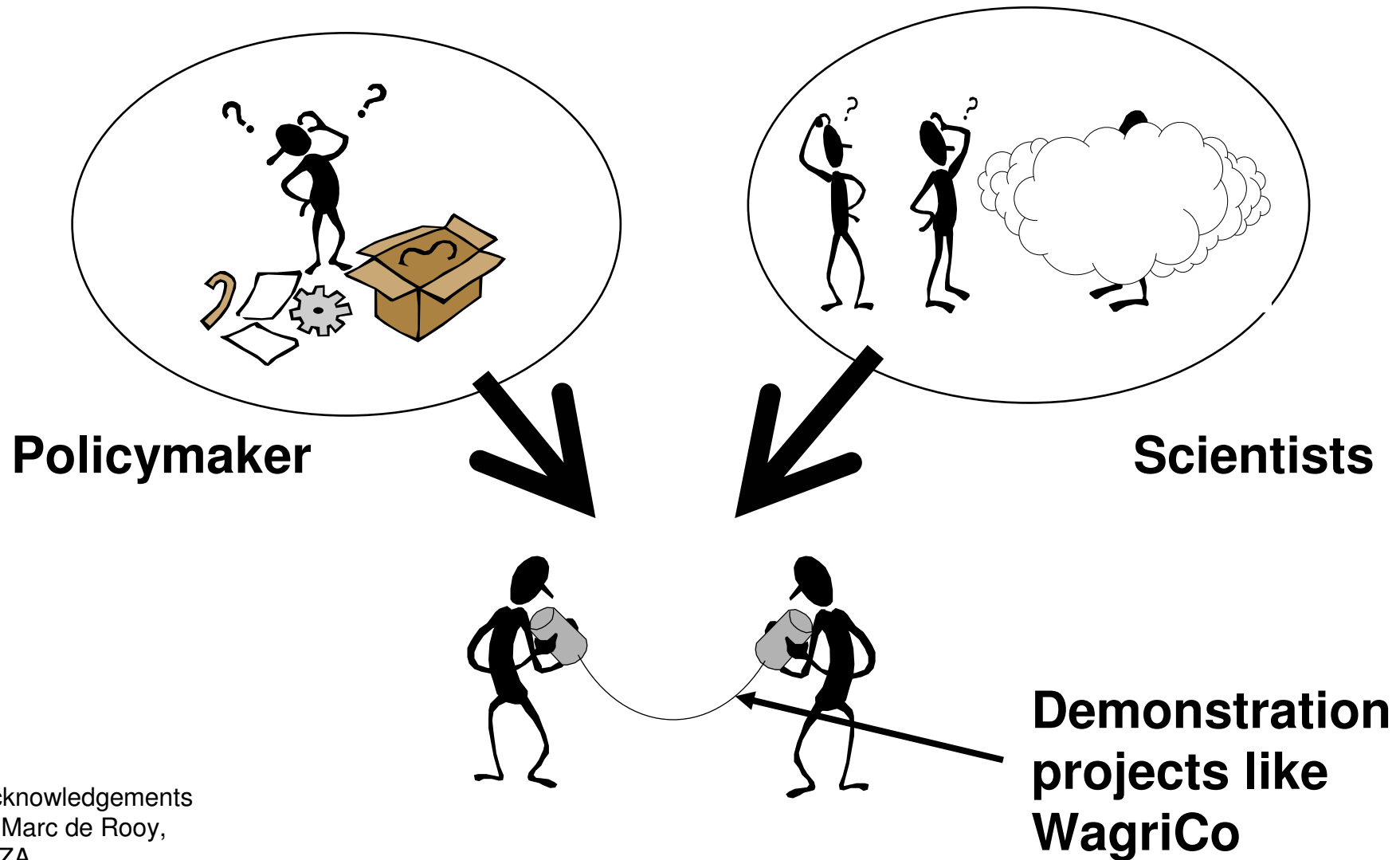


Research Initiatives



- **UK-ADAPT:** Database and website of c.140 research projects on diffuse agricultural pollution at the catchment scale.
- **Lowland Catchment Research Programme (LOCAR):** 3 catchments selected in £7m programme to understand better “how rivers work”. The Rivers Frome and Piddle were used as a pair as one of the catchments. Research results now emerging.
- **Rural Economy and Land Use (RELU):** first national research programme to join up natural sciences and socio-economics.

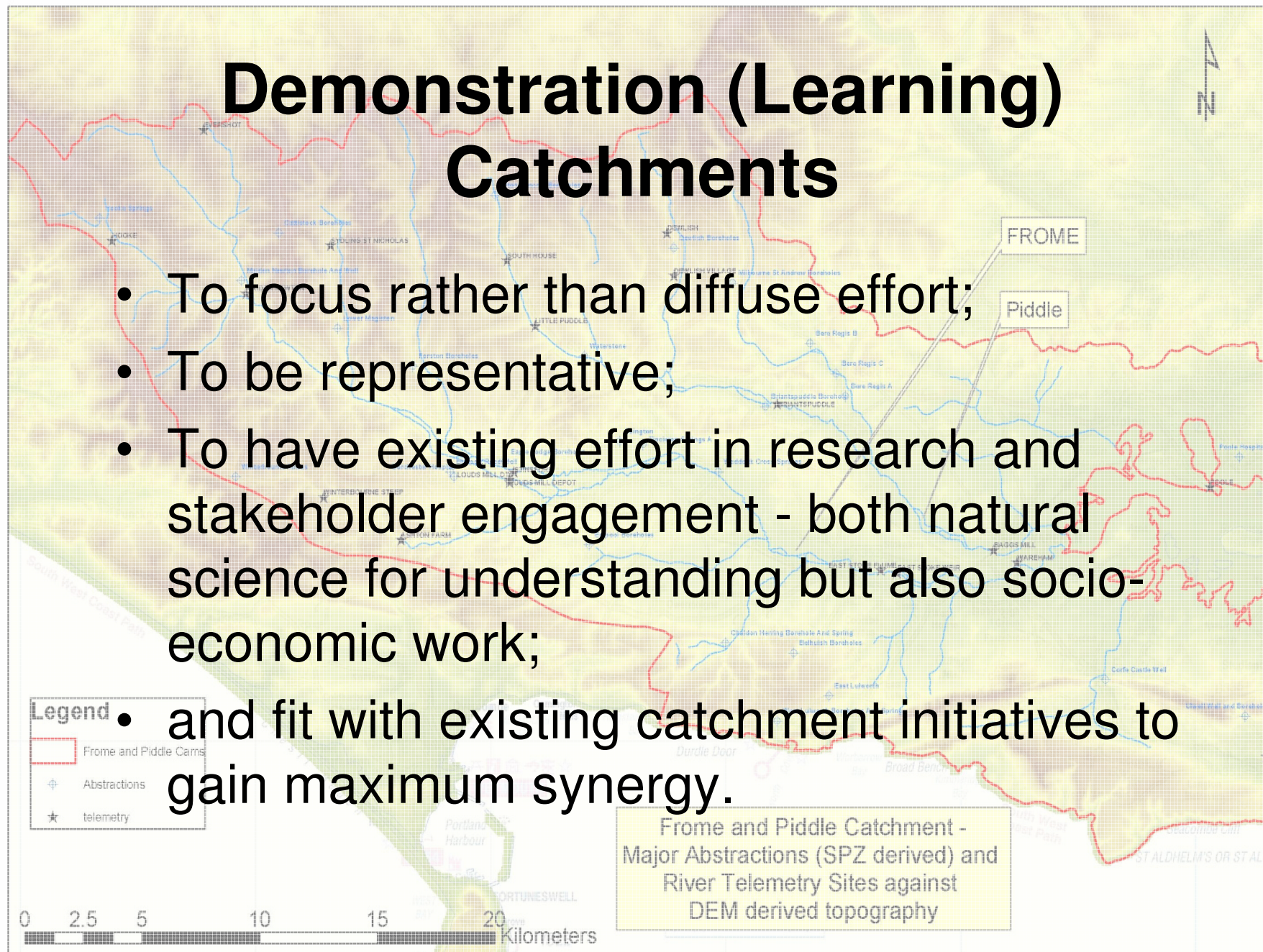
Science underpins Policy?



Acknowledgements
to Marc de Rooy,
RIZA

Demonstration (Learning) Catchments

- To focus rather than diffuse effort;
- To be representative;
- To have existing effort in research and stakeholder engagement - both natural science for understanding but also socio-economic work;
- and fit with existing catchment initiatives to gain maximum synergy.



A landscape photograph showing a field of tall grass and wildflowers in the foreground, with rolling hills and a cloudy sky in the background. The text is overlaid on the image.

Concluding Comments

- **WagriCo provides an excellent opportunity to demonstrate that targeting land use controls in vulnerable areas (risk based land management) achieves necessary water quality changes;**
- **New opportunity to understand the additional environmental benefits that accrue from land use change;**
- **Further opportunities to promote the effectiveness of co-operative agreements in Lower Saxony to the UK.**
- **The UK needs to find alternatives to regulatory controls for addressing diffuse source pollution.**