



HR Wallingford  
*Working with water*

## UK Environmental Observation Framework Data Solutions Workshop

# How do we change hearts and minds?

Ian Townend, Research Director

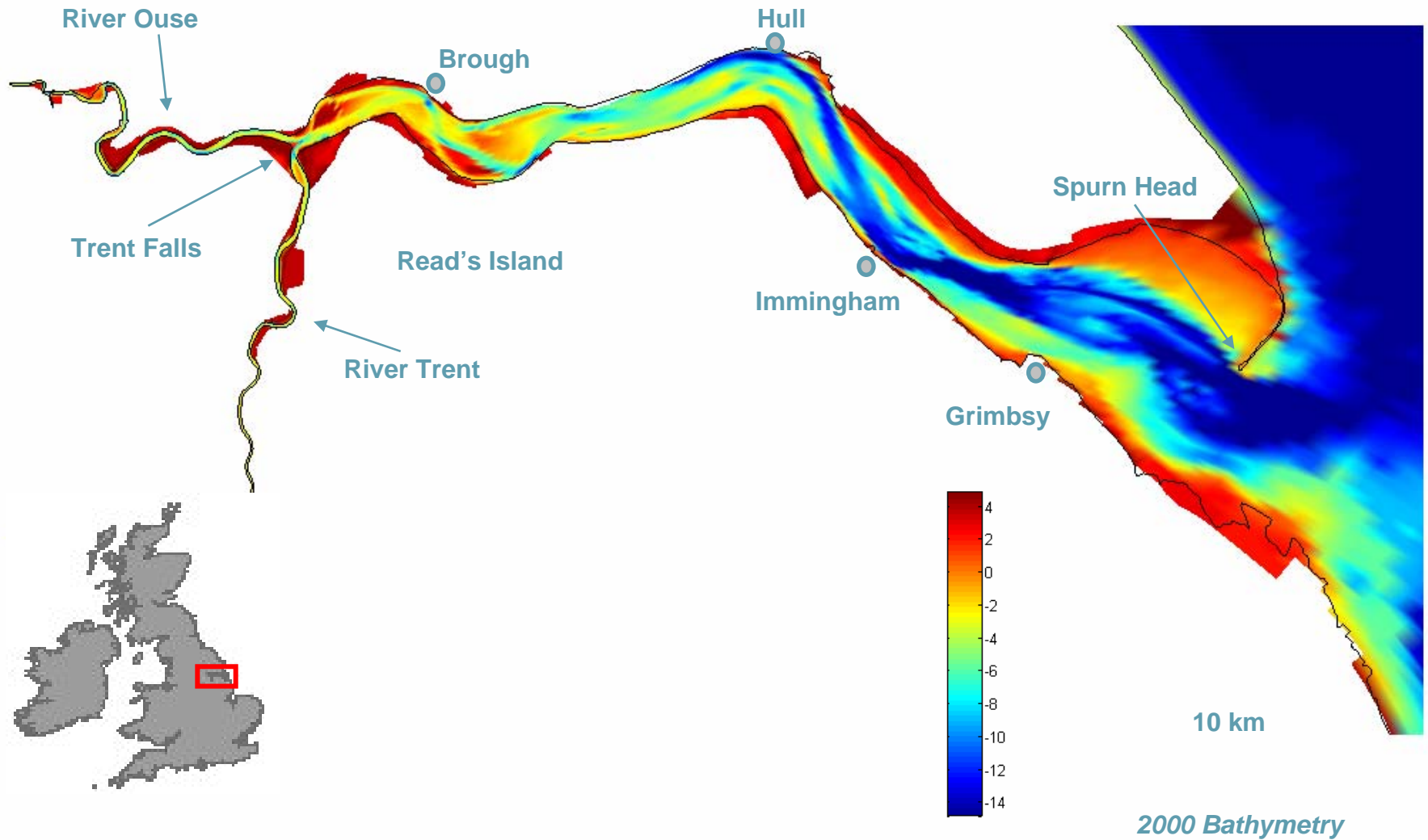


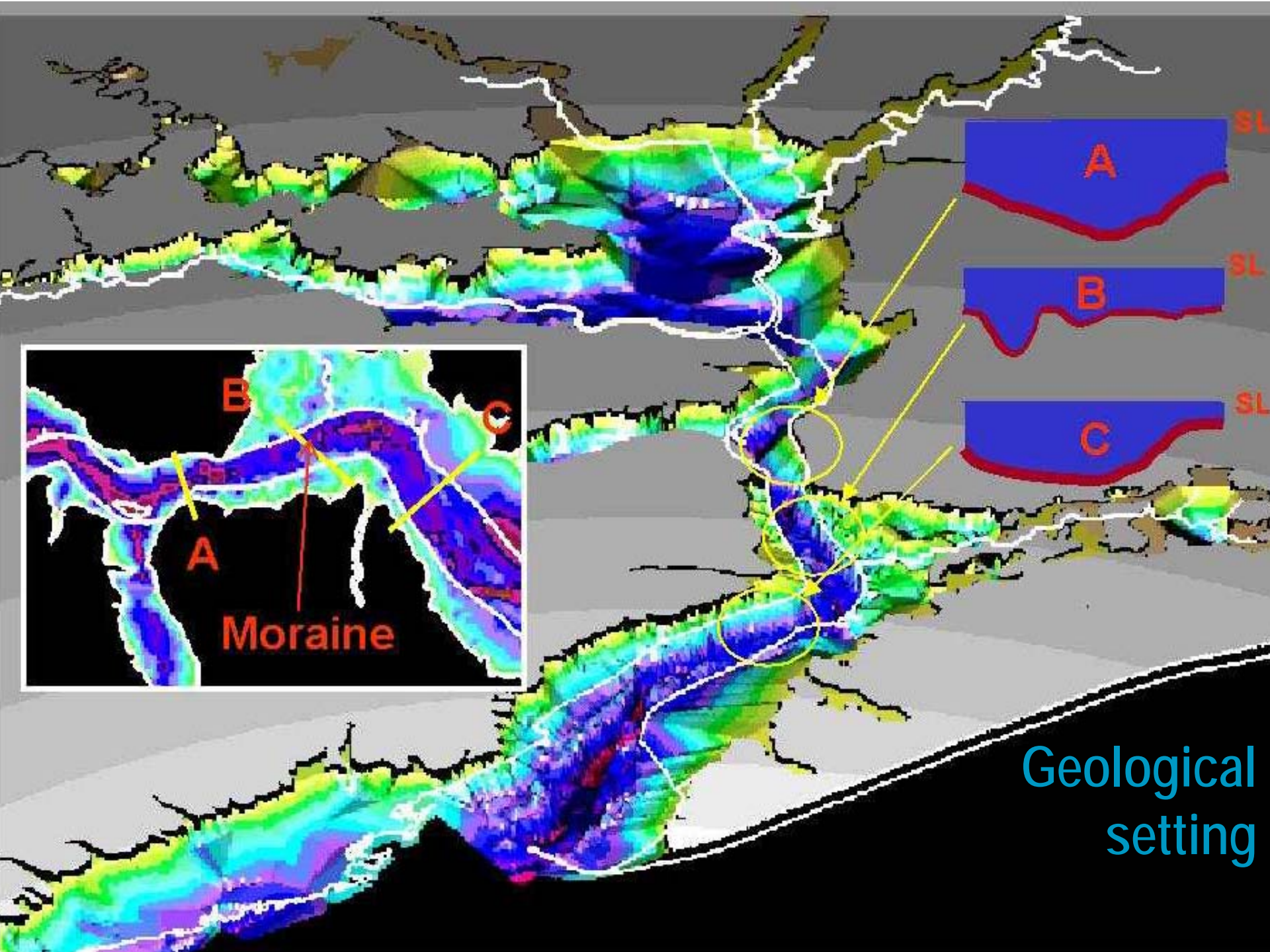
## Examples

- Applied Research
- Design and Operations

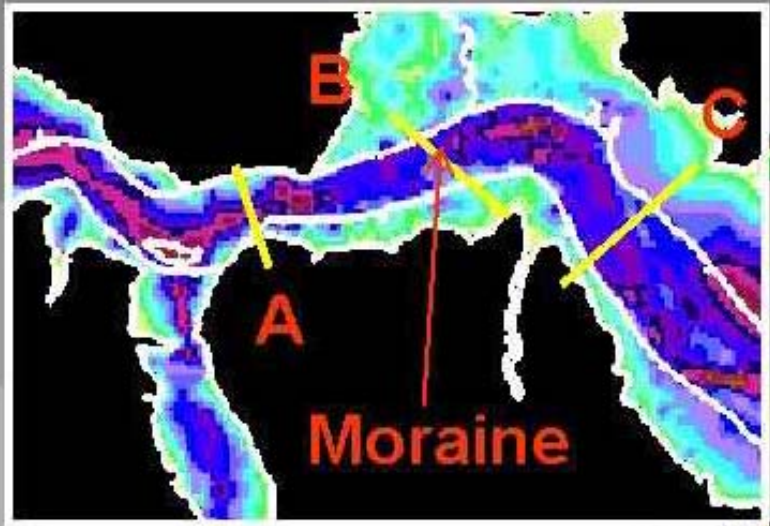
Hearts & Minds >>>> Carrot and stick ?





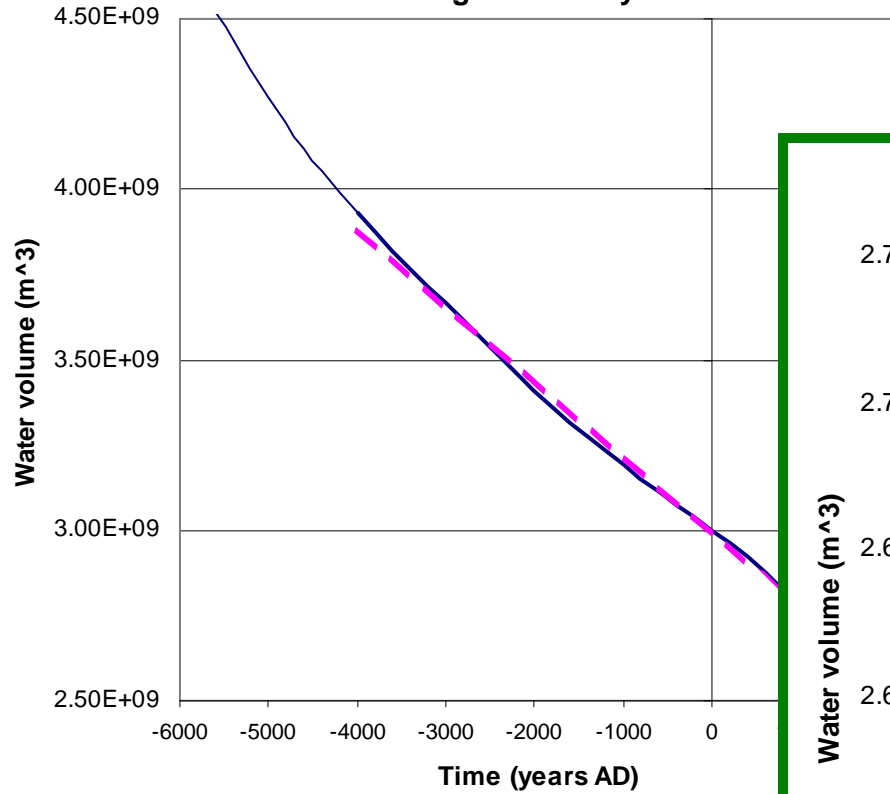


Geological setting

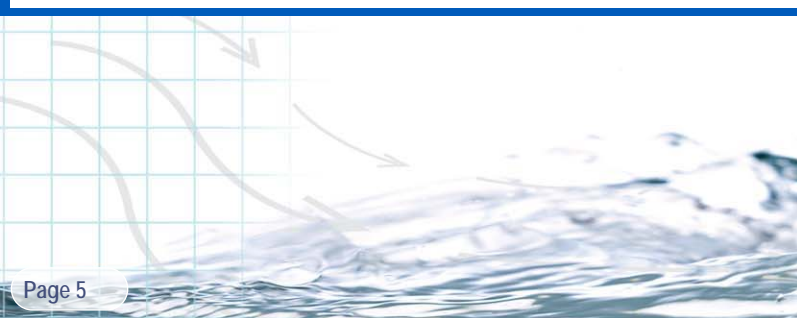
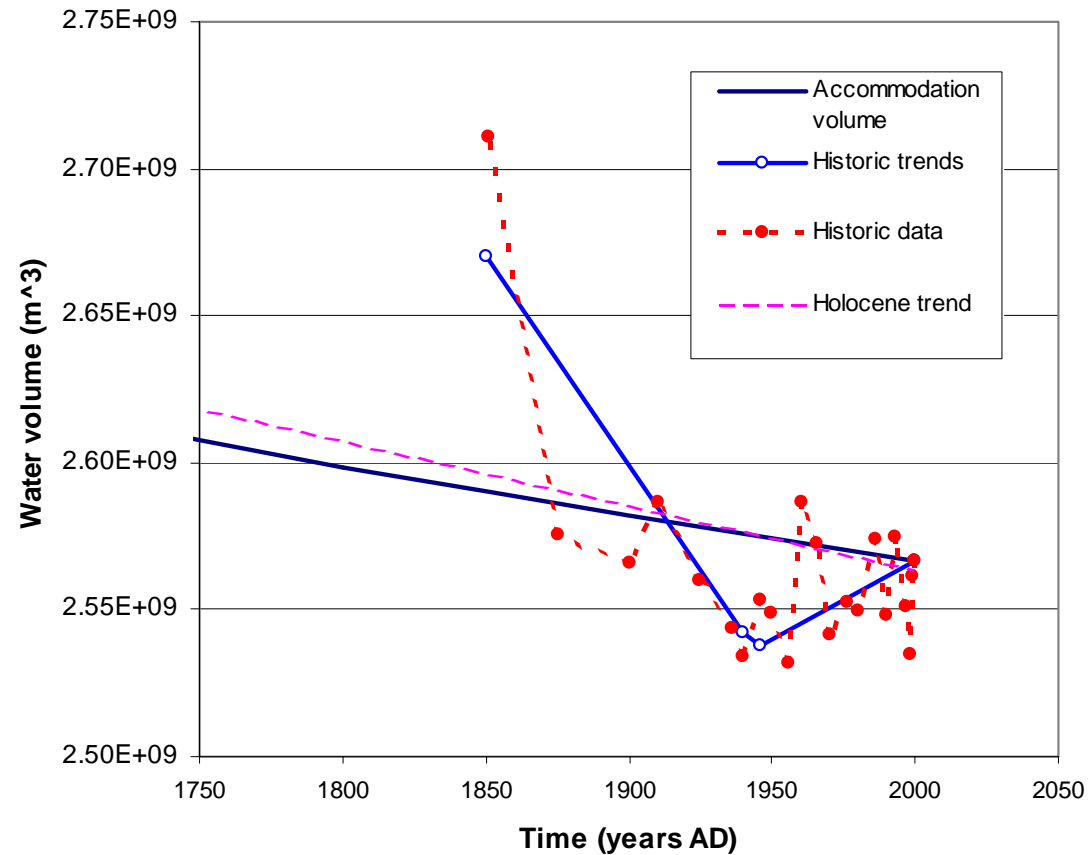


# Holocene & Historic Change

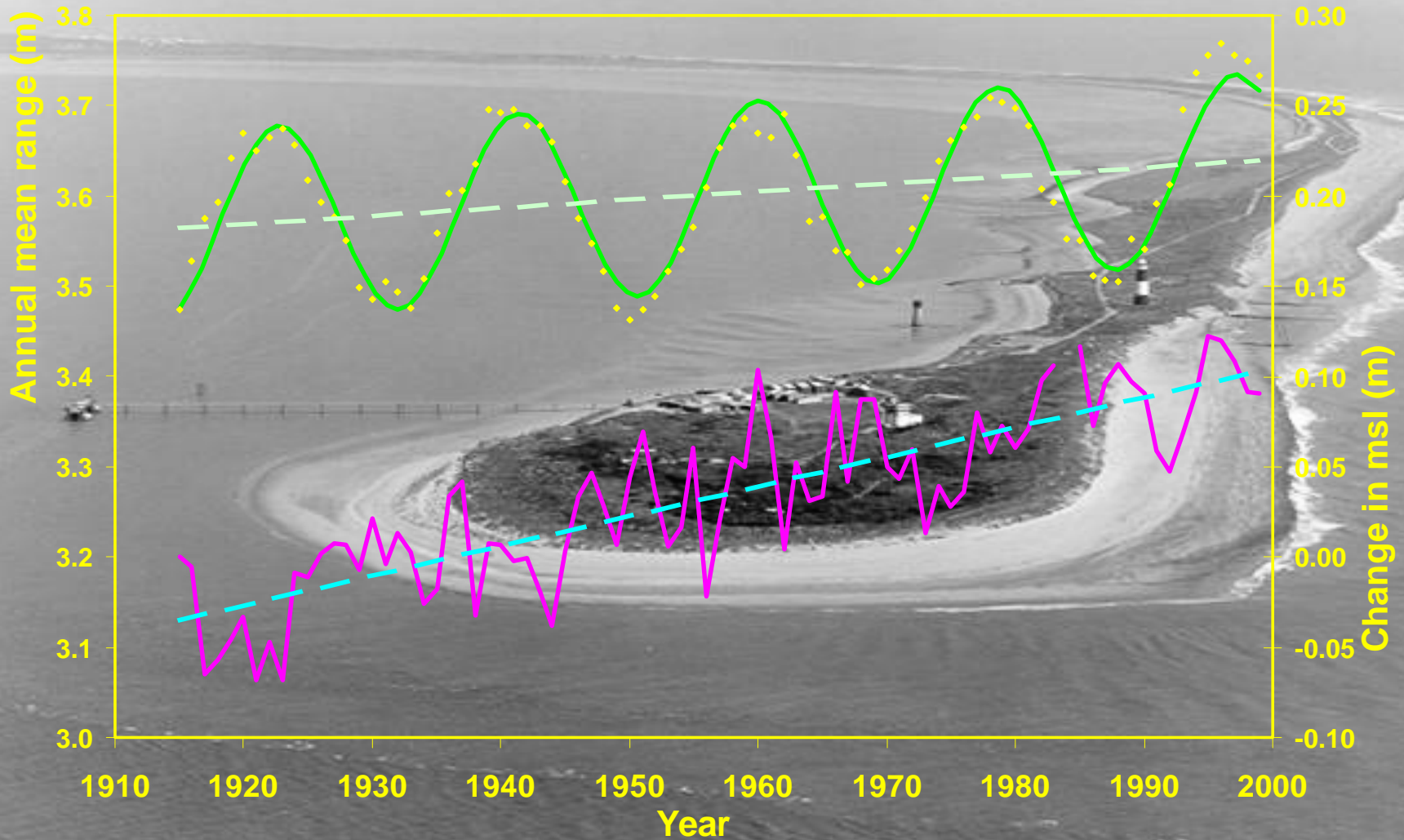
Volume change in estuary basin



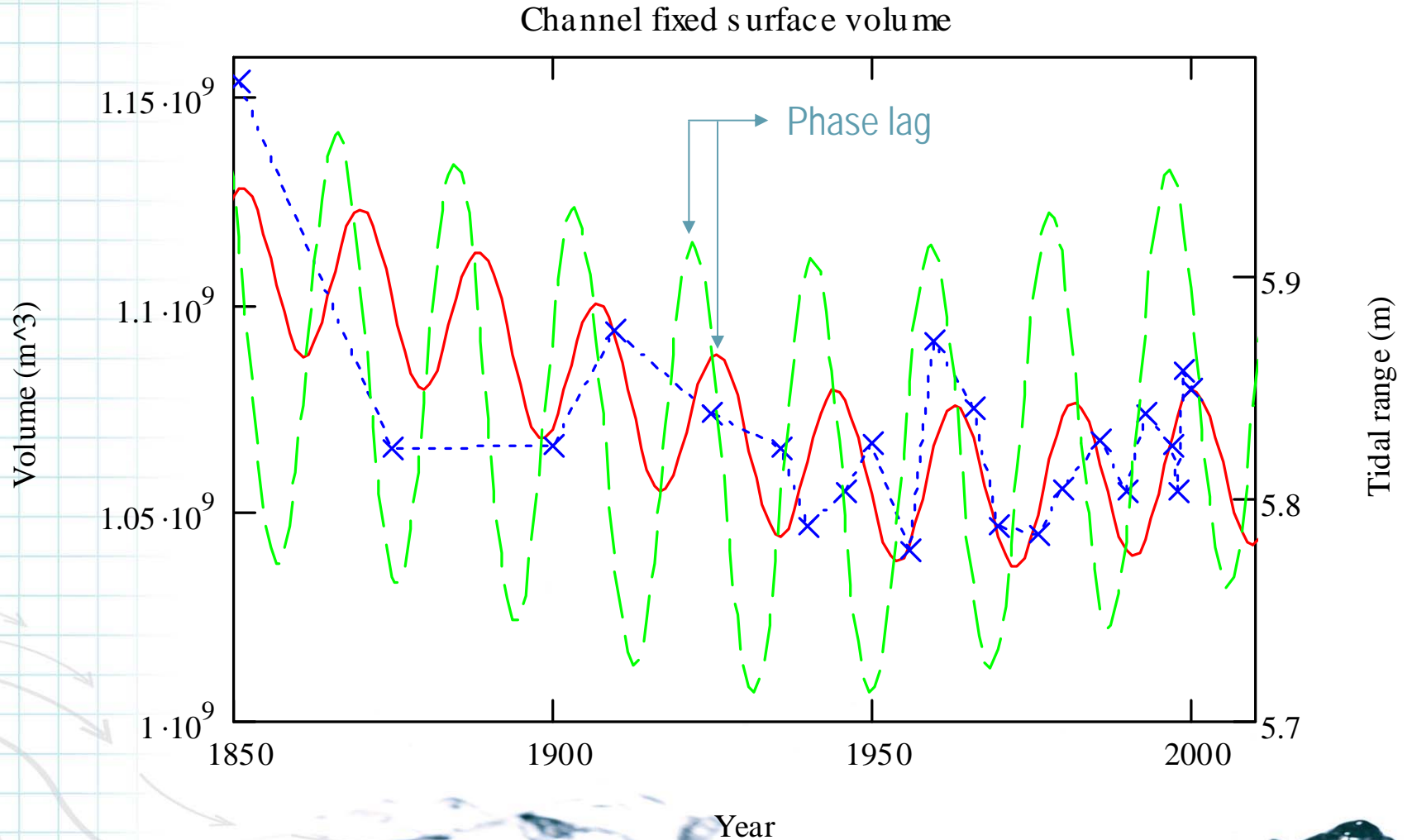
Volume change in estuary basin



# Humber sea level rise + nodal tidal cycle

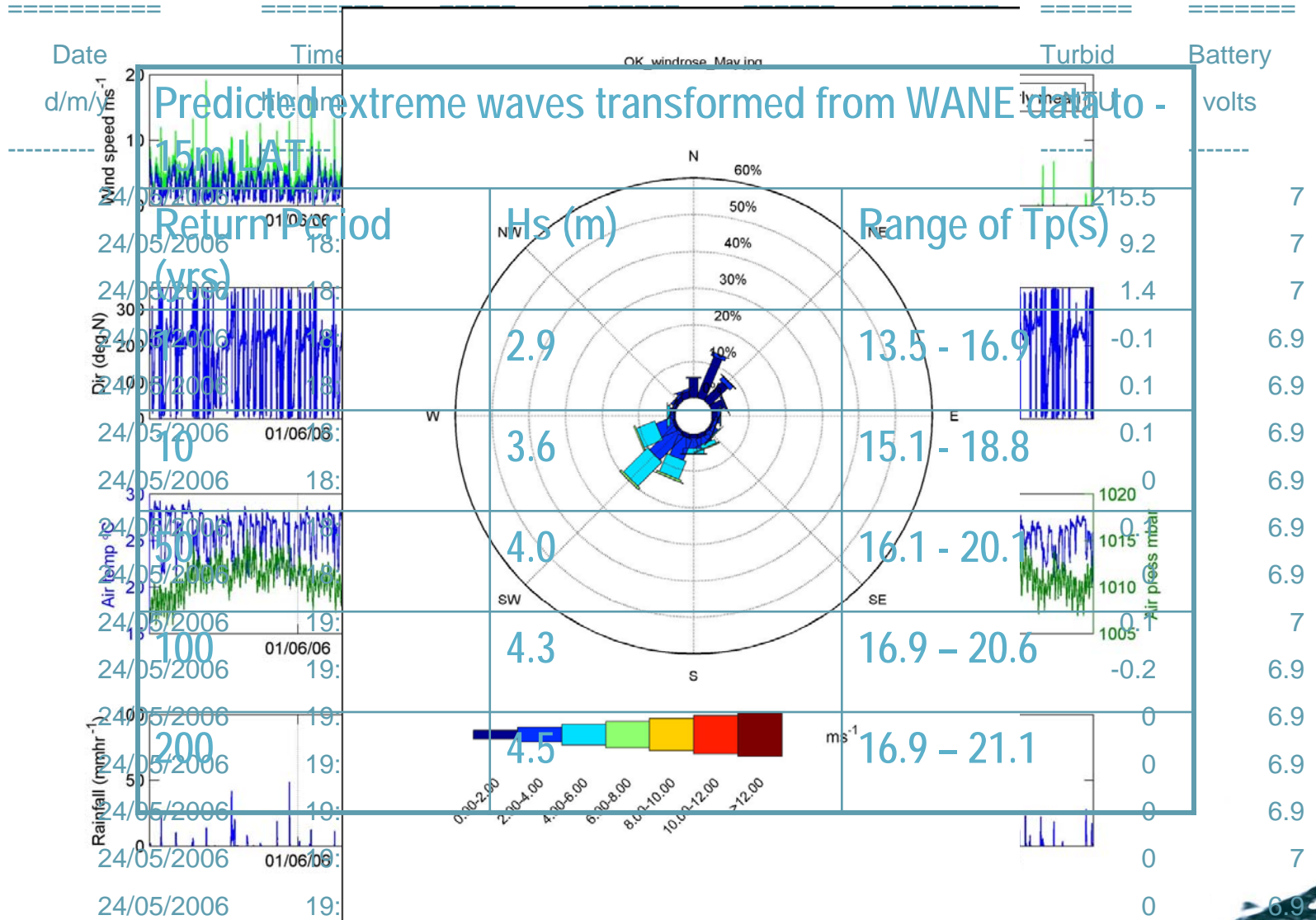


# Fixed area Channel-Flat model



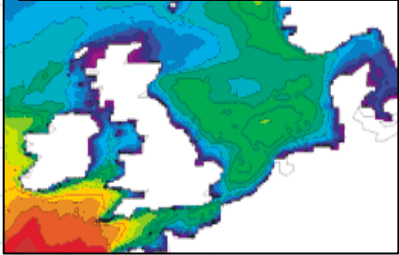
- Research largely made possible because we were employed by, or worked with the data owners. Our interest secured better access for other researchers than would otherwise have been possible
- Archiving and storage of data generally haphazard
- Very few other estuaries with this level of data coverage



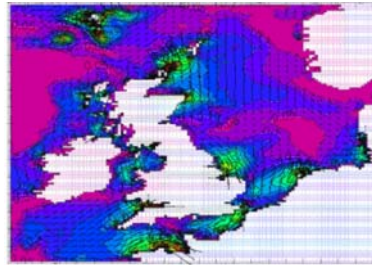


# Example Operational Data

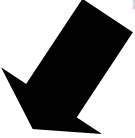
UKMO UK Waters Wave Model



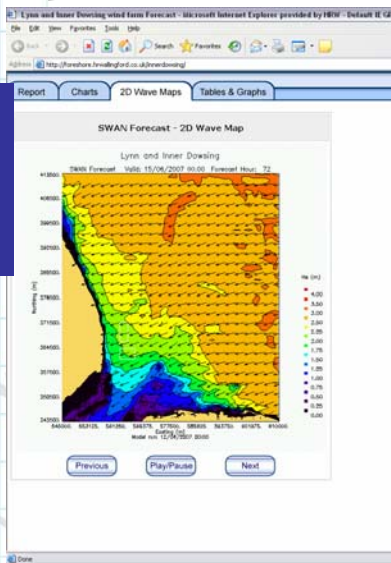
POLCOMS Storm tide model



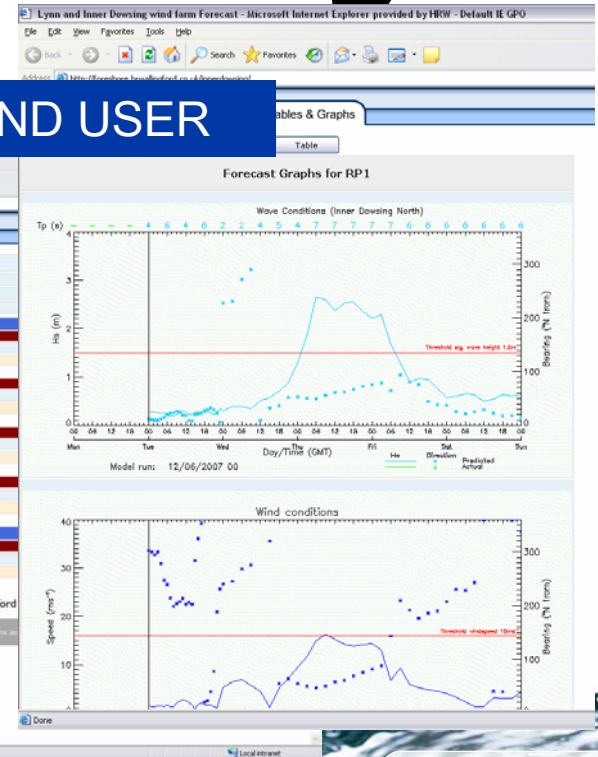
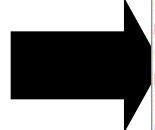
Real time in-situ measurements



HRW Wave Model



END USER



Contribution - *What impact the data have on solving the problem.*

Location - *Where the measurements have been taken and at what time.*

Price/cost - *What the data costs.*

Delivery - *Can the data be supplied in time.*

Attributes - *Fitness for purpose.*

Usability - *How easy is it to use the data*

Assessing value – *meta data is key*

Global Data – *industry increasingly operates globally, so globally consistent data sets are valuable*

Price/cost – *(What) should we pay for data collected with public funds ?*

Delivery – *On line catalogues and data purchase as time can be critical.*

Attributes – *meta data again.*

Licences – *do we really need a different one for each piece of data, for each use, for each year ?*

## Carrot

- Incentives – *for all players*

## Stick

- Procurement – *government, agencies and contracts*

## UK plc

- Access/Funding Model
- National Incubator
- International Commitments & Global Markets

## Global Trends

- Convergence of data, tools and models
- OpenSource
- Integrated System “modelling”