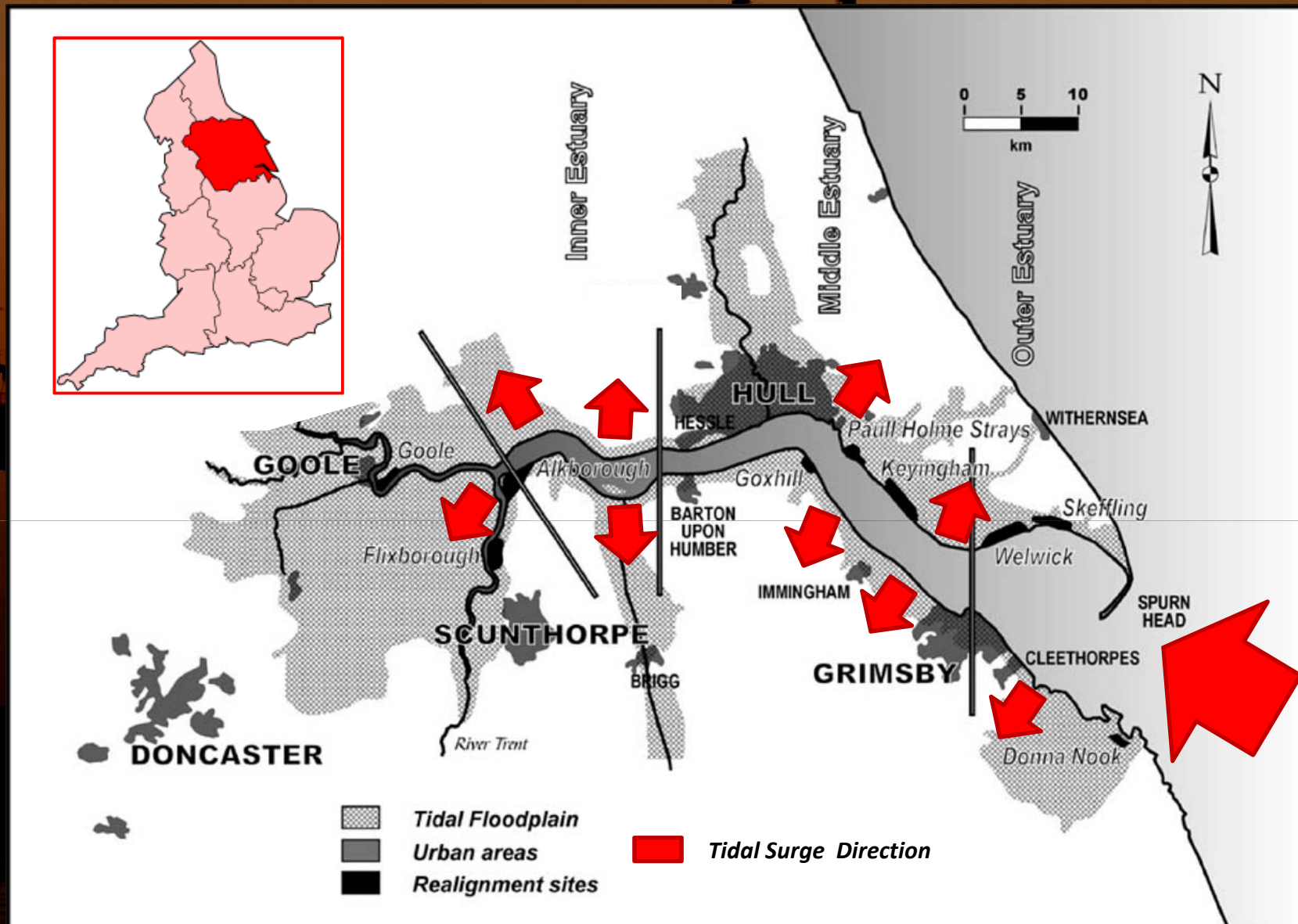




Carl Lewis

**Employers and
Flood Risk in the
Humber:**

**How do businesses understand and construct their
flood risk knowledge?**



Adapted from Edwards and Winn (2006: 167)



Kingston upon Hull



Grimsby – Cleethorpes

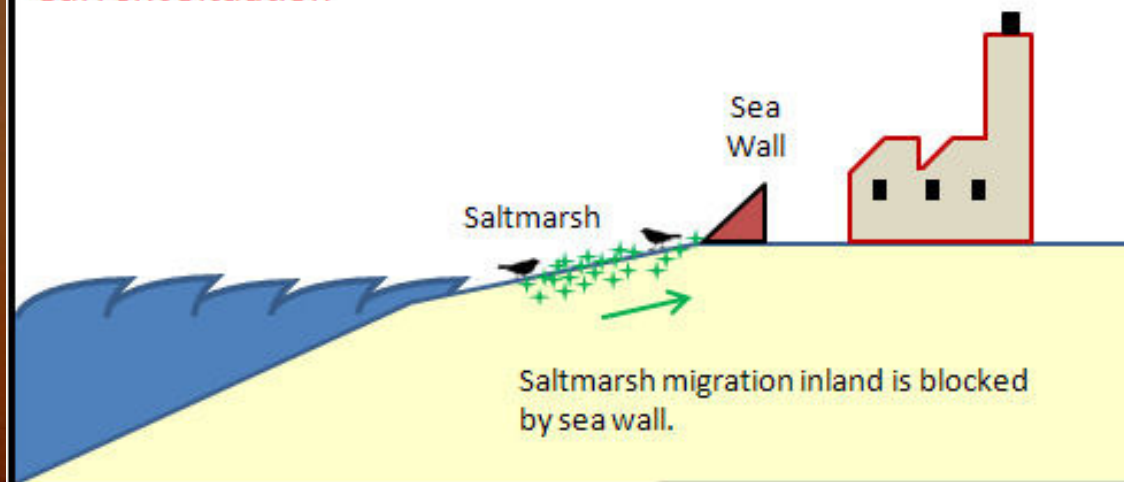


Goole

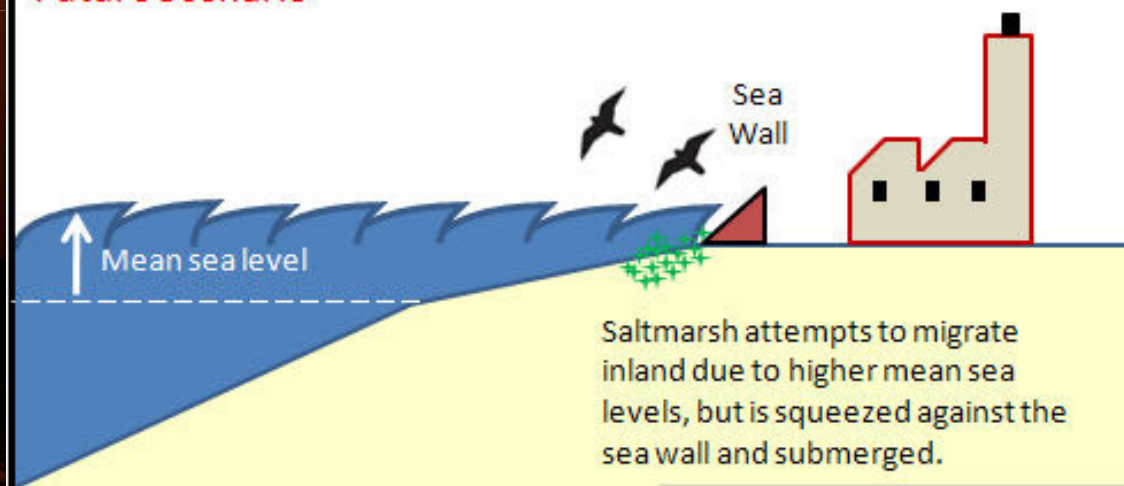


Footage of 1953 east coast flooding

Current Situation



Future Scenario



***Illustration of coastal squeeze submerging
and eroding salt marsh under higher sea levels***



***Alkborough Flats managed realignment site,
North Lincolnshire***



Protected species: Golden Plover



BP petrochemicals - Saltend



ConocoPhillips Humber Refinery



Port of Immingham



BAE Systems – Brough



Port of Grimsby

Land intensive industries act as an anchor to the Humber Economy

Hull City Council Planning Guidance:

- there is a need for further flood protection measures especially along the Humber frontage, the River Hull, as well as an embankment along the eastern side of Bransholme;
- design guidance should be used to improve 'flood proofing' of new developments including provision for safe refuges and evacuation plans; and

North East Lincolnshire Council Planning Guidance:

climate change are also shown in Table B.3 'Water level and wave height combinations with a joint 0.5% probability of occurrence, at Cleethorpes, taken from the SFRA (2002). These figures are only indicative - developers will require the latest water level information from the Environment Agency when preparing their FRA'.



Flood risk mitigation is not an optional extra



LIVE NOW: House of Commons



Public and voluntary sector action has been highly publicised

The Risk Society:

- Risks are produced by the science and technology upon which our society is based
- Risk is socially constructed and 'uncertain'

But...

- How does risk enter the political arena?
- Role of economic agency?
- Governance as a vehicle?

The Role of Knowledge:

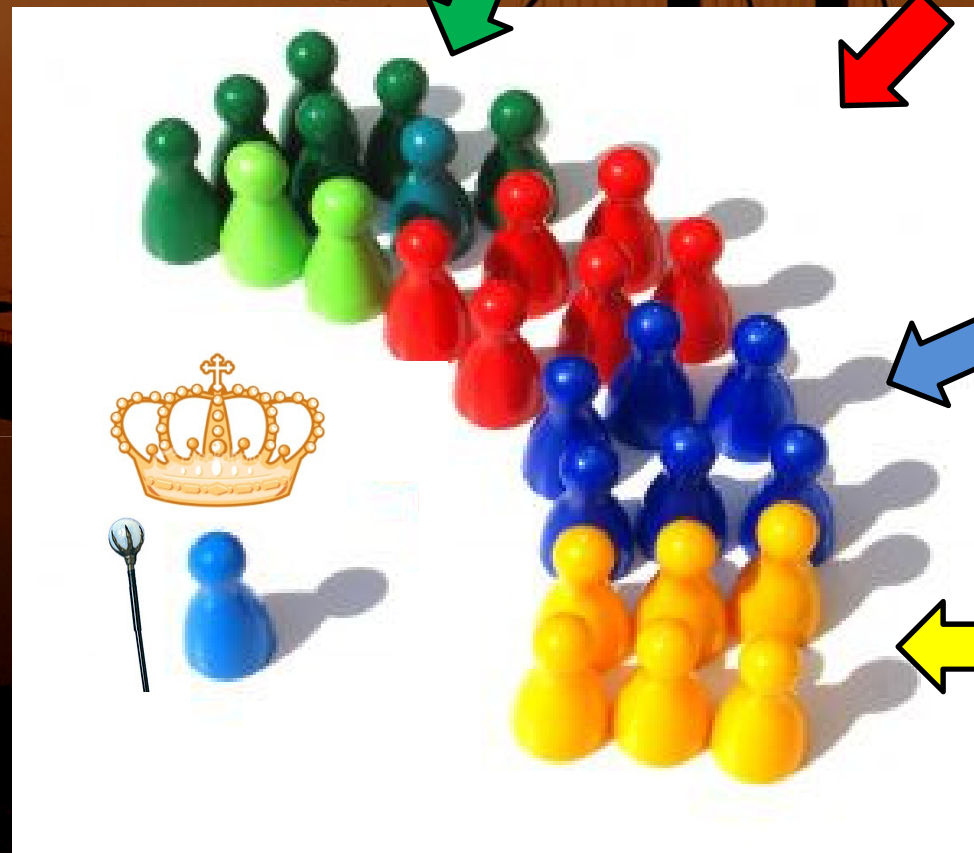
- Tacit knowledge versus codified knowledge
- Judgements and feelings
- The role of trust



The Crichton Risk Triangle (2008)

General Public

Private Sector



Public Sector

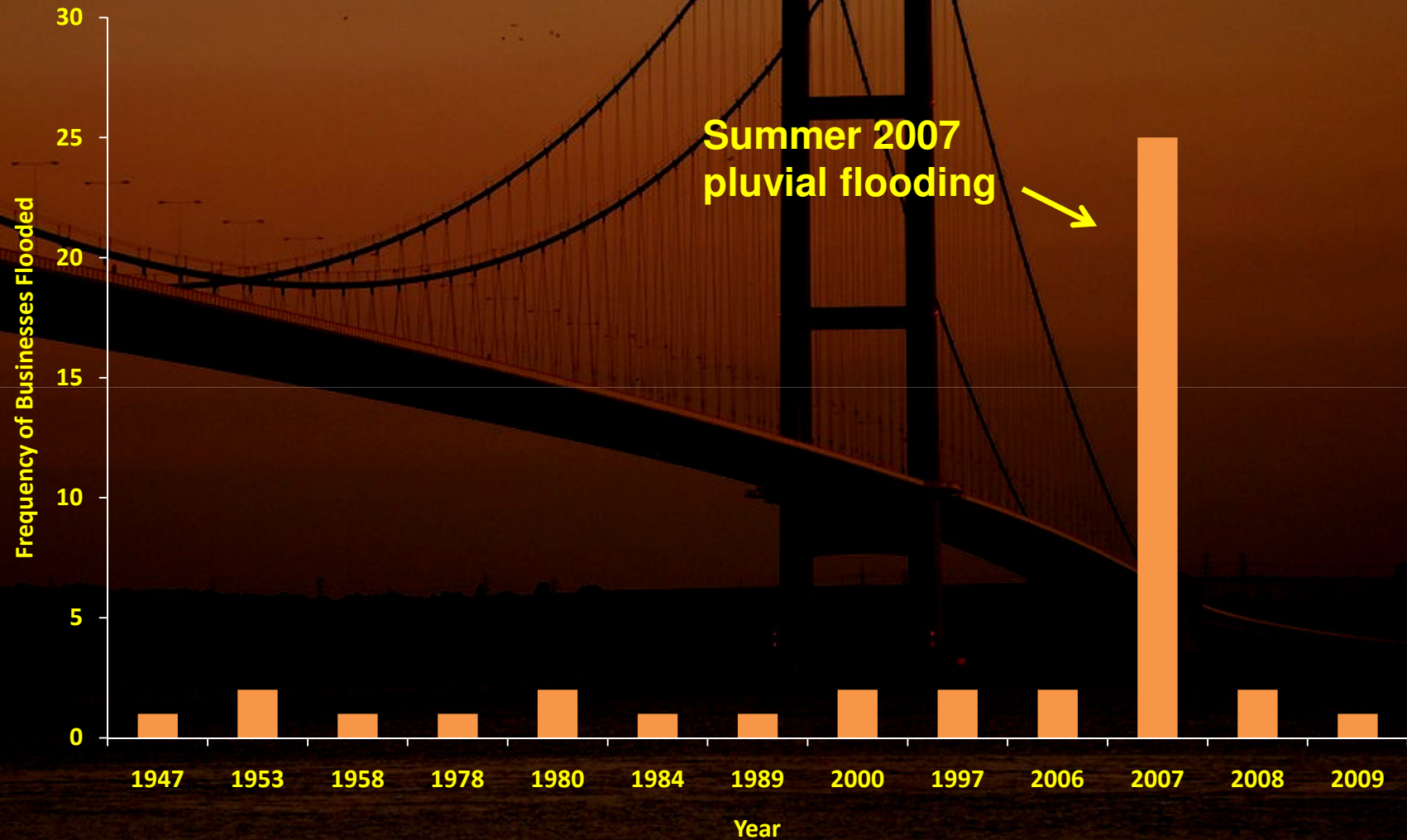
Voluntary
Sector

Governance and Power?

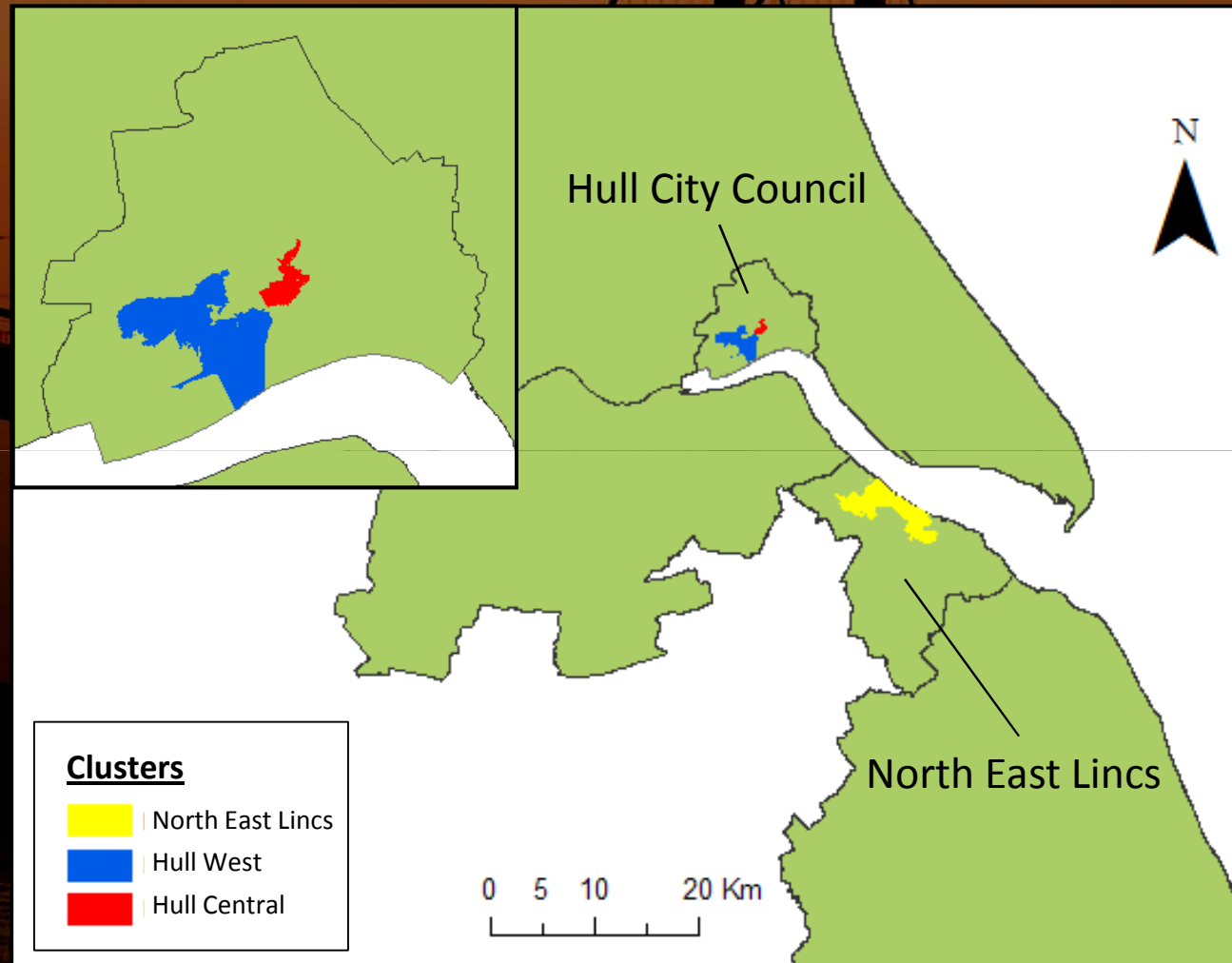
Largest business sectors in the Humber study area:

- 1) Construction
- 2) Wholesale and Retail
- 3) Manufacturing
- 4) Transport and Communication
- 5) Agricultural

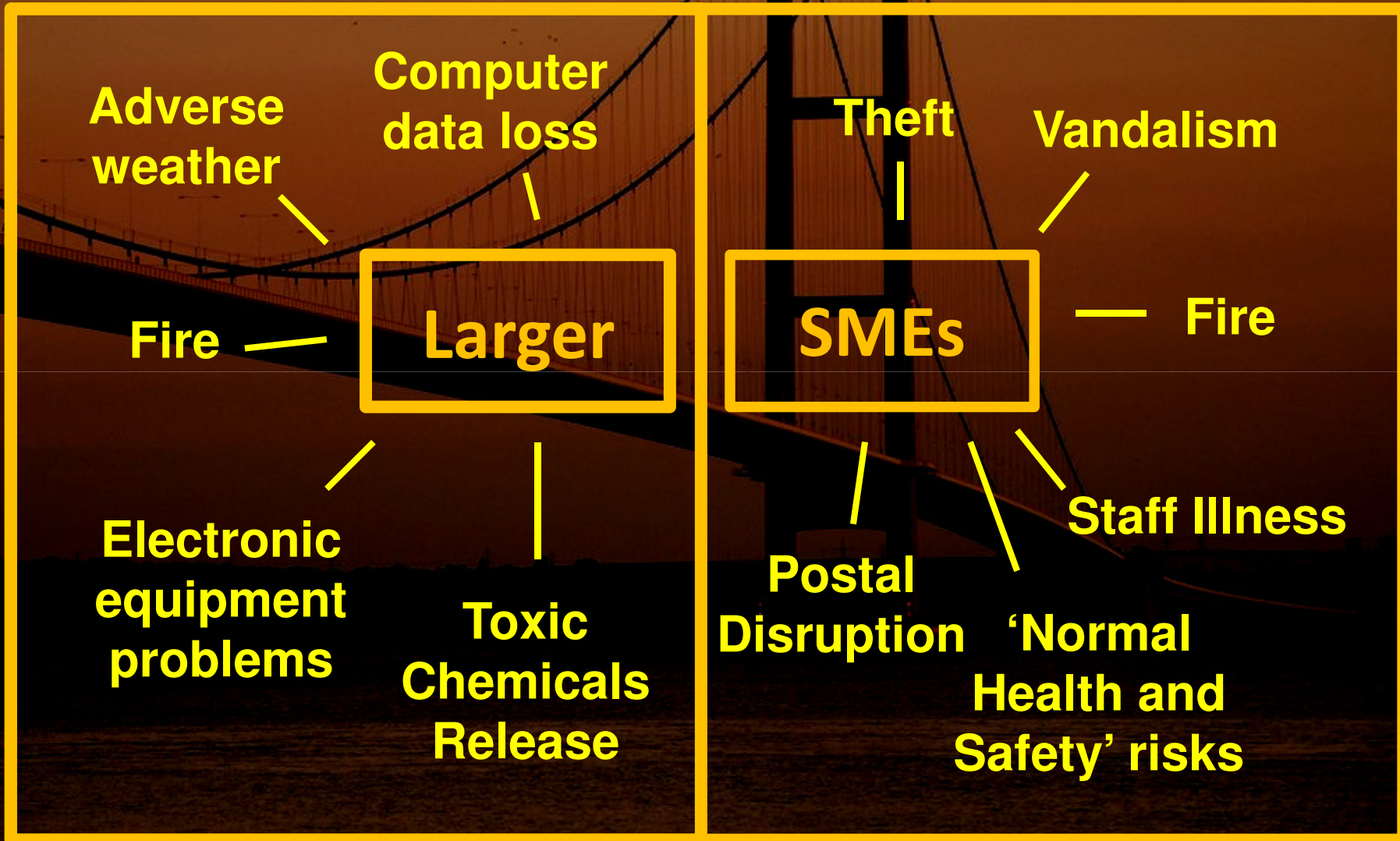
Previous flooding experienced:



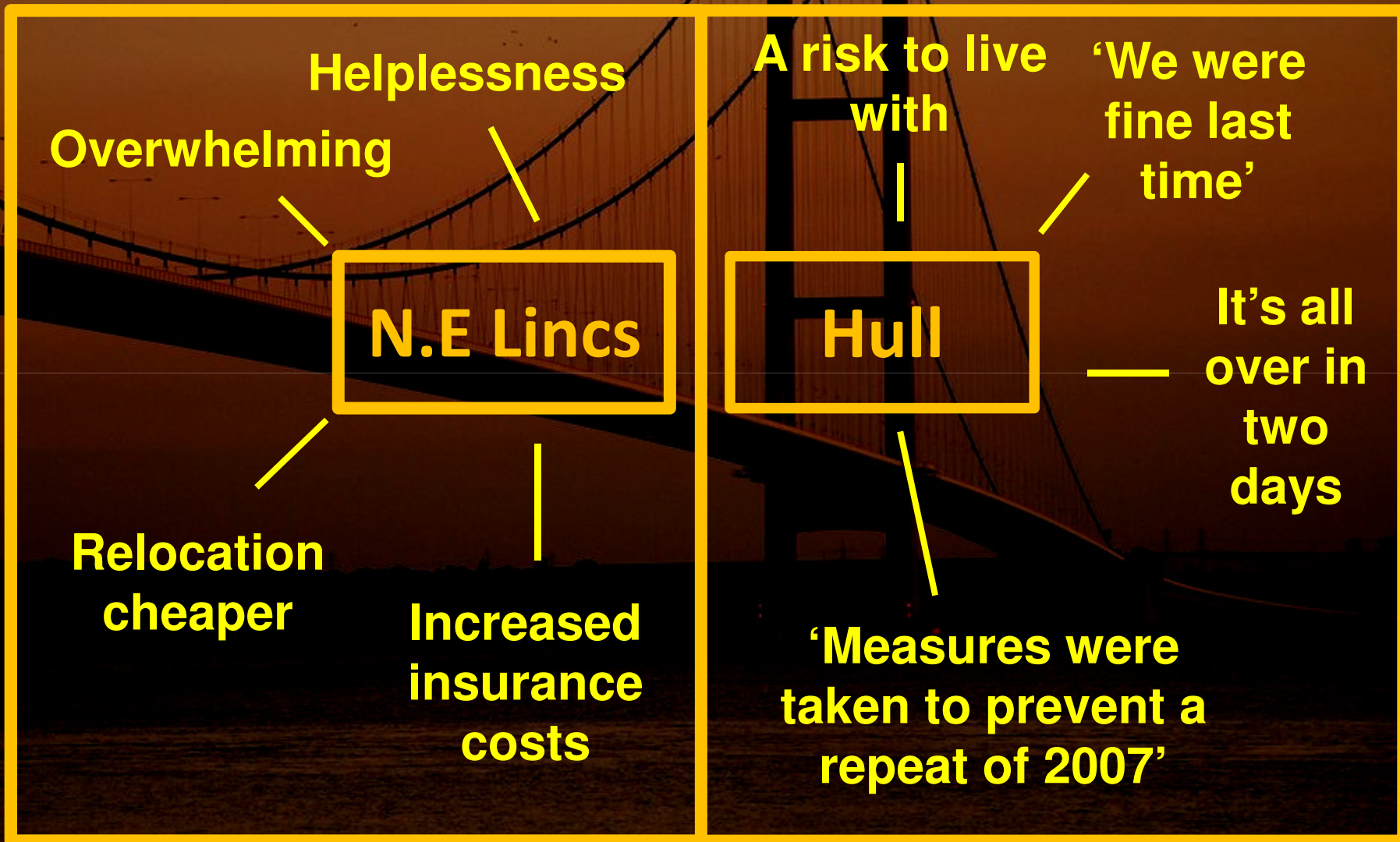
Qualitative Business Clusters:



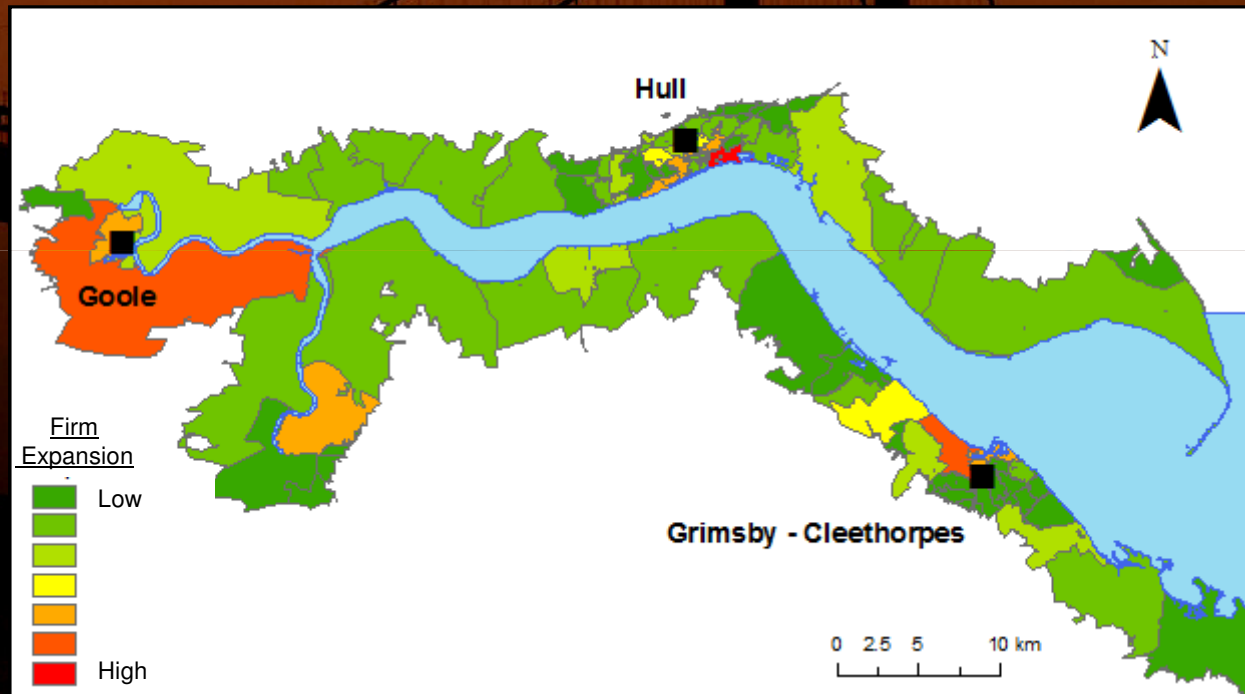
Daily risks dealt with by businesses:



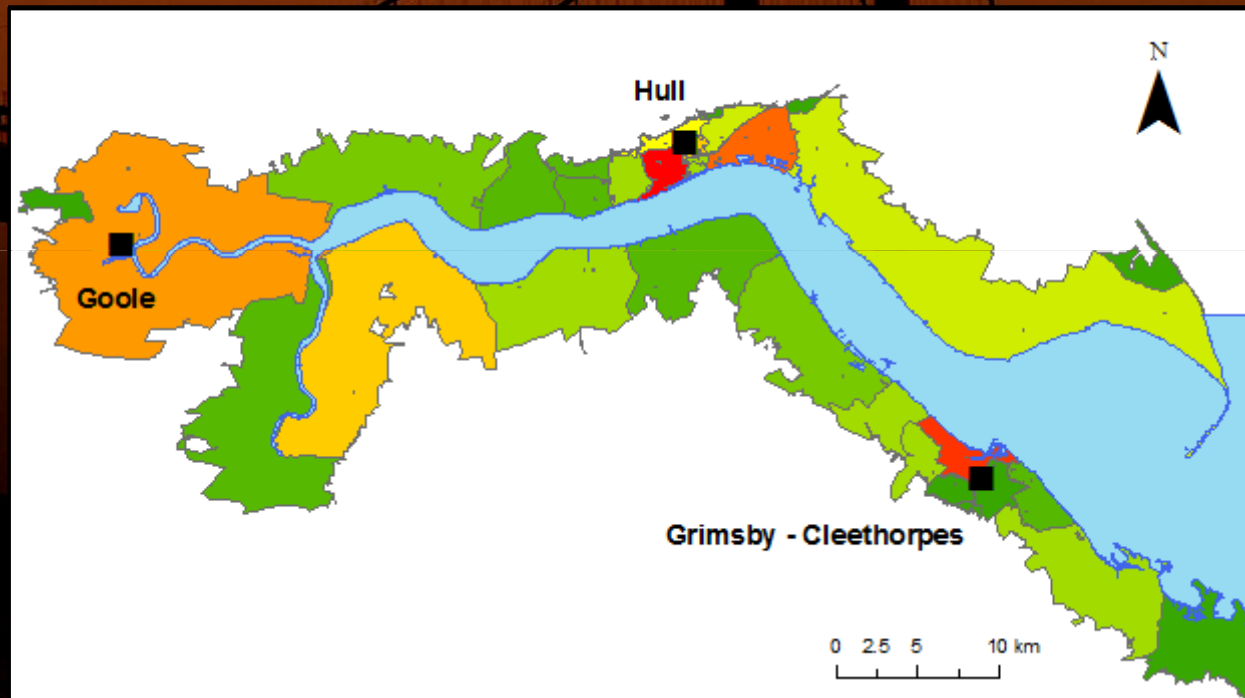
Recovery from a potential flood event:



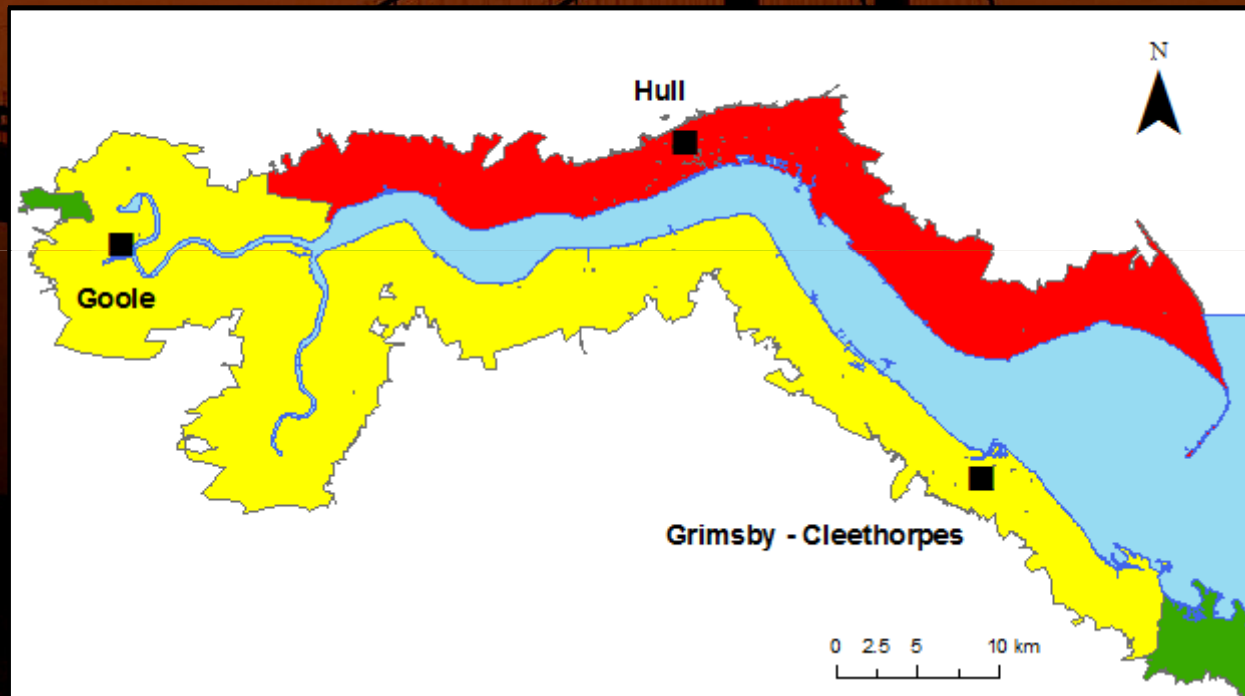
Estuary-wide planning? Areas where businesses want to expand:



Estuary-wide planning? Areas where businesses want to expand:



Estuary-wide planning? Areas where businesses want to expand:



Summary

- 1) Businesses appear to have trouble 'placing' flood risk within their operations
- 2) Flood governance is 'proactive' where current business attitudes to flood risk appear 'reactive'
- 3) Tacit knowledge rooted within experience is powerful, but given time, codified knowledge in the form of information and education can be highly effective if the organisation involved is trusted

Acknowledgements

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Agency

E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

CASE Partnership

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Prof David Gibbs - University of Hull

Dr Sally Eden - University of Hull

Dr Sue Manson - Environment Agency Humber Strategies