

Adapting to Climate Change in the UK

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Walker Institute seminar - Weds 26th May 2010

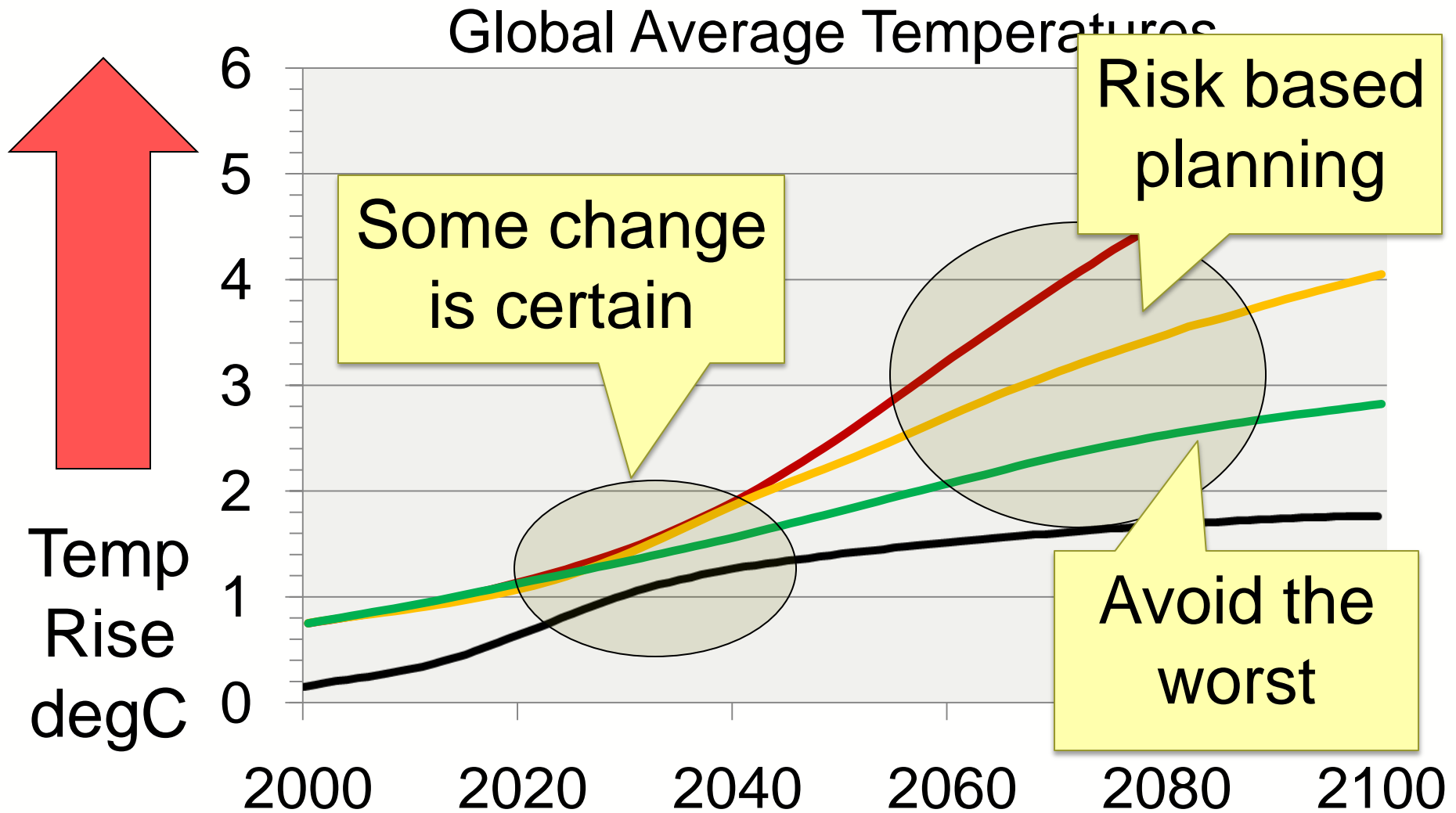
Contents

- Where do we stand in adapting the UK to climate change?
- How does the UK approach compare with other countries?
- What are the future challenges?

Where do we stand in adapting the UK?

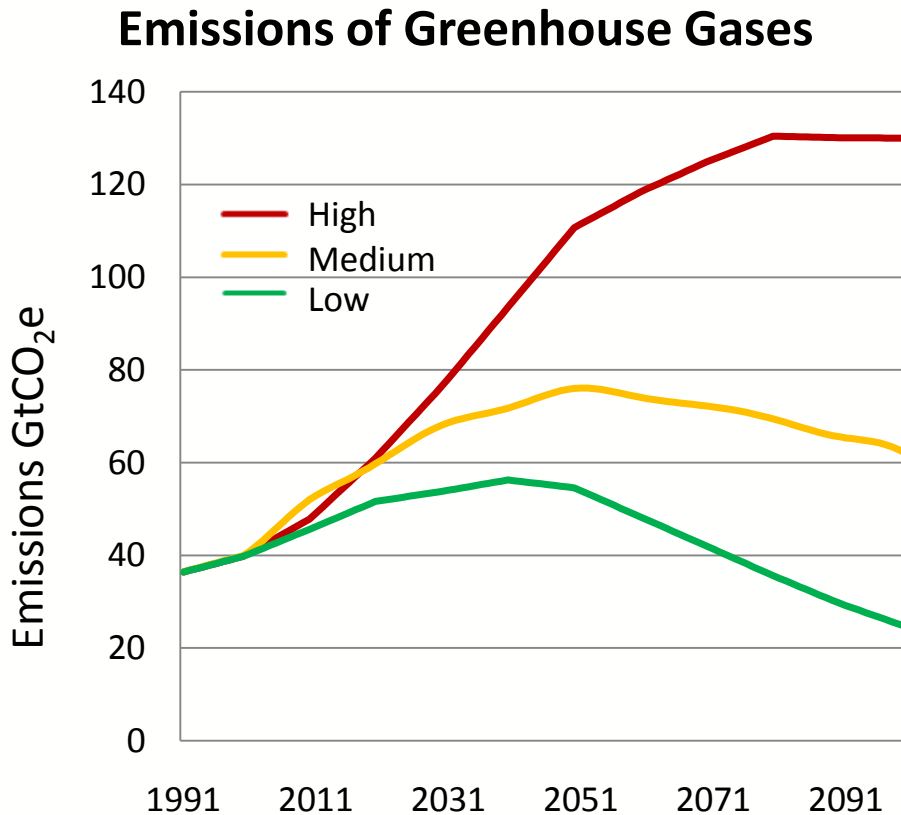
- Science
- Politics
- Policy

Whatever the pathway, some change is certain from past emissions



UK Climate Projections 09

One aim of UKCP09 was to stimulate thinking on possible ranges of impacts of future climate change.



- They were used as a lever to stimulate more activity on adaptation and to highlight the ACC programme.
- Helping people to use tools like UKCP09 in the face of uncertainty is a developing area of work; as is looking communicating the strengths and weaknesses of different tools for decision making.

This Global change has significant impacts for the UK climate

Summer Average Temperature

for 2080s, medium emissions scenario, central estimate

2 to 3°C
increase

3 to 4°C
increase

4 to 5°C
increase

Summer 2003: a 2°C rise (35,000 excess deaths in Europe)

But we could see 5 times the number of very hot days

Wider range available from different emission and probability levels

2020s
+1.6°C

2040s
+2.3°C

2080s
+3.9°C

South-East England central estimate
Medium emissions

www.defra.gov.uk/adaptation

Significant changes between seasons; likely more floods and more droughts

Winter rainfall

for 2080s, medium emissions scenario, central estimate

2020s

+6%

2040s

+10%

2080s

+16%

Summer rainfall

for 2080s, medium emissions scenario, central estimate

2020s

-7%

2040s

-13%

2080s

-23%

North West
central estimate
Medium Emissions

Wider range available
from different emission
and probability levels

South West
central estimate
Medium emissions

Wider range available
from different emission
and probability levels

Politics - Defra's new Ministers



Caroline Spelman

Secretary of State



Jim Paice

Minister of State for Agriculture and
Food



Richard Benyon

Parliamentary Under Secretary of State
for Environment and Fisheries



Lord Henley

Parliamentary Under Secretary of State

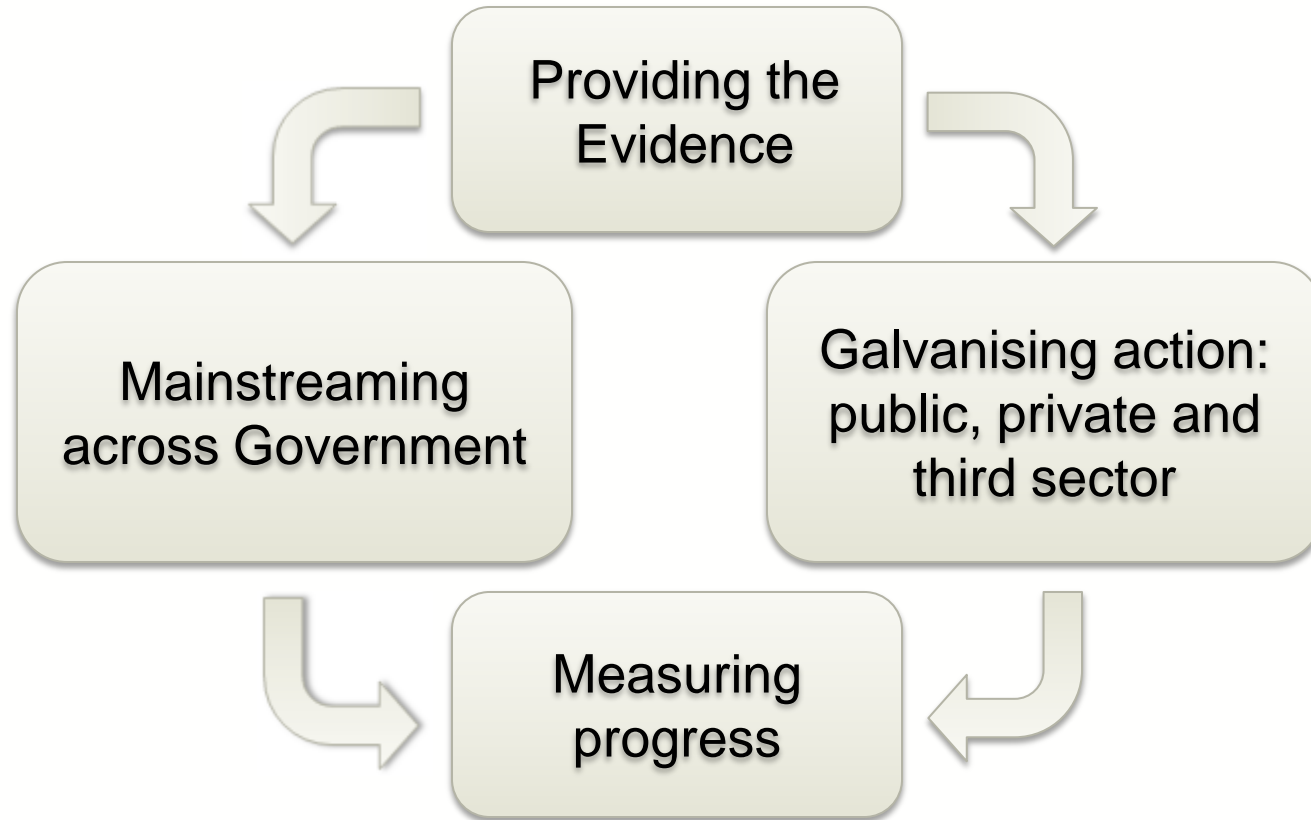
Politics - new Government priorities

- Public spending
- Localism
- Natural environment and farming
- Avoiding regulation

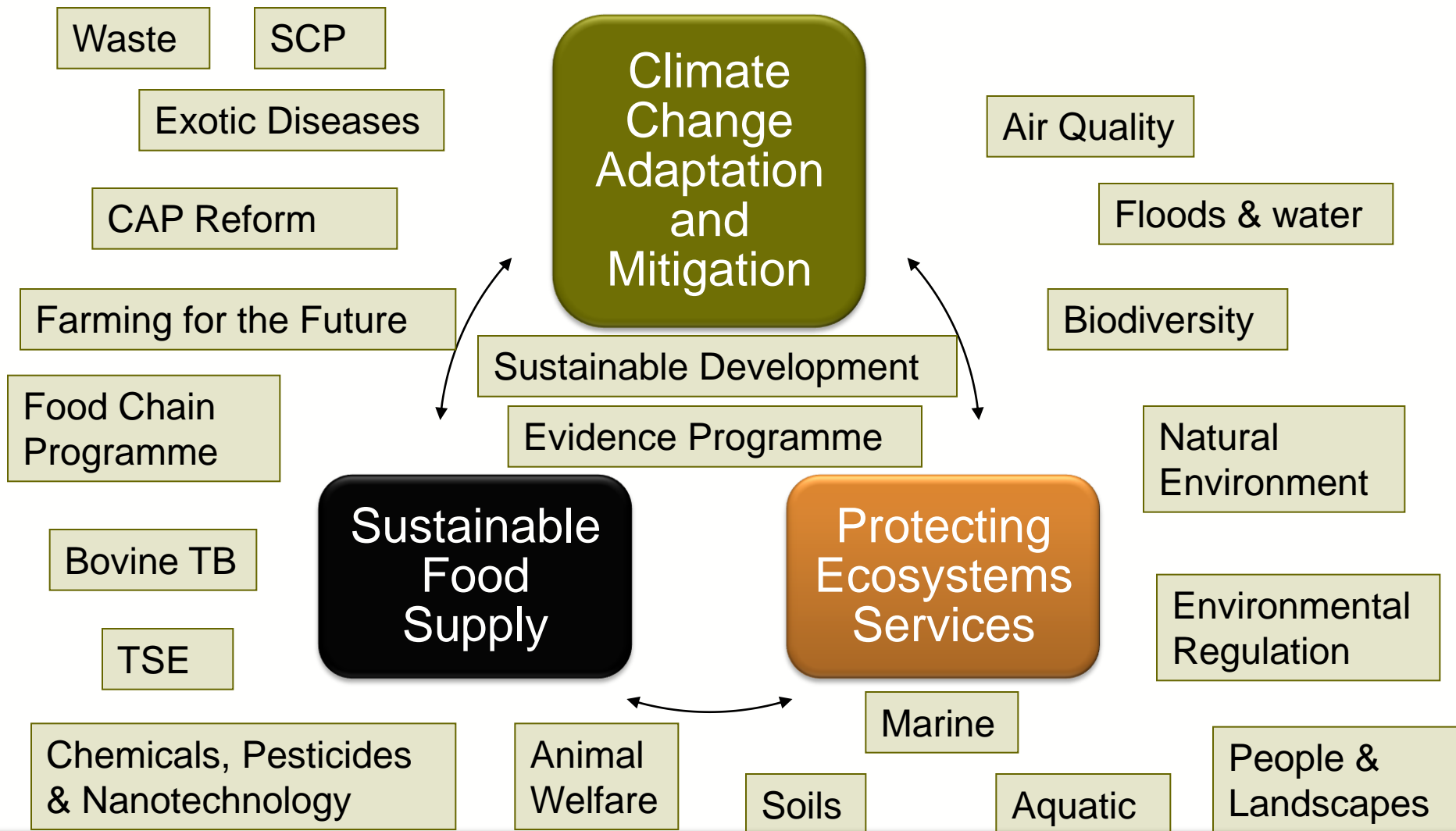
Policy - Overview of the ACC Programme

- Adapting to Climate Change (ACC) is a cross-Government Programme set up in 2008
- ACC works across Whitehall, the private & public sector, and at community/voluntary sector level.
- Policy area and the programme, is relatively new in UK
- UK seen as one of the world leaders in adaptation, with first class science backed by statutory and organisational strengths

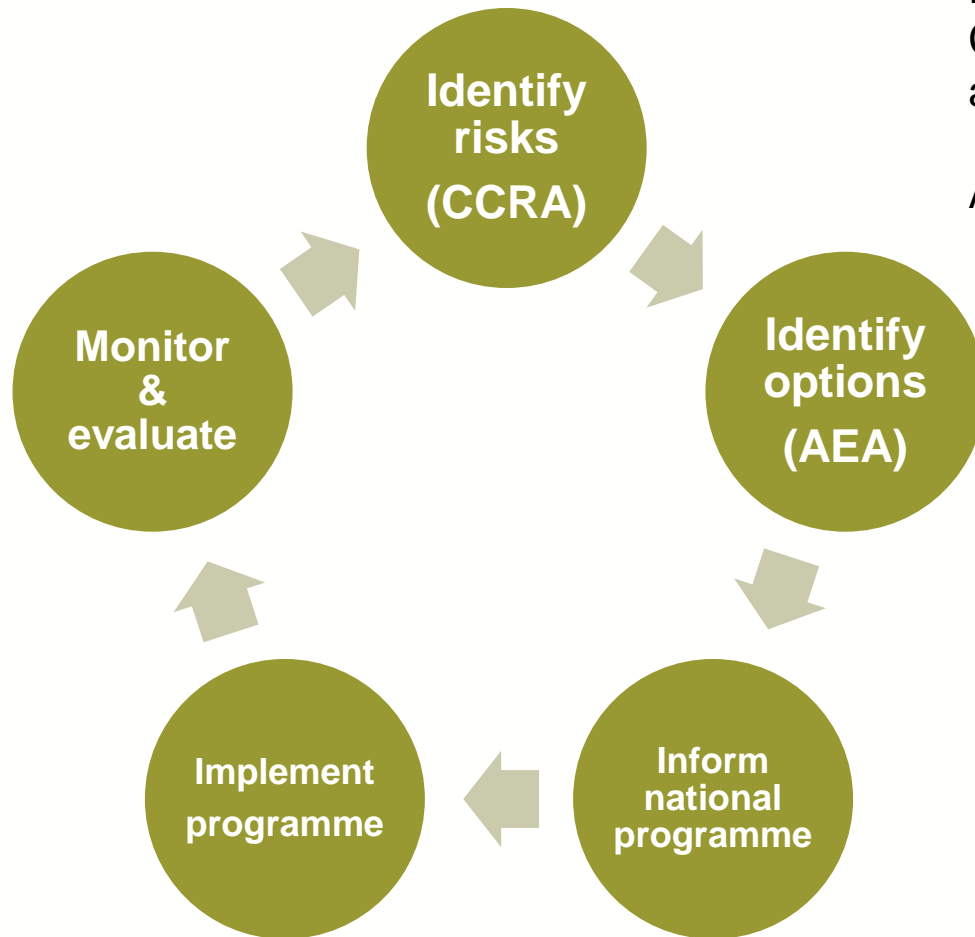
Rationale has given us a clear programme structure.



Defra's Evidence and Investment Strategy



Climate Change Risk Assessment (CCRA)



Defra is required (under the Climate Change Act 2008) to carry out a UK wide assessment of the risks of climate change.

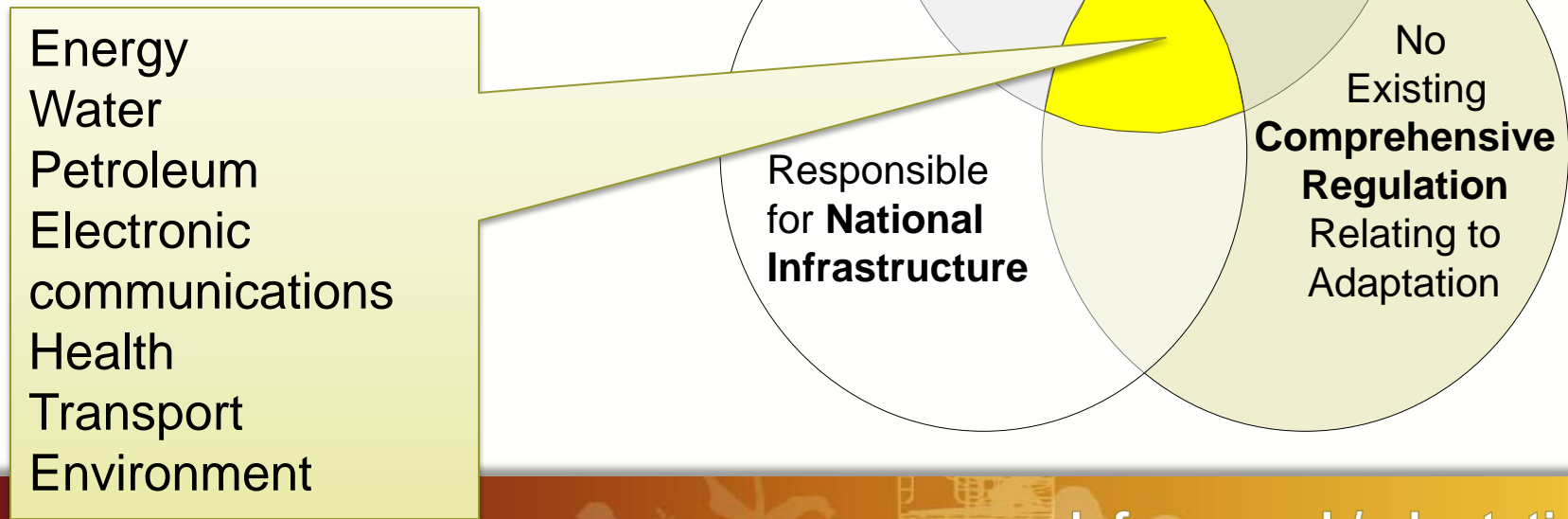
Aims to help us:

- ❑ Understand the level of risk (likelihood and scale of impact) and compare the risk of a changing climate with other pressures on the government.
- ❑ Prioritise adaptation policy geographically, by sector and by cross cutting issues.
- ❑ Assess the costs and benefits of adaptation actions and support the case to resource these.

Key Sectors are being targeted

The venn diagram shows the methodology and criteria which were used to establish priority reporting authorities across the UK

91 reporting authorities have been Directed report between September 2010 and November 2011



www.defra.gov.uk/adaptation

Infrastructure & climate change

Infrastructure

- Renewal / investment in national infrastructure a political priority.
- Green Investment Bank / long-term strategy for UK infrastructure

Climate Change

- Increasingly impact on infrastructure.
- Lead to disruption and economic costs.

= Challenge

- How to ensure new and existing infrastructure able to adapt over its lifetime.
- And reduce the risk to UK economy over the long-term

As an example, we can assess the risk to energy infrastructure from climate impacts...but need further work to understand the thresholds...



Increased drought



Risk to cooling capacity



Power stations shut down



Heavy rainfall



Flood risk to power stations, sub-stations and distribution networks



Sub-stations lost



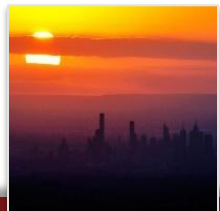
Increased sea level



Flood risk to power stations, sub-stations and distribution networks



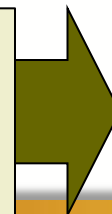
Sub-stations lost



Increased heatwaves



Decreased cable efficiency



Power Outages

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Which other EU countries have developed adaptation strategies and plans?

Country	Date of Strategy
Austria	Expected 2011
Belgium	Expected 2012
Denmark	March 2008
Finland	2005 and has since been evaluated
France	2006, with a national adaptation plan to be adopted in 2011
Germany	2008. Aims to present and adaptation action plan by March 2011
Netherlands	Nov 2007
Spain	2006. A first work programme was launched and Spain are now on their second work plan, launched in July 2009.

Note however that lots of other countries are taking action and making plans. For example, Romania have issued guidance on measures for adaptation, even though they don't have a strategy

Action outside the EU

USA

- interagency climate change adaptation task force published a progress report on adaptation.
- recommendations will be presented to President Obama in October 2010.

Australia

- adaptation is one of the three pillars of the climate change strategy.
- have completed a first pass national risk assessment: “Climate Risks to Australia’s Coast”
- an ‘up to \$126 million’ Climate Change Adaptation Program

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What are the future challenges?

