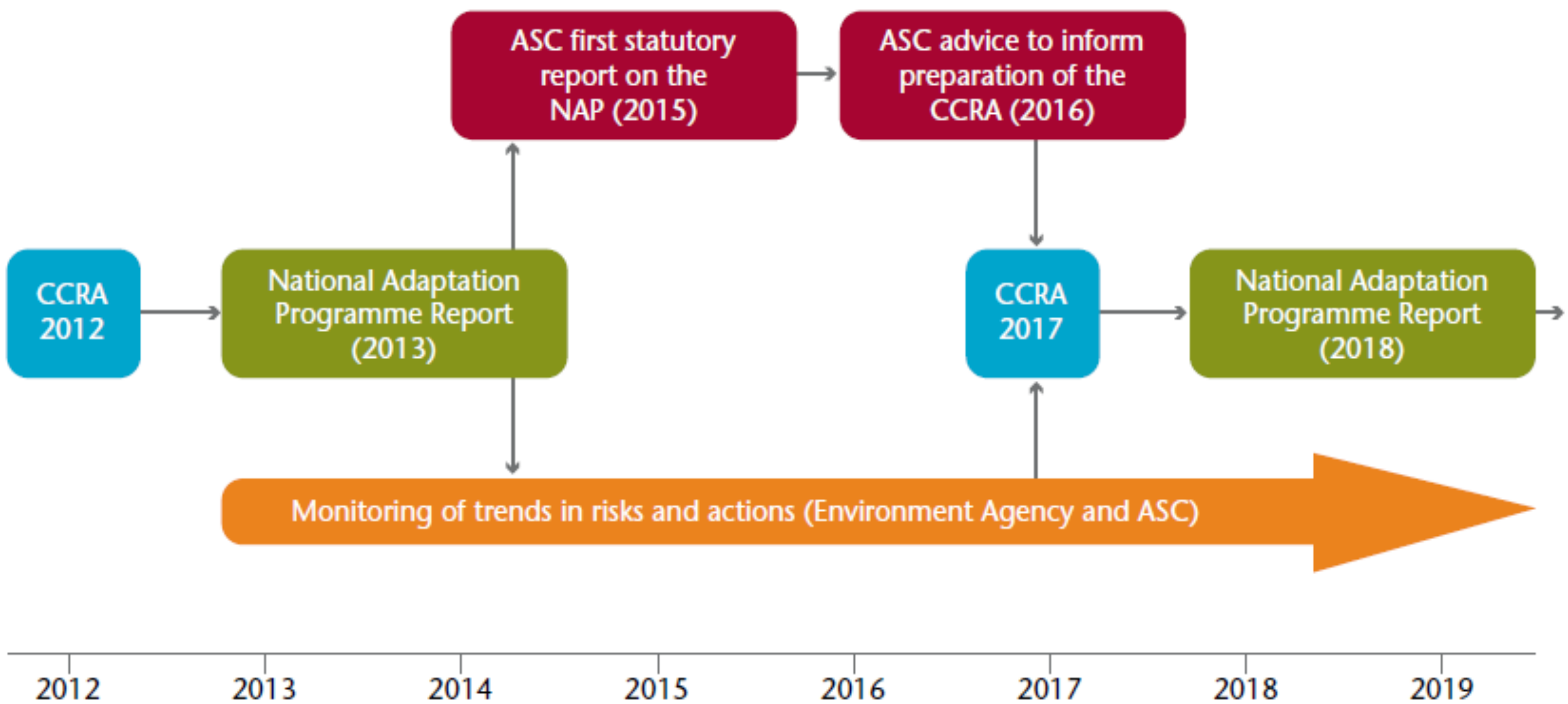
Requirements for sea level information

The Adaptation Sub-committee

Climate Change Act established 5 year cycle of risk assessments followed by policy response



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The Adaptation Sub-Committee

Statutory roles:

- **To provide advice** on the UK climate change risk assessment.
- **To evaluate progress** through the National Adaptation Programme (England only).

The role of the Adaptation Sub-Committee:
Are we making sufficient progress in preparing for climate change?

Committee on Climate Change

What's at risk?
- UK Climate Change Risk Assessment

What action is being taken?
- UK National Adaptation Programme

What impacts are we seeing?

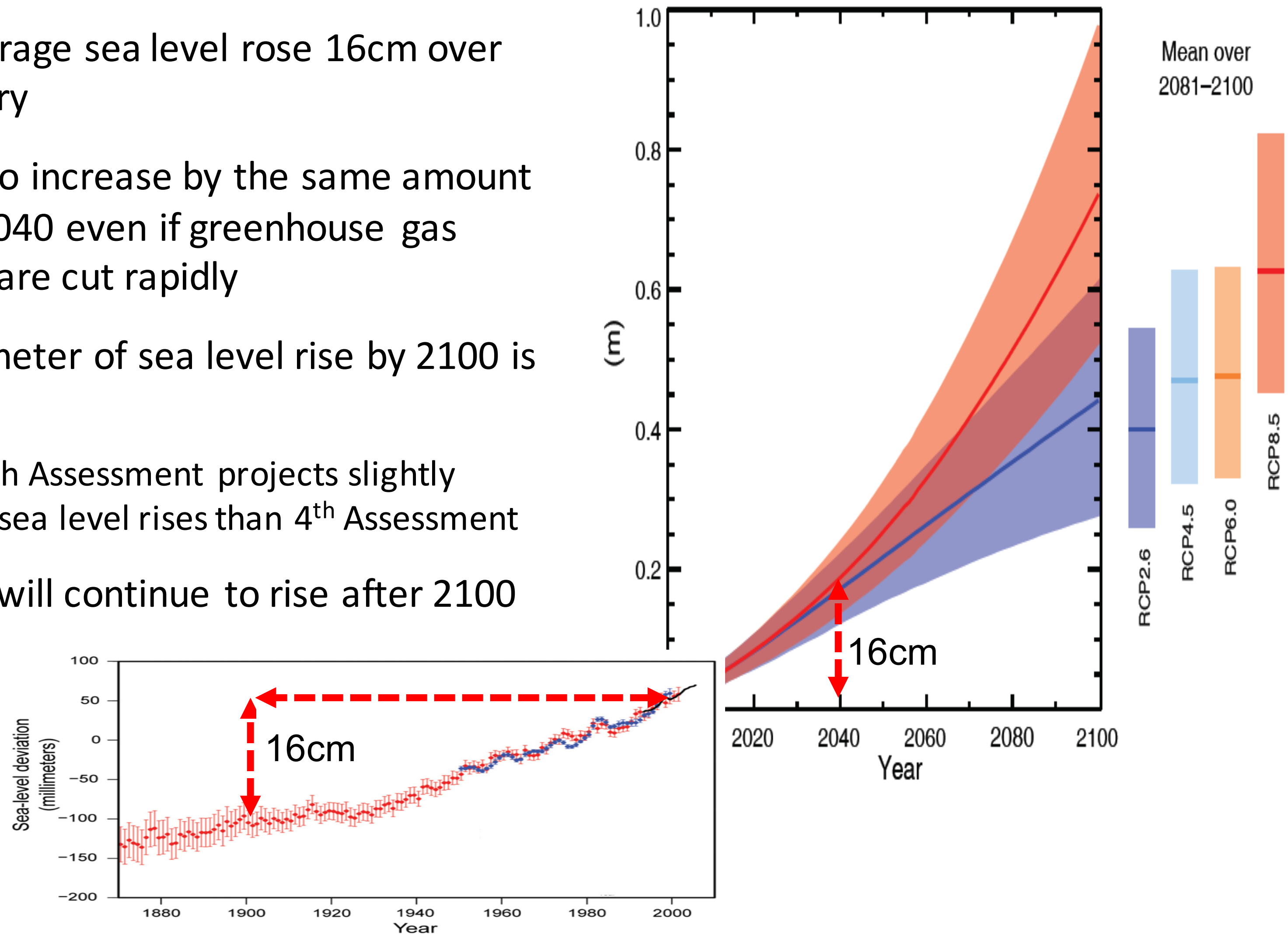
- Changes in vulnerability and exposure
- Climate drivers
- Demographic change
- Impact of growth and development

- Direction of travel under existing policy and practice
- Barriers and incentives
- Scope for additional policy 'win-wins', low regret actions
- Need for more strategic, long-term adaptation and reform

- Are there trends in impacts?
- Can we attribute to historic warming, greenhouse gas emissions?

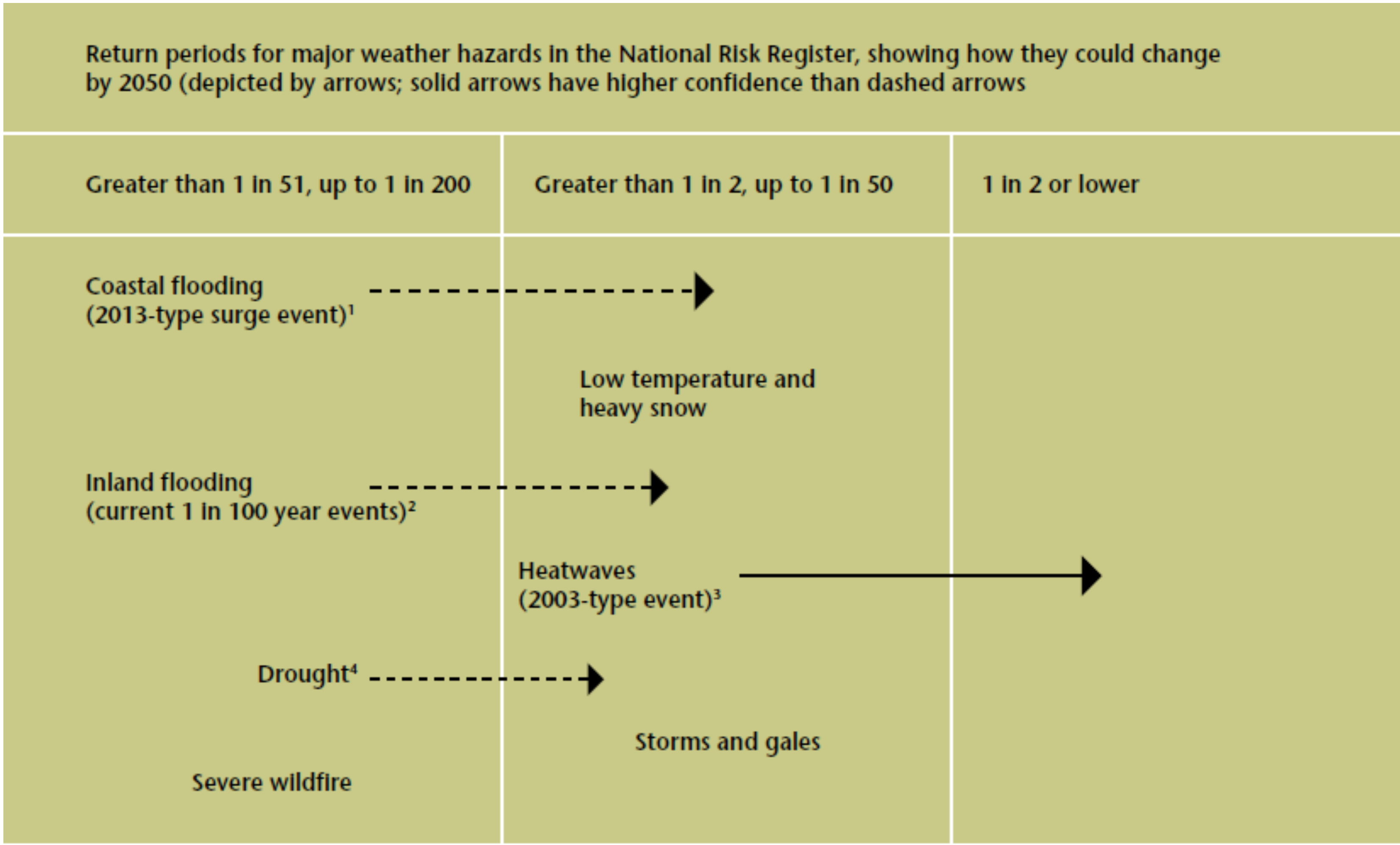
We have information on global and UK sea level, but how does this translate to regions around the UK?

- Global average sea level rose 16cm over 20th Century
- Expected to increase by the same amount again by 2040 even if greenhouse gas emissions are cut rapidly
- Overall a meter of sea level rise by 2100 is plausible
  - IPCC 5th Assessment projects slightly higher sea level rises than 4th Assessment
- Sea levels will continue to rise after 2100



Source: NOAA/NCDC, IPCC 5th Assessment

Scrutiny role – we need indicators of current trends and possible future trends. Available data is patchy.



CCRA – assessing current and future climate risks for UK Government

Committee on Climate Change

1.Assess current vulnerability to climate, adaptation	• Current climate • Current socio-economic change • Interactions between risks • Scale of current adaptation, capacity
2.Assess future risks and adaptation	• Future climate • Future socio-economic change • Interactions between risks • Effects of adaptation
3.Summarise priorities for 2018-2022	• Summarise the most urgent priorities • …including evidence gaps, priorities for action, or changes to policy/ governance structures

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Types of sea level information we think we need

- Regional trends in mean sea level around the UK.
- Regional trends in peak tides (e.g. highest tide level per annum).
- Number of times tide level thresholds are exceeded.
- Number of times coastal defences are breached per annum, and location.
- Comparison of current trends in sea level with future projections ; which pathway are we currently following?