SESSION IV: Pop-Up Talks

1) **Adam Whitmore**, Adam Whitmore Consulting
2) **Bessma Maroud**, Skoll Global Threats Fund
3) **Steve Moncaster**, Anglian Water
4) **Mike Steel**, Environment Agency

Specialist: **David Groves**

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Decisions are always subject to constraints of circumstance. Analytical techniques need to work in these contexts if they are to have impact.

- Cognitive biases among decision makers
  - e.g. confirmation bias
- Discontinuities and internal barriers
  - imperfect information assessment and transmission
  - cognitive load
  - target thresholds (e.g. for debt ratios) which may imperfectly reflect actual risks
- Internal dynamics
  - different interests
  - preference for familiar, well-understood, standardised approaches
- Political influences in the energy and resources sector
  - often major source of risks and uncertainties
  - especially given very long lead times

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Decision making under risk and uncertainty

Bessma Mourad, February 2016
bmourad@skollglobalthreats.org

skoll global threats fund

SGTF Problem Statement

How and when do local water and climate shocks (floods, droughts heat waves) have regional or global impact?

And how can we be better prepared, as a society, to minimize and respond to these challenges?

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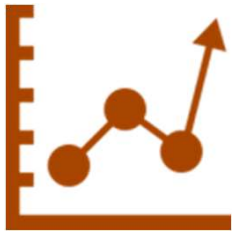
Risks & uncertainties

- Climate variability and uncertainty increasing.
- More interconnections and interdependencies.
- Poorest are most vulnerable to risk from these shocks.

- How people respond to these shocks? What decisions are made?
- Which events – or which combination of events – may trigger such cascading impact?

Our Approach



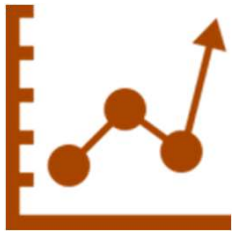
Data and information

- Improving data and information on water/climate
- Using new sources of data, and new analyses to understand cascading impacts

Security gaming and scenario planning

- Facilitated role play
- Understanding human behaviour
- Seeing networked risks

Results, feedback, & learnings



Data and information

- Demand for improved data/info on water
- Early indications that machine learning could be applied to pick up on patterns or signals

Security gaming and scenario planning

- Positive way to engage with participants
- Limited in number of people involved, and difficult to see direct link/use by policy.

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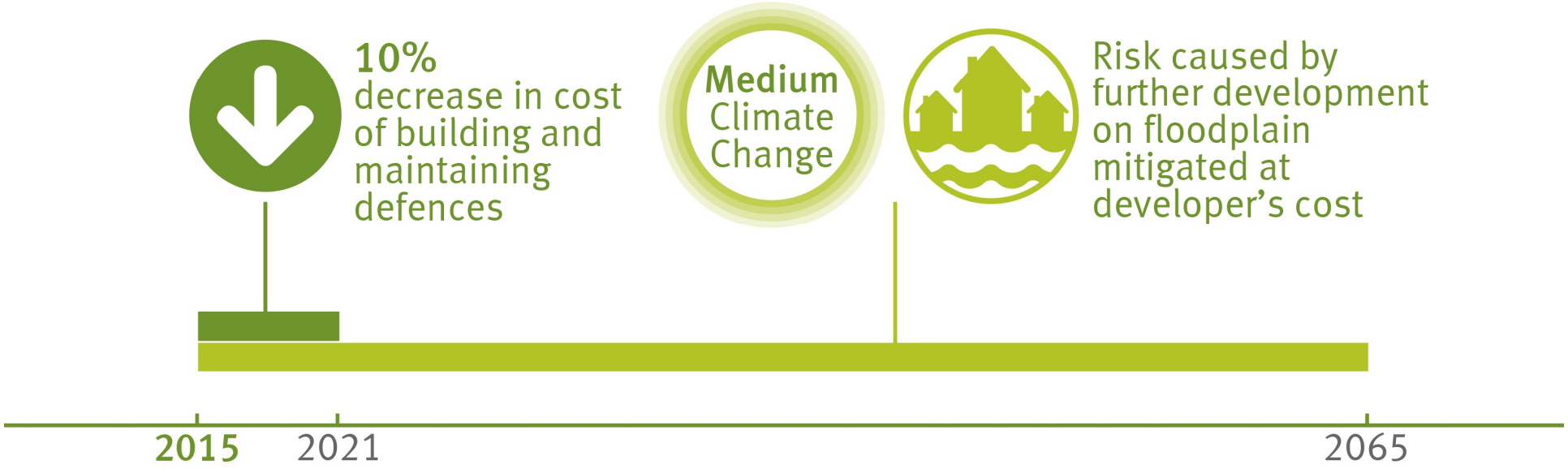
Long-term investment scenarios for flood and coastal risk management

Mike Steel
Environment Agency – FCRM Strategy & Investment
11 February 2016

Environment Agency

The baseline

The baseline includes different economic, development and climate change factors



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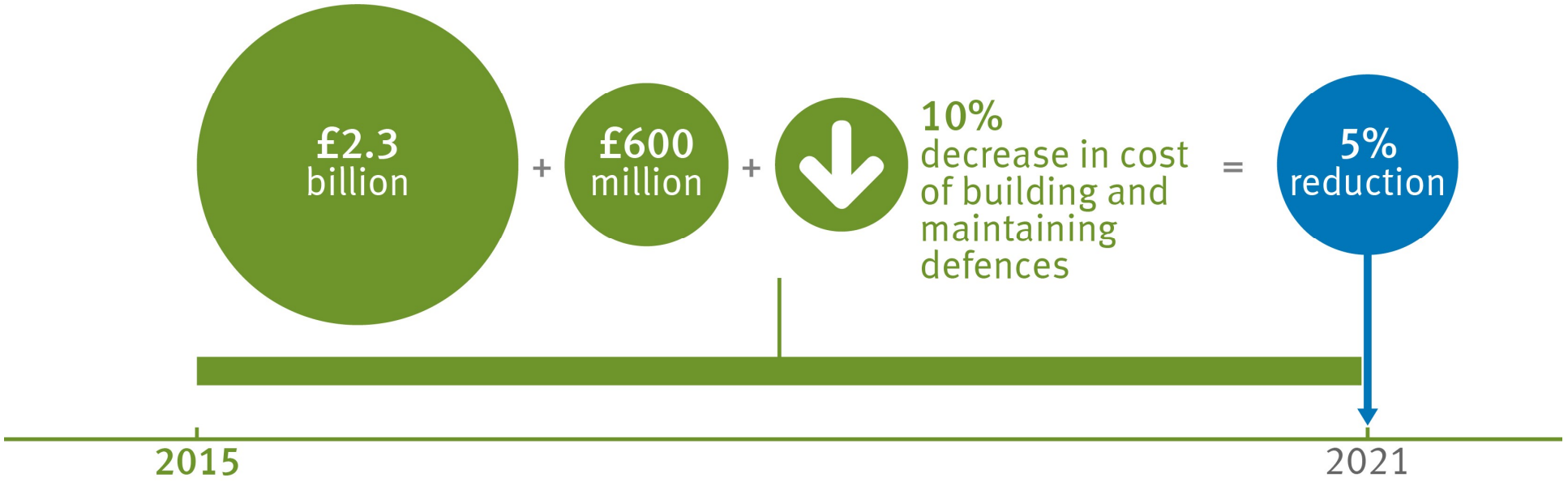
Planned investment

Investment and a decrease in the cost of building and maintaining defences will reduce the overall flood and coastal erosion risk



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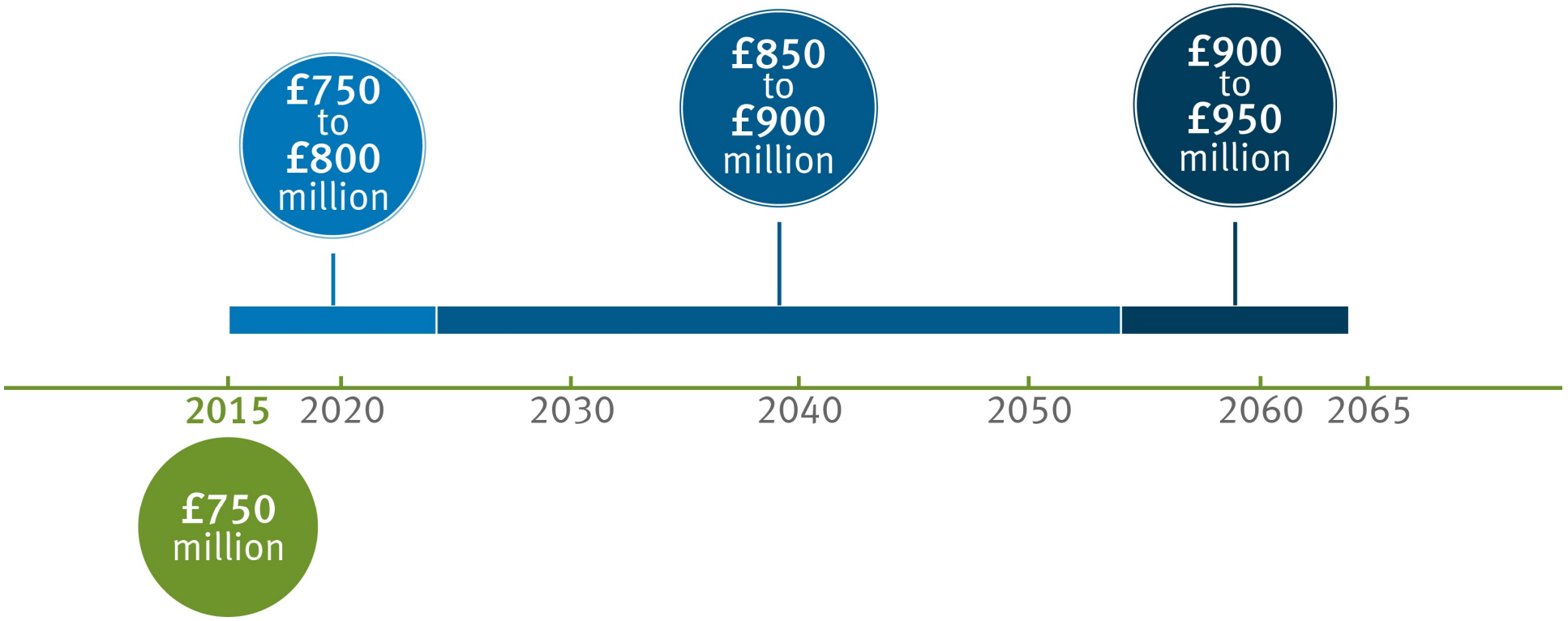
Future investment level

Investment need will increase over time



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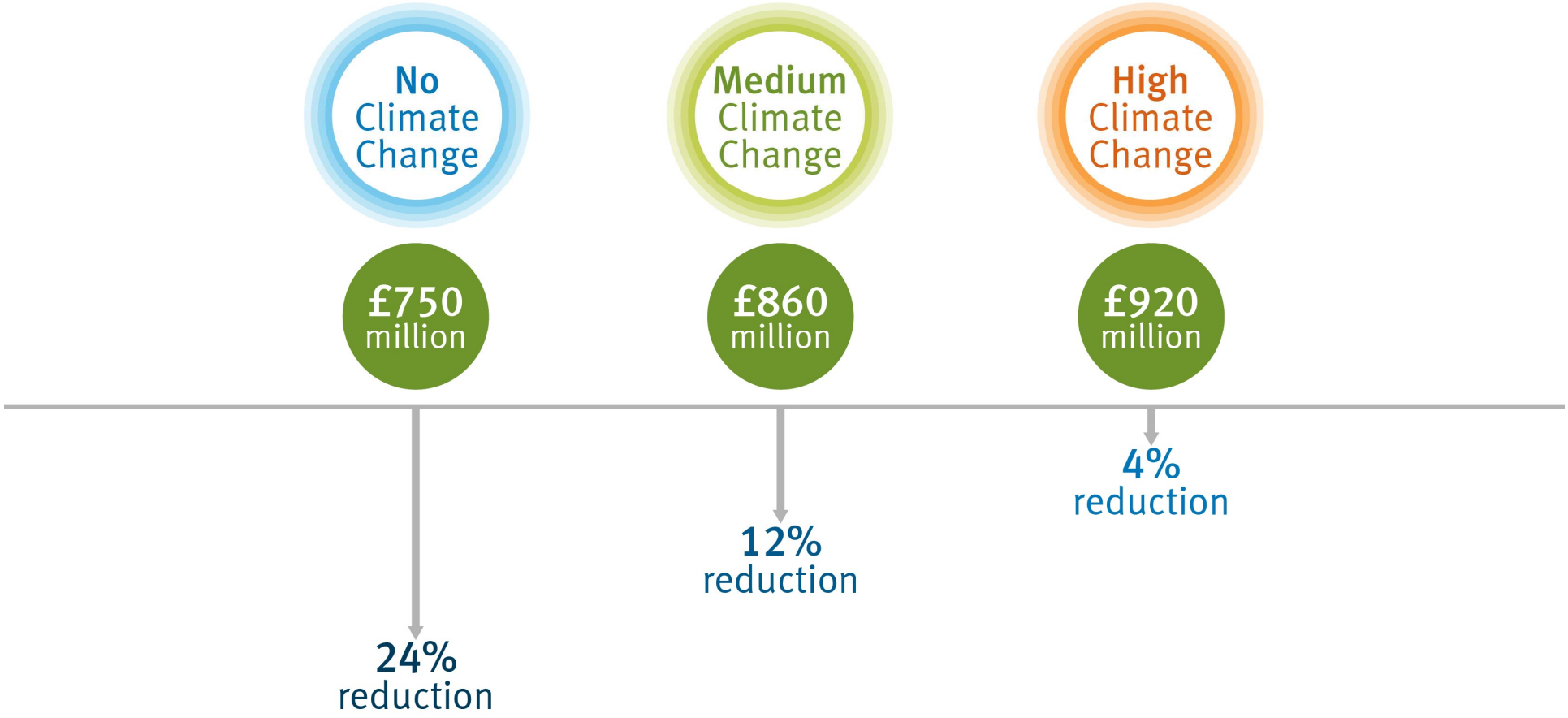
Climate change costs

Changes in climate change will affect investment and the overall flood and coastal erosion risk in 2065



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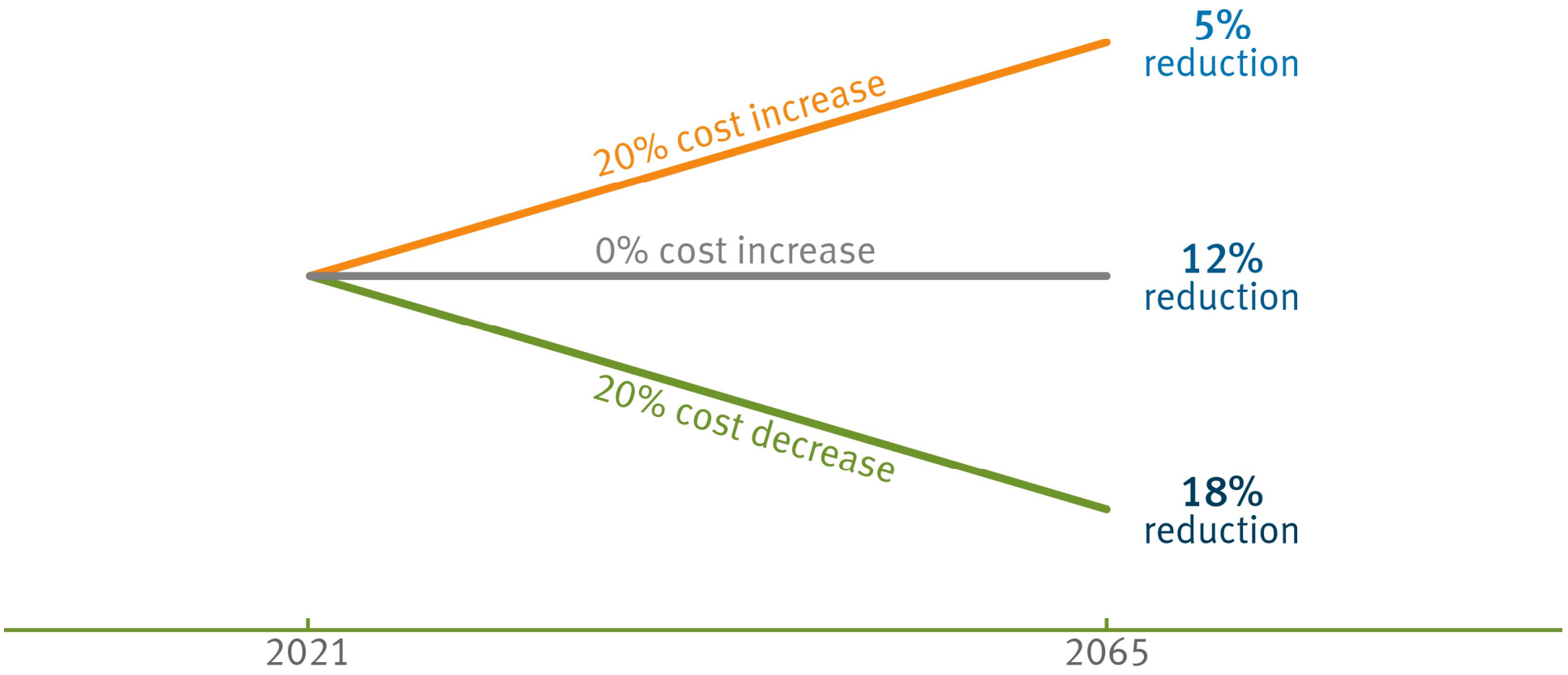
Changing future costs

Changes in the cost of building and maintaining defences will impact on the overall flood and coastal erosion risk



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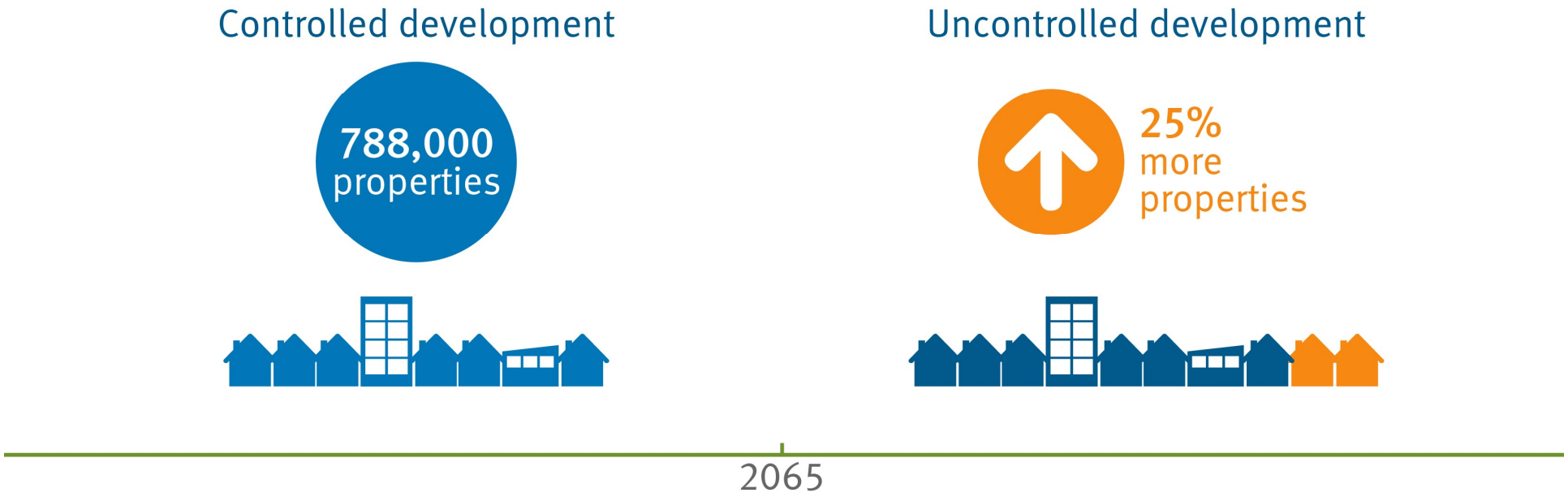
Flood plain development

Uncontrolled development on the flood plain will increase the number of properties at risk in the future



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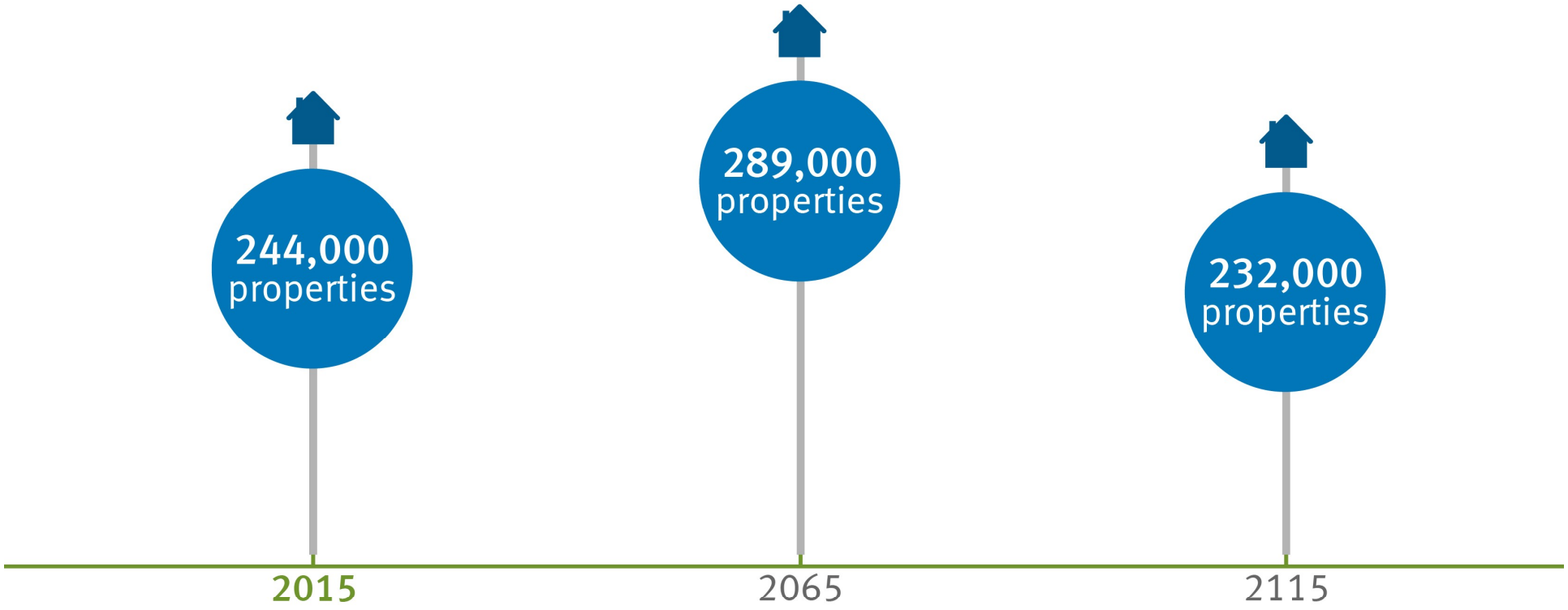
Residual risk

Properties remaining at high risk after 50 and 100 years



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SESSION IV: Q & A

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