

# COLLABORATIONS FOR CHANGE

Global Goals for Tomorrow's Education, Today

19TH ~ 21ST JUNE 2018 KEELE UNIVERSITY



## Getting Climate Change Adaptation on your Institution's Agenda

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**CarbonCredentials**

# Climate Change Adaptation

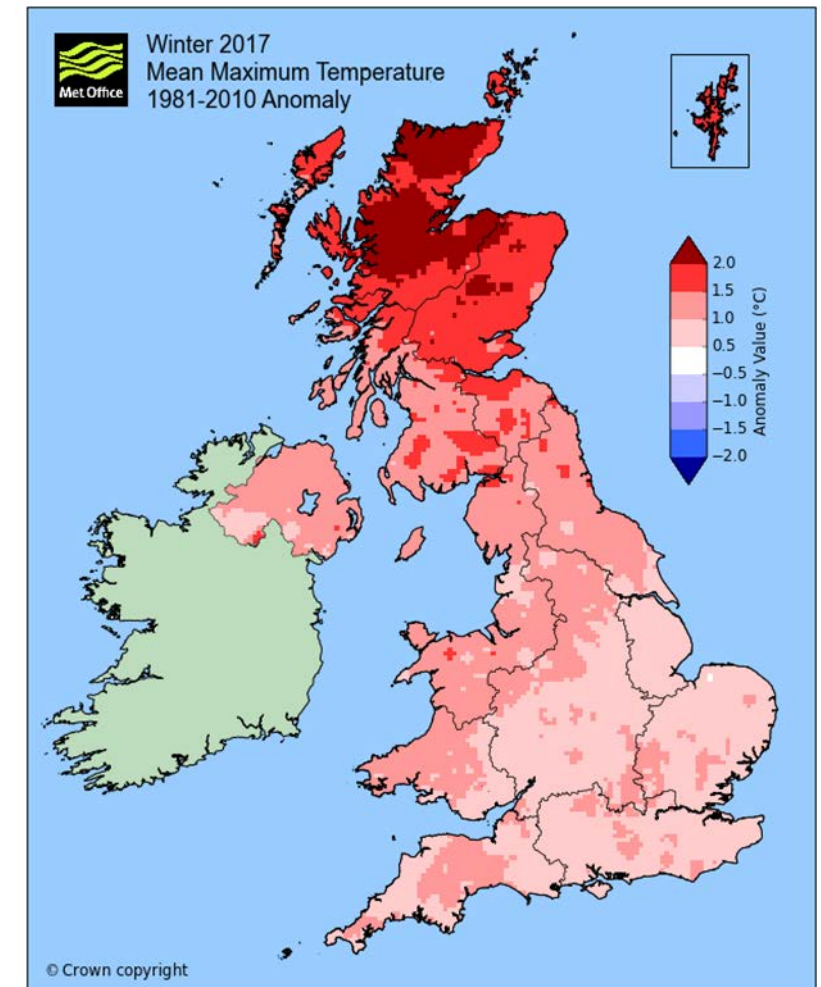
- |            |   |
|------------|---|
| Mitigation | Reducing greenhouse gas emissions in order to slow or stop global climate change ( <i>i.e. using the car less, flying less, buying local food</i> )   |
| Adaptation | Adjusting to the impacts of climate change to reduce the negative impacts and exploit any opportunities ( <i>i.e. building sea walls, removing carpets from buildings at risk of flooding</i> ) |



# Adapting to Present Climate Change

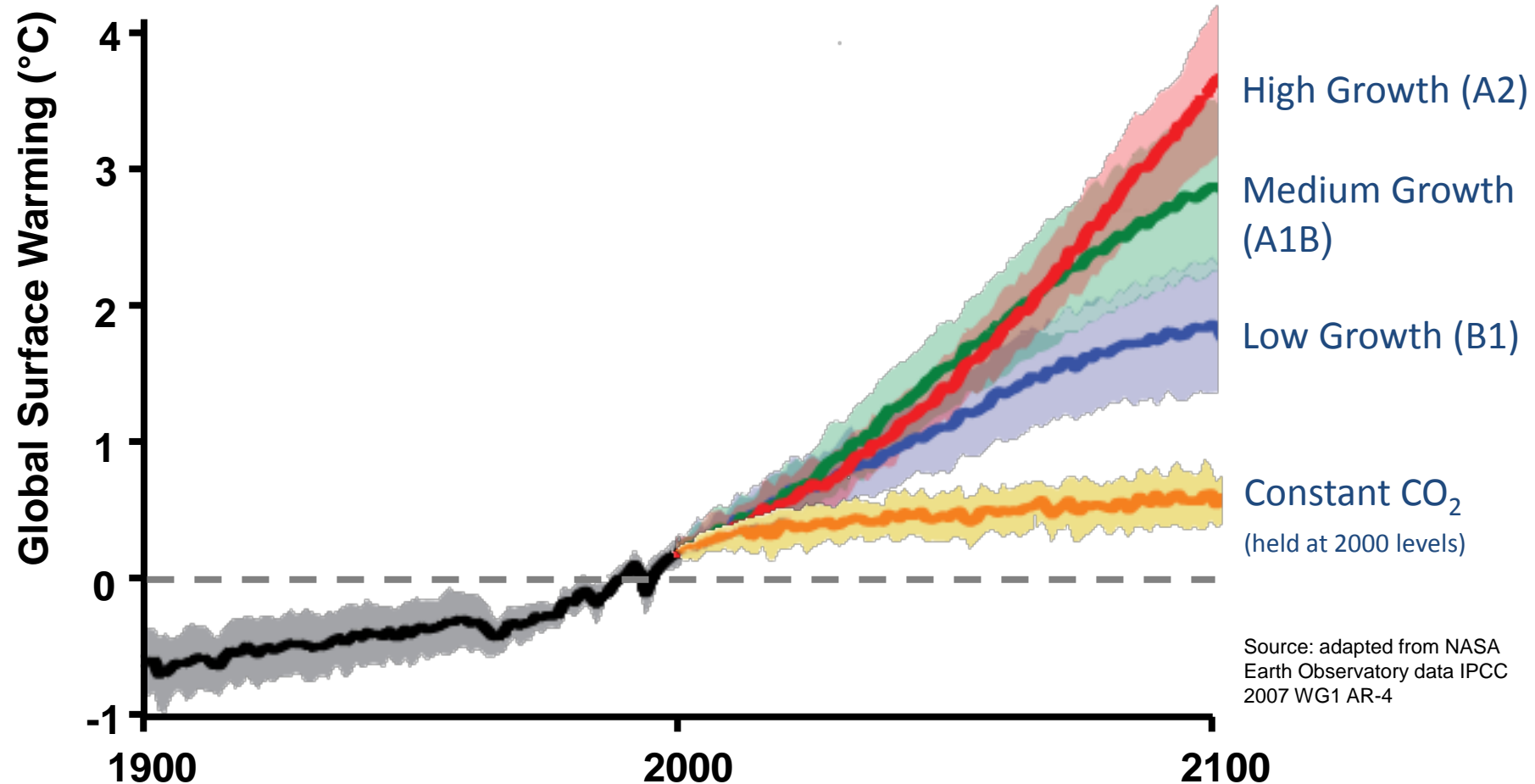
In the UK:

- Average sea level rising by 3 mm per year
- Earlier onset of spring and summer is affecting plants and animals
- Winter rainfall is arriving in more intense bursts
- Reduction in the number of frost and snow cover days
- Average temperatures 0.5°C-1°C higher than 1970s in England



# Adapting to Future Climate Change

**Adaptation  
Scotland**  
supporting climate change resilience



# Expected Impacts in UK

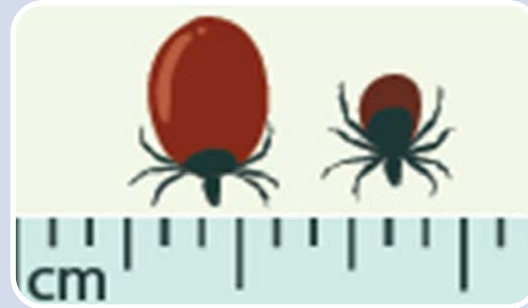
- Weather will remain variable, it may become more variable
- Typical summer is hotter and drier
- Typical winter / autumn is milder and wetter
- Sea level rise
- Increase in summer heat waves, extreme temperatures and drought
- Increased frequency and intensity of extreme precipitation events
- Reduced occurrence of frost and snowfall



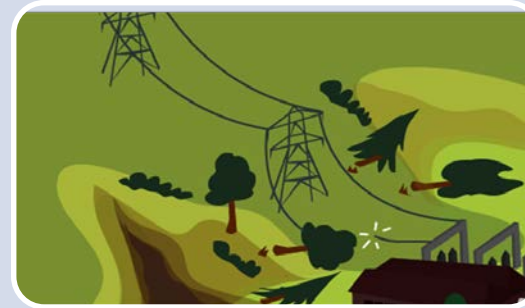
# Expected Impacts on UK Systems



Challenge  
Building  
Performance



Increase  
threat of  
pests and  
diseases



Damage and  
disrupt  
infrastructure  
and transport



Challenge  
water and  
resource  
management

# Expected Impacts on UK Systems



Threaten  
coastal  
communities  
and  
infrastructure



Change the  
demands on  
emergency  
and rescue  
services



Change the  
demands on  
the health  
service

# Climate Change Adaptation Project

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# Climate Change Adaptation Project Aim

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*“Further and Higher Education organisations will be equipped to make timely, well-informed decisions around the consequences of climate change, putting in place appropriate plans to mitigate risks and realise opportunities”*



# Workshop – Past Severe Weather Impacts

How has severe weather (e.g. floods, storms, cold snaps, heatwaves) impacted your institution in the past?

- Consider individually (1 minute)
- Each participant shares their best example (20 minutes)
  - What happened?
  - What were the business impacts? *Consider the categories on the template*
  - How could the climate projections shared exacerbate the risk in future?
- Quick report back from group
  - What were the most common impacts?
  - Was there anything surprising?

# Case Study



University of  
St Andrews | FOUNDED  
1413 |

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## Adaptation to Climate Change at University of St Andrews





## Scottish Government Public Sector Climate Change Duties Annual Report

- Has the University assessed current and future climate-related risks?
- What arrangements does the University have in place to manage climate-related risks?
- What action has the University taken to adapt to climate change?



# Case Study



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- What progress has the University made in delivering the policies in the Scottish Climate Change Adaptation Programme
- What arrangements does the University have in place to review current and future climate risks?
- What arrangements does the University have in place to monitor and evaluate the impact of the adaptation actions?
- What are the University's top 5 priorities for the year ahead in relation to climate change adaptation?

# Case Study



# UNIVERSITY OF CAMBRIDGE

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## University of Cambridge Climate Risk and Resilience Scoping Study



**Kieran Power**

**AECOM**

# Case Study



# UNIVERSITY OF CAMBRIDGE



## A complex mix of assets...

- Operational estate – 340 buildings, gross area ~640,000m<sup>2</sup>
- Significant historic assets
  - 74% built before 2000
  - 16% built before 1914)
  - 49 listed buildings
  - Heritage conservation areas
- Complex, power-dependent laboratories; specialised equipment
- University farm...

# Case Study

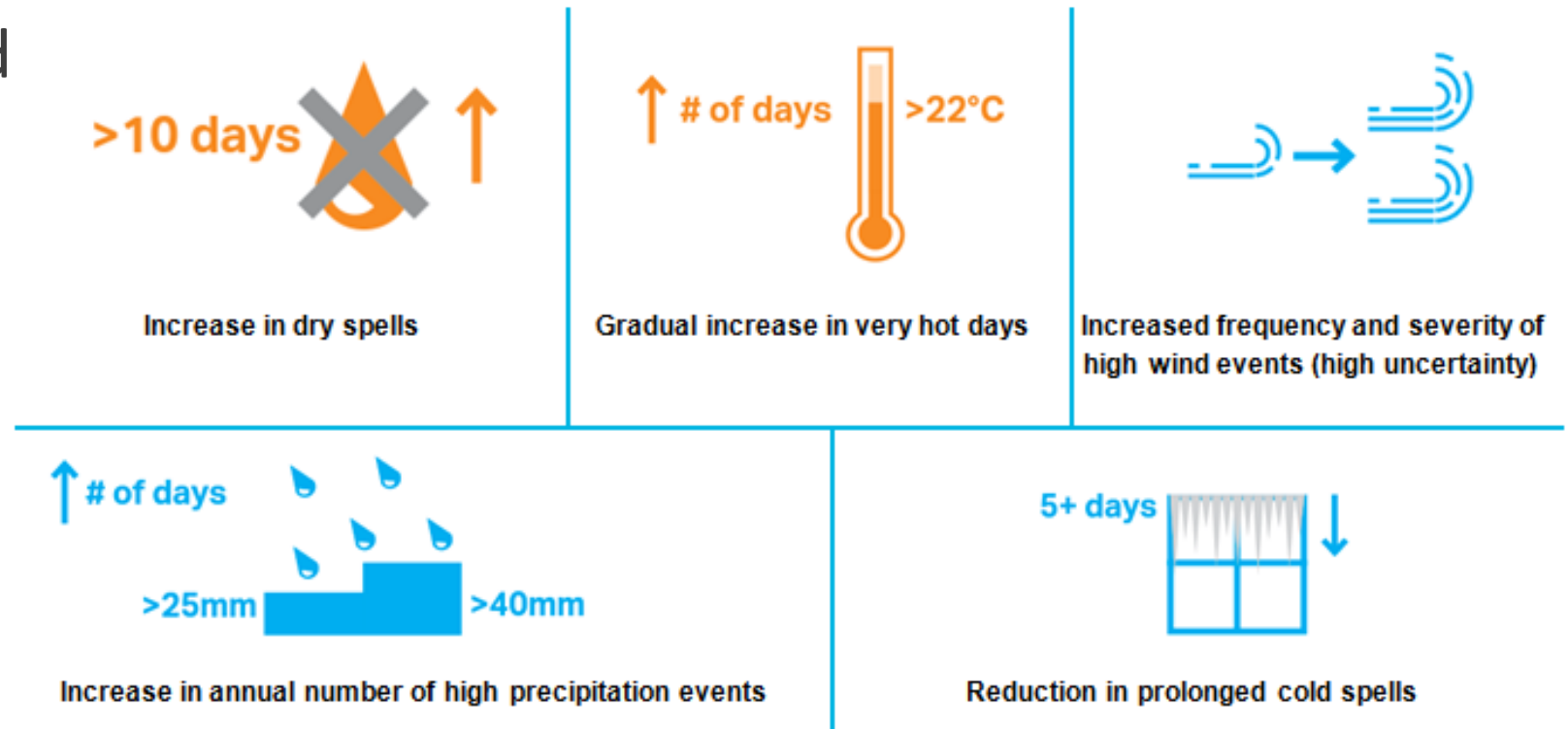


# UNIVERSITY OF CAMBRIDGE



## Drivers for the study

- Climate risk considered for NE Cambridge development but no structured approach for operational estate
- Establishing EMS
- Preparing 20-30 year spatial strategy – the time is now!





# Case Study

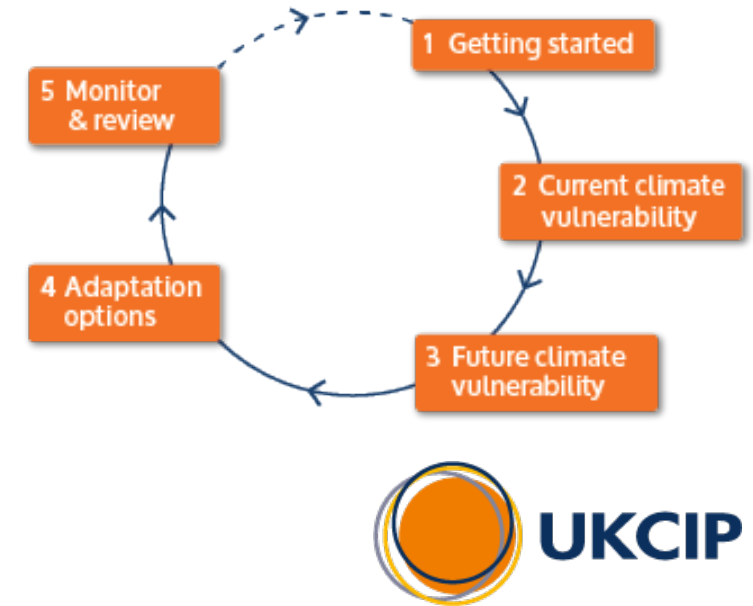


UNIVERSITY OF  
CAMBRIDGE



## Project approach and status

- Understand impacts of past severe weather events
  - Available data
  - Interviews
- Screen sites for exposure/vulnerability to climate hazards – quickly narrow down priorities



- Understand risk to 'critical functions' and how this may change (2020s, 2050s, 2080s)
- Preliminary adaptation options
- High risks/uncertainties potentially requiring more analysis

# Current Projects

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Are you taking any form of action  
at your institution around  
adapting to climate change?

# Climate Change Adaptation Project

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Project timescales:

Expected to be completed Autumn 2018

Get involved:

Email Rebecca – [rpeterford@eauc.org.uk](mailto:rpeterford@eauc.org.uk)

Look out for details of project outputs within eNews and on the EAUC website – they will be made available to all.



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# Thank you!

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## The SDG Accord

*The University and College Sector's Collective Response to the Global Goals*



*End extreme poverty, inequality and climate change*

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