

# The importance of a science:policy dialogue in an ever-changing world

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# Our ever changing world

- Past 4 years have been the hottest on record;
  - Ice mass loss in Antarctica has tripled since 2012;
  - Global land ocean temperature index has nearly doubled;
  - 5% increase in atmospheric CO<sub>2</sub> concentration;
  - Increased frequency of extreme events.
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- Rise in urbanisation and megacities;
  - New megacities in water poor environments particularly the Middle East;
  - China economy, new India;
  - ..... so many more changes

# Angry summer & the big wet

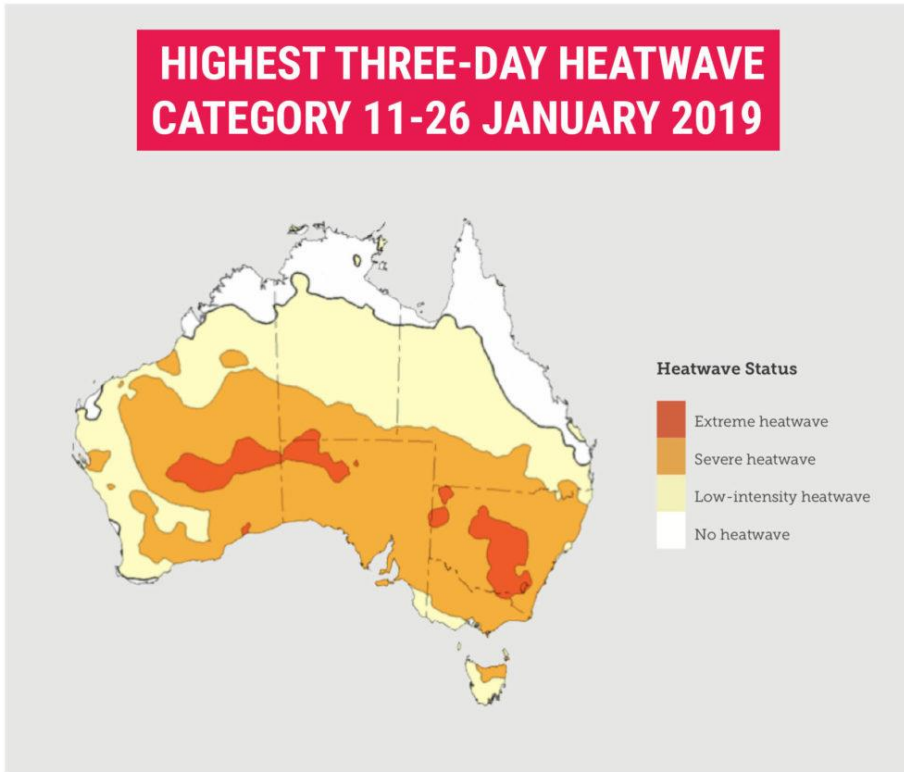
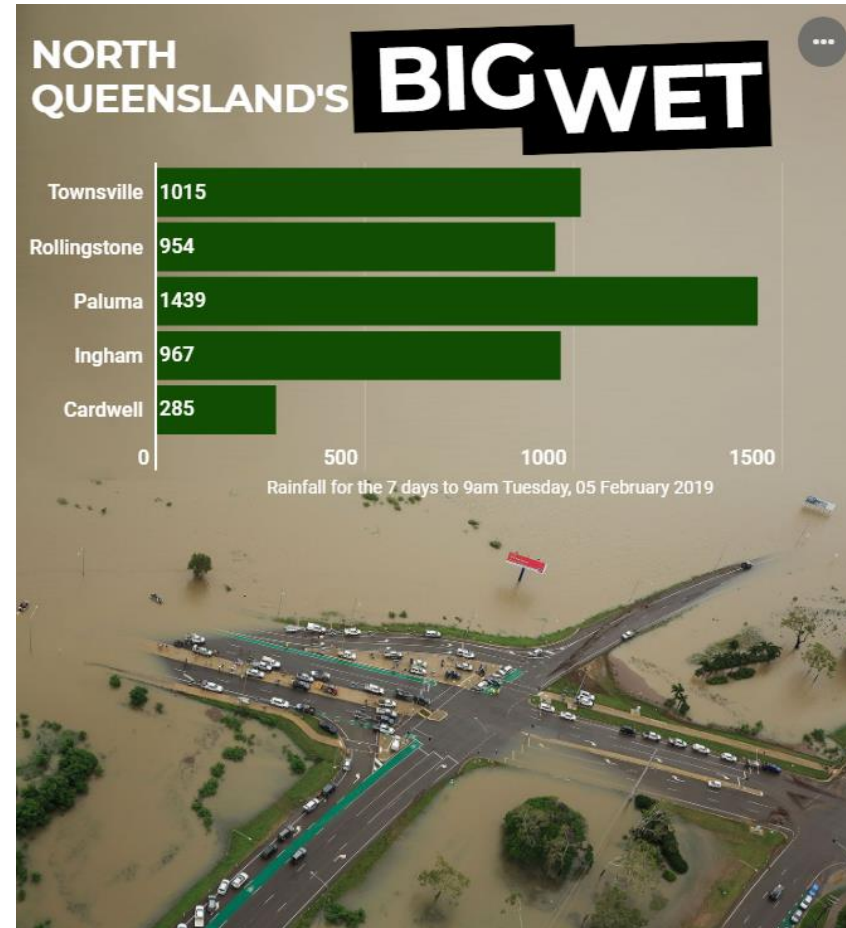


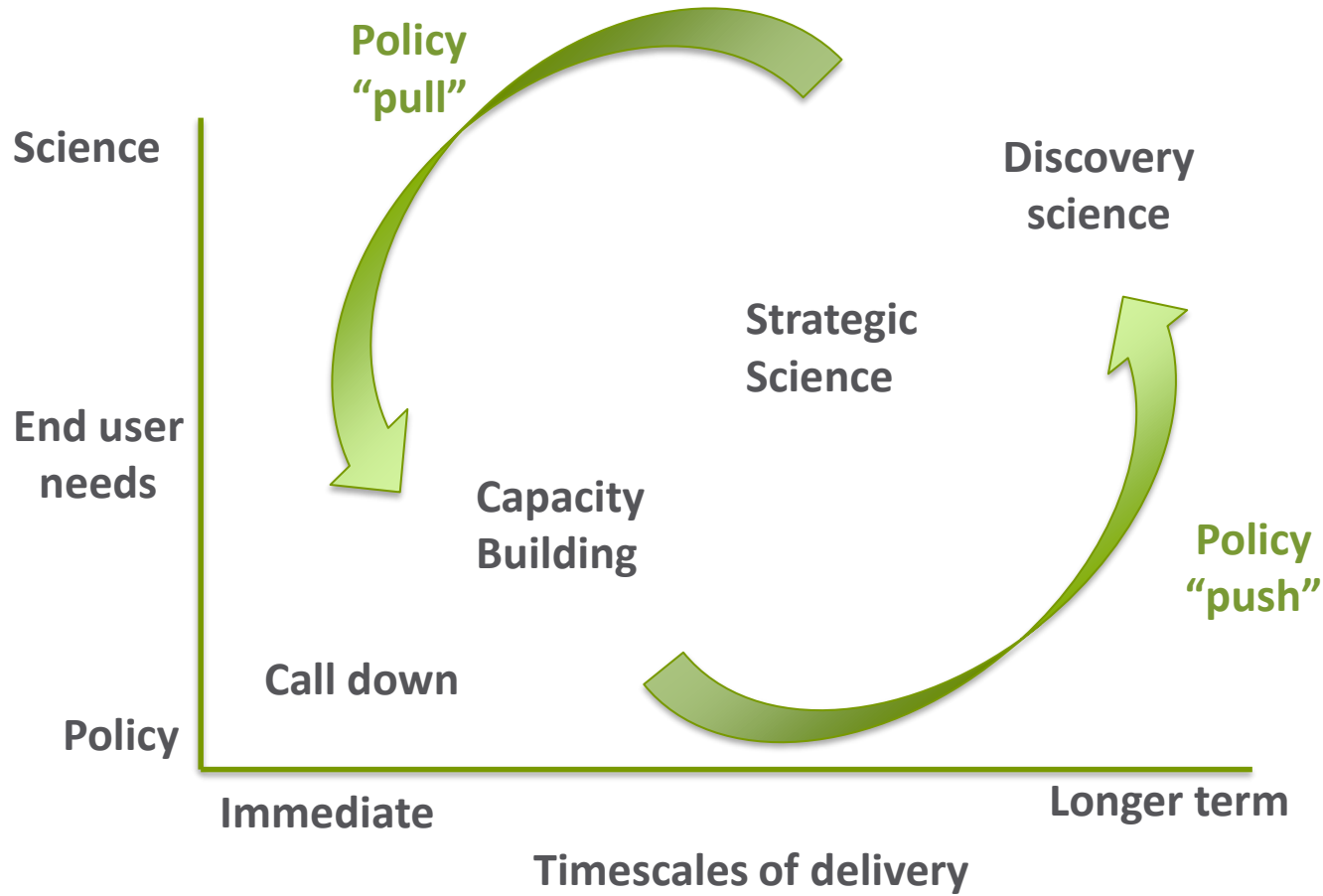
Figure 3: Highest three-day heatwave category reached in different areas between January 11 - 26. Large areas of Western Australia, South Australia, New South Wales and Victoria were affected by either severe or locally extreme heatwaves during this period (BoM 2019b).

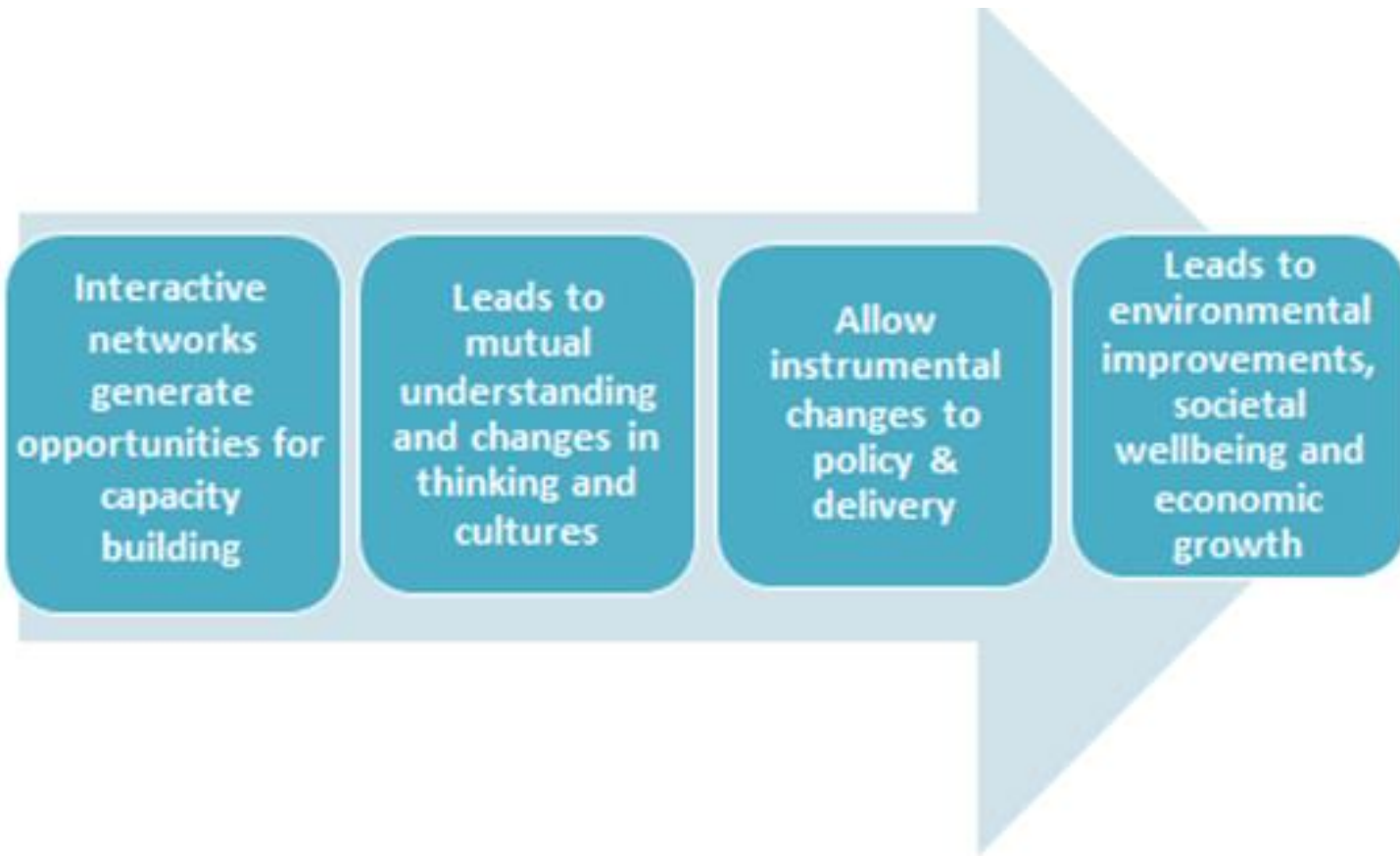


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- Technology developments such as
  - New sensors;
  - Real time assessment and decision making;
  - Quality and quantity of data (in some contexts) has improved;
  - Role of the citizen.
- Agricultural revolution now in full swing
  - Driven by changing diets, consumption patterns, population changes, disruptive technologies.
- Move towards a low carbon economy
  - Less water, less waste, green energy, new job opportunities.

# Our ever changing world





Translating knowledge into impact



# World Water Day 2019

## Resilience to Drought and Low Flow Conditions in Scotland

*“Leaving no one behind”*



Scottish  
Government  
gov.scot

Hydro Nation Scholars Programme

**Interreg**   
North-West Europe  
**Water Test Network**

European Regional Development Fund



Hydro Nation  
International  
Centre

