



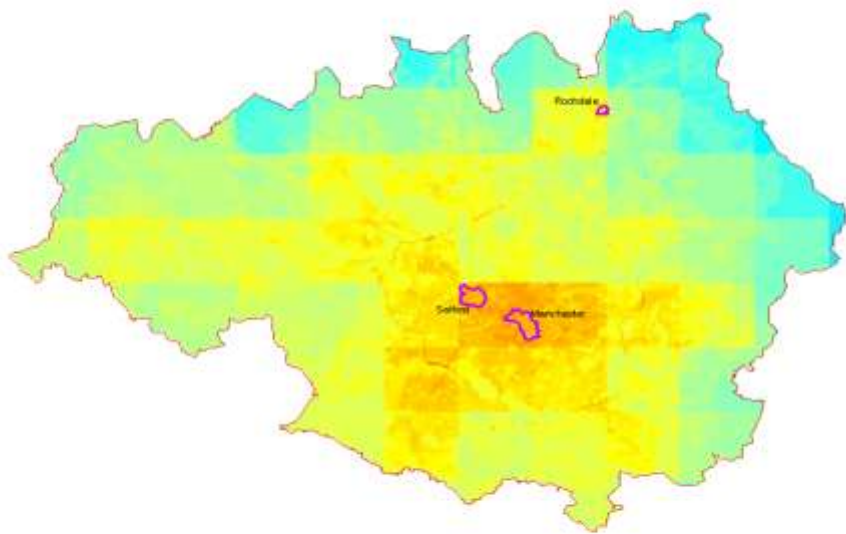
Met Office
Hadley Centre



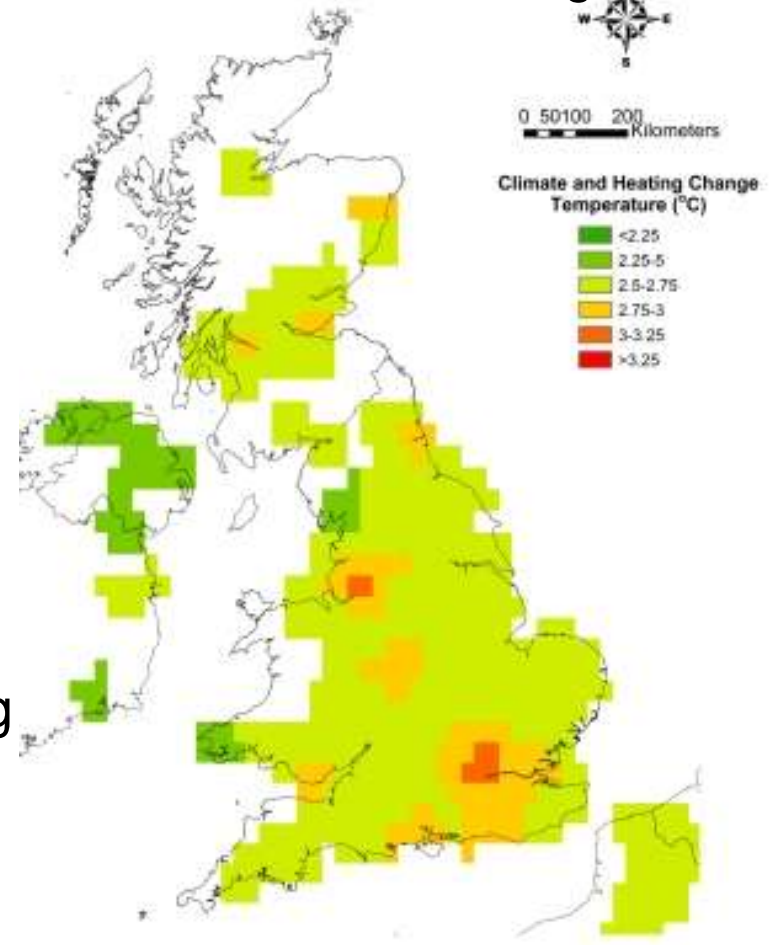
Urban Applications

Met Office, Reading, UEA, Manchester, Newcastle

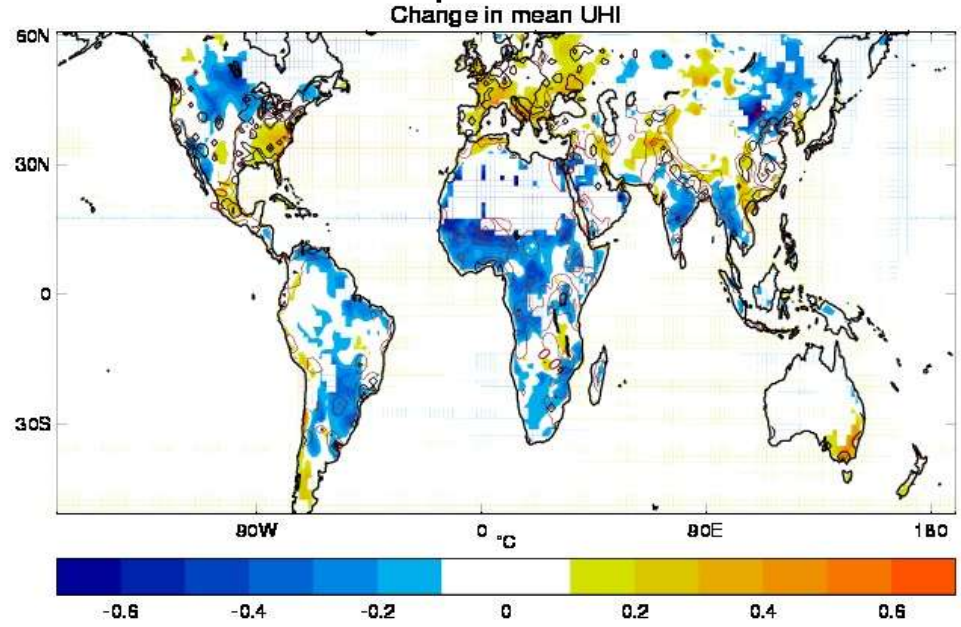
- ARCC - 2050s Climate Hazard



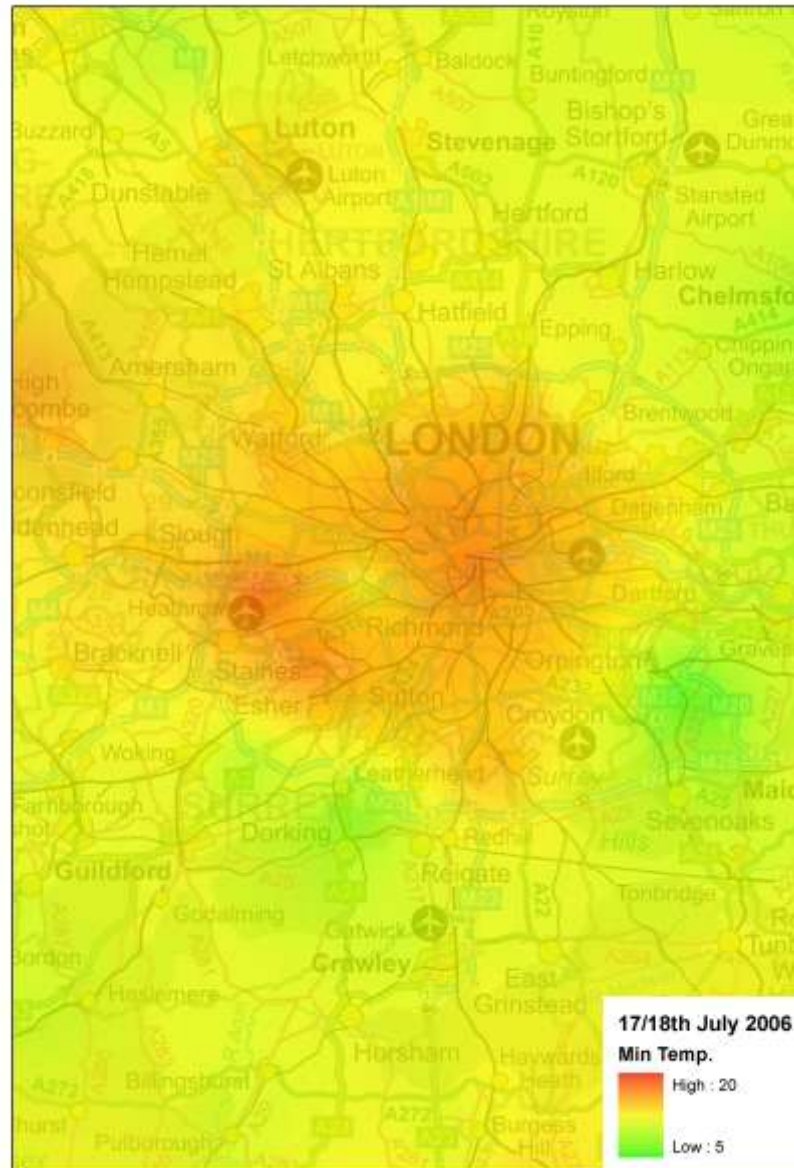
- UKCP - Urban forcings



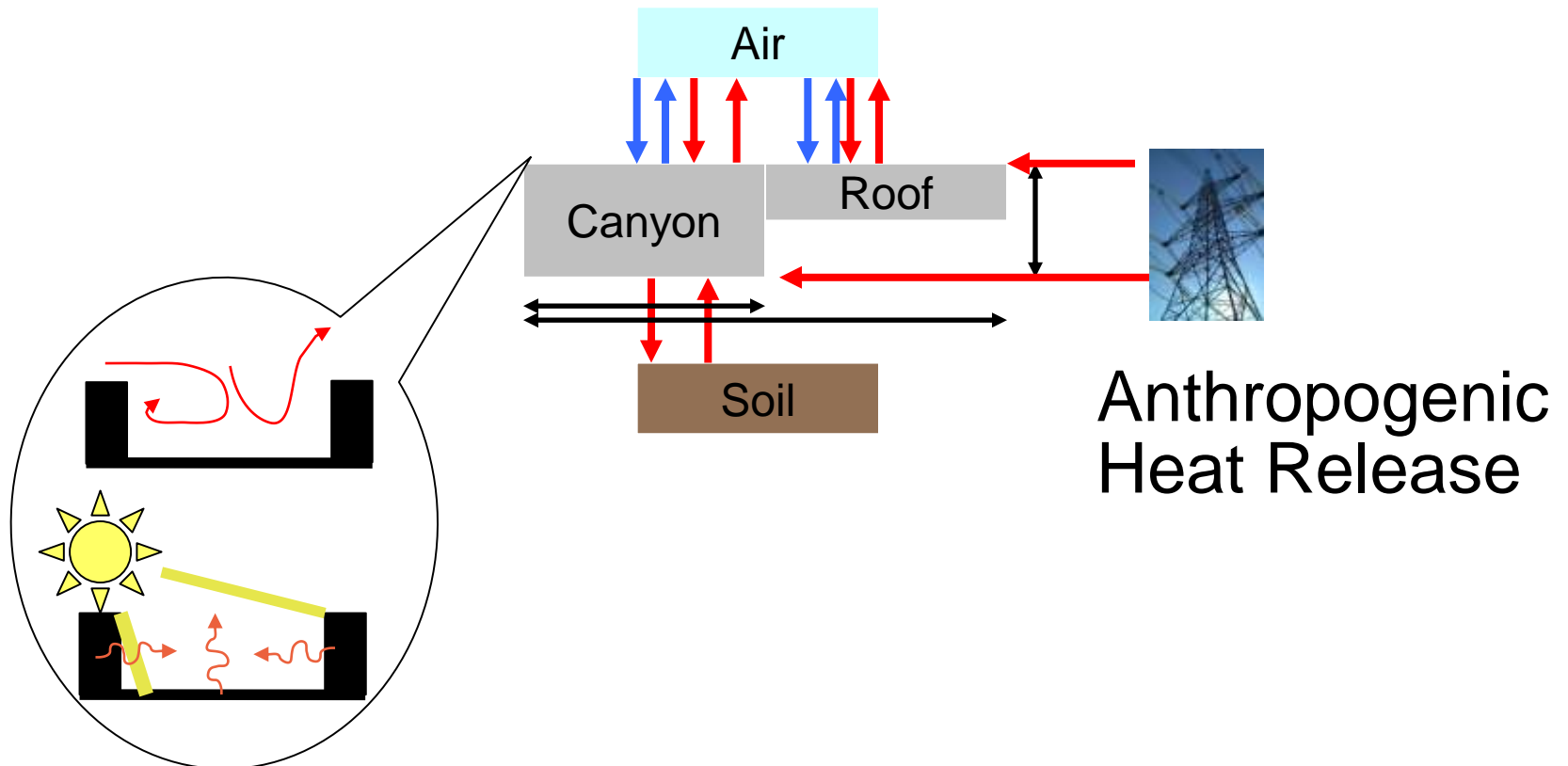
- CMIP5 - Urban response to Radiative forcing



Impacts – Urban Heat Island

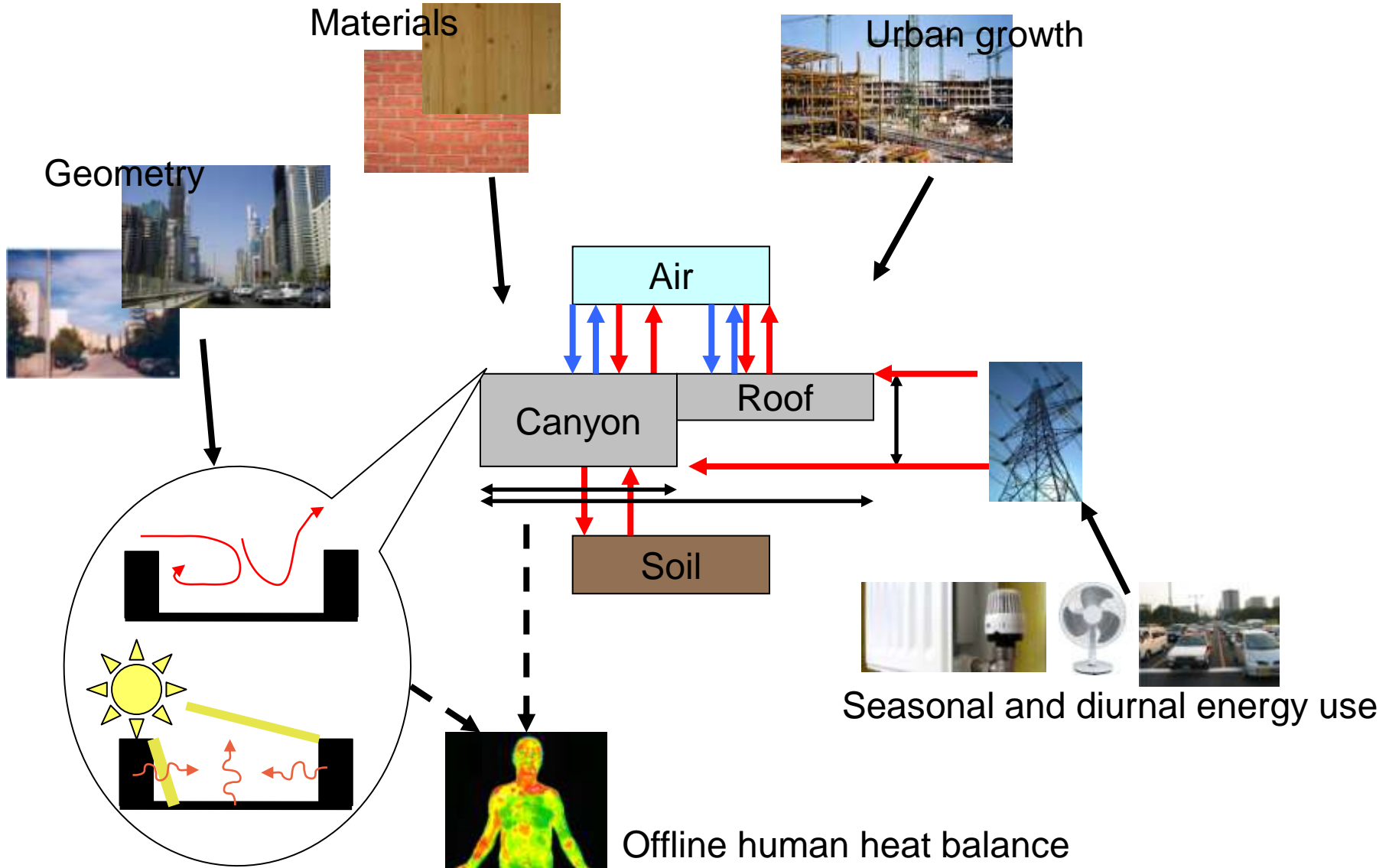


Met Office Reading Urban Surface Exchange Scheme (MORUSES)



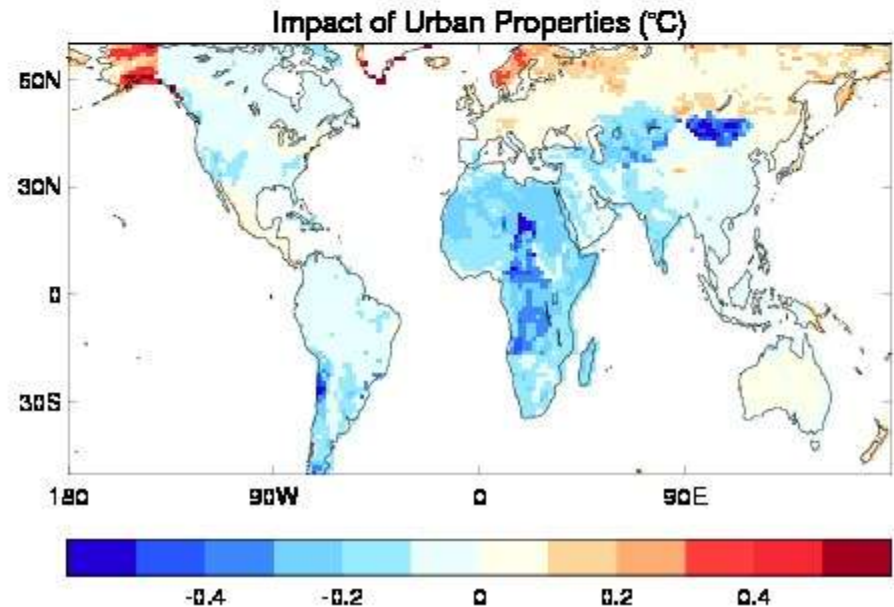
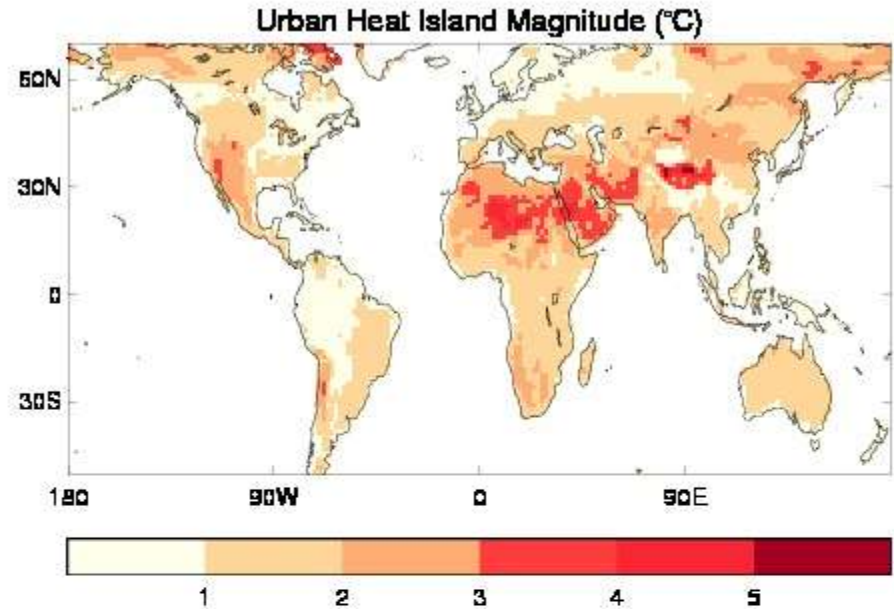
JIM – MORUSES

Global ancillaries



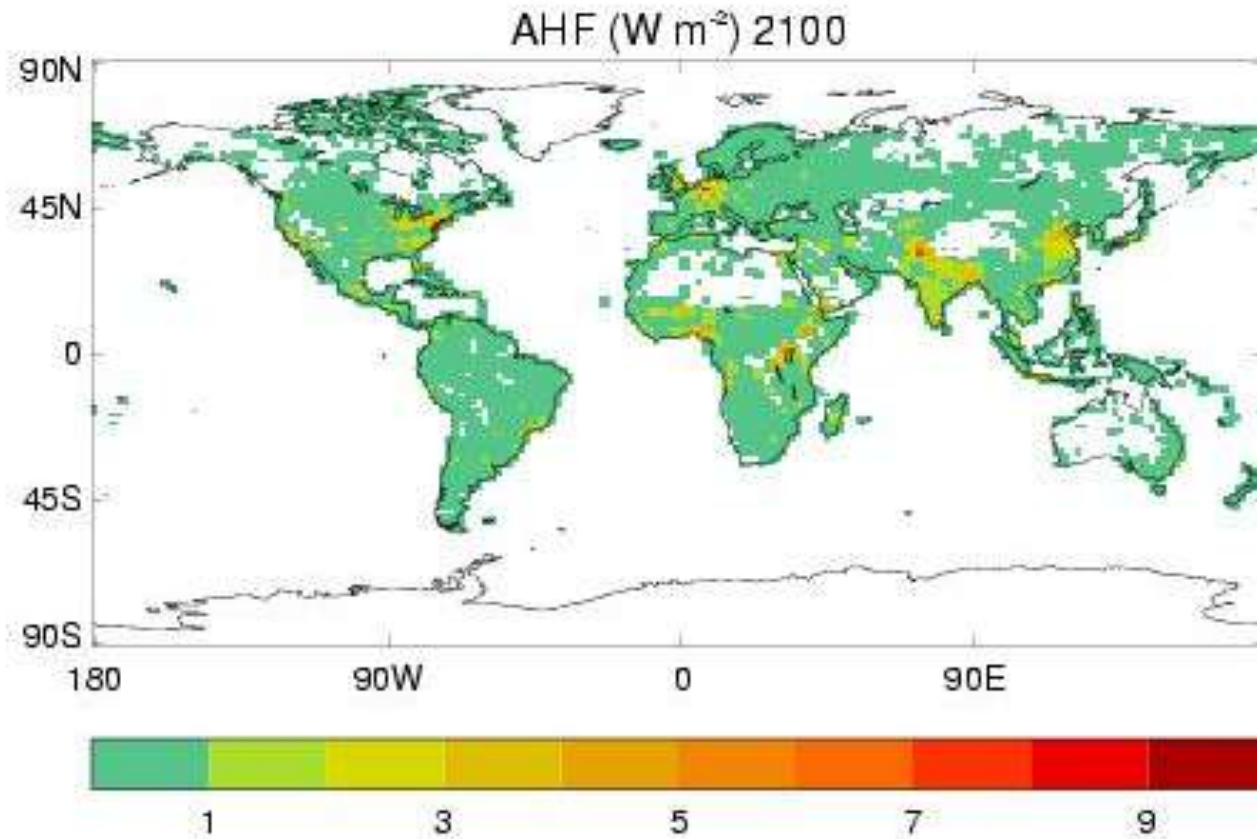
Varying Urban Properties

(Global urban properties courtesy of Trish Jackson and Johannes Feddema)



Energy Impacts

(Yr 2100, RCP8.5)
Avg Urban emission 28 W m^{-2}

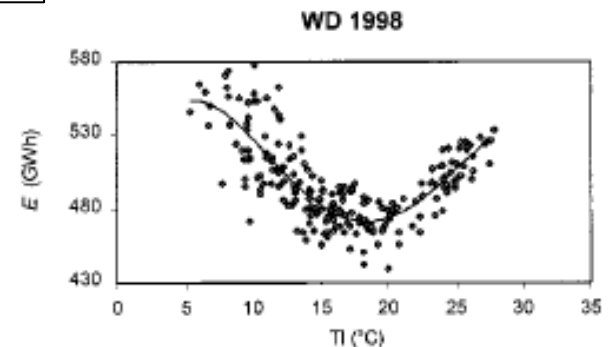
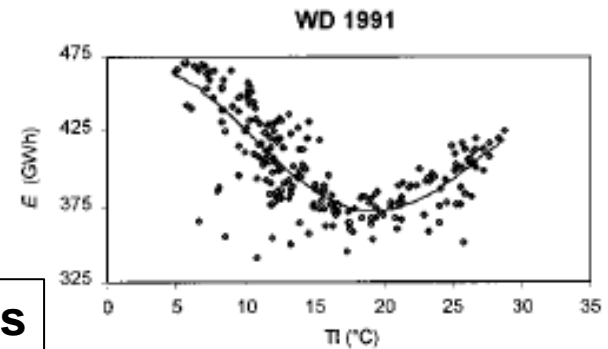
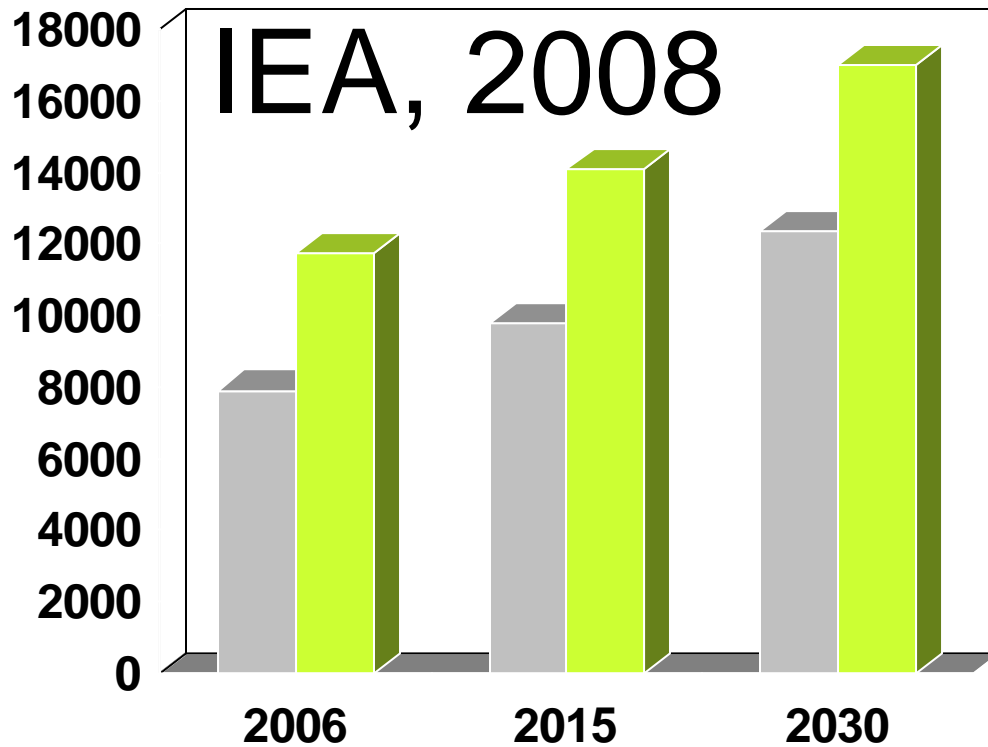
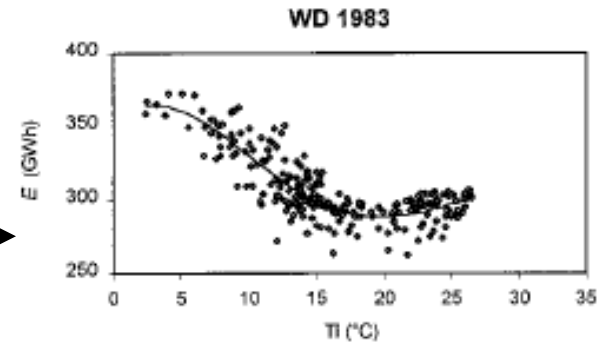




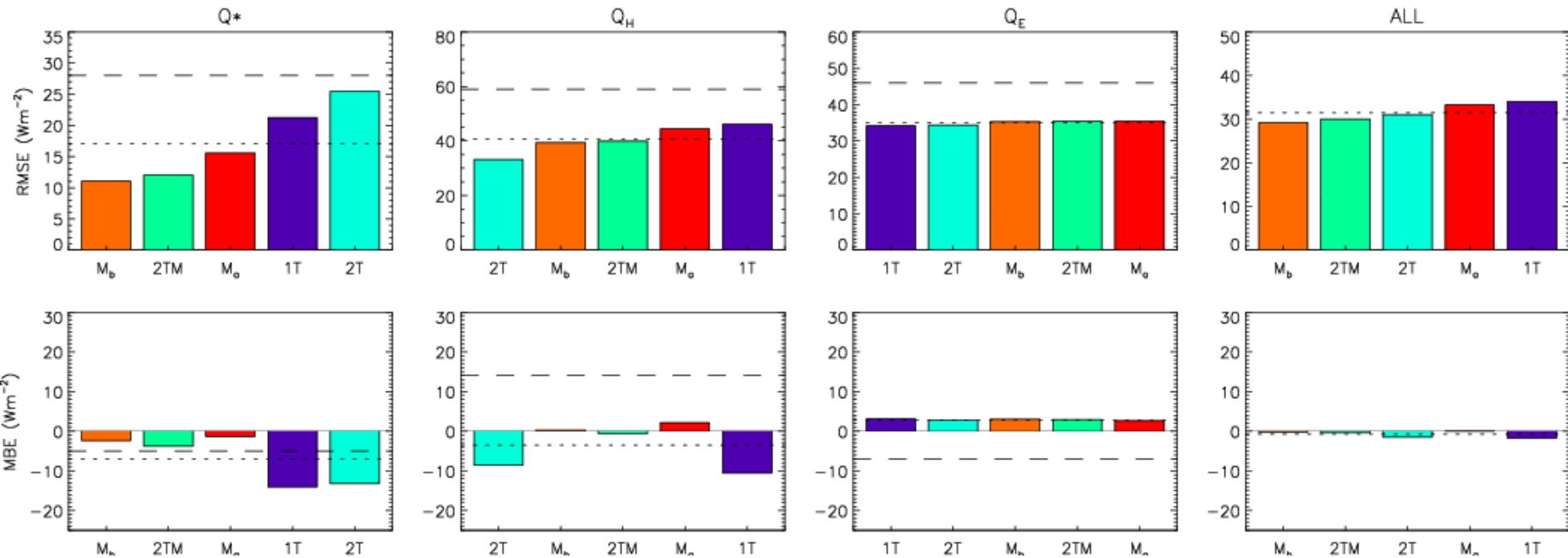
Met Office
Hadley Centre

Energy Impacts

Valor et al. 2001: Trends in Spanish Electricity demand profile 1983-1998



Urban inter-comparison (Maggie Hendry)



- 2TM & M_a difference
 - Coupling with soil
 - Roof radiatively coupled in 2TM; uncoupled in M_a

Urban Climate – not just about the city centre.

