

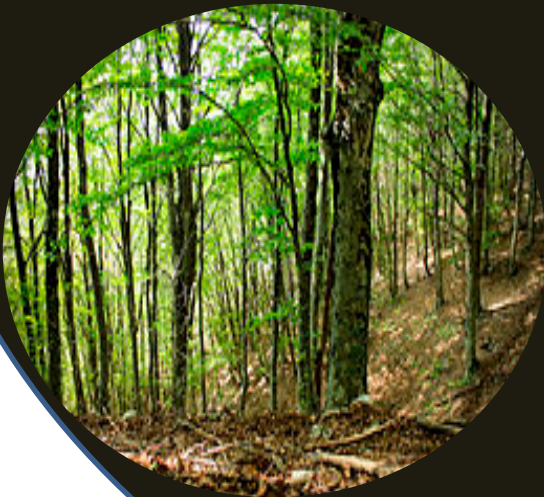
Studiamo l'Ambiente per Comprendere Passato, Presente e Futuro



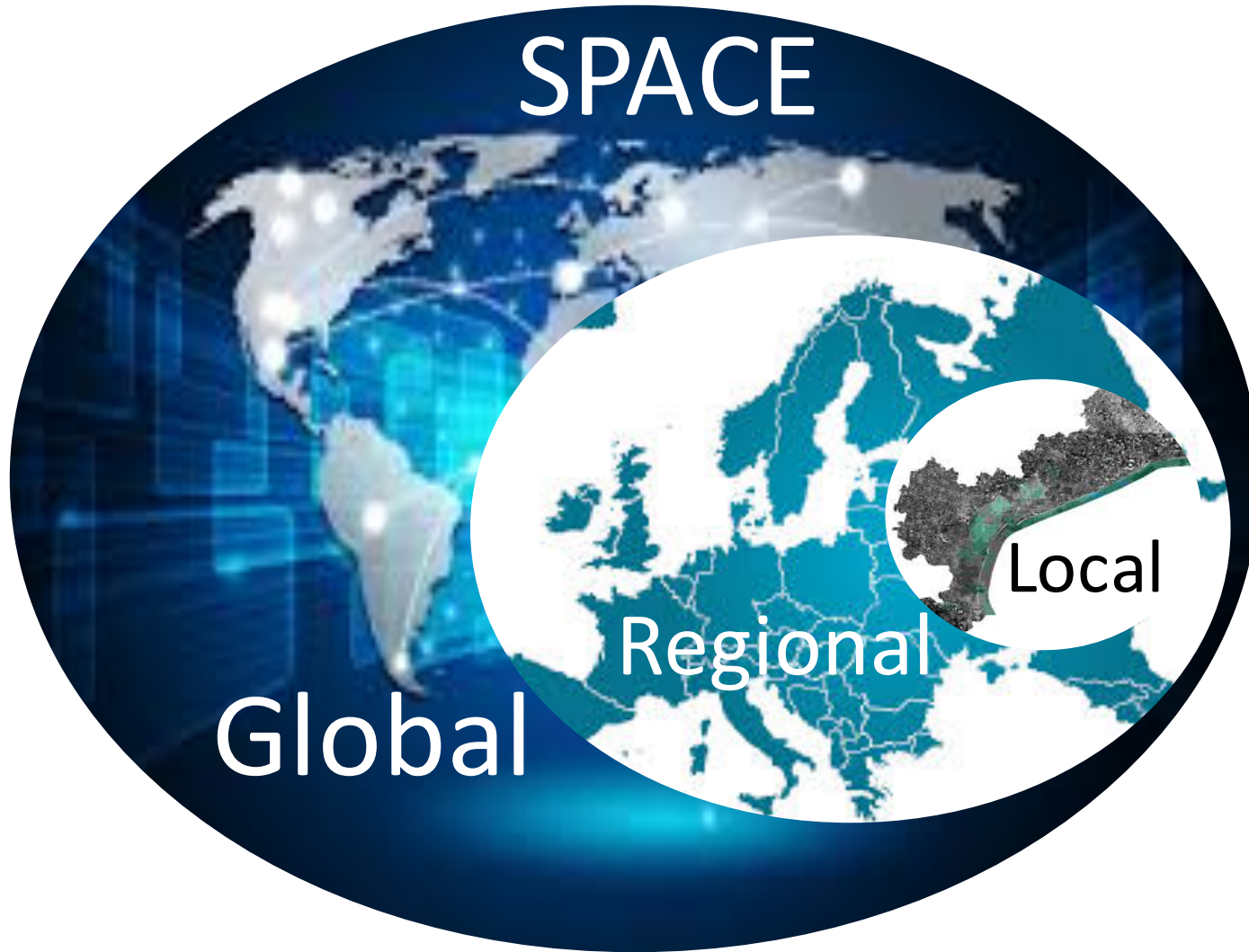
Dario Battistel

7-8 Aprile 2017

AMBIENTE E CLIMA



SPACE



Global

Regional

Local

The image features a vibrant green tree with a wide, spreading canopy, growing out of a small, grassy globe. The background is a soft, textured green and blue gradient. A large, dark green arrow points from left to right, with the word 'Past' on the left, 'Present' in the middle, and 'Future' on the right. The word 'TIME' is centered above the tree, and the name 'GONÇALO PEREIRA' is written in a smaller font below it.

TIME

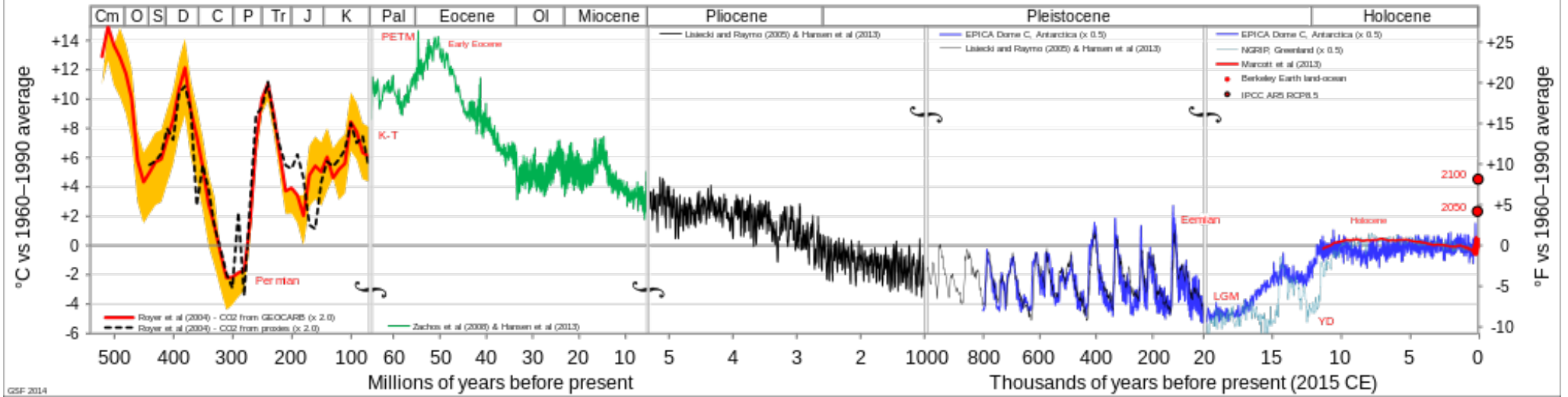
GONÇALO PEREIRA

Past

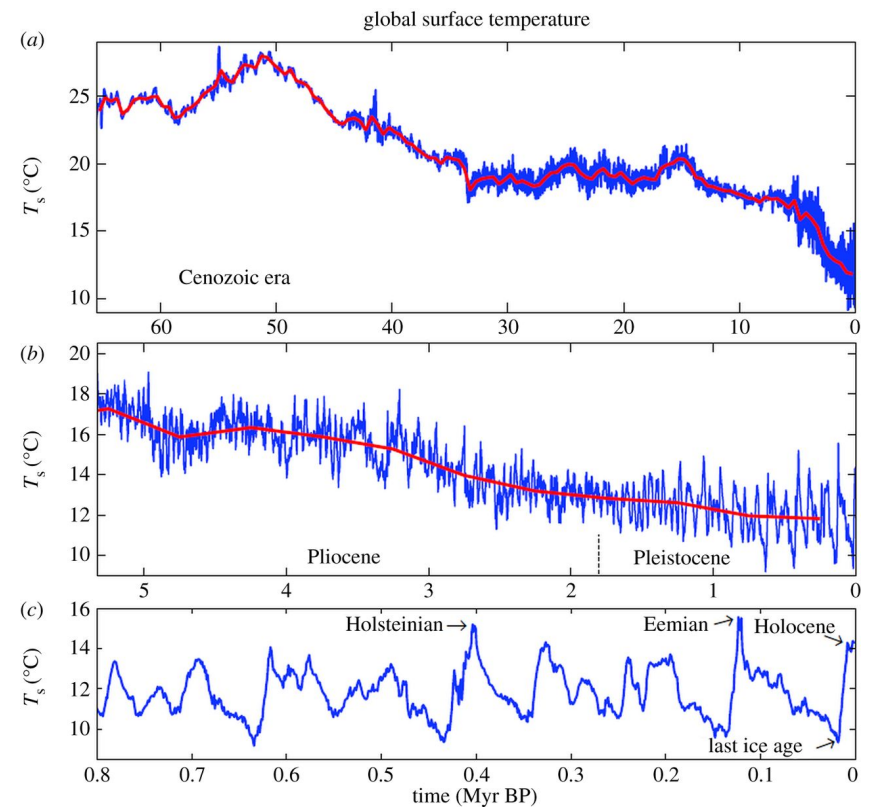
Present

Future

Temperature of Planet Earth

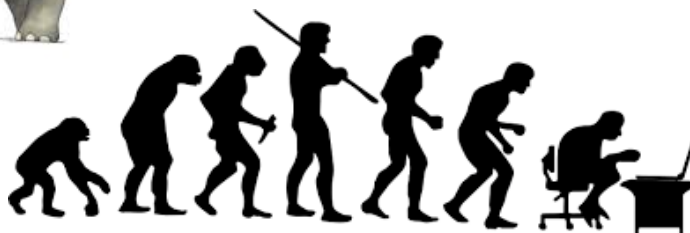
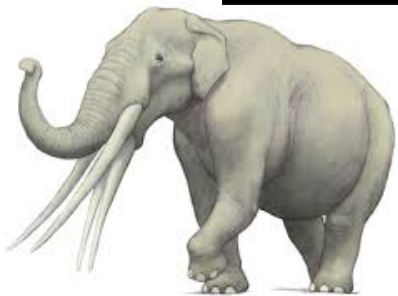
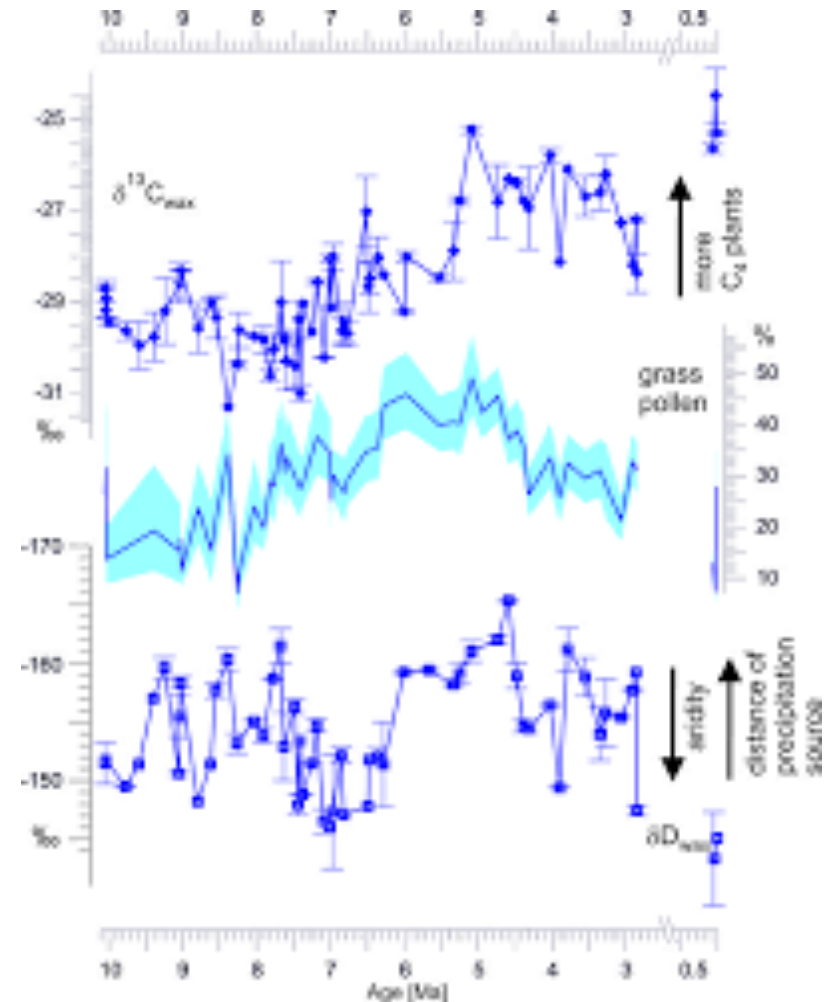
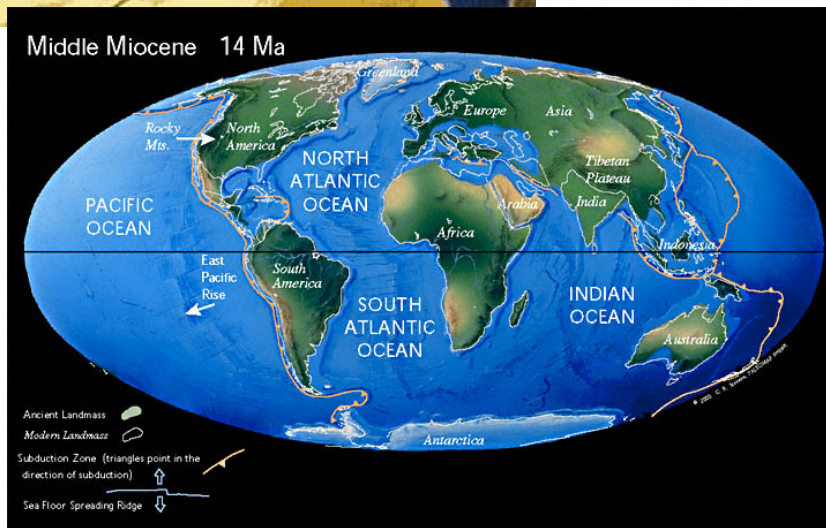


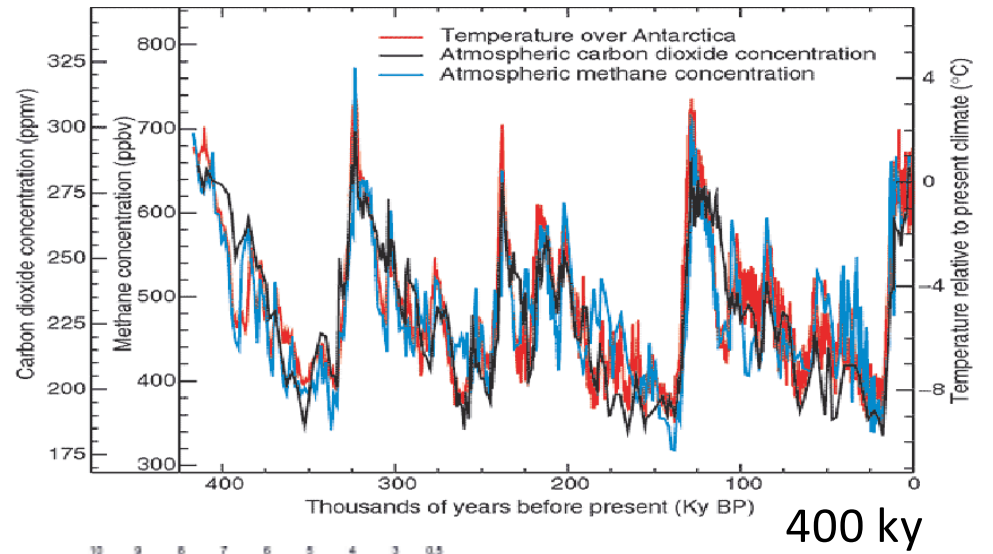
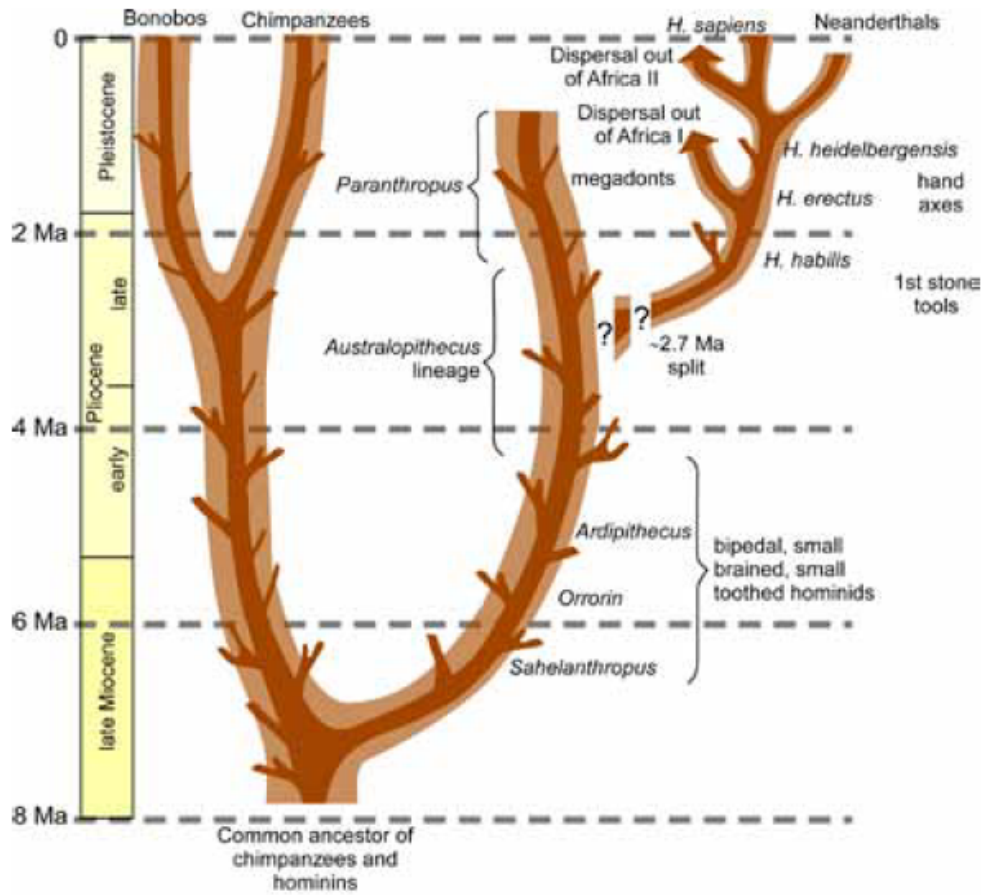
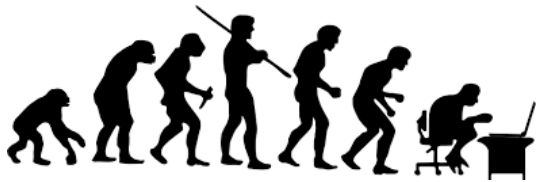
GSF 2014



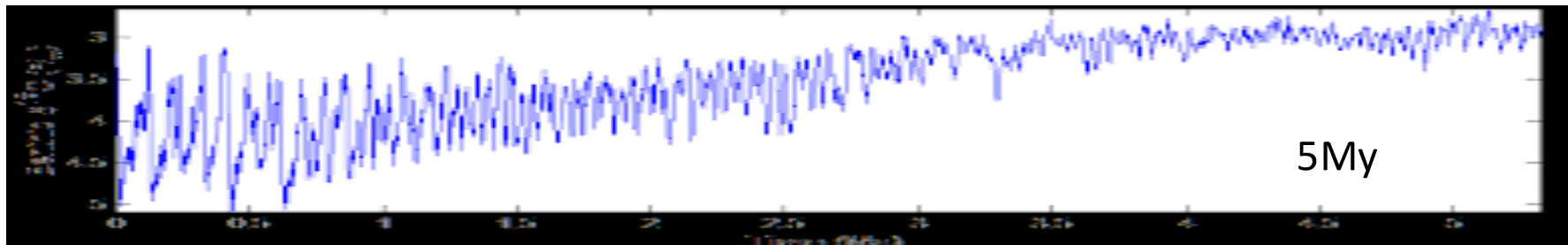
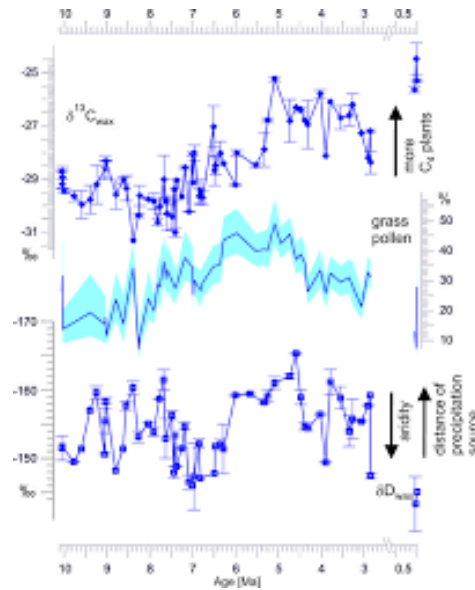


Cambiamento Climatico ⇒ Cambiamento Ambientale

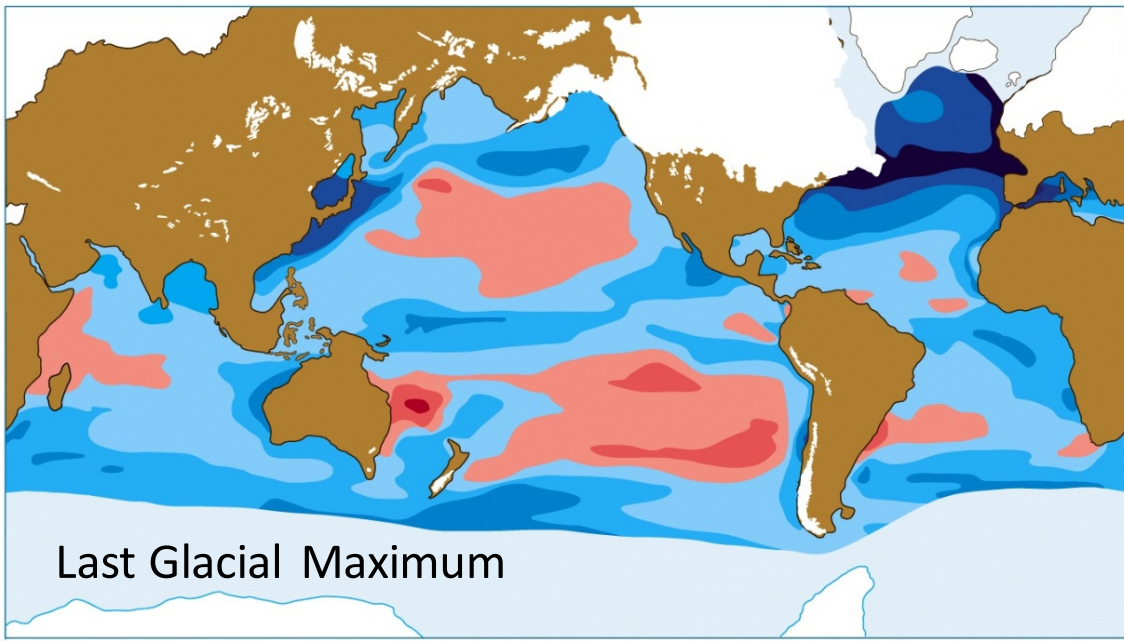




400 ky

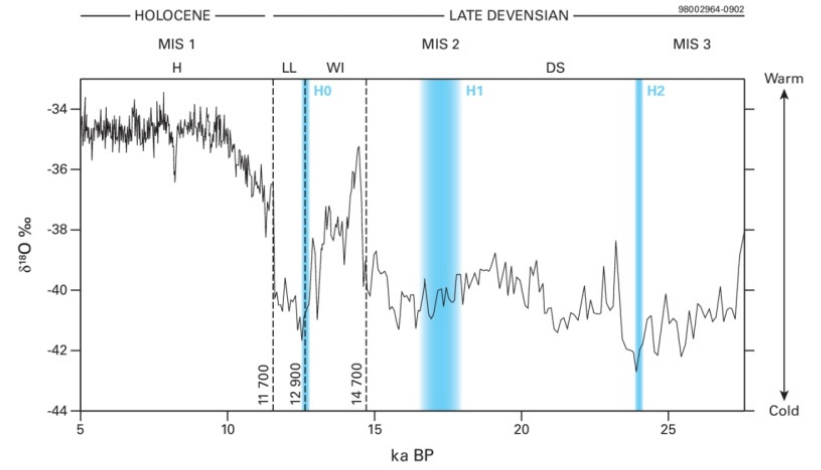


5My

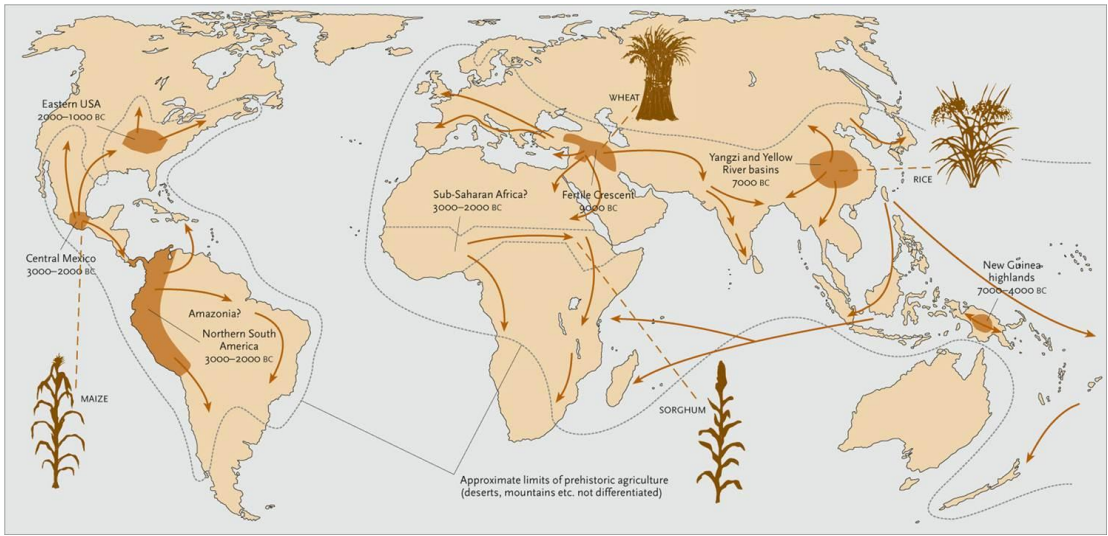


Last Glacial Maximum

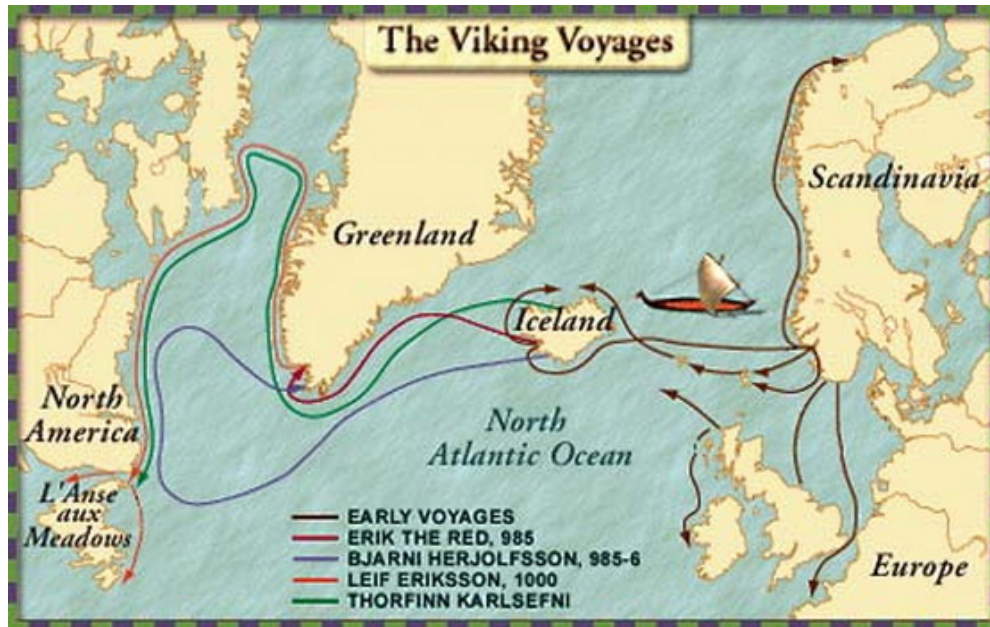
B August ocean temperature change (°C) Cooling ■ > 8 ■ 6 - 8 ■ 4 - 6 ■ 2 - 4 ■ 0 - 2
 Warming ■ 0 - 2 ■ > 2



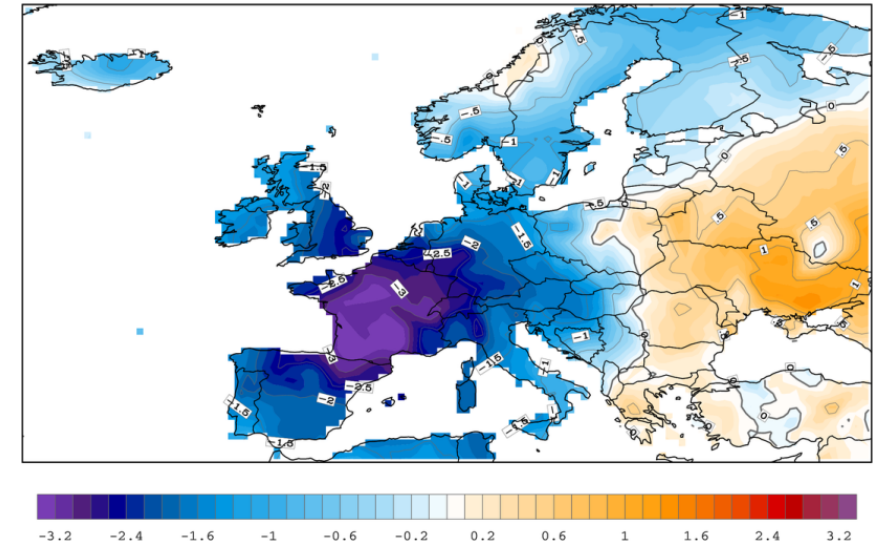
H = Holocene LL = Loch Lomond Stadial WI = Windermere Interstadial DS = Dimlington Stadial



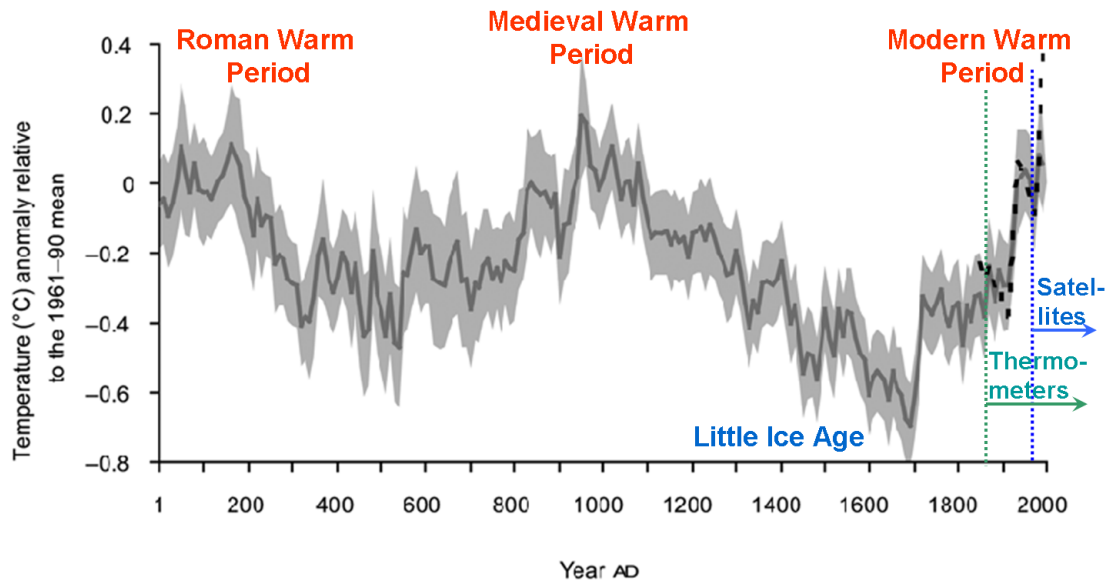
Approximate limits of prehistoric agriculture (deserts, mountains etc. not differentiated)



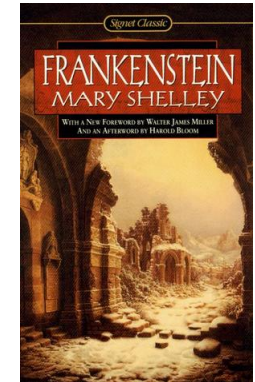
1816 Summer temperature anomaly

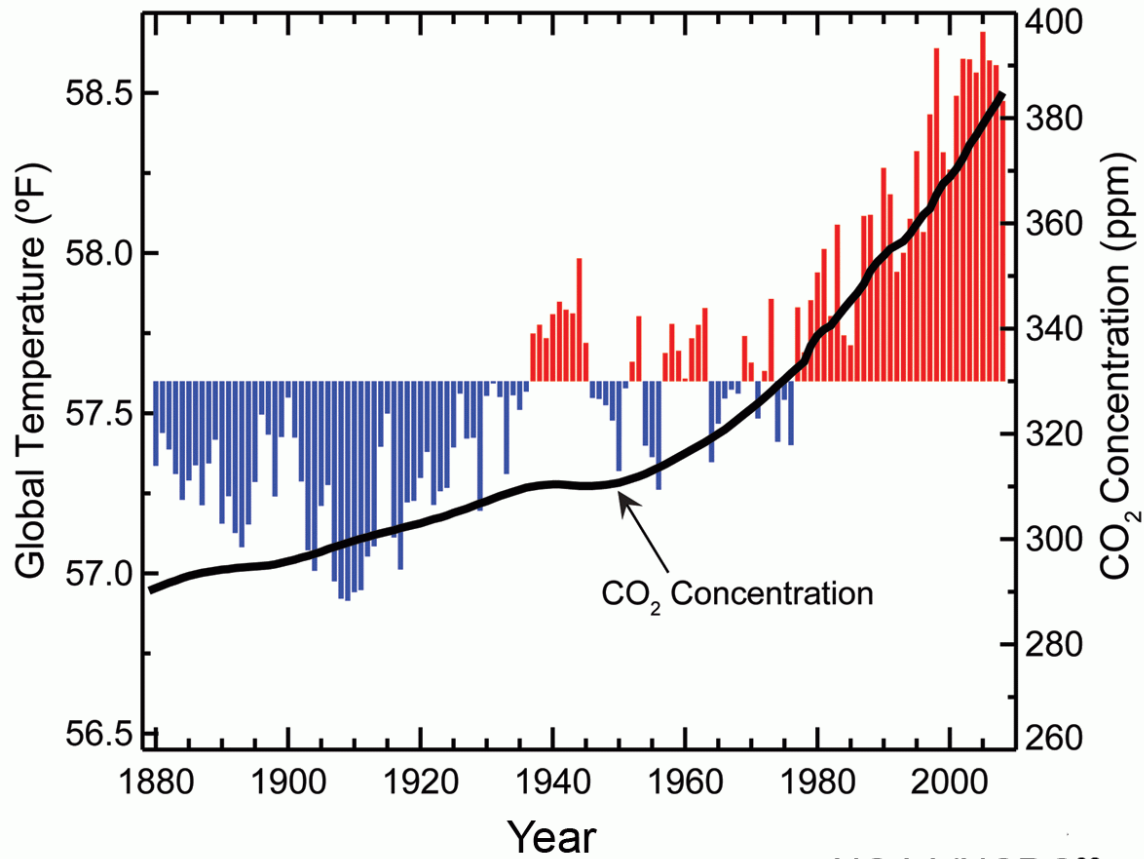


Temperature Reconstruction* for N. Hemisphere, 1 - 2000 AD
Shows Modern Warm Period Not Exceptional

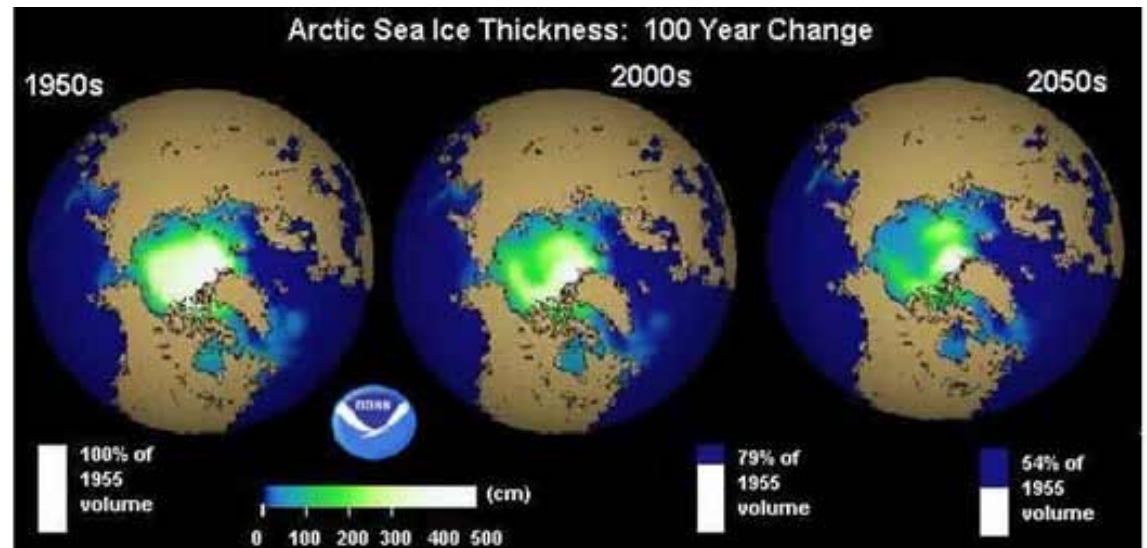
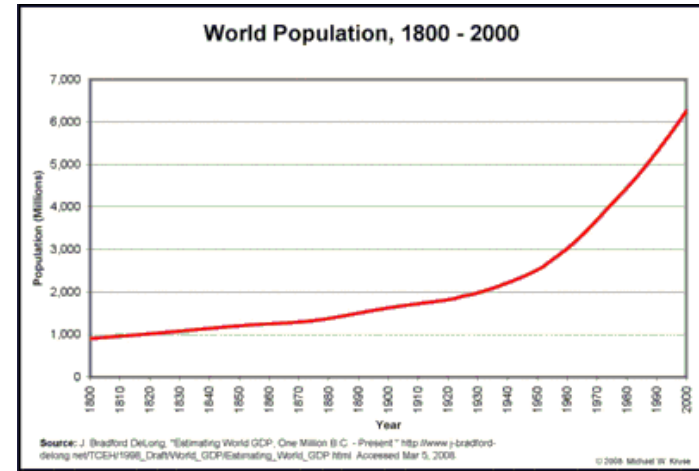


*Ljungqvist, F.C. 2010. A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia. *Geografiska Annaler: Physical Geography*, Vol. 92 A(3), pp. 339-351, September 2010. DOI: 10.1111/j.1468-0459.2010.00399.x





NOAA/NCDC³²



Run Experiment_IPCC_A1B: 2m Air-Temperature [°C]
climate seasonal mean 2041-2050

2041-2050

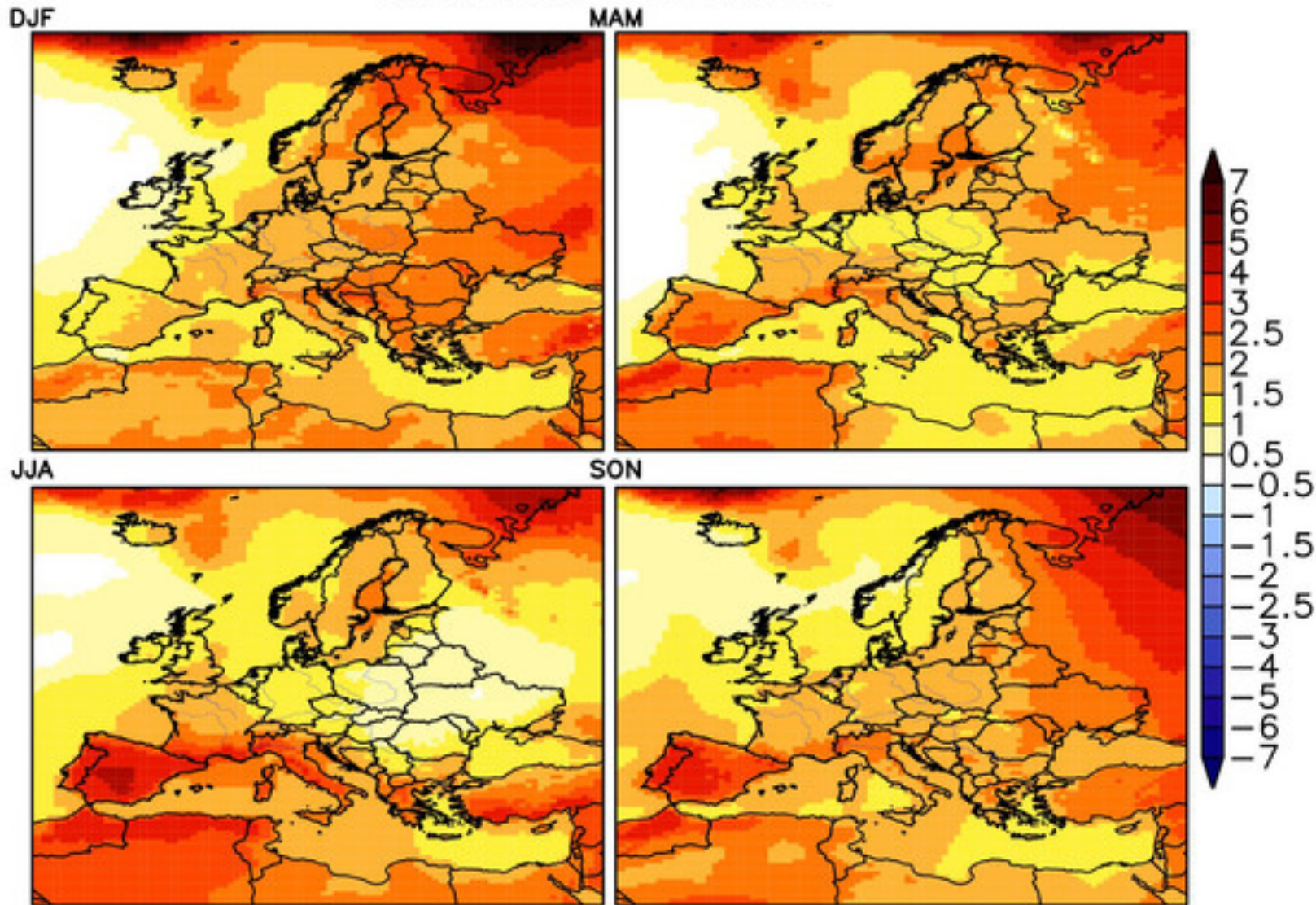


Fig. 1: Surface air temperature changes (C°) in the decade 2041-2050 compared to the reference period 1961-1990 for winter (DJF), spring (MAM), summer (JJA) and autumn (SON)

Run Experiment_IPCC_A1B: Precipitation [%]
climate seasonal mean 2041-2050

2041-2050

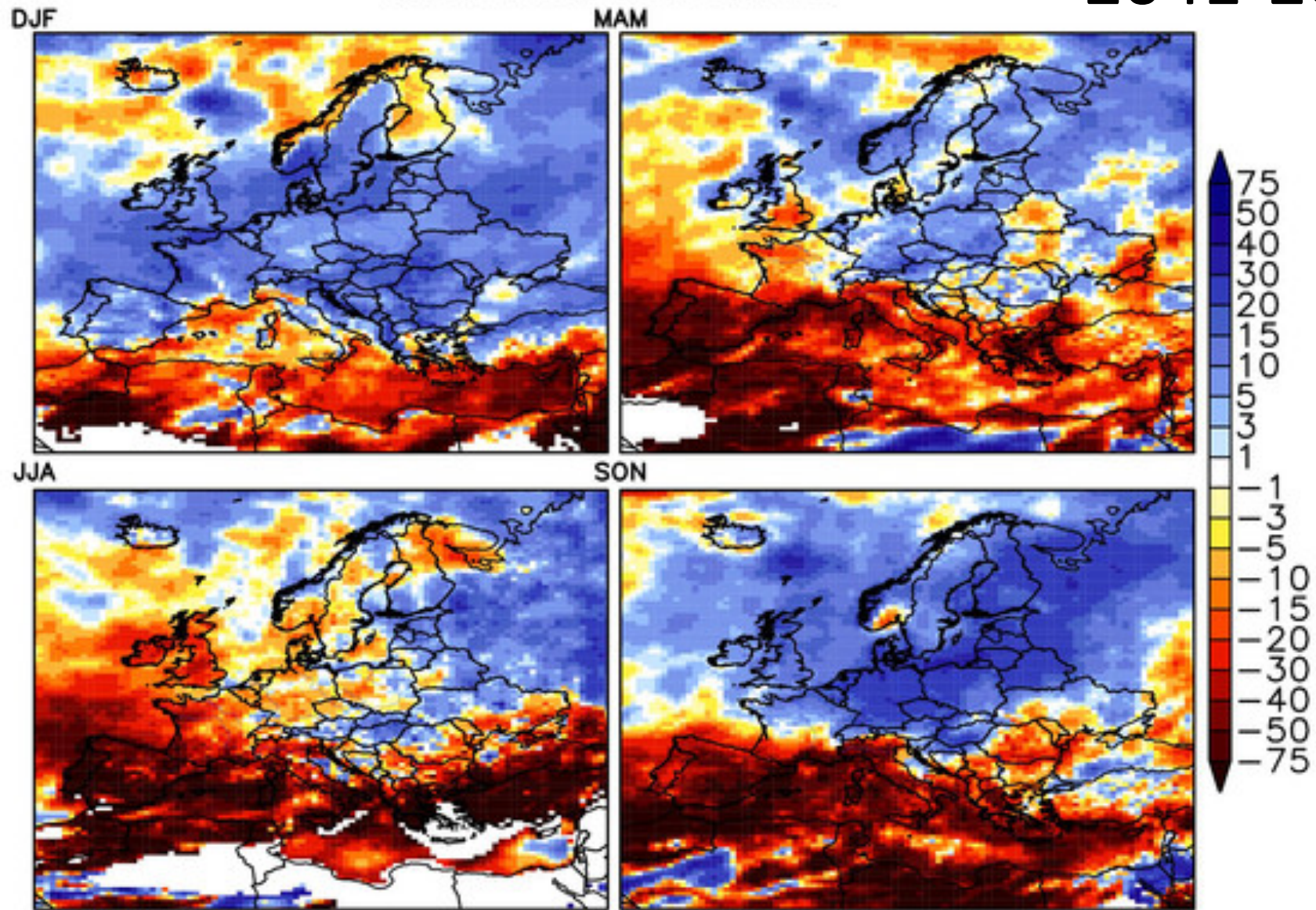


Fig. 2: Precipitation changes (%) in the decade 2041-2050 compared to the reference period 1961-1990 for winter (DJF), spring (MAM), summer (JJA) and autumn (SON)

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Comprendere Passato, Presente e
Futuro



?

Domande

7-8 Aprile 2017