

Near-surface air temp. trend in ANN 1991–2020

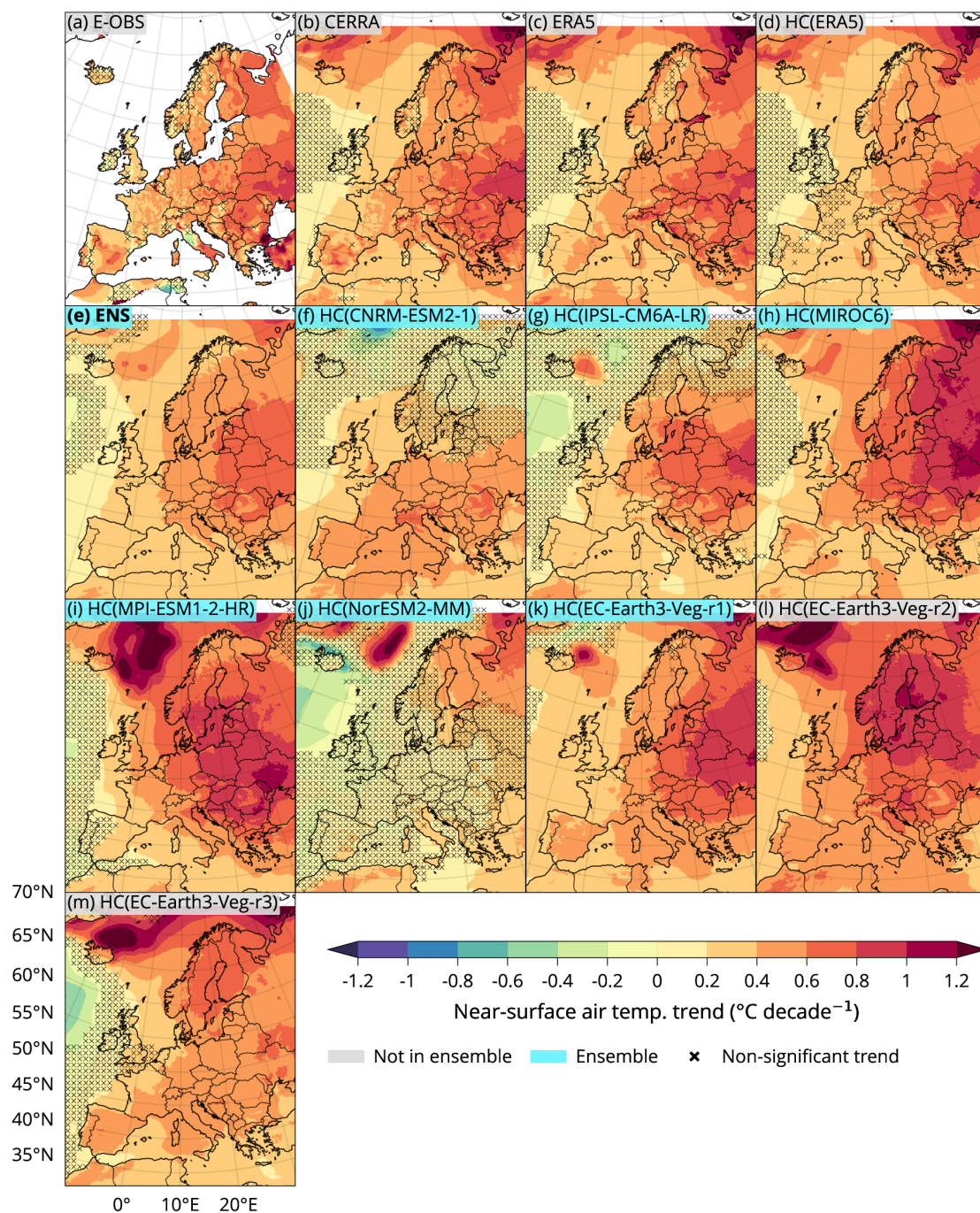


Figure S1. The same as Fig. 7 but for the annual mean.

Sea-level pressure seasonal mean in DJF 1991–2020

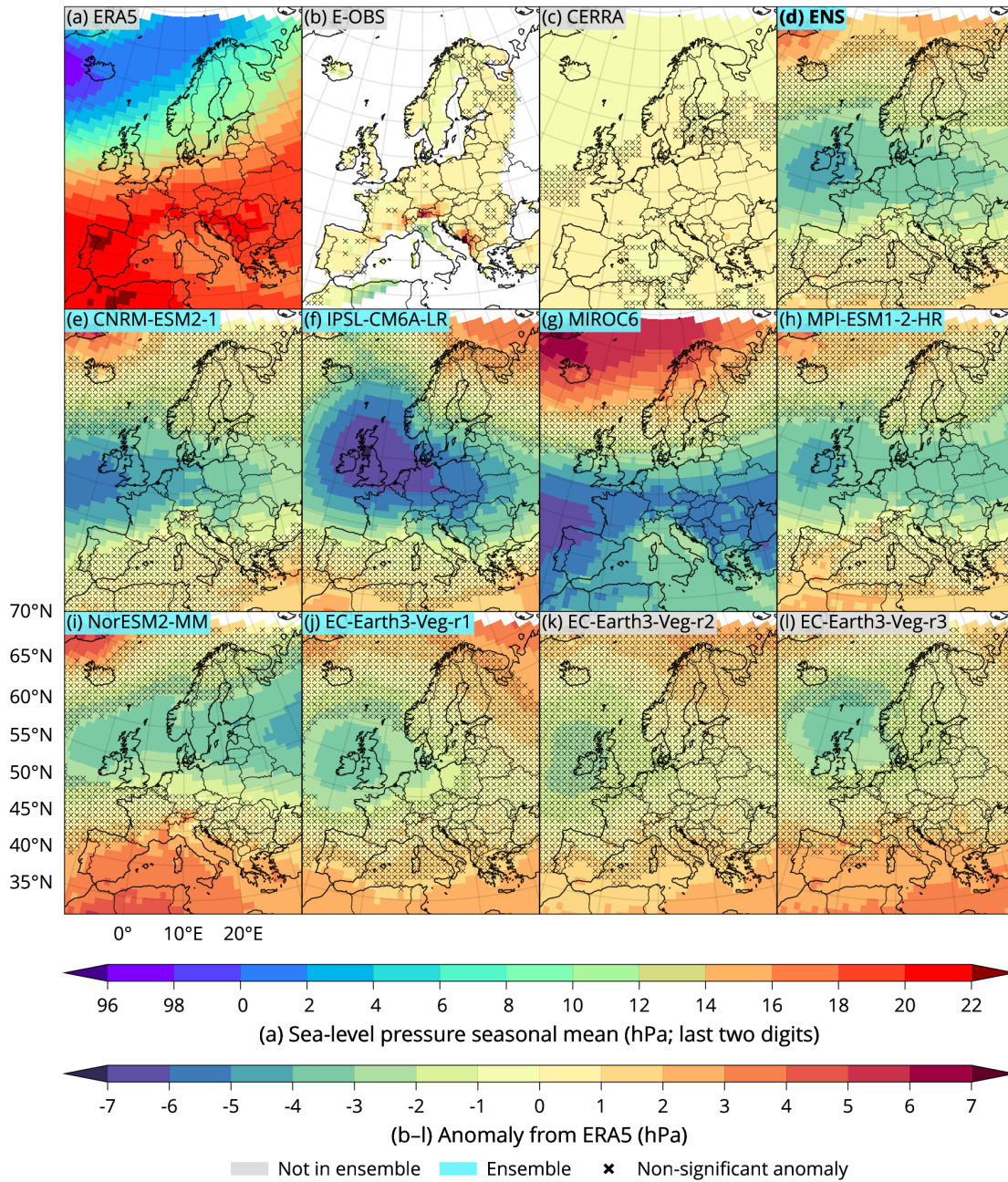


Figure S2. The same as Fig. 1 but for sea-level pressure in the driving GCMs.

Sea-level pressure seasonal mean in DJF 1991–2020

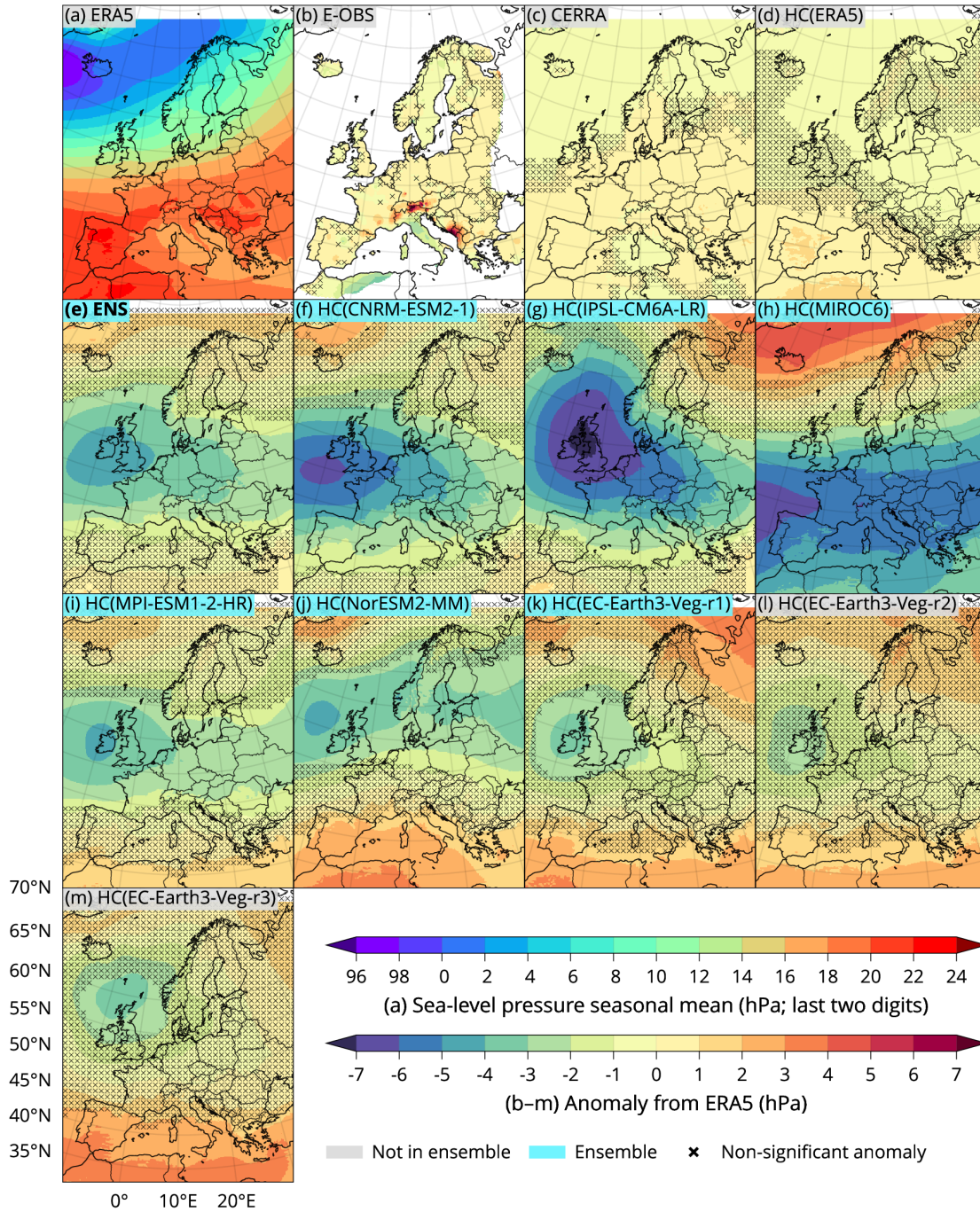


Figure S3. The same as Fig. S2 but for the RCM.

(a) ERA5 (b) E-OBS (c) CERRA (d) ENS

(e) CNRM-ESM2-1 (f) IPSL-CM6A-LR (g) MIROC6 (h) MPI-ESM1-2-HR

(i) NorESM2-MM (j) EC-Earth3-Veg-r1 (k) EC-Earth3-Veg-r2 (l) EC-Earth3-Veg-r3

70°N
65°N
60°N
55°N
50°N
45°N
40°N
35°N

0° 10°E 20°E

9 10 11 12 13 14 15 16 17 18 19 20 21

(a) Sea-level pressure seasonal mean (hPa; last two digits)

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6

(b-l) Anomaly from ERA5 (hPa)

Not in ensemble Ensemble Non-significant anomaly

Figure S4. The same as Fig. S2 but for summer.

Sea-level pressure seasonal mean in JJA 1991–2020

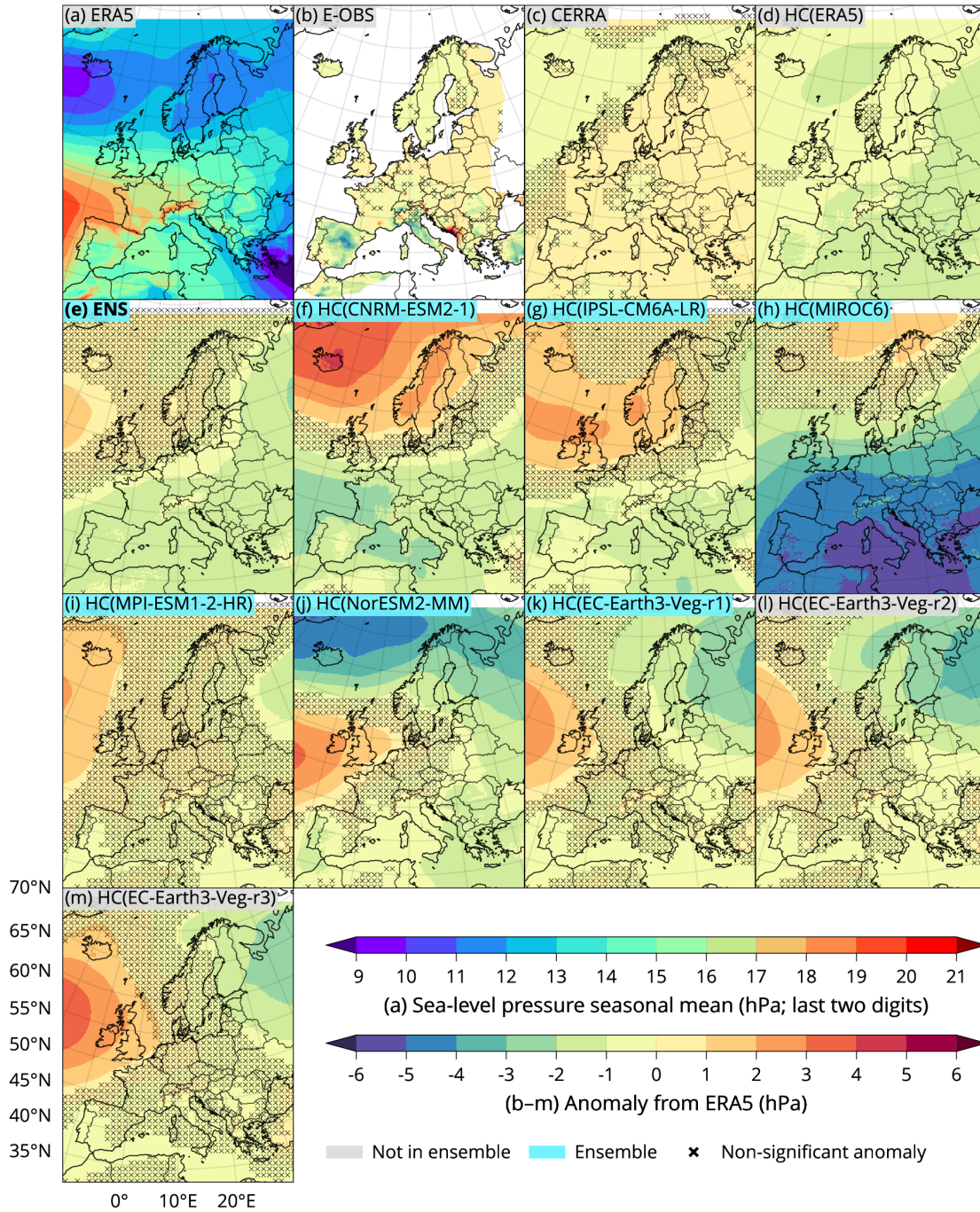


Figure S5. The same as Fig. S3 but for summer.