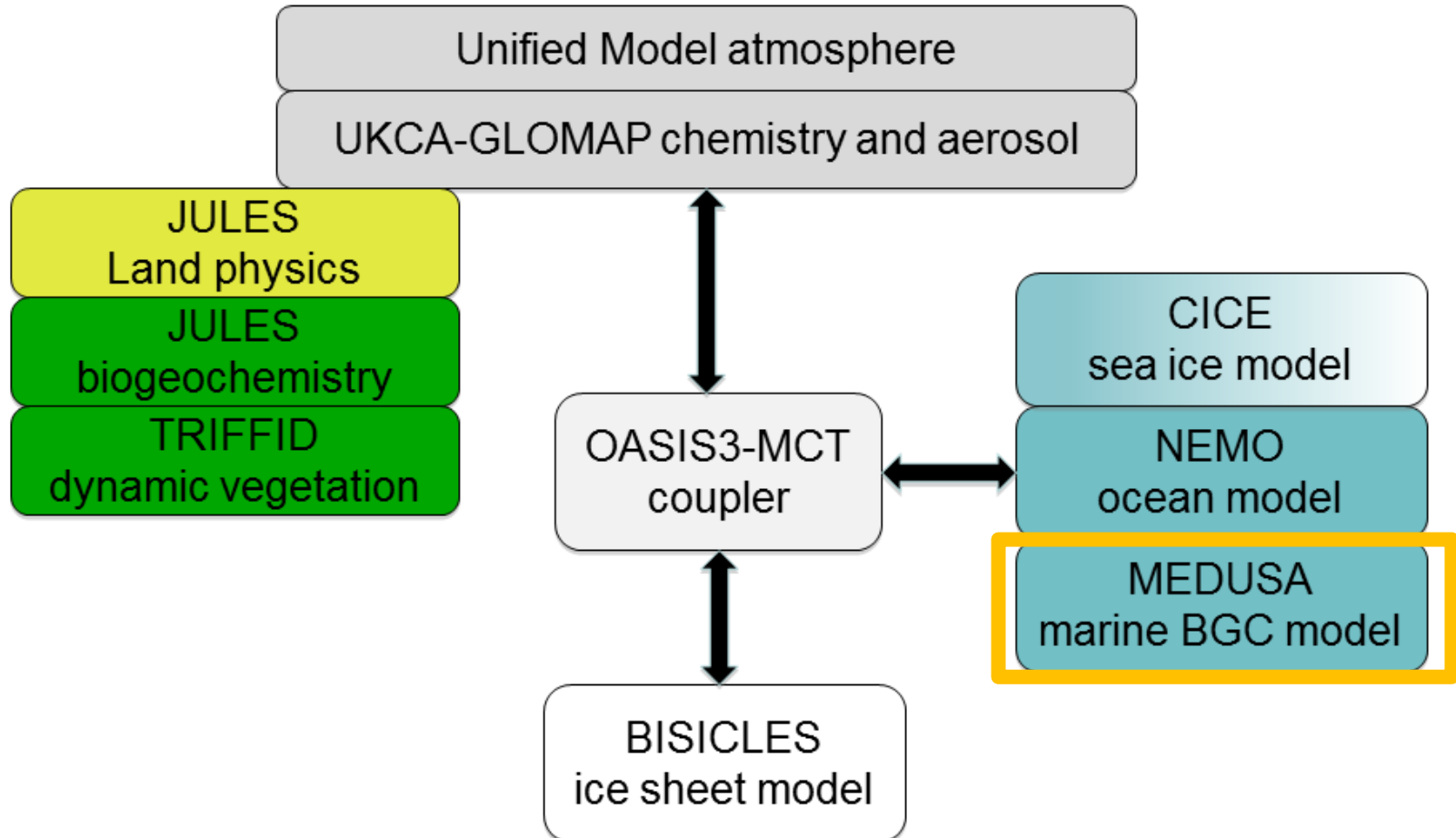


UKESM – The UK Earth System Model



UKESM: low-resolution version with NEMO ORCA1



- ⦿ The low-resolution version of UKESM (UM N96, **NEMO ORCA1**) will be the main version of UKESM for CMIP6
- ⦿ We are currently conducting a **long spin-up run** (> 1,000 years), aiming at a total air-sea CO₂ flux of < 0.1 Pg C/year (at least)
- ⦿ This will (hopefully) lead to an acceptable and balanced representation of the **global carbon cycle**
- ⦿ The Southern Ocean circulation in N96-ORCA1 looks acceptable
- ⦿ With the low-resolution version, we can afford sensitivity studies (e.g. eddy parameterizations) and large ensembles to assess impacts on **ocean carbon uptake** (e.g. from forced and internal variability)