





Working group 1





Initially selected model components – consequences for other components



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Guiding questions



- 1. What would the definition of core components such as ICON-A, FESOM and ICON-O mean for your organization?
- 2. Do you already have experience regarding the coupling of your model or model components to possible core components like ICON-A, FESOM, ICON-O? What difficulties do you expect? What support do you need?
- 3. Which scientific goals could you pursue with a coupling of your model or model components to core components like ICON-A, FESOM, ICON-O?

Summary 1



- a) Round of participants who introduced themselves, their current components and interests
 - not much controversy with respect to the initially selected components
 - an ESM is incomplete with the components selected for physical atmosphere and ocean
 - some groups use other components for atmosphere and ocean, currently
 - some components and interests (paleo, impact modelling) not well represented in the working group
- b) Configuration needs
 - different resolutions (also coarse-resolution configurations needed) and time scales: weather, seasonal prediction, climate
 - Interfaces are key for enabling diversity
- c) Land Component
 - Consolidation process ongoing based on TERRA and JSBach
 - communication between natESM-community and ICON-Land group needed

Summary 2



- d) Tracer Transport and Chemistry Models
 - Interest in full range of processes including atmospheric chemistry, aerosols, and constituent (carbon and others) cycles with ocean and land interaction
 - Several models exist in the community as well for atmospheric chemistry as for ocean biogeochemistry
 - Development of ComIn (community interface) is ongoing
- e) Support
 - Sprints are viewed very positively; sprint checks are a good idea
 - There are already a lot of training opportunities (at HPC centers FZ Jülich and DKRZ, at DWD, but also for tools like ESMVal) that may be better communicated through NatESM -> NatESM working group?
 - Joint initiatives could cover land surface data, carbon cycle model unclear if this fits to the current sprint strategy
- f) Ideas for Science
 - National whole atmosphere model, beyond the stratosphere
 - Fully coupled carbon cycle including isotopes (C13+14) over 50 years
 - CMIP7; there will be a meeting organized by the Projektträger involving the community in May