



E3SM Organization and Management

Dave Bader, E3SM Council Chair and Lead PI
DOE Internal Review of E3SM Phase II
November 9-10, 2020

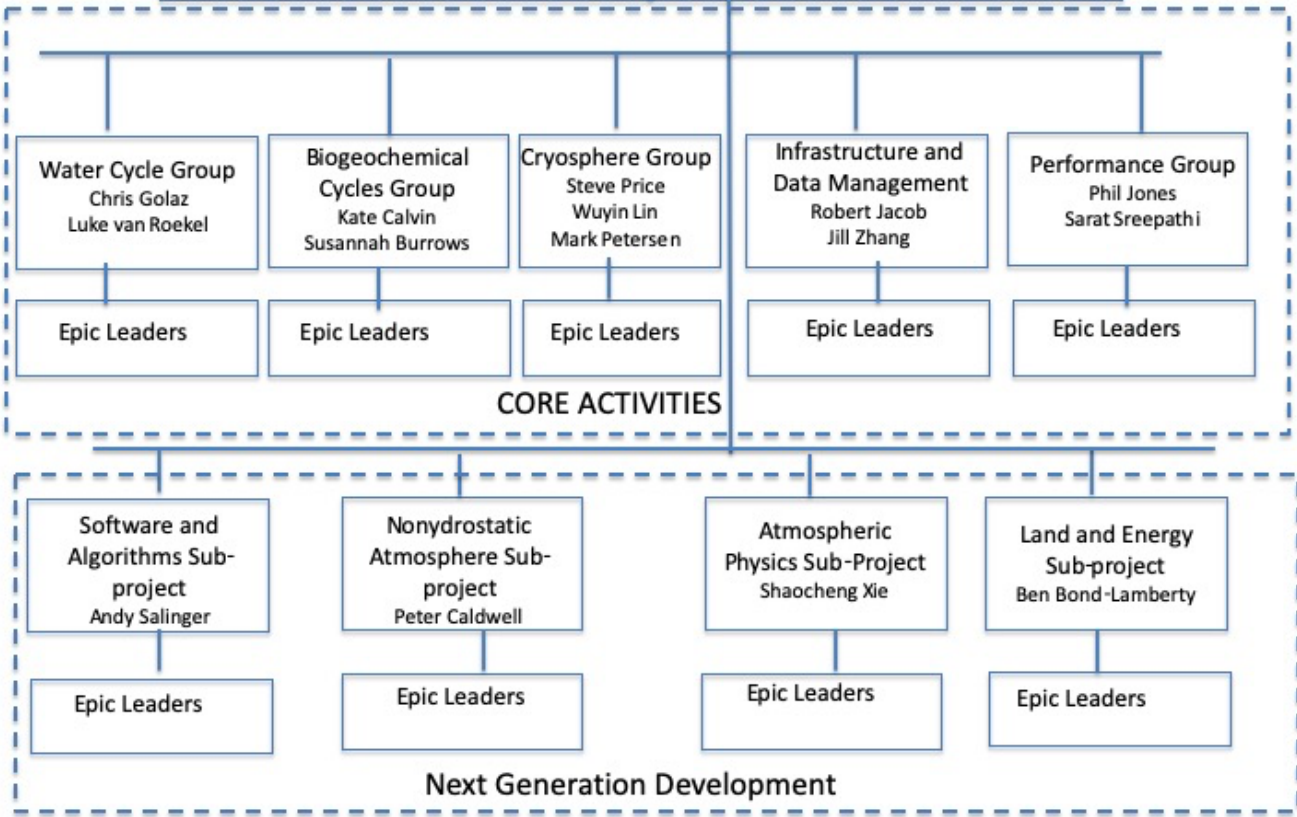
The E3SM Virtual Modeling Center Culture

- Strong cooperation among eight institutions that often compete
- Transparency builds trust
- Ensure a common purpose
- Select people who believe in these principles
- Push authority and accountability down to the people who do the work

Governance and organization evolves to achieve project objectives

- Full responsibility and authority rests with the Executive Committee: Chair, Chief Scientist, Chief Computational Scientist and Project Engineer – the “C-Suite” paradigm used by technology companies
- Three science groups focus on development, testing and execution within a **coupled system** framework.
- Two cross-cutting computational groups provide focus on infrastructure and Office of Science computing center platforms
- Five full and two small NGD Subprojects focus on research and development needed for future model generations on future computational systems.

E3SM Executive Committee Council
David Bader, Chair; Ruby Leung, Chief Scientist, Mark Taylor, Chief Computational Scientist, Renata McCoy, Project Engineer



”Epic” – Where the work gets done

- **Epics** are defined by a tangible, objectively defined **deliverable**, a **start date**, and an **end date**. Each Epic has a leader with authority, autonomy and accountability to produce the deliverable. Epic leaders are accountable to Group Leaders
- The management paradigm delegates authority down to the Epic leaders within the five groups and various NGD subprojects.
- Leadership's role is to provide assistance, when needed, as well as overseeing the coordination and integration between and among the project elements.
- Roadmaps, derived from the strategic plan and proposal, provide scope and guidance to each Epic team and its leader.

Roadmaps

- Planning for the Core activities will be accomplished through 3, 6 and 12-month road maps
- Every Epic appears in a roadmap
- NGD activities will have a sub-project plan with 12 month roadmaps.
- Roadmaps are developed by Group and NGD Sub-Project Leaders and approved by the Executive Committee
- Roadmaps will be revised and updated midway through each performance period.

Staffing paradigm intended to reduce fragmentation and increase focus and flexibility

- Over 100 individuals, ~60 total FTEs (not including EC functions)
- Initial Staffing strategy
 - “Dedicated staff” work on E3SM a minimum of 75% of their time,
 - “Regular staff” working on E3SM a minimum of 50% time
- Addition and replacement of staff
 - Unallocated funds belong to the project, not individual labs
 - Require recommendation and justification from at least one group or subproject leader
 - Usually requires minimum 50% project commitment
 - Executive committee approves addition
 - So far, every well-justified request was approved