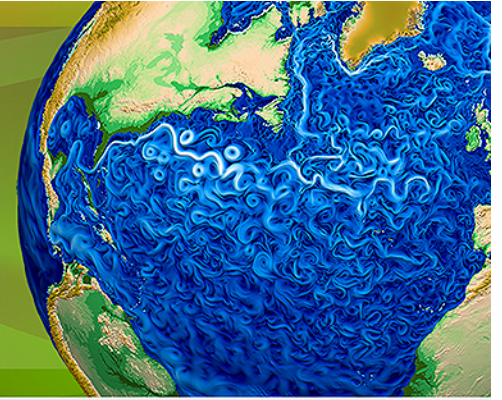




Accelerated Climate Modeling  
for Energy



# ACME Ambitions and Status

## *Vision, Goals and Reality – An Update*

David C. Bader  
ACME Council Chair  
November 2, 2015



# Progress Since May

- V1 Component Development Nearly Complete
- Final v0.1 High Resolution Baseline Simulations Underway
- ACME v0.3 High Resolution AMIP end-to-end “Stress Test” completed (Thanks Peter, Kate, Qi, Charlie and Workflow Team) – Changes Implemented as a result
- Many Collaboration Agreements Completed
- Request Hub established

# Leadership Changes

- Val Anantharaj new Workflow Co-Lead
- Bill Riley new Council Member
- Ruby Leung new Chief Scientist

# Three-Year (2017) Deliverables

1. ACME v1 Model Experiments Completed
  1. Water Cycle – Coupled High Resolution Globally
  2. Cryosphere – Global Coupled Model with Refined Resolution Regions in Atmosphere, Ocean and New Ice Processes
  3. BGC – Global Coupled Model with New Terrestrial BGC and Ecological Processes
2. ACME v1 Model Documented and Released
3. All ACME v1 Experimental Data Available

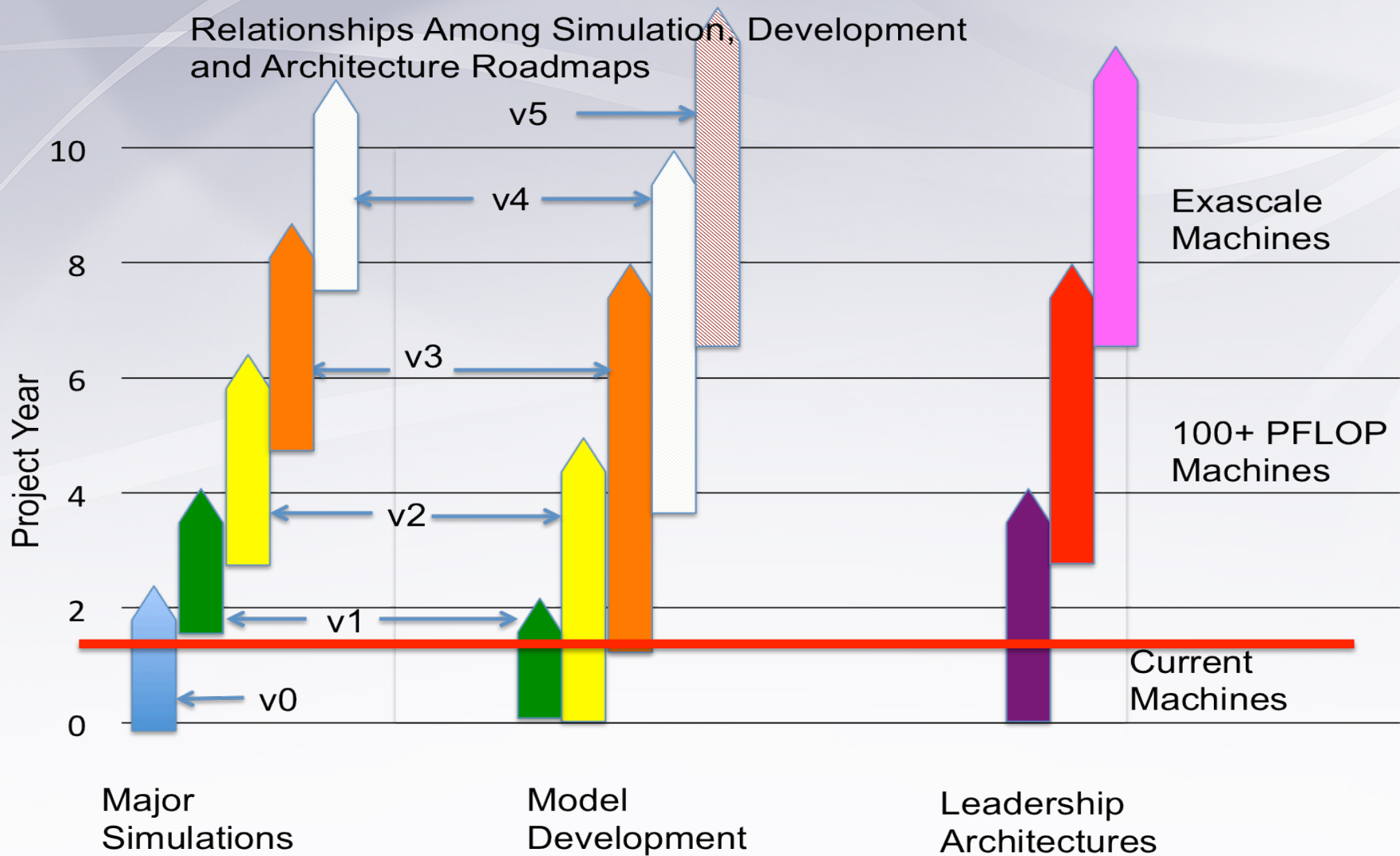
***Model Simulations Must Start by Summer 2016***

***ACME v1-alpha Completed by January 2016***

***ACME v1 Components Completed by November 2015***

# ACME Roadmap

Relationships Among Simulation, Development and Architecture Roadmaps



# We have the Parts, Now What?

Dr. Frederick Frankenstein: Would you mind telling me whose brain I DID put in?

Igor: Then you won't be angry?

Dr. Frederick Frankenstein: I will NOT be angry.

Igor: Abby someone.

Dr. Frederick Frankenstein: [pause, then] Abby someone. Abby who?

Igor: Abby... Normal.

Dr. Frederick Frankenstein: [pause, then] Abby Normal?

Igor: I'm almost sure that was the name.

# Just Some of the Challenges

- Six-months is a short time to test and tune a new model – much less one at high resolution with as many changes as v1
- Computer allocations and development resources are stretched
- ACME paradigm – morale problems and bureaucracy complaints

# Charge for Meeting

- Planning, planning, planning – everyone understands their roles for the next six-months
  - Completion of v0 and v1 tasks, simulations, papers, documentation, etc
  - Major support effort shifts from components to coupled simulation group
- v2 Design Discussion – Driven by Next Set of Experimental Challenges Possible on Next Generation Computers