# Management Goals

- **Create and nurture a new community of researchers and educators with a strong focus on the Research, Education, Diversity and Knowledge Transfer goals of the Center.**
- **Foster collaborative relationships between the Center and other institutions.**
- **Create synergistic relationships with non-NSF funding sources and national and international partners.**



Colorado State University

*Knowledge to Go Places*

http://www.cmmap.org/








# Institutional Support

## CSU Cost Share

- **CMMAP Building**
- **CMMAP Faculty Line**
- **College of Natural Sciences and VPR in support of Little Shop of Physics and Psychology effort**

# Partner Cost Share

**Catamount Institute**

**City College of NY**

**Colorado College**

**Hampton University**

**NCAR**

**University of California Los Angeles**

**University of California San Diego**

**University of California Berkeley**

**University of Colorado**

**University of Maryland**

**University of Utah**

**University of Washington**

**Bureau of Meteorology Research Centre, Australia**

**Frontier Research System for Global Change, Japan**

**Center for Climate System Research, Japan**

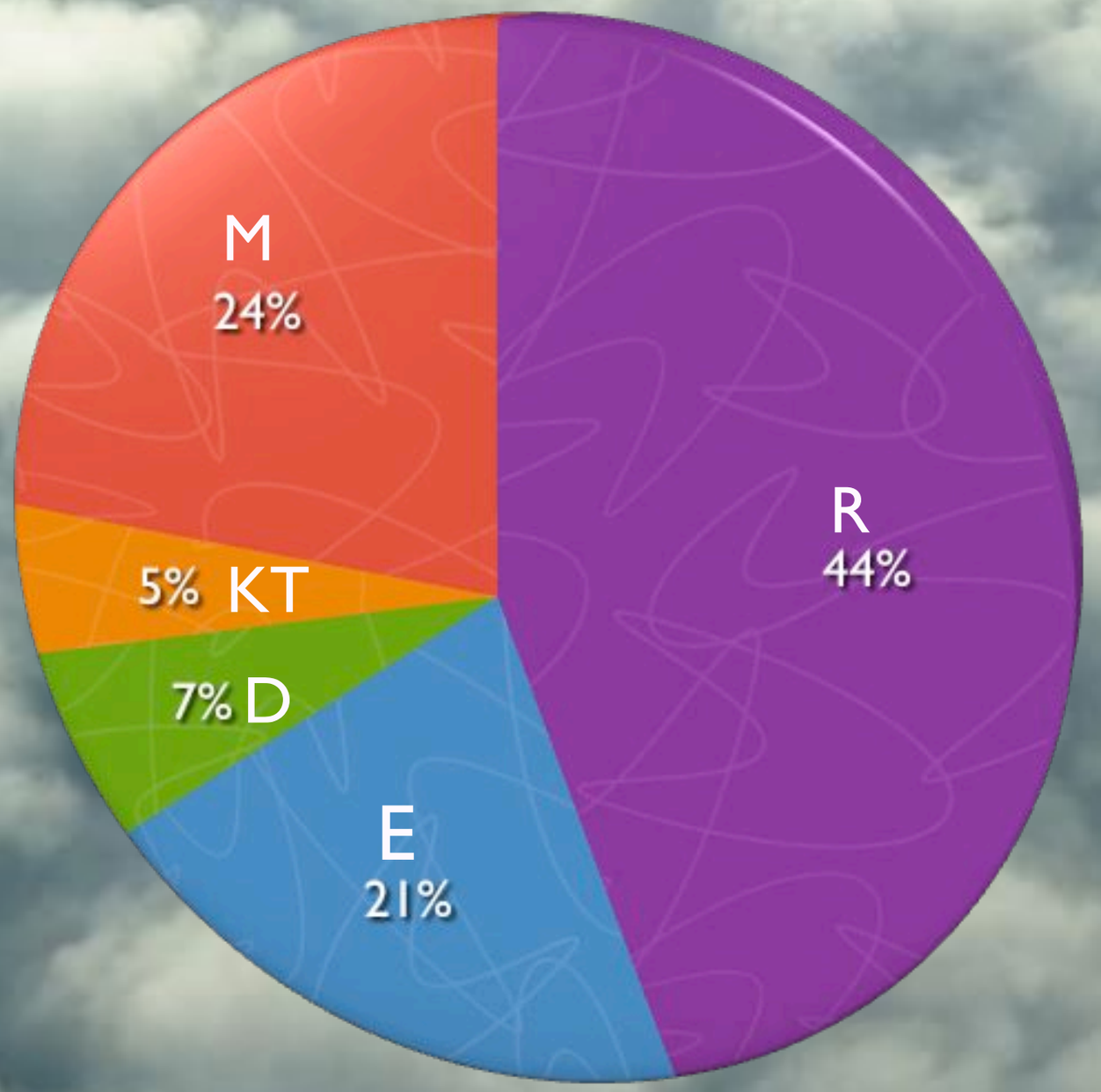
**The Met Office, Canada**

# Budget Info

- $2.96M Year 1, $4M Years 2-5
- 14 subcontracts totaling $1M Year 1,
  15 subcontracts totaling $1.3M Year 2,
  17 subcontracts totaling $1.5M Year 3
- Atmospheric Science Department portion $1.4M/year
- Five other CSU Departments receive $0.5M total Years 1-5
- Approximately 50 people on the CSU payroll

# Cumulative Dollars Spent

$2,103,685 $974,060 $309,971 $234,925 $1,127,521



# Graduate Student Funding

- At CSU, CMMAP has supported 14 graduate students in Year 2, with plans to support four more in Year 3. To date:
  - $400,242 has been spent on graduate student stipends,
  - $30,091 has been spent on tuition,
  - This equals approximately 10% of our total budget!
- Through subawards, CMMAP Partners have supported 6 graduate students in Year 2. At least 2 more are planned for Year 3.

# Cost Share

- Required to cost share at 30% of NSF award, or $5,688,000 over 5 years
- Our Partner institutions contribute to cost share
- Will certify approximately $2M by end of Year 2

# Financial Management

- CMMAP budget flows through twenty five research funds, three state funds (cost share), and one gift fund
- Shadow accounting systems
- Tight tracking of expenditures and documentation in our files
- Cost share tracking and certification
- Relationship with the Office of Sponsored Programs
- Excellent audit history

# Meeting Financial Management Challenges

The challenge:

Many tools at CSU are insufficient to manage a complicated project of this size. (Budgeting, cost share and subaward tracking, multiple account compilation/tracking systems.)

Our solution:

We have already built our own comprehensive tools to track subaward invoicing, and multiple account compilation/tracking systems. We're in the midst of building a cost share tracking system, and a budgeting tool.

# Meeting Financial Management Challenges

The challenge:

Subaward institutions not all invoicing regularly.

Our solution:

Diligent monthly tracking (with our already-built tool), combined with regular communication with PIs has already proven effective.

# Meeting Financial Management Challenges

The challenge:

Partner institution cost share reporting/ certification.

Our solution:

Diligent tracking (with a soon-to-be-built tool), combined with regular communication with subaward PIs and their grants officers.

# Meeting Financial Management Challenges

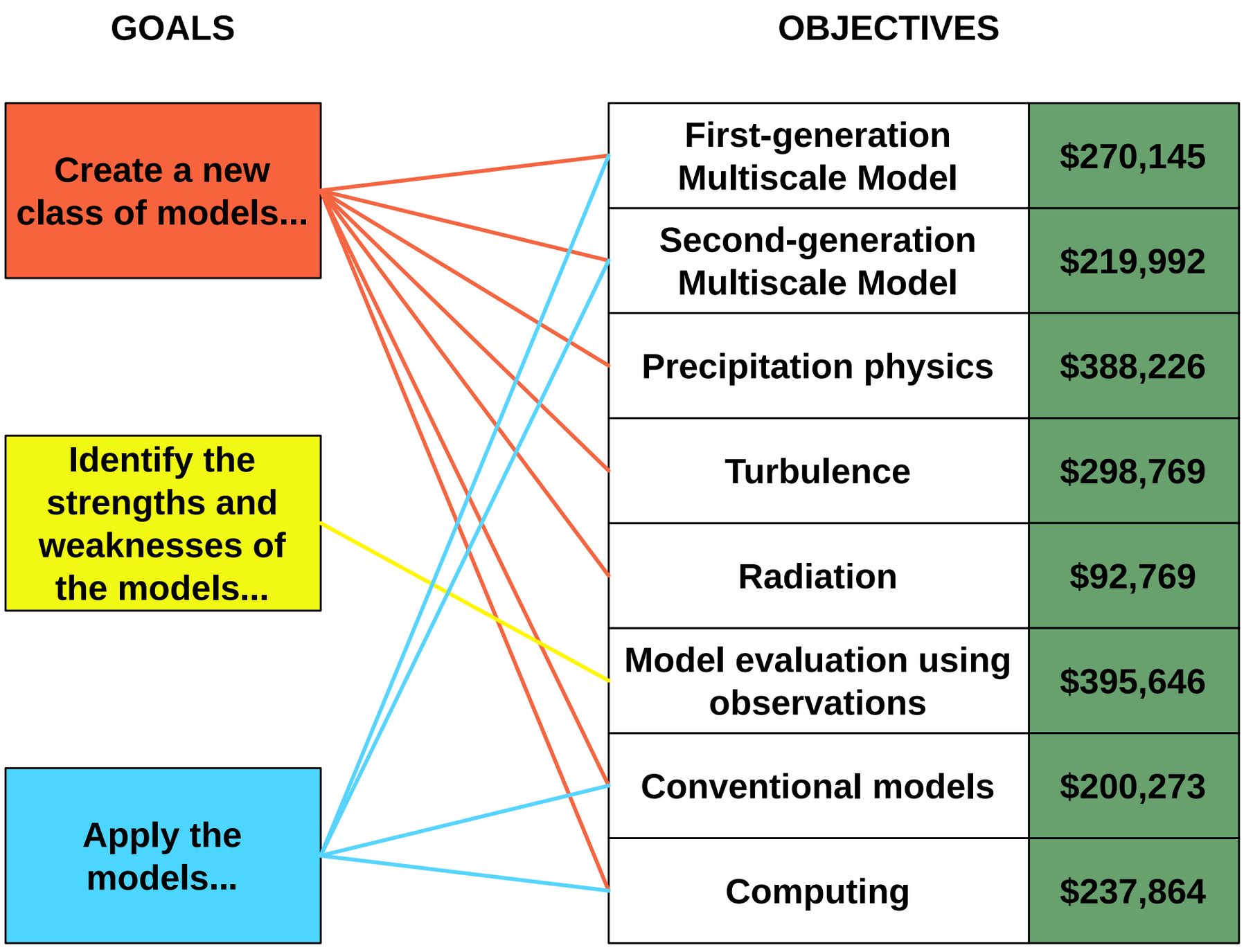
The challenge:

Gathering appropriate paperwork (from CSU partners) for audits.

Our solution:

Stringent and consistent requirements for everyone, enforced by knowledgeable CMMAP staff.

# Research Goals and Objectives



# Education Goals and Objectives

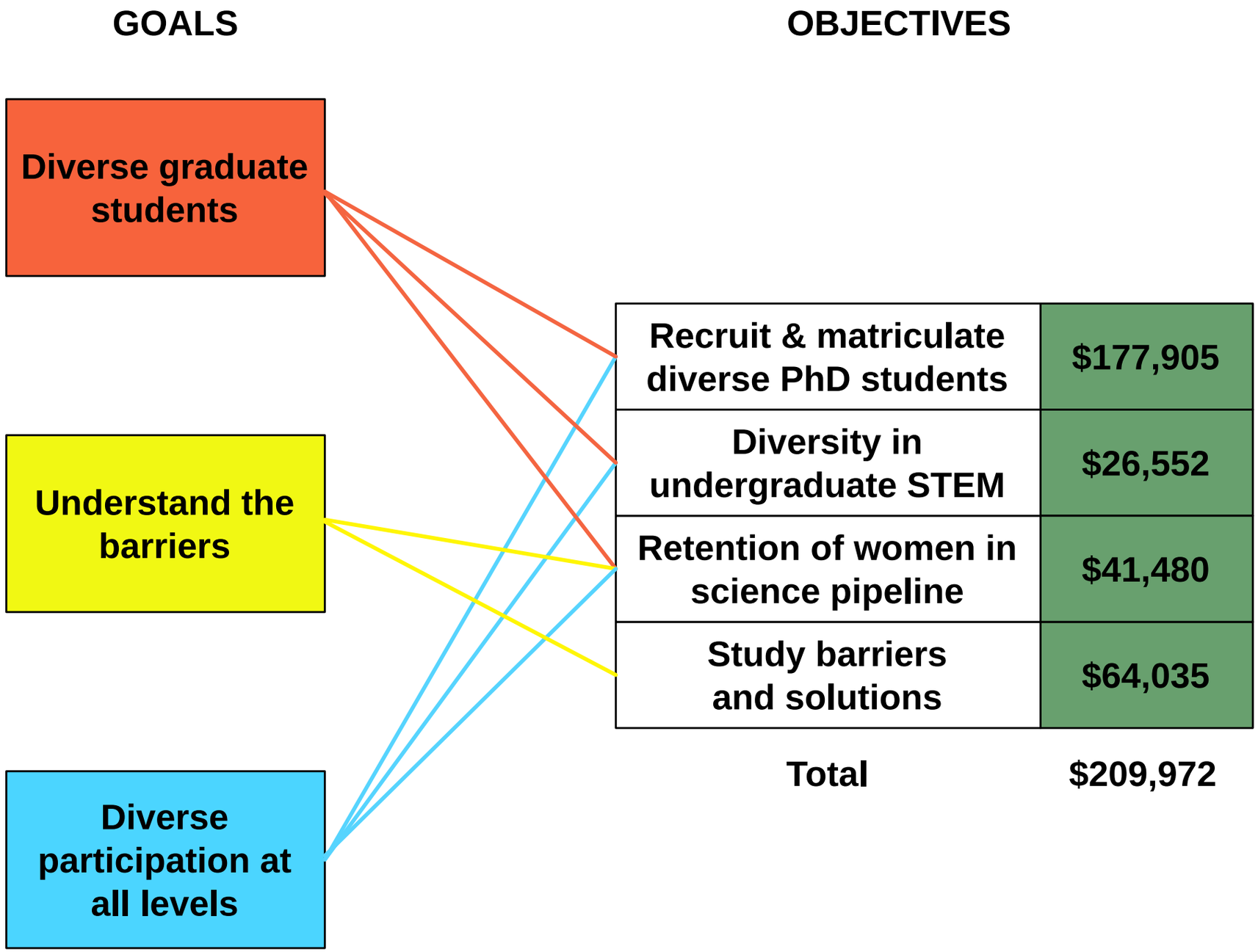
**GOALS**

- Climate science workforce
- Earth System Science Education
- Disseminate science results

**OBJECTIVES**

| | |
|---|---|
| Enhance K-12 science Curricula | $486,484 |
| Policy and Outreach | $98,430 |
| Undergrad Education | $31,741 |
| Graduate education and research | $357,060 |
| Total | $974,060 |

# Diversity Goals and Objectives



# Knowledge Transfer

| GOALS | Enable Improved Climate Models | Enable Improved Weather Forecasts | History of Global Modeling | Venue for Scientific Papers on Global Modeling | Venue for Review Papers for Policy Planners, Educators et al. | Distribution of CMMAP Results |
|---|---|---|---|---|---|---|
| OBJECTIVES | Improved Tools for Simulation of Global Cloudiness | Improved Cloud Parameterizations to NWP | Book on the History of Global Modeling | All-Electronic Open-Access Journal | Create and Maintain Website | |
| | $80,010 | $36,863 | $46,328 | $41,846 | $29,877 | |

# Reporting

1. Annual reports to NSF
2. Subaward institution reports to CSU CMMAP twice per year
3. Internal CSU investigator reports to CMMAP twice per year

# Annual Report to NSF

- NSF dictates the format for this report, and requires us to report by goals and/or objectives.
- Our reporting responsibilities are hierarchical in that the Objective Team Leaders are responsible for soliciting and collecting input, writing their portion of the report, and submitting it via our reporting system.

# Annual Report to NSF

- To successfully survive the complexity of this annual reporting process, we have developed a web-based reporting system. It also serves as part of the NSF-required database:

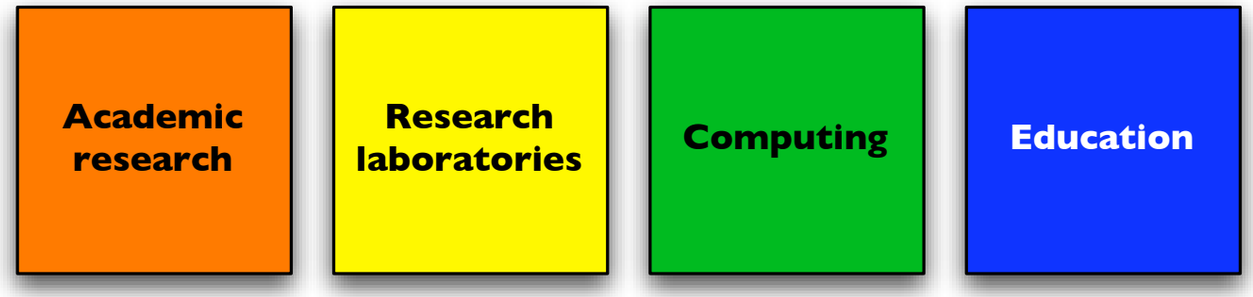
"Part of this reporting will take the form of a database which will be owned by the institution and eventually made available to an evaluation contractor. This database will capture specific information to demonstrate progress towards achieving the goals of the program."

- excerpt of email from Alina Martinez of Abt Associates

# Reporting Challenges

- Getting every team member to log in and do what we ask them to do.
- Objective Team Leaders shoulder a large burden of producing a coherent section of the report.
- CMMAP Executive Committee and the ED and KT Managers must take the report input and make it readable.
- All of this consumes incredible amounts of time -- time we can't spend working toward the goals in our SI plan.

# External Advisory Panel




**Prof. Kerry Emanuel of the Massachusetts Institute of Technology has agreed to be the first Chair of the EAP.**

**The other members are:**

**Alan Betts**
**Sandrine Bony**
**John Drake**
**Walter Oechel**
**Olivier Pauluis**

***The first meeting of the EAP was held in September 2007.***

# Ethics Plan

"CMMAP personnel must recognize that their personal conduct reflects on the integrity of the Center, and should take care that their actions have no detrimental effect on the institution."

A list of ethical expectations for all CMMAP team members has been posted on our website.

# Ethics Plan

In addition, at our February Team Meeting, we invited an applied ethicist to give a talk and engage the team in dialogue about ethics within CMMAP.

The question of "Why isn't it enough just to do good science?" was raised.

# Team building, team management

**CMMAP's tightly defined research focus on building, testing, and applying Multiscale Models provides a natural mechanism for communication and collaboration.**