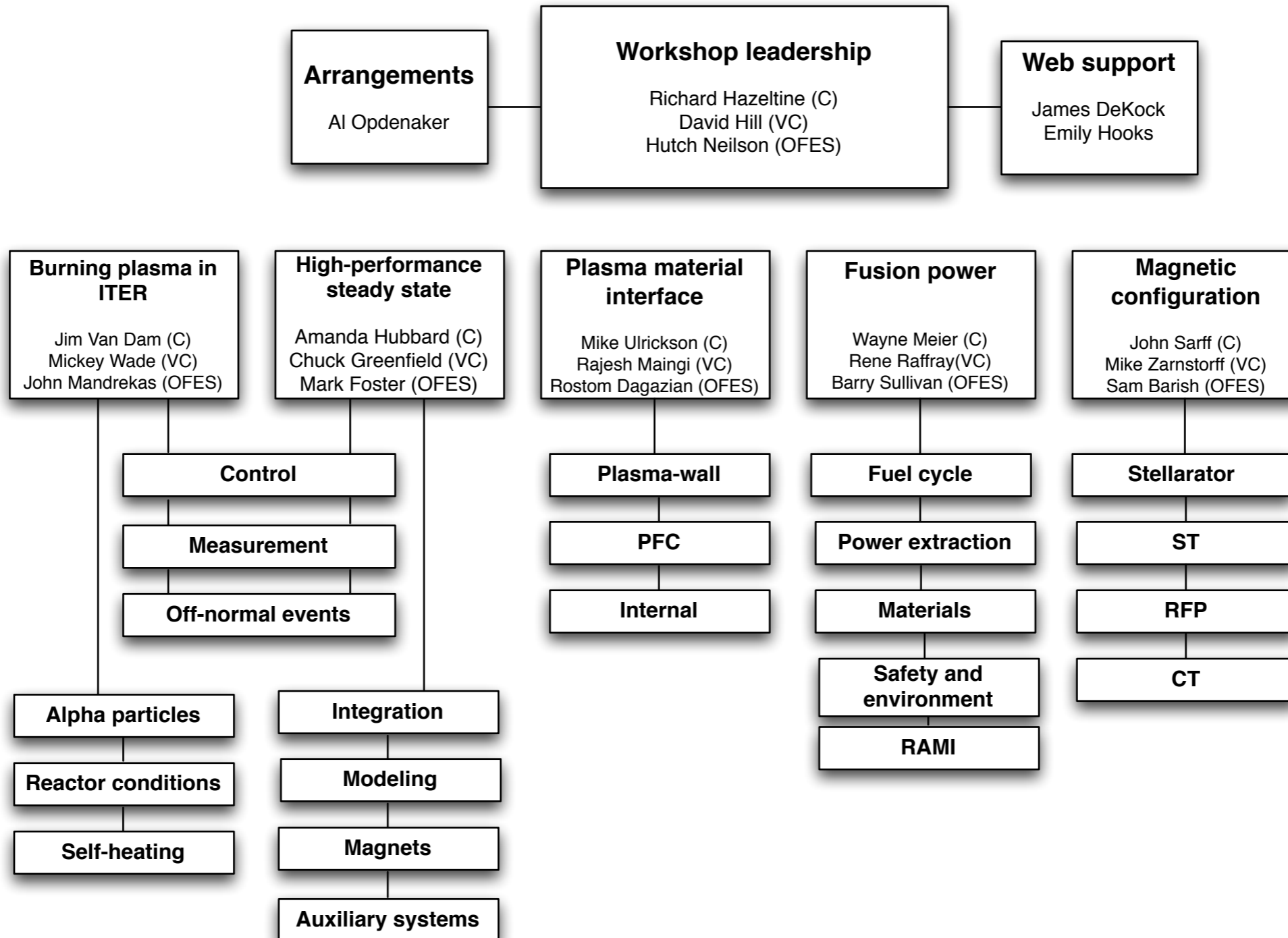


Research Needs Workshop for Magnetic Fusion

Richard Hazeltine

Renew structure



Special thanks to

- Al Opdenaker (OFES)
- Emily Hooks (UTX) and Jim DeKock (UW)
- Jody Shumpert, Lee-Ann Talley and the ORISE staff
- Saralyn Stewart (UTX)

Access to Renew web site

- Draft versions of various Renew contributions and documents are available at
 - <http://burningplasma.org/Renew.html>
 - Our Charter: “Renew Goals and Strategy”
- The public page has documents of general interest to Renew, but draft thrusts and Theme chapters are on the [private](#) (forum) page.
- Attendees who are not already registered can access the private page with help from Emily Hooks: ehooks@mail.utexas.edu

Renew Report

Renew is a **Workshop** that produces a **Report**. We consider first the Report.

Two intentions:

- a **foundation** for fusion program planning during the ITER era: 2010 to 2030.
- an **opportunity** for the US fusion community to display its goals and challenges to a new federal administration.

Emphasis on action

- Issues and gaps **known** from resource documents:
 - Priorities, Gaps and Opportunities Panel
 - Toroidal Alternates Panel
 - Energy Policy Act task group of the US BPO
- What must be **done** to resolve these issues, and bring fusion energy to the power grid?
 - a portfolio of research **thrusts**.
- Issues and gaps → Research requirements → Thrusts

Each Renew Thrust is

- a **building block** for detailed program plan to be constructed by OFES.
- **an organized, multi-faceted research activity**, combining new and existing program elements.
- described in about 6 pages, beginning with a **one-page** thrust summary.

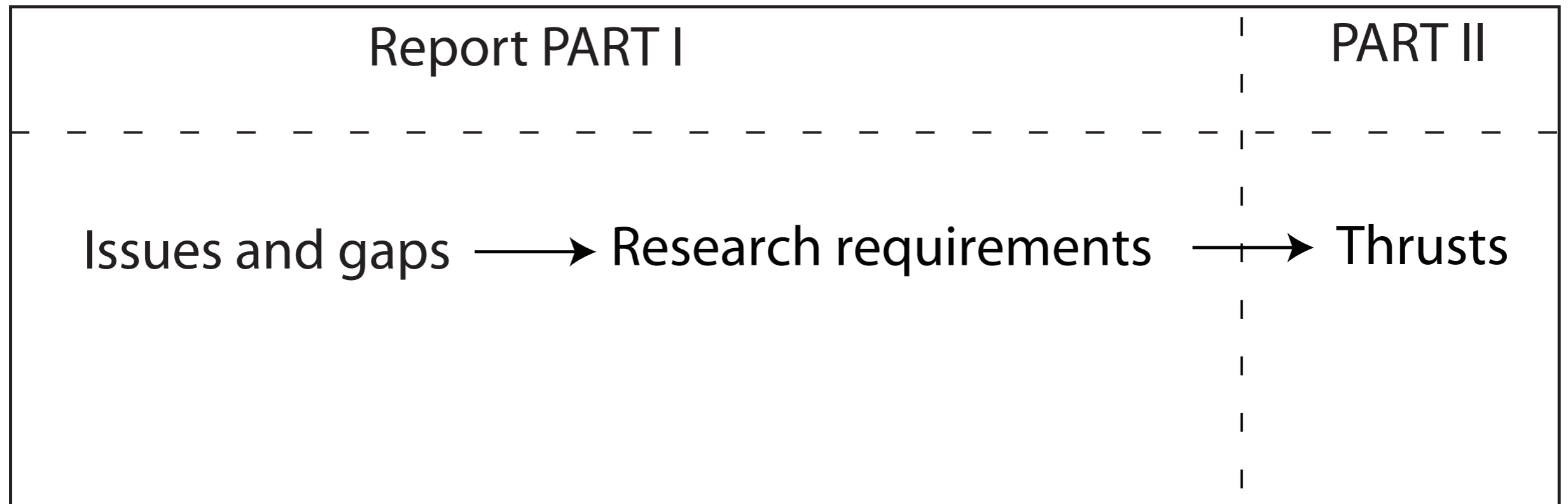
Audiences

- OFES planners
- OMB, OSTP, SC leadership...
- Congressional staff
- Scientists in other disciplines
- Fusion community, including us

Levels of interest

- Some will go for details (on at least selected chapters and thrusts)
 - including research requirements as well as thrusts
- Others may read selectively
 - emphasizing thrusts and Executive Summary
 - preferring **plain speech** over jargon and codewords
- All readers will demand clarity
- All will look for technical credibility

Report structure mirrors Renew process



Workshop follows same order, but emphasizes thrusts

The Workshop

- Input:
 - Drafts of Theme chapters, deriving research requirements from issues and gaps
 - Drafts of 18 **provisional** Thrusts
- Output:
 - the ReNeW report in essentially final form

Agenda

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 AM	Plenary (P): welcome and logistics	P: Dr. Ed Synakowski, AD for Fusion: Context for ReNeW	B: Thrust focus discussion. 3 parallel sessions: 4, 9, 7	P: Summary of thrust revisions	P: Wrap-up for OFES (all invited)
9:00 AM	P: Dr. Dehmer: Perspectives from Office of Science				
9:30 AM		Thrust 6	Thrust focus discussion: 5, 10, 13		
10:00 AM	Break	Break		Break	Break
10:30 AM	P: Theme 1 Chapter summary and discussion (20 + 10)	Thrust 7	Break	P: Begin final discussions of Thrust content	Excom meets for wrap-up
11:00 AM	P: Theme 2 Chapter summary and discussion	Thrust 8	Thrust focus discussion: 2, 11, 14		
11:30 AM	P: Theme 3 Chapter summary and discussion	Thrust 9			
12:00 PM	Break	Break	Break	Break	Adjourn
12:30 PM	Break	Break	Break	Break	
1:00 PM	P: Theme 4 Chapter summary and discussion	Thrust 10	Thrust focus discussion: 8, 1, 15	P: Continue thrust content finalization	
1:30 PM	P: Theme 5 Chapter summary and discussion	Thrust 11			
2:00 PM	Breakout (B): Theme chapter improvements	Thrust 12	Thrust focus discussion: 12, 3, 17		
2:30 PM		Thrust 13			
3:00 PM	P: Thrust summary and discussion. 20 + 10 for each Thrust. Thrust 1	Thrust 14	Break	P: Discuss executive summary	
3:30 PM	Break	Break	Thrust focus discussion: 16, 6, 18	Break	
4:00 PM	Thrust 2	P: Continue thrust summary and discussion. Thrust 15			
4:30 PM	Thrust 3	Thrust 16	P: thrust discussion	B: Writing chores	
5:00 PM	Thrust 4	Thrust 17			
5:30 PM	Thrust 5	Thrust 18			
6:00 PM	Reception	Excom meeting			

Chits

To discuss 18 thrusts efficiently, we will use chits: short comments on a given thrust. Thrust authors will confront chits at Thrust breakout sessions.

To **submit** a chit, go to

burningplasma.org/renewchits

burningplasma.org/renewthemes

and complete the form.

Reviewing chits

- To **review** chits for a given thrust, go to the Forum (<https://burningplasma.org/forum/>), log-in, click on “DRAFT Thrust and Chits” and choose the thrust of interest.
- A summary of chits will be included in each thrust sub-forum. The summary will be updated periodically as new chits are received.

Perspectives from the Office of Science

Dr. Patricia Dehmer

- Deputy Director for Science Programs, Office of Science DOE
- Acting Director, Office of Science, DOE