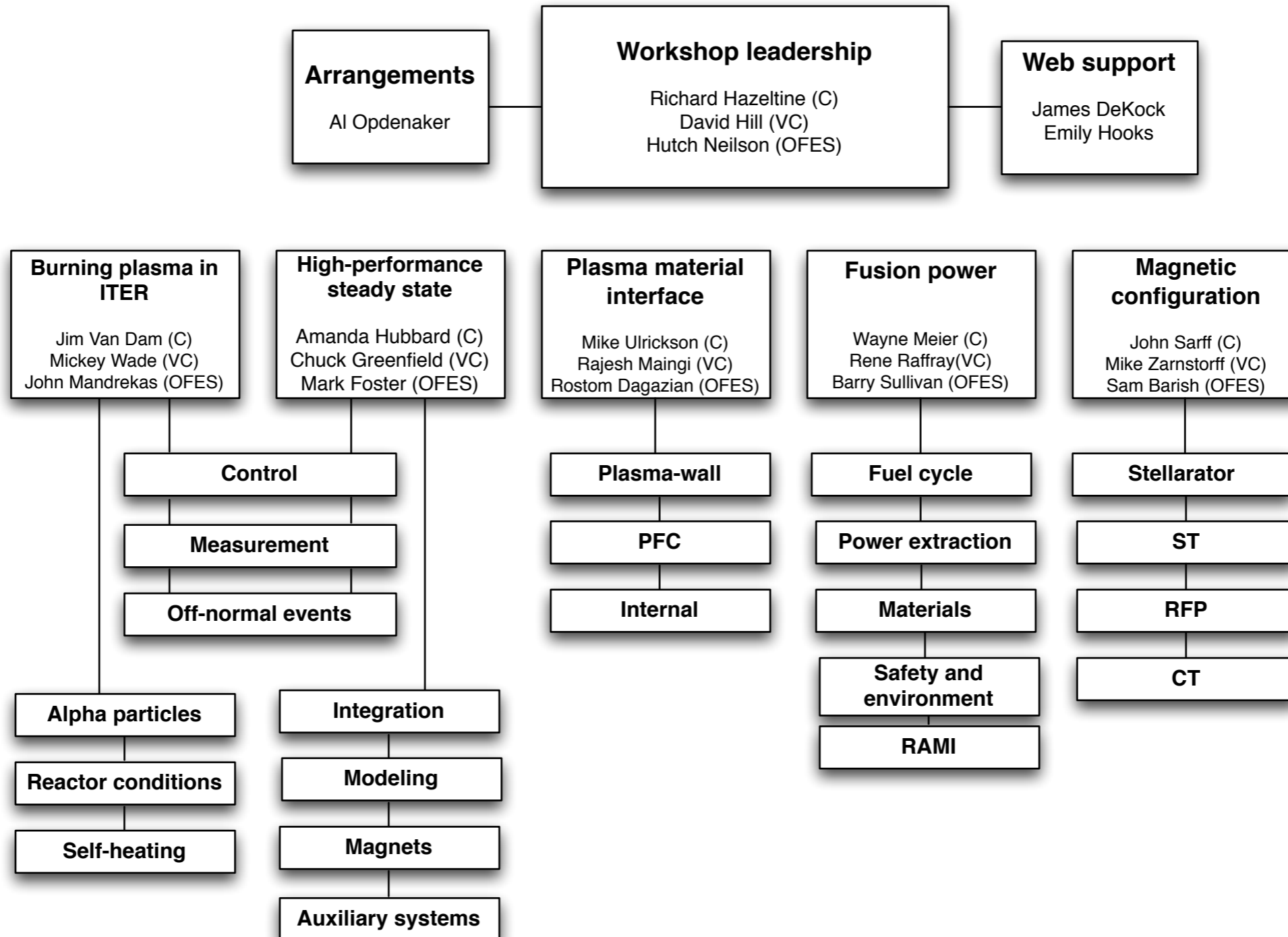


Research Needs Workshop

June 8-13, 2009

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 18 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.

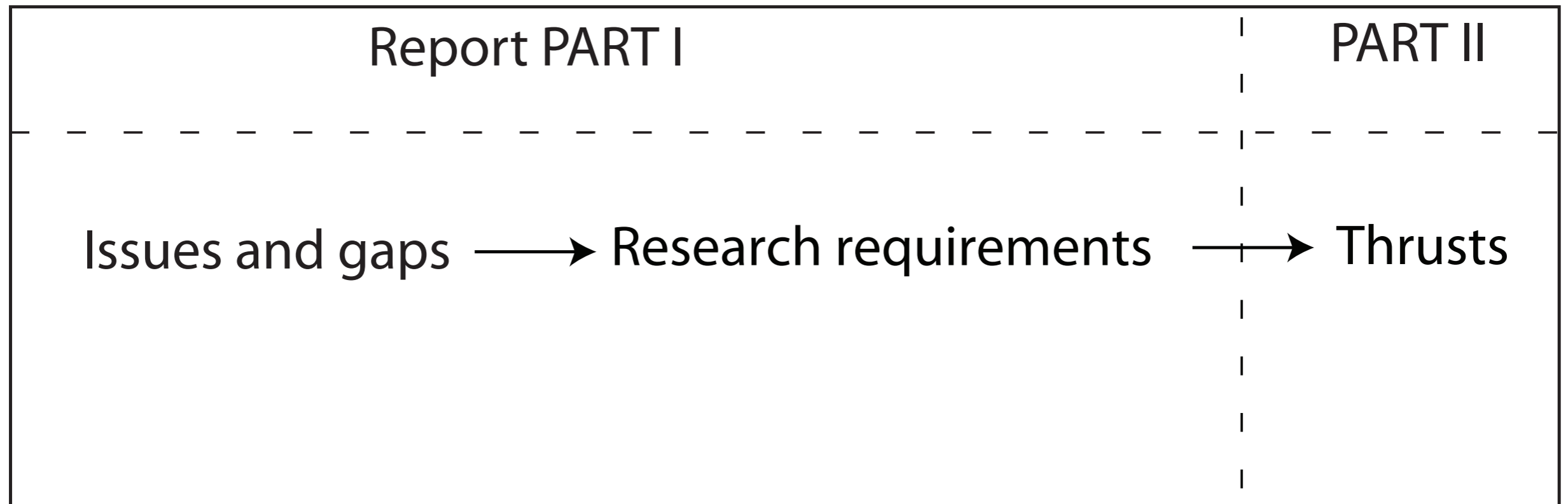
Audiences

- 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. Dehmer introduces Dr. Synakowski, New AD for Fusion: Context for ReNeW | B: Focused thrust discussions. 3 parallel sessions, 75 minutes for each Thrust; response to chits. | 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 | | | |
| 10:00 AM | Break | Break | Break | Break | Break |
| 10:30 AM | P: Theme 1 Chapter summary and discussion (20 + 10) | Thrust 7 | B: Focused thrust discussions continue | P: Begin final discussions of Thrust content | Excom meets for wrap-up |
| 11:00 AM | P: Theme 2 Chapter summary and discussion | Thrust 8 | | | |
| 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 | B: Focused thrust discussions continue; begin writing when possible | 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 | | | |
| 2:30 PM | | Thrust 13 | | | |
| 3:00 PM | P: Thrust summary and discussion. 20 + 10 for each Thrust. Thrust 1 | Thrust 14 | | P: Discuss executive summary | |
| 3:30 PM | Break | Break | Break | Break | |
| 4:00 PM | Thrust 2 | P: Continue thrust summary and discussion. Thrust 15 | B: Focused thrust discussions continue | | |
| 4:30 PM | Thrust 3 | Thrust 16 | | 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

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 DPE
- Acting Director, Office of Science, DOE