NSTX

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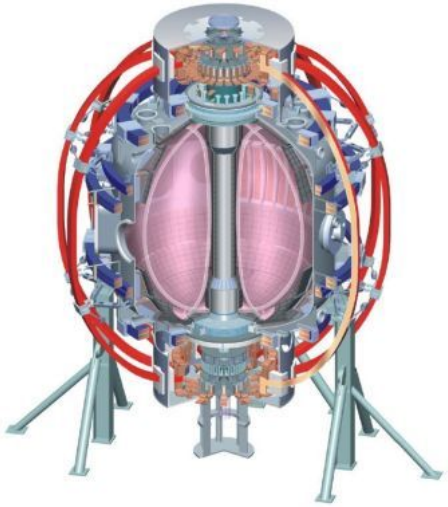
NSTX Program Update

J. Menard, M. Ono

For the NSTX Research Team

NSTX Team Meeting
NSTX Control Room Annex, B318
September 23, 2008



College W&M
Colorado Sch Mines
Columbia U
Comp-X
General Atomics
INEL
Johns Hopkins U
LANL
LLNL
Lodestar
MIT
Nova Photonics
New York U
Old Dominion U
ORNL
PPPL
PSI
Princeton U
SNL
Think Tank, Inc.
UC Davis
UC Irvine
UCLA
UCSD
U Colorado
U Maryland
U Rochester
U Washington
U Wisconsin

Culham Sci Ctr
U St. Andrews
York U
Chubu U
Fukui U
Hiroshima U
Hyogo U
Kyoto U
Kyushu U
Kyushu Tokai U
NIFS
Niigata U
U Tokyo
JAEA
Hebrew U
Ioffe Inst
RRC Kurchatov Inst
TRINITI
KBSI
KAIST
POSTECH
ASIPP
ENEA, Frascati
CEA, Cadarache
IPP, Jülich
IPP, Garching
ASCR, Czech Rep
U Quebec

NSTX Program Update

- Last team meeting was in May 2008 – much has happened since then!
  - July: NSTX 5yr plan successfully peer reviewed + successful facility review
  - Preparation of documentation for major upgrades (CS, NBI) underway

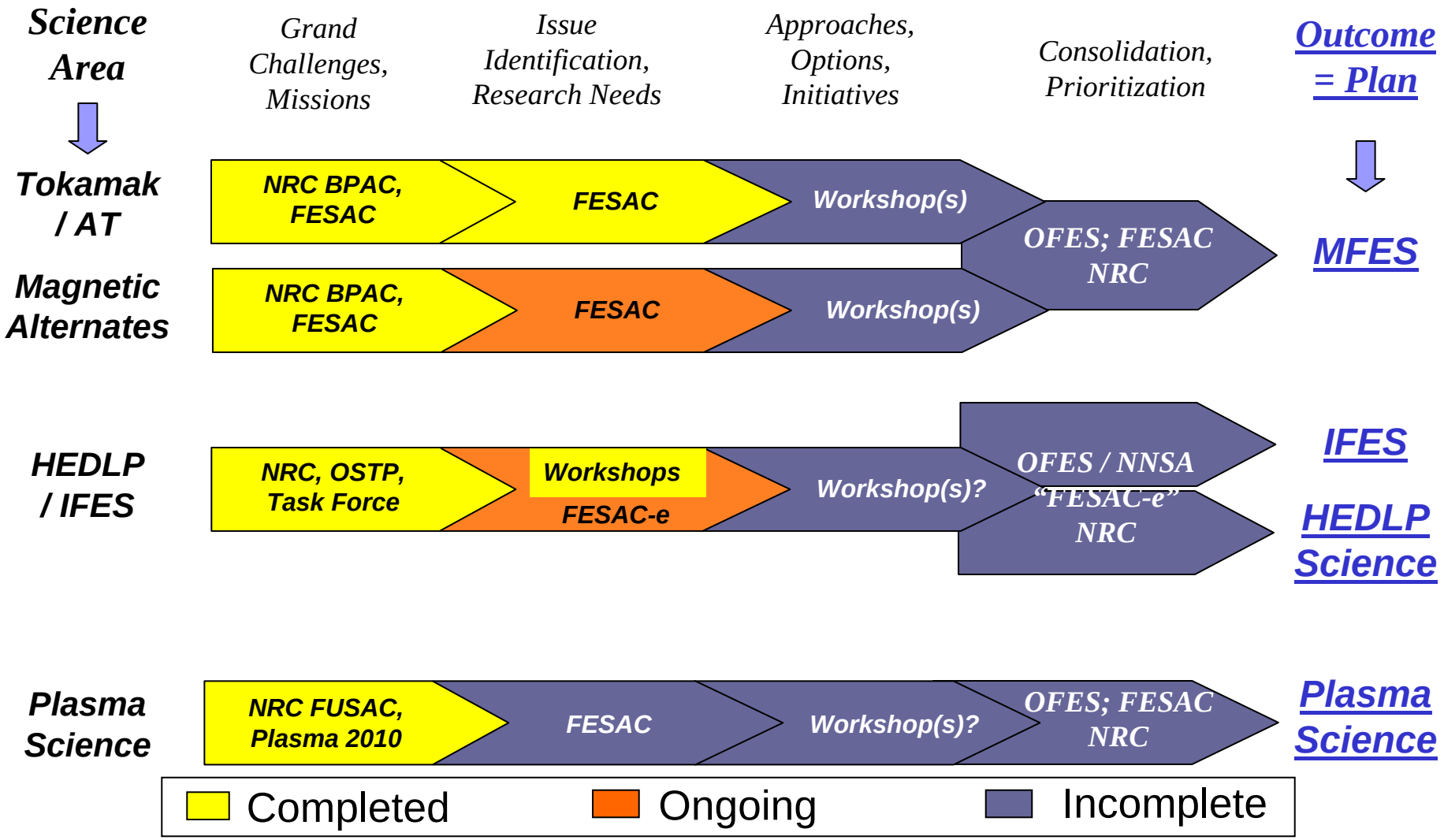
CALENDAR

- Diagnostic collaboration proposals due to DOE Thu Sep 25
- NSTX ITPA prep meeting next Monday Sep 29 – 1:30-4PM
- FESAC toroidal alternates panel (TAP) meeting Oct 1-2
  - Final report from TAP due end of October
  - Report will be discussed at next FESAC meeting – Nov 6-7
- IAEA - Oct 13-18, ITPA - Oct 20-23, APS - Nov 17-21
- NSTX Research Forum – Dec 8-10
- ITPA/IEA joint experiment planning – Dec 11-12 (MIT)
- NSTX PAC meeting – sometime in Jan/Feb (under discussion)

Research Needs Workshops (ReNeWs) to provide input to a more detailed, long-range (15-20 yr) strategic plan for MFES

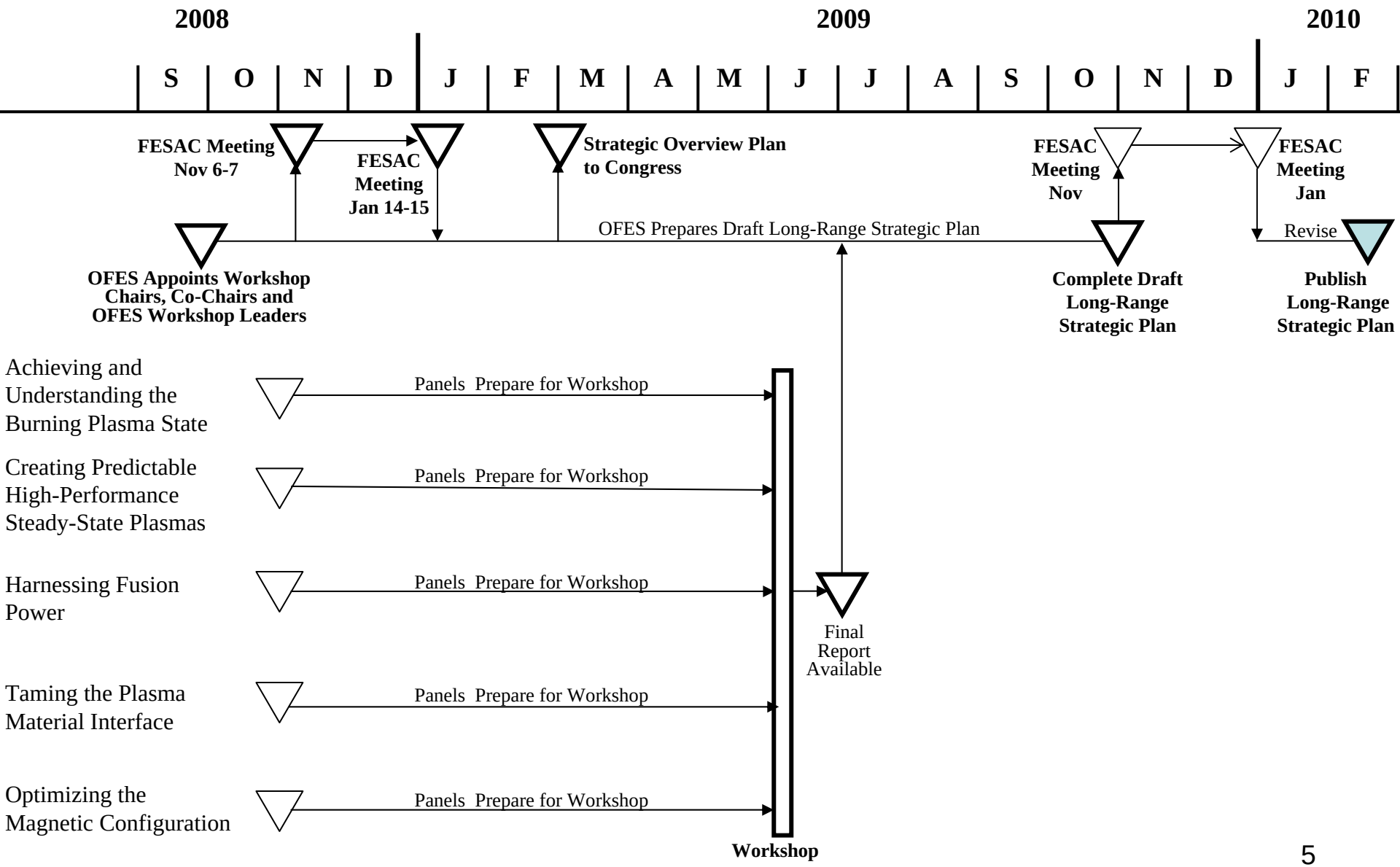
- Intend to complete by March 2010 - first ReNeW will be June 7-13, 2009
- Through this workshop and all the discussion, planning and activities leading up to it, the community will provide DOE with the information it needs to produce the long-range strategic plan, namely:
  - The agreed-upon issues that need to be resolved.
  - The fusion/plasma/engineering science research that is required to attain a sufficient knowledge base to allow the nation to decide whether to proceed with the development of fusion as an energy source for the future.
  - A clear understanding of the approaches to resolve these issues and attain this knowledge base including, as appropriate, a scientific/technical roadmap with options and decision points. An evaluation of the advantages and disadvantages should be provided if there is more than one approach. In addition to existing domestic facilities, consideration should be given to utilizing existing or planned foreign facilities to accomplish the required scientific objectives. If possible, preliminary scientific or technological research capability requirements should be provided for any new U.S. initiatives.
  - Explanation of the logical linkages among the various activities including the possibility of joint research, both domestically and internationally, and required new U.S. capabilities.

A Multi-year, Multi-Step Planning Process for *Each* Area of Responsibility



Fusion Energy Sciences Program
MFES Strategic Planning Timeline

Attachment 2



Research Needs Workshop Structure

Attachment 3