

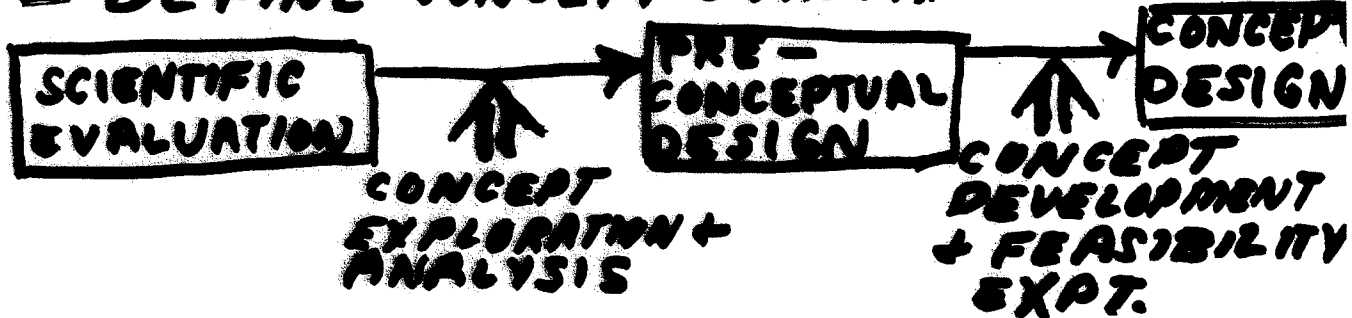
APEX STUDY MEETING MAY 6-8, 1998

INTRODUCTORY REMARKS

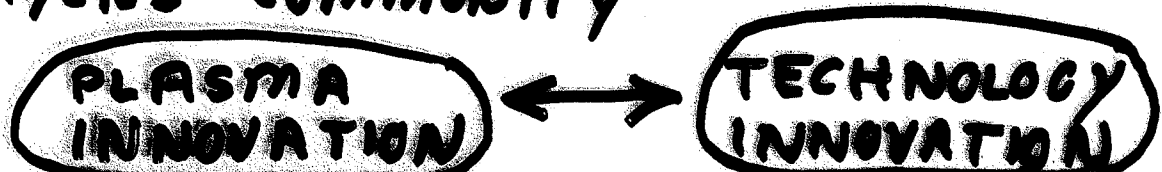
- TECHNOLOGY PROGRAM RESTRUCTURING
- BUDGETS
- TECHNOLOGY PROGRAM PLANNING
 - MAY 28-29: ENABLING TECH. USER-DEVELOPER MTG.
 - JUNE 24-26: VLT MTG.
 - AUGUST ? : COMMUNITY WORKSHOP

- APEX EVOLUTION

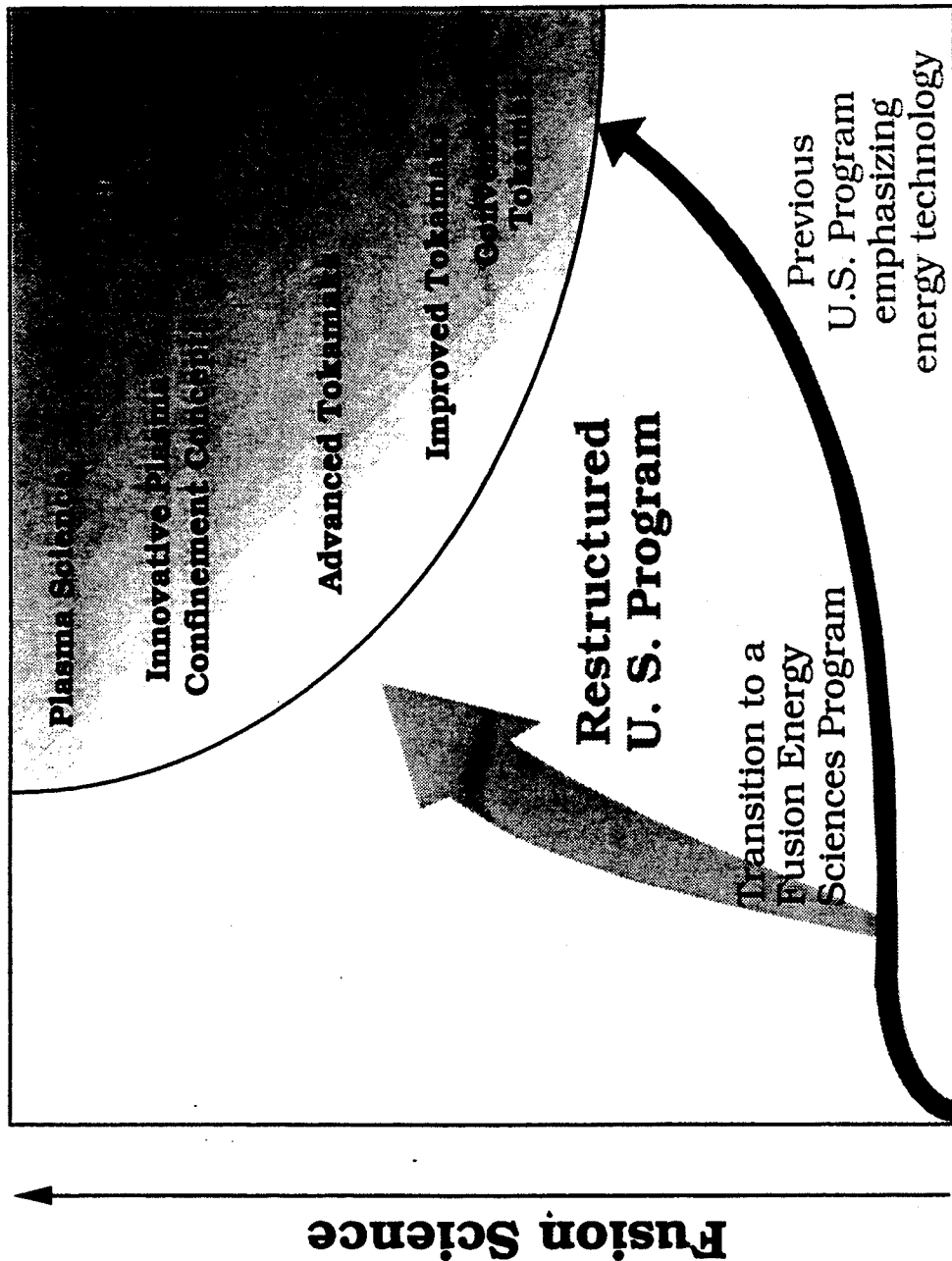
- APEX / ALPS COORDINATION
- TRANSITION FROM PLANNING PHASE TO CONCEPT EVALUATION/DEVELOPMENT
- DEFINE CONCEPT EVALUATION PROCESS



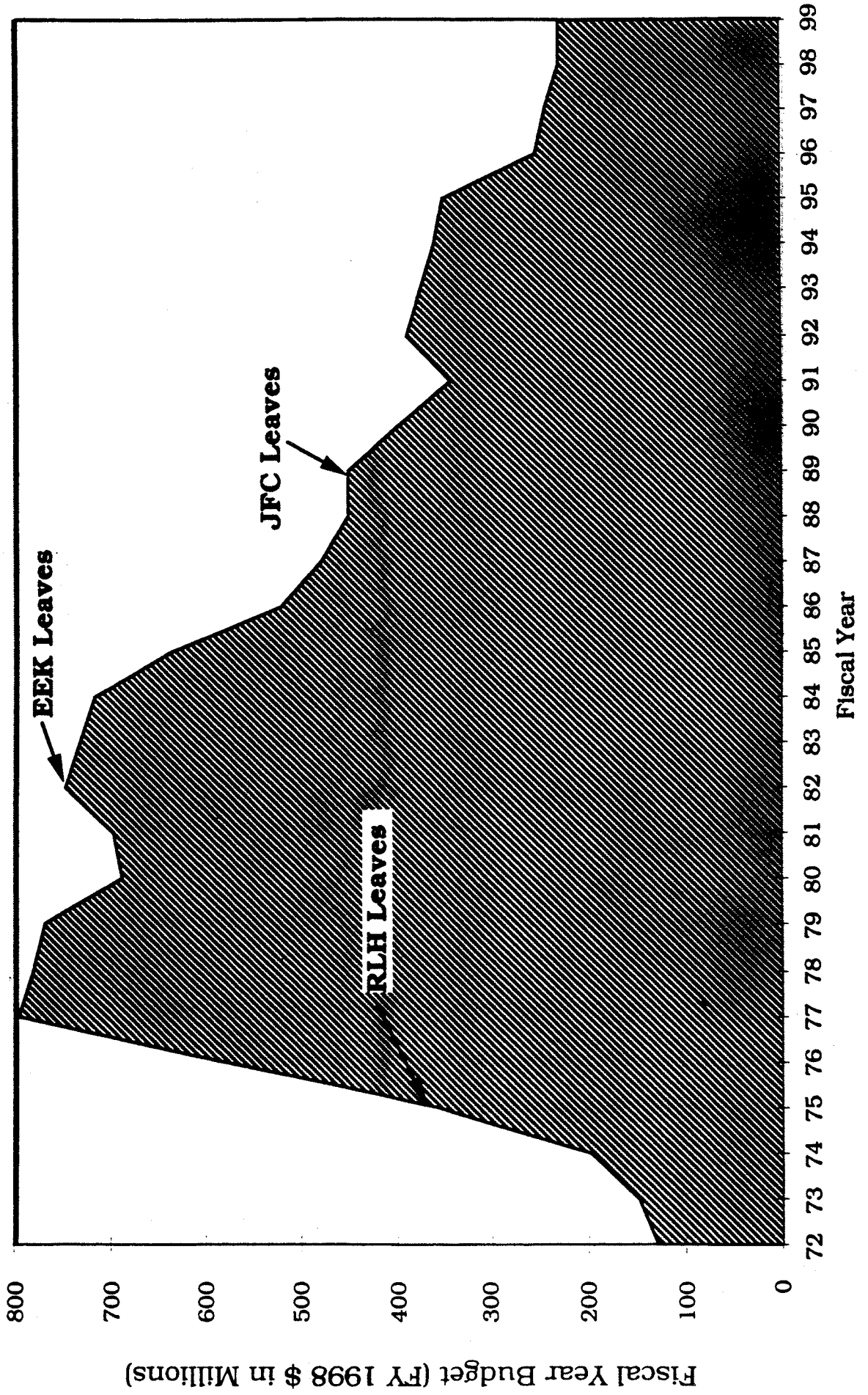
- ESTABLISH TEAM WORK PROCESSES (FAIR TO CONCEPT ADVOCATES AND EFFECTIVE USE OF TEAM RESOURCES TOWARD LEADING CONCEPTS)
- PREPARE WORK PLANS + RESOURCE REQ
- CONNECTIONS WITH PLASMA PHYSICS COMMUNITY



Restructuring of the U.S. Fusion Energy Sciences Program

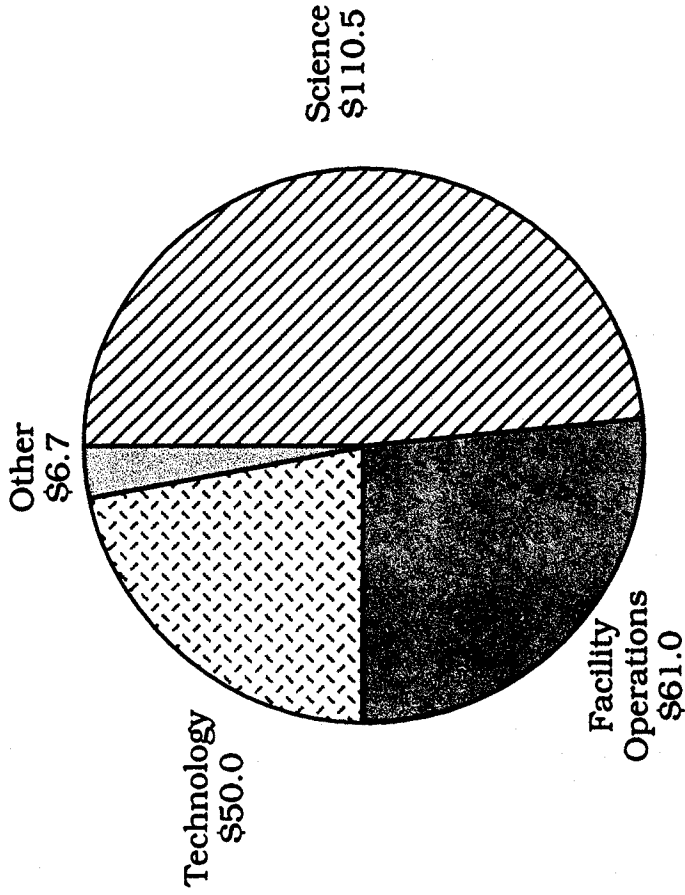


U.S. Magnetic Fusion Budget History

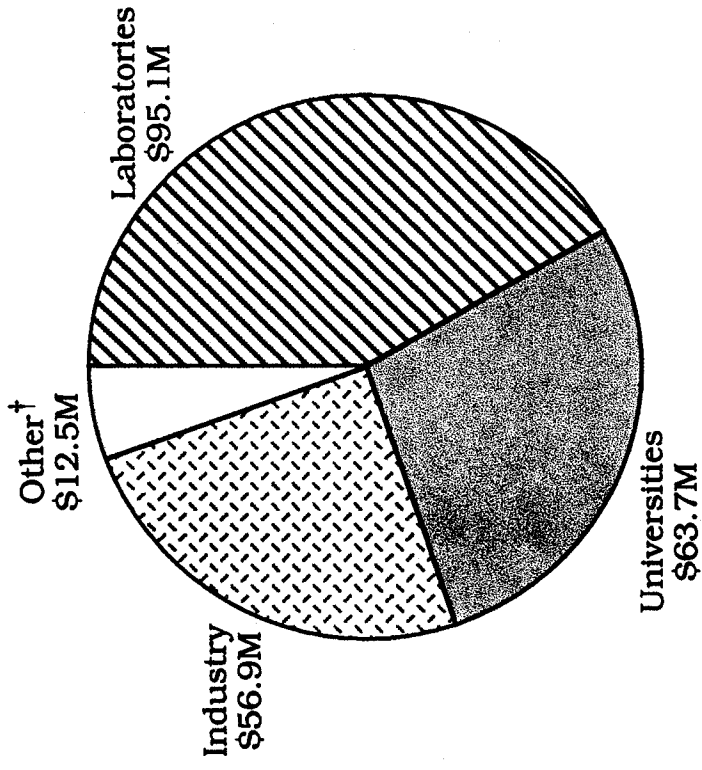


Fusion Energy Sciences FY 1999 Budget Request

Program Elements



Performers



\$228.2 Million

•Other:
 Reserve and Education
 Program Direction
 SBIR/STTR
 GPP

†Other:
 Reserve and Education
 Program Direction
 ITER Joint Fund
 Undesignated

U.S. Fusion Technology Program Restructuring

- Through FY 1998: heavily focused on ITER-specific tasks
- Beginning in FY 1999: transition to a broader scope of activities
 - Reduced ITER-specific tasks, but ITER remains major element of program

<u>FY 1998</u>	<u>FY 1999</u>
78%	60%

ITER portion of total U.S. Fusion Technology Program:

- Increased effort on enabling technologies for U.S. plasma experiments (D-IIIID, C-MOD, NSTX,...) and worldwide plasma experiments (JT-60, LHD, JET,...)
- Increased effort on advanced technology initiatives
- Emphasis on dual purpose tasks that support both ITER and plasma experiments

U.S. Fusion Technology Program

Summary

- FY 1999 budget (\$50 M) is a 26% reduction from FY 1998 level
- Program scope will be broadened with innovative technology initiatives and new international collaborations on worldwide plasma experiments
- ITER will remain major program element (60% of FY 1999 budget)
- Emphasis on dual purpose tasks that support both ITER and plasma experiments
- New international collaboration opportunities will be sought in all areas

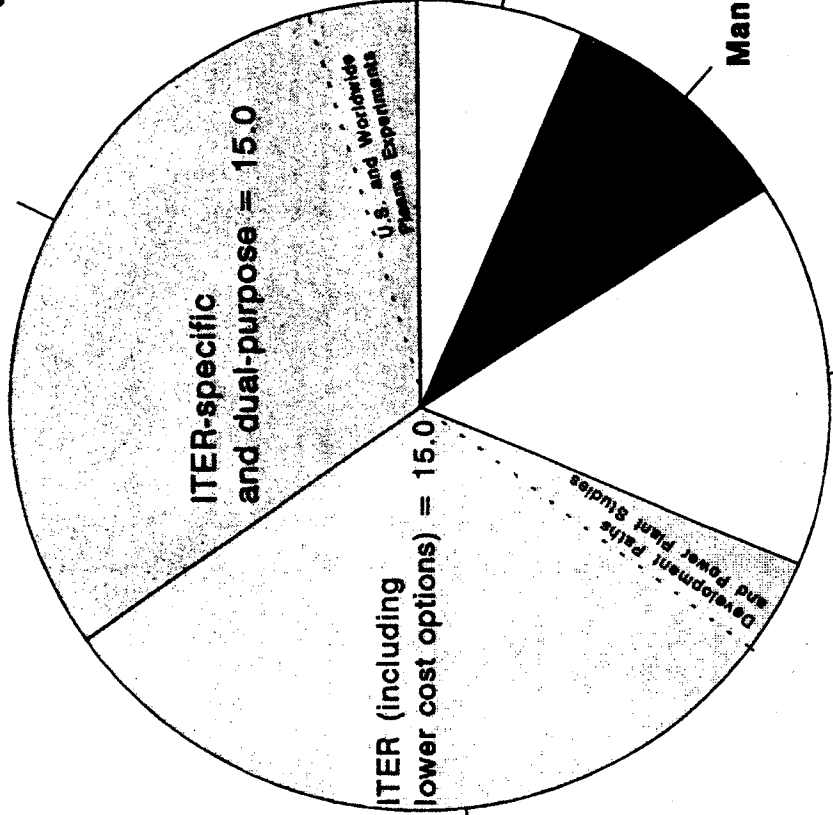
Example: U.S. proposes that exchanges for In-Vessel and High Heat Flux Materials and Components increase from 6 in FuY 1997 to 14 in FuY 1998

U.S. Fusion Technology Program

FY 1999 Funding Request in \$ M

Total = 50

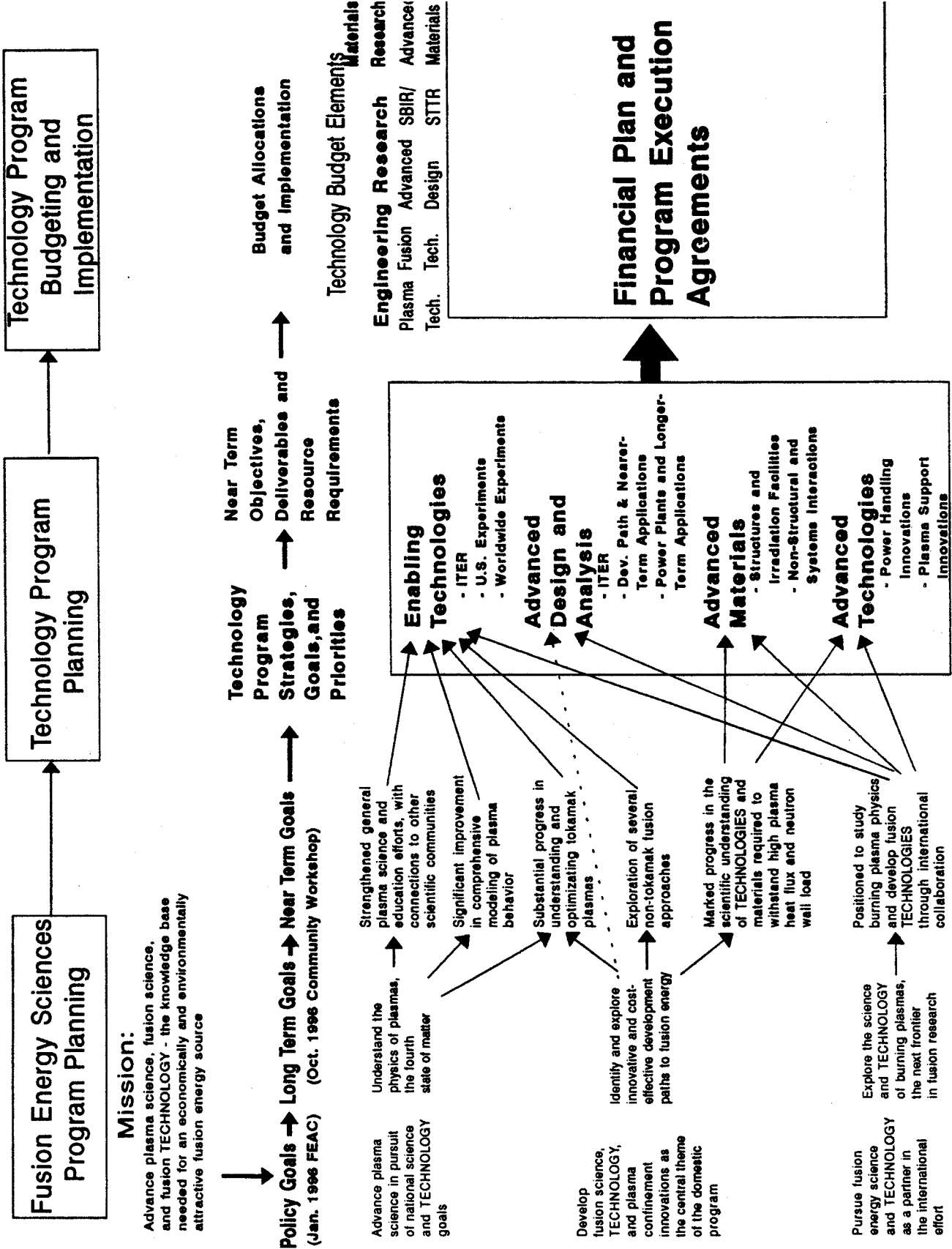
Enabling Technologies 17.4
35%



Advanced Design/Anal. 16.9
34%

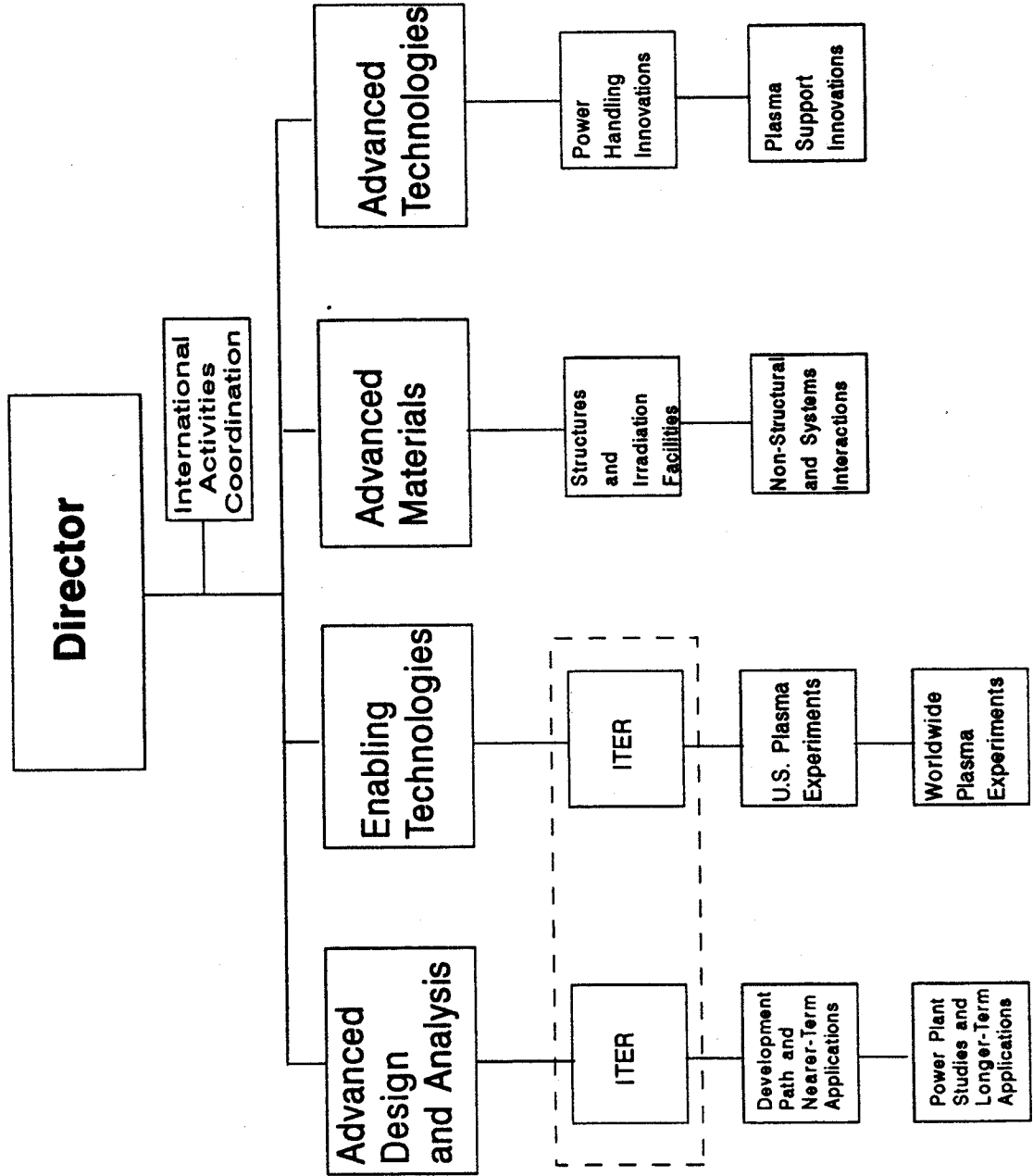
Advanced Materials 7.7
15%

U.S. Fusion Technology Program Planning Process



Office of Fusion Energy Sciences International and Technology Division

Possible Future Organizational Structures



U.S. Fusion Technology Program Restructuring

Enhanced Community Role

- Virtual laboratories are being created in many parts of the U.S. DOE

“Virtual” laboratories simulate traditional single-location laboratory setting by interconnection of people and facilities at different locations through state-of-the-art communication linkages, data/hardware sharing, and cross-institutional teaming

- Community leaders have begun process of creating a U.S. Fusion Technology Program virtual laboratory that will be fully established by end of 1998
- Virtual laboratory will provide community leadership
 - Represent Technology Program in U.S. fusion community activities
 - Promote advocacy and consensus building
- U.S. ITER Home Team continues and will be fully integrated into virtual laboratory