

Technology Group Workshop Discussion/Summary

by

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Presented to

DIII-D FPP Technology

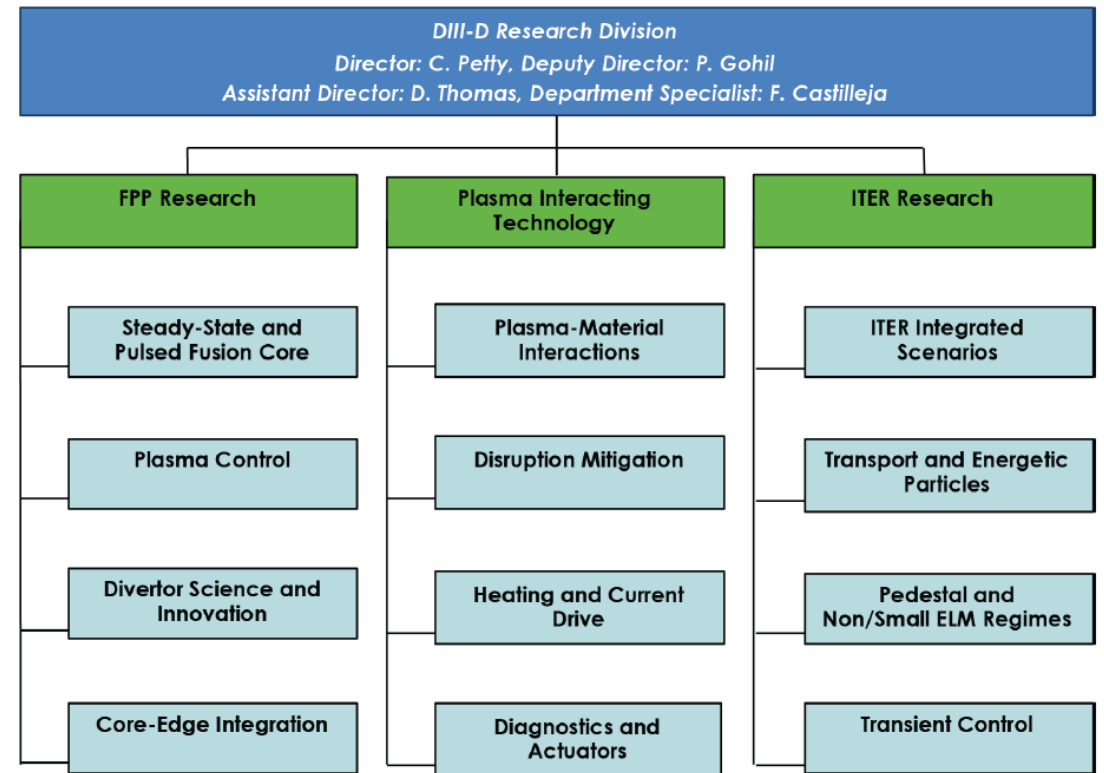
Strategic Planning Meeting

September 13, 2023



Overview of 2024-25 Research Opportunities Forum (ROF)

- **Run Time will be (mostly) allocated to 3 research groups and TBD task forces**
- **Roughly 50% of run time will be allocated to “thrusts”**
 - Thrust: a coherent set of high-priority experiments with common goal(s)
 - Group leaders will propose thrusts to the Research Council next Friday, 9/22



- **Our goal is to converge on a set of thrusts for Tyler/Andrew to present to the RC**
 - Individual experimental proposals will be discussed at a later date

Diagnostics & Actuators

Plasma-Materials Interactions

- **W in the Main Chamber Thrust**
 - Also presented in cross-cutting workshop, where does it fit?
 - Incremental resources likely needed, could be show-stopper
 - Separate from SVR-W or combined?
- **Wall Conditioning Thrust**
 - Suggest to add RF conditioning (e.g. ECH) to scope
 - Is this a “real” substitute for boronization? Likely scenario-dependent
 - Can we inject powder during He GDC?
 - Silane injection likely not possible (safety)
- **Advanced Material Testing Thrust**
 - Seen as high priority from fusion industry
 - Also emphasize model validation

Heating & Current Drive

Disruption Mitigation

- **General Disruption Mitigation Thrust**
 - Multi-pronged, no single deliverable
 - Based largely on group preference
 - Needs are fairly well defined, need to make ~equal progress on all them
 - Run time request needs to be better defined