



The Year Ahead

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Co-Optima: the year ahead



Co-Optima University FOA



- \$7M funding opportunity announcement (FOA) released August 2016
- Meant to fund universities to carry out R&D complementary to the national labs, with a primary emphasis on Thrust II
- Close collaboration with labs will be required
- Six sub-topic areas:
 - Fuel characterization and fuel property prediction
 - Kinetic measurement and mechanism development
 - Emissions and environmental impact analysis
 - Impact of fuel chemistry and fuel properties on particulate emissions
 - Small volume, high throughput fuel testing
 - Addressing additional barriers

Next Co-Optima Listening Day



- Next Co-Optima Listening Day targeted for January 19-20 at Sandia (CA)
- Goal – solicit stakeholder input on program goals and progress
- Planned to be much larger event than the first Listening Day held in June 2015
- Participants: stakeholders from all market sectors, Co-Optima team members, DOE
- Format: Plenary sessions with the entire group will be conducted, and breakout sessions by market sector will bring the discussions to much narrower focus to get the specific feedback desired on the decision point metrics
- Invitations will be going out shortly





FY17 Tasks

- FY17 tasks are mostly finalized
- Planning budget: \$24.5M (\$12M from BETO, \$12.5M VTO)
- Many continuing tasks (fuels, engine testing); several key new analysis and simulation/toolkit tasks
- Thrust II activities will be ramping up



Thank You

Thrust II strategy development



- Four Thrust II strategies currently under investigation
 - Leaner lifted flame combustion (LLFC)/ducted fuel injection (Mueller, SNL)
 - Reactivity Controlled Compression Ignition (RCCI; Curran/ORNL and Musculus/SNL)
 - Gasoline Compression Ignition (GCI; Ciatti/ANL)
 - Low Temperature Gasoline Combustion (LTGC; Dec/SNL)
- Initial Thrust II fuel work will focus on conventional CI, LLFC, and RCCI
- Discussions have commenced to define operating range to focus on
- Thrust II strategy document to be developed by end of CY2016