EPA
United States
Environmental Protection
Agency

Remarks for NAS Workshop on Assessment and Advancement of Science in the Bureau of Ocean Energy Management's Environmental Studies Program

USEPA Office of Research and Development
Air, Climate, and Energy National Research Program
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Process of Identifying Science Needs

- Solution-driven research focus
  - Emphasizes engagement with stakeholders from problem formulation through delivery of science that supports solutions
- Engagement
  - EPA partners in program and regional offices
  - Internal and external scientist to scientist discussions
  - Participation in scientific conferences and workshops
  - Strategic Research Action Plan (StRAP) development process (4-year cycle)
- Board of Scientific Counselors advice
- NAS Workshops
- Federal agency workshops and webinars (NASA, NOAA)

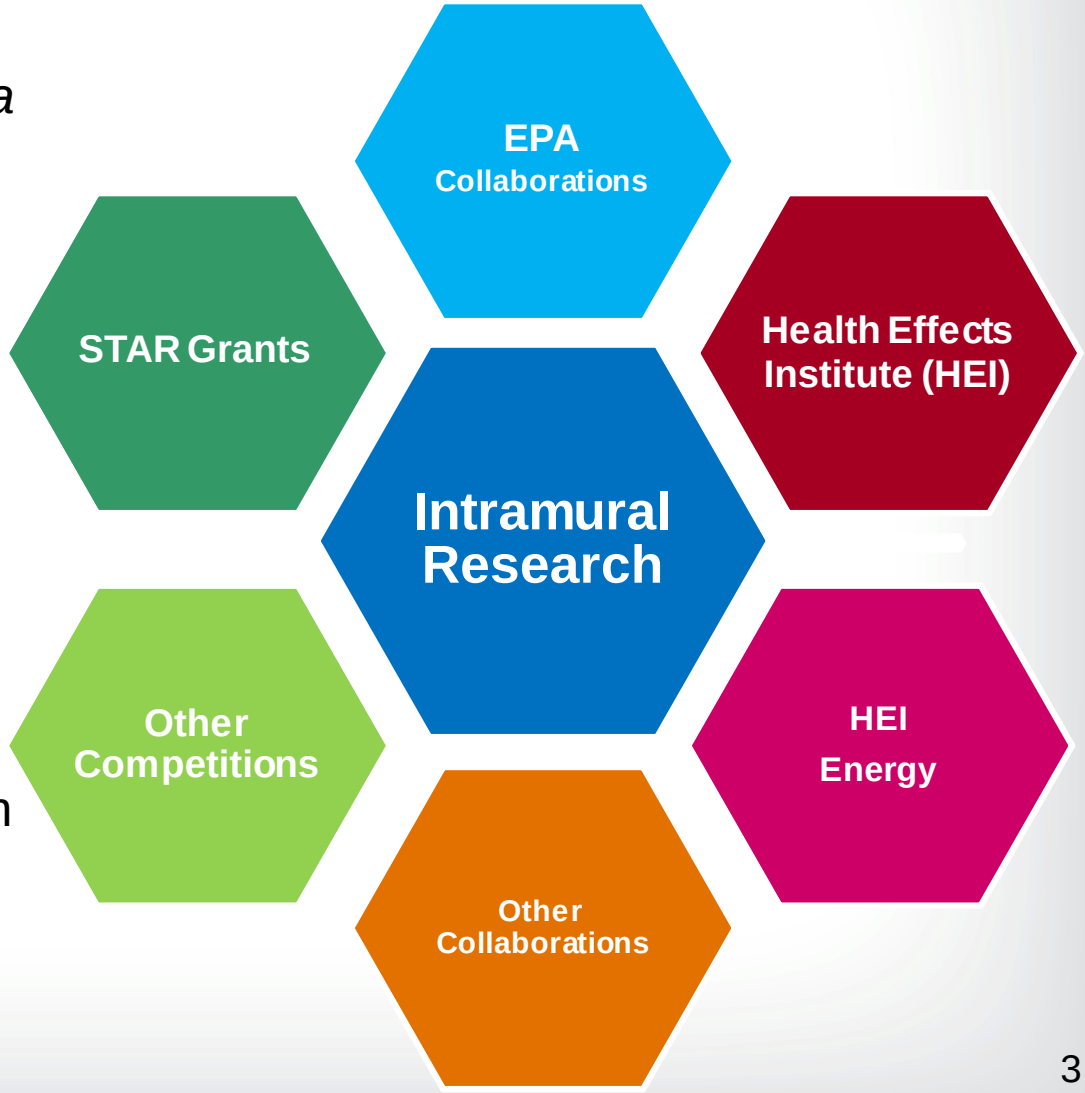
Prioritizing Research Activities

- Priorities are driven by the needs of EPA program and regional offices, with consideration of needs of states and tribes
- Also seek input from multijurisdictional organizations
- New approach activities are prioritized based on ability to address key priority needs
- Also look ahead to future challenges that may not currently be at the forefront
- Previous examples:
  - Low-cost air quality sensor technologies
  - Energy systems models
  - Electronic health records
- Current Strategic Research Action Plan includes two research areas focused on new approaches:
  - Emerging approaches to improve air quality and exposure characterization
  - Novel approaches to assess human health and ecosystem impacts and risks

Many Components Contribute to the Air, Climate & Energy Research Portfolio

Strategically integrate intramural and extramural research efforts to create a robust portfolio

- *EPA Collaborations with other national research programs, program and regional offices*
- *Health Effects Institute:* unique public-private partnerships
- *Other Collaborations* with other agencies, industry, academia
- *Other Competitions* e.g., challenge and prize competitions, citizen science, Small Business Innovation Research
- *Star Grants:* single principal investigator, Interdisciplinary Centers



Program Outputs

- Tailored to the specific needs and in consultation with EPA programs and regions
- Include a variety of forms
  - Journal articles
  - Assessments and reports
  - Webinars
  - Databases
  - Models
  - Tools
  - Methods
  - Devices
- Outputs can be used to support regulatory actions, enforcement, policy development, risk communication, and decisions at multiple scales (local, state, regional, national)
  - Example: development of EPA AirNOW Fire and Smoke map

Program Impacts

- Conduct annual surveys of users of our research products
  - Timeliness
  - Quality
  - Usability
- Regular meetings with EPA program and regional office users of products during development, delivery, and follow up
- Feedback from users on where the science has been effective in supporting decisions and implementation
- Analysis of downloads and use of online tools
- Evaluation of participation in public webinars
- Listening sessions with states and tribes, as well as tribal consultations