NOAA FISHERIES

NOAA Fisheries Science Planning

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NOAA Fisheries Mission

NOAA Fisheries is responsible for the stewardship of the nation's ocean resources and their habitat. We provide vital services for the nation:

- productive and sustainable fisheries
- safe sources of seafood
- the recovery and conservation of protected resources, and
- healthy ecosystems

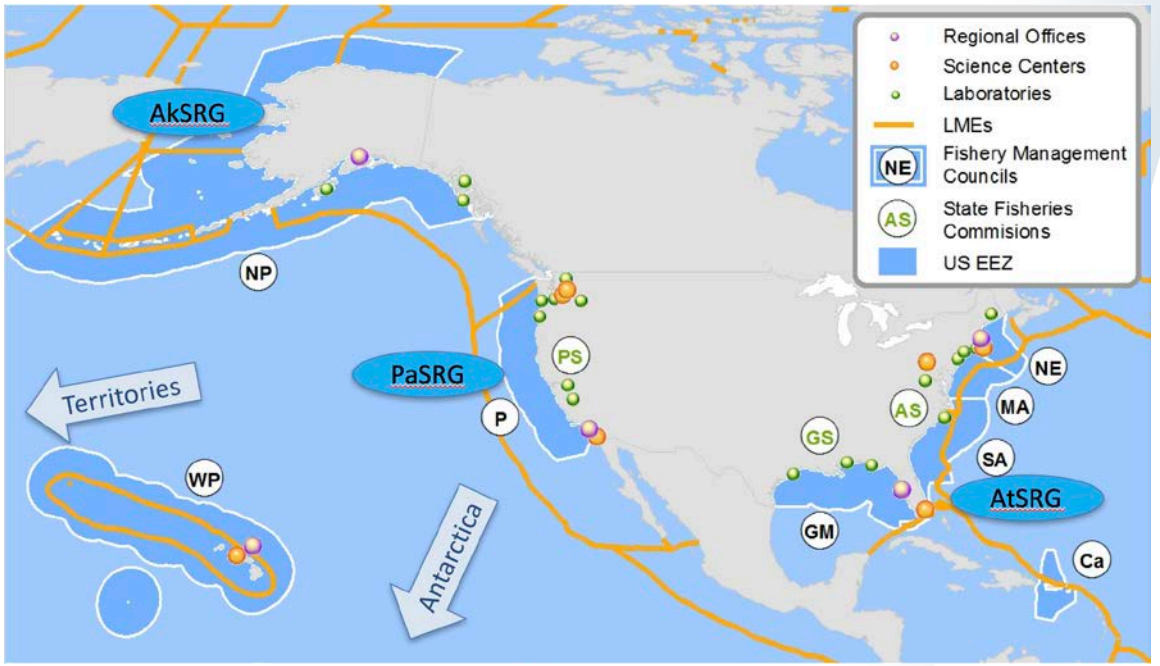
all backed by sound science and an ecosystem-based approach to management.

NOAA Fisheries Mission

Stewardship of the nation's ocean resources and their habitat

Sound science | ***Ecosystem-based approach to management***

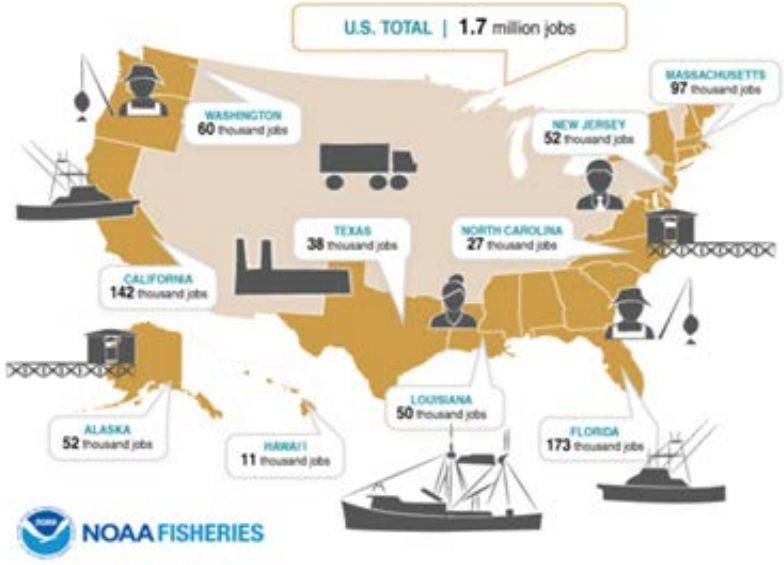
- 1 HQ science office
- 6 regional science offices
- 50 – 150 scientists per office
- 7 Office SES Directors report to Chief of Sci. Programs
- These 8 + 3 Senior Scientists form advisory Science Board



NOAA Fisheries Mission and science needs

- How does your agency/organization/program identify what science is needed to inform regulatory and other operational decision-making and policy at national, regional, or local levels?

Observations & Data → **Research & Modeling** → **Synthesis & Assessment** → **Management Advice**

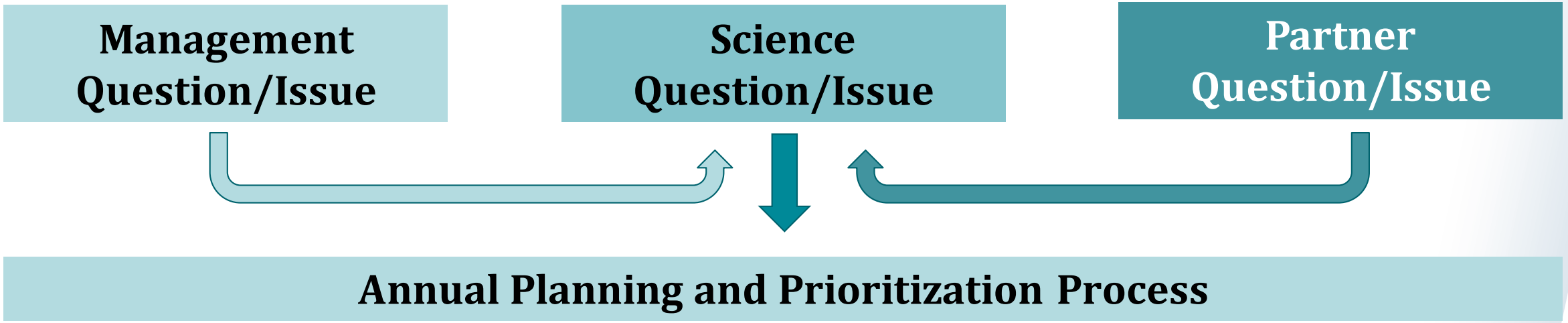


MSA	MMPA
ESA	Others

Ecosystem-Savvy Resource Management

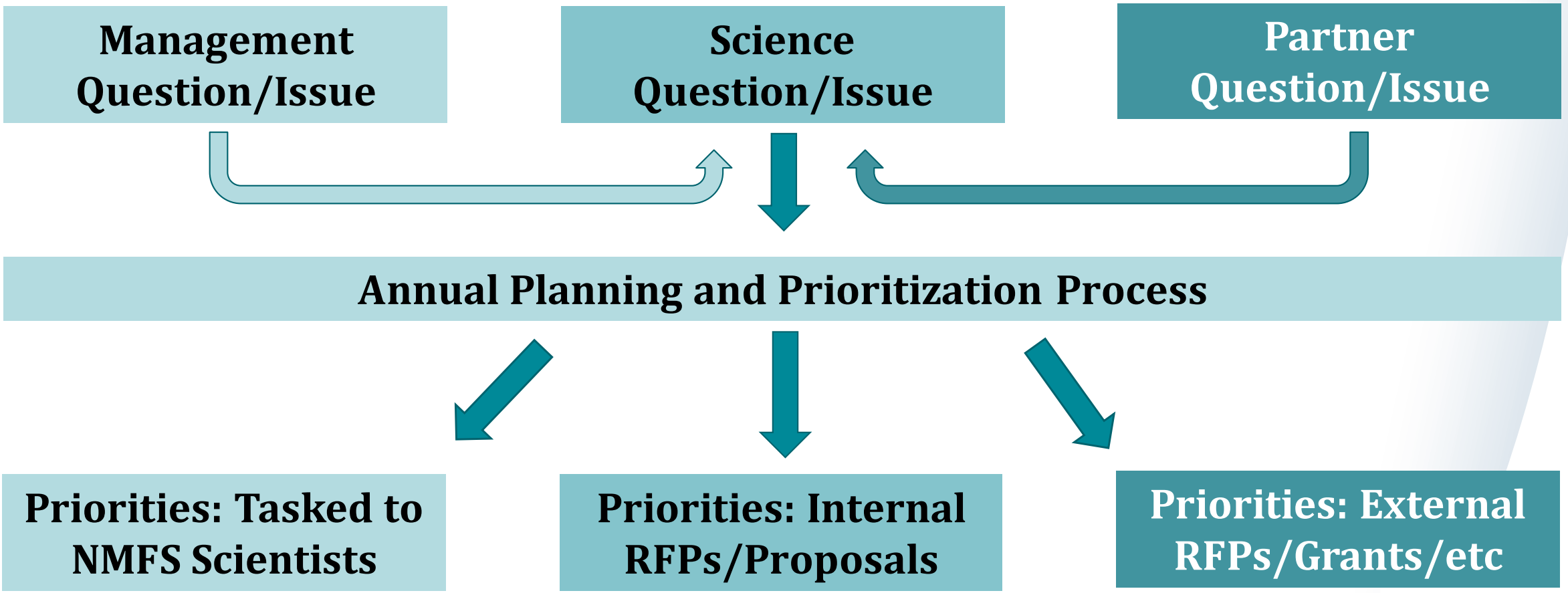
- 450+ Fisheries Species
- 117 Marine Mammals & 93 ESA species
- 2000+ Habitat Actions
- 200 + Aquaculture actions
- 100 + NEPA actions & 11 LMEs

Q1. Process of Identifying Science Needs



- Priorities can be scheduled (e.g., assessments), episodic, or ad hoc
- Study needs identified at national and regional levels
- SES-level Science and Regulatory Boards meet regularly to identify priorities and provide input to annual prioritization and annual RFP programs
- Most prioritization tied to management action/applied improvement
- Annual prioritization has quantitative rubric used by leadership in ranking

Q2. Process of Identifying Who Conducts the Science



Q2. Process of Identifying Who Conducts the Science

Who will conduct the science?

In house expertise?

- Task staff within program
- Redirect additional staff to assist
- Internal RFP

External expertise?

- Partnerships available through existing contracts/grants/CIs?
- How to solicit
  - External contract/grant (work is defined, solution is defined)
  - External RFP (need is defined)

Q2. Process of Identifying Who Conducts the Science

Internal RFP

- Internal Broadcast emails
- Announcement at national bi-weekly update
- Internal web process to ensure regional leadership support
- Program Management Teams to review or form proposal review teams

External RFP

- Broad Agency Announcements
- Fisheries.gov Funding Opportunities Website
- Press releases
- Curated mailing lists
- Pre-proposal review stages

- Conduct internal/external rating process to determine awardees
- Each grant has explicit terms and conditions tying to science/management outcome

Q3. Program Outputs

Outputs	Evaluation
• Observational data • Process studies or improvements • Assessment or model results • Research & Development products, studies, or improvements	• Formal org. review (CIE, NAS) • External peer review • Internal peer review • Internal expert self-review • Level of review depends on product risk/importance

- **Set annual catch limits or number of allowable interactions**
- **Biological opinions to assess species vulnerability or critical species states or metrics**
- **Assists in decisions to form or remove regulations**

Q4. Program Impacts

- Promote the sustainable harvest of key commercial, recreational, and sustenance fish species with minimal ecosystem impacts
- Provide information to support effective management of protected species
- Support partner offices and agencies in understanding environmental impacts from planned work or ecosystem changes

- Evaluate these impacts with national metrics and feedback
  - Status updates on both Fish Stock Sustainability Index (FSSI) and non-FSSI stock of interest (reduce overfishing, rebuild from overfished)
  - NOAA Fisheries GPRA ESA Species status (improve listing status, delist)
  - Successful technical review of R&D project, process studies, or outsourced work (sample processing, observations, surveys, etc.)

Q5. Program Improvement

- An independent review of the NOAA Fisheries science enterprise was held in 2010-2011 (Sissenwine and Rothschild (2011)
- NOAA Fisheries underwent a series of program reviews across all science offices from 2013-2017
- From 2019-2020 NOAA Fisheries Science Leadership performed a “review of reviews” (RoR) to bundle outcomes and recommendations from the 2013-17 reviews to inform the next review cycle (to be published in 2021)
- NOAA Fisheries is currently preparing the statement of work for a 2021-2022 Enterprise-wide science review

Q5. Program Improvement

- The reviews took place over approximately 125 days and included 830 combined science presentations, panel discussions, and poster sessions. Hundreds of people representing NOAA Fisheries science and 184 expert panelists were involved

- Data Collection and Management (2013)
- Fisheries Stock Assessment Programs (2014)
- Protected Species Science (2015)
- Ecosystem, Climate, and Habitat Science (2016)
- Economics and Human Dimensions (2017)

Q5. Program Improvement

Areas for improvement included:

- Attention to our workforce
- Organizational excellence
- Engagement with our partners and stakeholders

Our RoR highlighted the need to continue to develop NOAA Fisheries science in tandem with NOAA Fisheries as a science organization

Questions?