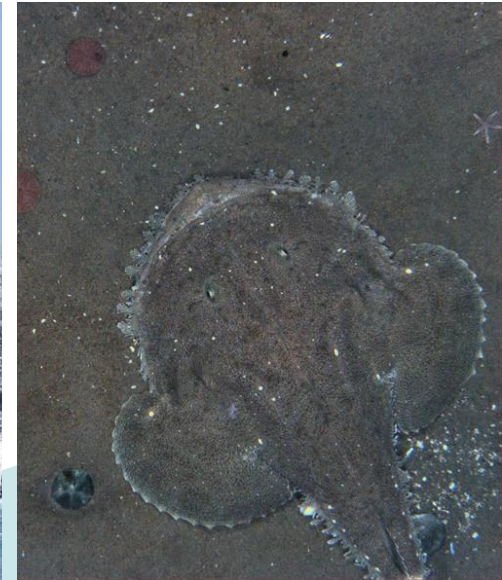




**NOAA  
FISHERIES**

# Northeast Fisheries Science Center Strategic Science Plan | 2016-2021

*Ecosystem-based science supporting stewardship of living  
marine resources under changing climatic conditions*



**Mid-Atlantic Fishery Management Council , Annapolis MD, December 10, 2015**



**NOAA**  
**FISHERIES**

*The Northeast Fisheries Science Center is a leader in marine science; our scientists and our science are recognized regionally, nationally, and internationally.*

**Major objectives:**

- Improved internal and external communication to ensure transparency, accountability, and trust;
- Increased multidisciplinary, cross-cutting science enabled through greater investment in cooperative and collaborative research;
- Improved efficiency and effectiveness in meeting commitments to statutory and regulatory requirements;
- Scientific investigations that support progression toward ecosystem-based fisheries management; and
- Investment in our people and infrastructure to enable us to meet our mission.

# Science Plan Development Process

**On-site meetings** with staff and input from branch chiefs

**Online questionnaire** with 64 respondents

**Interviews** with 17 external stakeholders and partners

**Regional workshops** in Boston and Washington, D.C., including 25 external partners and stakeholders

**Focus group** input on challenges and solutions provided by six internal groups

**Interactive workshop** with Center leadership; open discussion with MAFMC, NEFMC, ASMFC, and GARFO

**Internal review among Center staff** (additional improvements made after over 150 comments)

**External review** (invitation sent to all engaged in process to date resulted in additional changes)



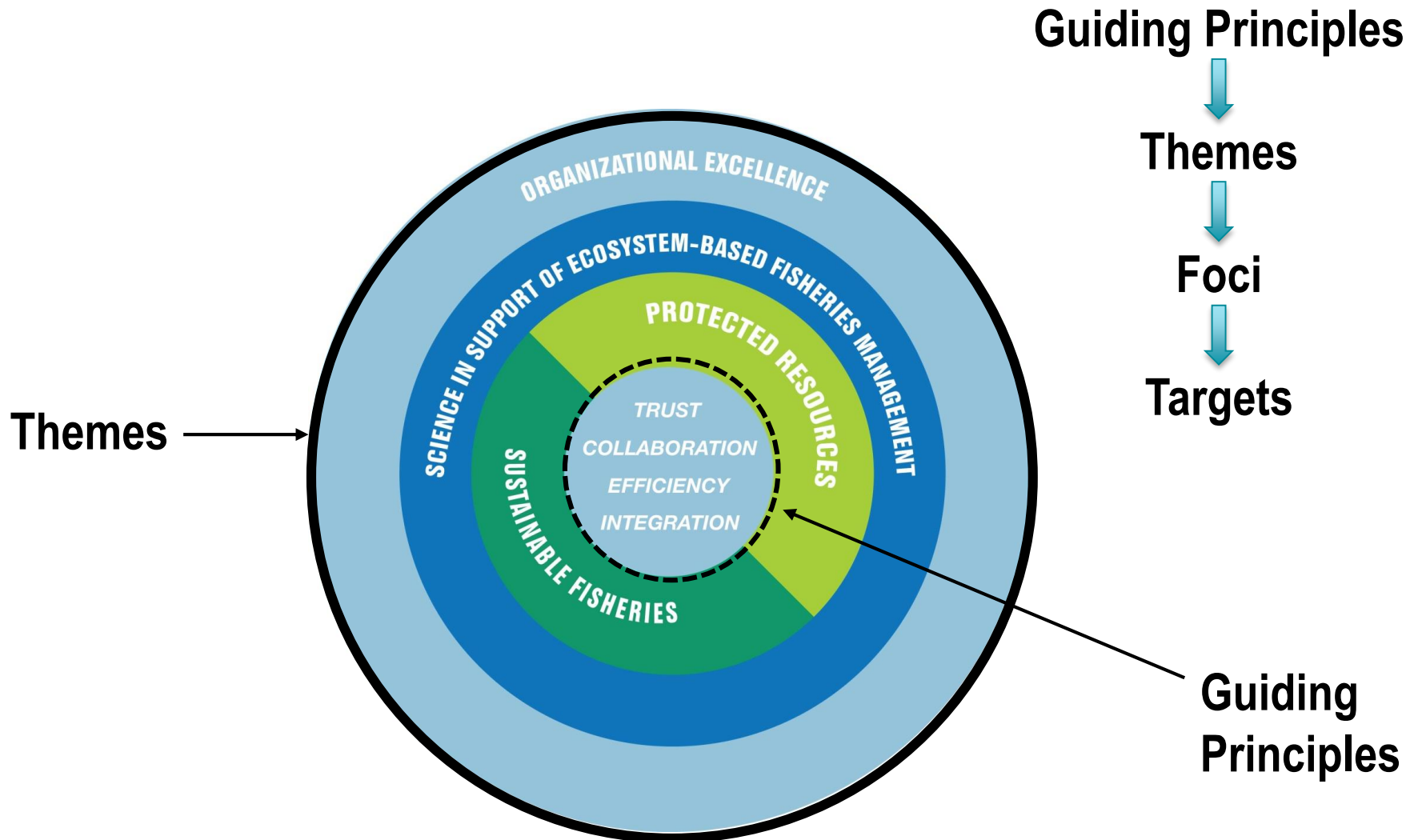
CC BE  
Improve communication  
partnerships and  
transparency and  
cooperative research  
"Culture"

Develop risk based  
approach to  
prioritizing  
species research/  
assessment



CC BE  
HRC  
Annual Report to  
Councils RE.  
ALLOCATION +  
PRIORITIES

# Strategic Framework





- A Improve accuracy and efficiency of data collection and enable seamless public access to our data and data products.

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- B Improve quality, efficiency, and responsiveness of stock assessments and other science-based advice.

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- C Advance aquaculture to support sustainable production.

## Example Targets

- Review fishery dependent sampling and data collection protocols
- Evaluate and implement advanced data collection technologies
- Hold workshops with partners and stakeholders to share trends, field observations, and scientific advances
- Reform stock assessment process in collaboration with partners to broaden participation and improve timelines
- Conduct research on responses of aquaculture to changing environments

**D** Improve accuracy and efficiency of data collection and enable seamless public access to our data and data products.

**E** Improve quality, efficiency, and responsiveness of stock assessments and other science-based advice.

## Example Targets

- Develop comprehensive and integrated systems for data collection, management and dissemination
- Monitor distribution and migration routes and identify shifts in patterns over time
- Improve assessment of human threats through more complex analyses, particularly for higher risk species
- Enhance cooperative data collection for protected species



# Science in Support of Ecosystem-Based Fisheries Management

F Improve understanding of the influence of climate, ecosystem, habitat factors, and species relationships on living marine resource dynamics in order to provide integrated scientific advice to managers.

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G Improve understanding of economic and socio-cultural factors in marine resource management and apply this knowledge in the provision of management advice.

## Example Targets

- Build IT systems needed to integrate data sources, perform related modeling, and work collaboratively
- Increase understanding of ecosystem processes with a focus on ecology of protected and managed species
- Develop extended single species assessments that incorporate climate, ecosystem, and habitat factors
- Develop more comprehensive benefit-cost analyses that support EBFM goals
- Strengthen EBFM progress by incorporating economic and social science expertise

# Organizational Excellence

H Recruit, train, support, and retain a high-quality workforce.

I Engage partners, stakeholders, and the public to increase transparency and collaborative opportunities and evaluate research goals and priorities.

J Facilitate and advance Center-wide communication and collaboration.

K Invest in infrastructure required to support the mission.

## Example Targets

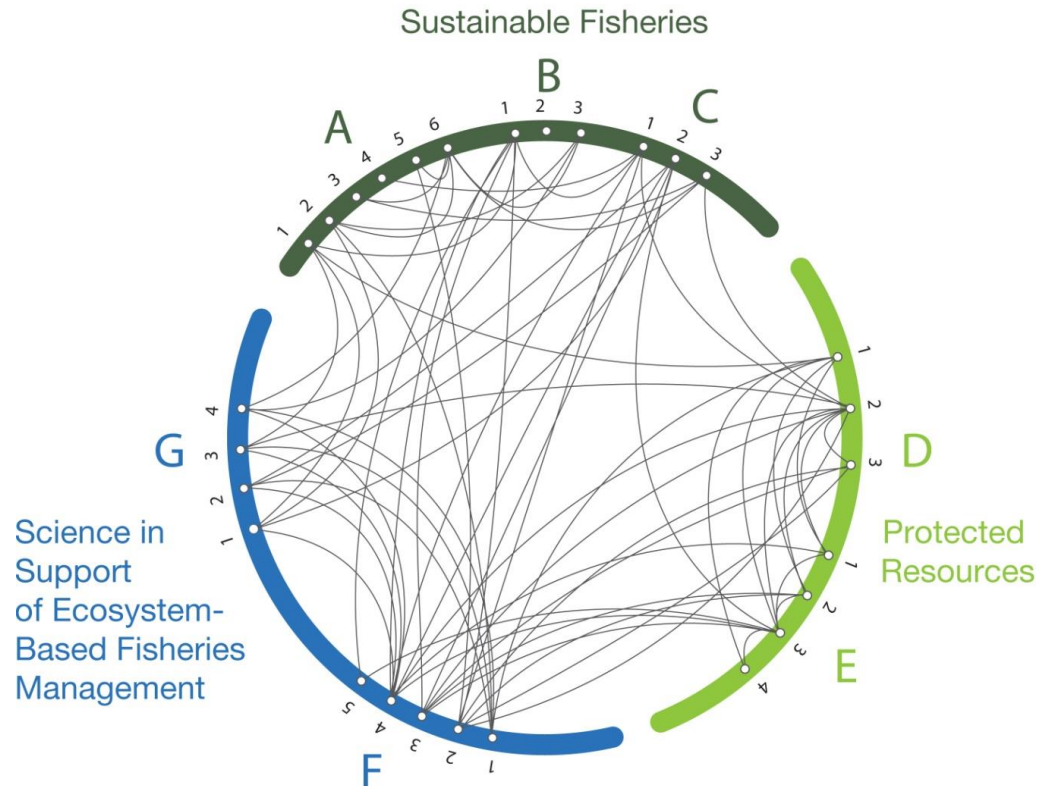
- Improve, streamline, and standardize administrative processes and systems
- Redefine and restructure Cooperative Research Program to emphasize its role in building trust and improving data collection
- Maintain state-of-the-art communications capabilities to link all Center facilities
- Continue efforts to address deficiencies in Center facilities and improve working conditions for staff and contractors



# Implementation

The Plan will be used to:

- Develop benchmarks that will allow us to measure progress against our goals;
- Communicate the relevance and interconnectedness of our science;
- Implement an annual planning cycle that helps us characterize and prioritize our science.



*Links across targets will allow us to leverage capabilities, explore innovative solutions, and gain efficiency across the science portfolio*