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**FISHERIES**

Northeast  
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Science Center

# Reforming the Northeast Stock Assessment Enterprise

Results of the 2014 Program Review  
and Next Steps

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# Review Background

## 8 terms of reference concerning:

- Process used
- Standards followed
- Products created

## 8 theme areas

- Modeling Approaches
- Assessment Process
- Peer-Review Process
- Assessment Organization and Priorities
- Accomplishments
- Including Ecosystem Considerations
- Communications
- Research Opportunities

## Reviewers

John Armor,  
NOS

Mark Dickey-  
Collas, ICES

Patricia  
Livingston,  
NMFS AKFSC

Jon Helge  
Volstad, IMR  
(Norway)

Stephen  
Walsh, DFO  
Canada

[http://www.nefsc.noaa.gov/program\\_review/](http://www.nefsc.noaa.gov/program_review/)

# Review Findings

## Positives

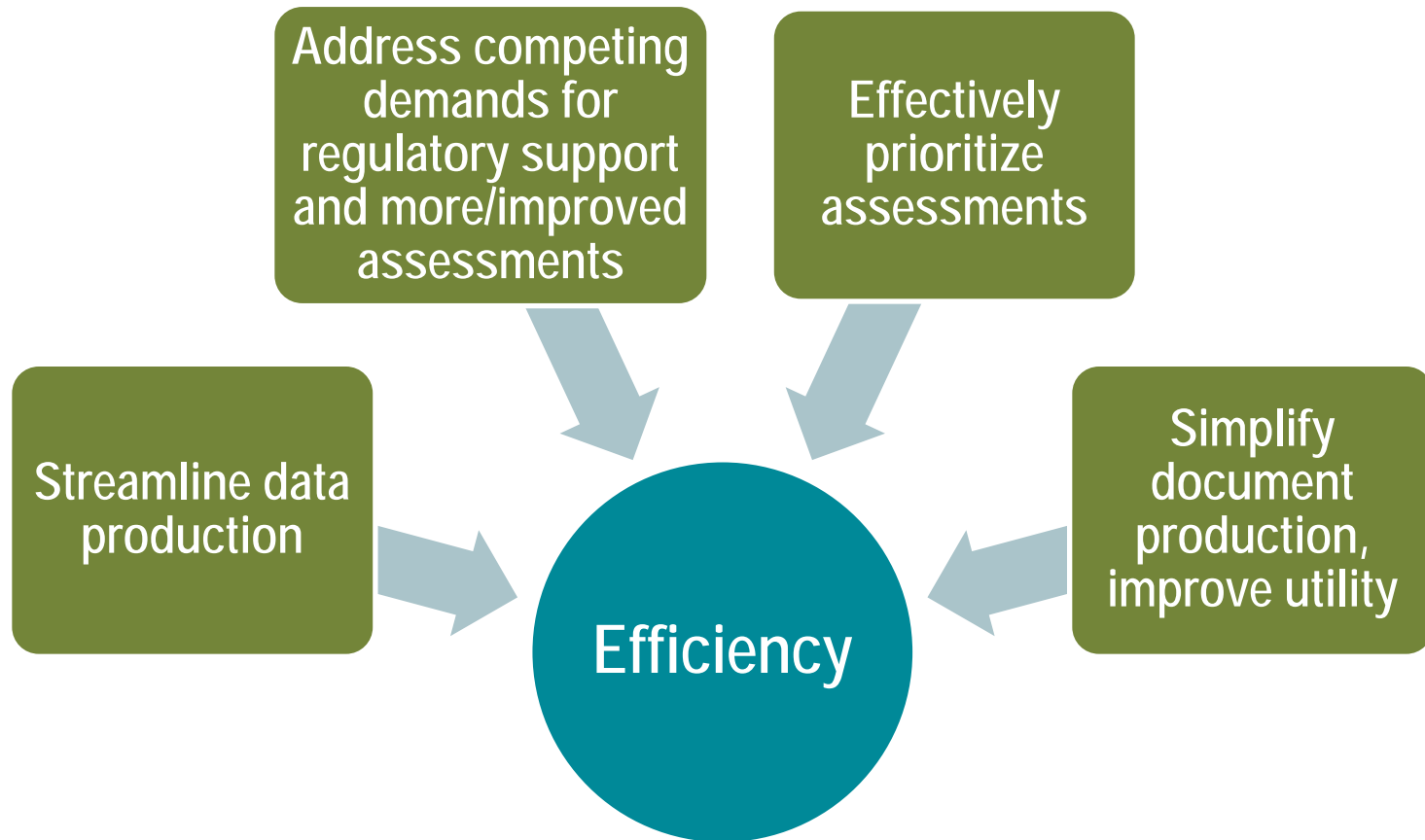
- Quality and integrity of products and processes
- Commitment, productivity, and professionalism of staff

## Moving Forward

- Assessment and peer review process is complex and hinders our ability to improve products and advice
- Demand for stock assessment advice exceeds our capacity to provide it
- Work priorities and resource allocation need to also allow for research
- There are opportunities to work closely with partners in bringing needed reforms

# Increase Efficiency

## Goals



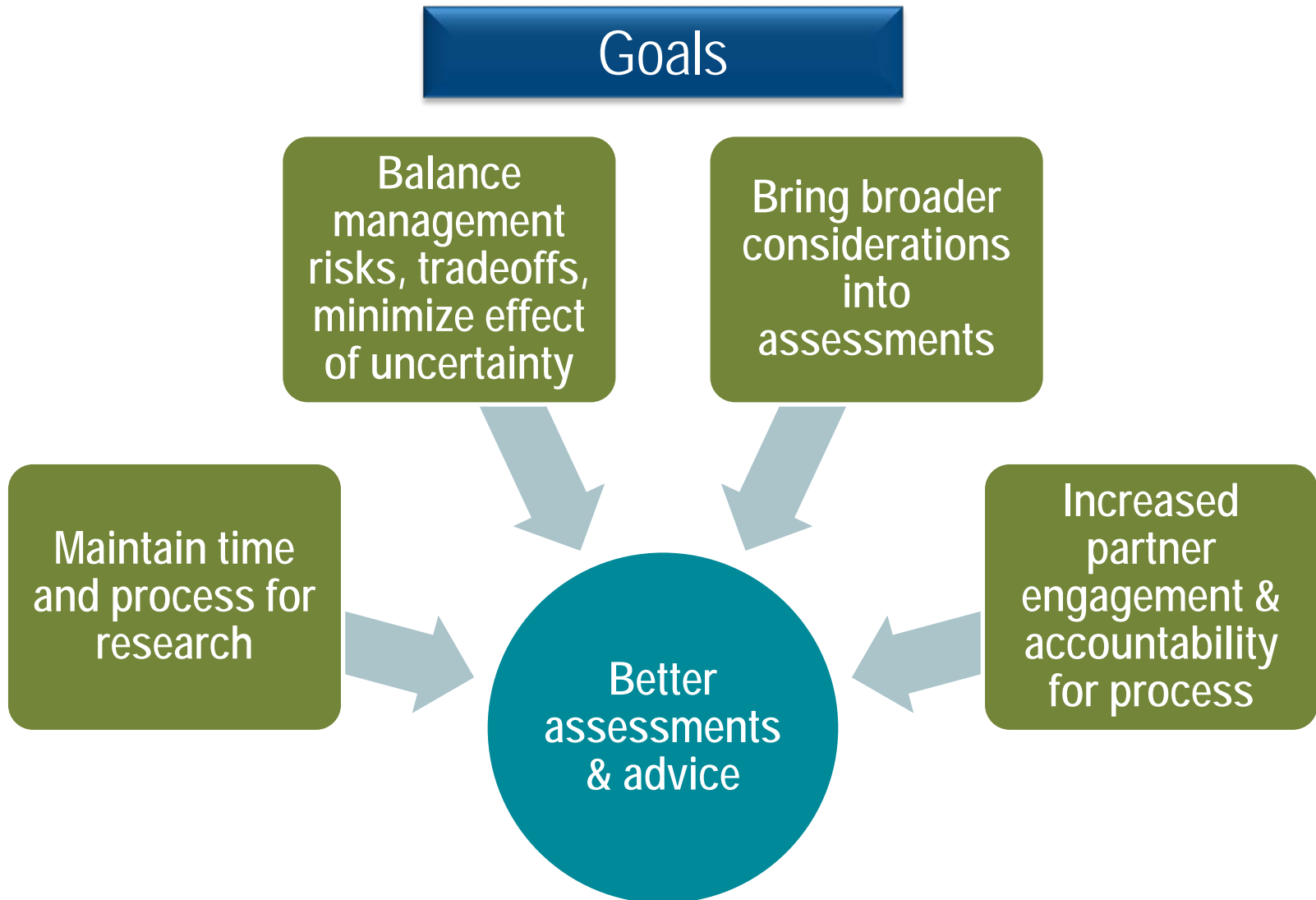
# Increase Efficiency

## Action Items

2017	Fishery-Dependent Data Collection visioning project
2014-2016	Staff time budgeting process
2015-2016	Stock Assessment Process Efficiency Initiative (drafted in 2011)
2016	Standard process for prioritizing assessments (national effort)
2016*	Continuity between CIE reviewers/stocks; involve SSC chair
2015	Reduce ToRs in number & scope
2016-2017	Involve non-assessment staff in management & regulatory analyses

\* May not be possible under current CIE contract

# Build Next Generation Assessment Process



# Build Next Generation Assessment Process

## Action Items Multi-year Implementation

2015+

Upgrade NMFS Fisheries Tool Box

2015+

Evaluate integrated modeling & state-space models

2016+

Use Management Strategy Evaluation

2015+

Better incorporate ecosystem considerations into stock assessments

2016+

Develop & test multispecies models

2015+

Improve communication with stakeholders on process and results

# NEFSC Stock Assessment Efficiency Initiative

## Objectives

- Streamline the production of assessments (data, models, reports)
- Improve reproducibility and transferability of assessments
- Increase time available for research



# Implement Stock Assessment Process Reform

## Research Track

Studies & solves assessment problems

Develops new models and methods; does not provide stock status

Extensive external peer review

## Operational Assessments

Allow model configuration changes (either limited or from Research Track), apply new data

Provide current stock status for setting ACLs

Reviewers drawn from SSC membership

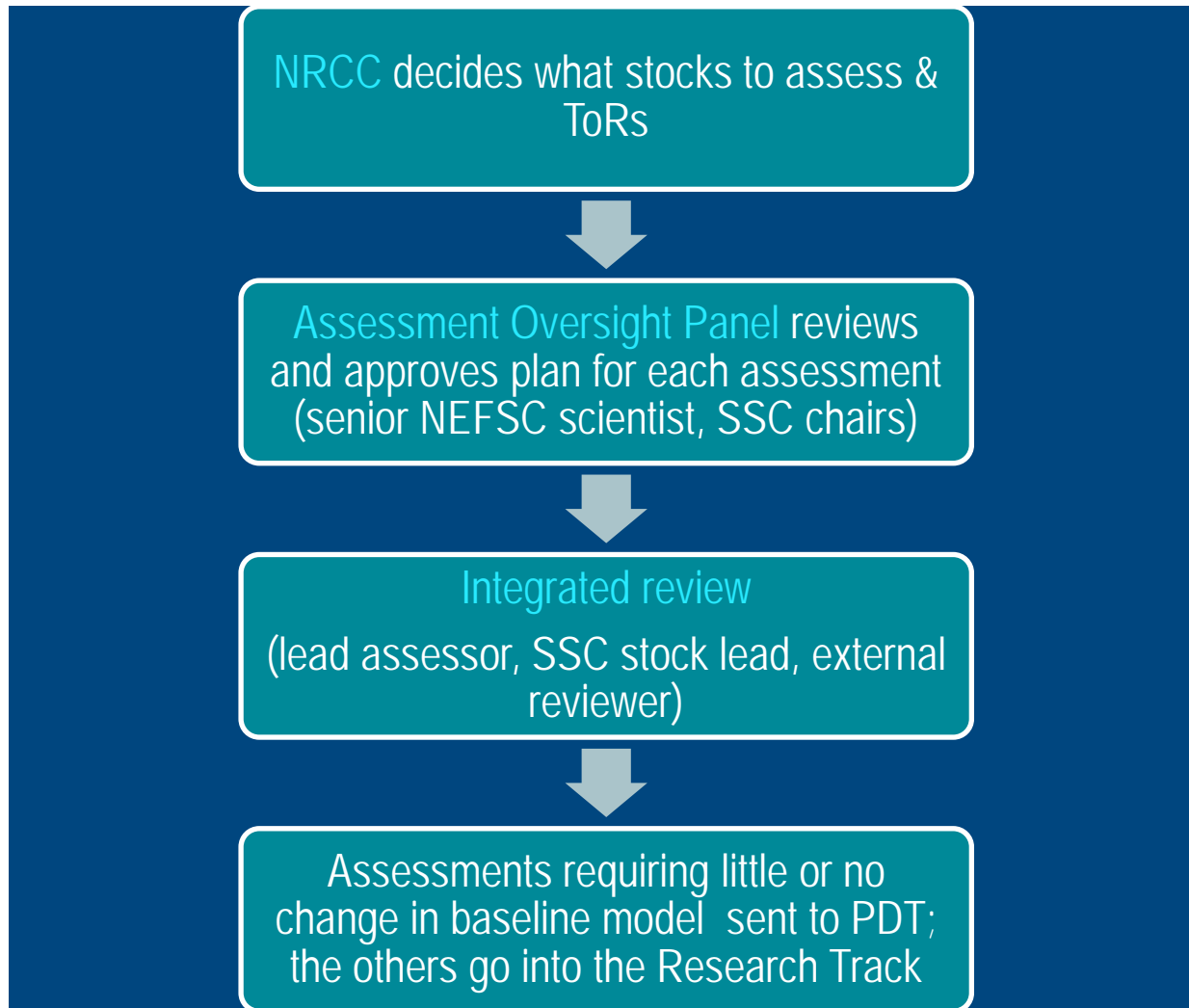
## Updates

Use existing models and apply new data

Provide current stock status for setting ACLs

Submitted to SSC

# Stock Assessment Process Reform—Operational Assessment Process Schematic



# Partners are key to reform

Action Item – Increase Efficiency	Partners
Improve fishery dependent data quality & timeliness	GARFO
Time & resource budget	NRCC
NEFSC Stock Assessment Efficiency Initiative	NRCC
Standardized stock assessment prioritization	NRCC/GARFO/ NMFS HQ
Peer-review reforms (CIE reviewers & SSC chairs)	NRCC
ToR reforms	NRCC
Better balance NEFSC staff tasking for regulatory analysis and assessments	NMFS/NRCC

# Partners are key to reform

Action Item—Next Generation Assessments	Partners
Upgrades to NMFS Fisheries Toolbox	NMFS HQ
Integrated modeling & state-space models	ICES/academia
NEFSC Management Strategy Evaluation	NMFS HQ/NRCC/academia
Bring broader ecosystem considerations into assessments	NMFS HQ/NRCC/academia
Test multispecies models	NMFS HQ/academia
Improve communications with stakeholders	NRCC/NMFS