



**NOAA  
FISHERIES**

# FDDI and CAMS Update

**NRCC Meeting  
May 26, 2021**

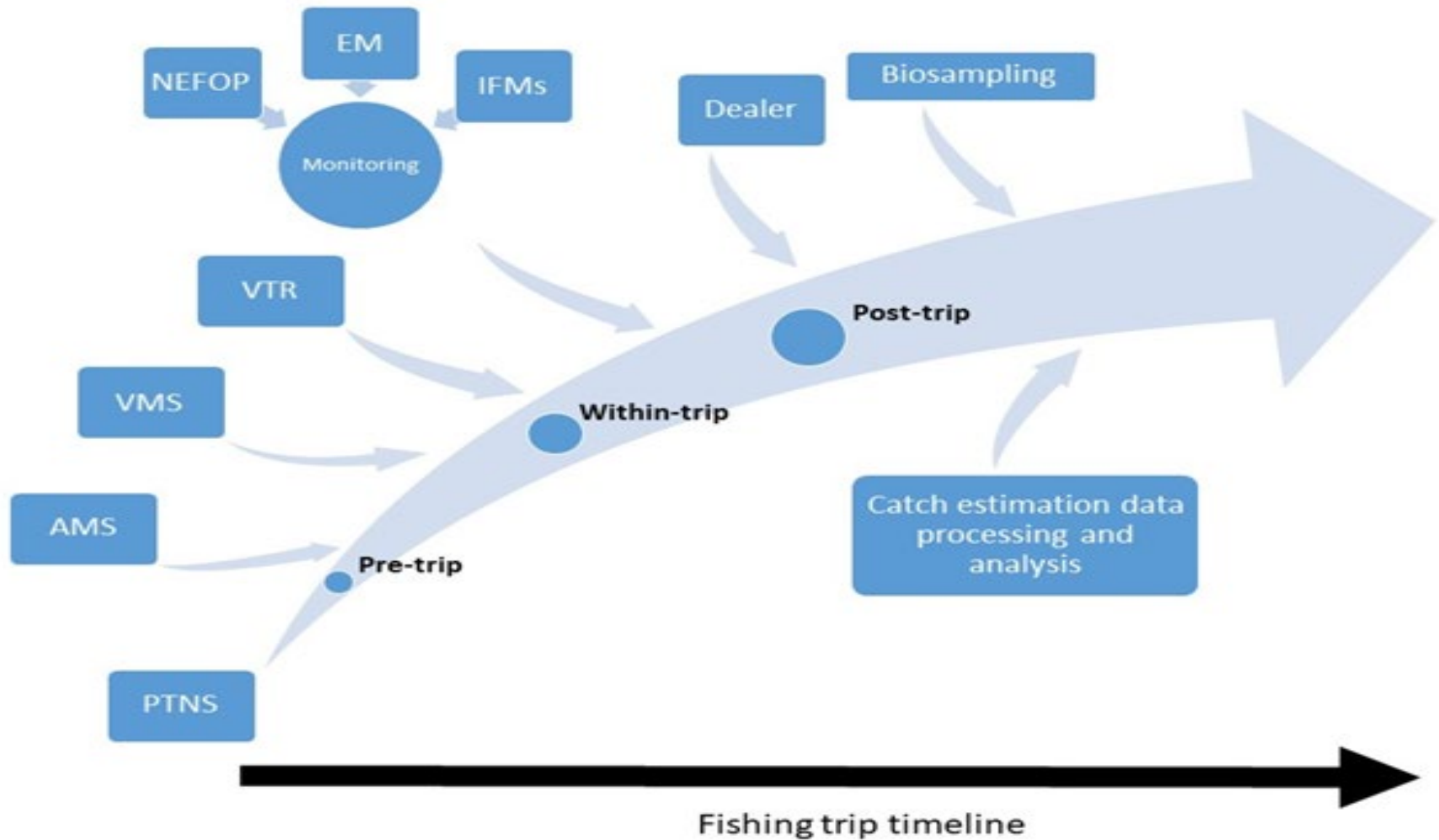
**Greater Atlantic Regional  
Fisheries Office**

**Northeast Fisheries  
Science Center**

# Quick Review

- The Fisheries Dependent Data Initiative (FDDI) is being advanced by both GARFO and the NEFSC to modernize and integrate regional fisheries dependent data systems.
- The scope of the initiative includes data collected from fishing trips and the information systems used to collect and process these data to support our monitoring requirements (quota monitoring and stock assessments) and fishery managers.

# Fishing Trip Data Collection Life Cycle



# Four Primary Principles and Concepts

FDDI Principle	Key Concept
Integration	UTID PTNS for all federal fisheries Develop data standards to facilitate information sharing
Modernization	Electronic data collection for all programs, including fleet-wide commercial eVTR Development of modern, more flexible data collection models Investments in technology to improve processing efficacy and efficiency (e.g., machine learning)
Efficiency	More flexible solutions Improved reporting efficiencies for the fishing industry Improved operational efficacy for the data collection programs
Accountability	Improved documentation Improved data access Improved processes to govern FDDI architecture

# What have we done so far?

## Data Systems

- Developed EM data processing systems to support operational EM in the groundfish fishery and integrated these systems into PTNS and Monitoring Web Portal (provider interface)
- PTNS development to support Herring IFM and PTNS-eVTR integration
- Development of regional coding standards (species, gears, etc.) to improve FDD collection standardization and improve cross-system information flows

## eVTR Development and Implementation

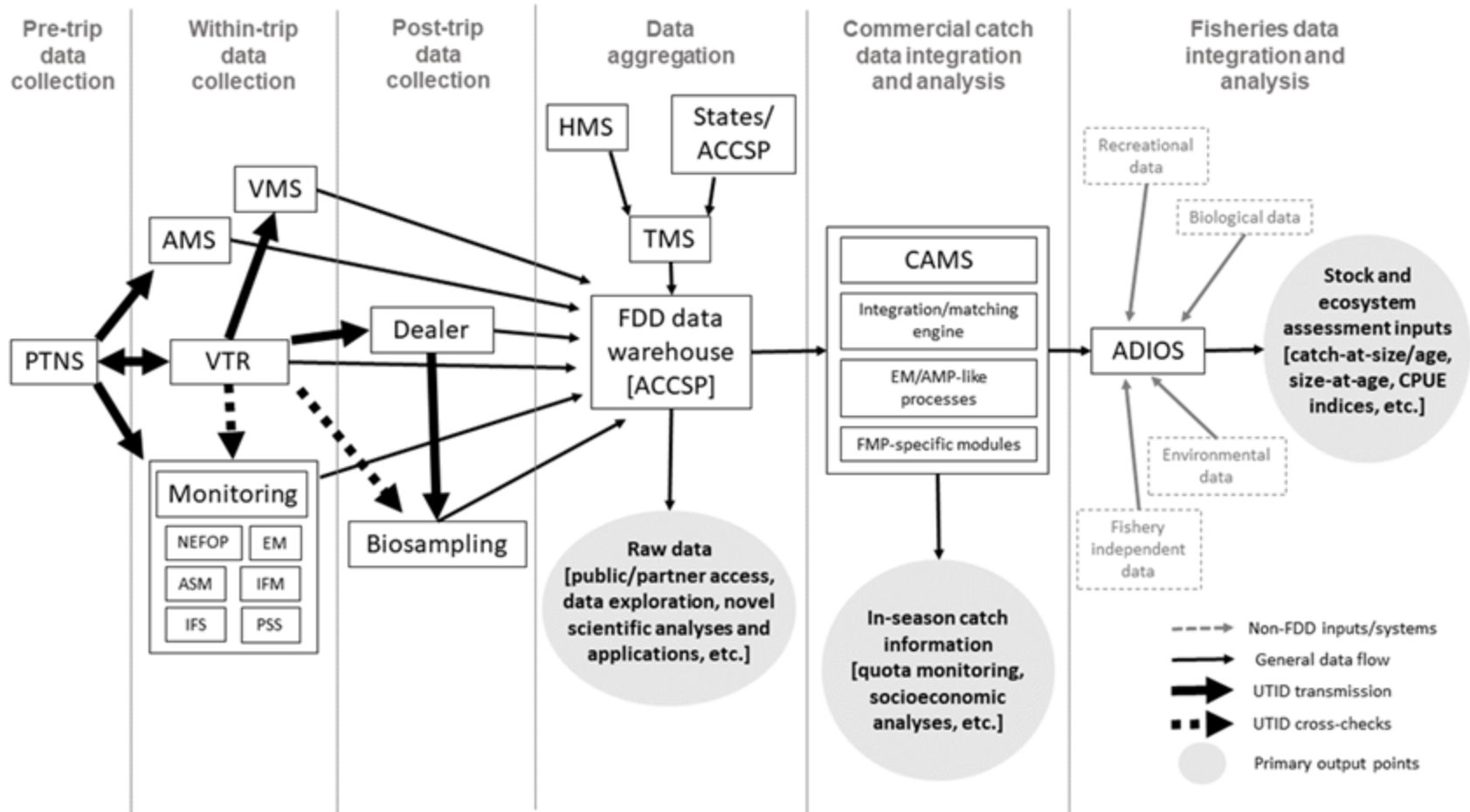
- Expansion: implementation of required eVTR in all fisheries
- eVTR education/outreach
- One Stop Reporting (OSR)

## Developed a FDDI Vision Document

# What We Have Learned?

- Very complex and multifaceted project
- Difficult to balance normal duties with fulfilling the FDDI commitments and obligations
  - Shifting priorities and new requirements
  - Unless FDDI milestones are explicitly tied to management actions, they tend to slip
- Adding resources does not replace institutional knowledge
- Accomplishing FDDI is an imperfect balance of addressing technical debt, supporting ongoing operations, and developing modernized solutions

# Detailed Fisheries-dependent Data Flow



## What's next?

- Finalize the FDDI Vision Document and share with the NRCC.
- Revise and solicit feedback from NRCC on the Roadmap/Implementation Plan.
- Planning for PTNS expansion into new fisheries (scallop, etc.)
- Developing long-range plans to integrate and modernize FMRD monitoring systems
- Implement the omnibus eVTR reporting action.
- Modifications to eVTR specifications to support potential expansion of reporting requirements to the lobster fishery.
- Development and implementation of a new eVTR data model.



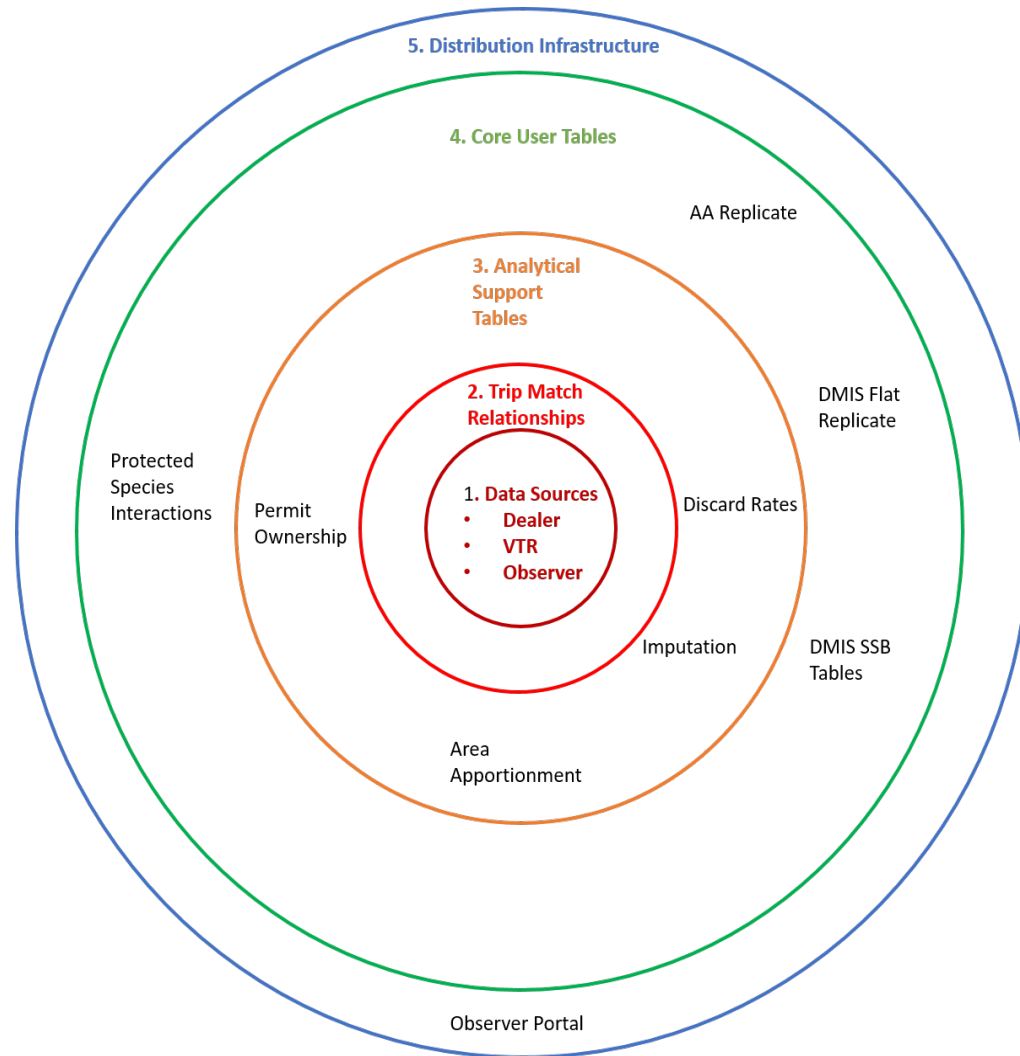
# Catch Accounting and Monitoring System (CAMS)

- CAMS is a joint GARFO and NEFSC venture to implement a shared data system for quota monitoring and stock assessments.
- The objective is to provide a single, comprehensive source for all US commercial catch (landings and discards) for quota monitoring, stock assessment, protected resource estimation, ecosystem modeling, and other needs of GARFO and NEFSC in a fully documented relational database with appropriate user views and tables.

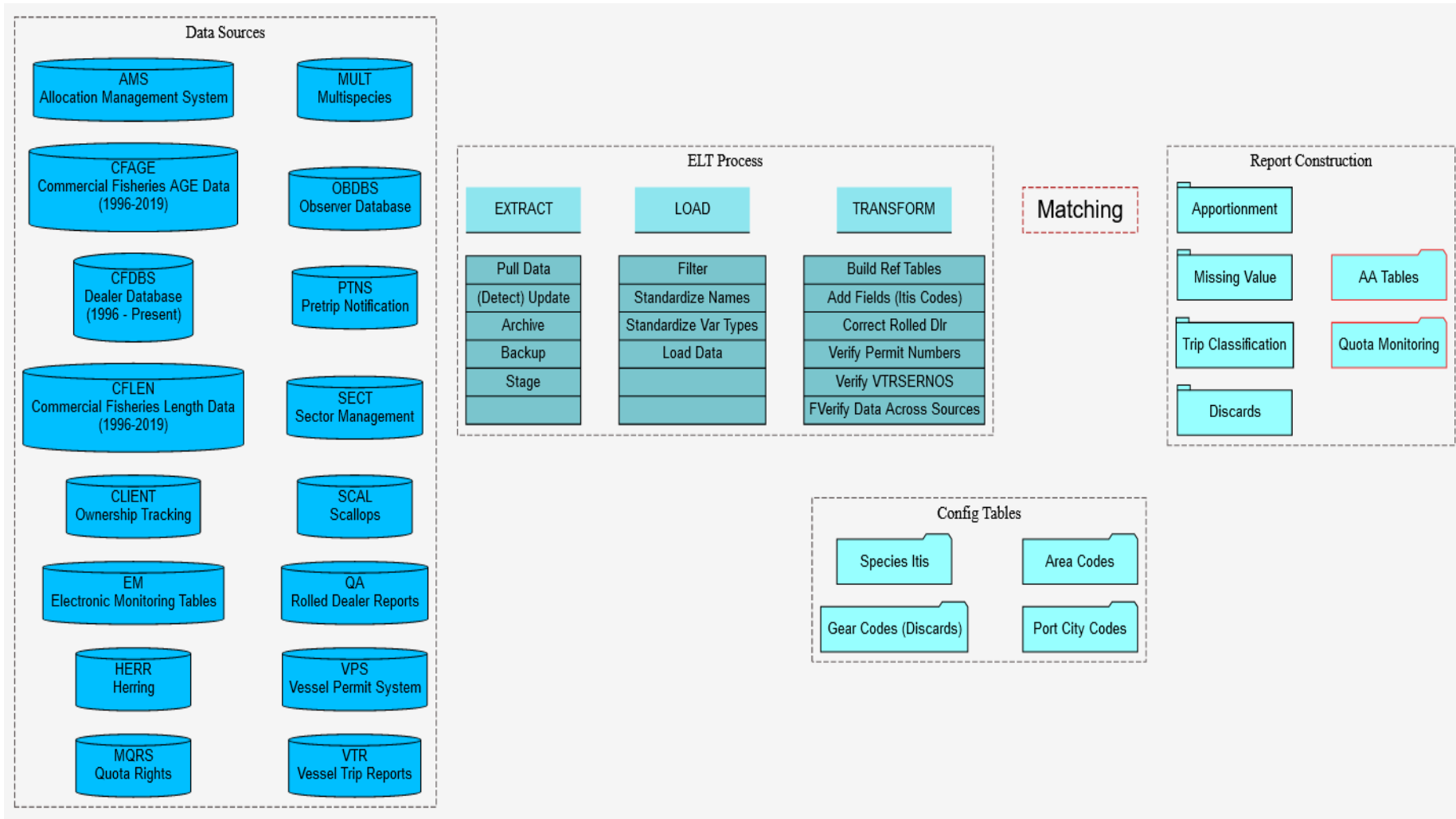
# CAMS Architecture

- CAMS is designed to be modular, with layers of data building off one another to create more complex outputs.
- Comprised of 5 data layers:
  - Data Sources
  - Trip Matching Relationships
  - Analytical Support Tables
  - Core User Tables
  - Distribution Infrastructure

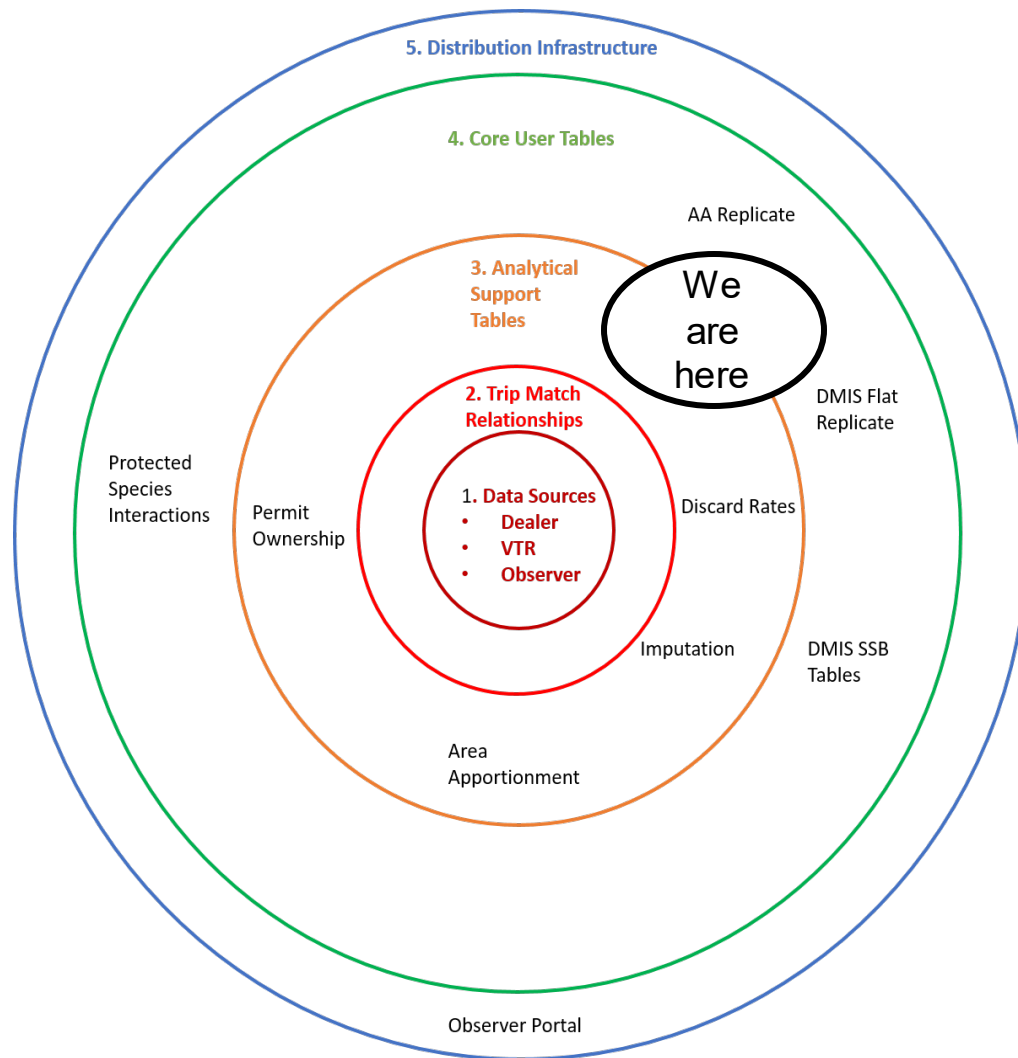
# CAMS Structure



# CAMS Work Flow



# So where are we?



# What's next?

- **June 2021**
  - First draft of CAMS output tables for calendar year 2019 data, including a common set of discard, landings, and catch estimates for each requested stock for each fishing trip.
- **June – September 2021**
  - Feedback from NEFSC and GARFO users to CAMS programming team based on evaluation of the 2019 data.
  - This will lead to improvements in CAMS that will then be applied in the generation of 2020 calendar year data.
- **October 2021**
  - Provide briefing and solicit input for Council and ASMFC staffs
- **November 2021**
  - CAMS output tables for calendar year 2020 data.
- **Winter 2021**
  - Development of Peer Review Process
  - Development of Change Board approach to ensure CAMS will continue to process and will evolve over time as new data and processes (e.g., FDDI) become available.
  - Continued development of CAMS.
    - Inclusion of aggregated state data in CAMS
- **April 2022**
  - CAMS data from 2020 and 2021 to inform 2022 assessments.

# Questions?