



**NOAA
FISHERIES**

Fisheries Dependent Data Initiative & Catch Accounting and Monitoring System Update

**Northeast Region Coordinating Council
May 10, 2022**

**Greater Atlantic
Regional Fisheries Office
Northeast Fisheries
Science Center**



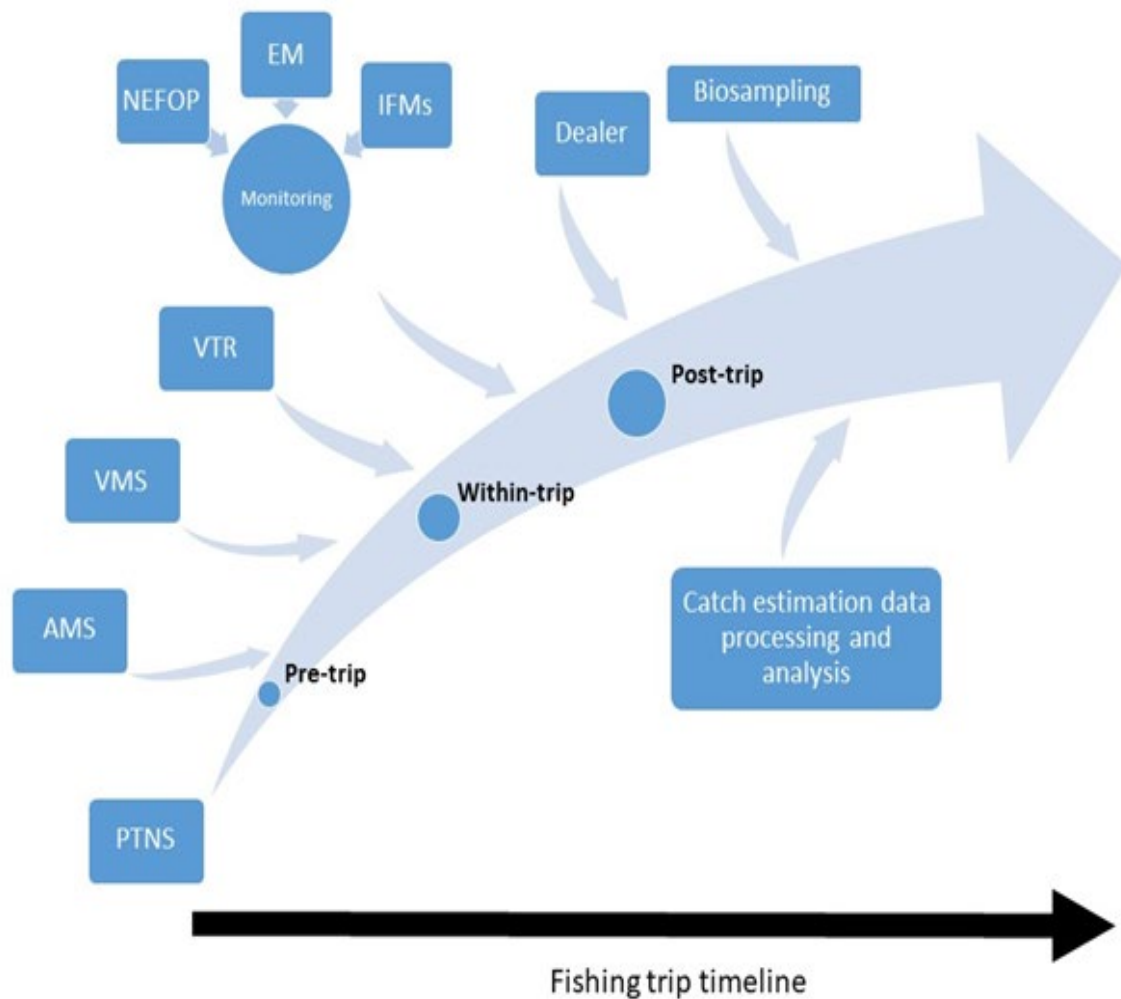
NOAA FISHERIES



Background

- 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 the systems and infrastructure used to collect and process fisheries dependent data that are used in support of Greater Atlantic Federal quota monitoring and stock assessments.
- State and Federal data collected through ACCSP systems are constantly updated and integrated into FDD data warehouse.

Fishing Trip Data Collection Life Cycle



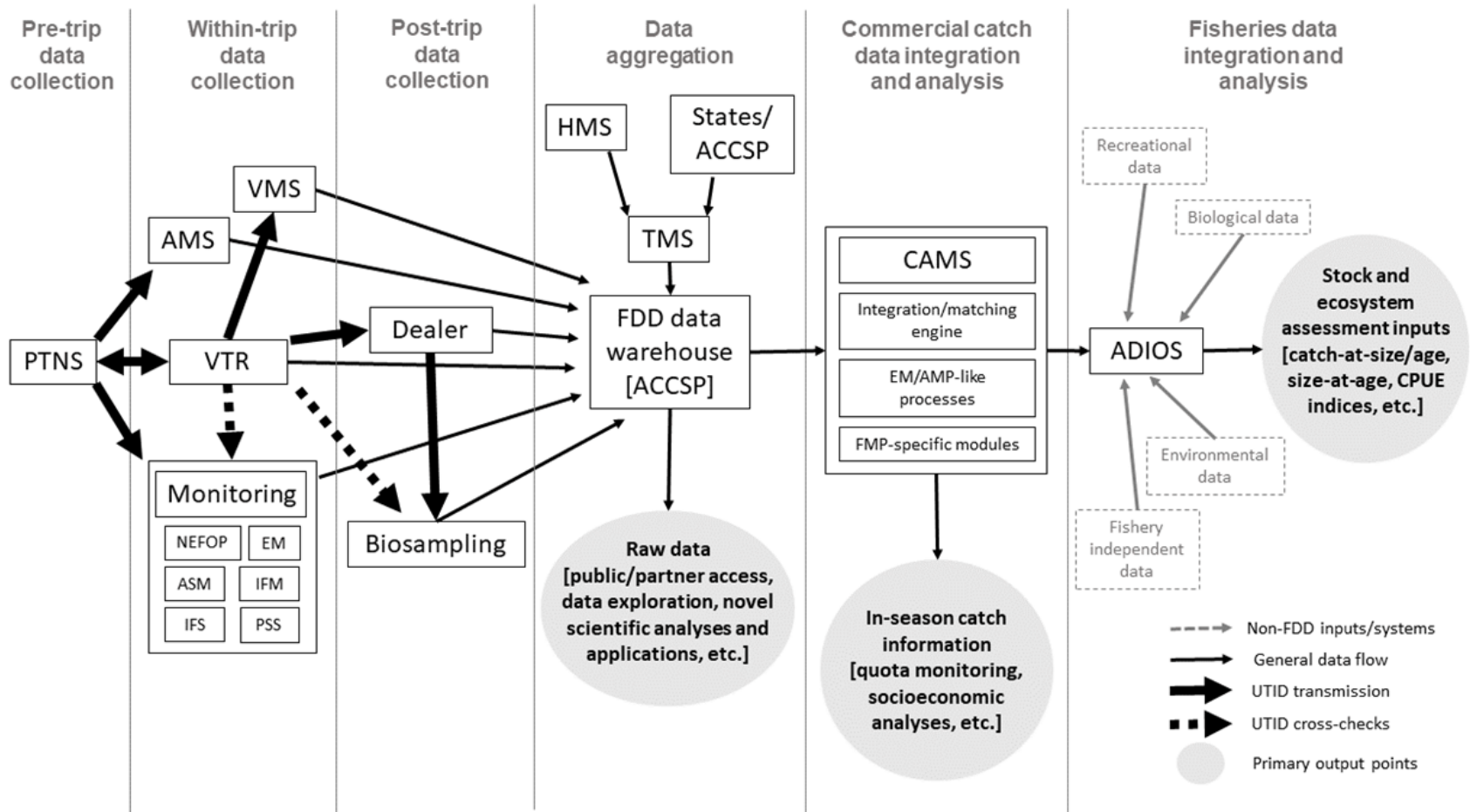
GARFO/NEFSC Systems

PTNS: Pre-Trip Notification System
AMS: Account Management System
VMS: Vessel Monitoring System
VTR: Vessel Trip Reporting
NEFOP: Northeast Fisheries Observer
EM: Electronic Monitoring
IFM: Industry Funded Monitoring

Partner Systems

Federal dealer reports (via ACCSP)
State dealer reports
Vessel Trip Reports (non-GARFO VTRs)
NOAA MRIP Data Sharing (eVTR)

Greater Atlantic Detailed Fisheries Dependent Data Flow



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.

eVTR Development and Implementation

- Expansion: Implementation of eVTR in all GARFO permitted fisheries (exception of Lobster only).
- eVTR education and outreach.
- Initial development of One Stop Reporting (OSR).
 - Applications (e-Trips by ACCSP) and Integration of primary logbooks (GARFO, SERO for-hire, HMS Charter/Headboat & Angling permits).
- Designed new eVTR data model capable of supporting legacy data as well as new data collection needs and OSR.
- Ongoing enhancement of both the Fish Online iOS and web applications.
 - Clams (this summer).
 - Lobster (in advance of January 1, 2023 implementation).
 - Accept data from certified eVTR vendors, including ACCSP eTrips .

What have we done so far?

Fish Online Web Portal

- Overhauled the FOL web portal to improve user experience and support electronic reporting (and permitting).

Commercial Fisheries Dealer Electronic Reporting System (CFDERS) – move to GARFO

- Addresses the remnant data collection system used prior to two ticket data collection, matching & auditing process.
- Improves efficiency in vessel & dealer trip matching, data auditing & reconciliation, and data storage.
- Strengthens the ability to integrate the universal trip identifier (UTID).

What Are We Working On?

- Regional eVTR Data Model - Transitioning from the design phase to the implementation phase.
 - Supports the expansion of new data needs (i.e. lobster)
 - Supports gear or fishery based eVTR logbooks.
 - Enables development of Fish Online OSR eVTR.
 - Design intended to be compatible with existing partner (ACCSP) and other vendors on-water application data submissions.
- Modifying Fish Online eVTR applications to support lobster and clam reporting.
- Established the UTID Workgroup (GARFO, NEFSC, ACCSP) to explore options for integrating our data.
- Continuing development of the Catch Accounting and Monitoring System (CAMS).

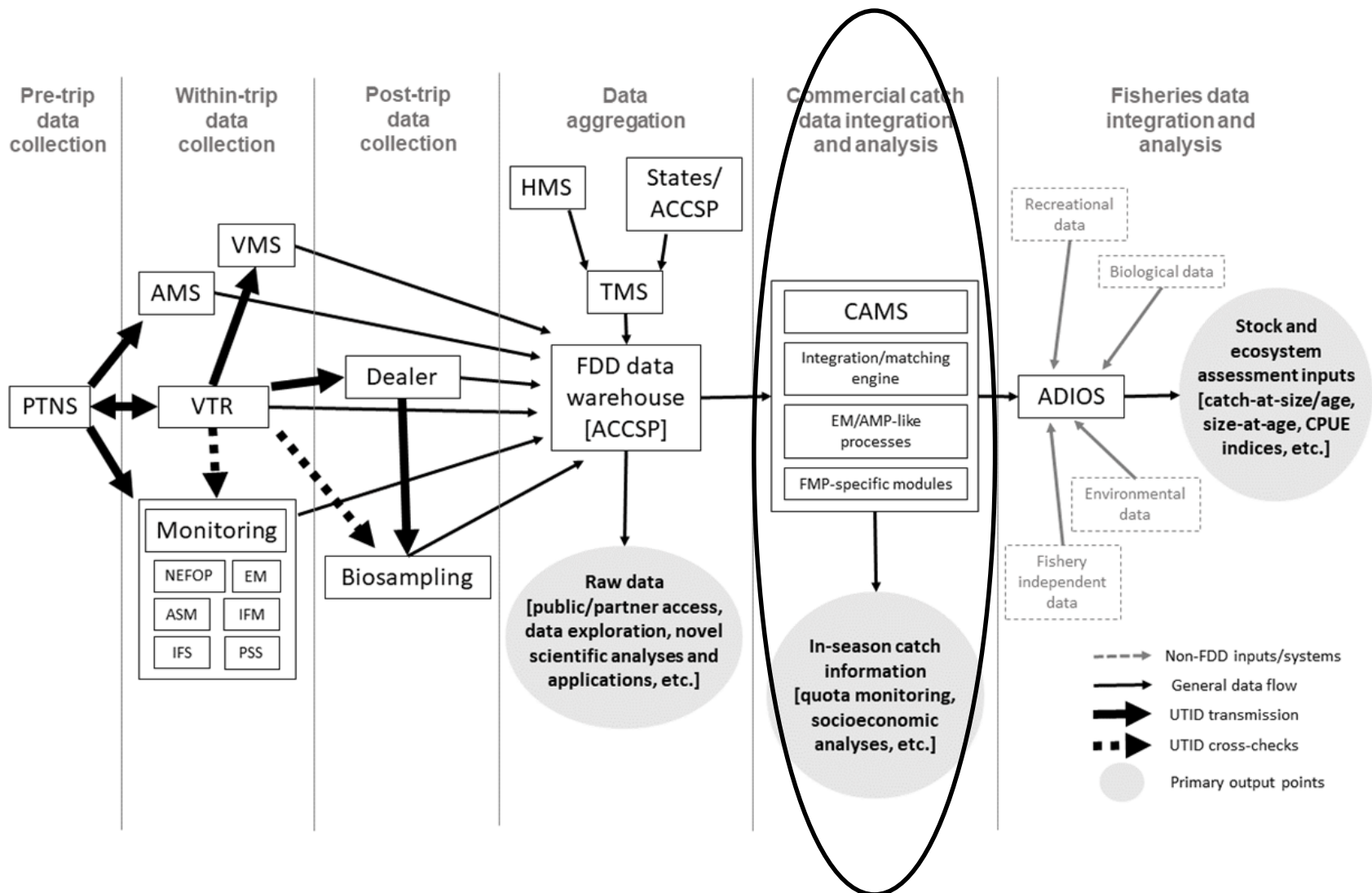
What's next?

- Develop and execute an eVTR data model implementation plan
- Implement eVTR in the Federal lobster fishery (anticipated Jan 2023)
 - ASMFC / ACCSP data submission for lobster fishery
 - eVTRS
 - Tracker data
 - Requisite database changes
 - eVTR applications modifications
 - Outreach and communications
- GARFO/NEFSC/ACCSP collaboration on landings data
 - Trip Ticket
 - File Upload
- Implementation of CAMS and continued refinements.
 - NRCC and/or Council & ASMFC staff review
 - External review – Center for Independent Experts (CIE)

What's next?

- Development of a Universal Trip Identifier (UTID)
 - UTID is used to integrate disparate data streams
- Identify how the UTID will be generated and propagated into individual data streams
- Shifted UTID focus from PTNS to an API/web service
 - Reviewing the Trip Management System (TMS) with ACCSP
- Potentially will eliminate the need for vessels to convey the trip id to dealers

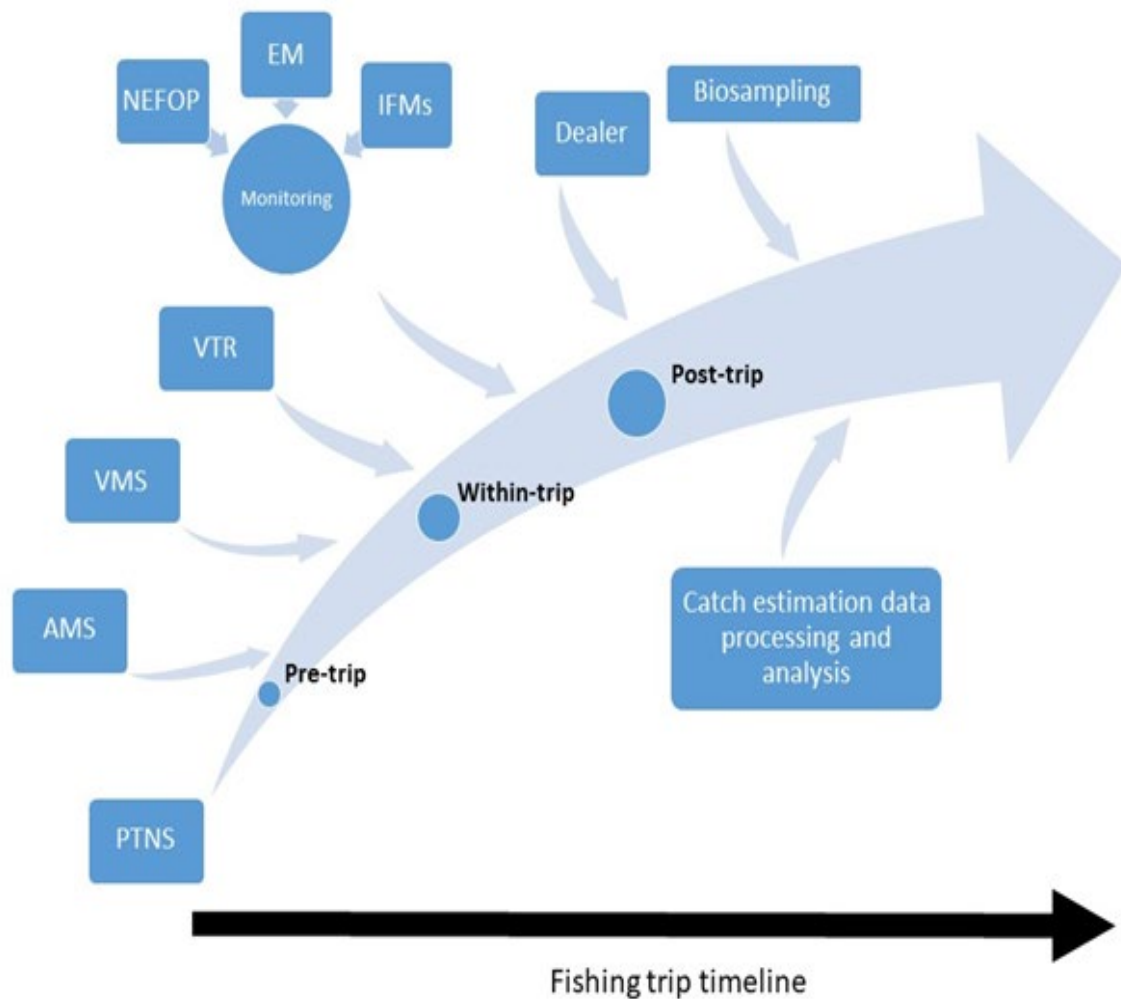
Greater Atlantic Detailed Fisheries Dependent Data Flow



Catch Accounting and Monitoring System (CAMS)

- CAMS is a joint GARFO and NEFSC venture to implement a shared Greater Atlantic Federal data system for quota monitoring and stock assessments.
- The objective is to provide a single, comprehensive source for 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 is distinct from UTID and will utilize the UTID for simplified trip matching when available.

Fishing Trip Data Collection Life Cycle



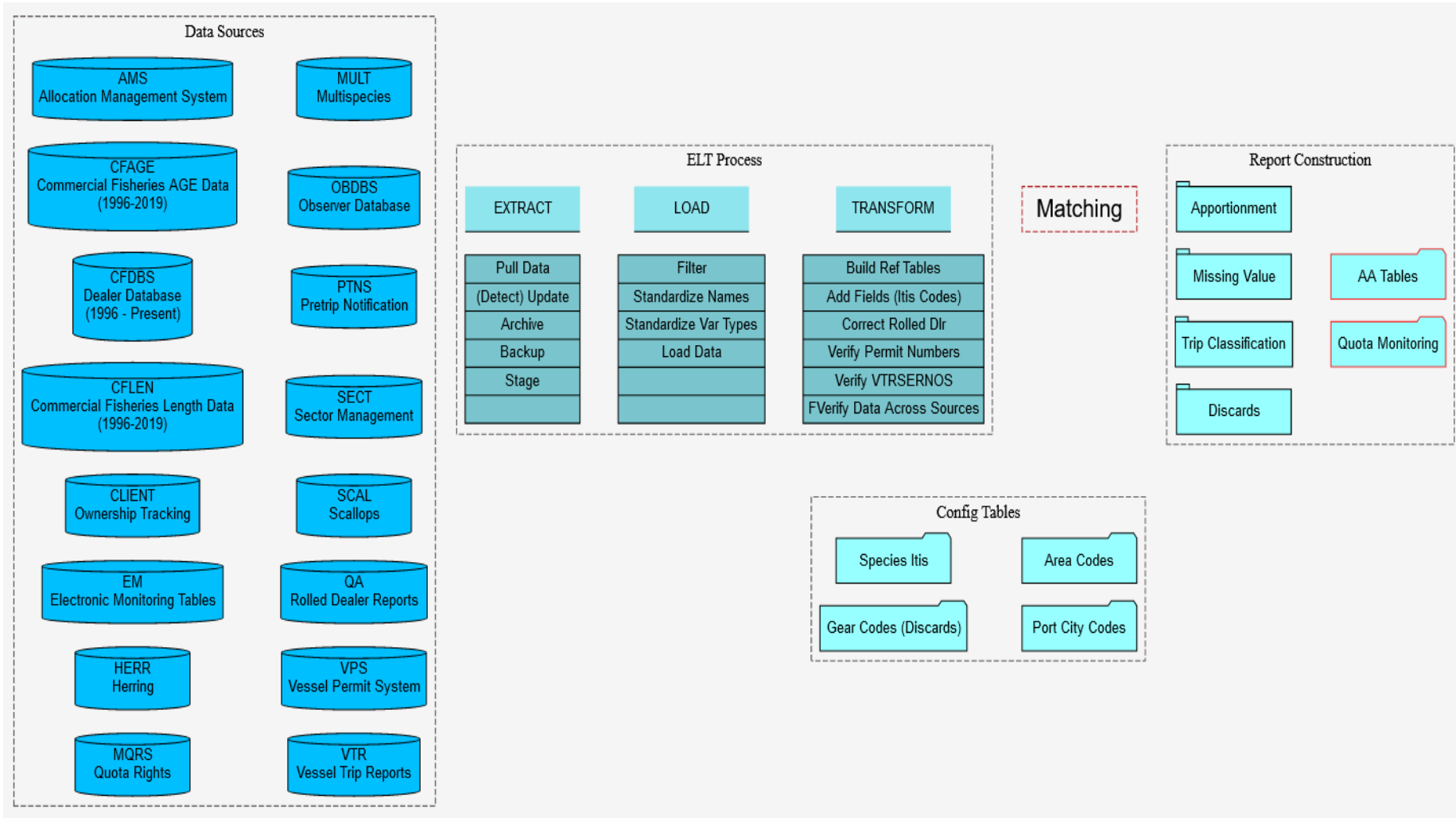
GARFO/NEFSC Systems

PTNS: Pre-Trip Notification System
AMS: Account Management System
VMS: Vessel Monitoring System
VTR: Vessel Trip Reporting
NEFOP: Northeast Fisheries Observer
EM: Electronic Monitoring
IFM: Industry Funded Monitoring

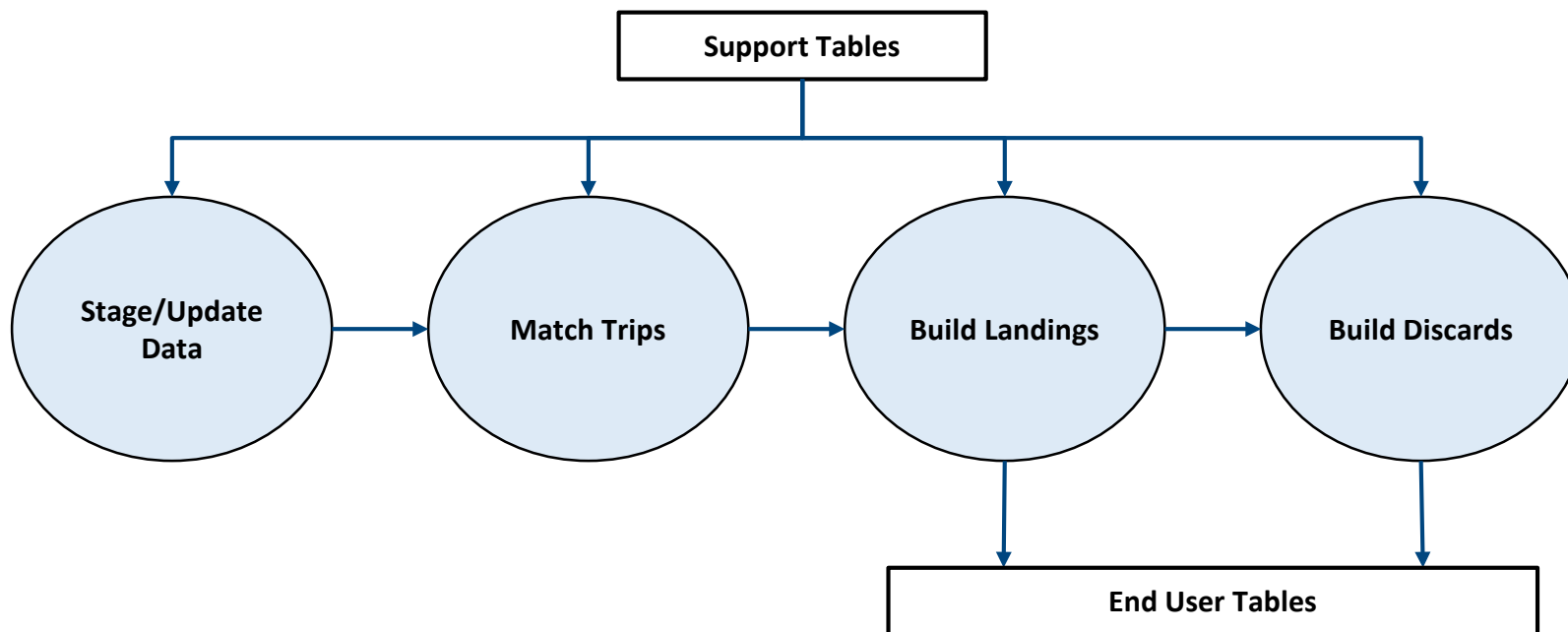
Partner Systems

Federal dealer reports (via ACCSP)
State dealer reports
Vessel Trip Reports (non-GARFO VTRs)
NOAA MRIP Data Sharing (eVTR)

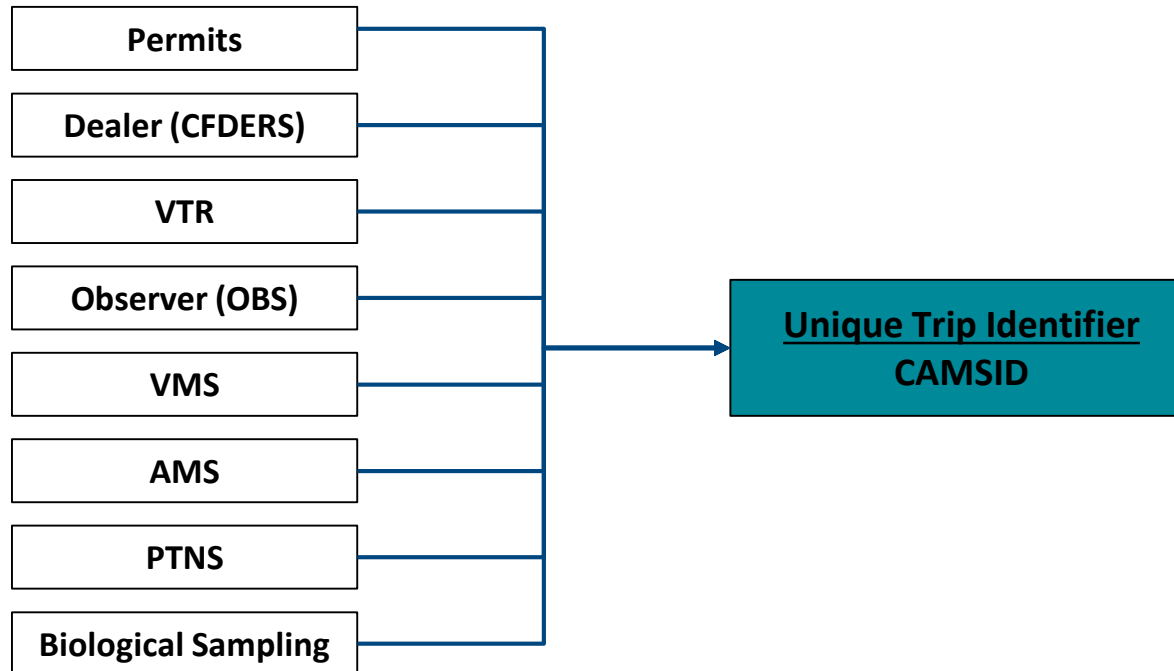
CAMS Work Flow



Process Overview



Match Trips



What we have done since last meeting?

- Assigned co-Project Managers to ensure CAMS achieved data necessary for the 2022 stock assessment process.
- Established dual Teams that worked in parallel to finalize the landings and discard components of CAMS.
- **Finalized CAMS landings**
 - Developed common set of landings for each stock for each fishing trip
 - Review and comparison of the CAMS replicates of the 2019 AA Tables by species experts and incorporated input from GARFO and Center species experts.
 - Developed support tables to unify Species, Areas, Gears, and Ports
 - Integrated state and federal landings
 - Process and data reviewed and approved by NEFSC and GARFO Teams
 - Incorporated newly transferred CFDEERS at GARFO
 - Generated landings data
 - 2019: Federal + State (complete)
 - 2020: Federal + State (complete)
 - 2021: Federal + State (spring data)
 - 2022: Federal current
- Working toward developing one set of discard estimates for each species.

What We're Doing Now

- **Discards**
 - Developing a common set of discards for each stock for each fishing trip.
 - Cycling through discussion and revision of discards with GARFO and Center staff.
 - 2022 Spring Stock Assessments:
 - CAMS landings
 - Status quo discards
 - 2022 Fall Stock Assessments:
 - CAMS landings
 - Discards TBD through review-revision process

What's next?

- **Spring/Summer 2022**
 - Complete discard review and revision process.
 - Finalize discard end user output tables.
 - Integrate CAMS landings into quota monitoring processes and reports.
- **Summer/Fall 2022**
 - Provide briefing for Council and ASMFC staffs.
 - Development of Peer Review Process to support review by the Center of Independent Experts (CIE).
 - 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.
- **Winter 2023**
 - Review conducted by CIE.

Questions?