



# NOAA FISHERIES

## Fisheries Information System Program

### What is FIS?

*The Fisheries Information System program is a state-regional-federal partnership that supports sound, science-based fisheries management. We do so by fostering cross-disciplinary collaboration and funding innovative projects to improve the quality of fisheries-dependent data.*

A Program Management Team, composed of members from each region, guides the work of FIS. Alaska representatives are:

**Andy Kingham** (AFSC)  
**Bob Ryznar** (AKFIN)  
**Cathy Tide** (AKRO)

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[fisheries.noaa.gov/national/commercial-fishing/fisheries-information-system-program](https://fisheries.noaa.gov/national/commercial-fishing/fisheries-information-system-program)

## FIS in Alaska

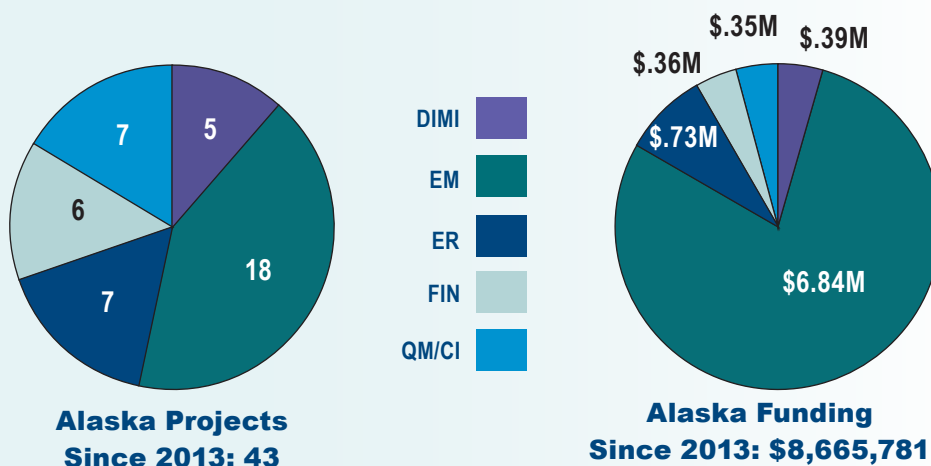
### A Regionally Driven Collaboration

While fisheries-dependent data collection, reporting, analysis, and management are inherently regional functions, there are numerous benefits to collaborating nationally and among regions. The Fisheries Information System program (FIS) brings together representatives from regional offices, science centers, fishery information networks, commissions, and state agencies to spark innovation, promote information-sharing, reduce redundancy, and help coordinate priority-setting.



Along with convening cross-disciplinary communities of practice, a key FIS initiative is an annual competitive request for proposal process, funded in collaboration with the National Observer Program's Electronic Technologies program and the National Catch Share Program, to support fishery-dependent data projects. In Alaska, this funding has supported projects conducted by the Alaska Fisheries Science Center, the Alaska Regional Office, the Alaska Department of Fish and Game, the Alaska Fisheries Information Network, and joint projects with the Pacific Fisheries Information Network.

Since 2013, FIS has funded more than 260 projects in the areas of data improvements, modernization, and integration (DIMI); electronic monitoring pre-implementation and implementation (EM); electronic reporting pre-implementation and implementation (ER); fishery information network development (FIN); and quality management and continuous improvement (QM/CI). Here is the breakdown for projects in the Alaska region:



### Making an Impact

FIS support is making a significant impact in the region. The Alaska Fisheries Information Network is working to automate and enhance source data management systems, validation procedures, metadata collection, and reporting products to better coordinate with partners and improve overall data integrity. Prior to the project, AKFIN databases did not create a permanent record of data uploaded by partners, which could lead to versioning and validation issues. The update is redesigning how partner source data is managed, which will result in a comprehensive, queryable registry of source data.

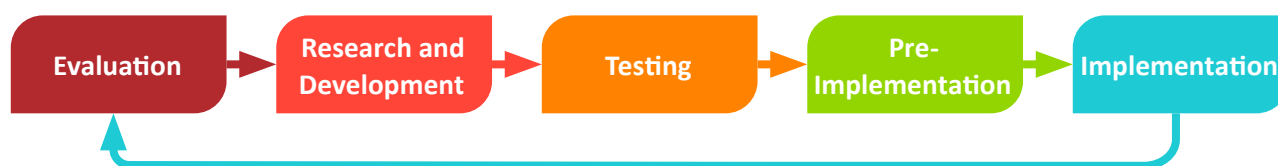
The project will also develop automated validation procedures through a new smart reporting initiative, which will confirm that uploaded source data

matches the data that AKFIN is reporting. By automatically flagging outliers and potential errors in uploaded data, the system will give partners an opportunity to review and reduce errors. It will also streamline data processing time. Ultimately, the project supports AKFIN's goals to continually evolve database management practices to implement the most modern technology and

techniques to effectively acquire, process, store, and distribute fisheries data for the region. Moreover, because of similar database structures, the project's lessons learned will be easily transferable to the Pacific Fisheries Information Network and the Recreational Fisheries Information Network, promoting consistency and standardization of data practices among the Pacific FINs.

## Supporting the Project Life Cycle

Through RFP funding, supplemented by engagement from communities of practice called Professional Specialty Groups, FIS provides targeted support that yields effective, innovative solutions to high-priority challenges across the project life cycle.



## Recent RFP-funded projects in the Alaska region, by project life cycle stage:

### 2022

- Develop, Implement, and Transfer Innovative Automated Image Analysis Tools for Electronic Monitoring of Fishing Activities (*Alaska Fisheries Science Center*)
- Improve the Sharing and Use of Electronic Fisheries Monitoring Information (*AFSC*)
- Extending Smart Dimensions: A FIN Application for Deterministic and Probabilistic Entity Resolution (*Alaska Fisheries Information Network*)
- Improving the Value of Fishery-Dependent Data Sets Through Expanded Integration with Environmental Information, and Streamlining Access and Reproducibility with Modern Data Management Technology (*AFSC*)
- Incorporate Electronic Monitoring and Shoreside Sampling into a Monitoring Program in the North Pacific (*AFSC*)
- Supporting Timely and Accurate Transmission of Fisheries-Dependent Data in a Pre-Implementation EM Program in Alaska (*Alaska Regional Office*)
- Alaska Region eLandings Application—Modern Integration of Electronic Reporting to Fishery Application (*AKRO*)
- Vessel Monitoring System: Building a Data Warehouse to Enhance Analytical Capabilities (*AKFIN*)

### 2021

- AKFIN Smart Reporting: Enhanced Data Governance Strategy and Reporting Initiatives Through Source Data Archiving, Data Validation, and Metadata Reporting to Improve Data Quality for the Alaska Fisheries Information Network (*AKFIN*)
- Anomaly Detection In Fishery Catch Reporting Data (*AKRO*)
- Collaboration, Implementation and Automation—Second Year (*AFSC*)
- Developing a Web-Based Application to Streamline Data Processes for Ecosystem and Socioeconomic Profiles in Support of Next Generation Stock Assessments (*AFSC*)
- Integrating Reliable Machine Learning Algorithms into Longline EM Video Review (*AFSC*)

For a complete list of FIS-supported projects since 2013, please visit [fisheries.noaa.gov/data-tools/fis-supported-projects](https://fisheries.noaa.gov/data-tools/fis-supported-projects).