

## Sea2Data – From acquisition to advice

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Institute of Marine Research in Norway (IMR) provides advice to decision makers on questions related to anthropogenic impact on the marine environment and how to harvest marine living resources. It is required that our advisory processes are transparent, has efficient access to data and uses standardized and quality-assured data-processing tools.

IMR has over the last years been building an e-infrastructure addressing these requirements using fisheries management as a use case. This infrastructure includes data acquisition, data transfer and management, data storage and data processing. The design is modular and the various modules communicates through application programming interfaces (APIs) that allow us to upgrade, maintain and replace the modules independent of each other. The current modules on data acquisition include data registration software and data storage on our research vessels, data transfer to shore based stations, a shore based data centre module that allows versioning of the data, a light weight data browser for efficient data access, an R-package to access and process data, and a standalone software to estimate indices of fish abundance. Historical data is converted and incorporated in the infrastructure to allow estimation of historical survey time series. Without a close collaboration between developers and users through an agile approach, the project would not have met its objectives.