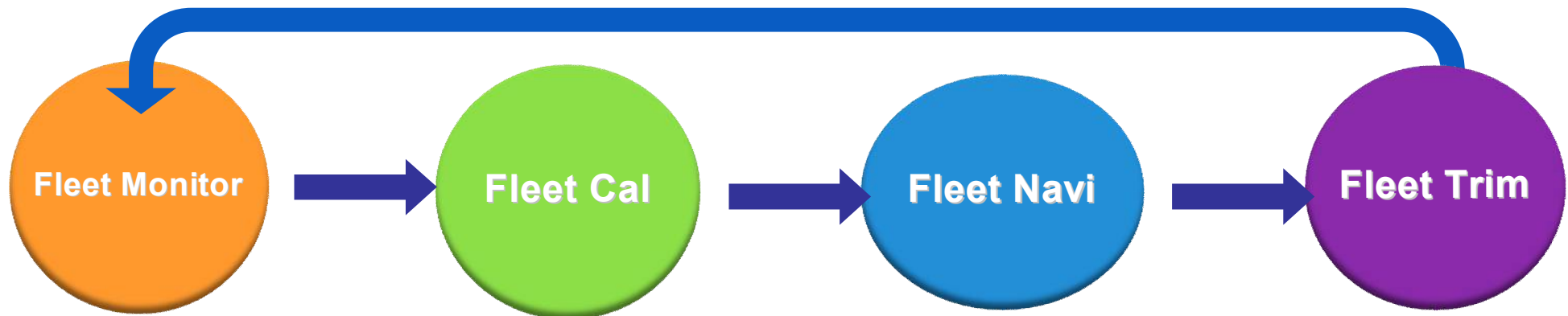


# Eco Navigation Support Service



**Eco Navigation Service** consists of Operation Monitoring of Ships under Navigation, Analysis/Assessment of Ship's Performance at Sea and Energy-Saving Navigation Service by finding optimum navigation route and optimum trim **supporting PDCA cycle of SEEMP at a higher level.**

This **Navigation Support Service** is applicable as a whole or partly where necessary according to the need of each customer.



## Monitoring Service on Land

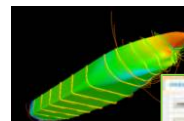
- Automatic monitoring of CO<sub>2</sub> emission etc.
- Support to the ship management by on-land staff
- Enhanced efficiency of on-board work by computerization



MIMIC(M/E)

## Analytical Service for Ships under Navigation

- Highly sophisticated analysis based upon know-how of Ship Design
- Analysis of energy saving navigation
- Aging analysis



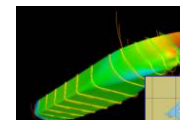
Virtual Ship model



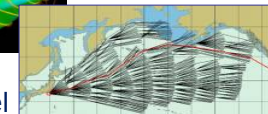
Sea margin analysis

## Optimum Route Finding Service

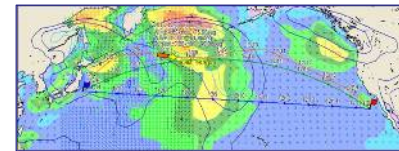
- Safely navigation
- Operation on schedule
- Energy saving navigation



Virtual Ship model



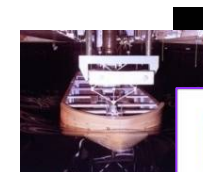
Route finding logic



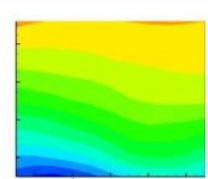
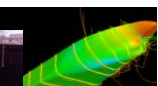
Route Finding Calculation Result

## Optimum Trim Service

- Energy saving navigation
- Offering of highly accurate trim chart
- Interfacing with loading calculator



Tank test data base



Trim chart