



## Background

- SCeMFIS belongs to the National Science Foundation's Industry & University Cooperative Research Center program: [www.nsf.gov/eng/iip/iucrc/](http://www.nsf.gov/eng/iip/iucrc/)
- The I/UCRC program is more than 40 years old, with ~70 research centers
- SCeMFIS is the first center dedicated to fishery sciences (est. 2013)
- SCeMFIS members include: commercial seafood companies; NEFSC (NMFS); Virginia Institute of Mar. Sci., and; the University of Southern Mississippi
- Current research projects cover: shellfish (e.g. surfclams and ocean quahogs), finfish (e.g. summer flounder, scup) and marine mammals
- The IAT is the center's research group for marine mammal assessment

## INDEPENDENT ADVISORY TEAM FOR MARINE MAMMAL STOCK ASSESSMENT

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### Goal

- Develop analytical approaches to reduce uncertainty in marine mammal stock assessment and ensure that management objectives of the MMPA are met

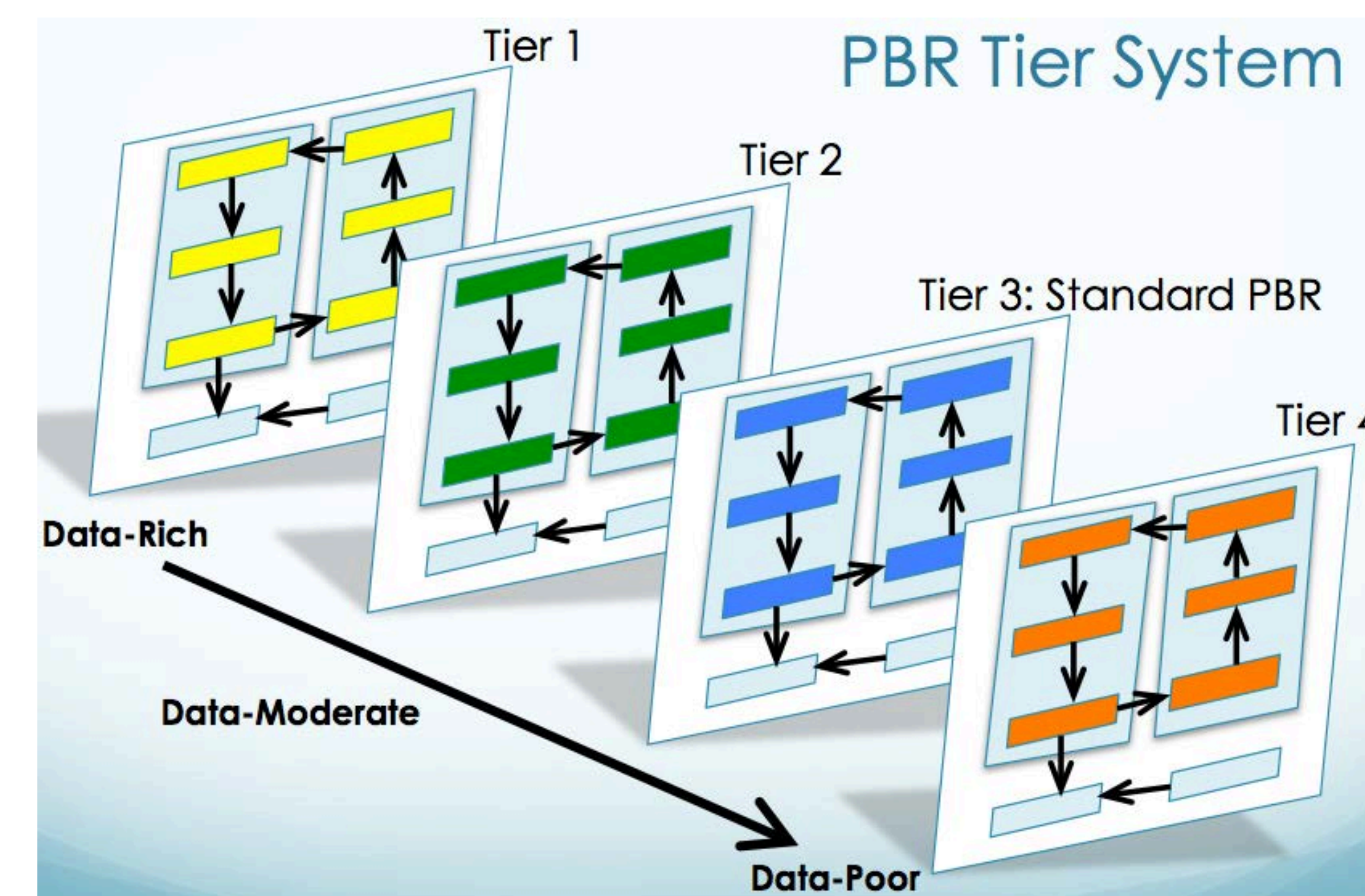
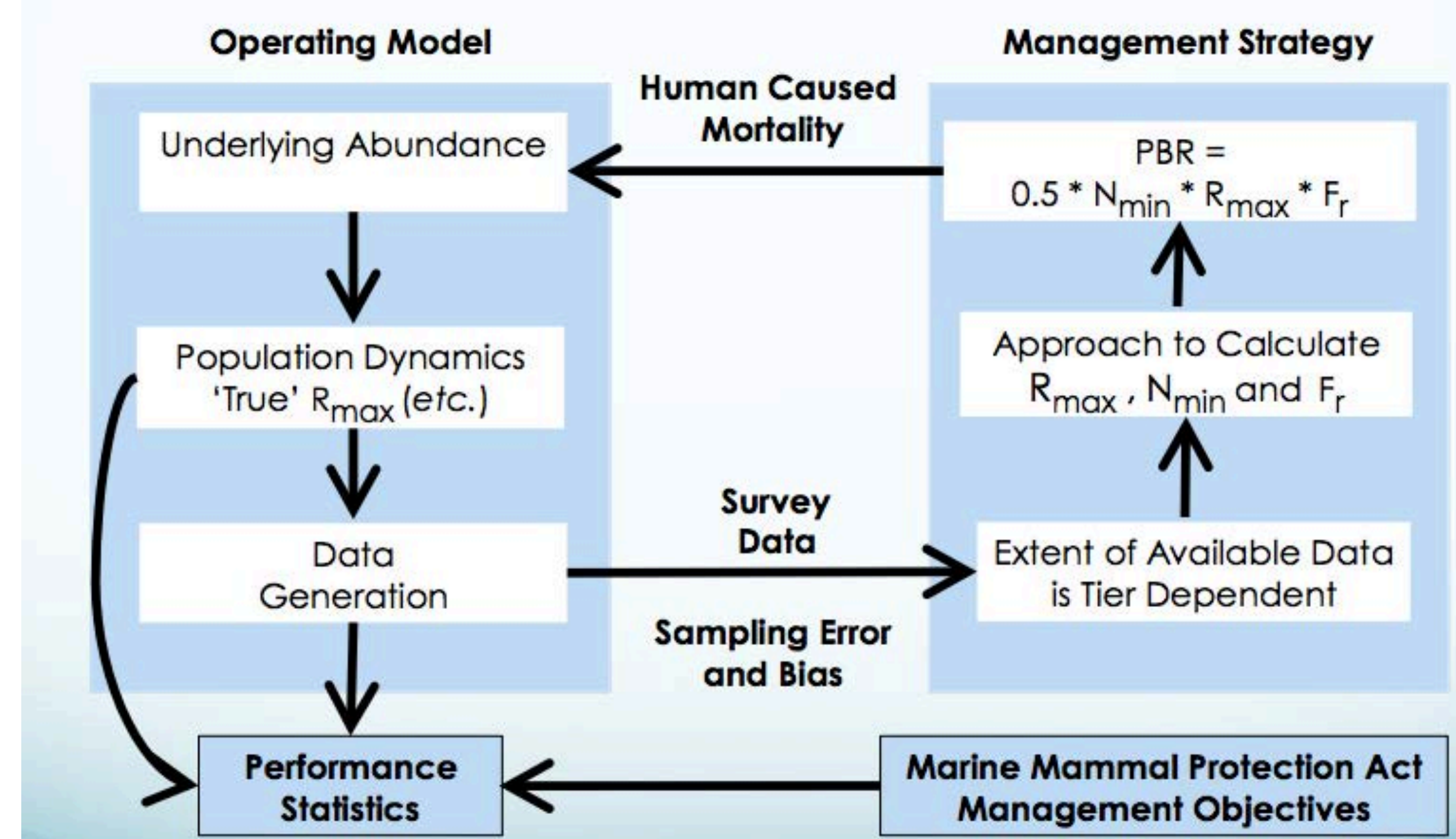
### Methods of Reaching the Goal

- Find new ways to incorporate existing, but currently unused, data in stock assessments
- Evaluate and improve data collection strategies to achieve tighter links with assessment needs
- Collaborate with agency scientists and industry experts to enhance effectiveness of our research

### Management Strategy Evaluation (MSE) for a PBR Tier System

- Each tier to correspond to a different type of data set (e.g. a set with a single abundance estimate vs. a set with multiple estimates)
- Performance of alternative approaches for calculating PBR to be tested through computer simulation
- *Example:*  $N_{min}$  to be derived for a data-rich tier by averaging multiple abundance estimates (with variances)
- Different approaches to be applied and assessed separately within each tier
- System performance to be evaluated against MMPA management objectives

### Structure of the MSE for a Tier System



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