

DAMARA

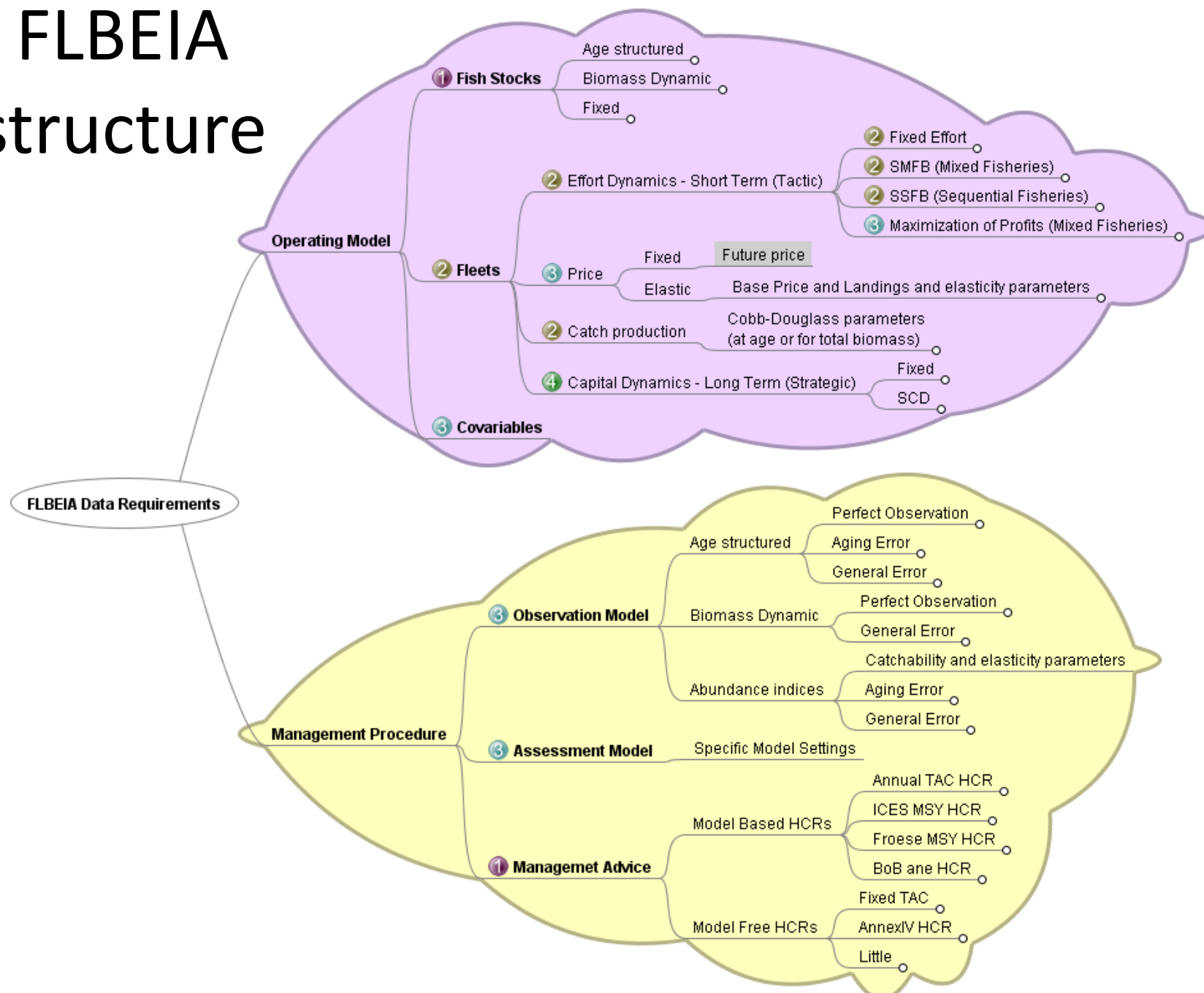
Overview of modelling progress

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FLBEIA

- **Fisheries Library Bio-Economic Impact Assessment**
- Chosen because:
 - Multiple stocks, multiple fleets, seasons
 - Selectivity
 - Includes uncertainty
 - Space to be captured by suitable fleet segment designation and area definitions
 - Flexibility (Framework written in R)

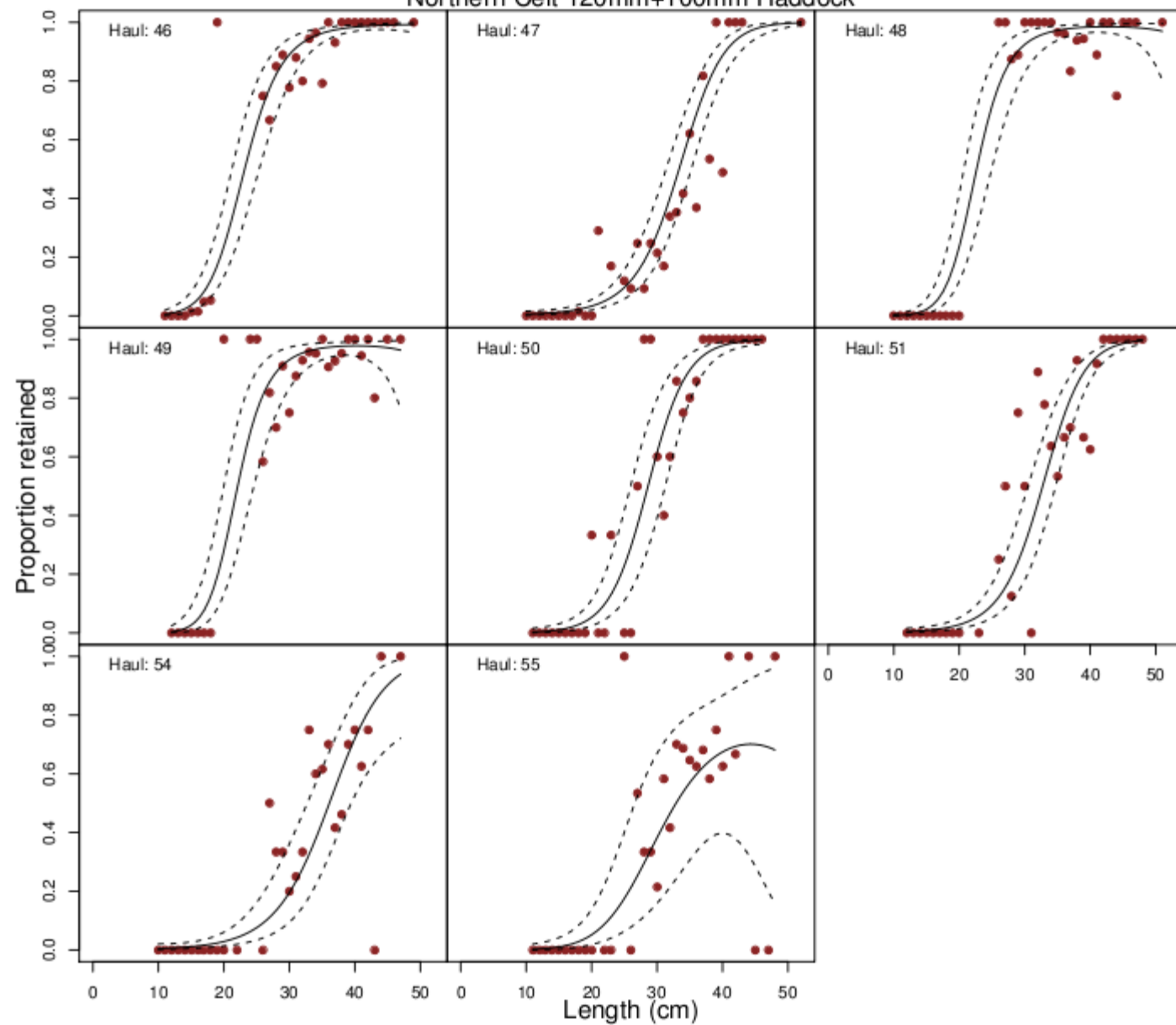
FLBEIA structure



Work to date: selectivity

- Selectivity team (DMD, CM) met with Barry O'Neill and Rob Fryer at Marine Scotland 19th-20th March
 - Purpose: to work up square mesh panel selectivity trials conducted by BIM in the Celtic Sea
 - DAMARA selectivity model: bring all data together (for adequately sampled species)in a model (meta-analysis) that can predict changes in L50 and selectivity range by gear configuration
 - Assist stakeholder decisions on where gaps occur in our understanding of the effect of gear specifications
 - Input scenarios into bioeconomic model (e.g., fleet segment gear configuration changes)

Northern Celt 120mm+100mm Haddock



Selectivity modelling progress

- Code for separate and pooled haul analysis written
 - Includes covered and twin-trawl trials
- Fits to haddock, whiting, hake, megrim, and some plaice conducted
- Next step is fitting the meta-analytical model to bring all parameters together
- Preliminary meta-analytical fits: First week in July.

Work to date: bioeconomic

- Modelling team met developers of FLBEIA at AZTI Sukarrieta April 8th-10th
 - Overview from the developers
 - Applications to other areas (e.g., Iberian Sea)
 - Data input/requirements
 - Work on simplified examples (2 stock, 2 fleet)
 - Commence initial prototype development (a work in progress)

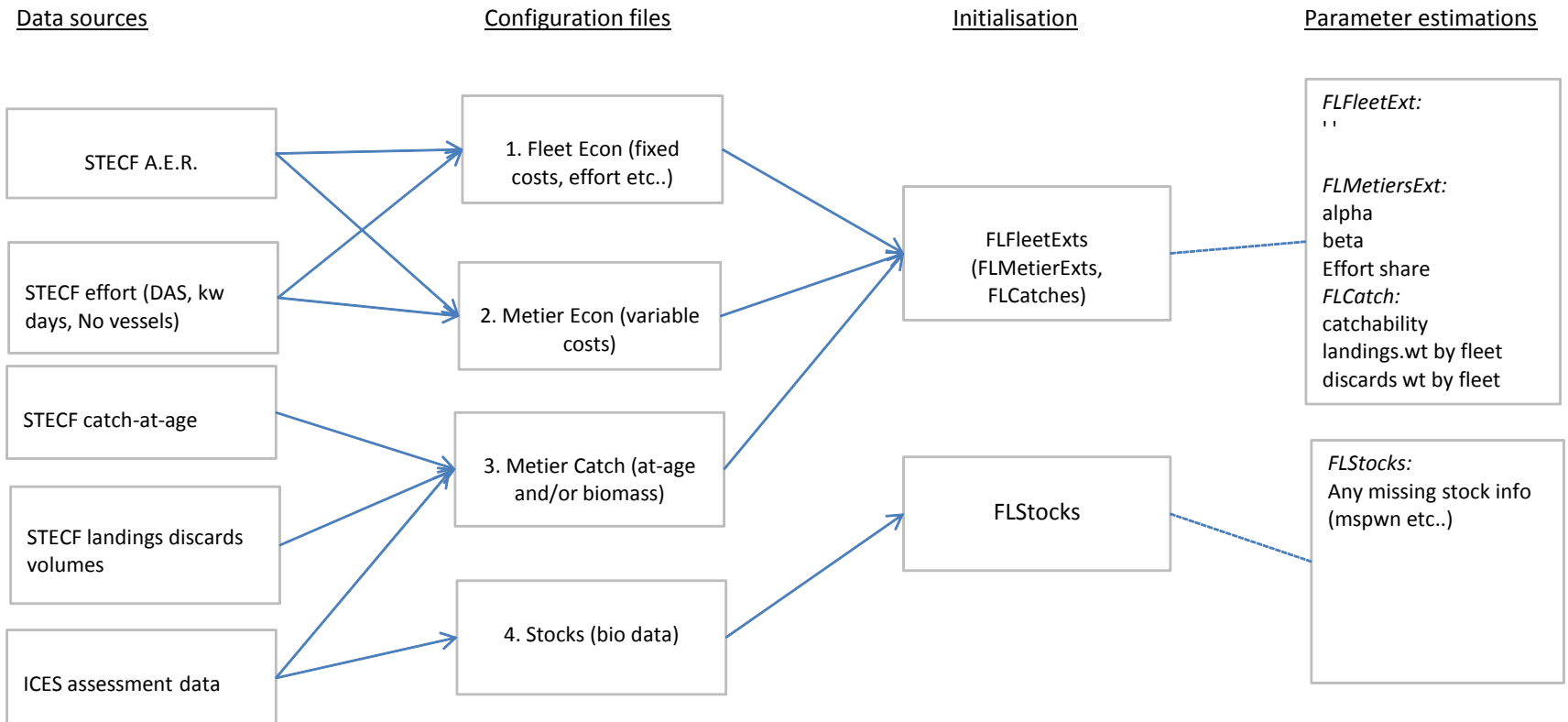
Prototype goals

1. Facilitate meaningful collaboration with stakeholder team in designing a Celtic Sea decision support tool that is fit for purpose
 - Overarching modelling team motivation is that we want to develop a useful, collaborative and informative tool grounded to stakeholder realities, not an abstract modelling exercise
2. Understanding the capabilities, limitations and where our efforts are best focussed
3. Iron out the modelling creases

Prototype development to date

- Work in progress but based on:
 - Cod, haddock, whiting (ICES WGCSE 2013)
 - Extend to Nephrops and monk as examples of coping with differing levels of assessment (e.g., trends based)
 - Fleets and métiers: based on:
 - Country
 - Gear type: from cod LTMP, e.g., TR1
 - 22 fleets defined
 - Area: for prototype only VIIfg and VIIbceh-k but to be extended to higher spatial resolution
 - Example prototype métier: BEL_TBB_o10m_VIIfg
 - Cost parameters (fixed and variable): AER
 - Price information: constant
- If/when higher resolution is required/possible, setup can be expanded according to data availability

Prototype development



Model planning

- Coding of prototype is partially complete
- Now need to work with stakeholder team in deciding (amongst others):
 - Where the modellers should focus their efforts:
 - There's always baseline setup tasks for the bio-economic system but perhaps there are areas of particular concern (second stakeholders meeting question)?
 - Resolution in time: prototype is yearly, quarterly possible from STECF data. Important to note that STECF is quality controlled but has its limitations.
 - Resolution in space, we need to think of facilitating annual updates while keeping actual utility
 - Scenarios most pertinent for prototype runs
 - Timeline to coincide with next stakeholder's meeting