

# Census of Marine Life



An international program  
to assess and explain the  
**diversity, distribution & abundance**  
of marine life  
(2000-2010)

*The Census of Marine Life: Making ocean life count*

# *Grand Challenge Questions*

## **Components**

### **1) *What did live in the oceans?***

CoML answer: History of Marine Populations Program

### **2) *What does live in the oceans?***

CoML answer: Ocean Realm Field Projects

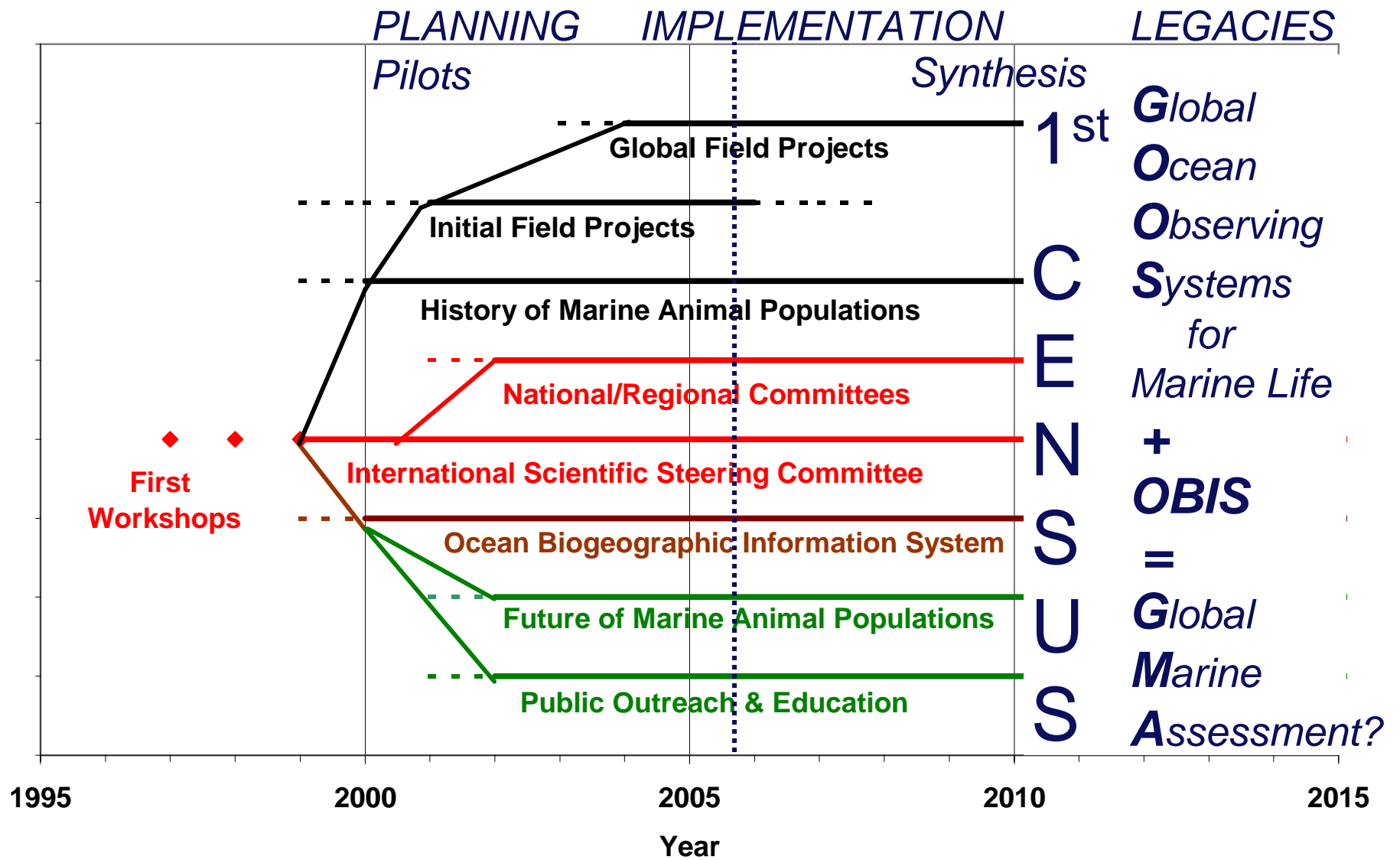
### **3) *What will live in the oceans?***

CoML answer: Future of Marine Populations Program

### **4) *How to access & visualize data on living marine resources?***

CoML answer: Ocean Biogeographic Information System

# Program Development: Schedule, Benchmarks



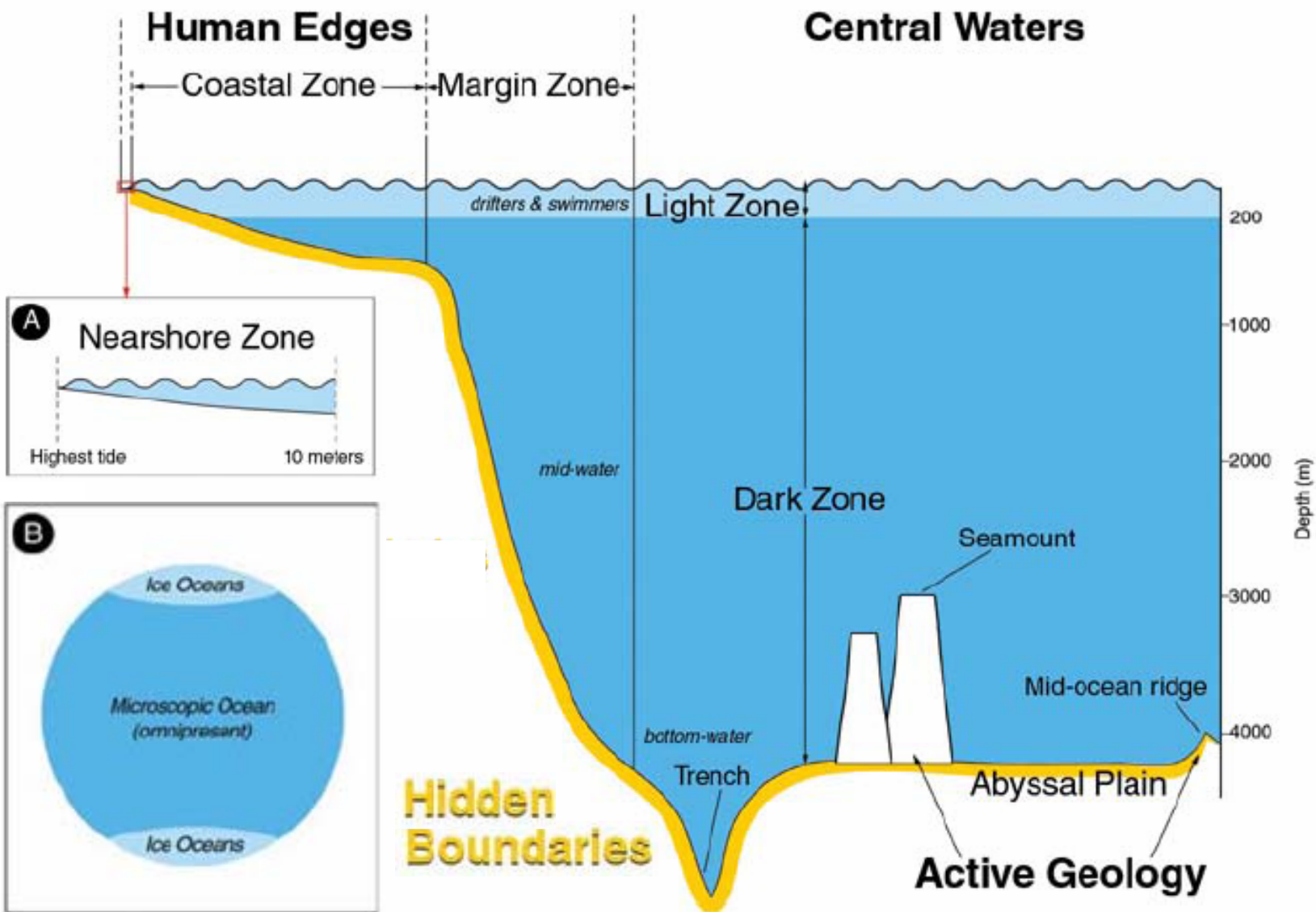
# A program of explorations and applications

## Applications:

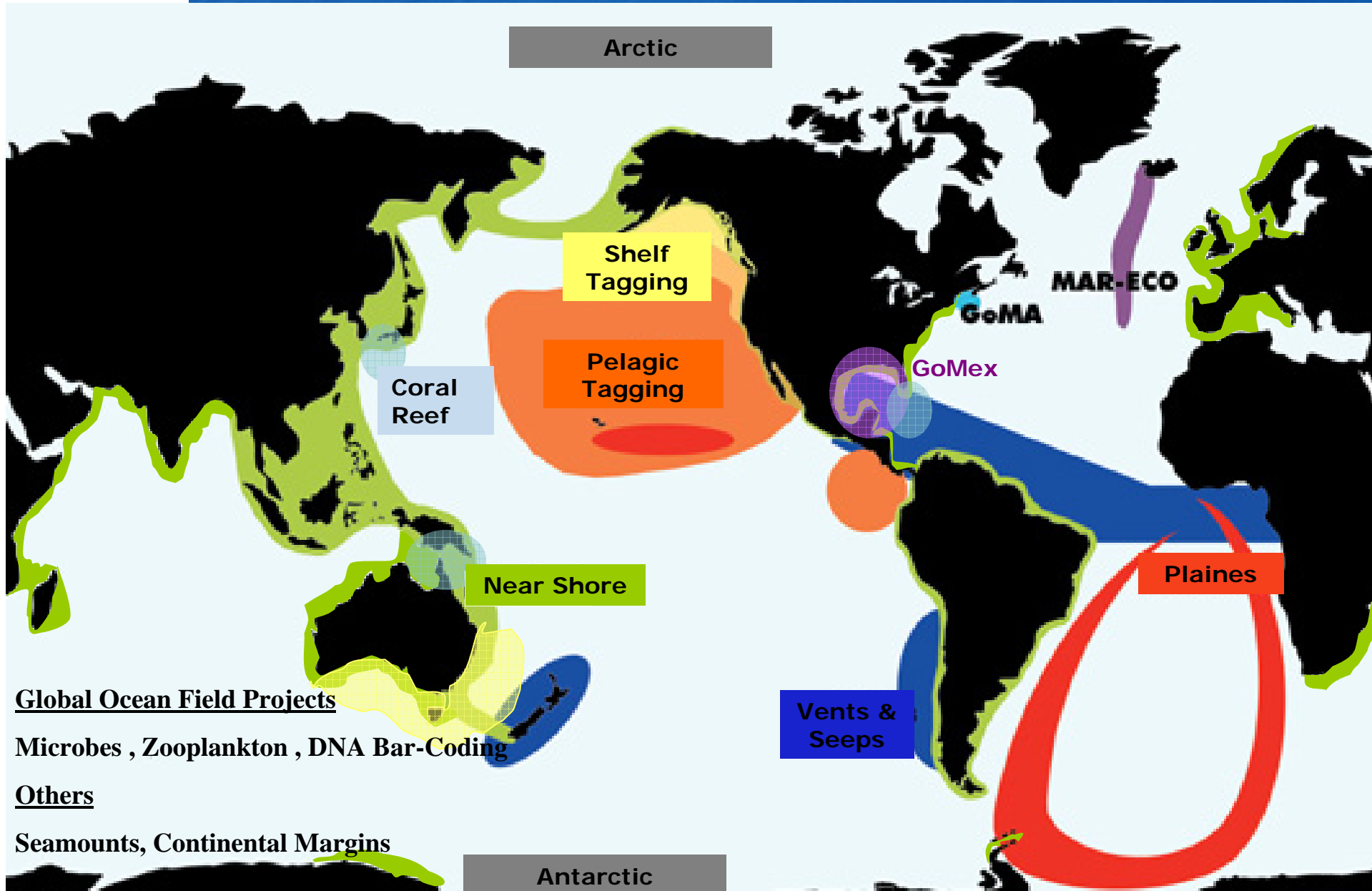
- Sustainable Fisheries
- Marine Protected Areas (finding hotspots)
- Habitat Loss and Pollution
- Environmental Assessments
- Invasive species
- Endangered Species
- UN Convention on Biodiversity
- Global Climate Change



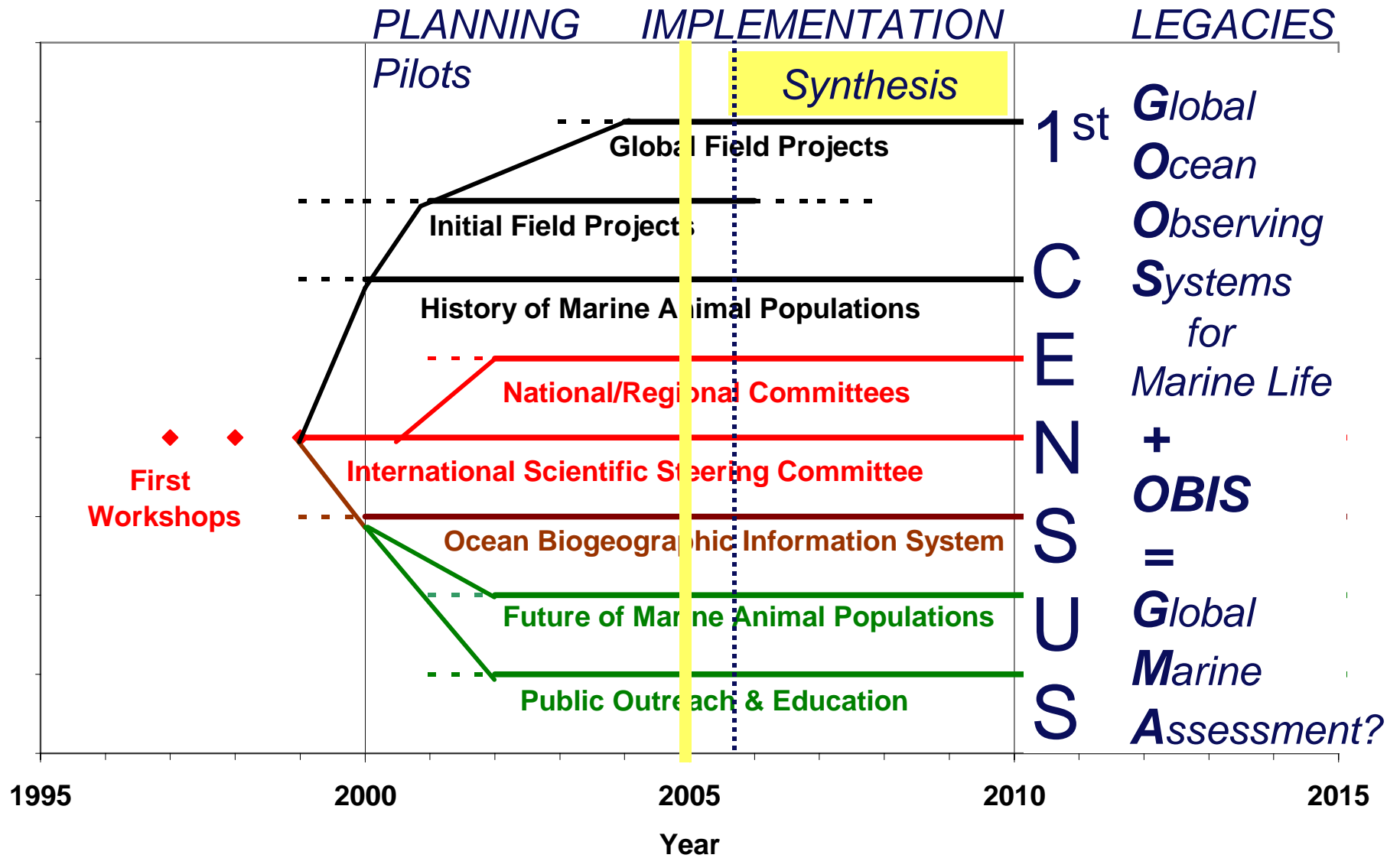
# COML Ocean Realms & Zones



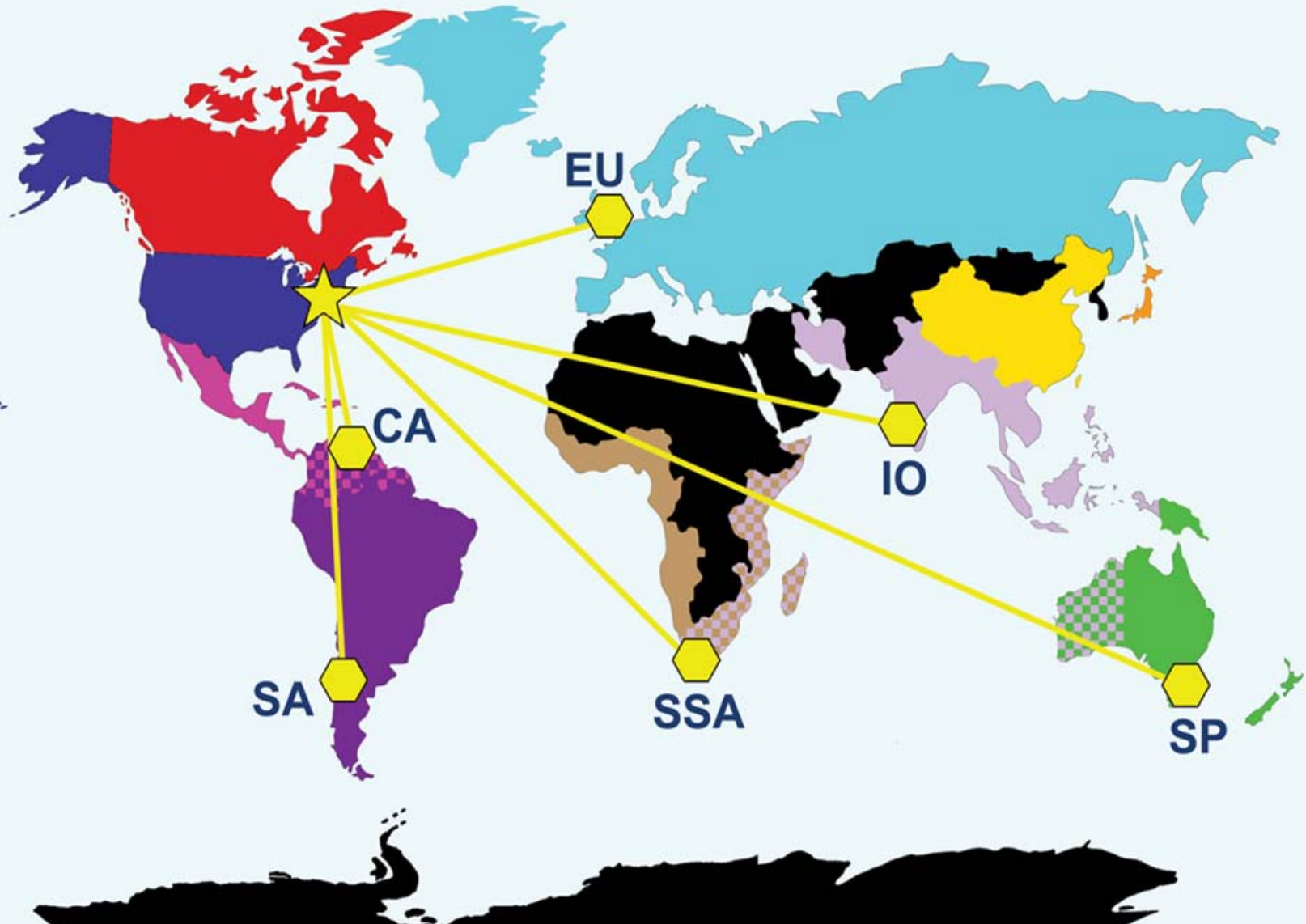
# Field Project Distribution



# Program Development: Schedule, Benchmarks



# Regional Implementation Committees (RICs)





# Proposal

## **CoML-PICES collaborative initiative to look at the North Pacific Eco regions**

- Integration of research and expertise of the 2 programs
- Scientific capacity building in the 5 North Pacific countries




# PICES 2005 Report

## Marine Life in the North Pacific

**Supplemental table of Unknowns.** Categories of needed information are sub-divided into Coastal (C) and Offshore (O) components, since information requirements may differ for various locations. **RED** cells indicate major unknowns with poor data availability, **YELLOW** cells indicate limited information (some aspects from some regions may be known), and **GREEN** cells indicate no major unknowns and that available information is generally adequate. **Moving the cursor** over some cells will bring up more detailed information. In addition, the detailed information associated with these cells can be found below the table.

|    | A            | B | C                 | D                    | E                    | F                 | G                | H                   | I                     | J                  | K              | L        | M       |
|----|--------------|---|-------------------|----------------------|----------------------|-------------------|------------------|---------------------|-----------------------|--------------------|----------------|----------|---------|
|    |              |   | Bacterio-plankton | Small Phyto-plankton | Large Phyto-plankton | Micro-zooplankton | Meso-zooplankton | Gelatinous plankton | Non-exploited benthos | Non-exploited fish | Exploited fish | Seabirds | Mammals |
| 1  | Taxonomy     | C | RED               | YELLOW               | GREEN                | YELLOW            | GREEN            | GREEN               | YELLOW                | GREEN              | GREEN          | GREEN    | GREEN   |
| 2  |              | O | RED               | YELLOW               | GREEN                | YELLOW            | GREEN            | GREEN               | RED                   | GREEN              | GREEN          | GREEN    | GREEN   |
| 3  | Distribution | C | YELLOW            | YELLOW               | GREEN                | YELLOW            | GREEN            | YELLOW              | GREEN                 | YELLOW             | GREEN          | GREEN    | GREEN   |
| 4  |              | O | RED               | YELLOW               | YELLOW               | YELLOW            | GREEN            | RED                 | RED                   | YELLOW             | GREEN          | GREEN    | GREEN   |
| 5  | Abundance    | C | YELLOW            | YELLOW               | GREEN                | YELLOW            | GREEN            | YELLOW              | YELLOW                | YELLOW             | GREEN          | GREEN    | GREEN   |
| 6  |              | O | RED               | YELLOW               | YELLOW               | YELLOW            | GREEN            | RED                 | RED                   | RED                | GREEN          | GREEN    | YELLOW  |
| 7  | Life history | C | RED               | RED                  | YELLOW               | YELLOW            | GREEN            | RED                 | YELLOW                | RED                | YELLOW         | GREEN    | GREEN   |
| 8  |              | O | RED               | RED                  | RED                  | YELLOW            | GREEN            | RED                 | RED                   | RED                | YELLOW         | GREEN    | GREEN   |
| 9  | Productivity | C | YELLOW            | GREEN                | GREEN                | YELLOW            | GREEN            | RED                 | YELLOW                | RED                | YELLOW         | GREEN    | GREEN   |
| 10 |              | O | RED               | GREEN                | GREEN                | RED               | RED              | RED                 | RED                   | RED                | YELLOW         | GREEN    | GREEN   |
| 11 | Variability  | C | RED               | YELLOW               | GREEN                | YELLOW            | GREEN            | RED                 | YELLOW                | RED                | GREEN          | GREEN    | YELLOW  |
| 12 |              | O | RED               | YELLOW               | YELLOW               | RED               | RED              | RED                 | RED                   | RED                | GREEN          | YELLOW   | YELLOW  |


  
 Level of aggregation decreases **www.pices.int**

# Possibilities



- Joint workshops ex. *The PICES yellow sea initiative to gather known data and the CoML history project*
- Scientific exchanges ex. *PICES and CoML scientific intern ships (a cross over of young scientists)*
- Publications ex. *An updated look at North Pacific Ecosystems*