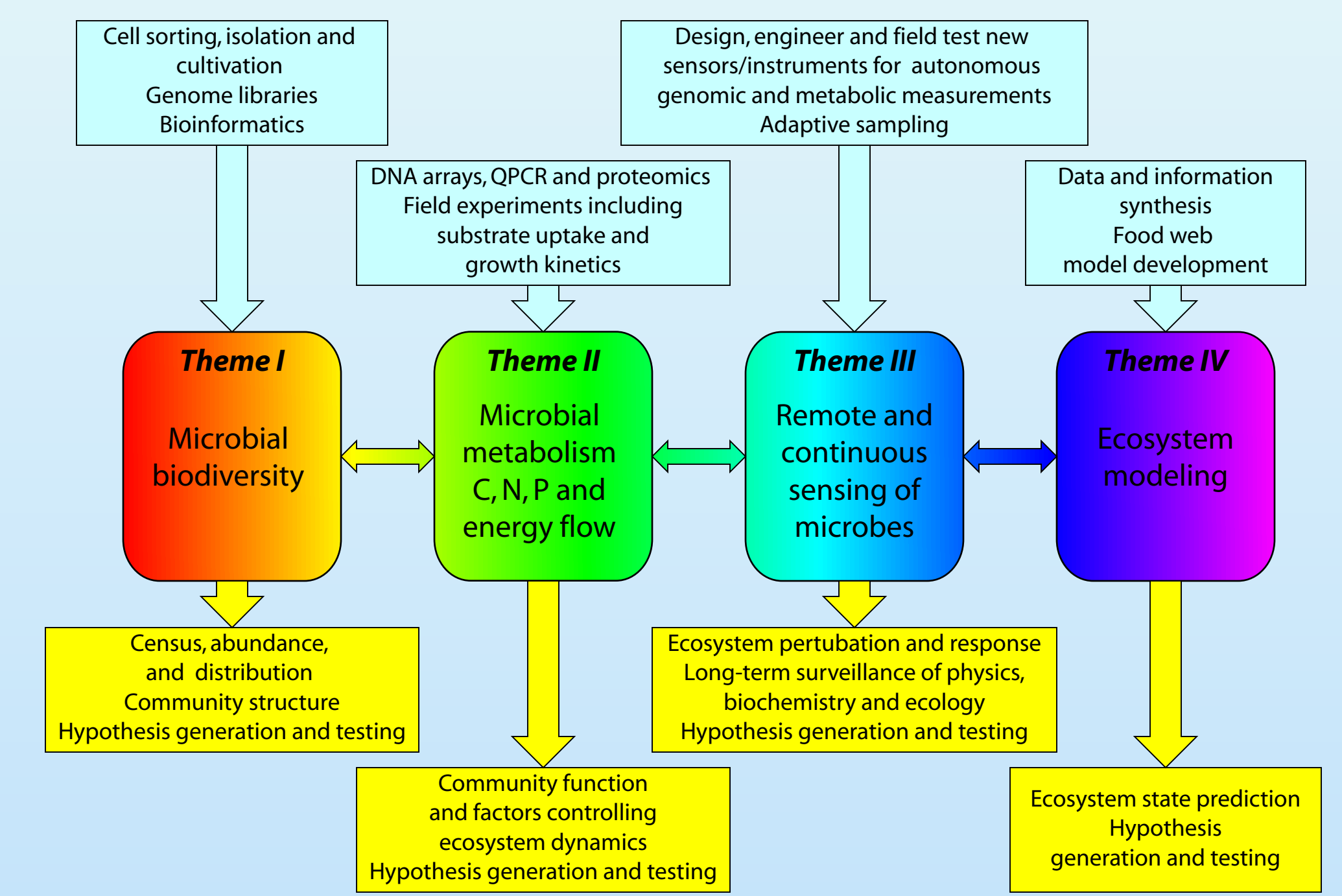
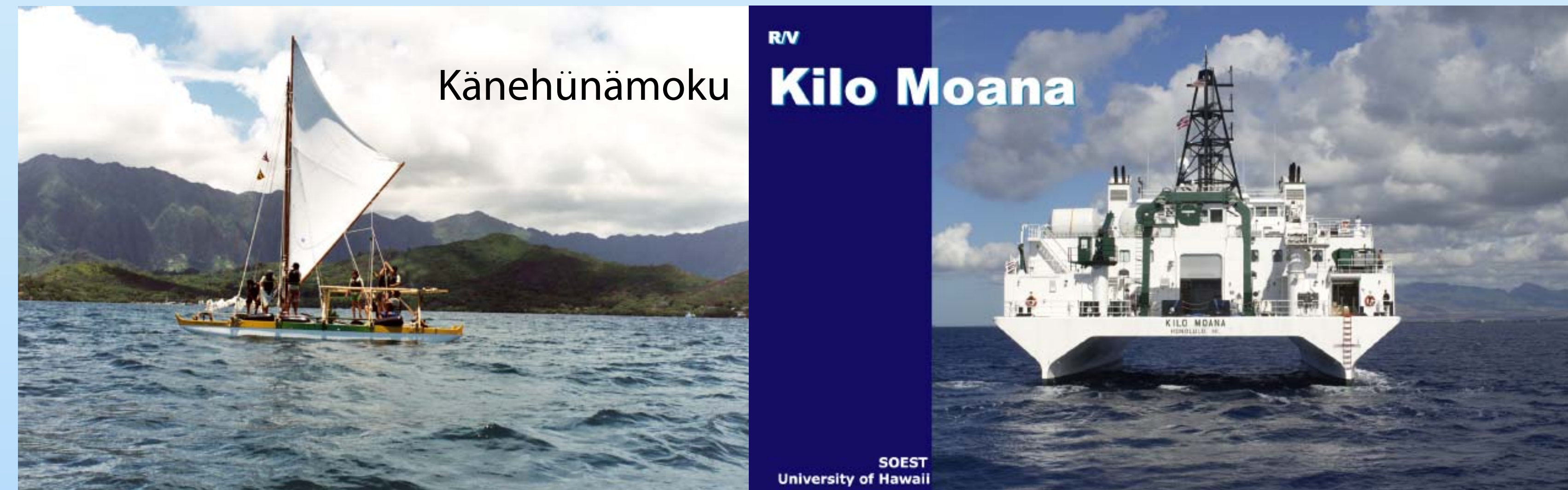


PROPOSED Center for Microbial Oceanography: Research and Education

- NEED
- OPPORTUNITY
- CHALLENGE



- EXPLORE
- EXPERIMENT
- EDUCATE

C-MORE MISSION:

To understand the mechanisms that drive and sustain diversity in marine microorganisms (systems biology), and that link microorganisms together in robust networks (ecosystems biology).

C-MORE : WHY A CENTER?

- Effective knowledge generation and transfer
- Scientific questions are grand and require multi-investigator collaboration and common logistical support
- Present opportunity to integrate cutting-edge science across unrelated disciplines
- Identified "center of excellence" facilitates recruitment of high-quality staff and students and integrated research-education activities

C-MORE : WHY THE OCEANS?

- Life's diversity evolved in oceans
- Largest biome on earth
- History of life is encoded in microbial genes
- Engine of global element cycles
- Sampling scales are tractable: genome to ecosystem
- Miner's canary for global environmental change

C-MORE : WHY HAWAII?

- Location, location, location: Access to *mare incognita*
- Leveraged programs: Hawaii Ocean Time-series (HOT), Center for Oceans and Human Health (COHH), Kumu Ola
- Strong support from Governor to UH President to UHM Chancellor
- Leadership and administration already in place

C-MORE : WHY NOW?

- Timing is everything
- Leveraged programs and new opportunities as a result of recent rapid technology developments
- Access to ongoing time-series research programs in coastal (Monterey Bay) and the open Pacific Ocean
- Self-assembled, diverse TEAM of outstanding scientists and educators
- Sustain U.S. leadership in science/technology

C-MORE LEGACY:

New paradigms • A well characterized biome for hypothesis testing by manipulation/experimentation • A well-trained workforce of technicians, teachers and senior researchers • A functional trans-disciplinary and multi-dimensional information system for data access and knowledge transfer • Novel enabling technologies and predictive models • An informed electorate and up-to-date K-12 textbooks

