

EuYmast Forum: Towards a European Young Marine Scientist and Technologist Forum

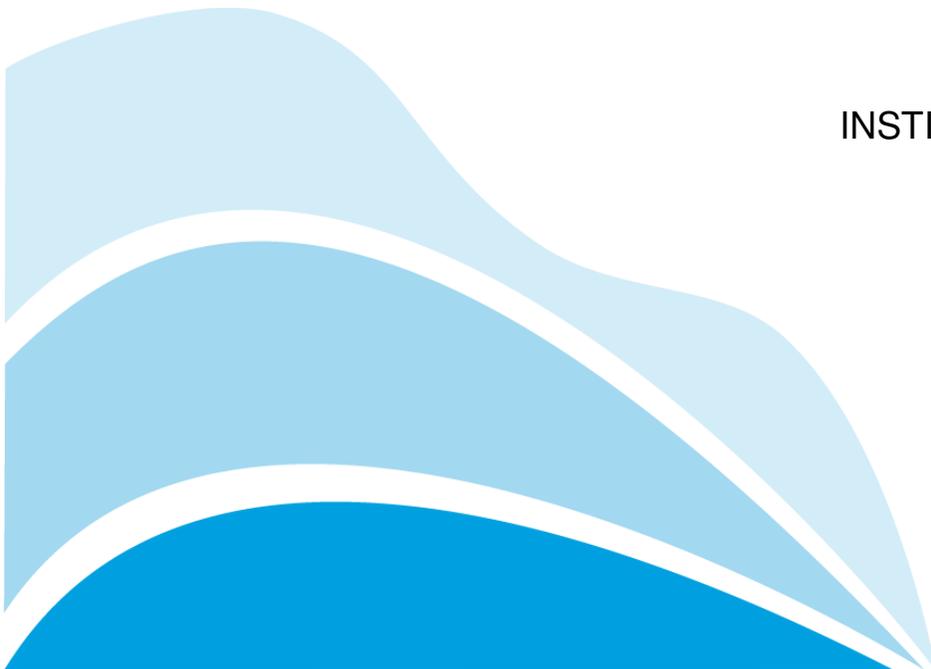


Challenges in capacity building...

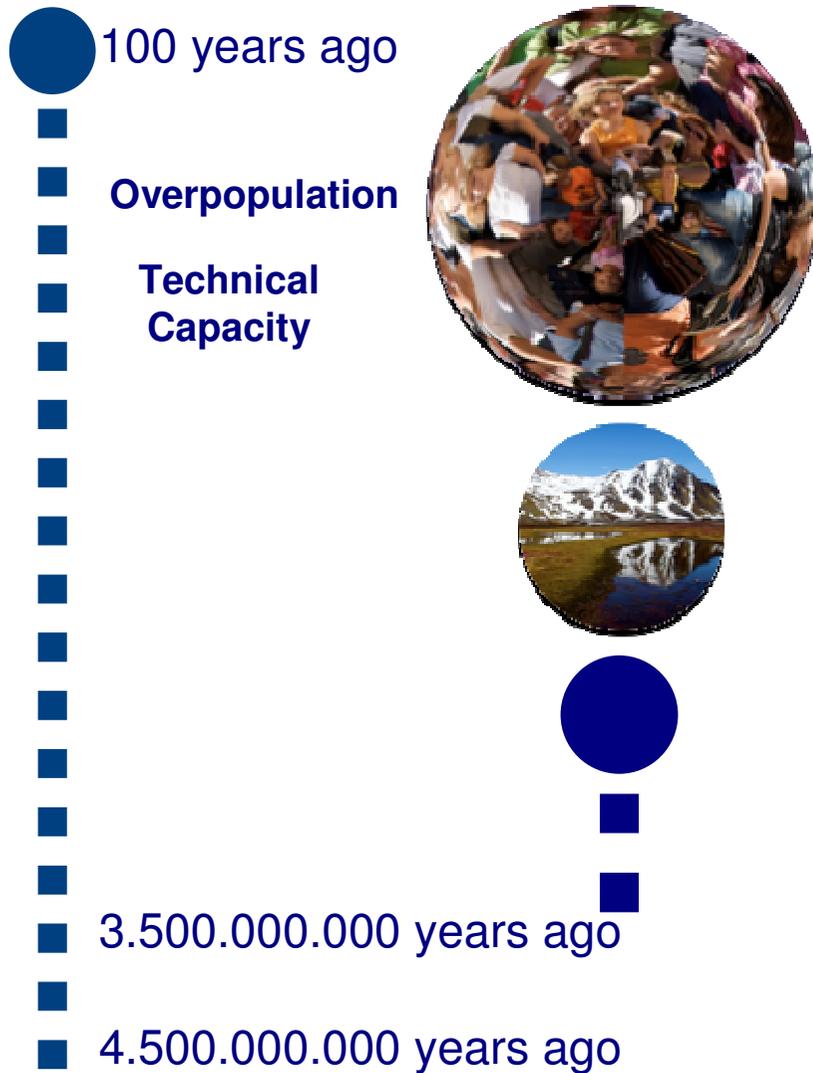
The Science Vision

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Global Change



- Overexploitation crisis
- Biodiversity Crisis
- Climate Change Crisis

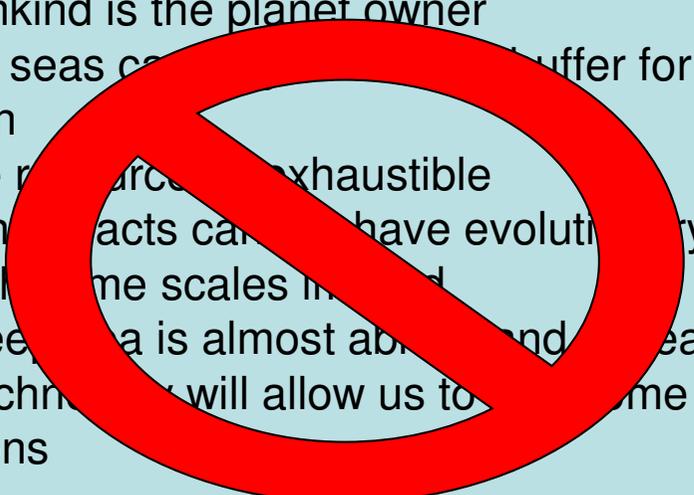
Oxygen Crisis

Cyanobacteria developed capacity to use water as a source of electrons

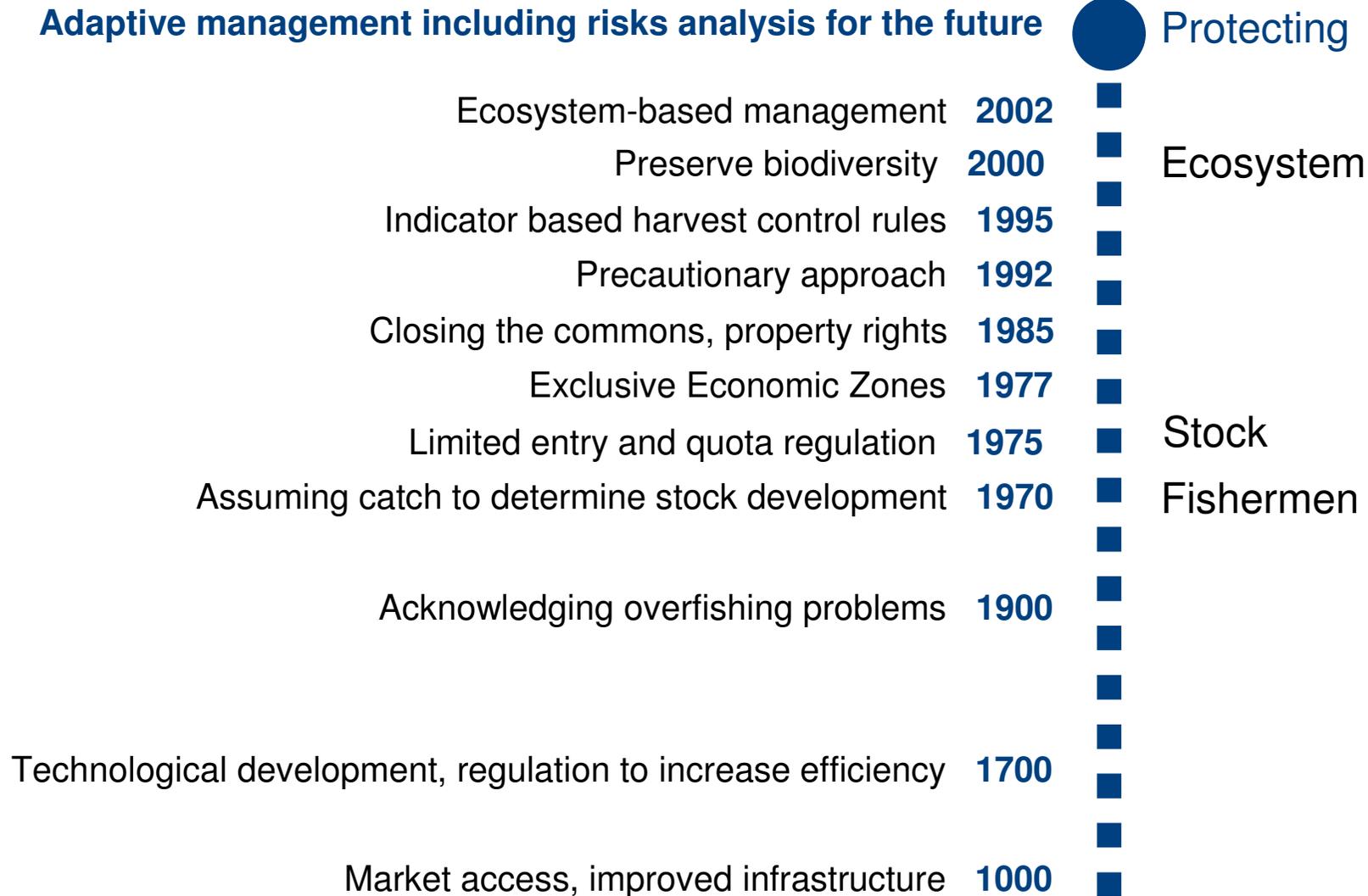
Changes in marine science paradigms

- **Science is additive** with brusque shifts when enough critical knowledge mass is gathered
- **Technical developments** open new views
- **New Paradigms** appear periodically representing a new challenge

- Humankind is the planet owner
- Infinite seas can buffer for human pollution
- Marine resources are inexhaustible
- Human impacts can have evolutionary effects due to the time scales involved
- The deep sea is almost abiotic and seasonal
- The technology will allow us to overcome all limitations

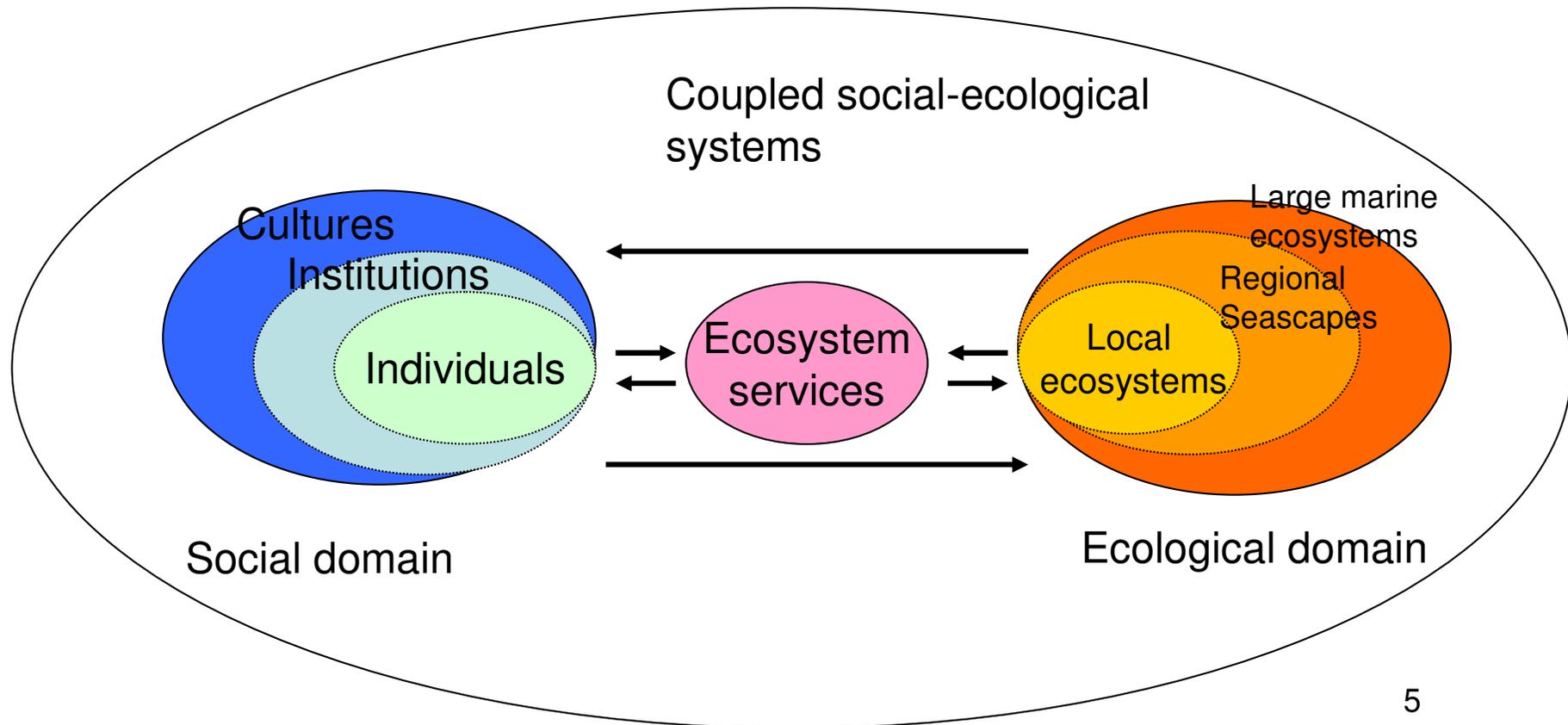


Fisheries change of paradigms



Protect Nature

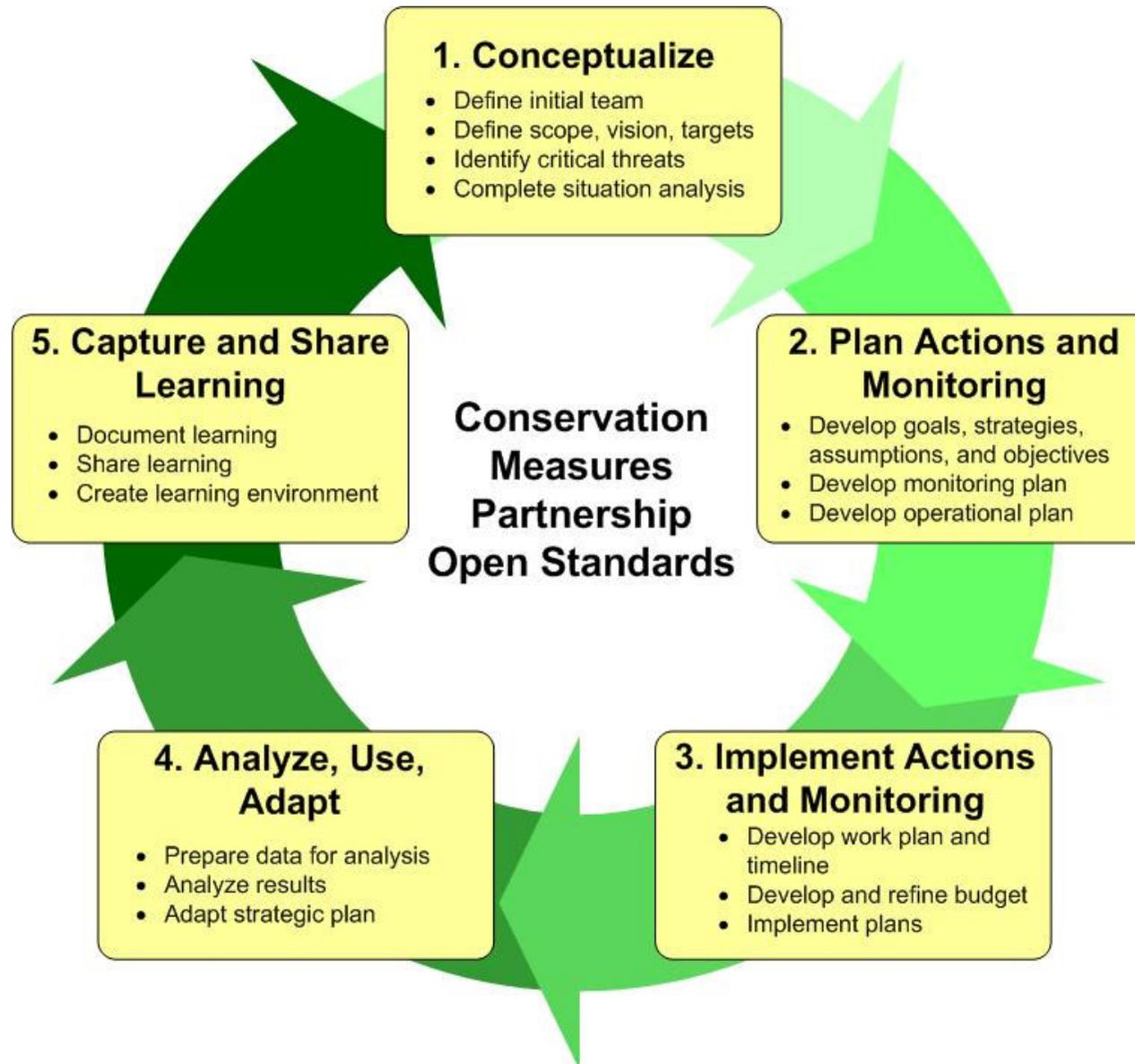
- Knowledge based management: ecosystem approach to management



Challenges

- **Discovering** the unknown (from molecules to ecosystems..)
- **Understanding the macro and micro scales on space and time** (for evolution, environment and biota)
- **Learning** the mismatch between humans and anthropogenic environment
- Determining the **drivers of global change** (from causal factors to consequences)
- **Establish common protocols**, quality control and sharing facilities for knowledge and data
- **Technological developments** to monitor, measure and explore Nature
- **Construct holistic models** to understand and manage the ecosystem
- Develop **innovative management and governance**
- Establish an **efficient pipeline** between science based knowledge and the stakeholders and managers
- **Increase** the public awareness on the issues at stake

Challenges



What is necessary?

- Capacity to interpret and critic knowledge
- Synthesis capacity
- Awareness of our partial vision
- An open mind to recognize new opportunities, to work transversally
- Capacity to work in interdisciplinary teams
- Communication abilities
- Technological capacities
- Enthusiasm, hope, courage and dedication!!





Thanks for your attention!

Questions?

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