

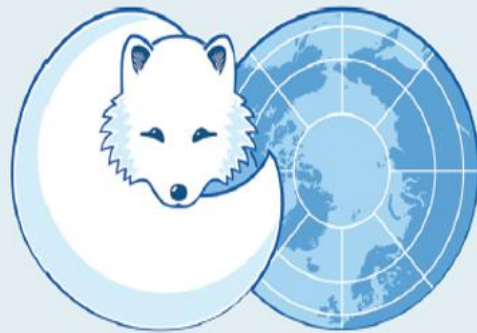
# Arctic Council Ecosystem Approach to Management and the Development of Arctic Marine Protected Areas

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and  
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Anchorage Alaska

# Ecosystem-Based Management in the Arctic



ARCTIC COUNCIL

Report submitted to Senior Arctic Officials  
by the Expert Group on Ecosystem-Based Management  
May 2013

‘The comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity.’

(Arctic Council, 2013)

EA (or EBM) is a system of knowledge concerning the ecosystem and its components. EA embodies what is known about how to shape human behavior in ways that minimize interference with continuing operations of the ecosystem. **What kinds of knowledge?**

### Six elements of the Ecosystem Approach (PAME EA-EG)

- |                              |                         |
|------------------------------|-------------------------|
| 1. Identify the ecosystem    |                         |
| 2. Describe the ecosystem    | The system of knowledge |
| 3. Set ecological objectives |                         |
| 4. Assess the ecosystem      | Arctic Council develops |
| 5. Value the ecosystem       |                         |
| 6. Manage human activities   | The regulatory process  |

# Status of Implementing Arctic EA

**Identify the ecosystem** Geographic boundaries for Arctic ecosystems have been accepted by Arctic states

**Describe the ecosystem** Biological contents and physical properties are reasonably well known (except High Seas)

**Set ecological objectives** Work in progress. Definitions vary EU, USA, ...

**Assess the ecosystem IEA** ICES, NOAA IEA Workshop Jan '18

**Value the ecosystem** Not clear how to proceed

**Manage human activities** Arctic states responsibility

# **Arctic Council work in 2018 on Integrated Ecosystem Assessment and Ecological Objectives**

## **Next Steps**

- 1) 6th EA workshop developing guidelines Integrated Ecosystem Assessment. January 2018 Seattle**
- 2) PAME/ICES Working Group on Integrated Ecosystem Assessment in the Central Arctic Ocean (WGICA)**
- 3) 2nd International EA Conference 2018 on Status Implementing EA in the Arctic,**

**NEXT STEPS: 6th EA workshop  
developing methods and guidelines  
Integrated Ecosystem Assessment  
PAME/ICES/NOAA Workshop  
Prospectus**

**Venue and time: Seattle, WA, USA;  
9-11 January 2018**

**Workshop objectives:**

1. Scope and start work on development of guidelines for Ecosystem Approach to management (EA) in the Arctic.
2. Review status of work on developing and doing Integrated Ecosystem Assessment (IEA) to develop best practices for Arctic IEA.

**UPDATE**

**ICES WGICA**

**ICES/PICES/PAME**

**Working Group on Integrated Ecosystem  
Assessment for the Central Arctic Ocean**

**Spring 2018 Canada**

Co-chairs

John Bengtson, NMFS, NOAA, Seattle, USA

Hein Rune Skjoldal, IMR, Bergen, Norway

Sei-ichi Saitoh, Hokkaido University, Japan



# **NEXT STEPS:** Second International Conference Status of Implementation EA in the Arctic

**Venues and times (tbd):**

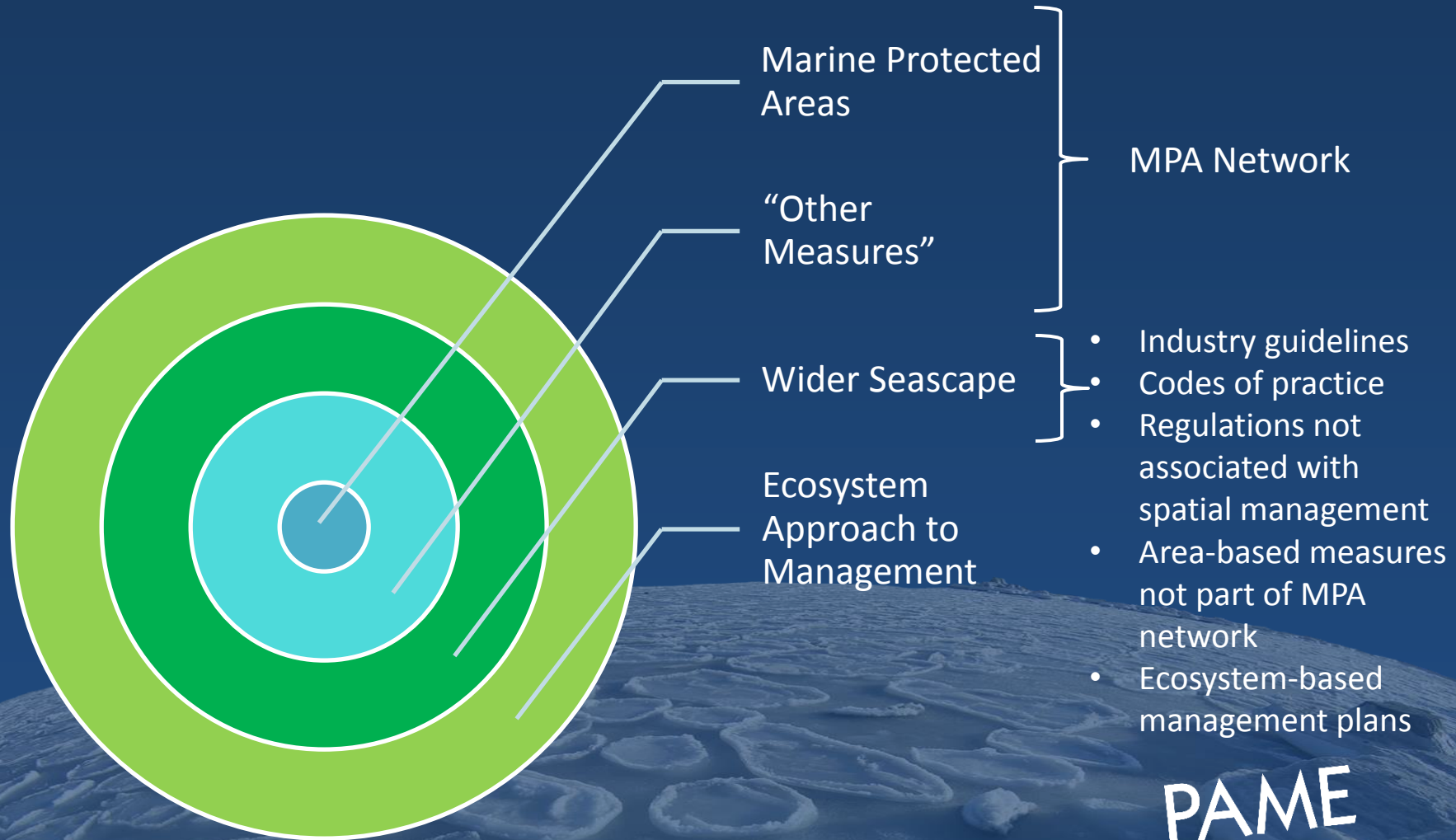
- Sept 2018 (TBD)

## **Purpose**

*“Institute periodic Arctic Council reviews of EBM in the Arctic to exchange information on integrated ecosystem assessment and management experiences, including highlighting examples from Arctic States.”*

(Kiruna Ministerial 2013)

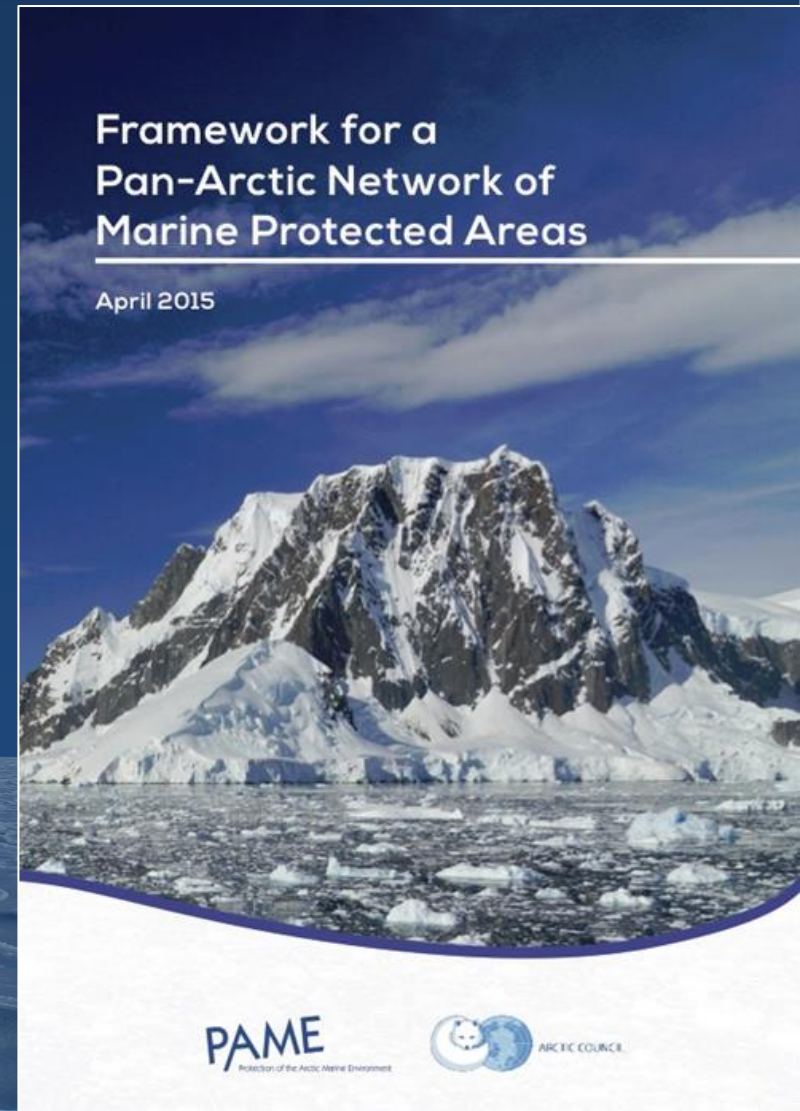
# MPA Networks as Part of an Ecosystem Approach to Management



# Pan-Arctic MPA Framework

- Common vision, goals, objectives, principles
- Summary of Country approaches
- Country listings of MPAs and “other measures”

2015



# Pan-Arctic MPA Network Vision

*An ecologically connected, representative and well-managed network of protected and specially managed areas that protects and promotes the resilience of the biological diversity, ecological processes and cultural heritage of the Arctic marine environment, and the social and economic benefits they provide to present and future generations.*



# MPA Network Goals

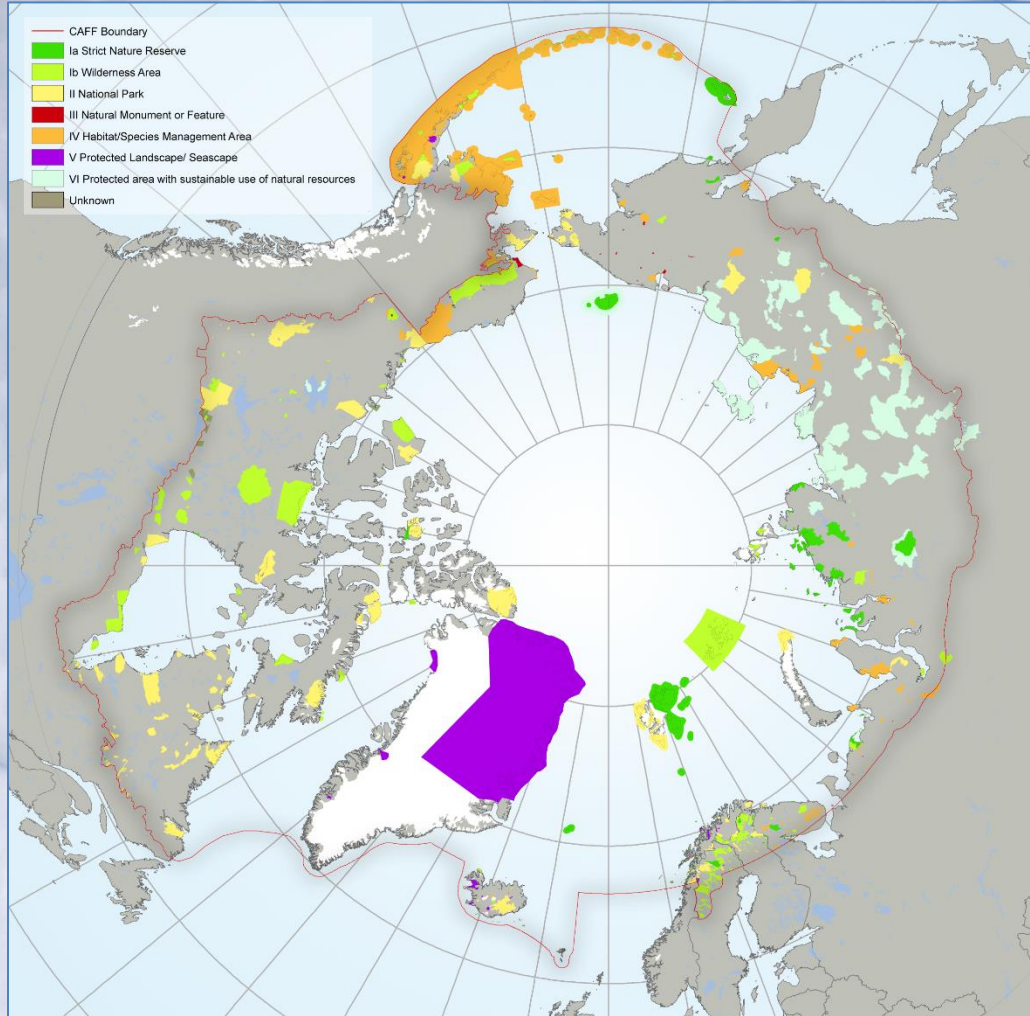
- To strengthen **ecological resilience** to direct human pressures and to climate change impacts, to promote the long-term protection of marine biodiversity, ecosystem function and special natural and cultural features in the Arctic.
- To support the **integrated stewardship, conservation and management of living Arctic marine resources** and their habitats, and the cultural and socio-economic values and ecosystem services they provide.
- To enhance **public awareness and appreciation** of the Arctic marine environment and rich maritime history and culture.
- To foster **coordination and collaboration** among Arctic states to achieve more **effective MPA planning and management** in the Arctic.

# What Counts as an MPA?

- Conforms to the IUCN definition of a marine protected area
- Contributes to achieving at least one of the pan-Arctic MPA network goals and one or more objectives
- Has a management plan, or protection regime being implemented.



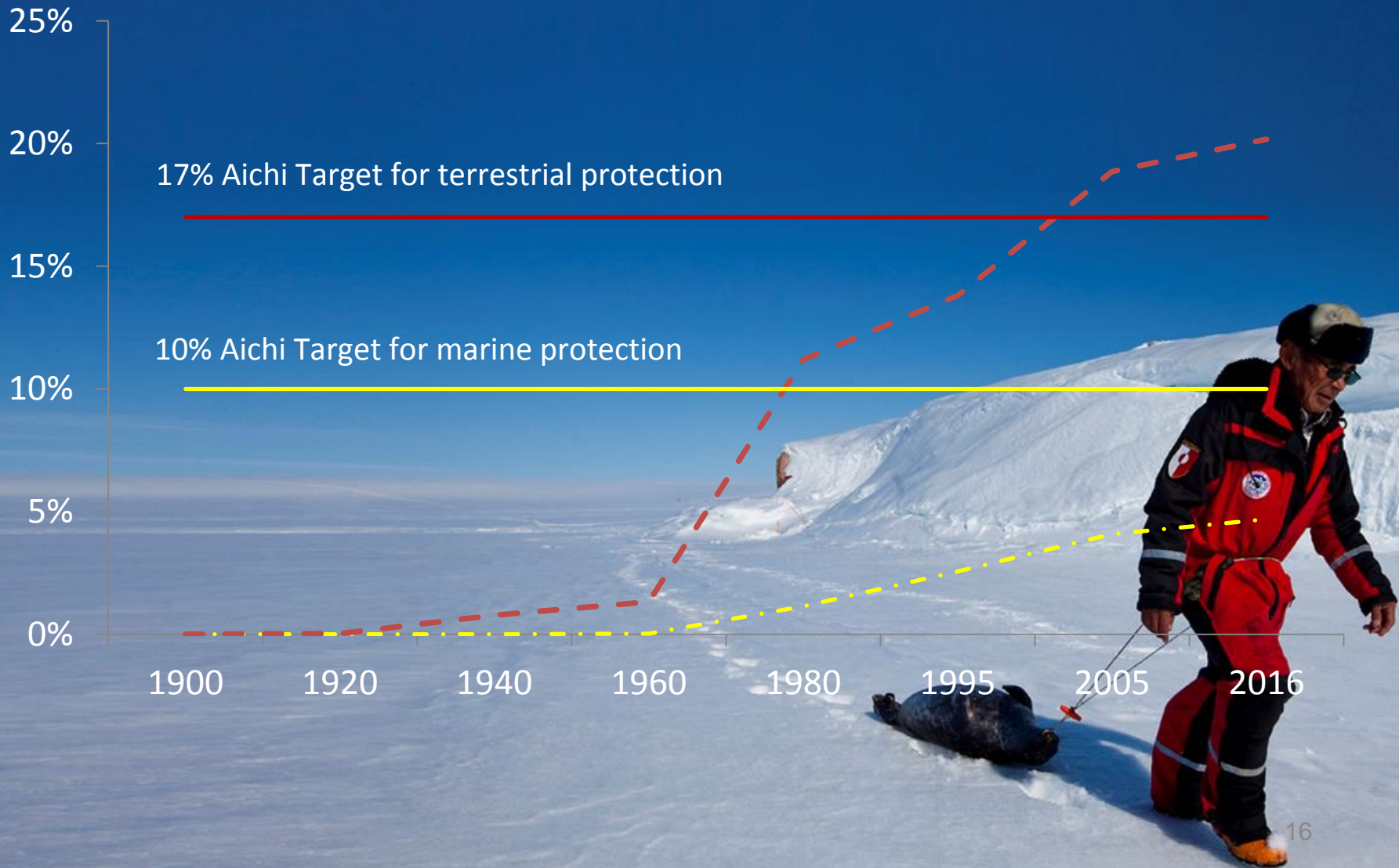
# Arctic Protected Areas: Indicator Report



- **11.4% Total protected**
- **4.7% Marine areas**
- **20.2% Terrestrial areas**

**Colors indicate seven different types of MPA in the marine and terrestrial environments**

# Arctic Protected Areas: Indicator Report







The End

For more information

[www.pame.is](http://www.pame.is)

# PAME Marine Protected Area Framework & MPA Network Toolbox



Lauren Wenzel, National Marine Protected Areas Center  
Martin Sommerkorn, WWF



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