SIMoN
SANCTUARY INTEGRATED MONITORING NETWORK

Goals of SIMoN

1. Integrate existing and historic monitoring in sanctuaries;

2. Establish and maintain essential, long-term monitoring programs; and

3. Disseminate timely information to resource managers and decision makers, researchers, educators, and the general public.

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Brief History of SIMoN

- 1999- Concept developed
- 2000- Science & Managers workshop
- 2001- Packard grant
- 2002- MOA with Monterey Bay Aquarium
- 2002-2003- MBNMS/MBA SIMoN Staff hired
- 2004- Operational Program (Committees, RFPs, Web, data, field work)
- 2005- NMSP support for regional expansion
- 2005- Assessment of GFNMS, CBNMS, CINMS
- 2006- GFNMS SIMoN GIS position hired
- 2006- GFNMS SIMoN Science Committee created
- 2007- MBNMS, CBNMS, GFNMS contractors under MBSF
- 2008- Joint CB/GF/MBNMS SIMoN web site

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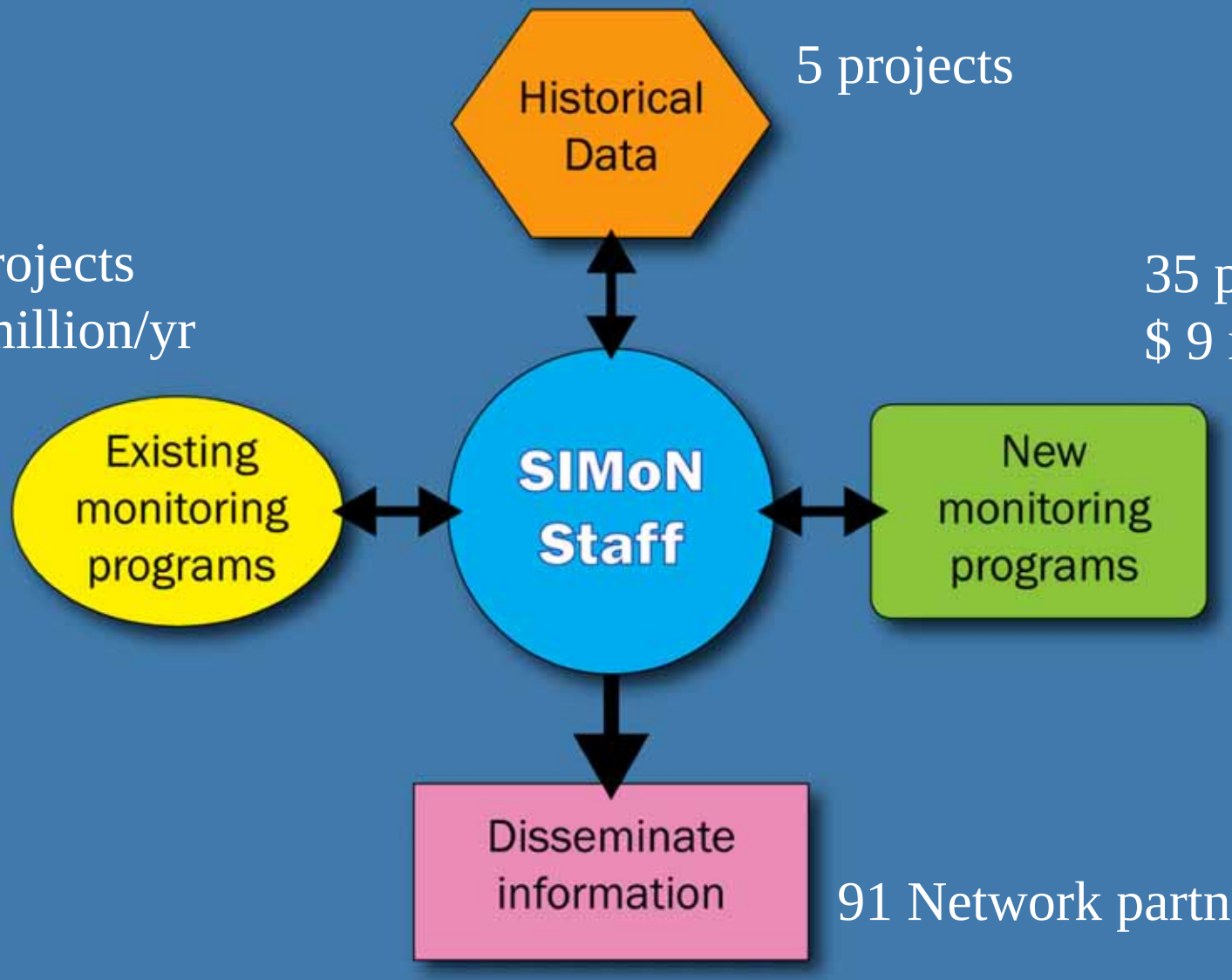
The SIMoN Program



5 projects

150 projects
$ 15 million/yr

35 projects
$ 9 million

91 Network partners

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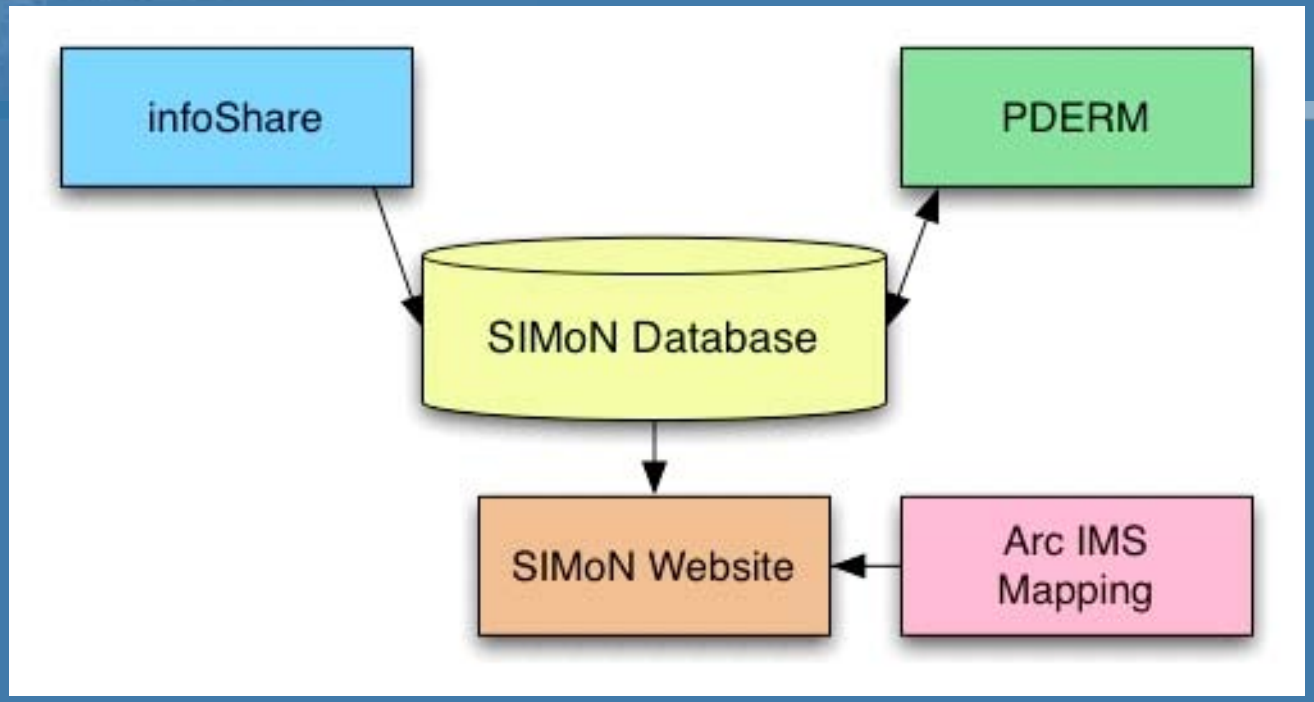
Technical Infrastructure Map



The **SIMoN Database** integrates all project information in a standardized, query-able format.

OceanObs

Vessel Project Manager

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HOME | MONTEREY BAY | GULF OF THE FARALLONES | CORDELL BANK

NATIONAL MARINE SANCTUARIES

- ROCKY SHORES
- KELP FORESTS
- BEACHES
- CONTINENTAL SHELF
- SANDY FLOOR
- ESTUARIES
- SEAMOUNTS & BANKS
- SUBMARINE CANYONS
- ROCKS & ISLANDS
- DEEP SEA
- OPEN OCEAN
- GEOLOGY
- OCEANOGRAPHY
- WATER QUALITY
- FISHES
- SEABIRDS & SHOREBIRDS
- MARINE MAMMALS

SPECIAL TOPICS

– Select a topic –

SEARCH

Enter search here GO

SIMoN brings together information from historic and on-going monitoring programs from the central California marine region to identify and understand changes to the Cordell Bank, Gulf of Farallones, and Monterey Bay National Marine Sanctuaries.

WHATS NEW

New SIMoN Website released (Nov 30, 2007) The newly re-designed SIMoN website v.2 has been released to the public. This second version of the SIMoN website has been expanded to provide information on the natural history and monitoring issues of the Cordell Bank, Gulf of Farallones, and Monterey Bay National Marine Sanctuaries. The SIMoN website also contains new and enhanced features allowing visitors to access more images, reports, maps, and information than ever before. [Learn more]

Species database now available (Nov 30, 2007) Detailed information on over 100 species that occur in central California coastal waters is now available on the SIMoN website. Information is organized into a searchable database that visitors can use to learn about the natural history of species and their conservation issues, and download high quality images. [Go to the species database]

FEATURED MONITORING PROJECT

Hydrodynamics and sedimentation in Elkhorn Slough

The goal of this project is to develop a calibrated 3D circulation model for Elkhorn Slough capable of predicting currents, water levels and transport. It is also intended to be used to estimate rates of sediment erosion, deposition, and transport. [View project]

Photo Library

The SIMoN photo library contains over 3,000 downloadable images of organisms, locations, issues, and research activities within the Northern California national marine sanctuaries.
[Search library]

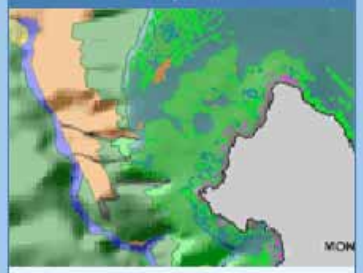
About SIMoN

What is SIMoN? Learn about the SIMoN program including opportunities for funding, program mission, and staff contact.
[Learn more]

Species Database

Learn about common species of marine mammals, fishes, birds, invertebrates, and algae found in the Northern California sanctuaries. Over 80 species are profiled in the searchable database.
[Search database]

Interactive maps



Create your own maps online using the

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GULF OF THE FARALLONES NATIONAL MARINE SANCTUARY

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FARALLONES TOPICS

– Select a topic –

SEARCH

Enter search here GO

Home: Gulf of the Farallones

GULF OF THE FARALLONES SANCTUARY HOMEPAGE

South Farallon Islands. Photo: NOAA

The Gulf of the Farallones National Marine Sanctuary lies off the California coast to the west and north of Marin, San Francisco and San Mateo Counties. It includes nearshore waters up to the mean high tide line from Bodega Head to Rocky Point in Marin County and offshore waters extending out to and around the Farallon Islands.

The sanctuary was designated in 1981 because these waters provide important marine and nearshore habitats for a diverse array of marine mammals and birds in addition to fishery, plant, algal and benthic resources. The marine mammals and seabirds present in abundant numbers on the Farallon Islands and along the mainland coast depend as much on the integrity and productivity of these adjacent ocean and estuarine waters as on the preservation of the shore areas they use for breeding, feeding and hauling out.

More Information

- Regional California overview page
- Monterey Bay overview page
- Cordell Bank overview page

The sanctuary contains a complete spectrum of marine habitats, ranging from unique inland estuarine and intertidal areas to pelagic and deep-oceanic environments. These productive marine environments support an abundance of living resources, including:

- at least 36 marine mammal species,
- 54 bird species that use the sanctuary during their breeding season, and
- 26 threatened or endangered species.

The sanctuary provides many examples of the marine life and habitats that are characteristic of cold temperate waters of the eastern Pacific marine region from Point Conception to British Columbia. For example:

- Some of the largest and most diverse eastern Pacific populations of seabirds and pinnipeds (seals and sea lions) south of Alaska occur here.
- Large flocks of Cassin's Auklets, *Ptychoramphus aleuticus*, Common Murres, *Uria aalge*, Western Gulls, *Larus occidentalis*, and the endangered Brown Pelican, *Pelecanus occidentalis*, feed on the small fishes and crustaceans that are abundant in the sanctuary's surface waters.
  - This food source also supports California's largest breeding population of harbor seals, *Phoca vitulina*, as well as a growing population of northern elephant seals, *Miruonga angustirostis*.
  - Large numbers of whales and dolphins, including the Pacific White-sided dolphin, *Lagenrhynchus obliquidens*, the California gray

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CORDELL BANK NATIONAL MARINE SANCTUARY

OVERVIEW | PROJECTS | LINKS

- ROCKY SHORES
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- BEACHES
- CONTINENTAL SHELF
- SANDY FLOOR
- ESTUARIES
- SEAMOUNTS & BANKS
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- MARINE MAMMALS

SPECIAL TOPICS
– Select a topic –

SEARCH
Enter search here GO

Home: Cordell Bank Sanctuary: Geology: Monitoring projects: Project information

CORDELL BANK SANCTUARY: GEOLOGY
MONITORING PROJECT INFORMATION

[Print Friendly Version]

Seafloor Mapping in Monterey Bay, Cordell Bank, and Gulf of the Farallones National Marine Sanctuaries

Principal Investigator(s)
Tara Anderson (Geoscience Australia)
Roberto Anima (United States Geological Survey (USGS))
Erica Burton (Monterey Bay National Marine Sanctuary)
John Chin (United States Geological Survey (USGS))
Jean DeMarignac (Monterey Bay National Marine Sanctuary)
Dale Roberts (Cordell Bank National Marine Sanctuary)

Start Date
2004-03-31

Funding
SIMoN
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Overview
In April 2004, scientists from the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS) conducted a 21-day research research cruise aboard the 224-ft NOAA ship *McArthur II*. This study was one of the most expansive efforts to document the seafloor of the continetal shelf in the three California Central Coast national marine sanctuaries, Monterey Bay (MBNMS), Cordell Bank (CBNMS), and Gulf of the Farallones (GFNMS).

Researchers mapped the seafloor with side-scan sonar and captured underwater video of the seafloor to characterize the habitat types and diversity and the benthic assemblages of sea life on the continetal shelf; including a first look at many areas. Side-scan sonar was used to map 167 line km of rocky areas at Fanny Shoal and 130 line km off Pescadero Point, and to conduct 467 line km exploratory transects of the continental shelf in CBNMS. Approximately 200 km of video transects were completed on the continetal shelf in CBNMS and MBNMS. The sampling area in MBNMS extanded from Pescadero Point in the north, to the Monterey Peninsula in the south.

This research cruise was a collaborative venture involving the MBNMS; CBNMS; GFNMS; USGS; National Marine Fisheries Service (NMFS), Southwest Fisheries Science Center, Santa Cruz, CA ; NMFS, Northwest Fisheries Science Center, Newport, OR; Washington State University Vancouver, Vancouver, WA; NOAA's Marine Protected Areas Center's Science Institute (MPA); and Deep Ocean Engineering (DOE).

Summary to Date
Goal of mission:
To acoustically image, document, and film extensive seafloor habitats and organisms on the continental shelf of MBNMS, CBNMS, and GFNMS as part of a multi-agency seafloor mapping

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SPECIAL TOPICS

– Select a topic –

SEARCH

Enter search here GO

Home: Photo library

PHOTO LIBRARY

Quick Search

Seascapes

Marine mammals

Seabirds and Shorebirds

Fishes

Invertebrates

Algae

The SIMoN photo library contains digital images of species, habitats, locations, and issues of the Monterey Bay National Marine Sanctuary. Use the search options below to find images of interest. You will be able to browse thumbnails of images then download a high resolution version. For more information, including on how to cite the use of these photos, see the FAQ's below.

Photos in database: 2851

Search by Keyword

Keyword

Search

Keyword examples

Common names of organisms and locations (whale or Point Lobos)

Issues and activities (fishing or coastal armoring)

Learn how this keyword search is performed

Search by Species

Common name (scientific name)

Tunicate (unidentified)

Search

Select from the list of species that are available in the Photo Database.

Search by Location

Select from the list of locations where SIMoN staff have taken photos. Once a location has been selected, if there are associated sites within that location they will appear as a pull-down menu, allowing you to further restrict your search.

Location

Andrew Molera State Beach

Search

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Contributors to the Regional Web Site

- Maria Brown (GFNMS)
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- Christy Walker (GFNMS)

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Regional Site Launch and Public Outreach

New URL: www.sanctuarymonitoring.org

Feb 29, 2008
- Launch Regional Site
- Call for external contributors (GFNMS/CBNMS)
- Continue to develop and refine offering

Earth Day (April 22, 2008)
- Press Release
- Announcements at scheduled public events

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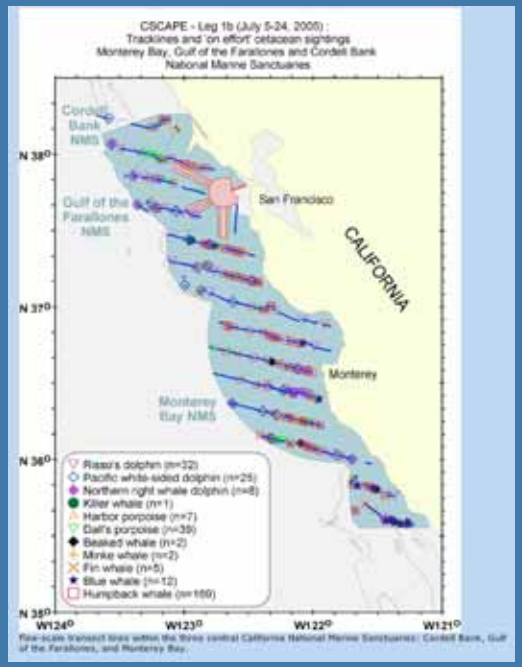
Other Joint Regional Efforts

- R/V Fulmar
- Safeseas
- Cosco Busan spill
- California signage
- Enforcement
- Permits
- CSCAPE



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Funding strategy

1. Staff--NOAA base budget

2. New monitoring--NOAA and others (e.g., David and Lucile Packard Foundation, Duke Energy, State of California)

3. Disseminate information--NOAA and others (e.g., David and Lucile Packard Foundation)

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The Future

1. IEAs: SWiM and Atlantis Model
2. Serving and application of IOOS data
3. Marine Reserves: coordinate, collect data, present results
4. Joint research projects: CI/CB/GF/MBNMS
5. Regional SIMoN = joint web site and informal collaborations
6. Funding Needs: individual projects, NOAA staffing, a monitoring endowment

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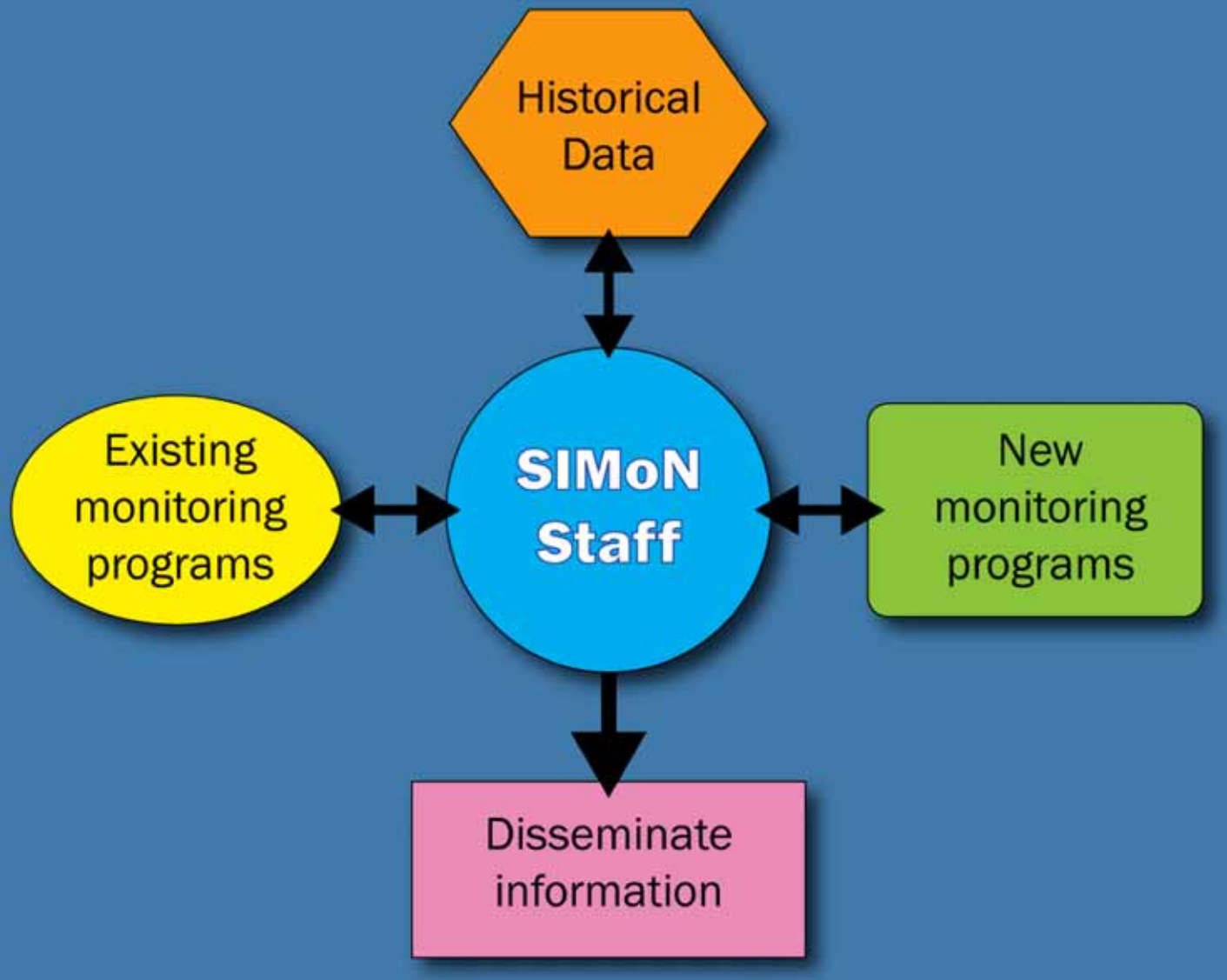
The SIMoN Program