



# SAN DIEGO'S MARITIME CLUSTER

With 70 miles of coastline, a strong Navy presence and innovative technology firms, San Diego has emerged as a hub for maritime and bluetech. Government and academic researchers look to these local firms for equipment and software – ranging from heavy duty cables and electronics to remotely operated underwater vehicles.

Born from the Navy, Scripps Institute of Oceanography and a legacy tuna fleet, maritime and bluetech companies in San Diego are developing cutting-edge solutions that are exported across the world. From shipbuilding to desalination, aquaculture to acoustic sensors, San Diego is a hotspot for maritime technology and development.

## HIGHLIGHTS

- » **OINA:** Launched in London in 1969, Oceanology International – the world's leading marine science and ocean technology exhibition – kicked off its first North American conference in San Diego in February 2017.
- » **Economic impact:** The Port of San Diego provided about \$5.4 billion in direct economic impact and infused nearly \$8.3 billion into San Diego County's overall economy, more than 10 percent higher than 2011.<sup>1</sup>
- » **Dry dock:** In December 2016, BAE Systems welcomed a new dry dock to its Barrio Logan shipyard. Spanning 950 feet and capable of floating a ship that displaces 55,000 tons, it is the largest dry dock in California.<sup>2</sup>

## KEY COMPANIES

- |                     |                    |                     |
|---------------------|--------------------|---------------------|
| » Applied Membranes | » Hydranautics     | » Teledyne          |
| » BAE Systems       | » Nitto Denko      | » Teledyne SeaBotix |
| » Fugro Pelagos     | » Ocean Aero       | » The Marine Group  |
| » General Dynamics  | » Orca Maritime    | » Xylem             |
| NASSCO              | » Seacoast Science |                     |



INNOVATION



MILITARY



TOURISM



LOCAL



INTELLECT

## SPOTLIGHT

### Hydranautics

Hydranautics is one of the global leader in membrane technology. They apply state-of-the-art technology to manufacture the most advanced, high-performance membrane products. Hydranautics' products are currently in use on all seven continents. Product applications include potable water, boiler feedwater, industrial process water, wastewater treatment, surface water treatment, seawater desalination, residential water, electronic rinse water, agricultural irrigation and pharmaceuticals.



## RESOURCES

### Port of San Diego

The Port oversees two maritime cargo terminals, two cruise ship terminals, 17 public parks, the Harbor Police Department and the leases of more than 600 tenant and sub tenant businesses around San Diego Bay.  
[portofsandiego.org](http://portofsandiego.org)

### San Diego Military Advisory Council

SDMAC supports, promotes, and represents the common business and other interests of the military, its quality of life issues and the defense industry community in the San Diego area.  
[sdmac.org](http://sdmac.org)

### The Maritime Alliance

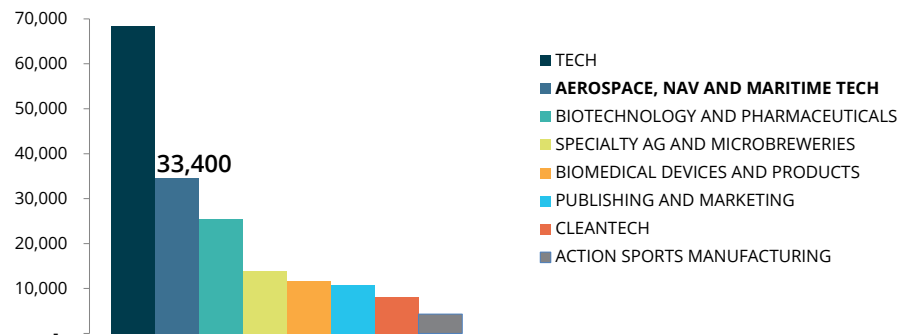
The Maritime Alliance is the nonprofit cluster organization for the San Diego maritime technology community, which fosters maritime business and technology innovation through collaboration around the U.S. and the world.  
[themaritimealliance.org](http://themaritimealliance.org)

## BY THE NUMBERS

### Employment Numbers

Maritime is part of San Diego's aerospace, navigation and maritime technologies cluster. The aerospace, navigation and maritime technologies jobs are not exclusively allocated to San Diego's innovation economy; however, a significant portion of these jobs can be attributed to this economy. The aerospace, navigation and maritime technologies cluster is a vital part portion of the region's innovation economy and in 2014, accounted for **33,400** jobs in the region. Employment breakdown within the region's innovation economy can be seen below.

**Employment Comparisons  
within San Diego Region's Innovation Economy**

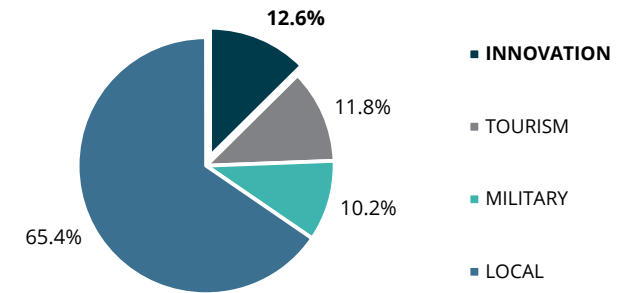


### Our Economies

The vitality of San Diego's economy is reliant upon the strength of the region's four economic drivers – innovation, military, tourism and local.

The aerospace, navigation and maritime cluster is an intrinsic part of the region's innovation economy. As of 2014, the innovation economy was responsible for more than 12 percent of the region's total jobs.

**Employment Comparisons  
Across the San Diego Region's Economies**



### Employment by Key Maritime Industries in Aerospace, Navigation and Maritime Technologies

Industry	Employment	Avg Annual Pay	LQ*
Ship Building and Repairing	5,750	\$66,400	5.93
Search, Detection and Navigation Instruments	4,910	\$108,200	3.99
Port and Harbor Operations	250	\$48,000	1.37
Boat Building	230	\$45,600	0.76
Other Support Activity, Water Transport	170	\$55,300	1.98
Scenic/Sightseeing Transportation, Land	130	\$30,100	1.08
Navigational Services to Shipping	60	\$62,500	0.36
Other Shared Industries within Cluster	21,980	\$98,767	
<b>Total</b>	<b>33,400</b>	<b>\$93,300</b>	<b>2.19</b>

For more information on San Diego's maritime cluster, please contact:

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\*LQ=Location Quotient

Sources: Highlights: 1. San Diego Unified Port District, "Economic Impacts of the San Diego Unified Port District", 2015 2. The San Diego Union Tribune, "State's biggest dry dock arrives in San Diego", 2016