

# MARITIME SOLUTIONS

FROM ANYTHING ARCTIC TO WORLD'S LARGEST LUXURY CRUISE SHIPS, FINLAND HAS A LONG HISTORY OF BRINGING HIGH-TECH TO THE HIGH SEAS

Finland has a long history and thorough understanding of delivering smart and environmentally friendly high-tech maritime solutions. One of the largest shipbuilding subcontractors in the world, with over 1,000 suppliers, supports Finland's strong footing in the maritime sector. Our internationally known maritime network's expertise ranges from the likes of cruise ships to icebreakers and offshore solutions as well as port technology.

## DIGITAL VANGUARD WITH A LONG TRADITION IN SHIPBUILDING

Finland is a global leader in icebreaker design, polar shipbuilding, ice technology, and fleet operation. We are the only nation in the world that offers ice-proven products and services created through an exquisite and cost-effective value chain. When it comes to cruise ships, we combine our long tradition in shipbuilding seamlessly with latest technologies.

Finnish companies offer a wide variety of solutions that are optimal for advancing the digital transformation. The solutions help maritime companies around the world to not only increase efficiency and optimize processes, but also create new value and business models. Whether it's data acquisition, analytics, 3D technologies, wireless communications, or applications, Finland has the solution.

## KEY FIGURES

**90%**  
EXPORT RATE

**13<sup>BN</sup>**  
TURNOVER

**50K**  
EMPLOYEES

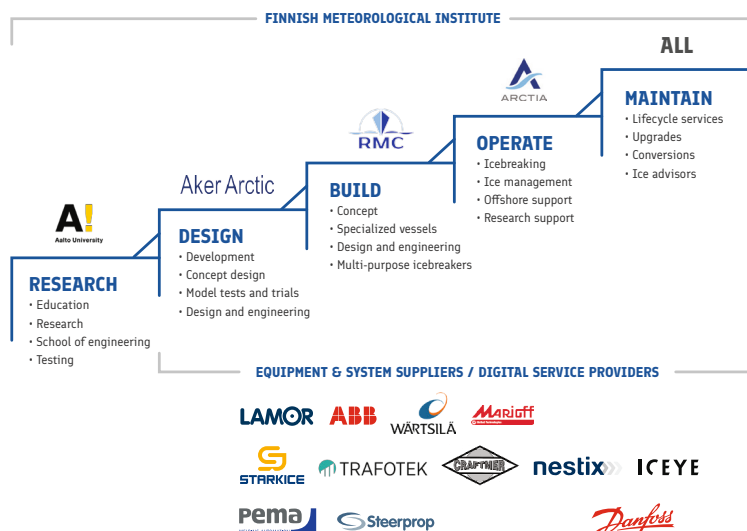
**3K**  
COMPANIES

**#1**  
COUNTRY IN  
BUILDING THE MOST  
ENERGY-EFFICIENT  
CRUISE VESSELS

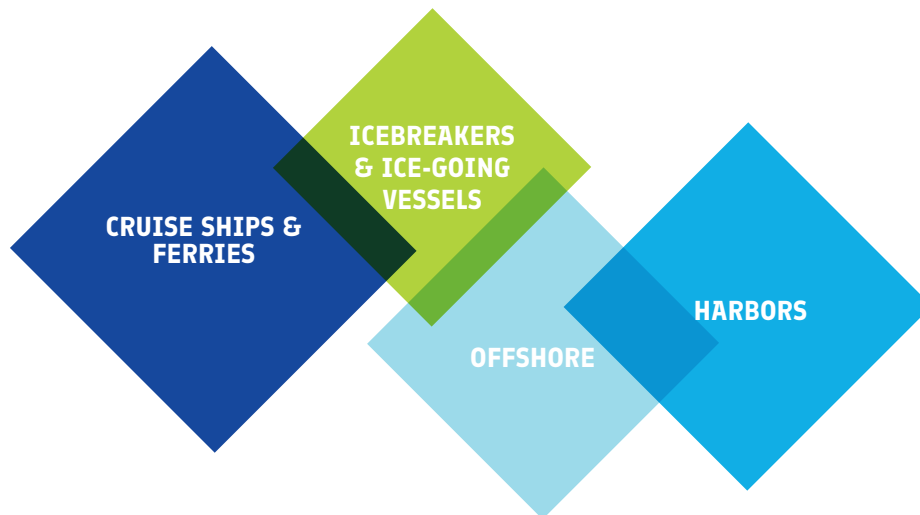
**#1**  
COUNTRY IN POLAR  
SHIPBUILDING,  
DESIGN & FLEET  
OPERATION

Source: Finnish marine cluster 2020 report, 2014 data, Ministry of Economic Affairs and Employment

## FINNISH SOLUTIONS FOR THE ENTIRE ICEBREAKING VALUE CHAIN



## MARITIME INDUSTRY SEGMENTS



Most of the largest luxury **Cruise Ships** in the world are designed in Finland. At the heart of Finland's expertise are the most energy-efficient cruise vessels and the greenest and quietest ferries in the world. Taking full advantage of Big Data, the Internet of Things, digital and environmental solutions, as well as propulsion innovations and LNG technologies, highlights our leading position with cruise ships. Finnish maritime technology and solutions are also exceptionally well suited for satisfying the current demand for **Polar Cruise Ships**. Our deep understanding of winterization is crucial in the design and construction of ships for demanding polar conditions.

Finnish companies have designed almost 80% of the world's **Icebreakers**. Meanwhile, about 60% of them have been built by Finnish shipyards. As a global leader in polar shipbuilding and ice technology, Finland is the only nation in the world that offers ice-proven products and services created through an exquisite and cost-effective value chain. Our unique value chain covers R&D, education, ship design, engineering, building, operation, project management and life cycle support services.

Finnish companies are forerunners in innovative Offshore solutions. We effortlessly combine our world-famous features, including advanced project management, high quality, and environmental sustainability. Port technology is one of the Finnish maritime industry's core strengths. As all ports in Finland freeze during the coldest months of the year, we have exceptional know-how in operating in extreme environments. In terms of maritime digitalization, Finland also has the world's first autonomous maritime ecosystem One Sea that gathers together leading marine experts and is a strategic combination of top research, state-of-the-art information technology and business. The world-renowned ecosystem portrays incisively our status as the global forerunners in autonomous and remote monitored ships, which will play a key role in the future of the maritime industry.

### EXAMPLES OF COMPANIES IN THE INDUSTRY CATEGORIZED BY THEIR FIELD

**Turnkey suppliers:** ALMACO Group, Europlan Engineering Ltd, LMG Finland Oy, Merima, NIT Naval Interior Team

**Design and Engineering offices:** Aker Arctic Technology, Deltamarin, Elomati, Etteplan Oyj, Foreship Oy

**Digi, AI, Software providers:** Cadmatic, Eniram Ltd - a Wärtsilä Company, KNL Networks, NAPA, Rolls-Royce Commercial Marine

**Shipbuilding, ship repair and offshore yards, shipowners:** Arctia Oy, Arctech Helsinki Shipyard, Meyer Turku Oy, Pori Offshore Constructions Oy, Rauma Marine Constructions, Turku Repair Yard Ltd, Viking Line

### MORE INFORMATION

#### BUSINESS FINLAND: MARITIME & OFFSHORE

<https://www.businessfinland.fi/en/do-business-with-finland/explore-finland/maritime-and-offshore/in-brief/>

#### Finnish Marine Industries' website

<https://meriteollisuus.teknologiateollisuus.fi/en>

#### One Sea

<https://www.oneseaecosystem.net/>

### ECOSYSTEM WITH AN ARCTIC BACKBONE

Finland has the perfect conditions for maritime innovations. We have a long tradition and expertise in maritime, high level of digital expertise, a legislation that allows these ideas to come to life and an innovation environment that favors creative solutions.