Aboa Mare incorporates maritime education at Novia University of Applied Sciences and Vocational Institute Axxell. We educate Master Mariners, Marine Engineers, Watchkeeping Officers and Watchkeeping Engineers in Turku, Finland, as well as Electro Technical Officers in Subic Bay in the Philippines. Additionally, we provide a wide range of courses for professional seafarers as well as simulator-based training to shipping companies and authorities all over the world.

Aboa Mare develops and uses simulation and other efficient teaching methods, enabling skill and knowledge assessment through simulation.

Founded in 1813, Aboa Mare has over 200 years of experience in training the best mariners for the global market.
With our increased global network and one of the broadest portfolios in the maritime industry we are able to exploit best practices also for training purposes.

www.dnvgl.com/maritime-academy
At Aboa Mare, we use the latest state-of-the-art simulator equipment and pedagogical tools to provide an enhanced maritime training experience in a simulated environment, promoting teamwork, critical thinking, problem solving, decision-making, and confidence.

To achieve this, we have a crew of well-trained instructors who are highly motivated and pedagogically skilled in order to master all possible challenges.

The tools we can offer are applicable for training in various maritime segments as well as for R&D applications.

We welcome you to challenge us with your needs!
SIMULATION SOLUTIONS

SHIP HANDLING  OFFSHORE  LIQUID CARGO  Engine Room  ECDIS  CRANE OPERATIONS  GMDSS

- Ice navigation
- Anchor handling
- Tug and mooring
- Port and ship study
- Oil spill recovery
- SAR
- Dynamic Positioning
- Naval applications
- Fuel and emissions monitoring

info@transas.com  www.transas.com
R&D Projects

Are you in need of a study which cannot be carried out aboard a vessel? Do you wish to find out if your new, larger vessel fits in to a port? Or do you need to test the functionality of your new navigation system? Let us help you!

The simulated environment of Aboa Mare provides excellent opportunities for research, testing, and product development. We also provide assistance in carrying out your studies as well as in finding sponsors and partners. Maritime simulations are our speciality in training, research, and product development!

Examples of the R&D projects of Aboa Mare in a simulated environment include the MONALISA 2.0 and BONUS STORMWINDS projects. A new e-navigation concept, Sea Traffic Management, and applications, such as an automatic exchange of route informations and voyage plans, have been developed in the MONALISA 2.0 project. Aboa Mare joined the testing of these new applications in cooperation with other European simulator training centres. Moreover, in the BONUS STORMWINDS project, Aboa Mare’s simulators are used in the testing of new solutions for optimizing the route of a vessel in icy conditions.

For information on the ASTP project, see pages 14-15.
PBI is a research-based management consulting company providing services to industrial clients, especially in the area of industrial investments and project business within energy and transport segments. We offer our clients a profound understanding of their industry through top-level academic research collaboration with various companies.

We create and implement new knowledge.

Research-based management consulting

www.pbi.fi

Aboa Mare Maritime Academy and Training Centre ● www.aboamare.fi
Why not be prepared and let us customise a STICS course for your company? STICS, Simulator Training in Critical Situations, is a course aimed at experienced nautical officers and other persons with responsible duties in navigation work, e.g. pilots.

A trainee who has successfully completed the STICS course will be able to recognise and manage different kinds of faults in the navigational equipment on the bridge. The course will influence the trainee’s attitude and lower his/her over-reliance on the navigational equipment. The trainee will also be prepared for man-overboard situations and be confident with the emergency checklists used on board, and he/she will recognise the importance of a good challenge and response environment on the bridge.

The major shipping companies in the Northern Baltic participate in tailor-made STICS courses at Aboa Mare on a regular basis. These courses fulfil the requirements in the safety management systems and by the vetting inspections. Usually we use scenarios based on near misses or accidents.

“Because of the manoeuvring exercises performed e.g. in a simulator, the bridge personnel was, however, able to react to this exceptional situation in a safe manner.”


“When any one asks me how I can best describe my experiences of nearly forty years at sea I merely say uneventful. Of course, there have been Winter gales and storms and fog and the like, but in all my experience I have never been in an accident of any sort worth speaking about. - I never saw a wreck and have never been wrecked, nor was I ever in any predicament that threatened to end in disaster of any sort.”

- Captain Edward J. Smith, RMS Titanic

We have equipped the Sperry simulator with VisionMaster FT IBS
Aboa Mare offers On-Scene Coordinator and Search and Rescue (SAR) simulator training.

The successful action of maritime Search and Rescue operation requires close co-operation with the vessel in distress as well as efficient actions by other vessels near the scene. In an emergency, all SAR tasks, such as planning, coordination, communication and coordination centre duties should be clear and well-trained.

- For SAR operators, authorities and shipping companies on a regular basis
- Surveillance training for Coast Guards, Frontex and Vessel Traffic Service Centers
- Sea Mission Coordinator Training
- Aircraft Coordinator Training
- Aboa Mare simulators connect SAR actors such as Ship Owners, MRCC, ACO, SMC, VTS, Navy, Pilots, Rescue Departments, Medical Care, Aviation and Media in the same simulator exercise
- Aboa Mare connects European Training Centres with OSC and SAR exercises over the internet
- Rescue and safety operations in a highly developed Ice Simulator environment in one- and multi-year ice

All training is executed according to IAMSAR, Baltic Co-operation and Global Maritime Agreements. The Aboa Mare Simulator Centre and MRCC Turku is connected with true-to-life instrumentation and software during training sessions. All parts have the same situational awareness and replay functionality in the exercises.

Aboa Mare has cooperated for decades with the Coast Guard, the Border and Coast Guard Academy and the Naval Academy.

Aboa Mare Training Centre is member of the European Coast Guard Functions Training Network.
Maritime security is a question of best technologies and systems.

ATLAS ELEKTRONIK Finland Oy provides Integrated Mission Systems to navies, coast guards and other operators of integrated systems, from large bridge systems to one-console systems consisting of navigation, mission management systems and communications (multi-link functionality available) integrated with customer tailored systems.
Aboa Mare has been audited by the Finnish Transport Agency and has the accreditation to provide the following VTS Training Courses in compliance with IALA Guideline 1014:

**Model Course V-103/1, VTS Operator Training**

The duration of this course is eight days. Upon successful completion of the course and evaluations, and subject to language requirements, the trainees have sufficient knowledge and competence to proceed to on-the-job training at the VTS centre in which they are to be employed. In particular, they will be fully conversant with the basic principles of vessel traffic services, the services that a VTS centre can provide for shipping and the resources and means of providing those services.

**Model Course V-103/2, VTS Supervisor Training Course**

The duration of this course is ten days. Upon successful completion of the course and assessments, the participants have been presented with sufficient training to carry out with competence the duties of a VTS Supervisor at a VTS centre. In particular, they should be fully conversant with the administrative functions of a VTS centre and the methods of responding to emergency situations, as well as the principles of Vessel Traffic Services, the services that a VTS centre can provide for shipping and the resources and means of providing those services.

**Model Course V-103/4, VTS On the Job Training Instructor**

The duration of this course is three days. Upon successful completion of the course, the OJT Instructor will have acquired basic skills and a practical ability to demonstrate appropriate instructional techniques unique to On-the-Job training. They should also be fully conversant with the processes and procedures required to meet the OJT requirements of specific VTS centres.

Most Finnish VTS operators are trained by Aboa Mare. We have also trained most Norwegian VTS operators.

Today, we are also training VTS operators in the Mediterranean area on behalf of the European Maritime Safety Agency as part of the SafeMed III project.

We can also provide tailor-made training for Operators who do not require IALA certificates. This has been done, for instance, in Ghana.
NEED TO REFRESH?

Meriturva Maritime Safety Training Centre arranges STCW courses in unique facilities with experienced instructors.

Our STCW refresher courses are very popular. Make sure to book yours in time!

Also other maritime safety courses are available.

See our website for more information.

Meriturva Maritime Safety Training Centre
+358 (0)19 2876 600  •  www.meriturva.fi
Ice Navigation Training
ABOA MARE - ARCTIC WAYPOINT FINLAND
In need of training for operating in arctic conditions? Aboa Mare and its partners offer ice navigation training in accordance with the Polar Code, shiphandling training in ice and ice management training.

The ice navigation course covers a full range of ice navigation-related themes in detail and provides practical instructions and essential information needed to operate safely in Polar Regions or in the Baltic Sea during winter. Previous participants in the training include Crystal Pool, Neste Oil, Odjfell, and the Japanese NYK.

It is important for us to offer the customer the best possible training and an optimal training environment. This is why we keep developing the tools for simulator training. Our most recent project is the Arctic Simulator Training Program (ASTP), which is developing a next-generation simulator for arctic conditions and other challenges. The objective of the project is that the simulator can provide high-quality training for handling a vessel, ice navigation, icebreaker operations, and escort towing. The simulator utilises decades of ice data collected by Aker Arctic. Development work is carried out in cooperation with professionals of seafaring, ice, training, simulation, and mathematical modelling. We can’t wait to show you the results of this project!

With the new simulator, we are also developing new training schemes and providing training for icebreaker officers. What type of training do you need?
In Finland, we have 4000 kilometres of pilotage fairways and 40 pilot boarding positions along the coast and around Lake Saimaa. Aboa Mare has every kilometre modelled in its simulator, as true-to-life as possible.

Every Pilot Licence and Exemption (PEC) applicant must complete a simulator examination in order to obtain their licence. A holder of licences must pass the simulator examination at five-year intervals. Aboa Mare is approved by the Finnish Transport Safety Agency to arrange these exams.

Pilotage Exemption Certificates (PECs) are fairway- and vessel-specific certificates, which can be granted to the shipmaster of a ship that is to be exempted from compulsory pilotage. Pilot Licences are issued for pilots in Finland. The Exemptions are vessel-specific and the ship is to be exempted from compulsory pilotage on several or all fairways.

A prerequisite for obtaining a PEC, Pilot Licence or Exemption is that the applicant has completed a number of training voyages with the vessel. Half of these required training voyages may be substituted with simulator training. The licence holders are required to participate yearly in navigation on the fairways and this can also be substituted with simulator training.

In addition to these, Aboa Mare also provides pilotage simulator training on fairways in other countries.
Shiphandling is an art that is highly respected in the maritime world. It is a science where the understanding of what happens helps mariners to be better and safer ship handlers.

- All simulator exercises and tests are done with real integrated bridge systems
- Manoeuvring operations tests with different types of propulsion, including rudder and propeller solutions, different types of azimuth and Azipod manoeuvres
- One- and multi-tug towing operations
- Escort Towing
- Anchoring and mooring operations
- Ship-to-ship operations in open sea and in anchorage areas
- New building behavior tests for hull design
- Docking operations
- Fairway modelling tests for fairways under construction
- Port layout tests with different types of ship models in open and ice-covered waters, in both one- and multi-year ice
- Ecological and cost effective manoeuvres during sea passage and in port areas

Shiphandling training for ABB:
- Operation of diesel electric Azipod vessels in a safe and economical manner
- Operation of diesel electric Azipod vessels in ice
Onboard training of deck officers and engineers

We are proud of being a part of the basic onboard training programme for deck officers and engineers in Finland. Alfons Håkans’ large fleet of harbour tugs is audited by Aboa Mare for training purposes, offering several opportunities for the students to practice their future profession.

Fully equipped workshop for training of engineers

We provide training facilities in an authentic shipyard environment for students in Aboa Mare’s programme for watchkeeping engineers. Situated at the Ruissalo repair yard our training workshop has all the equipment needed for repair and maintenance of different types of machinery.
Aboa Mare offers basic and advanced DP courses for deck and engine officers in accordance with the training programme set by the Nautical Institute. The Nautical Institute DP Operator training scheme is the industry-recognised learning path to becoming a qualified Dynamic Positioning Operator (DPO).

► **DP Induction course**
   The DP Induction course is designed for deck and engine officers who are aiming to start the Nautical Institute’s DP operator training scheme. This course involves both theory and practice on a simulated DP system.

► **DP Simulator course**
   The DP Simulator course is designed to provide the student practical skills of DP operations. This course involves primarily simulated DP operations.

Aboa Mare also offers tailor-made DP courses for various types of clients such as passenger ferry deck officers, naval architects and DP instructor trainees.
The DP training lab, with desktop DP computers and a dedicated class-II DP bridge, provides the best possible training facilities for course participants.

In cooperation with Navis Engineering Oy, Aboa Mare provides DP maintenance courses. The courses are designed for chief engineers, engine officers, electro-technical officers and technical superintendents who are responsible for the technical maintenance of the Navis NavDP 4000 system installed on board vessels.
Does your crew have relevant skills and knowledge for energy-efficient operations?

An ECO-solution, leading to cost efficient and environmentally sustainable ship operation, is the way to go! The ECO-solution incorporates ECOnomical and ECOlogical thinking and utilises the best practices from both worlds. Saving fuel, saving costs, reducing emissions and improving the state of our environment, all in one package.

We offer a standardised training package called ECOTRAIN (www.ecotrain.fi), which corresponds with IMO model course 4.05, Energy Efficient Operation of Ships, and is certified by DNV-GL.

We also offer customised training packages according to the wishes of our customers. Harbour manoeuvring, voyage and speed optimisation, avoiding squat and bank effects… you tell us what you need, we’ll deliver it!

A full-mission ship simulator is extensively utilised in all training. The special eco-functionality module of the simulator enables us to measure and display in real time all relevant variables, such as emissions to air and fuel consumption.

An example of the potential improvements in environmental impact and in saving time and money is available online (see below).

Scan or click on the QR-code to read the white paper.
We serve the needs of our customers at over 40 routes for sea and lake travel, from southern Finland to the north. Our ferries annually transport over 5 million vehicles and 10 million passengers. Find out more: finferries.fi

Do not hesitate! Grab the opportunity and do your share for our common future! You can only win!
Aboa Mare simulators enable practicing with different ship’s engine equipment and technical devices in detail.

The entire engine room of the vessel and the use of its systems can also be simulated. These exercises test the student’s ability to manage the entire engine room and teach them to handle the process in potential emergencies as well.

Hands-on training

The hands-on training section introduces the structure and basic maintenance of a ship engine and machinery to the user. These exercises focus on the practical skills required in the profession. The maintenance and functionality checks are carried out under monitored conditions with attention on the manufacturers’ instructions on the correct and safe maintenance and use of the equipment. Hands-on training supports the other studies and underpins an ability to adopt additional skills about machinery and its usage.
Providing education and training abroad is one of the core business areas of Aboa Mare. We have trained VTS operators in Ghana and have been chosen to be an EMSA VTS training provider for the Mediterranean area. Several foreign companies and organisations have also participated in short-term maritime courses in Turku.

We also have a subsidiary, Giga Mare, in the Philippines. Giga Mare trains Filipino Cadets and has also launched a course leading to a Finnish Degree for Maritime Electrical Engineers.

Giga Mare Training Centre in Subic Bay is situated in the Freeport Zone. The aim of the training centre is to provide a complete range of training services in accordance with the International Maritime Organisation (IMO/ STCW) and other statutory and regulatory organisations.

The Training Centre in Subic Bay has static and operational engines as well as auxiliary equipment available for the practical instruction component of Basic Engineering Courses and Advanced Engine Training. They also provide a full bridge simulator and other equipment for Basic Nautical Courses, as well as hands-on and advanced training in Navigation, Cargo Handling and Safety.
We change lives through our training at GigaMare. Our passion is to enhance the skills of young professionals by providing a kick-start to progress in their careers, and ultimately bringing success to companies employing them.

www.gigamare.com

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