

## SPECIAL REPORT: MARITIME STUDIES

## BSM develops state of the art training programs combining sea and shore studies

*Focusing on the development of motivated and highly qualified sea personnel Bernhard Schulte Shipmanagement invests in crew training and development through its own facilities.*

*BSM's aspiration is to improve the attractiveness of the seafaring profession bridging the gap between the skills demanded in the future and those are currently taught.*

*In the interview that follows Theophanis Theophanous, Managing Director Bernhard Schulte ShipManagement (Hellas) describes the strategy of continuous expanding the Maritime Training Centres offering tailor basic and advanced courses especially in the sector of LNG and explains the advantages of the group's digital solutions.*



Theophanis Theophanous, Managing Director Bernhard Schulte ShipManagement (Hellas)

**- Describe your organization's efforts to maintain the continuation of the educational/training program and the smooth operations of your organisation during the Covid-19 pandemic.**

- COVID-19 was an incredible challenge for the maritime industry and as with all other shipping organisations, BSM and its business operations were tested in all aspects, due to the unprecedented nature of the pandemic. However, challenges make you stronger and compared to the beginning of the pandemic, the situation has significantly improved. Currently, we are facing considerably less

COVID-related restrictions compared to last year. Seafarers can travel to most destinations and crew changes can be facilitated, especially with the extensive roll out of vaccinations. BSM have strived to be pro-active all the way along and implemented numerous measures to make the situation safe and smooth for our crew, whether training, embarking, disembarking or whilst onboard.

BSM launched its own vaccination campaign early on to provide all employees and seafarers with early access to immunisation. In Ghana, BSM's agency (Crew Service Centre) worked in collaboration with the Ghana Health Service to vaccinate seafarers before they started their next employment. Likewise, BSM's Crew Service Centre (CSC) in India conducted vaccination drives in Mumbai, Calcutta, Cochin and other locations, for all employees and their immediate families. Other company-wide vaccination campaigns were also carried out at our offices in Myanmar and the Philippines. BSM co-operated with ports around the world that offered vaccination services, such as in the USA and Europe via their Port Health Centres or Seamen's Missions. Additionally, we launched a virtual Seafarers' Vaccination Campaign to encourage vaccinations and provide sound medical advice to those seeking more information.

Crew training and certification was also hampered by COVID. A serious challenge in an industry that relies heavily on continual education and development, to ensure operational safety on board vessels and maintain seafarer competency. Therefore, being an organisation that fully embraces digitalisation, we switched to virtual platforms in conducting essential seafarer training, with the goal of retaining the momentum of high-quality tuition needed by each crew member. Complexities of distance learning, on a large scale, were solved quickly at the start of the pandemic, given that training is imperative for employees to perform proficiently and realise their career objectives. The professional development initiatives for shore-based personnel have also continued online, using a framework of continuous orbital learning. Identifying training needs, course scheduling, tracking progress, and subsequently identify any

other educational requirements to maintain the learning process. Courses are nowadays still delivered mainly on a remote online basis, with much success, and we believe that the endless array of digital options in this respect will continue to be to the great benefit of all.

**- The shipping industry has focused on the burning issues of energy transition/decarbonisation and the digitalisation for more informed decisions.**

**Have you adapted your organisation's studying program on these new challenges?**

- Regarding decarbonisation and the use of alternative fuels, it remains an open topic as to which propulsion technology will prevail. BSM as ship manager must ultimately adapt to each and every option, whether this will be LNG, methanol, hydrogen or ammonia.

Certainly, it can be expected that LNG will continue to be a primary choice, at least for the foreseeable future. BSM is therefore in the fortunate position to already have over 45 years of experience in the management of gas carriers. With over 100 gas carriers under full and crew management, of which more than 50 are LNG tankers (including about 30 LNG-fuelled vessels) BSM is the largest 3rd party ship manager in this segment. Understandably this requires the continuous development of crew skills and crew pools. We actively invest therefore in crew training and development through our own facilities, the Maritime Training Centres (MTCs). Our MTCs offer tailored basic and advanced LNG courses that adhere to industry standards. Our Gas Training Hub is situated in our MTC in Cyprus, and we have recently invested over 500,000 Euro creating a state-of-the-art Liquid Cargo Simulator designed and developed in-house to provide immersive training experience on various LNG and LNG-fuelled vessels. We have Flag Approvals to deliver many of these courses remotely and in house, including both the Basic and Advanced IGF STCW courses. Apart from this, the M/V "Kairos", a LNG bunker vessel put into service in 2019 and managed by BSM, has been approved by the Liberian flag as an IGF training vessel, requested for the training of seafarers on LNG-fuelled vessels. She provides an ideal learning platform during the 30-days practical experience, which forms part of the advanced training requirement for future seafarers sailing on vessels subject to the IGF Code.

As far as digitisation is concerned, it is already omnipresent at BSM. We have actively invested in digitalisation and set up our own software company, MariApps Marine Solutions, today an independent player with more than 1,000 ships under contract offering industry leading products. SmartPAL is their web-based, cloud and mobile compliant ERP suite with over 40 modules, which allows us to proactively monitor fleet information and make informed decisions about the ships under our management.

There are also multiple ongoing projects to dramatically improve the software and other tools we use onboard our vessels to ease the challenging tasks of our crews, to make vessel operations ever safer, more efficient, and to optimise the collaboration between the shipboard team and our shore organisation. Examples include the ongoing digitisation of logbooks and environmental record books on BSM managed vessels.

BSM's Fleet Performance Centre, in parallel, strives to achieve ever improving reliability and optimal operations at sea. Utilising

data derived from smartPAL, the fleet performance team's focus is to identify trends and standards to achieve predictive maintenance as well as performance benchmarking, with the ultimate goal being maximised vessel reliability and availability, reduction in OPEX. Needless to say this function is critical for BSM to be able to work closely with our clients and make the necessary decisions regarding changing requirements for energy transition/decarbonisation.

**- Do you provide the necessary knowledge to your students in order to develop their career in shipping? Do you aim at the development of soft skills such as leadership & resilience in crisis situations?**

- As an integrated maritime solutions provider, BSM aims to promote inclusive and diverse careers at sea. Global maritime education requirements are constantly growing along with continued technological and digital progression. Our aspiration is to improve the attractiveness of the seafaring profession and bridge the gap between the skills that will be increasingly demanded in the future and those that are currently taught. Therefore, BSM cooperates with partner universities and maritime education organisations, to jointly develop state-of-the-art training programmes combining sea and shore studies.

BSM has a comprehensive in-house cadet programme, which is felt to be the best way to develop and nurture loyal junior officers. It fosters competent crew members who are confident with company systems as well as their capabilities. Moreover, with the strong career path that is subsequently available to successful cadets, there is a strong expectation that they will be the future senior dedicated BSM seafarers. Among many other things, the teaching programme of course includes understanding of the human element, leadership, communication and soft skills. Course content includes Cultural Awareness, Authority and Assertiveness, Management Style, Workload, Human Involvement in Error, Judgment and Decision Making, Leadership in Emergencies, Crisis and Crowd Management, and much more.

**- Describe your organisation's teaching and learning methods, training equipment and other facilities?**

- BSM operates worldwide four state-of-the-art Maritime Training Centres (MTCs), where we train more than 5,000 crew each year, actively promoting shipping and the seafarers' profession across all spectrums.

All BSM Maritime Training Centres offer a wide variety of training programmes that support the smooth transition of seafarers between ranks and fleets. These courses also cover equipment and vessel specific training to facilitate ongoing professional development, and many are available at the MTC or are conducted via Webinar platforms.

MTC's place a special emphasis on course content, meeting and exceeding the normal STCW standards, with the primary aim of being able to support the competence development of all seafarers from the outset of their careers and throughout their career development. Simulation training is of the utmost importance in modern shipping, with the wide range of operating systems present, even across the same fleet, and with an ever-increasing number of processes becoming automated, it is vital that seafaring personnel are competent on the variety of vessels and equipment.

Currently we are working on implementing a cloud-based system with offline capability for Computer Based Training (CBT). This will allow our seafarers to complete their ongoing CBT requirements regardless of location in the world. The system will allow them to download, prior to boarding the vessel, any CBTs requiring completion real time or saved offline for completion onboard on the seafarer's mobile devices. For vessels with a poor data link this ensures the CBT programme can continue. Results of completion automatically uploading to the Cloud once the vessel comes into range of a strong data link signal.

**- Have you introduced learning innovations such as replacement of books with digital ones, e-learning, artificial intelligence (AI) patterns.**

- Remote training was already on the BSM agenda before

COVID-19 but, was inevitably accelerated by the pandemic. Training courses are nowadays delivered mainly online. All courses though, firmly comply with set guidelines and standards needed to equip crew members with the necessary skills, before boarding their vessels and ensure safe operations.

An important component of the recruitment and qualification strategy is the company's wholly owned training centres, which must be continually adapted to meet new industry requirements and technological developments. The latest development in BSM's Maritime Training Centres (MTC) is the relocation of the previous MTC in Mumbai to Kochi in southern Indian state of Kerala, where it has expanded its footprint approximately fivefold to 24,000 square feet. The new MTC is equipped with modern classrooms facilitating online and offline training. The facilities are supported by the latest technology including fully immersive simulators for bridge, engine, LNG, LPG, chemical, electrical, and cargo handling. It also features a fully furnished mechanical workshop, slinging and lifting training facilities, together with a galley and external mooring station. The external mooring station is 5,000 square feet, almost the same size of the whole MTC in its former Mumbai location. It brings crew training to life through an external promenade, with a practical training area that replicates an actual vessel's mooring deck with all the on-board equipment to deliver a range of maritime-focused training.

MTC Kochi is supported by over 20 employees and a capability of delivering training to more than 100 seafarers each day, this marks a new era for BSM's maritime training capability in India. The other MTC locations are also constantly being adapted to the latest requirements. Recently, the MTC workshop in Cyprus has been upgraded and overhauled, and the MTC in China has been expanded and a new bridge simulator installed.

**- What is your organisation's strategy for improving the quality of your studies and the future plans?**

- Motivated and highly qualified sea personnel are the backbone of Bernhard Schulte Shipmanagement. The HR Marine department is working hard to steadily expand the company's pool of skilled seafarers. BSM's human resources development strategy is based on several pillars. An important component is the previously mentioned in-house cadet programme, critical for developing loyal junior officers and supporting them to be ready for the high demands at sea. It ensures our own high educational requirements are met, as well as industry safety standards and a strong retention rate. In this context, we are also endeavouring to attract more women seafarers into this programme and our crew pool in general.

In addition, there are a variety of measures applied to progressively expand our pool of qualified seafarers. These include cooperation with educational institutions around the world. For example, in October last year, BSM entered an agreement with the Korea Institute of Maritime and Fisheries Technologies (KIMFT), a maritime education and research institute operated by the government of South Korea. A strategic partnership that is aimed at promoting the career development and training of young Korean seafarers.

This collaboration is just one component of BSM's commitment to expand the source markets of highly qualified seafarers of the future. BSM's African Seafarers Programme is also growing from strength to strength. The industry cannot expect to find the seafarers of tomorrow only within the traditional seafaring nations, as their working-age population is expected to shrink in the coming years, and so BSM is looking elsewhere for its future seafarers. Back in 2012 we invested heavily in the training of African seafarers, by establishing a local representative office and a cadet programme in Ghana and a collaboration with the Regional Maritime University.

Undoubtedly, seafarers who grow within the company have a deep understanding of the organisation's culture and procedures. Our intention is therefore to create a constant learning path from entry level, as cadets or ratings, until each seafarer's full potential is reached. For all employees, irrespective of age, BSM actively promotes a philosophy for lifelong learning to enhance on-the-job performance.