



vasco

**Purpose built
to change the
face of maritime
training.**

kilo

VASCO by Kilo Solutions

An Introduction



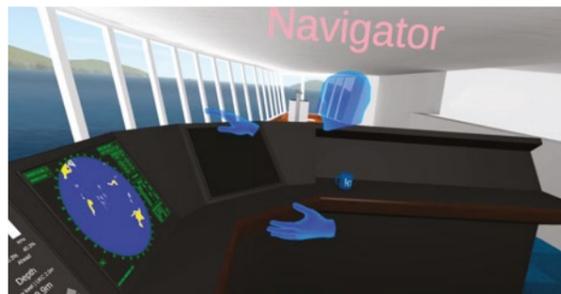
The sense of 'being there' is instantaneous and authentic.

Vasco (Virtual Advancement System for Competent Operations) is Kilo's revolutionary Virtual Reality (VR) maritime simulator programme. It is transforming the way seafarers and bridge crews are trained and assessed.

At its core, it is a fully immersive and portable bridge simulator, where seafarers join as individuals or teams and interact with the full suite of navigational equipment, whilst they safely navigate the vessel, as if they were at sea.

The sense of 'being there' is instantaneous and authentic. It provides organisations with a contemporary solution for the immediate skill development of ColRegs, Bridge Resource Management, and general Bridge Operations.

Seafarers love the fact that they can access vasco irrespective of their geographical location, as we take the simulator to the individual, not the other way round.



What does VASCO do?

40% improvement in competence and confidence is realised versus traditional methodologies.

Vasco puts Seafarers at the heart of a fully interactive navigational bridge.

The flexibility is its strength, so whether you want to develop an understanding for basic crossing situations, re-run shipping incidents or focus on advanced traffic separation schemes, Vasco is readily adaptable for these and all other navigational situations.

Real world features are extraordinary. Within the VR, parallax capabilities permit minor movement to reveal huge amounts of information. As in the real world, if something is obscuring your view, you adjust your position to reveal all. The same is true in Vasco.

The sense of 'being there' is magnified by the immersive nature of this form of experiential skill development, that is uniquely accessed via untethered VR headsets alone. Training is supported by a live coach and mentor, who is connected within vasco, and provides real-time support and objective evaluation.

Aside from the unquestionable commercial benefits, data is proving that VR trained participants are far more accomplished and engaged as a result.



Commercial Logic



Immersive Technology is changing the face of how we all do business.

-  **60%**
Reduction in travel and expenses
-  **100%**
Harmonisation of workforce

Optimising a technology that is only getting better, makes sound commercial sense.

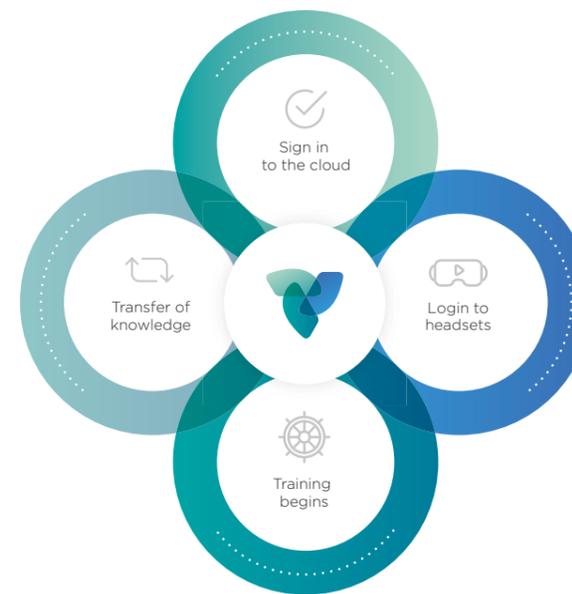
Virtual Reality has a projected compound annual growth rate (CAGR) of 41.2% from 2023 to 2031, moving the global industry value from \$4.6 Bn to \$142.1 Bn.

The reason is simple, immersive technology is changing the face of how we all do business.

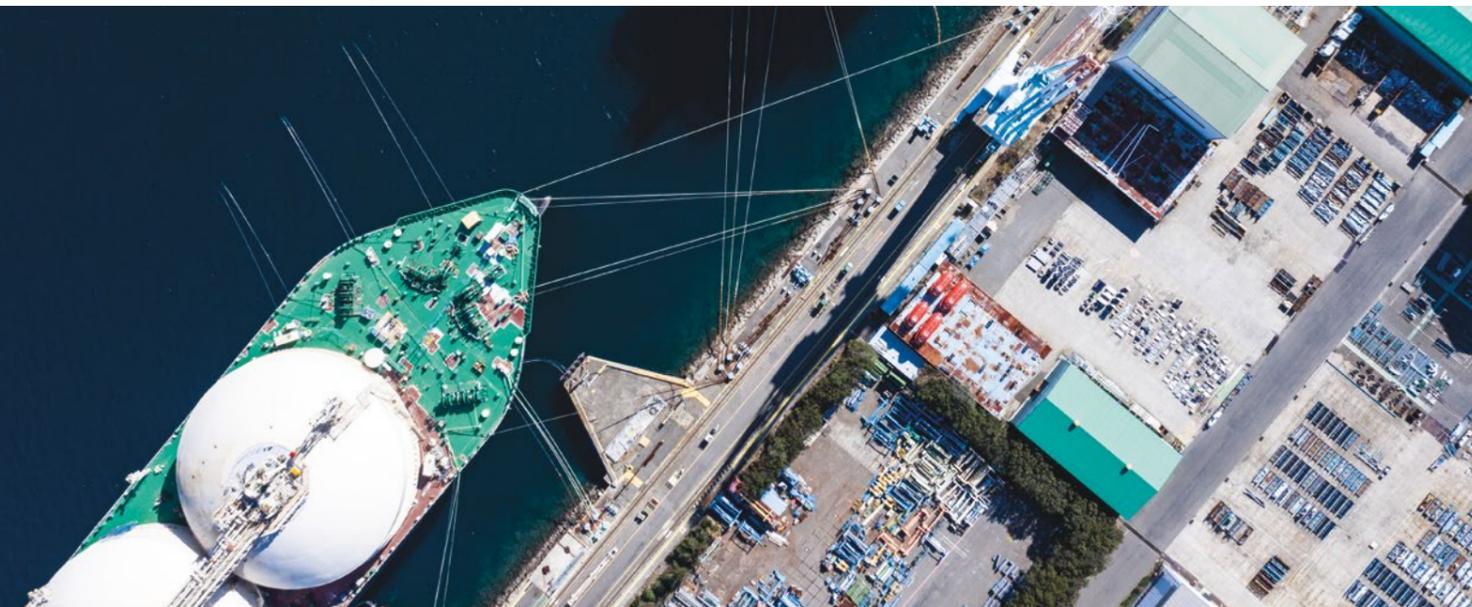
The savings to the bottom line are immediately apparent.

60% + reduction in travel and expenses, increased staff capability reduces human error rate, elimination of non-value work days, 100% harmonisation of the workforce and a significant contribution to ESG targets are just a few. There are many more.

How does it Work?



- 01 **Signing into a cloud-based server, the session leader/training facilitator establishes the scenario(s) on their PC through a very intuitive menu structure and operating system.**
- 02 Participants then login via their VR headsets, (preloaded with vasco), using a basic Wi-Fi or mobile hotspot connection. There is no other technical requirement.
- 03 Training begins when all participants are in their designated positions, whether they are Navigator, Co-Navigator, Helm, Look-Out or simply observing. Observers and / or evaluators are freely able to join via the evaluation mode, outside of the VR, and can witness the full training / evaluation experience. Ideal for evaluating; general performance levels, promotion candidacy or for aiding recruitment decisions.
- 04 The immersive nature of vasco permits the effective transfer of knowledge and provides a unique environment to apply that knowledge in a safe and realistic operational setting.





Benefits for your Business

60%
Increase in staff availability

98%
Performance improvement

72%
Reduction in training spend

100%
Workforce accessibility

Vasco in Use

Scenario One



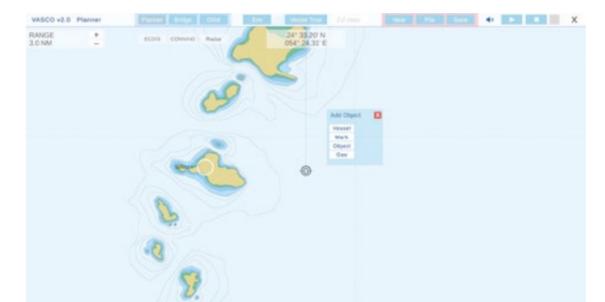
01 Bridge view

Vasco alongside in port and waiting to depart within restricted visibility. Blind pilotage procedures will be in force.

- 01 Desktop Planner permits full control of every element of the scenario. Environmental settings, landscape, vessels, buoyage, TSS and much more.
- 02 Once all participants have joined Vasco, control of the vessel is passed to the bridge team, via the desktop planner, and full interaction with throttle, thrusters and helm is then permissible as Vasco gets underway.
- 03 Coaching and mentoring is delivered via the Master Mariner who is in the VR, but can also spontaneously adjust scenario settings to increase/decrease complexity.



02 Scenario start position



03 Scenario Asset Library

Vasco in Use

Scenario Two



04 Bridge wing operating position

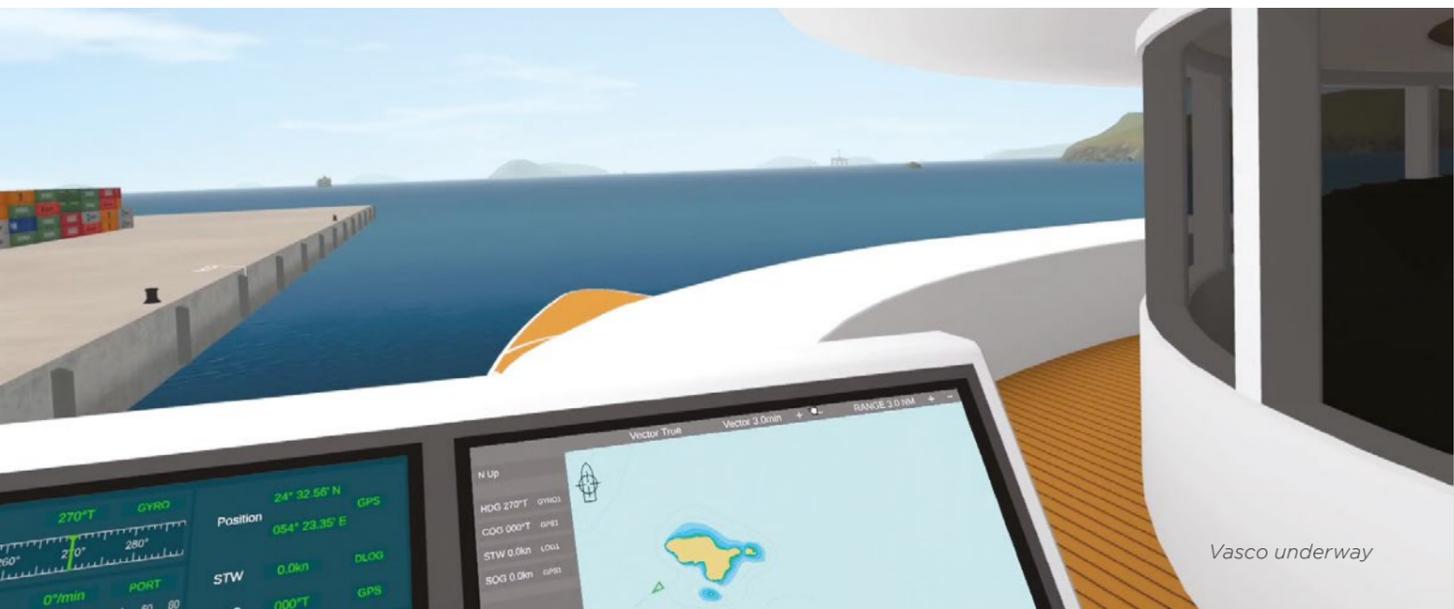
- 04 Hand on the throttle as Vasco increases speed via intuitive and realistic propulsion controls.
- 05 11 operating positions exist on the Bridge and Bridge Wings. This permits Navigator, Co-Navigator, Helm, and Look-Outs to operate together, under the supervision of the Instructor.
- 06 Observations of the training can be monitored and evaluated via PC, permitting a whole range of possibilities from; Promotion and Recruitment assessment through to competency evaluation and training assurance.



05 Internal bridge view



06 A Vasco observer



Vasco underway



Realistic Operating Performance

Manoeuvring characteristics are consistent with the real vessel.

VASCO provides near realistic operating performance standards to professional seafarers, with inbuilt generic ECDIS, ARPA, AIS and Radar capabilities on the bridge.

We achieve this by extracting vessel data from sea trials, pilot cards and wheelhouse posters and then, via our inhouse senior maritime expertise, the data sets are mirrored within a 2D manoeuvring graphic, prior to being migrated into the 3D physics engine.

This enables us to get as close as is technically possible to real-world handling characteristics.

Your requirement is all we need.

When do you ever get your entire bridge team together in a Simulator... well you can in Vasco. From lookouts to the captain, you can advance your team like never before.

Vasco is capable of being modified for your specific vessel's characteristics and localised environments. The flexibility of 3D in the VR space provides unbelievable opportunities.

We just need to know what you want, and we will work with you to achieve it.



Vasco 3.0 New Features

The world's first untethered VR bridge simulator, accessible to all.

Vasco 3.0 will offer enhanced features and improved performance. Users can expect a seamless experience with this cutting-edge technology. New features include:

- Floating Origin - Allowing very large training areas.
- Wind and tide influence
- Ships physics fully aligned with the vessel's trail
- Manoeuvring data
- Bridge wing operating positions
- Narrow channel with dedicated harbour for ship handling
- ARPA & AIS target acquisition on Radar / ECDIS.
- Slaved / Independent dual rudder control.
- Stern and bow thruster
- ECDIS - Radar - Conning, viewable in planner mode.
- Evaluation mode via PC
- Add vessel / find vessel function for training allocation.
- Cloud based option to permit access by globally dispersed learners
- User administration function
- Multi-player capability
- Cloud-based learning environment
- Accessible at point of need

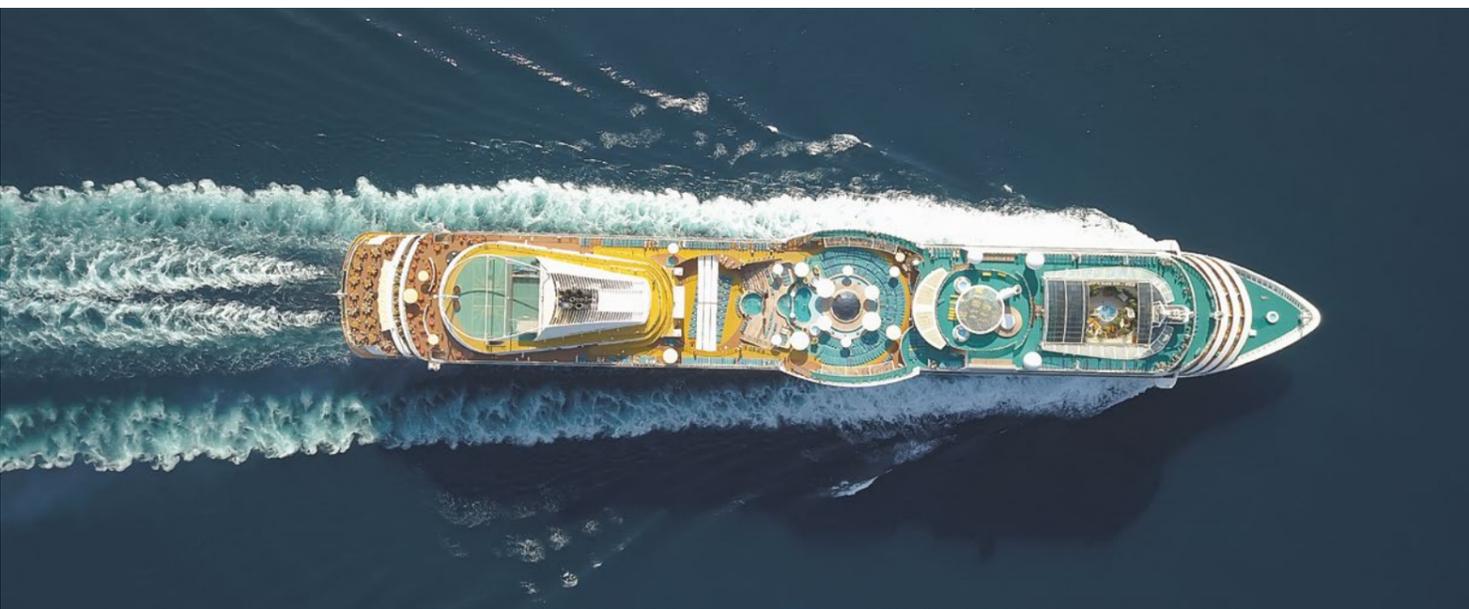
Pricing Plans



Credible, capable and affordable.

Kilo's mantra is credible, capable and affordable. We are committed to these and can structure a range of packages from...

- 01 Full Team training within a collaborative environment that can build collective ColRegs & BRM skillsets, facilitated via local Training Coordinator.
- 02 Vasco in a box' provides organisations with a fully enclosed local network, accessible via 5 VR headsets and able to operate independently of any ship/shore Wi-Fi connection.
- 03 A supported package for those organisations that would like to outsource ColRegs & BRM skill development to digitally savvy Master Mariner Instructors
- 04 Bespoke development of the vasco platform and/or training support needs to satisfy your organisations unique operating requirements.



Pricing Plans



01. Team

Perfect for full Team training within a collaborative environment that can build collective ColRegs & BRM skillsets, Facilitated via local Training Coordinator.

- Desktop Planning Application
- Cloud based Server
- Library to 12 pre defined scenarios
- 0.5 x Day Train the Trainer Session
- Access to full Asset Library
- Develop & Save own Scenarios
- Integrated ColRegs Rules repository
- Software Updates

Annual Licence From £3,499.00 + VAT

02. VIAB

Vasco in a box' provides organisations with a fully enclosed local network, accessible via 5 VR headsets and able to operate independently of any ship/shore Wi-Fi connection.

- 5 x pre-loaded VR headsets
- 1 x portable router for local network generation
- 1 x laptop to permit vasco scenario facilitation
- 1 x peli-case to safeguard equipment in transit
- 1 x train the trainer session and technical support

Guide price: £8,500.00 + VAT

03. Supported

Perfect for those organisations that would like to outsource ColRegs & BRM skill development to digitally savvy Master Mariner Instructors

- 12 x 45 Minute Scenarios
- Multiple Seafarers per session
- Master Mariner Coach & Evaluator
- Pre designed Scenarios for PDV Rules
- Business aligned BRM principles
- Individual & Collective Evaluation
- Dedicated Project Manager Support

Guide Price: £7,200.00 + VAT

04. Bespoke

Bespoke development of the vasco platform and / or training support needs to satisfy your organisations unique operating requirements. Please get in touch to discuss your exact requirements and then we can advance with a commercial proposition from that point.

About Kilo



Kilo are a global provider of contemporary maritime training underpinned by a wealth of seagoing, creative, educational and technological expertise.

Accountability

We always link the technological solution with the training and business objective. VR and Maritime are our great passions in life. We bring the two together via our scalable team of specialists.

Quality

The effective transfer of underpinning knowledge is essential for competent operations. We create content that delivers measurable and sustainable results that are then validated within immersive training environments.

Time

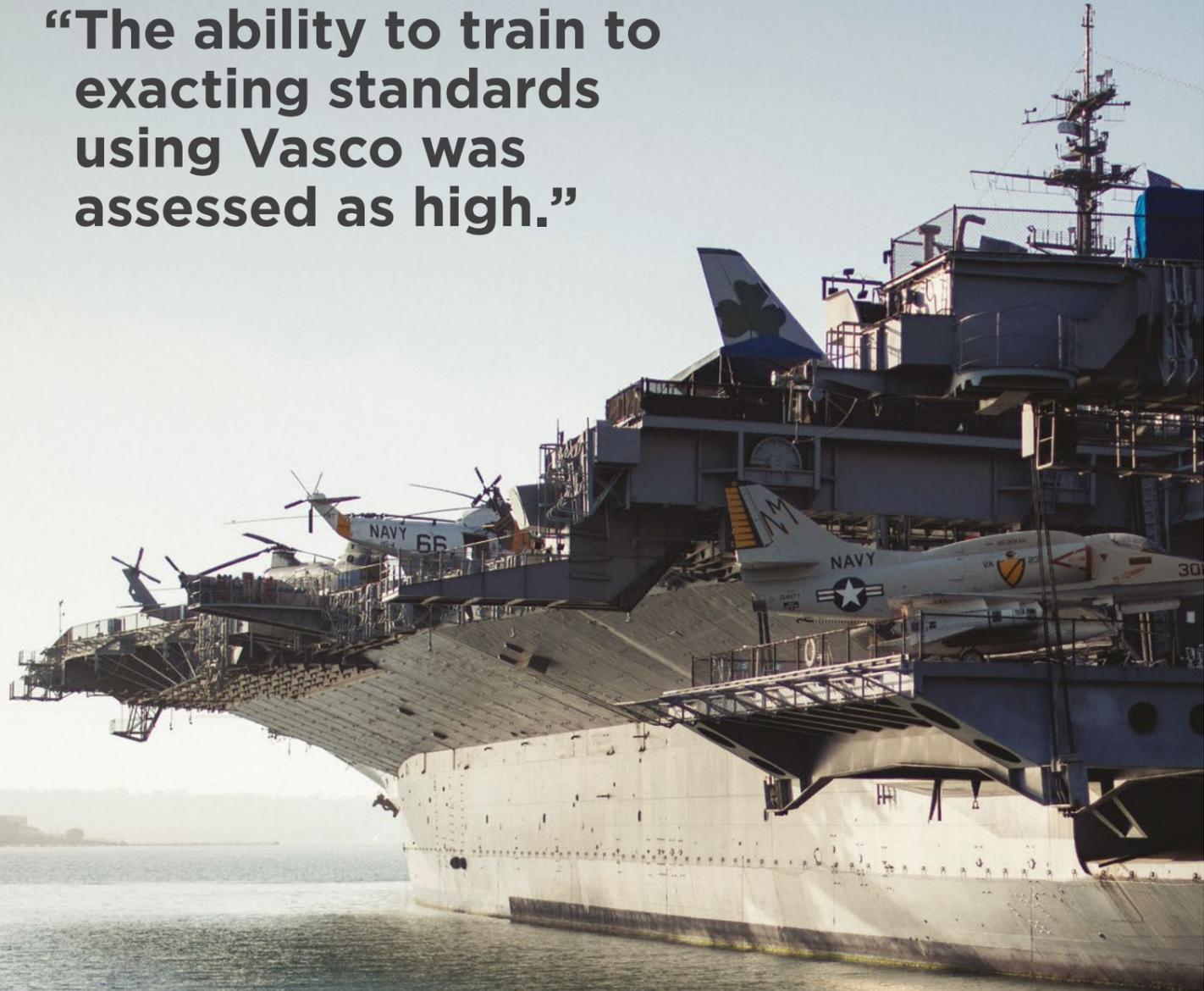
We understand educating agencies on your business is time-consuming and frustrating. Our combined maritime backgrounds mean we talk your language.

Credible, capable and affordable.

We deliver all of our solutions under the mantra of credible, capable and affordable. In order to achieve this, we have assembled a range of specialisms that permit us to provide our clients with a breadth of capability and sector expertise that enable us to establish the need before formulating contemporary solution(s).



“The ability to train to exacting standards using Vasco was assessed as high.”



“Vasco is universally supported as an ideal training environment, many voiced a wish for immediate implementation.”

Our Services



Virtual Reality

VR is transforming the world of training and crew development and every immersive VR training experience we create is fully aligned to your essential training needs.

Using sophisticated 3D physics back-end software, we deliver fully immersive environments to ensure a realistic sense of 'being there' is experienced by seafarers under training.

eLearning

We believe that effective transfer of knowledge underpins excellence within maritime operations. Kilo creates specifically designed content hosted on learning management systems 24/7, permitting access at a time and place most suitable to your team, using devices of their choice.

Consultancy

We understand educating agencies on your business is time-consuming and frustrating. Our combined maritime backgrounds mean we talk your language. Working across the full spectrum of safety management, navigational standards and seafarer competence, we quickly become your critical friend as we work collaboratively to shape outcomes that make the difference.





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VASCO by Kilo Solutions

Please contact the VASCO team at Kilo to discuss your specific requirements in more detail, or to simply find out more.

We look forward to hearing from you.

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www.kilo-solutions.com
