

# Meet Mike - the future of underwater inspections

**P**lanys Technologies provides underwater inspection and survey solutions using indigenously made submersible robotic vehicles. The company designs and manufactures compact remotely operated vehicles (ROVs), and provides underwater robotic inspection and survey services. Planys' technology spans the domains of marine robotics, advanced non-destructive testing (NDT) and post-inspection analysis tools. The company is the first and currently the only original equipment manufacturer (OEM) of compact ROVs in the Indian subcontinent.

Founded by IIT Madras alumni and faculty, Planys aims to cover the breadth of inspection solutions from customized design and fabrication of robotic platforms to integrated sensing and diagnostics.

In an exclusive interview with Nandita Mahajan of Maritime Matrix Today, Chief Technology Officer (CTO),



Vineet

Vineet Upadhyay spoke about Planys' capabilities, technology and future business prospects.

## Please tell us more about your ROV Mike?

ROV Mike is a state-of-the-art, Made-in-India submersible vehicle with advanced visual inspection capabilities. Mike can reach a depth of 100m and its movement is controlled by an ROV pilot and crew situated on board a vessel, a platform or any safe on-shore



## What Experts Say about Planys

Capt Sivaraman Krishnamurthi: Advisor, Planys, and EVP Operations (Technical), Sanmar Shipping: "Planys technology offers a safer and more efficacious alternative to surveys and inspections, and reliable metrics of underwater structures and topography, both inland and offshore. This business model is scalable and will contribute to the optimization and exploitation of the nation's water resources."

Dr Krishnan Balasubramaniam: Co-Founder and Chief Advisor, Planys, and Professor, IIT Madras: "Planys represents the new genre of bold start-ups from IIT Madras that will make a difference. Planys has reached this far owing to the efforts of its highly entrepreneurial team. The team is committed to making Indian technologies solve industry needs."

location. With a compact form factor and weight of just 27 kg, Mike can be easily transported and deployed by two or three operators, even during rough weather. Mike has multiple HD cameras and high-intensity lights to illuminate the darkest corners of the oceans. Mike is connected by a high-strength tether that supplies it with power from an external source and sends back live data to the ROV pilot's control station. Commissioned in August 2015, Mike has been in operation for over 400 hours and inspected various structures across India.

## What types of services has ROV Mike performed in the past?

Our technology offers inspection services

to various sectors — ports and shipping, oil and gas, civil infrastructure, coastal security, etc. ROV Mike has inspected risers and piles at various offshore and on-shore terminals, jetties and berthing docks at harbours; it has also performed ship hull, propeller and rudder inspection. Other structures it has inspected include sluice gates for a dam and a fishing-harbour.

Does Playns intend to make more ROVs in the future?

Yes, for sure! Our next generation of advanced ROVs will be commissioned in August 2016. It is more powerful than Mike, with the ability to perform operations in sea-state 4–5 and reach a depth of 200m. It has an improved vision and illumination system.

Apart from visual inspection, the ROV will be able to perform ultrasonic thickness measurements, biofouling cleaning and cathodic protection (CP) potential measurements. It will also be able to perform various acoustic surveys (side-scan survey for seabed mapping, bathymetry and other surveys). Despite possessing such advanced features, our next-gen ROV will continue to be portable, lightweight and versatile, offering the ability to mount additional sensors on demand for operations tailored to client requirements.

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## MLC amendments to enter into force on 18 January 2017

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**L**O member States have confirmed the amendments to the Maritime Labour Convention (MLC) ensuring better protection to seafarers and their families in case of abandonment, death, and long-term disability.



Two years after an overwhelming approval at the 103rd International Labour Conference (ILC), it has been confirmed that the Amendments to the Code of the Maritime Labour Convention (MLC, 2006), adopted in 2014, will enter into force on 18 January 2017.

Ratifying Members had been given until 18 July 2016 to formally express their disagreement with the 2014 Amendments. There was wide support for the new provisions, with just two Governments stating that they shall not be bound by the amendments, unless and until they subsequently notify their acceptance.

The 2014 Amendments establish new binding international law to better protect seafarers against abandonment and provide for compensation for death

or long-term disability — two crucial issues for the shipping industry.

When they come into force, in January 2017, the 2014 Amendments will require that a financial security system be in place to ensure that shipowners ensure compensation to seafarers and their families in the event of abandonment, death or long-term disability of seafarers due to an occupational injury, illness or hazard. Mandatory certificates and other evidentiary documents will be required to be carried on board to establish that the financial security system is in place to protect the seafarers working on board.

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