

LIGHT STRUCTURES
Passion for Monitoring

NEWSLETTER

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2023 The Year in Review

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Niklas Hallgren - CEO

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2023 The Year in Review

Read about our 2023 journey. Our newsletter is your entry to an overview of our accomplishments, projects, and innovations. Dive into the details and stay informed about our continuous commitments.

2023 THE YEAR IN REVIEW

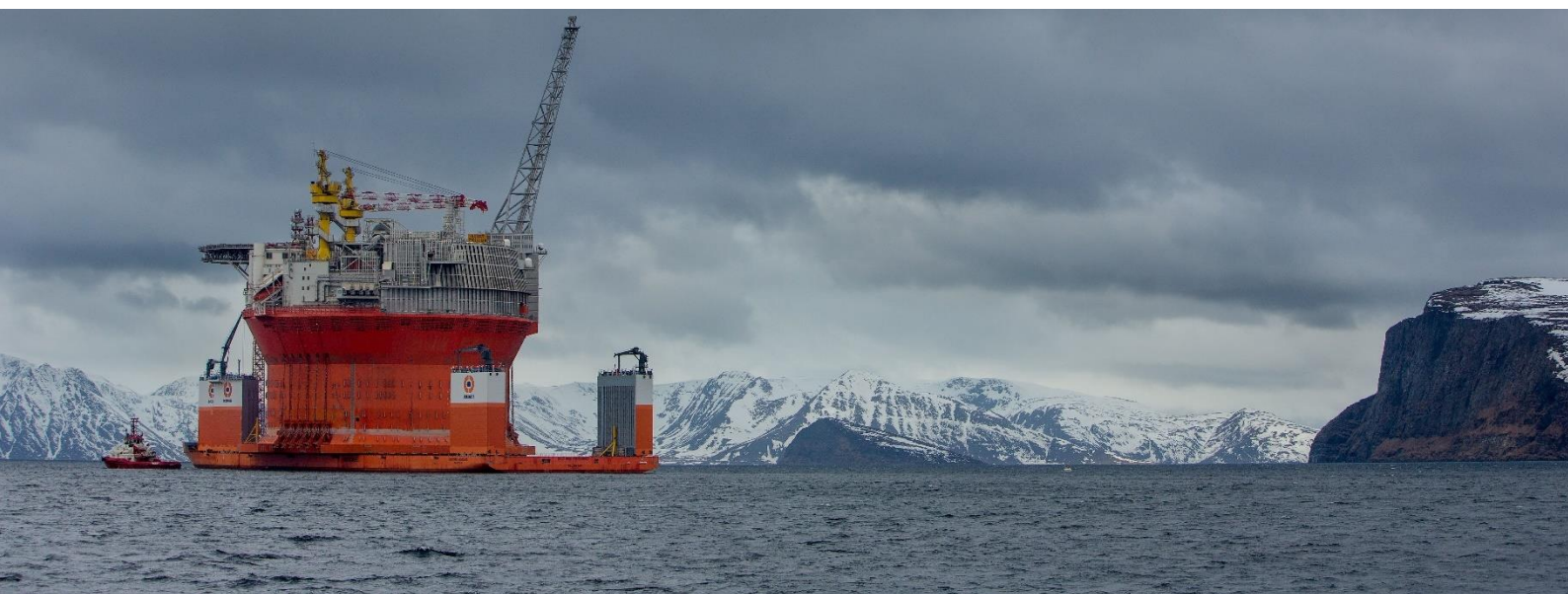
By Niklas Hallgren – CEO

We published a 'year in review' blog last December called [2022: Turning back the \(digital\) clock](#), in which we detailed a year where the benefits of using structural monitoring data in a more digital approach were really starting to come to the forefront.

We're pleased to report that the trend continued into 2023 and in fact, we have invested significantly to the point that digitalization is one of the major directions across our various R&D workstreams.

Our digitalization focus has grown further to fully encompass the world of digital twins this year too. This was reflected in September when we signed a Memorandum of Understanding with independent energy expert and assurance provider DNV, to cooperate on the development of new methodologies and solutions at the intersection of structural health monitoring and digital twin functionalities.

A key goal of the cooperation is to leverage the inherent value in structural integrity monitoring data acquired using Light Structures' SENSFIBTM systems for complex marine and offshore projects. This is an area in which we have industry-leading experience, especially in the field of Floating Production Storage and Offloading (FPSO) facilities, which we had a record order intake for during 2023.



Highlights

Smart SHM (Structural health monitoring)

In 2023, we've dedicated ourselves to advancing our Structural Health Monitoring (SHM) capabilities, taking a significant stride forward with the introduction of cutting-edge functionalities aligned with the ABS's latest notation, Smart SHM.

This innovative notation encompasses a range of smart functions tailored for monitoring the health and integrity of structures on marine vessels and offshore units. Our continuous efforts to evolve and align with industry standards underscore our commitment to providing state-of-the-art solutions.

FPSOs in focus

It's telling that the SENSFIBTM systems being delivered for the seven FPSO projects we are currently working on will all be integrated with a digital twin, so that engineers can better understand the maintenance requirements of everything from the tanks and hull to the turret and flare tower.

In November we announced a new contract secured by our partner China Merchants Hoi Tung company with YANTAI CIMC Raffles Offshore in China for two newbuild FPSOs. The first SENSFIBTM system is scheduled to be delivered to the yard by the end of November 2023, with the second arriving within April 2024.

Identical in design and execution, the FPSOs feature innovations including carbon reduction technologies and digital twins that, incorporating SENSFIBTM stress and fatigue data, will act as high-fidelity virtual duplicates of the FPSOs to allow for remote simulation and testing that will secure operational safety, reliability and efficiency.



Diverse projects

Of course, our 2023 order book consists of more than FPSOs. We provide SENSFIB™ solutions for a wide variety of vessels and have this year added new naval ships, polar icebreakers and Aframax tankers to our reference list.

In June we reported that our Dubai headquartered partner Elcome International LLC had been contracted to provide precision SENSFIB™ Hull Stress Monitoring Systems for 10 Offshore Supply Vessels (OSV) owned by a major Middle Eastern-based offshore support services provider.

This was followed in July by a contract to provide SENSFIB™ solution to eight newbuild LNG Carriers being built by Hudong-Zhonghua Shipbuilding for delivery through 2024 to 2026.

So, from both a business and technology perspective, 2023 has been a positive year. This is of course due to the amazing Light Structures team and all our partners worldwide so thank you all for your hard work, and we look forward to what this year may bring after such an incredible 2023.



“NO LIVES OR ASSETS LOST DUE TO STRUCTURAL FAILURE”

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