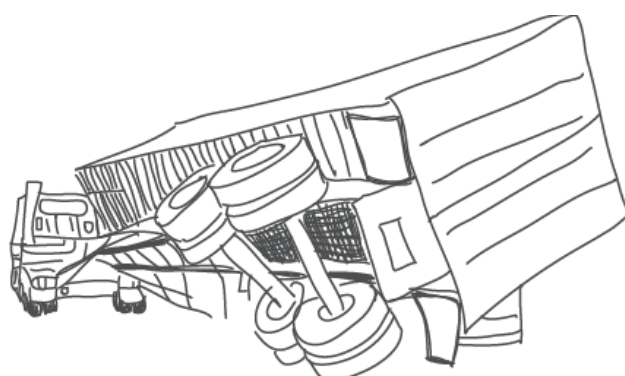


CINDICIUM PTY LTD

accurately weighs a container, automatically and securely records and reports the weight wirelessly in under 60 seconds

the challenge

Cindicium's Pondus VGM solution tackles critical safety challenges in container weight verification, particularly those impacting maritime operations under SOLAS (Safety of Life at Sea) regulations. Traditional methods often lead to human error and delays, which can result in mis-declared container weights. This poses significant risks at sea, including vessel instability, overloading, and potential capsizing, all of which endanger crew safety and cargo integrity.



Inadequate weight verification can lead to operational disruptions, legal liabilities, and severe accidents during transit. Pondus enhances maritime safety by providing a risk assessment for each container without the need for physical weighing. This capability allows ports and terminals to effectively identify high-risk containers, ensuring compliance with Verified Gross Mass (VGM) requirements and promoting a safer maritime environment.



the innovation

Pondus automates the weight verification process through a seamless integration with the container handling equipment. When a container is moved by the container handling equipment, data regarding its weight is collected and transmitted to the Pondus cloud.

The cloud platform analyses this data using advanced algorithms and machine learning to assess the likelihood of mis-declared weights for each container, compared to the declared VGM.

The system generates a risk rating for every box, indicating the probability of mis-declaration based on weight. This innovative approach allows ports and terminals to evaluate every container without the need to weigh each one physically.

By focusing resources on high-risk containers, Pondus enhances operational efficiency and safety, ensuring compliance with regulations while minimizing risks across the maritime supply chain. This solution significantly improves how ports and terminals manage weight verification and contribute to safer supply chains.

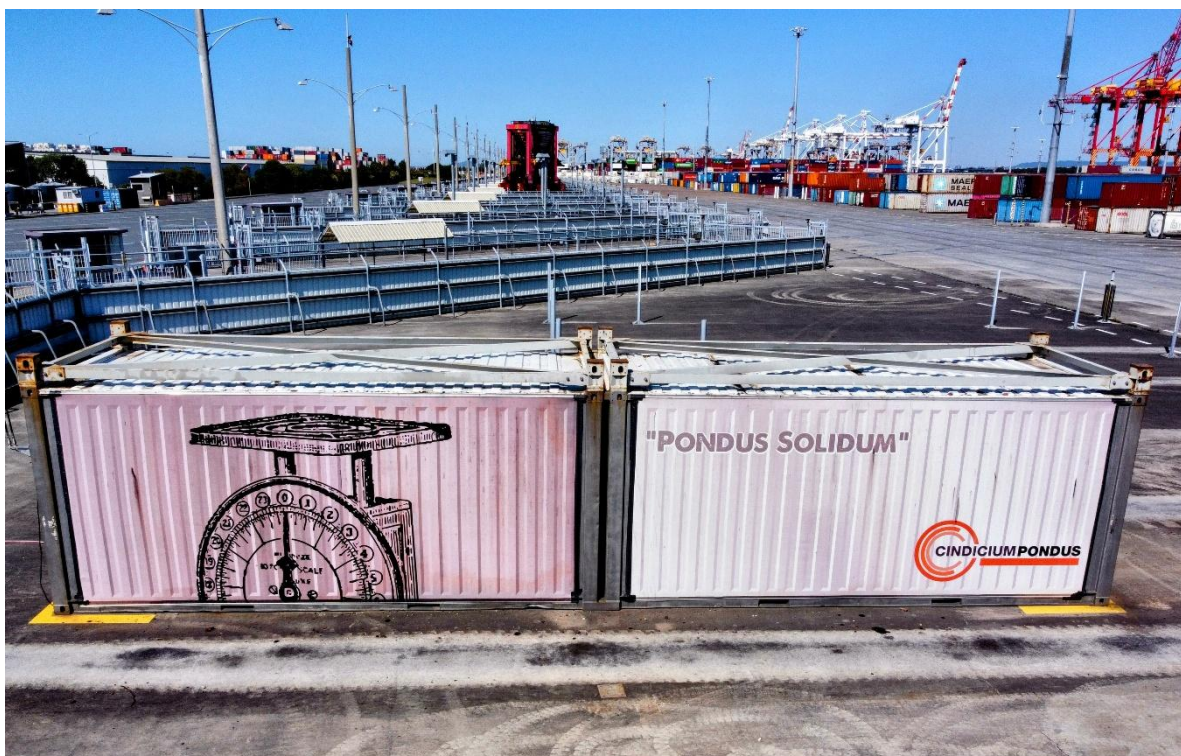


how it was implemented

We collaborated closely with terminal operators to integrate our system with their terminal operating systems, enabling us to receive data from their container handling equipment, such as straddles, forklifts, ASCs, and RTGs. Once the data feed is established, our cloud-based system calibrates according to the performance characteristics of the various equipment, as some may consistently weigh higher, lower, or exhibit erratic behaviour.

After developing calibration curves, we begin risk rating containers by comparing the weights from our data feed with the registered Verified Gross Mass (VGM). This risk assessment uses

a scale from 0 to 9, where 0 indicates “not misdeclared” and 9 signifies “very likely misdeclared.” Containers flagged as high-risk are then moved to the PONDUS stand for weighing. (see picture)



The PONDUS stand is OIML certified and equipped with cameras that capture images of the containers for identification purposes. This process culminates in issuing a new VGM certificate, ensuring accurate and compliant weight verification for each container.

result

The implementation of our solution has shown impressive results in improving container weight verification. We have discovered that between 5% and 10% of all cargo, both imports and exports, is misdeclared by more than 1 ton. This means that a significant number of containers have incorrect weight information, which can lead to safety issues and operational problems.

By identifying these misdeclarations, Pondus helps terminal operators prevent safety incidents and avoid potential accidents. This not only ensures compliance with regulations but also enhances safety during transport. Overall, the solution has made a noticeable impact in reducing misdeclared weights and promoting safer operations in the supply chain.

LINK: <https://www.cindicium.com/>

