



August 20, 2020

## **UPDATE on IICL Floor Omega Design**

As you may know, the IICL started studies and research on alternative floor designs back in 2006, having a Forum in Hong Kong in 2007 with the participation of industry stakeholders. During the Hong Kong Forum 2 designs had broader support out of the 5 designs presented, the 5 omega and the extended tunnel designs.

In 2008 the IICL members-built containers with the 5 omega and the extended tunnel designs and leased them to short sea and long-haul operators to evaluate their performance. While most of these units are still in service, the IICL members opted for the 5-omega design for manufacturing reasons.

The IICL has also worked with CIMC in order to make the patents on the 5-omega design available to buyers and manufactures at no cost. The patent collaboration agreement was reached in July 2019.

Since then the IICL Technology Committee has created a working group to optimize the design, making lighter and easier to build. Amongst others, the omega plates were resized, and reinforcements removed. Finite Element Analysis (FEA) were used to improve the design.

In the first half of 2020 the IICL conducted several calls with major manufacturers to discuss the project, obtain input and recommendations. The IICL has also presented its findings to other industry associations including our data analysis showing significant operational savings during in-service repairs and expected longer operational life of the equipment. The omega design is 5 times less prone to damages than the current traditional design.

The IICL is pleased with the feedback and support received so far and continues to work on the project that reduces the use of floorboards by approx. 35%. In our opinion, the IICL Omega design is an important first step towards improving the environmental and operational efficiencies with significant cost savings.

The IICL will continue to provide updates on this project which is also addressed on our newsletters. Make sure to be the first one to know and subscribe to our newsletter on our website [www.iicl.org](http://www.iicl.org)



Analysis of the economic benefits of the omega design are shown on the chart below.

Floor Repairs as Percentage of the Total Maintenance and Repair Costs	All Floor repairs *excluding cleaning	Damage - User	Wear and Tear - Owner
Current Standard Design	19.00%	13.00%	6.00%
<b>Omega design</b>	<b>4.00%</b>	<b>3.90%</b>	<b>0.10%</b>
Estimated Maintenance & Repair <b>Cost Reduction at Off hire</b>	15.00%	9.10%	5.90%

\* Users will also enjoy savings during operations (less failures) and in-service repairs

Data source: Amalgamated data from member companies.