

The Ballast Water Treatment System Market 2012-2022

3.3.6 The Global Ballast Water Treatment System Market Forecast for Ballast Capacity <1,500m³ 2012-2022

Tables 3.11, 3.12 and Figure 3.8 display the trends in the global ballast water treatment system market for ballast capacity less than 1,500 cubic metres.

Table 3.11 Global Ballast Water Treatment System Market Forecast for Ballast Capacity <1,500 m³ 2012-2022 (\$bn, AGR %)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Sales \$bn	0.07	0.07	0.20	0.34	0.32	0.68	0.94	0.90	0.95	0.88	0.26	0.28
AGR(%)		0.0	178.0	72.0	-6.0	109.0	39.0	-4.0	5.0	-7.0	-70.0	5.0

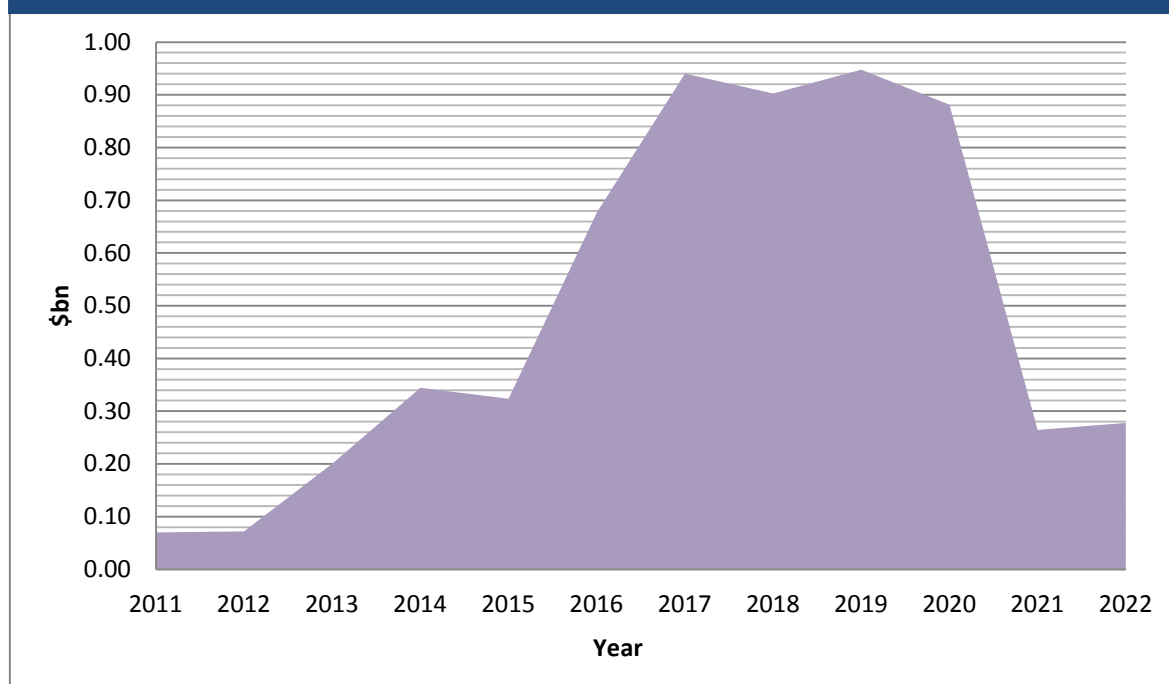
Source- Visiongain Ltd.

Table 3.12 Global Ballast Water Treatment System Market Forecast for Ballast Capacity <1,500 m³ CAGR (%) 2012-2022, 2012-2017, and 2017-2022

	2012-2022	2012-2017	2017-2022
CAGR (%)	14.4	67.2	-21.6

Source- Visiongain Ltd.

Figure 3.8 Global Ballast Water Treatment System Market Forecast for Ballast Capacity < 1,500 m³ 2012-2022 (\$bn)



Source- Visiongain Ltd.

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7. Expert Opinion

7.1 Coldharbour Marine Ltd

Coldharbour Marine, based in South Normanton in the United Kingdom can trace its origins back more than 35 years. Their products and designs have been used extensively in both the marine and offshore sectors over many years. Now, for the first time they are bringing all products together under one brand name.

Coldharbour provide practical solutions to technical problems. Their focus is on engineering excellence combined with the intelligent application of rugged, advanced technologies into extreme environments. Coldharbour make it their business to understand their customers' requirements and then to provide practical solutions to their technical problems.

They are continually developing and enhancing their products in response to changing operational and legislative pressures. Moreover, they try to give their customers the advantage of forward thinking by future proofing our technologies wherever possible. Real examples of this include; the new Coldharbour range of 3rd generation Inert Gas Generators which are cleaner, more compact and designed to be maintenance free in normal operation; and their Ballast Water Treatment systems that address current and future environmental requirements.

Andrew Marshall, FIMarEST, Chief Executive Officer, Coldharbour Marine

Andrew has over 20 years' experience in international business development and in pioneering new technologies into traditional industries. He has extensive experience of the engineering and high technology sectors. He has been CEO of Coldharbour since January 2010.

7.1.1 Core Principles of Technology

Visiongain-: Coldharbour Marine is a leading provider of Ballast Water Treatment systems. Kindly explain about your technology and how it meets the customer's demands, and rules and regulations? The USA has designed more stringent performance standards; will your system meet the requirements for such stringent regulations?

Andrew-: Coldharbour (CHM) technology is based around the "in tank, in voyage" model of treatment, rather than the "in line during ballasting/de-ballasting" model favoured by most other BWT system vendors.

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8. Leading Companies in the Ballast Water Treatment System Market

Table 8.1, 8.2 and 8.3 lists the various vendors and systems which are currently available. Table 8.1 lists those successful 23 vendors who have IMO basic and final approval. Table 8.2 lists those systems and vendors who have obtained IMO Basic approval and Table 8.3 lists those systems who are seeking approvals. The names which have been highlighted in green indicate that they are a part of STEP.

Key below to outlines the different technologies employed:-

F-Filtration, H- Hydrocyclone, UV –Ultra Violet, E- Electrolysis, C-Cavitation, N- Neutralisation, O- Oxidisation, O3-Ozonation, B- Biocide, EC- Electro-chlorination, D- De-oxygenation/ de-oxygenisation, sep. separation, mech.- mechanical, mag.- magnetic, coag.- coagulation, ultra.- ultrasound, bio.- biological, ClO2- Chlorine Dioxide, Cl- Chlorination

Table 8.1 Details of Ballast Water Treatment Systems with IMO Basic and Final Approval (Company, Region, and Technology)

Company Name	Region	System Name	Technology											others
			F	H	U V	E	C	N	O	O 3	B	E C/ Cl	D	
21st Century Shipbuilding	Korea	ARA Ballast												plasma
Alfa Laval	Sweden	PureBallast												
Aqua Eng Co Ltd	Korea	AquaStar BWMS												
Ecochlor	USA													ClO2
ERMA FIRST	Greece	ERMA FIRST BWTS												
Hitachi	Japan	ClearBallast												sep. mag.coag .