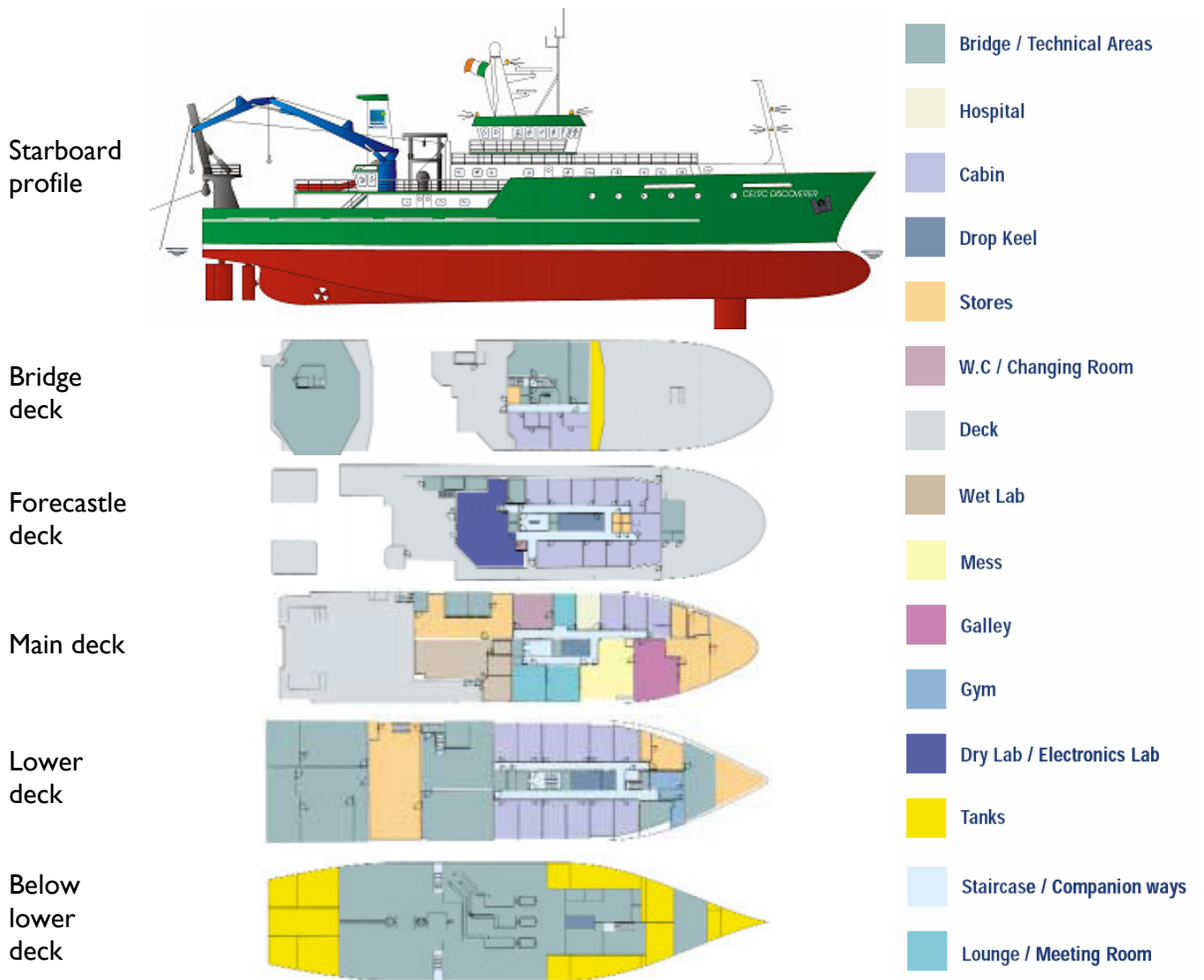




# Celtic Explorer



## General Layout







## Technical Specifications

<b>General</b>	<ul style="list-style-type: none"> <li>• Fishery, acoustic, oceanography, buoy handling, environmental sampling, geological and hydrographic research vessel</li> <li>• Complies with the noise requirements of ICES CRR Report 209</li> <li>• Drop keel</li> <li>• Capacity to carry 7 x 20 ft containerized laboratories</li> </ul>																		
<b>Main features</b>	<table> <tr><td>Length o.a.</td><td>65.5 m</td></tr> <tr><td>Beam</td><td>15 m</td></tr> <tr><td>Draught</td><td>5.8 m</td></tr> <tr><td>Gross tonnage</td><td>2425 T</td></tr> <tr><td>Net tonnage</td><td>727 T</td></tr> <tr><td>Lloyds classification</td><td>D100AI ICE CLASS ID +UMS + SCM DP (CM) Multipurpose Research Vessel</td></tr> <tr><td>Maximum speed</td><td>16 knots</td></tr> <tr><td>Service speed</td><td>10 knots</td></tr> <tr><td>Endurance</td><td>30 days</td></tr> </table>	Length o.a.	65.5 m	Beam	15 m	Draught	5.8 m	Gross tonnage	2425 T	Net tonnage	727 T	Lloyds classification	D100AI ICE CLASS ID +UMS + SCM DP (CM) Multipurpose Research Vessel	Maximum speed	16 knots	Service speed	10 knots	Endurance	30 days
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<b>Safety</b>	Complies to IMO, Lloyds, and all national and international requirements																		
<b>Accommodation</b>	<p>31: 16-18 scientists, 13-15 crew, dep on operational requirements.</p> <p>Scientists quarters: 9 single berths, 5 two-man berths, all en-suite</p>																		
<b>Navigation and communication</b>	<table> <tr><td>Depth measurement</td><td>Furuno FCV 1200 L Echo sounder</td></tr> <tr><td>GPS</td><td>2 x Trimble 300-D</td></tr> <tr><td>Radar</td><td>2 x Furuno ARPA</td></tr> <tr><td>Gyro compass</td><td>Robertson RGC 12</td></tr> <tr><td>Fiberoptic gyro with motion reference</td><td>Ixsea Octans</td></tr> <tr><td>Navigation system</td><td>Seapath 200</td></tr> <tr><td>Navigation</td><td>Furuno ECDIS, MaxSea Plotter and OLEX Plotter</td></tr> <tr><td>Data communication</td><td>Seatel Satellite Broadband system 528/128kbps, Fleet 77</td></tr> <tr><td>Voice</td><td>GSM phone/fax x 2, Mini-M, VOIP system utilising seatel broadband system , Radio Communication to GMDSS standards</td></tr> </table>	Depth measurement	Furuno FCV 1200 L Echo sounder	GPS	2 x Trimble 300-D	Radar	2 x Furuno ARPA	Gyro compass	Robertson RGC 12	Fiberoptic gyro with motion reference	Ixsea Octans	Navigation system	Seapath 200	Navigation	Furuno ECDIS, MaxSea Plotter and OLEX Plotter	Data communication	Seatel Satellite Broadband system 528/128kbps, Fleet 77	Voice	GSM phone/fax x 2, Mini-M, VOIP system utilising seatel broadband system , Radio Communication to GMDSS standards
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### Facilities

Dry laboratory	75m <sup>2</sup> . Workstations for EMI002, EA600, ADCP EK60, Seapath 2000, SSU, post-processing. CTD winch controls, CCTV and ECDIS monitors, chart table and storage.	
Wet laboratories	70m <sup>2</sup> : wet/fish lab, chemistry lab and water lab. Conveyor/fish sorting system, freezer room, refrigerators, weighing scales, LAN connections 6 gas lines.	
Container laboratories	Capacity to carry 7 x 20 ft containerised labs. Support systems: 220 VAC, 400 VAC (300 kW), LAN, phone, seawater, freshwater, waste drain.	
Workshop	Lathe, milling & drilling machine, hydraulic press, band saw, welding machine, workbench with vice, portable power tools, comprehensive tool kit.	
Communal areas	Scientists' office/meeting room. Two lounges with TV, DVD, VCR. Gymnasium, sauna.	
Medical	Hospital room with hospital bed and basic medical facilities including Medical locker, bath, defibrillator	

### Deck Equipment

<b>Deck area</b>	165 m <sup>2</sup> , painted steel	
<b>A-frame, aft</b>	25 T SWL, 4 m outboard and 4 m inboard reach, 10.5 metres clearance from deck	
<b>T-frame, stbd</b>	10 T, 3 m reach	
<b>Cranes</b>	Midship crane	16 TM, 2 T hook load
	Forward crane	1.5 T at 10 m
	Aft crane	6 T at 15 m
<b>Winches</b>	CTD winch	6 T, 5000 m of 8.1 mm diameter wire, heave compensation system
	General purpose winches (x2)	<ul style="list-style-type: none"> <li>• (1) 1.7 T, 2500 m of 8.2 mm realtime cable, 2.2 kg/km, breaking strain 4.35 T, 7 cores.</li> <li>• (2) 20T, 3000 m of 12 mm Dynex, breaking strain 16 T.</li> </ul>
	Gilson winches (x2)	13 T each, 200 m of Dynema SK75 synthetic rope
	Hydrographic winch	1.04 T, 2000 m of ø 6.35 mm cable, 4 cores
	Main net drum /winch	45 T, on main deck, capacity 10 m <sup>3</sup>
	Net sounding winch	6 T, 3200 m
	Upper Net drum /winches (x2)	17 T each, on forecastle deck, capacity 8.78 m <sup>3</sup> each
	Trawl winches (x2)	Split trawl winches: 34.5 T each : Rapp Hydeema Fitted with 4900 m of 26 mm wire
<b>Workboat</b>	5.5 m heavy duty workboat, 82 HP inboard engine. Suitable for inshore research activities, buoy maintenance etc. Launched with a heave compensated Davitt.	



## Permanent Scientific Equipment

<b>General</b>	
A0 printer	Hewlett Packard, Designjet 1055C, for chart production
Laminar flow fume hood	Interflow BV, ST-12 Special
Gravity meter	LaCoste & Romberg S-120
Motion reference system	Kongsberg Simrad, Seapath 200
Underway data logging	Kongsberg Simrad, MDM400
USBL	Ixsea GAPS
Weather system	BATOS II
Weighing scales	Pols, P-60, 1 x 60 kg
Weighing scales	Pols, P-15, 3 x 15 kg
<b>Acoustic surveying</b>	
Colour video sounder	Furuno FCV 1200 L
Low-frequency scanning sonar	Kongsberg Simrad SP70
Multi-beam echo sounder	Kongsberg Simrad EM1002
Navigation planning	Starfix Fugro UDI
Seabed discrimination system	SEA, ECHOplus
Single-beam echo sounder (scientific)	Kongsberg Simrad EK60: 18, 38, 120, 200 kHz
Single-beam echo sounder (hydrographic)	Kongsberg Simrad EA600: 12, 38, 200 kHz
Sub-bottom profiler	SES Probe 5000, 4x4 array (hull mounted)
Sound velocity profiler	AML SVPlus
<b>Marine biology and fisheries research</b>	
Fluorometer (underway)	Turner, model 10-AU 005
Net monitoring system	ScanBas
<b>Physical/chemical oceanography</b>	
ADCP, hull mounted	RDI Ocean Surveyor 486P/50
CTD and rosette sampler	SBE 911 CTD with SBE 32 carousel, 24 x 10L bottles
Water samplers	22 OceanTest, Niskin type, 10 l
Moving vessel profiler	Brooke Ocean Technology, MVP200, CTD & SVP
Thermosalinograph	Seabird, SBE 21, with temperature sensor SBE 38

*N. B. These specifications are subject to change without prior notice. The details are believed to be correct but are not guaranteed.*