

**HYDRO 2016 Time Table**

	<b>Monday 7 Nov 2016</b>	<b>Tuesday 8 Nov 2016</b>	<b>Wednesday 9 Nov 2016</b>	<b>Thursday 10 Nov 2016</b>
<b>Registration open</b>	14:00 – 21:00	08:30 – 18:00	08:30 – 18:00	08:30 – 12:00
<b>Conference</b>		09:00 – 12:25 13:30 – 17:30	09:00 – 12:25 13:30 – 17:55	09:00 – 12:25 13:30 – 15:30
<b>Exhibition open</b>	18:30 onwards	08:30 – 18:00	08:30 – 18:00	08:30 – 15:00
<b>Workshops</b>		11:10 – 12:40 13:30 – 15:00	13:30 – 15:00 15:50 – 17:20	11:45 – 12:15 13:30 – 15:00
<b>Boat Demos</b>		11:00 – 15:00	13:30 – 18:00	10:45 – 15:00
<b>Open Ship</b>		11:00 – 15:00	09:00 – 18:00	11:00 – 15:00
<b>Social Events</b>	19:00 onwards <b>Icebreaker</b>	20:00 onwards <b>Conference Dinner</b>	19:00 onwards <b>Flying Buffet</b>	
<b>Lunch Break</b>		12:30 – 13:30	12:30 – 13:30	12:30 – 13:30
<b>Locations:</b>	Registration, Conference, Exhibition and Workshops: Conference Centre. Boat- and Equipment Demos: Marina next to the Conference Centre. Open Ship: Opposite (Warnemünde) river bank, North of ferry terminal. “Icebreaker” and “Flying Buffet” receptions: Conference Centre. Conference Dinner: Coaches await you at the Conference Centre (starting 18:30). <b>See also map on last page.</b>			

**HYDRO 2016 Conference Sessions Overview**

<b>Tuesday, 8 November 2016</b>	
09:00	Opening Ceremony
11:10	<b>1A:</b> Perspectives of Hydrography
13:30	<b>2A:</b> Student Session
15:50	<b>3A:</b> Emerging topics in multibeam echosounding and surveying
	<b>3B:</b> Software & Data Management
20:00	Conference Dinner
<b>Wednesday, 9 November 2016</b>	
09:00	<b>4A:</b> In-situ and remote hydrography
	<b>4B:</b> Improving nautical information
10:45	<b>5A:</b> Space hydrography
	<b>5B:</b> Nautical charting
13:30	<b>6A:</b> Energiewende – Challenges in the wind offshore business
15:50	<b>7A:</b> LiDAR case studies for hydrographic assessments
19:00	Flying Buffet Reception (Sun Deck)
<b>Thursday, 10 November 2016</b>	
09:00	<b>8A:</b> State-of-the-art GNSS techniques
	<b>8B:</b> Education
10:45	<b>9A:</b> Hydrography in extreme environments
13:30	<b>10A:</b> Nautical depth
15:00	Closing Ceremony

Detailed conference programme overleaf.

**Monday, 7 Nov 2016**

Time

19:00 “Icebreaker” Reception (exhibition area; free attendance for delegates and exhibitors; please pre-book)

**Tuesday, 8 Nov 2016**

Time	Auditorium A	Auditorium B
08:30	Registration & Exhibition open / Coffee & Tea	
	<b>Opening Ceremony</b>	
09:00	<i>Holger Klindt, Rob van Ree</i> : DHyG / IFHS Opening Addresses	
09:20	<i>Mathias Jonas, Robert Ward</i> : BSH / IHB Welcome Addresses	
09:45	<b>[K1]</b> <i>Peter Ehlers</i> : Ocean governance and hydrography	
10:05	<b>[K2]</b> <i>John Huges Clarke</i> : Future perspectives on multibeam backscatter and seabed classification	
10:30	Exhibition Opening Ceremony / Coffee & Tea	
	<b>Session 1A: Perspectives of Hydrography</b>	<b>Boat Demos &amp; Workshops</b>
11:10	<b>[1A1]</b> <i>Robert Ward</i> : General future perspectives of the IHO	
11:35	<b>[1A2]</b> <i>Mathias Jonas</i> : The provision of hydrographic services as core element of E-navigation – status and perspective	
12:00	<b>[1A3]</b> <i>Don Ventura</i> : Intelligent exploitation of the blue economy – a hydrographic perspective	
12:25	Lunch / Exhibition	
	<b>Session 2A: Student Session</b>	<b>Boat Demos &amp; Workshops</b>
13:30	<b>[2A1]</b> <i>Jean-Guy Nistad</i> : Backscatter adjustment for multi-sector multi-swath multibeam echo sounders	
13:55	<b>[2A2]</b> <i>Mark Gray</i> : RapidCast: Analysis of spatio-temporal variability in high resolution speed of sound measurements	
14:20	<b>[2A3]</b> <i>Arne Lohrberg</i> : Analysis of gas seep activity in Eckernförde Bay and assessment of its linkage to pockmarks and sub-bottom strata	
14:45	<b>[2A4]</b> <i>Geraud Naankeu Wati</i> : Error budget analysis for hydrographic survey systems; implementation on an inspection campaign of pipelines by an AUV	
15:10	Coffee & Tea / Exhibition	
	<b>Session 3A: Emerging topics in multibeam echosounding and surveying</b>	<b>Session 3B: Software &amp; Data Management</b>
15:50	<b>[3A1]</b> <i>Jonathan Beaudoin</i> : Transitioning research to operations: The case of wobble analysis	<b>[3B1]</b> <i>Charles de Jongh</i> : Using CARIS to automate bathymetric data management at Rijkswaterstaat
16:15	<b>[3A2]</b> <i>Rozaimi Che Hasan</i> : Determining number of classes for sediment classification from multibeam backscatter images	<b>[3B2]</b> <i>Morten Revsbæk</i> : Semi-automatic generation of depth curves and sounding selection
16:40	<b>[3A3]</b> <i>Auke van der Werf</i> : Maximising business value from offshore survey data in the oil and gas industry	<b>[3B3]</b> <i>Mark Terlien</i> : Managing hydrographic data for multiple usage
17:05	<b>[3A4]</b> <i>Marco Filippone</i> : Multibeam water column imaging for charting least depth value	<b>[3B4]</b> <i>Derrick R. Peyton</i> : Marine cadastre as an application of MSDI
17:30	End of Sessions	
20:00	Conference Dinner (80€ per person; coaches will depart starting at 18:30; please pre-book)	

**Wednesday, 9 Nov 2016**

Time	Auditorium A	Auditorium B
08:30	Registration & Exhibition open / Coffee & Tea	
09:00	<b>Session 4A: In-situ and remote hydrography</b> [4A1] <i>Ingo Hennings</i> : Comparison and characteristics of oceanographic in situ measurements and simulations above submerged sand waves in a tidal inlet	<b>Session 4B: Improving nautical information</b> [4B1] <i>Tom De Puyt</i> : Enabling hydrographic offices to support new markets with S-57 datasets
09:25	[4A2] <i>Sandra Gaytán Aguilar</i> : Tidal correction and height referencing for bathymetric survey data	[4B2] <i>Benjamin Hell</i> : Finalising Baltic Sea surveys for the needs of shipping
09:50	[4A3] <i>Fabian Wolk</i> : Quantifying turbulence in tidal channels	[4B3] <i>Gunter Liebsch</i> : Recent developments for an improved chart datum in the Baltic Sea
10:15	Coffee & Tea / Exhibition	
10:45	<b>Session 5A: Space hydrography</b> [5A1] <i>Stefan Wiehle</i> : The BASE-platform project: Deriving the bathymetry from combined satellite data	<b>Session 5B: Nautical charting</b> [5B1] <i>Justin Hornby</i> : Integration of bathymetric data management and chart production using dKart tools
11:10	[5A2] <i>Knut Hartmann</i> : Satellite based bathymetry and seafloor mapping for the shallow water zone: Recent advances and applications	[5B2] <i>Niels Horneburg</i> : ENC and ECDIS
11:35	[5A3] <i>Pau Gallés</i> : Global bathymetry from satellite altimeter sensor	[5B3] <i>Kevin J. Ingram</i> : Charts on demand: A potential new revenue stream for hydrographic agencies
12:00	[5A4] <i>Andrey L. Pleskachevsky</i> : Sea state from high resolution satellite-borne synthetic aperture radar imagery	
12:25	Lunch / Exhibition	
13:30	<b>Session 6A: Energiewende – Challenges in the wind offshore business</b> [6A1] <i>Marc Itgen</i> : Use of a GNSS RTK-system in a North Sea offshore wind farm	<b>Boat Demos &amp; Workshops</b>
13:55	[6A2] <i>Oliver Anders</i> : The challenge of choosing the right method surveying power cables	
14:20	[6A3] <i>Jens Wunderlich</i> : Burial depth determination of cables using acoustics – requirements, issues and strategies	
14:45	[6A4] <i>David Rose</i> : Offshore unexploded ordnance recovery and disposal	
15:10	Coffee & Tea / Exhibition	
15:50	<b>Session 7A: LiDAR case studies for hydrographic assessments</b> [7A1] <i>Markus Aufleger</i> : High resolution, topobathymetric LiDAR coastal zone characterisation in Denmark	<b>Boat Demos &amp; Workshops</b>
16:15	[7A2] <i>Patrick Westfeld</i> : Analysis and modelling of the effect of wave patterns on refraction in airborne LiDAR bathymetry	
16:40	[7A3] <i>Wilfried Ellmer</i> : Use of laser bathymetry at the German Baltic Sea coast	
17:05	[7A4] <i>Lutz Christiansen</i> : New techniques in capturing and modelling of morphological data	
17:30	[7A5] <i>Hugh Parker</i> : Object detection by ALB	
17:55	End of sessions	
19:00	“Flying Buffet” Reception (Sun Deck; free attendance for delegates and exhibitors; please pre-book)	

**Thursday, 10 Nov 2016**

Time	Auditorium A	Auditorium B
08:30	Registration & Exhibition open / Coffee & Tea	
	<b>Session 8A: State-of-the-art GNSS techniques</b>	<b>Session 8B: Education</b>
09:00	<b>[8A1]</b> <i>Hans Visser</i> : Fugro Marinestar G4+ GNSS PPP-RTK improvements for offshore applications	<b>[8B1]</b> <i>Jan Appelman</i> : Changing market requirements for competence and certification for the hydrographic surveyor
09:25	<b>[8A2]</b> <i>Faisal Alsaq</i> : Analysis of filtering methods to extract the tide height from Global Navigation Satellite Systems (GNSS) observations	<b>[8B2]</b> <i>Nicolas Seube</i> : Standards of competence – new developments and demands
09:50	<b>[8A3]</b> <i>Thomas Artz</i> : Improved positioning of surveying vessels on inland waterways with HydrOs	<b>[8B3]</b> Standards of competence – plenum discussion
10:15	Coffee & Tea / Exhibition	
	<b>Session 9A: Hydrography in extreme environments</b>	<b>Boat Demos &amp; Workshops</b>
10:45	<b>[9A1]</b> <i>Melanie Barth</i> : The search of MH370	
11:10	<b>[9A2]</b> <i>Natália Hurtós</i> : Forward looking sonar mosaicing: A new approach for underwater inspection in low visibility conditions	
11:35	<b>[9A3]</b> <i>Max Abildgaard</i> : Simulation based design & development of autonomous underwater vehicle IMGAM	
12:00	<b>[9A4]</b> <i>Wilhelm Weinrebe</i> : Multibeam mapping of remote fjords in Southeast-Greenland	
12:25	Lunch / Exhibition	
	<b>Session 10A: Nautical depth</b>	<b>Boat Demos &amp; Workshops</b>
13:30	<b>[10A1]</b> <i>Norbert Greiser</i> : Safe navigation in fluid mud – surveying criteria to assess nautical depth	
13:55	<b>[10A2]</b> <i>Pieter de Boer</i> : Provide end users with the most accurate nautical depth measurement by using the combination of echo sounders and density measurement equipment	
14:20	<b>[10A3]</b> <i>Mathias Schloesser</i> : In situ measuring of nautical bottom in respect to dredge works in the Port of Santos	
14:45	End of sessions	
	<b>Closing Ceremony</b>	
15:00	<i>Holger Klindt, Rob van Ree</i> : Closing Remarks	
15:30	End of HYDRO 2016	

**Summary of Social Events and Partner Programme**

Monday, 07 November 2016

19:00 “Icebreaker” Reception (exhibition area; free attendance for delegates and exhibitors; please pre-book)

Tuesday, 08 November 2016

20:00 Conference Dinner (80€ per person; coaches will depart starting at 18:30; please pre-book))

Wednesday, 09 November 2016

19:00 “Flying Buffet” Reception (Sun Deck; free attendance for delegates and exhibitors; please pre-book)

Entire Conference Week

Guided tours to Rostock, Wismar, Lübeck, Hamburg or Berlin. Please see website for details

**Workshops and Technical Visits (Open Ship)**

	Room WS-1	Room WS-2	Room WS-3
<b>Tuesday, 8 November 2016</b>			
<b>11:00</b>	<b>Open Ship "NOORTRUCK" (Warnemünde river bank, North of ferry terminal)</b>		
<b>11:10</b>	<b>ATLAS Elektronik</b> How can autonomous systems influence working processes at sea?		<b>EOMAP</b> Shallow Water Bathymetry Survey from Space: Capabilities, limitations and integration
<b>13:30</b>	<b>Kongsberg Maritime</b>	<b>EdgeTech</b>	<b>EIVA</b> NaviSuite Kuda software solution for hydrographic surveys.
<b>Wednesday, 9 November 2016</b>			
<b>09:00</b>	<b>Open Ship "DENEb", "NOORTRUCK" (Warnemünde river bank, North of ferry terminal)</b>		
<b>13:30</b>	<b>SBG Systems</b> MEMS INS the core of Hydrographic acquisition	<b>Triton Imaging</b> Integration of ECA Group AUVs with Triton Perspective for Post Mission Analysis	<b>Teledyne Caris</b> Automated Hydrographic Data Management and Deformation Analysis
<b>15:50</b>	<b>ATLAS Elektronik</b> Autonomous systems – Demands and technical feasibility in design of AUV.	<b>INNOMAR</b> Parametric multi-transducer system for 3D sub-bottom profiling applications	<b>QPS</b> New Features and Use Case Scenarios
<b>Thursday, 10 November 2016</b>			
<b>11:00</b>	<b>Open Ship "NOORTRUCK" (Warnemünde river bank, North of ferry terminal)</b>		
<b>10:45</b>	<b>RIEGL Laser Systems</b> Airborne Laser Bathymetry - Sensor Technology, Surveying Practice, and Results	<b>AllTerra</b> Versatile and precise Mobile Mapping for Waterways Surveys	<b>NORTEK / terra4</b> New broadband AD2CPS (Signature series) and about their DVLs
<b>13:30</b>			<b>Esri</b> The Use of the ArcGIS Platform in Hydrographic Surveys – an entire workflow performed

**On-Water Demos**

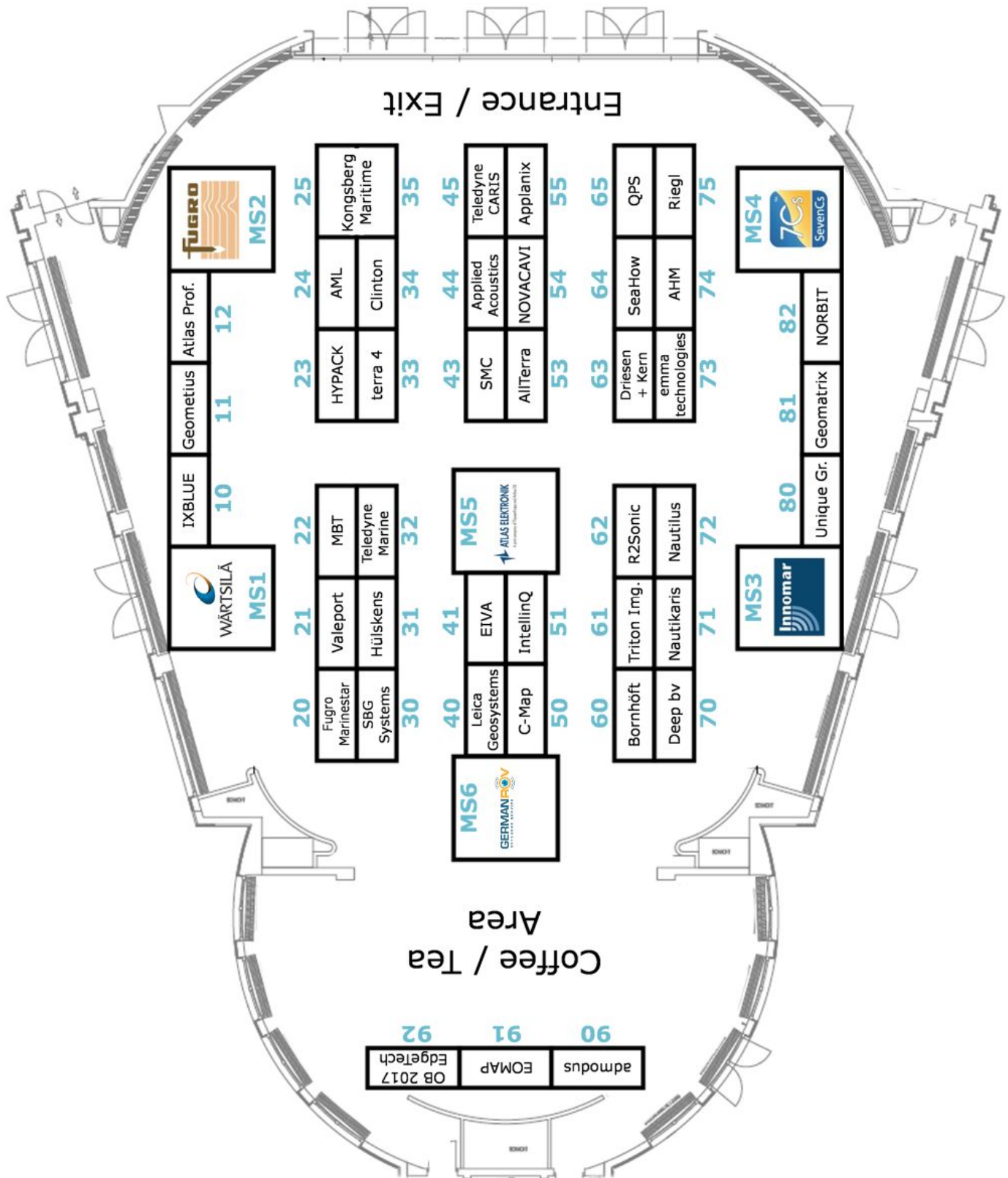
**These companies will run on-water equipment demos in the marina next to the conference centre:**

- Atlas Elektronik "SeaCat" Hybrid AUV System
- EdgeTech "6205" Combined Bathymetry & Side Scan Sonar
- emma technologies survey boat and equipment
- Geometius USV "Z-Boat", "CEE ECHO" single-beam echo-sounder
- Hülskens Wasserbau survey boat and equipment
- INNOMAR Parametric SBPs "SES-2000 *quattro*" and "SES-2000 *medium-100*"
- Kongsberg Maritime "EM 2040 P" multi-beam, "EA 440" single-beam / sidescan
- Nicola Engineering survey boat and equipment
- NORBIT / emma "iWMBS" integrated wide-band multi-beam sonar
- NORTEK / terra4
- R2Sonic / Nautilus "SONIC 2026" multi-beam echo-sounder
- Renishaw / MBT "Merlin" LiDAR mapping system
- SBG Systems / MBT "Apogee" inertial navigation system
- Teledyne RESON / MBT "RESON SeaBat T50-P" multi-beam echo-sounder
- QPS QINSy, Qimera





**Exhibition Floorplan**

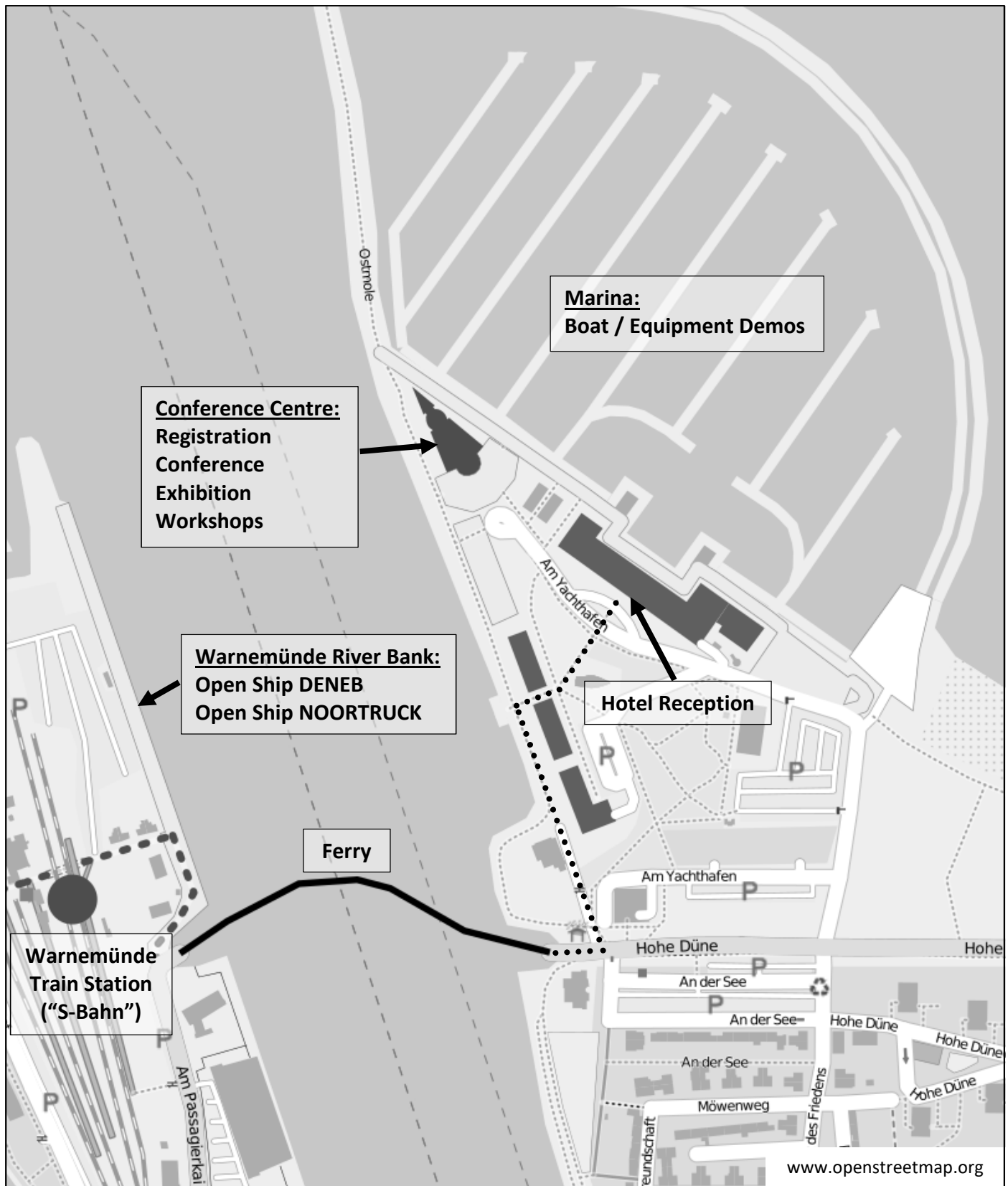


**List of Exhibitors (A – Z)**

<b>Company / Organisation</b>	<b>Stand No.</b>
admodus Maritime Devices (Synergetik GmbH)	90
AHM AirborneHydroMapping GmbH	74
AllTerra Deutschland GmbH	53
AML Oceanographic	24
Applanix Corp	55
Applied Acoustic Engineering Ltd	44
Atlas Elektronik GmbH	MS5
Atlas Professionals	12
Bornhöft Industriegeräte GmbH	60
C-Map	50
Clinton Marine Survey	34
Deep bv	70
Driesen+Kern GmbH	63
EdgeTech	92
EIVA a/s	41
emma technologies GmbH	73
EOMAP GmbH	91
Fugro Marinestar	20
Fugro OSAE GmbH	MS2
Geomatrix Earth Science Ltd	81
Geometius bv	11
German ROV Offshore Service GmbH	MS6
HÜLSKENS Wasserbau GmbH	31
HYPACK Inc	23
INNOMAR Technologie GmbH	MS3
IntellinQ bv	51
IXBLUE	10
Kongsberg Maritime GmbH	25+35
Leica Geosystems GmbH	40
MBT GmbH	22
Nautikaris bv	71
Nautilus Marine Service GmbH	72
NORBIT Subsea AS	82
NOVACAVI srl	54
Ocean Business 2017	92
QPS bv	65
R2Sonic LLC	62
RIEGL Laser Measurement Systems GmbH	75
SBG Systems	30
SeaHow (Meritaito Ltd)	64
SevenCs GmbH	MS4
SMC Ship Motion Control	43
Teledyne CARIS	45
Teledyne Marine	32
Terra4 GmbH	33
Triton Imaging Inc.	61
Unique Group (UK)	80
Valeport Ltd	21
Wärtsilä ELAC Nautik GmbH	MS1



**HYDRO 2016 Venue**



**HYDRO 2016 Main Sponsors**

