

EurOCEAN 2000

The European Conference
on Marine Science and Ocean Technology

A European Union contribution to EXPO 2000

Final Programme

Hamburg, Germany
29 August – 2 September 2000

Organised by:
The European Commission
In the context of the Fifth Framework Programme

Co-sponsored by:
The German Länder Hamburg, Bremen,
Schleswig-Holstein, Niedersachsen and Mecklenburg-Vorpommern
The ESF Marine Board



General INFORMATION

Dates

29 August – 2 September 2000

Conference Venue

CCH – Congress Centrum Hamburg,
St. Petersburger Straße, 1
D-20355 Hamburg, Germany
(next to the International Railway Station Dammtor)

Welcome Desk

A Welcome Desk will be available to participants inside the CCH conference venue. The hours for this desk are as follows:

Monday 28 August 2000 from 2.30 p.m. until 6.30 p.m. From Tuesday 29 August 2000, 8.30 a.m. until the end of the conference.

Registration

Participants are requested to register as soon as possible using the attached registration form. This should be completed and returned not later than 12 July 2000 to:

CPO-Hanser
Tel.:
Fax:
Email:

A confirmation will be sent to all participants registered by the deadline date containing a confirmation letter/receipt and the badge giving access to the venues. Any queries on this subject should be addressed to CPO-Hanser.

Registration fee

The registration fee of 325 Euro per participant should be paid before 12 July 2000 (see Method of Payment).

The registration fee covers:

- * Participation at the conference sessions
- * Participation in the scientific excursion programmes
- * Tea/Coffee Breaks
- * Lunches (except on 31 August 2000)
- * Reception by the City of Hamburg at the Town Hall
- * Conference Dinner on 1 September 2000
- * Papers/documentation
- * EU Project Synopses
- * Conference Proceedings

Your conference badge will also entitle you to free transportation in the Hamburg public transport network.

Participants will be responsible for their own travel to and from Hamburg and accommodation costs. These expenses will not be reimbursed by the European Commission.

Registration fees will not be reimbursed.

Reduced Registration fees

1) One Day Registration

Registration for participation on only one day of the conference will also be accepted at a cost of 175 Euro. The conditions and method of payment are as stated above and will be valid for one day's attendance. All activities planned for any one day will be available to all participants registered for that day.

2) Special registration fee for students

A certain number of places have been allocated for students paying a reduced fee of 100 Euro. A completed registration form and a dated certificate from their school, university or institute should be sent not later than 12 July 2000 to CPO-Hanser, whose address is shown above.

3) Accompanying partners fee

Accompanying partners can attend the conference for a fee of 175 Euro. This includes participation in all sessions, meals and scientific excursions, but excludes all conference documentation.

Method of payment

Payments will be accepted only by credit card. Please fill out your credit card details on the registration form and return it no later than 12 July 2000. If you are unable to use a credit card you may register on site and pay cash (subject to availability of places).

Reception

Participants will be invited to a reception hosted by the Free & Hanseatic City of Hamburg on Tuesday, 29 August 2000.

Conference Dinner

On Friday, 1 September 2000, conference participants are invited to the conference dinner hosted by the European Commission and the Free & Hanseatic City of Hamburg at the former fish auction hall "Fischauktionshalle" in Hamburg Harbour.

Additional tickets for the conference dinner can be obtained for 50 Euro.

Meals

Lunches will be organised (except on 31 August 2000) at the conference venue. For evening meals Hamburg offers a wide choice of restaurants.

Important notice

Travelling and hotel accommodation

The EurOCEAN 2000 Conference is being held during the EXPO 2000. As the main EXPO site at Hannover is easily reached within one hour by train and many EXPO events are going on during this period in northern Germany, an exceptional number of visitors is expected in Hamburg and hotel rooms are in high demand. The conference organisers have, however, ensured a sufficient number of rooms in different hotel categories from 29 August to 2 September.

Participants are therefore strongly encouraged to make their travel and accommodation arrangements as early as possible.

Transportation

Lufthansa and Deutsche Bahn have been appointed the official conference carriers. A reduced fare will be granted by Lufthansa and Deutsche Bahn on production of a copy of the completed registration form. Delegates coming from foreign countries can contact their nearest Lufthansa Representative in order to have information on the numerous flights available to Hamburg.

Hotel accommodation

Please make your hotel accommodation as soon as possible by sending the hotel booking form to CPO Hanser. Your hotel reservation will be confirmed, on an availability basis, as soon as CPO Hanser has received your booking form, specifying your hotel priority choices, the category and type of room preferred and the dates required.

Confirmations will operate on a "first come first served" basis. Participants are therefore advised to book their rooms at their earliest convenience.

Scientific Excursions

During the evening of **Wednesday**, 30 August 2000, conference participants will have the opportunity to visit the marine institutes of Hamburg University (EXPO project etc.) or the Technical University Hamburg-Harburg.

Thursday, 31 August 2000, will be devoted to topical excursions to marine companies and institutes in northern Germany, details of which are shown on the excursion programme included with this programme.

Due to the limited number of places available for each of these activities, participants must register in advance, please tick the appropriate boxes in the registration form. The excursion ticket will be sent together with the confirmation pack.

Social activities

Hamburg is situated close to the World Exposition venue at Hannover – EXPO 2000. The conference centre has a direct train connection link to the EXPO 2000 site.

Various activities will be taking place in the whole of northern Germany during this time. An accompanying persons programme is included with this programme. Registration in advance is necessary, excursions will only operate if a minimum number of participants is reached. Further information will be sent with the confirmation pack.

Languages

The working language will be English.

For the opening session simultaneous interpretation will be provided by the Joint Interpreting and Conference Service of the European Commission.

Internet

The European Commission maintains a conference website at the URL

<http://europa.eu.int/comm/research/envsc/eurocean.html>.

Please consult it for more detailed information on the programme and the latest developments, as this website will be regularly updated.

Programme origin and design

European Commission, Research DG
EurOCEAN 2000 Conference Secretariat
Marine Ecosystems, Infrastructure, SDME 7/78
Rue de la Loi 200, B-1049 Bruxelles/Wetstraat 200,
B-1049 Brussels, Belgium
E-mail: klaus-guenther.barthel@cec.eu.int
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Interpretation/Organisation

European Commission
Joint Interpreting and Conference Service
Rue de la Loi 200
B-1049 Brussels
Contact:
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Phone: +32.2.2951409
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Tuesday, 29 August 2000 a.m.

11:30 Opening session (plenary)

Opening address:

Hendrik Tent, Deputy Director General of Research DG, European Commission

Addresses by invited speakers

Hermann Schunck, Bundesministerium für Bildung und Forschung, Germany

Agnès Jacquesy, Ministère de la Recherche, France

Ortwin Runde, Erster Bürgermeister der Freien und Hansestadt Hamburg

Invitees

Krista Sager, Zweite Bürgermeisterin und Senatorin für Wissenschaft und Forschung der Freien und Hansestadt Hamburg

Press conference

13:00 Lunch

Tuesday, 29 August 2000 p.m.

13:00-18:30 Conference Exhibition

14:30-18:30 Parallel sessions

Session A Coastal zone Management: What has the 4th Framework Programme delivered?

Scientific Colloquium: Convenor Christos Fragakis

Chairperson: Job Dronkers, Den Haag, NL

Rapporteur: John Pethick, Newcastle upon Tyne, UK

Speakers:

- **Soulsby R.** et al. *Converting coastal data and models to management tools in the COAST3D project.*
- **Duwe K.** *Can (operational) modelling improve coastal zone management? Suggestions from local applications.*
- **Ormond R.** et al. *Coastal Zone Management Issues in the Firth of Clyde, S.W. Scotland.*
- **Lauri H.** et al. *Archipelago Sea Coastal Modelling System.*
- **Robinson D. A.** et al. *European Shore Platform Erosion Dynamics: Monitoring the downwearing of shore platforms in the context of the management and protection of rocky coasts.*
- **Schlüter M.** *Submarine groundwater discharge in coastal zones and their impact on the environment.*
- **Lenhart H.** *From river load reduction scenarios towards a concept of sustainable use for the North Sea.*

Session B The contribution of marine research to sustainable development – Examples from enclosed European seas.

Scientific Colloquium: Convenors Elisabeth Lipiatou and Michel Cornaert

Chairperson: Peter Heffernan, Dublin, IE
Keynote Speaker: Phil Williamson, Norwich, UK
Evan Vlachos, Colorado, USA

Speakers:

- **Williamson P.** *Are we achieving sustainability for European seas? resources, risks, regulations and research.*
- **Selivanov A.** *Environmental and economic losses from the anticipated global sea-level rise and sustainable development strategies for sea coasts: example from the sea of Azov,*
- **Hansen G.** et al. *The Influence of UVR and Climate Conditions on Fish Stocks: A Case Study of the Northeast Arctic Cod (UVAC).*
- **Sündermann J.** *Numerical models serving environmental policy: Scenario calculations for the North Sea.*
- **Moll A. & Radach G.** *State-of-the-art in ecosystem modelling for shelf and coastal seas.*
- **Pacyna J. & Pacyna E.** *Contribution of research to sustainable development of the Baltic Sea.*
- **Leal Filho W.** *The Baltic Environment Information Dissemination System as a Tool for Sustainable Development in the Baltic Sea Region.*
- **Tselepidis A.** *Contribution of the Mediterranean Targeted Projects (1993-1999) to the sustainable development of one of Europe's most important enclosed seas.*

Session C Marine biotechnology.

Discussion Meeting: Convenors Laurent d'Ozouville and Klaus-Günther Barthel

Chairperson: Silvana Vallerga, Torregrande, IT
Keynote Speaker: Harlyn Halvorson, Boston, USA
Provocateur: Grant Burgess, Edinburgh, UK
Rapporteur: Manfred Höfle, Braunschweig, DE

Session D Technology and management approaches for European seas.

Scientific Colloquium: Convenors Klaus-Günther Barthel and Alan Edwards

Chairperson: Kay Riska, Espoo, FI

Speakers:

- **Watson J.** *Subsea Holography and its Application in Marine Science.*
- **Dyomin V.** *Holographing of microparticles in a liquid.*
- **Woody C.** *Collection of Ocean Optics Data from an NDBC Weather Platform - Technology and Design*
- **Hoxhaj F.** *An integrated approach would drive environmental management quality of the Albanian Coastal Zone.*
- **Winokur R** et al. *A U.S. Commitment to Building Ocean Partnerships and an Integrated Ocean Observing System*
- **Gade M.** et al. *The Outflow of the River Llobregat Imaged Using Various Spaceborne Multisensor*
- **Klindt H.** *Beyond Bathymetry – Multibeam Echosounding, a unique Technology matures as a universal Tool for Ocean Floor Reconnaissance.*
- **Schnack-Friedrichsen A.** et al. *Prediction of geotechnical properties of marine sediments from their seismo-acoustic response.*
- **Schröder H.** et al. *Fast Micromethod: A new method for routine assessment of DNA single-strand breaks in test organisms exposed to polluted waters.*
- **Bräutigam H.-J.** *Treatment of recirculation system water in aquaculture: oxygen enrichment.*
- **Günther R. & Gutttau S.** *Black and Grey water treatment using BioFiltr- and FM-module technique.*
- **Balarew Chr.** et al. *Improved Treatment of Waste Brines.*
- **Hamer K.** et al. *Management of dredged harbour sediments- Producing bricks made of harbour sediments in an industrial scale instead of constructing landfills*

19:30 Reception by the Free and Hanseatic City of Hamburg (Hamburg Town Hall)

Wednesday, 30 August 2000 a.m.

8:30-18:30 SME Brokerage Event

8:30-18:30 Conference Exhibition

8:30-12:30 Parallel sessions

Session A Coastal zone management: How can the science become more "visible"?
Discussion Meeting: Convenor Christos Fragakis

Chairperson: Niamh Connolly, Cork, IE
Keynote Speakers: Ronan Uhel, Copenhagen, DK
Kerry Turner, Norwich, UK
Anne Burrill, Brussels, EU
Provocateur: Jacob Steen Møller, Hørsholm, DK
Rapporteur: John Pethick, Newcastle upon Tyne, UK

Speakers:

- **Uhel R.** *European Coastal Zone: what are the challenges ahead.*
- **Burrill A.** *A European Strategy for ICZM.*
- **Turner K.** *Role of socio-economics in bridging the gap between managers and natural scientists.*

Session B GLOBEC related studies in the North Atlantic: A perspective for European / North American research cooperation?
Discussion Meeting: Convenor Klaus-Günther Barthel

Chairperson: Roger Harris, Plymouth, UK
Keynote Speakers: Peter Wiebe, Woods Hole, USA
Mark Ohman, Villefranche, FR and La Jolla, USA
Kurt Tande, Tromsø, NO
Ken Drinkwater, Dartmouth, CAN
Rapporteur: Keith Brander, Copenhagen, DK

Session C Ship building and marine transport in the Arctic.
Scientific Colloquium: Convenor Thomas Fairley

Chairpersons: Mikko Niini, Helsinki, FI, and Peter Wadhams, Cambridge, UK
Keynote Speakers: Mikko Niini, Helsinki, FI
Anders Backman, Norrköping, SE

Speakers:

- **Niini M.** *The Major Steps of 1990's in the Arctic Transport and the Research Challenges for EU in the New Millennium.*
- **Schwarz J. & Rupp K.-H.** *Icebreaking - One Part of the Arctic Transport System*
- **Riska K. & Lensu M.** *Analysis of Ship Passage in Ice Covered Waters.*
- **Suojanen R.** *Year-A-Round Traffic in Freezing Inland Waters and Arctic Rivers.*
- **Backman A.** *The Swedish Arctic Polar Program for International Expeditions.*
- **Hughes N. & Wadhams P.** *Results from the ICECAM Video System and Its Role in Arctic Navigation.*
- **Pettersson L. H., et al.** *Satellite ice monitoring for navigation of an ice-going tanker in the Kara Sea.*

12:30 Lunch

Wednesday, 30 August 2000 p.m.

14:30-18:30 Parallel sessions

Session A Pollutants, nutrients and harmful algae in the sea: origin, economic implications and European policy.
Scientific Colloquium: Convenor Elisabeth Lipiatou

Chairperson: Edna Granéli, Kalmar, SE

Speakers:

- **Dassenakis M.** et al. *The effect of the establishment of a primary Wastewater treatment plant in the heavy metal distribution in the Saronikos Gulf, Greece.*
- **Ivanov L. M. & Margolina T. M.** *Conception of guaranteed risk: a tool for pollutant risk analysis in margin seas.*
- **Petihakis G.** et al. *Modeling the Response of a Semi Enclosed Marine Ecosystem (Pagasitikos Gulf) to Enrichment by Run off Fertilizers.*
- **Proctor R.** et al. *A model study of the nutrient balance of the North West European shelf.*
- **Efstratiou M. A.** *Faecal Pollution Indicators As Predictors Of Pathogens In Marine Waters.*
- **Salchow R.** *The Quality Status of the Northeastern Atlantic and Adjacent Sea- OSPAR QSR 2000.*
- **Hagner C.** *Analysis of current and future policy instruments for dredged material on the national, European and international level.*
- **Mehlhorn U & Theobald N.** *Identification of novel contaminants within the framework of marine environmental monitoring (target and non-target screening).*

Session B The importance of the industry - marine research link in the marine sector.
Discussion Meeting: Convenor Mario Catizzzone

Chairperson: Mario Catizzzone, Brussels, EU

Keynote Speakers: Silvana Vallerga, Torregrande, IT
Cliff Funnell, Barnham, UK

Provocateurs: Saskia Werners, Delft, NL
Hanns-Joachim Neubert, Hamburg, DE
Charles Quartley, Dartmouth, UK

Session C European marine research facilities: Improving the fabric of European marine facilities (e.g. research vessels).
Discussion Meeting: Convenor Gilles Ollier

Chairperson: Pierre Papon, Paris, FR

Keynote Speakers: Donald Heinrich, Alexandria, USA
Geoffrey O'Sullivan, Dublin, IE
Gerhard Kortum, Kiel, DE
Jean-François Minster, Paris, FR

19:30 Visit to Hamburg University & Technical University Hamburg-Harburg

Thursday, 31 August 2000 all day

Scientific excursions to maritime companies and institutes in Northern Germany

For full details please see annex 1.

Friday, 1 September 2000 a.m.

8:30-18:30 Conference Exhibition

8:45-12:45 Parallel sessions

Session A Fisheries and aquaculture research: the contribution of ocean science and marine technology.
Scientific Colloquium: Convenors Dominique Leveil and Paloma Martin

Chairperson: Keith Brander, Copenhagen, DK
Keynote Speaker: Olav Rune Godoe, Bergen, NO

Speakers:

- **Bridges C. R.** et al. *A new muscle biopsy technique for sex and sexual maturity determination in large pelagic fishes.*
- **Bjerrum A.** *Autonomous underwater vehicle Maridan-600 - Successful exploitation of European MAST project.*
- **Lagardère F.** et al. *Capacity for adaptation and growth potential of larval and juvenile sole (solea solea l.) in net enclosures and earthen ponds.*
- **Culverhouse P.** et al. *DiCANN: a machine vision solution to biological specimen categorisation.*
- **Edvardsen A.** et al. *Measurements and Modelling of Ocean Climate and Zooplankton in the Barents Sea.*
- **Krom M. D.** et al. *Development of recirculating mariculture production system designed to minimize environmental impact.*
- **Siljeström P.** et al. *Studies for the improvement in the recovering of the Gelidium sesquipedale cast off algae using acoustic methodologies.*

Session B A marine science plan for Europe - the strategic issues to be addressed.
Discussion Meeting: Convenors Laurent d'Ozouville and Christos Fragakis

Chairperson: Christian Patermann, Brussels, EU
Keynote Speakers: Jean Boissonnas, Brussels, BE
Margaret Leinen, Arlington, USA
Colin Summerhayes, Paris, FR
Rapporteur: John Marks, Den Haag, NL

Session C The availability of data for marine research: Data, data everywhere and not a byte to spare!
Scientific Colloquium: Convenor Alan Edwards

Chairperson: Hans Dahlin, Norrköping, SE
Keynote Speakers: Jon Turton, Bracknell, UK
Dick Schaap, Leidschendam, NL

Speakers:

- **Perissoratis C.** *EUMARSIN: An internet data base of sea floor sediment samples from the European seas.*
- **Rothwell R. G.** *Meeting end-user needs - A model for accessing the European seafloor data archive based on the EUROCORE concerted action.*
- **Diepenbroek M.** et al. *PANGAEA - Network for Geological and Environmental Data - An Information System for Marine Data accessible through the Internet.*
- **Favali P. & Smriglio G.** *Data Management From The Geostar Multidisciplinary Submarine Observatory.*
- **Niesing H.** *From scattered data towards European level assessments regarding Marine and Coastal Environments. A European research and development project to improve the access, interpretation and aggregation of information.*
- **Schaap D.** et al. *Sea-Search: Your on-line gateway to marine and oceanographic data , information and knowledge in Europe.*
- **Meaden G.** *Data standards everywhere and not a one to share.*
- **Magnusson A. K.** *Online availability of wave data from the North Sea and the Norwegian Sea. Using operational data for research purposes.*
- **Ratmeyer V.** et al. *Realtime data access to the deep-sea: applications for climate change research and ocean science (DOMEST).*
- **Turton J.** *Issues relating to the provision and exchange of marine meteorological and oceanographic data.*

12:45 Conference Exhibition – Launch of EU-SEASED

13:00 Lunch

Friday, 1 September 2000 p.m.

14:15-18:15 Parallel sessions

Session A Marine and coastal information from space.
Scientific Colloquium: Convenor Wolfram Schrimpf

Chairperson: Wolfram Schrimpf, Ispra, EU
Keynote Speaker: Mike Kortekaas, Den Haag, NL

Speakers:

- **Kortekaas M.** *Down to Earth Endeavours. A view from Space in Dutch Marine and Coastal Management.*
- **Sandven S.** *Satellite studies of ocean fronts and eddies for deepwater development in the Norwegian Sea.*
- **Gaspar P.** *High-accuracy, near-real-time satellite altimetry : scientific and commercial uses.*
- **Horstmann J.** *Wind and Wave Measurements from Spaceborne Synthetic Aperture Radars.*
- **Gade M.** *Analysis of ERS SAR imagery and airborne oil surveillance data with respect to the detectability of marine oil pollution in European marginal waters.*
- **Kotovirta V.** *Systems for operational use of remote sensing data in navigation in ice infested areas.*
- **Strübing K.** *Use of satellite data in operational ice service.*
- **Hennings I.** *On the application of air- and spaceborne radar imagery of submarine bottom topography in the coastal zone.*
- **Siegel H.** *Satellite remote sensing combined with numerical modelling an effective combination for river plume studies in coastal regions – example of the Oder River in the Southern Baltic Sea.*
- **Schrimpf W.** *Assessment of primary productivity and water quality in coastal areas using satellite data.*
- **Azzaro F.** *Monitoring of the Straits of Messina by airborne and in-situ measurements.*
- **Geraci A.** *The Usefulness Of Aerial And Space Imagery In The Gathering Of Marine And Coastal Information.*

Session B A marine science plan for Europe - the scientific issues to be addressed.
Discussion Meeting: Convenors Laurent d'Ozouville and Christos Fragakis

Chairperson: Fauzi Mantoura, Plymouth, UK
Keynote Speakers: Graham Shimmield, Oban, UK
Margaret Leinen, Arlington, USA
Provocateur: Jean-François Minster, Paris, FR
Rapporteur: Karin Lochte, Warnemünde, DE

Session C Continental margin research: Scientific and technological issues of importance for Europe.
Discussion Meeting: Convenor Gilles Ollier

Chairperson: Jürgen Mienert, Tromsø, NO
Keynote Speakers: Gary Nicol, Aberdeen, UK (to be replaced)
Tim Reston, Kiel, DE
Provocateur: Andre Freiwald, Tübingen, DE
Rapporteur: Miquel Canals, Barcelona, ES

19:00 Conference Dinner at Hamburg's Fischauktionshalle

Saturday, 2 September 2000 a.m.

8:30-14:00 Conference Exhibition

9:00-12:30 Plenary session

Marine science and ocean technology from FP4 to FP6.

Chairperson: Christian Patermann

Speakers:

- **Gian Mario Bozzo**: *Marine Technology in the 4th and 5th Framework Programmes: the highlights and an industrial perspective on the problem-solving approach to European research*
- **Anastassios Eleftheriou**: *The Fifth Framework Programme: a problem-solving approach to European research from the scientific perspective*
- **Jacqueline McGlade**: *New trends in national and European marine RTD programmes.*

Round table discussion

Round table panel

- **Christian Patermann**, Brussels, EU
- **Gian Mario Bozzo**, Venice, IT
- **Anastassios Eleftheriou**, Heraklion, GR
- **Margaret Leinen**, Arlington, USA
- **Jacqueline McGlade**, London, UK
- **Jean-François Minster**, Paris, FR
- **Jürgen Sündermann**, Hamburg, DE
- **Svein Tryggestad**, Trondheim, NO

12:30 Closing ceremony

13:00 Buffet barbecue

Introduction to the Scientific Excursion Programme

Set out below you will find details of the various scientific-technological excursions offered to participants on Thursday 31 August. Please note that these tours will be conducted in English and that accompanying persons are also welcome on these visits.

As an integral part of the conference programme, these excursions illustrate the session topics by visits to marine technology companies and research institutions of the region. The practical application of research and technological development results will be demonstrated during these tours.

Please note that buses for these excursions will leave from the Hamburg Conference Centre (CCH) on Thursday 31 August in the morning. It is anticipated that the buses will return to Hamburg in the early evening, i.e. between 19.00 and 20.00. The exact departure and return times will be given in the detailed programme for your excursion. This will be available at the conference from the registration desk. This detailed programme will also contain information on the various meal arrangements and other important facts relating to these excursions.

In addition, participants should also be aware that as a part of the accompanying persons programme, an excursion will be organised on Thursday 31 August to the World Fair EXPO 2000 in Hannover. Please note that **all** persons taking part in the excursion to EXPO 2000 in Hannover will be required to pay the fee shown in the accompanying persons programme.

On Wednesday evening, 30 August, participants are also offered the choice of a visit to either Hamburg University or the Technical University Hamburg-Harburg. Bus transportation will be provided from the CCH to the Technical University Hamburg-Harburg, returning later in the evening to the CCH. Those going to Hamburg University will be met by a guide at the reception desk in the CCH and then escorted to Hamburg University.

Excursion Programme EurOCEAN 2000, 31.08.2000

<p>Bremen Bremen Logo</p>	<p>Science Centre UNIversum and marine institutes [max. 50 participants] Whole day.</p> <p>I. Science Centre Universum: An impressive exhibition on science in the fields of the Cosmos, Earth and Mankind.</p> <p>II. Max-Planck-Institute for Marine Microbiology The institute dedicates most of its research activities to bacteria and bacterial processes in sediments. Walk through the laboratories. Presentation of how bacterial activities in sediments significantly influence the global cycles of elements, and have led to major depositions of minerals over geological periods.</p> <p>III. The Deep-Sea Data Link DOMEST Presentation of a bi-directional data communication system based on a combination of acoustic underwater modems and the OrbComm satellite telemetry.</p>	<p>Registration Code: HB - 1</p>
<p>Bremerhaven Bremen Logo</p>	<p>Alfred Wegener Institute for Polar and Marine Research (AWI) [max. 50 participants] Whole day</p> <p>AWI conducts research in the Arctic, the Antarctic and at temperate latitudes. It co-ordinates Polar research in Germany and provides both the necessary equipment and the essential logistic back up for polar expeditions. Recent additional research themes include North Sea Research, contributions to Marine Biological Monitoring, Marine Pollution Research, investigation of naturally occurring marine substances and technical marine developments.</p> <p>I. Guided tour Guided tour of the institute's main building and some laboratories, general information about AWI research activities, ships and stations in the Arctic and Antarctic, some details about Alfred Wegener (AWI carries on Wegener's tradition of interdisciplinary earth science) and historical polar research.</p> <p>II. AWI Information Video</p>	<p>Registration Code: HB - 2</p>
<p>Hamburg Hamburg Logo</p>	<p>Ship- Building - From design to classification [max. 60 participants] Whole day.</p> <p>I. Hamburg Ship Model Basin (HSVA) HSVA is one of the world's leading hydrodynamical research and development facilities. Modern and large scale test facilities including towing tanks, maxi cavitation tunnels, ice technology laboratories and numerical (CFD) analysis are used to perform basic research as well as to provide a broad range of customer services. Visit of towing tank and cavitation tunnel.</p> <p>II. Blohm & Voss Since 1877, the name of the company stands for quality in shipbuilding and mechanical engineering. With its technically sophisticated solutions Blohm +Voss has taken a strong market position in the following fields:</p> <ul style="list-style-type: none"> • Naval vessels • Fast ferries and cargo ships • Mega yachts <p>Visit of shipyard and ship production</p> <p>III. Germanischer Lloyd Germanischer Lloyd is an independent and impartial classification society which supervises safety and quality on behalf of their clients, mainly for ships and for maritime installations.</p> <ul style="list-style-type: none"> • classification and certification of ships and offshore systems • extensive engineering analysis and advisory services • certification of marine related materials and components <p>Oral presentation of activities in classification and certification service.</p>	<p>Registration Code: HH - 1</p>

<p>Hamburg Hamburg Logo</p>	<p>From Aviation to Ocean Shipping</p> <p><i>in the morning:</i></p> <p>I. Visit to the Airbus production [max. 80 participants] Daimler-Chrysler Aerospace Airbus GmbH (Dasa) is a principal partner in the European Airbus Industrie consortium, in which it holds a 37.9 per cent share through the Commercial Aircraft Business Unit. At the Hamburg site, final assembly of the A321 and A319 - and soon also of the A318 - take place. Visit to Airbus Production, presentation of European Airbus Industrie network</p> <p><i>in the afternoon– participants have a choice between the following visits:</i></p> <p>IIa. Ship-Handling and Simulation System SUSAN [max. 30 participants] The Institute of Ship Operation, Sea Transport and Simulation (ISSUS) is a research and training facility of Hamburg Polytechnic. ISSUS operates the Ship-Handling and Simulation System SUSAN and the Collision Avoidance and Navigation Radar Simulator CONRAD. With these two facilities both under one roof, ISSUS acts as a simulation centre for marine training and modelling. Both simulation tools will be demonstrated. .</p> <p>IIb. Institute for Failure Analysis and Failure Prevention [max. 30 participants] As part of the University of the Federal Armed Forces Hamburg this institute investigates and examines all matter of damages concerning machines, mechanical constructions and pipelines. Presentation of investigation strategies and analysis methods.</p>	<p>Registration Code:</p> <p>HH – 2a</p> <p>HH – 2b</p>
<p>Hamburg Hamburg Logo</p>	<p>Environmental aspects of marine and coastal industry</p> <p><i>in the morning:</i></p> <p>I. Chemistry of the Sea [max. 20 participants] Federal Maritime and Hydrographic Agency (BSH): Presentation and laboratory tour of analysis of radioactivity, sediment chemistry, trace metals, organic contaminants and oil pollution.</p> <p><i>in the afternoon:</i></p> <p>II. Sludge and screenings incineration plant [max. 40 participants] Expo-Project of the Hamburg Sewage Department.</p>	<p>Registration Code:</p> <p>HH – 4</p> <p>a</p>
<p>Warnemünde / Hamburg Mecklenburg-Vorpommern Logo</p>	<p>Baltic Sea Research Institute Warnemünde (IOW)</p> <p>In the morning [max. 25 participants] The IOW takes the opportunity of a training cruise of the r/v A. v. Humboldt in the transition area between the Baltic Sea and the North Sea to call at Hamburg Harbour and present the Institute's research programme. The presentation will take place on board the r/v A.v. Humboldt during its staying in Hamburg Harbour.</p> <p>I. IOW research programme</p> <p>II. Main results of the EU project BASYS. (Baltic Sea System Study) BASYS was launched to further the understanding of the susceptibility of the Baltic Sea to external forcing and to improve the quantification of past and present fluxes in the Baltic Sea.</p> <p>III. A guided tour of the ship facilities</p> <p>IV. A students view on marine research Students of marine biology present their training programme: Changes in species parallel to the physico-chemical gradients between Baltic Sea and North Sea; experiments on how Baltic Sea organisms react on an increase of salinity.</p>	<p>Registration Code:</p> <p>MV - 1</p>

<p>Kiel Schleswig- Holstein Logo</p>	<p>Highlights of the EU Projects OMEX and CANIGO / Marine Technology in Schleswig-Holstein [max. 250 participants]</p> <p>Whole day.</p> <p>I. OMEX Oral session: The carbon cycle at the European ocean margin / Vertical mixing, upwelling and enhanced primary production at the NW European ocean margin / Deposition flux and burial of organic matter at the NW European ocean margin</p> <p>II. CANIGO Oral session: Overview of Mediterranean outflow studies in CANIGO / Lessons from CANIGO on the Canary-Azores oceanography / Numerical Modelling in CANIGO</p> <p>III. Marine Technology in Schleswig Holstein Oral session: Marine Technology Cluster / Bi-directional Satellite Communication for Marine Applications / IMOLAB - An Integrated Modular Deep Sea Laboratory for Longterm Investigations on the Ocean Floor / Eight Years of Experience about the Successful Cooperation between the SMEs BIOLAB and OKTOPUS GmbH and University - or Research Institutes in Germany, Europe and abroad / UW-vehicles in marine research / Latest technology in swath bathymetry / BLUE BOX - an automatically operating surveillance system for ferries for operational monitoring</p> <p>IV. Exhibition of instruments and demonstration of their applications at the GEOMAR Lithothek and Schwentine River.</p>	<p>Registration Code: SH - 2</p>
<p>Wilhelmshaven Niedersachsen Logo</p>	<p>Marine industrial activities, the Wadden Sea and coastal research [max. 60 participants]</p> <p>Whole day</p> <p>The Wilhelmshaven excursion will present various industrial and nature protection activities in the region as well as research projects carried out in the Wadden Sea area.</p> <p>I. Specific industry Oil Terminals, oil shipping, refinery and chemical industry.</p> <p>II. Lower Saxonia Wadden Sea Park Visit and introduction about status and goals by the National Park Administration.</p> <p>III. Research Centre Terramare Coastal and marine environmental research, tour of the laboratories, maritime exhibition „Oceanis“ (scientific show about oceanography, maritime phenomena including underwater work and shuttle simulation).</p>	<p>Registration Code: NS - 1</p>